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ENVIRONMENT

Subject:
2018 Post-Construction Monitoring Report
Goshen Former Manufactured Gas Plant Site
Site No. 3-36-046

Date:
March 27, 2019

Contact:
Jason Golubski, PE

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315.671.9437

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Our ref:
B0013080 #10

Dear Mr. Deyette:

On behalf of New York State Electric & Gas Corporation (NYSEG), this letter summarizes the results of the 2018 post-remediation monitoring completed at the Goshen Former Manufactured Gas Plant (MGP) site (the site).

Arcadis of New York, Inc. (Arcadis) conducted the 2018 monitoring in accordance with the New York State Department of Environmental Conservation-(NYSDEC-) approved February 2017 Draft Site Management Plan (SMP). A final SMP will be provided to the NYSDEC following establishment of the site's environmental easement. For reference, remedial construction was completed from July through November 2016.

2018 Monitoring and Sampling

Field activities associated with the 2018 monitoring and sampling consisted of the following:

- Conducting quarterly gauging to assess the presence/absence of non-aqueous phase liquid (NAPL)
- Installing three new monitoring wells, to replace wells that could not be located and were presumed to have been destroyed
- Collecting and submitting groundwater samples for laboratory analysis to assess groundwater quality
- Conducting a site-wide inspection to assess the condition and effectiveness of the site cover system

Note that the replacement monitoring wells were not ready for sampling until January 2019. As such, the annual groundwater sampling event and the final gauging event for calendar year 2018 were conducted in January 2019, to

include the new wells. Additional details for the completed activities are presented in the following subsections.

Quarterly NAPL Gauging

Arcadis conducted quarterly NAPL gauging events on March 15, June 13, September 14, 2018, and January 7, 2019. Field personnel used an oil-water interface probe to determine the presence or absence of NAPL, measure the depth to groundwater, and depth to bottom of each well. Well locations are shown on Figure 1.

A summary of the NAPL/water level measurements from each of the gauging events is presented in Table 1. Recoverable NAPL was not found during any of the gauging events. Trace amounts of NAPL were observed (as blebs on the interface probe) at NAPL monitoring well NMW08-02 during the June and September gauging events and 0.08 inches of NAPL were observed during the January sampling/ gauging event. Blebs of NAPL were also observed at NAPL monitoring wells NMW16-04 and NMW16-05 during the January 2019 gauging event.

Several monitoring wells were inaccessible or unable to be located during the 2018 gauging events, and as such, Arcadis did not obtain water-level measurements or perform NAPL gauging at these wells. The observed conditions during each gauging event are summarized below.

- March 2018
  - MW08-04S, MW08-04D, MW08-06S, MW08-06D, and MW08-08D were not located due to snow cover
  - NMW08-02 well cover bolts were damaged and the cover could not be removed
  - MW93-02 and MW93-02D were inaccessible due to facility operations (i.e., equipment staged over the wells)
- June 2018
  - MW08-04S, MW08-04D, and MW08-08D were not located
  - MW93-02S and MW93-02D were inaccessible due to facility operations
- September 2018
  - MW08-04S, MW08-04D, and MW08-08D were not located.

Arcadis located previously inaccessible wells during the June and September 2018 gauging events and completed repairs to existing wells, the extent possible. Monitoring wells not located during the September 2018 event were presumed to have been destroyed by facility operations and were subsequently replaced with new monitoring wells (installed in December 2018, as detailed below).

Monitoring Well Installation

As indicated above and in accordance with the November 7, 2018 Monitoring Well Installation Work Plan, monitoring wells MW08-04S, MW08-04D, and MW08-08D (all presumed destroyed) were replaced with monitoring wells MW18-04S, MW18-04D, and MW-18-08D. Attachment 1 summarizes the well-installation activities, completed December 10 to 12, 2018. Arcadis subsequently sampled and gauged the new wells in January 2019. For the purposes of this report, this monitoring event represents the final event of 2018.

Groundwater Sampling

Arcadis completed the annual post-remediation groundwater sampling event for 2018 on January 9, 2019, such that the replacement wells could be included in the sampling event. The groundwater sampling event included the following:

- Collecting a site-wide round of water-level measurements
- Gauging each monitoring well for NAPL using an interface probe
- Collecting groundwater samples from wells included in the monitoring well network (as identified in the SMP)

Groundwater samples were collected using low-flow purging and sampling techniques and were submitted to TestAmerica Laboratories, Inc. for analysis of the following:

- Benzene, toluene, ethylbenzene, and xylenes (BTEX) using United States Environmental Protection Agency (USEPA) SW-846 Method 8260C
- Polyaromatic hydrocarbons (PAHs) using USEPA SW-846 Method 8270D
- Total cyanide using USEPA SW-846 method 9012B

One set of quality assurance/quality control (QA/QC) samples, including a field duplicate, matrix spike, and matrix spike duplicate was collected and submitted for laboratory analysis. Groundwater sampling logs are provided as Attachment 2.

Potentiometric Surfaces and Groundwater Flow

Groundwater elevation data are summarized in Table 1 and potentiometric surface maps for shallow and deep overburden units are presented on Figures 2 and 3, respectively. For comparison, potentiometric surface maps measured in 2009 during the Remedial Investigation (RI) are included as Attachment 3.

The current shallow potentiometric surface is generally consistent with that measured during the RI. The ground surface elevation near the in-situ soil solidification (ISS) mass is approximately 430 to 431 feet above mean sea level (ft AMSL) and the top of the ISS mass has an elevation of approximately 425 ft AMSL. As expected, the water table occurs within the clean fill material immediately above the ISS mass, and shallow overburden likely flows above and around the ISS mass. Pre- and post-remediation shallow groundwater flow directions are generally consistent.

The current deep potentiometric surface is approximately 3 to 5 feet higher than that measured during the RI. Deep monitoring wells are screened at or below the bottom of the ISS mass (located at an approximate elevation of 403 ft AMSL). Given that the permeability of the ISS mass is approximately two orders of magnitude less than that of the deep soils (fine sand/silt and till), deep groundwater near the ISS mass is inferred to flow around the ISS mass. Away from the ISS mass, pre- and post-remediation deep groundwater flow directions are generally consistent.

Groundwater Quality

Analytical results were reported by the laboratory using NYSDEC Analytical Service Protocol (ASP) Category B data deliverables; the laboratory report is included as Attachment 4. A Data Usability Summary Report (DUSR) is included as Attachment 5 and validated analytical results are summarized in Table 2. For comparison, this table also provides the corresponding Class GA groundwater quality

standards/guidance values presented in the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1). For further comparison, this table includes data from the previous groundwater sampling event (completed in 2008, as part of the RI). Compared to the previous sampling event, notable analytical results for the 2018 groundwater monitoring consist of the following:

- No new detections of BTEX, PAHs, or cyanide were observed at any of the monitoring wells.
- At monitoring well MW93-01S (located at the upgradient side of the site), PAH concentrations have increased slightly.
- At monitoring well MW08-05D (located immediately downgradient of the ISS mass), BTEX concentrations have decreased to non-detect levels.
- At monitoring well MW08-05S (located immediately downgradient of the ISS mass), BTEX and PAH concentrations have significantly decreased.

Site Inspections

Arcadis conducted site inspections to evaluate site usage, general site conditions, and the condition and continued effectiveness of the cover system, in accordance with the SMP. Site inspection forms are included as Attachment 6. Notable observations from the site inspections consist of the following:

- A new sewer line was installed within the site cover area to service the NYSEG service center. The sewer line was reportedly installed in 2017, following the completion of the remedial construction activities. The approximate location of the new sewer line is shown on Figure 1. Note that the sewer line was installed in the clean imported fill located below the asphalt cover and above the ISS mass.
- A new structure (i.e., utility shed) was observed at the northwest corner of the service center building. Although the existing asphalt cover was removed in this area, intrusive activities associated with the construction of the structure appear be minimal (less than 6 inches).

NYSEG remediation personnel previously instructed NYSEG facility operation personnel to notify NYSEG remediation personnel prior to conducting any intrusive site work. NYSEG remediation personnel have again briefed NYSEG facility operational personnel on the SMP requirements. If future intrusive site work is required, NYSEG facility operation personnel will notify NYSEG remediation personnel prior to conducting the work, and NYSEG remediation personnel will in turn notify NYSDEC.

Waste Management

Arcadis containerized and staged investigation-derived waste generated during the monitoring well installation and groundwater sampling activities in appropriately labeled NYSDOT-approved 55-gallon drums, for off-site treatment/disposal by NYSEG's waste disposal vendor.

Conclusions and Recommendations

Based on the post-construction monitoring activities completed in 2018:

- Post-remediation groundwater flow directions are generally consistent with pre-remediation conditions. Groundwater at/near the ISS mass is inferred to largely flow over and around the mass.
- NAPL is not migrating from beneath the service center building.

- BTEX and PAH concentrations in groundwater downgradient of the ISS mass are decreasing.

These results represent post-construction baseline conditions (i.e., Year 1) and will be used to compare to the results for subsequent monitoring activities. For 2019 (i.e., Year 2), consistent with monitoring and reporting requirements presented in the SMP, Arcadis recommends continuing the quarterly NAPL gauging and annual groundwater sampling activities. NAPL gauging activities are tentatively scheduled to be conducted in March, June, and December 2019, with groundwater sampling conducted in September 2019.

Please contact Tracey Blazicek of NYSEG at 585.484.6839 or tlblazicek@nyseg.com with any questions or comments.

Sincerely,

Arcadis of New York, Inc.

Jason Golubski, PE
Senior Environmental Engineer

Copies:
Kristin Kulow, NYSDOH
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Enclosures:

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2 Groundwater Sample Analytical Summary

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2 Shallow Potentiometric Surface Map – January 7, 2019
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1 Monitoring Well Installation Summary Letter
2 Groundwater Sampling Logs
3 Remedial Investigation Potentiometric Surface Maps
4 Groundwater Sample Laboratory Analytical Report
5 Data Usability Summary Report
6 Site Inspection Forms

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Table 1
NAPL Gauging and Groundwater Elevation Summary
2018 Post-Remediation Monitoring Report
Goshen Former MGP Site - Goshen, New York

ARCADIS Design & Consultancy for natural and built assets

Monitoring Well ID	Top of Inner Casing (TIC) Elevation (feet AMSL)	Depth to Water (feet below TIC)				Depth to Bottom (feet below TIC)				Approximate NAPL Thickness[4] (feet)				Groundwater Elevation (feet amsl)			
		3/15/18	6/13/18	9/14/18	1/7/19	3/15/18	6/13/18	9/14/18	1/7/19	3/15/18	6/13/18	9/14/18	1/7/19	3/15/18	6/13/18	9/14/18	1/7/19
MW93-01S	435.49	5.25	6.32	5.25	5.36	22.30	22.59	22.60	22.22	0.00	0.00	0.00	0.00	430.24	429.17	430.24	430.13
MW93-01D	435.80	8.53	9.91	8.50	8.33	36.70	36.70	36.65	36.79	0.00	0.00	0.00	0.00	427.27	425.89	427.30	427.47
MW93-02S	429.53	NM	NM	8.38	8.36	NM	NM	22.00	22.20	0.00	0.00	0.00	0.00	NM	NM	421.15	421.17
MW93-02D	429.52	NM	NM	4.11	3.82	NM	NM	30.90	31.89	0.00	0.00	0.00	0.00	NM	NM	425.41	425.70
MW08-04S	429.71	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW18-04S[3]	432.74	NM	NM	NM	11.40	NM	NM	NM	22.52	NM	NM	NM	0.00	NM	NM	NM	421.34
MW08-04D	429.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW18-04D[3]	432.61	NM	NM	NM	7.70	NM	NM	NM	42.10	NM	NM	NM	0.00	NM	NM	NM	424.91
MW08-05S	429.50	6.91	7.30	6.80	7.10	18.30	18.28	18.35	18.40	0.00	0.00	0.00	0.00	422.59	422.20	422.70	422.40
MW08-05D	429.48	3.88	5.42	4.12	3.88	35.70	35.75	35.85	36.85	0.00	0.00	0.00	0.00	425.60	424.06	425.36	425.60
MW08-06S	428.60	NM	8.87	8.32	8.04	NM	19.62	19.70	19.85	0.00	0.00	0.00	0.00	NM	419.73	420.28	420.56
MW08-06D	428.61	NM	4.44	3.05	2.81	NM	39.52	39.60	40.13	0.00	0.00	0.00	0.00	NM	424.17	425.56	425.80
MW08-07S	435.90	3.52	6.82	4.32	1.59	15.55	15.54	15.58	15.61	0.00	0.00	0.00	0.00	432.38	429.08	431.58	434.31
MW08-07D	435.77	9.87	11.26	10.10	9.65	38.85	38.96	39.03	31.15	0.00	0.00	0.00	0.00	425.90	424.51	425.67	426.12
MW08-08S	430.61	5.93	5.20	4.15	4.51	12.25	12.23	12.32	12.40	0.00	0.00	0.00	0.00	424.68	425.41	426.46	426.10
MW08-08D	430.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM
MW18-08D[3]	432.33	NM	NM	NM	6.82	NM	NM	NM	37.19	NM	NM	NM	NM	NM	NM	NM	425.51
NMW08-02	429.99	NM	2.49	1.54	1.41	NM	21.53	21.40	19.85	0.00	Trace	Trace	0.08	NM	427.50	428.45	428.58
NMW16-01	429.82	2.54	3.63	2.46	2.55	27.54	27.55	27.60	28.46	0.00	0.00	0.00	0.00	427.28	426.19	427.36	427.27
NMW16-02	429.88	3.82	5.24	3.89	3.58	40.34	41.52	40.43	41.45	0.00	0.00	0.00	0.00	426.06	424.64	425.99	426.30
NMW16-03	429.95	1.84	2.56	1.60	1.57	30.85	31.40	30.92	31.82	0.00	0.00	0.00	0.00	428.11	427.39	428.35	428.38
NMW16-04	430.11	2.30	2.60	1.55	1.73	32.00	32.00	32.05	32.77	0.00	0.00	0.00	Trace	427.81	427.51	428.56	428.38
NMW16-05	430.74	3.31	2.74	1.50	1.71	31.79	31.88	31.86	33.00	0.00	0.00	0.00	Trace	427.43	428.00	429.24	429.03

Acronyms and Abbreviations:

amsl = above mean sea level
ft = feet
NAPL = Non-Aqueous Phase Liquid
NM = not measured
TIC = top of inner casing

Notes:

1. NAPL gauging and water level data collected by Arcadis on the dates indicated.
2. Elevations are shown in feet above mean sea level (AMSL) relative to the North American Vertical Datum of 1988 (NAVD88).
3. Monitoring well installed in December 2018 to replace missing wells.
4. "Trace" indicates that NAPL blebs were observed on interface probe/tape.

Table 2
Summary of Groundwater Sample Analytical Results
Goshen Former MGP site
Goshen, New York

Location ID:	NYSDEC TOGS Standards and		MW93-01D		MW93-01S		MW93-02D		MW93-02S		MW08-04D[5]	MW18-04D
Date Collected:	Guidance Values[3]	Units	10/07/08	01/08/19	10/06/08	01/08/19	10/08/08	01/08/19	10/07/08	01/08/19	03/31/09	01/07/19
Volatile Organics												
Benzene	1	µg/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	µg/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Xylene & p-Xylene	5	µg/L	NA	2.0 U	NA	2.0 U [2.0 U]	NA	2.0 U	NA	2.0 U	NA	2.0 U
o-Xylene	--	µg/L	NA	1.0 U	NA	1.0 U [1.0 U]	NA	1.0 U	NA	1.0 U	NA	1.0 U
Toluene	5	µg/L	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	µg/L	3.0 U	2.0 U	3.0 U	2.0 U [2.0 U]	3.0 U	2.0 U	3.0 U	2.0 U	2.0 U	2.0 U
Total BTEX	--	µg/L	ND	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND
Semivolatile Organics												
Acenaphthene	20	µg/L	5.0 U	5.0 U	5.0 U	25 U [25 U]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Acenaphthylene	--	µg/L	5.0 U	5.0 U	5.0 U	2.4 J [25 U]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Anthracene	50	µg/L	5.0 U	5.0 U	5.0 U	1.5 J [25 U]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Benzo(a)anthracene	0.002	µg/L	5.0 U	5.0 U	**0.60 J**	**8.3 J [4.8 J]**	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Benzo(a)pyrene	ND	µg/L	5.0 U	5.0 U	0.80 J	**11 J [7.5 J]**	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Benzo(b)fluoranthene	0.002	µg/L	5.0 U	5.0 U	**1.0 J**	**15 J [9.9 J]**	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Benzo(g,h,i)perylene	--	µg/L	5.0 U	5.0 U	0.70 J	8.7 J [5.6 J]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Benzo(k)fluoranthene	0.002	µg/L	5.0 U	5.0 U	**0.50 J**	**6.4 J [3.9 J]**	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Chrysene	0.002	µg/L	5.0 U	5.0 U	**0.50 J**	**8.2 J [5.4 J]**	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Dibenzo(a,h)anthracene	--	µg/L	5.0 U	5.0 U	5.0 U	2.9 J [25 U]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Fluoranthene	50	µg/L	5.0 U	5.0 U	0.90 J	13 J [8.3 J]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Fluorene	50	µg/L	5.0 U	5.0 U	5.0 U	25 U [25 U]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Indeno(1,2,3-cd)pyrene	0.002	µg/L	5.0 U	5.0 U	**0.60 J**	**7.8 J [5.3 J]**	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Naphthalene	10	µg/L	5.0 U	5.0 U	5.0 U	25 U [25 U]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Phenanthrene	50	µg/L	5.0 U	5.0 U	5.0 U	3.2 J [25 U]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Pyrene	50	µg/L	5.0 U	5.0 U	0.80 J	12 J [7.3 J]	5.0 U	5.0 U	5.0 U	5.0 U	4.7 U	5.0 U
Total PAHs	--	µg/L	ND	ND	6.4 J	100 J [58 J]	ND	ND	ND	ND	ND	ND
Miscellaneous												
Cyanide	0.2	µg/L	10.0 U	0.0062 J	10.0 U	0.0076 J [0.0086 J]	10.0 UJ	0.01 UF1	67.0	0.0097 J	28.1	0.01 U

See table notes on page 4

Table 2
Summary of Groundwater Sample Analytical Results
Goshen Former MGP site
Goshen, New York

Location ID:	NYSDEC TOGS Standards and		MW08-04S[5]	MW18-04S	MW08-05D		MW08-05S		MW08-06D		MW08-06S	
Date Collected:	Guidance Values[3]	Units	03/31/09	01/07/19	03/31/09	01/08/19	04/01/09	01/09/19	04/01/09	01/09/19	04/01/09	01/09/19
Volatile Organics												
Benzene	1	µg/L	1.0 U	1.0 U	**230 D [230 D]**	1.0 U	**4,900 D**	**690**	1.0 U	1.0 U	**1.3**	1.0 U
Ethylbenzene	5	µg/L	1.0 U	1.0 U	**61 [74]**	1.0 U	**360 J**	**57**	1.0 U	1.0 U	1.0 U	1.0 U
m-Xylene & p-Xylene	5	µg/L	NA	2.0 U	NA	2.0 U	NA	**39**	NA	2.0 U	NA	2.0 U
o-Xylene	--	µg/L	NA	1.0 U	NA	1.0 U	NA	29	NA	1.0 U	NA	1.0 U
Toluene	5	µg/L	1.0 U	1.0 U	1.2 [1.2 J]	1.0 U	**950 D**	**19**	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	µg/L	2.0 U	2.0 U	**56 [57]**	2.0 U	**800 J**	**68**	2.0 U	2.0 U	2.0 U	2.0 U
Total BTEX	--	µg/L	ND	ND	350 [360 J]	ND	7,000 J	830	ND	ND	1.3	ND
Semivolatile Organics												
Acenaphthene	20	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	**21**	15 J	4.9 U	5.0 U	4.8 U	5.0 U
Acenaphthylene	--	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	38	12 J	4.9 U	5.0 U	4.8 U	5.0 U
Anthracene	50	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	12	7.3 J	4.9 U	5.0 U	4.8 U	5.0 U
Benzo(a)anthracene	0.002	µg/L	4.9 U	5.0 U	4.8 U [**0.20 J**]	5.0 U	**0.59 J**	25 U	4.9 U	5.0 U	4.8 U	5.0 U
Benzo(a)pyrene	ND	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	5.0 U	25 U	4.9 U	5.0 U	0.19 J	5.0 U
Benzo(b)fluoranthene	0.002	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	5.0 U	25 U	4.9 U	5.0 U	4.8 U	5.0 U
Benzo(g,h,i)perylene	--	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	5.0 U	25 U	4.9 U	5.0 U	4.8 U	5.0 U
Benzo(k)fluoranthene	0.002	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	5.0 U	25 U	4.9 U	5.0 U	4.8 U	5.0 U
Chrysene	0.002	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	**0.40 J**	25 U	4.9 U	5.0 U	4.8 U	5.0 U
Dibenzo(a,h)anthracene	--	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	5.0 U	25 U	4.9 U	5.0 U	4.8 U	5.0 U
Fluoranthene	50	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	0.42 J	8.4	12 J	4.9 U	5.0 U	4.8 U	5.0 U
Fluorene	50	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	**60**	38	4.9 U	5.0 U	4.8 U	5.0 U
Indeno(1,2,3-cd)pyrene	0.002	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	5.0 U	25 U	4.9 U	5.0 U	4.8 U	5.0 U
Naphthalene	10	µg/L	4.9 U	5.0 U	6.4 [5.0]	5.0 U	**1,600 D**	**67**	0.31 J	5.0 U	0.40 J	5.0 U
Phenanthrene	50	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	5.0 U	**65**	31	4.9 U	5.0 U	4.8 U	5.0 U
Pyrene	50	µg/L	4.9 U	5.0 U	4.8 U [4.7 U]	0.40 J	6.3	7.8 J	4.9 U	5.0 U	4.8 U	5.0 U
Total PAHs	--	µg/L	ND	ND	6.4 [5.2 J]	0.82 J	2,000 J	190 J	0.31 J	ND	0.59 J	ND
Miscellaneous												
Cyanide	0.2	µg/L	10.0 U	0.0065 J	10.0 U [10.0 U]	0.065	30.6	0.038	10.0 U	0.01 U	130	0.064

See table notes on page 4

Table 2
Summary of Groundwater Sample Analytical Results
Goshen Former MGP site
Goshen, New York

Location ID:	NYSDEC TOGS Standards and		MW08-07D		MW08-07S		MW08-08D[5]	MW18-08D	MW08-08S	
Date Collected:	Guidance Values[3]	Units	03/31/09	01/09/19	03/31/09	01/09/19	03/31/09	01/07/19	04/01/09	01/08/19
Volatile Organics										
Benzene	1	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**16**	**32**
Ethylbenzene	5	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Xylene & p-Xylene	5	µg/L	NA	2.0 U	NA	2.0 U	NA	2.0 U	NA	2.0 U
o-Xylene	--	µg/L	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	1.0 U
Toluene	5	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total BTEX	--	µg/L	ND	ND	ND	ND	ND	ND	16	32
Semivolatile Organics										
Acenaphthene	20	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Acenaphthylene	--	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Anthracene	50	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Benzo(a)anthracene	0.002	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Benzo(a)pyrene	ND	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Benzo(b)fluoranthene	0.002	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Benzo(g,h,i)perylene	--	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Benzo(k)fluoranthene	0.002	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Chrysene	0.002	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Dibenzo(a,h)anthracene	--	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Fluoranthene	50	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	0.40 J
Fluorene	50	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Indeno(1,2,3-cd)pyrene	0.002	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Naphthalene	10	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Phenanthrene	50	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	5.0 U
Pyrene	50	µg/L	4.7 U	5.0 U	4.8 U	25 U	4.8 U	5.0 U	4.8 U	0.35 J
Total PAHs	--	µg/L	ND	ND	ND	ND	ND	ND	ND	0.75 J
Miscellaneous										
Cyanide	0.2	µg/L	10.0 U	0.0059 J	10.0 U	0.012	10.0 U	0.01 U	10.0 U	0.0076 J

See table notes on page 4

Acronyms and Abbreviations:

B - Indicates an estimated value between the instrument detection limit and the Reporting Limit (RL).
D - Compound qantitated using secondary dilution.
F1 - MS and/or MSD Recovery is outside acceptance limits.
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
mg/L - milligrams per liter
NA - not analyzed
ND - Not Detected at the reporting limit (or MDL or EDL, if shown).
NYSDEC - New York State Department of Environmental Conservation
U - Indicates that the compound was analyzed for but not detected. The associated value is the Reporting Limit.
ug/L - micrograms per liter
-- Indicates that no water quality standard or guidance value is available for this compound.
[ ] - Results shown in brackets represent field duplicates.

Notes:

1. Samples collected by Arcadis of New York, Inc. on the dates indicated.
2. Laboratory analysis was performed by TestAmerica of Amherst, New York
3. NYSDEC groundwater standards/guidance values are from the NYSDEC Division of Water, Technical and Operational Guidance Series (TOGS) document titled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (TOGS 1.1.1) dated June 1998, revised April 2000 and June 2004
4. Bold indicates that the result exceeds the water quality standard/guidance value.
5. Remedial Investigation analytical results from monitoring wells prior to the installation of replacement wells in December 2018.

FIGURES

RIO GRANDE

FLOW

R.R. SWITCH (REMOVED)

LIME KILN

COAL STORAGE

NYSEG PROPERTY

ASPHALT PAVEMENT

RETORTS

GAS HOLDER #2

PURIFIER HOUSE

SHED

COAL

COAL

BOILER

BOILERS

ENGINE ROOM

FORMER ELECTRIC LIGHT STATION
GOSHEN LIGHT & POWER CO.

RETAINING WALL

GATE

OFFICE

METER HOUSE

BOILER TANKS

UTILITY SHED

ENTRANCE

SERVICE CENTER BUILDING—
ONE STORY BRICK BUILDING
(FORMER GAS HOUSE)

OIL TANKS

GENERATOR

SUPERHEATER

TAR DRIP

STEEL GAS HOLDER #3
50,000 CU. FT. CAPACITY

WEST MAIN STREET

MW08-06S
MW08-06D
MW93-2D
MW93-2S
MW08-05S
MW08-05D
NMW16-05
NMW16-04
NMW16-03
NMW08-02
NMW16-02
NMW16-01
MW93-1S
MW93-1D
MW18-04D
MW18-04S
MW08-04D
MW08-04S
MW18-08D
MW08-08S
MW08-08D
MW08-07D
MW08-07S

LEGEND:

- PROPERTY LINE
- FENCE LINE
- FORMER STRUCTURE (1889-1945)
- GAS LINE
- WATER LINE
- SEWER LINE
- ELECTRIC LINE
- STORM SEWER LINE
- LIMITS OF ISS TREATMENT AREA
- LIMITS OF ASPHALT COVER
- MW08-04D — DEEP MONITORING WELL
- MW18-04S — SHALLOW MONITORING WELL
- NMW08-01 — NAPL MONITORING WELL
- MW08-04D — MONITORING WELL MISSING (PRESUMED DESTROYED)

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. LOCATIONS OF FORMER STRUCTURES ARE BASED ON SANBORN FIRE INSURANCE MAPS FROM 1889 THROUGH 1939.

0 30' 60'

GRAPHIC SCALE

NYSEG
GOSHEN FORMER MGP SITE
GOSHEN, NEW YORK
2018 MONITORING REPORT

MONITORING WELL PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: SYRACUSE NY DIV/GROUP: ENV/CAD DB: E. KRAHMER, K.SARTORI PIC: PM: TM: TR:JBISTROVICH LYR:(On)ON=*;OFF=*REF*
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PLOTTED: 3/25/2019 9:41 AM BY: SARTORI, KATHERINE
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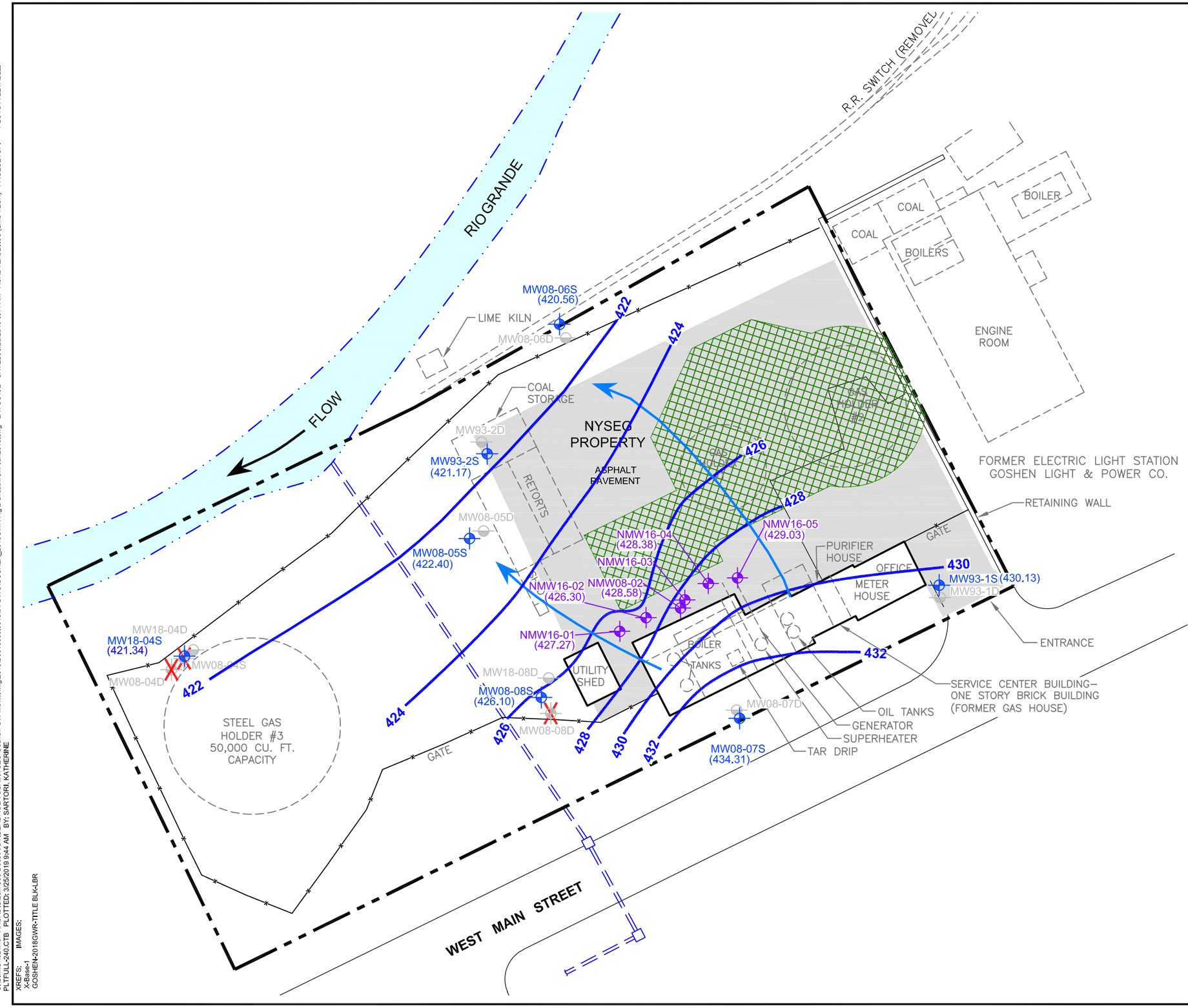
X-Base-1
GOSHEN-2018GWR-TITLE BLK-LBR



NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. LOCATIONS OF FORMER STRUCTURES ARE BASED ON SANBORN FIRE INSURANCE MAPS FROM 1889 THROUGH 1939.
3. GROUNDWATER ELEVATION MEASUREMENTS WERE COLLECTED ON JANUARY 7, 2019.
4. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.

0 30' 60'

GRAPHIC SCALE

NYSEG
GOSHEN FORMER MGP SITE
GOSHEN, NEW YORK
2018 MONITORING REPORT

SHALLOW POTENTIOMETRIC SURFACE MAP - JANUARY 7, 2019

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

CITY: SYRACUSE NY DIV/GROUP: ENVCAD DB: E. KRAHMER, K.SARTORI PIC: PM: TM: TR: J.BISTROVICH LYR:(On)ON=*;OFF=*REF*
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PLTFULL-240.CTB PLOTTED: 3/25/2019 9:44 AM BY: SARTORI, KATHERINE
XREFS:
X-Base-1
GOSHEN-2018GWR-TITLE BLK-LBR
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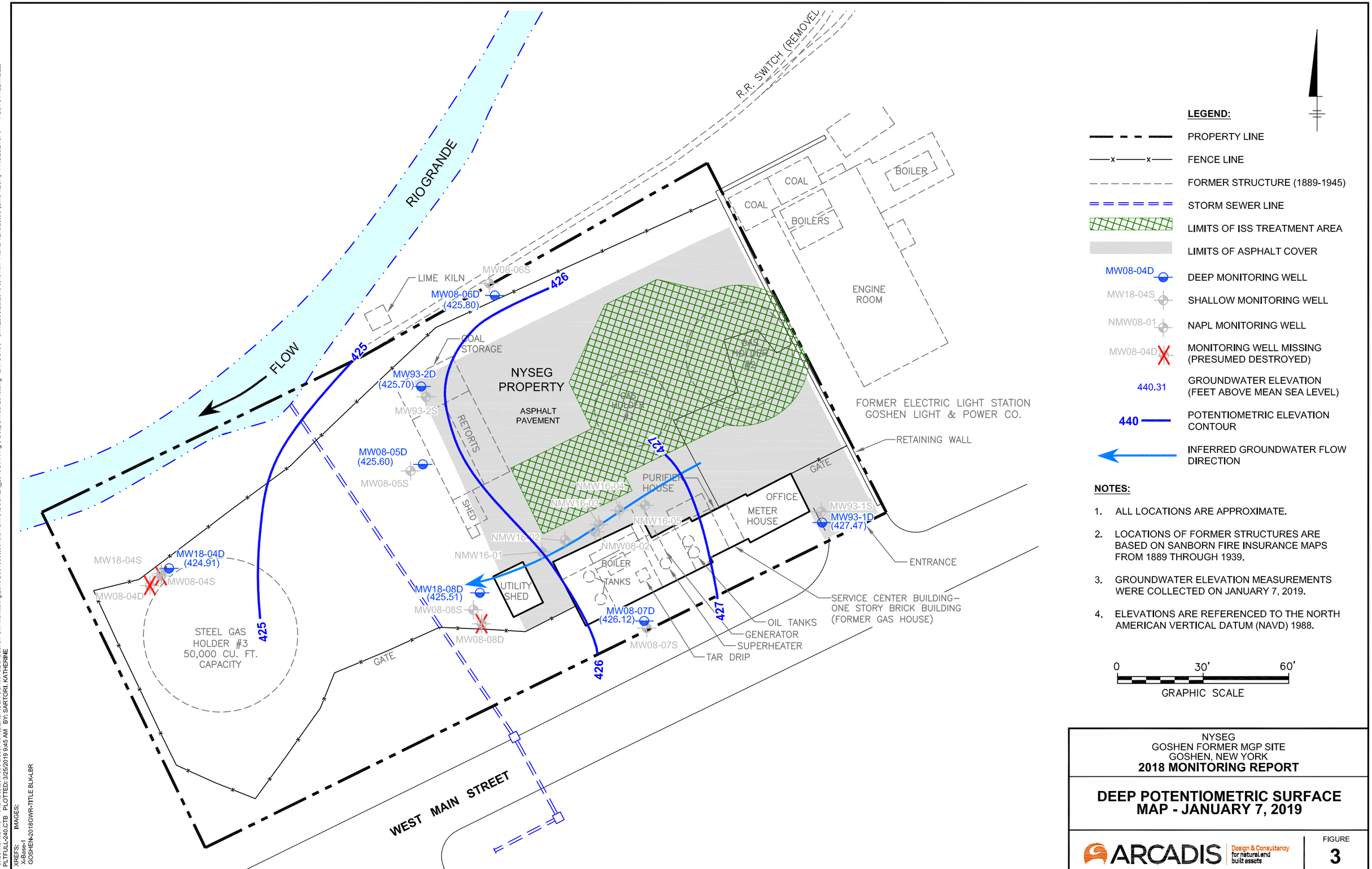

LEGEND:

- PROPERTY LINE
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- STORM SEWER LINE
- LIMITS OF ISS TREATMENT AREA
- LIMITS OF ASPHALT COVER
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- MW18-04S — SHALLOW MONITORING WELL
- NMW08-01 — NAPL MONITORING WELL
- MW08-04D — MONITORING WELL MISSING (PRESUMED DESTROYED)
- 440.31 — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- 440 — POTENTIOMETRIC ELEVATION CONTOUR
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

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3. GROUNDWATER ELEVATION MEASUREMENTS WERE COLLECTED ON JANUARY 7, 2019.
4. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.

0 30' 60'

GRAPHIC SCALE

NYSEG
GOSHEN FORMER MGP SITE
GOSHEN, NEW YORK
2018 MONITORING REPORT

DEEP POTENTIOMETRIC SURFACE MAP - JANUARY 7, 2019

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

CITY: SYRACUSE NY DIV/GROUP: ENVCAD DB: E. KRAHMER, K.SARTORI PIC: PM: TM: TR: JJBISTROVICH LYR:(Opt)ON=*;OFF=*REF*
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XREFS: IMAGES:
X-Base-1
GOSHEN-2018GWR-TITLE BLK-LBR

ATTACHMENT 1

Monitoring Well Installation Summary Letter

Scott Deyette
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, New York 12233-7014

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Tel 315 446 9120
Fax 315 449 0017
www.arcadis.com

ENVIRONMENT

Subject:
Monitoring Well Installation Summary
NYSEG Goshen Former MGP Site
Site No. 3-36-046

Date:
March 27, 2019

Contact:
Jason Golubski, PE

Phone:
315.671.9437

Email:
jason.golubski@arcadis.com

Our ref:
B0013080 #10

Dear Mr. Deyette:

This letter summarizes the groundwater monitoring well installation activities completed at the NYSEG Goshen Former Manufactured Gas Plant (MGP) Site (the site).

Monitoring wells that could not be located during the March, June, or September 2018 NAPL gauging events were assumed to be damaged/destroyed and were replaced with new monitoring wells, in accordance with the New York State Department of Environmental Conservation- (NYSDEC-) approved November 7, 2018 Monitoring Well Installation Work Plan (work plan).

Monitoring Well Installation

Arcadis' drilling subcontractor (Parratt-Wolff, Inc.) installed monitoring wells MW18-08D, MW18-04D, and MW18-04S from December 10 to 12, 2018. Arcadis' survey subcontractor (Paul James Olszewski, PLS, PLLC), surveyed monitoring well locations and elevations. New monitoring well locations are shown on Figure 1.

Arcadis conducted community air monitoring for volatile organic compounds (VOCs) and particulates during well installation in accordance with New York State Department of Health's (NYSDOH's) May 2010 Generic Community Air Monitoring Plan (CAMP), using one upwind and one downwind monitoring station. No air monitoring exceedances were observed during the work.

Prior to drilling at each well location, subsurface utility clearance was performed to approximately 5 feet below ground surface (bgs) using a vacuum truck/air knife and manual clearing methods. Borings for the monitoring wells were drilled using hollow stem augers. Monitoring wells were constructed using PVC risers and screens set to the same depths as the original wells. Well-surface

completions consist of stick-up protectors, surrounded by three bollards each. Well construction logs are provided as Attachment 1. Following installation, the new monitoring wells were developed in accordance with the work plan.

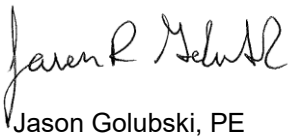
Waste Management

All investigation-derived waste (i.e., drill cuttings and decontamination/well development water) was placed in appropriately labeled NYSDOT-approved 55-gallon drums. NYSEG's waste disposal vendor transported drummed IDW off-site for appropriate treatment and/or disposal.

Please contact Tracy Blazicek at 585.484.6839 or tlblazicek@nyseg.com with any questions or comments.

Sincerely,

Arcadis of New York, Inc.



Jason Golubski, PE
Senior Environmental Engineer

Copies:
Tracy Blazicek, CHMM, NYSEG

Enclosures:

Figure

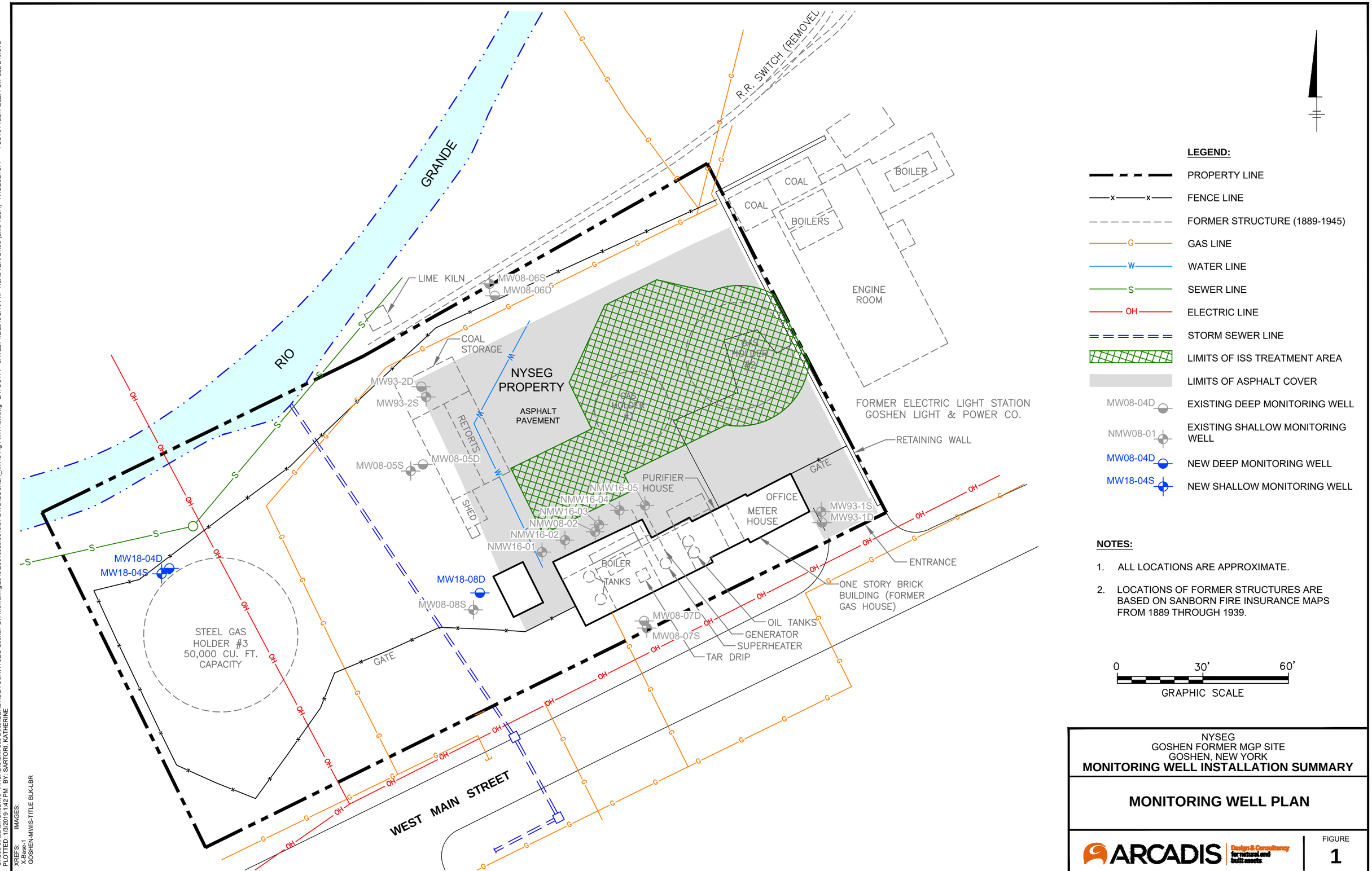
1 Monitoring Well Plan

Attachment

1 Monitoring Well Construction Logs

FIGURE 1

Monitoring Well Plan



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- STORM SEWER LINE
- LIMITS OF ISS TREATMENT AREA
- LIMITS OF ASPHALT COVER
- MW08-04D — EXISTING DEEP MONITORING WELL
- NMW08-01 — EXISTING SHALLOW MONITORING WELL
- MW08-04D — NEW DEEP MONITORING WELL
- MW18-04S — NEW SHALLOW MONITORING WELL

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. LOCATIONS OF FORMER STRUCTURES ARE BASED ON SANBORN FIRE INSURANCE MAPS FROM 1889 THROUGH 1939.

0 30' 60'

GRAPHIC SCALE

NYSEG
GOSHEN FORMER MGP SITE
GOSHEN, NEW YORK

MONITORING WELL INSTALLATION SUMMARY

MONITORING WELL PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

ATTACHMENT 1

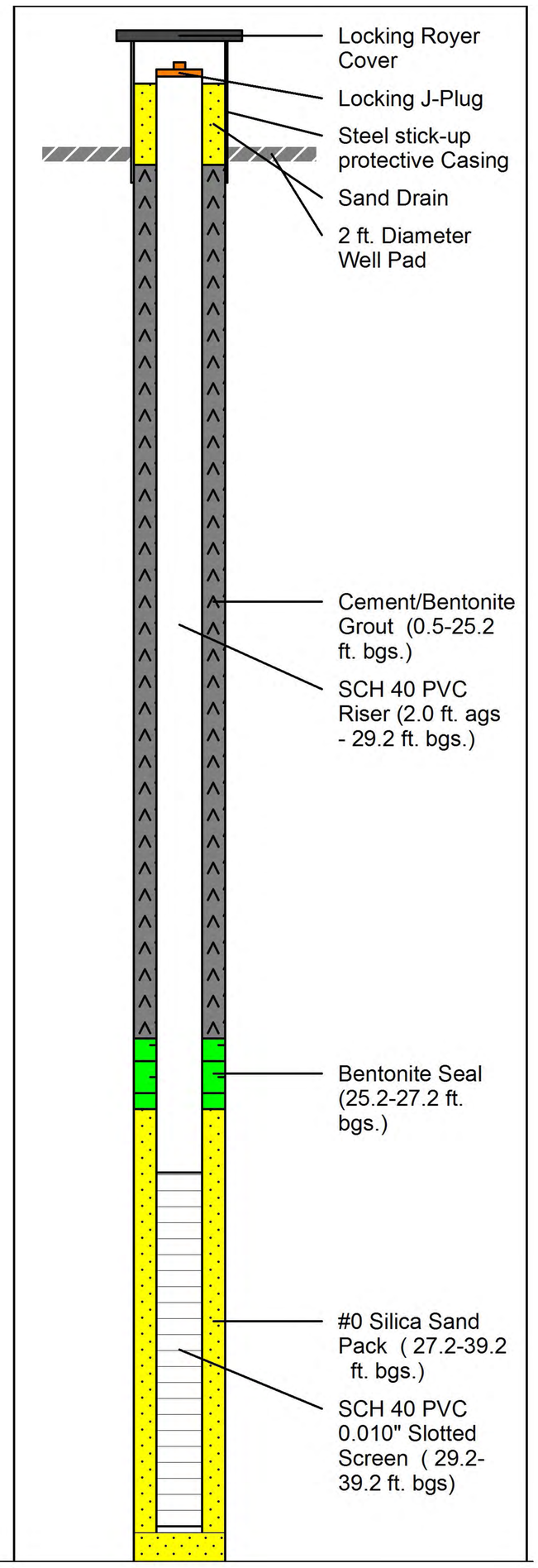
Monitoring Well Construction Logs

Date Start/Finish: 12/11/18
Drilling Company: Parratt-Wolff, Inc.
Driller's Name: Jolaan Price, Mike Wright
Drilling Method: Hollow stem auger
Sampling Method: NA
Rig Type: Ingersol Rand A300

Northing: NA
Easting: NA
Casing Elevation: 432.61 ft. AMSL
Surface Elevation: 430.60 ft. AMSL
Borehole Depth: 40.0 ft. bgs
Descriptions By: NA

Well/Boring ID: **MW18-04D**
Client: New York Electric and Gas Corporation
Location: NYSEG Goshen Former MGP Site, 250 West Main Street, Goshen, NY 10924

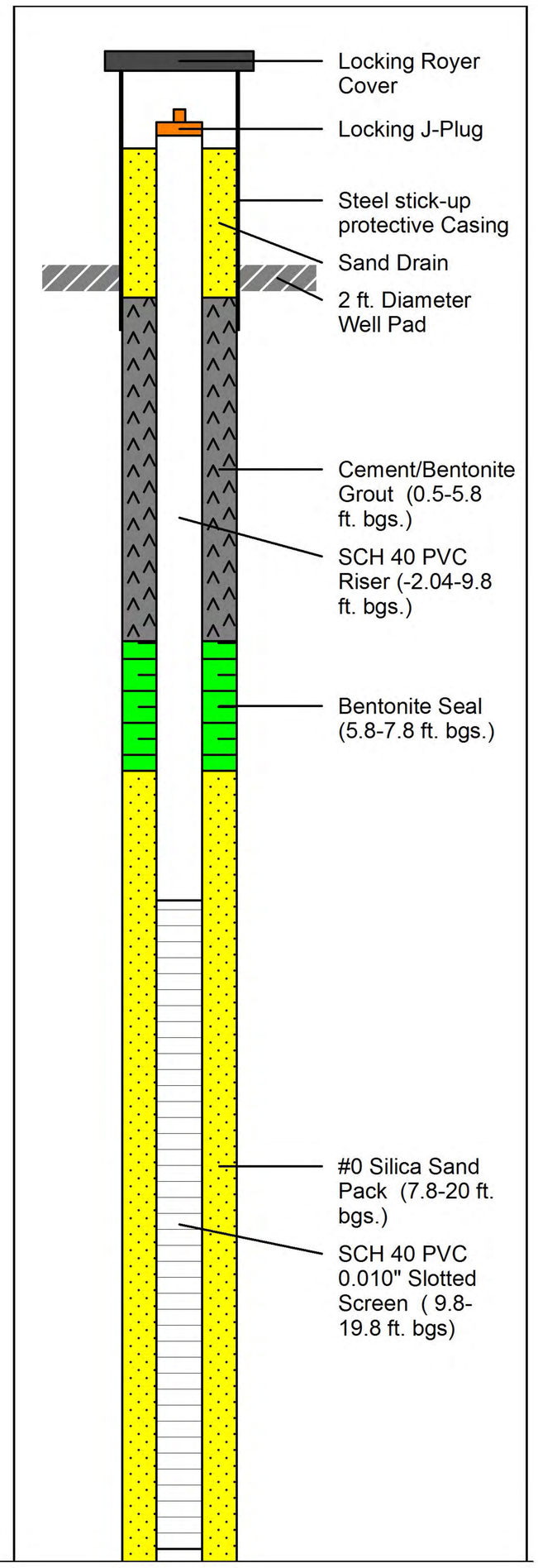
Depth (feet bgs)	Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0							Blind drilled to 40 ft. bgs to install replacement monitoring well. See boring log MW08-04D for additional information.	
5	-5								
10	-10								
15	-15								
20	-20								
25	-25								
30	-30								
35	-35							Drilling becoming difficult at approximately 35 ft. bgs.	
40	40							End of boring 40.0 ft. bgs.	



Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.
Borings hand cleared from 0-5 ft. bgs prior to drilling.

ARCADIS Design & Consultancy for natural and built assets

Date Start/Finish: 12/10/18 **Drilling Company:** Parratt-Wolff, Inc **Driller's Name:** Jolaan Price, Mike Wright **Drilling Method:** Hollow stem auger **Sampling Method:** NA **Rig Type:** Ingersol Rand A300	**Northing:** NA **Easting:** NA **Casing Elevation:** 432.74 ft. AMSL **Surface Elevation:** 430.70 ft. AMSL **Borehole Depth:** 20.0 ft. bgs **Descriptions By:** NA	**Well/Boring ID: MW18-04S** **Client:** New York State Electric and Gas Corporation **Location:** 250 West Main Street, Goshen, NY 10924

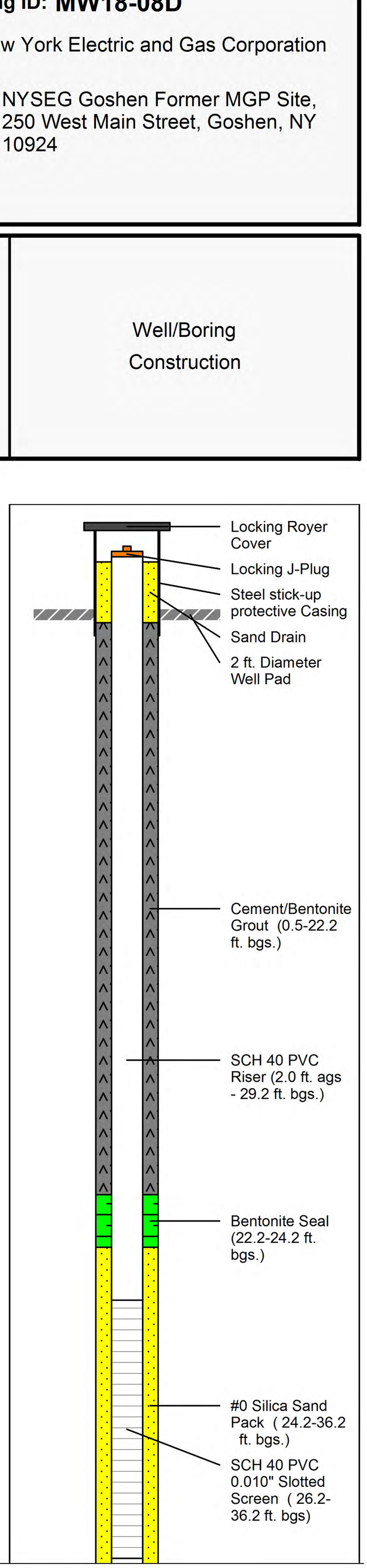
Depth (feet bgs)	Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0							Blind drilled to 20 ft. bgs to install replacement monitoring well. See boring log MW08-04S for additional information.	
5	-5								
10	-10								
15	-15								
20	-20							End of boring 20.0 ft. bgs.	

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level; PID = photoionization detector; ppm = parts per million.
Borings hand cleared from 0-5 ft. bgs prior to drilling.

Date Start/Finish: 12/12/18
Drilling Company: Parratt-Wolff, Inc.
Driller's Name: Jolaan Price, Mike Wright
Drilling Method: Hollow stem auger
Sampling Method: NA
Rig Type: Ingersol Rand A300

Northing: NA
Easting: NA
Casing Elevation: 432.33 ft. AMSL
Surface Elevation: 430.37 ft. AMSL
Borehole Depth: 36.2 ft. bgs
Descriptions By: NA

Well/Boring ID: **MW18-08D**
Client: New York Electric and Gas Corporation
Location: NYSEG Goshen Former MGP Site, 250 West Main Street, Goshen, NY 10924

Depth (feet bgs)	Elevation (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0							Blind drilled to 36.2 ft. bgs to install replacement monitoring well. See boring log MW08-08D for additional information.	
5	-5								
10	-10								
15	-15								
20	-20								
25	-25								
30	-30								
35	-35							Drilling becoming difficult at approximately 35 ft. bgs. Auger refusal encountered. End of boring 36.2 ft. bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.
Borings hand cleared from 0-5 ft. bgs prior to drilling.

ATTACHMENT 2

Groundwater Sampling Logs

NYSEG Goshen, NY

~~HMI Herkimer, NY~~

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: EGreen
Client / Job Number: NYSEG
Weather: 30's raining

Well ID: MW93-1S
Date: 1/8/19
Time In: 1305 **Time Out:** 1500

Well Information

Depth to Water:	4.61	(from MP)
Total Depth:	22.22	(from MP)
Length of Water Column:	17.61	
Volume of Water in Well:	2.87	
Three Well Volumes:	8.61	

Well Type:	(Flushmount)		Stick-Up
Well Material:	~~Stainless Steel~~		PVC
Well Locked:		Yes	(No)
Measuring Point Marked:		Yes	(No)
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	(Other: Monsoon)
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	(Other: Monsoon)

Duration of Pumping: 80 (min)
Average Pumping Rate: 275 ml/min) Water-Quality Meter Type: YSI Pro
Total Volume Removed: 4.75 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	1335	1345	1350	1355	1400	1405	1410	1415	1420
Volume Purged (mL)	0	0.3	0.5	0.75	1.15	1.5	2.0	2.35	2.70
Rate (mL/min)	300	275	275	275	275	275	250	275	275
Depth to Water (ft.)	5.76	7.11	7.70	9.45	9.52	9.67	9.70	9.74	9.76
pH	7.53	7.00	6.99	7.03	7.07	6.98	6.95	6.93	6.92
Temp. (C)	11.0	11.8	12.2	13.8	12.9	13.1	12.6	12.5	13.3
Conductivity (mS/cm)	3.776	4.014	3.979	3.862	3.808	4.009	4.059	4.133	4.160
Dissolved Oxygen	5.21	1.48	1.63	2.68	3.14	2.11	1.69	1.38	1.62
ORP (mV)	148.0	97.4	89.9	67.6	63.4	47.3	36.7	30.8	18.5
Turbidity (NTU)	989.9	1000+	921.7	481.9	275.2	202.6	135.0	107.7	81.6
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	3	STL Canton, OH
~~1,1,1-TCA, TCE~~	3	~~STL Canton, OH~~
~~Ethylbenzene, Isopropylbenzene, Xylene~~	3	~~STL Canton, OH~~
Sample ID: MW93-1S	Sample Time: 1455	
MS/MSD: Yes	(No)	
Duplicate: (Yes)	No	
Duplicate ID: ~~MW93-1S~~ MW93-1SDUP	Dup. Time: 1455	

PID = 0.0
BTEX 6
PAHs 4
Cyanide 2

Problems / Observations

* Duplicate sample Collected

NYSEG Goshen, NY

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: EGreen **Well ID:** MW93-1S

Client / Job Number: **Date:**

Weather: **Time In:** **Time Out:**

Well Information See page 1

Depth to Water:	(from MP)
Total Depth:	(from MP)
Length of Water Column:	
Volume of Water in Well:	
Three Well Volumes:	

Well Type:	Flushmount	Stick-Up
Well Material:	Stainless Steel	PVC
Well Locked:	Yes	No
Measuring Point Marked:	Yes	No
Well Diameter:	1" 2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	Other:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Duration of Pumping:	(min)		
Average Pumping Rate:	(ml/min)	Water-Quality Meter Type:	
Total Volume Removed:	(gal)	Did well go dry: Yes	No

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	1425	1430	1435	1440	1445	1455			
Volume Purged (mL)	3.1	3.6	4.0	4.35	4.65	Sample Time			
Rate (mL/min)	300	300	300	275	275				
Depth to Water (ft.)	9.83	9.86	9.90	9.93	9.97				
pH	6.95	6.95	6.96	6.94	6.93				
Temp. (C)	13.3	13.5	13.6	13.7	13.4				
Conductivity (mS/cm)	4.073	4.076	4.09	4.145	4.120				
Dissolved Oxygen	1.79	1.63	1.70	1.66	1.60				
ORP (mV)	21.4	18.9	19.0	18.4	18.1				
Turbidity (NTU)	73.3	54.8	78.1	70.1	37.6				
Notes:									

Sampling Information

Analyses	#	Laboratory
TCL PCBs	2	STL Buffalo, NY
TCL VOCs	3	STL Canton, OH
1,1,1-TCA, TCE	3	STL Canton, OH
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH
Sample ID: MW93-1S	Sample Time: 1455	
MS/MSD: Yes (No)		
Duplicate: (Yes) No		
Duplicate ID MW93-1S Dup	Dup. Time: 1455	

Problems / Observations

PID = 0.0

NYSEG Goshen, NY

HMI Herkimer, NY

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Maxwell
Client / Job Number: NYSEG
Weather: 36°F, Cloudy

Well ID: MW93-1D
Date: 01/08/19
Time In: 14:50 **Time Out:** ~~15:~~ 17:00

Well Information

Depth to Water:	8.16 (from MP)
Total Depth:	34 (from MP)
Length of Water Column:	26.25 ft
Volume of Water in Well:	4.60 gal
Three Well Volumes:	13.8

Well Type:	Flushmount	Stick-Up	
Well Material:	Stainless Steel	PVC	
Well Locked:	Yes	No	
Measuring Point Marked:	Yes	No	
Well Diameter:	1"	2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other: ~~MASCO~~
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	~~Bailer (VOCs)~~	Peristaltic	Grundfos	Other:
Duration of Pumping:	82 (min)	Start Pump: 15:38		
Average Pumping Rate:	200 (ml/min)	Water-Quality Meter Type:	YSI	
Total Volume Removed:	2.68 (gal)	Did well go dry:	Yes	No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	15:45	15:50	15:55	16:00	16:05	16:10	16:15	16:20	16:25
Volume Purged (mL)	1400	2,400	3,400	4,400	5,400	6,400	7,400	8,400	9,400
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
pH	8.14	8.15	8.09	7.94	7.82	7.78	7.75	7.68	7.71
Temp. (C)	12.8	12.6	12.7	12.6	12.9	12.7	12.9	12.8	12.9
Conductivity (mS/cm)	0.981	0.975	0.972	0.946	0.919	0.901	0.897	0.867	0.867
Dissolved Oxygen	1.68	1.50	1.34	1.12	0.97	0.90	0.89	0.79	0.78
ORP (mV)	157.9	156.1	156.0	156.7	156.4	155.9	155.1	153.9	152.8
Turbidity (NTU)	91.9	94.8	100	85.1	58.2	52.0	40.1	32.1	26.8
Notes:									

Sample Time 16:30 10,400

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	~~3~~	~~STL Canton, OH~~
~~Ethylbenzene, Isopropylbenzene,~~ Xylene	~~3~~	~~STL Canton, OH~~
Sample ID: MW93-1D	Sample Time: 16:30	
MS/MSD: Yes	No	
Duplicate: Yes	No	
Duplicate ID	Dup. Time:	

BTEX 3
PAHs 2
Cyanide 1

Problems / Observations

PID = 0.0 - Blockage in well, Peri pump ~~failed~~ used instead

NYSEG Goshen, NY

~~HMI Herkimer, NY~~ 1 of 2

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: Evan Green **Well ID:** MW93-25
Client / Job Number: NYSEG **Date:** 11/3/11
Weather: 30°F, Overcast **Time In:** 0834 **Time Out:** 0945

Well Information

Depth to Water:	6.16	(from MP)
Total Depth:	22.20	(from MP)
Length of Water Column:	14.04	
Volume of Water in Well:	2.29	
Three Well Volumes:	6.87	

Well Type:	(Flush mount)		Stick-Up
Well Material:	Stainless Steel		(PVC)
Well Locked:	Yes		(No)
Measuring Point Marked:	Yes		(No)
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	(Other): Monsoon
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	(Other): Monsoon

Duration of Pumping: 55 (min)
Average Pumping Rate: 200 (ml/min) Water-Quality Meter Type: YSI ProDDS
Total Volume Removed: 1.5 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

~~Parameter:~~ / Time:	1	2	3	4	5	6	7	8	9
	0840	0850	0855	0900	0905	0910	0915	0920	0925
Volume Purged (mL)	0	0.2	0.3	0.45	0.55	0.7	0.85	1.0	1.2
Rate (mL/min)	300	200	175	175	200	225	200	200	200
Depth to Water (ft.)	9.65	9.51	9.45	9.66	10.04	10.10	10.16	10.14	10.14
pH	6.53	6.82	6.88	6.90	6.92	6.93	6.94	6.95	6.96
Temp. (C)	12.6	11.5	10.9	12.3	13.1	12.6	13.4	12.9	12.8
Conductivity (mS/cm)	1896	1919	1887	1903	1933	1947	1932	1971	1988
Dissolved Oxygen	2.04	1.21	1.15	1.09	1.04	1.07	0.99	0.92	0.90
ORP (mV)	21.3	-1.0	7.2	9.3	10.4	11.1	2.5	-16.6	-24.5
Turbidity (NTU)	493.1	260.3	143.6	157.1	105.5	86.5	80.4	76.3	66.5
Notes:	water is visibly brown								

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
TCL ~~VOCs~~	~~3~~	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	~~3~~	~~STL Canton, OH~~
~~Ethylbenzene, Isopropylbenzene, Xylene~~	~~3~~	~~STL Canton, OH~~
Sample ID: MW93-25	Sample Time: 0940	
MS/MSD: Yes	(No)	
Duplicate: Yes	(No)	
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0.0

BTEX 3
PAHs 2
Cyanide 1

2 of 2

HMI Herkimer, NY
Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: E Green
Well ID: MW93-25
Client / Job Number:
Date: 1/8/19
Weather:
Time In: **Time Out:**

Well Information See page 1

Depth to Water:	(from MP)
Total Depth:	(from MP)
Length of Water Column:	
Volume of Water in Well:	
Three Well Volumes:	

Well Type:	Flushmount	Stick-Up	
Well Material:	Stainless Steel	PVC	
Well Locked:	Yes	No	
Measuring Point Marked:	Yes	No	
Well Diameter:	1"	2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	Other:

Duration of Pumping:	(min)		
Average Pumping Rate:	(ml/min)	Water-Quality Meter Type:	
Total Volume Removed:	(gal)	Did well go dry: Yes	No

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3875 ml = 0.1337 cubic feet

Unit Stability

pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
~~pH~~	0930	0935							
Volume Purged (mL)	1.35	1.45							
Rate (mL/min)	200	200							
Depth to Water (ft.)	10.14	10.14							
pH	6.97	6.97							
Temp. (C)	12.6	12.9							
Conductivity (mS/cm)	1.480	1.492							
Dissolved Oxygen	0.87	0.84							
ORP (mV)	-26.6	-27.4							
Turbidity (NTU)	44.5	35.4							
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	~~3~~	~~STL Canton, OH~~
~~Ethylbenzene, Isopropylbenzene, Xylene~~	~~3~~	~~STL Canton, OH~~
Sample ID: MW93-25	Sample Time: 0940	
MS/MSD:	Yes	No
Duplicate:	Yes	No
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0.0

BTEX 3
PAHs 2
Cyanide 1

NYSEG Goshen, NY

1 of 2

~~HMI Herkimer, NY~~

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: E. Green
Client / Job Number: NYSEG
Weather: 30's Cloudy

Well ID: MW93-2D
Date: 1/8/19
Time In: 1015 Time Out: 1145

Well Information

Depth to Water:	3.53 (from MP)
Total Depth:	31.89 (from MP)
Length of Water Column:	28.36
Volume of Water in Well:	4.62
Three Well Volumes:	13.87

Well Type:	(Flushmount)		Stick-Up
Well Material:	Stainless Steel		(PVC)
Well Locked:	Yes		No
Measuring Point Marked:	Yes		(No)
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	~~Bailer~~	Peristaltic	Grundfos	(Other): Monsoon
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	(Other) Monsoon

Duration of Pumping: 70 (min)
Average Pumping Rate: 325 (ml/min)
Total Volume Removed: 6.0 (gal)
Water-Quality Meter Type: YSI pro
Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	~~gal~~ 1020	1030	1035	1040	1045	1050	1055	1100	1105
Volume Purged (mL)	0	0.3	~~0.5~~ 1.0	1.25	1.75	2.5	3.25	3.7	4.0
Rate (mL/min)	300	200	200	225	225	250	250	250	250
Depth to Water (ft.)	4.55	4.09	4.05	4.04	4.02	4.02	4.00	4.09	4.18
pH	8.60	7.21	7.21	7.22	7.25	7.22	7.24	7.26	7.27
Temp. (C)	13.6	12.9	12.8	13.0	13.4	13.5	13.6	13.3	12.9
Conductivity (mS/cm)	6348	1071	1172	1193	1240	1257	1266	1278	1287
Dissolved Oxygen	9.96	2.44	1.68	1.51	1.83	1.14	1.09	1.04	1.01
ORP (mV)	92.4	105.5	100.4	99.0	96.3	95.9	90.4	89.1	87.4
Turbidity (NTU)	256.4	791.7	481.5	381.4	279.4	148.3	78.4	70.1	90.4
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	3	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	3	~~STL Canton, OH~~
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH
Sample ID: ~~MW93-2D~~	Sample Time: 1135	
MS/MSD: (Yes)	No	
Duplicate: ~~Yes~~	No	
Duplicate ID	Dup. Time:	

MW93-1D MS & MW93-1D MSD

Problems / Observations

PID = 0.0

BTEX 9

PAHs 6

Cyanide 3

NYSEG Goshen, NY

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: EGran **Well ID:** MW93-2D

Client / Job Number: **Date:** 1/8/19

Weather: **Time In:** **Time Out:**

Well Information See Page 1

Depth to Water:	(from MP)
Total Depth:	(from MP)
Length of Water Column:	
Volume of Water in Well:	
Three Well Volumes:	

Well Type:	Flushmount	Stick-Up
Well Material:	Stainless Steel	PVC
Well Locked:	Yes	No
Measuring Point Marked:	Yes	No
Well Diameter:	1" 2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	Other:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Duration of Pumping:	(min)		
Average Pumping Rate:	(ml/min)	Water-Quality Meter Type:	
Total Volume Removed:	(gal)	Did well go dry: Yes	No

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	1110	1115	1120	1125	1135 Sample Time				
Volume Purged (mL)	4.5	5.0	5.5	6.0					
Rate (mL/min)	250	250	250	250					
Depth to Water (ft.)	4.21	4.25	4.30	4.32					
pH	7.27	7.28	7.29	7.92					
Temp. (C)	13.2	12.3	12.6	12.9					
Conductivity (mS/cm)	1.286	1.293	1.285	1.294					
Dissolved Oxygen	6.94	0.90	6.84	0.86					
ORP (mV)	85.0	84.7	85.1	85.1					
Turbidity (NTU)	88.4	76.3	64.7	48.3					
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	2	~~STL Buffalo, NY~~
~~TCL VOCs~~	3	~~STL Canton, OH~~
~~1,1,1 TCA, TCE~~	3	~~STL Canton, OH~~
~~Ethylbenzene, Isopropylbenzene,~~ Xylene	3	~~STL Canton, OH~~
Sample ID: MW93-1D	Sample Time: 1135	
MS/MSD: (Yes)	No	
Duplicate: Yes	No	
Duplicate ID	Dup. Time:	

MW93-1D MS & MW93-1D MSD

Problems / Observations

PID = 0.0

13 TEX 9

PAHs 6

Cyanide 3

NYSEG Oswego, NY
HMI Herkimer, NY
Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Marcelli
Client / Job Number: NYSEG
Weather: 32°F, Cloudy

Well ID: MW-08-055
Date: 01/08/19
Time In: 09:40 **Time Out:** 12:15

Well Information

Depth to Water:	6.85	(from MP)
Total Depth:	18.35	(from MP)
Length of Water Column:	11.5 ft	
Volume of Water in Well:	1.87 gal	
Three Well Volumes:	5.619	

Well Type:	Flushmount		Stick-Up
Well Material:	Stainless Steel		PVC
Well Locked:	Yes		No
Measuring Point Marked:	Yes		No
Well Diameter:	1"	2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other: Monsoon
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	Other: Monsoon

Duration of Pumping: 120 (min) Pump start 10:00
Average Pumping Rate: 200 (ml/min) Water-Quality Meter Type: YSI
Total Volume Removed: 6.19 (gal) Did well go dry: Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	10:10	10:15	10:20	10:25	10:30	10:35	10:40	10:45	10:50
Volume Purged (mL)	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	8.9	9.3	10.4	12.1	12.1	12.1	12.15	13.7	12.7
pH	7.37	7.36	7.34	7.35	7.39	7.40	7.41	7.41	7.41
Temp. (C)	12.3	12.7	13.8	12.8	14.3	14.2	13.7	14.2	12.9
Conductivity (mS/cm)	1.126	1.146	1.171	1.146	1.194	1.202	1.212	1.244	1.210
Dissolved Oxygen	0.06	0.17	0.15	0.22	0.35	0.62	0.82	1.16	0.69
ORP (mV)	62.7	52.5	36.6	21.4	-60.2	-71.9	-72.2	-72.6	-87.6
Turbidity (NTU)	513.1	566.3	602.2	743.6	1345	1352.3	1340.1	1,283	1,423
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	~~3~~	~~STL Canton, OH~~
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH
Sample ID: MW-08-055	Sample Time: ~~N/A~~ 08:00 on 1/9/19	
MS/MSD:	Yes (No)	
Duplicate:	Yes (No)	
Duplicate ID	Dup. Time:	

BTEX 3
PAHs 2
Cyanide 1
PID = 0

Problems / Observations

- Flow changing frequently
- very difficult to stabilize
- well went dry on 1/8/19 at 1200
- well was sampled the following day, 1/9/19 at 0800
- Turbidity was significantly lower when sampled the following day

NYSEG Colton, NY
HMI Herkimer, NY
Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Maxwell, E. Green
Well ID: MW68-055
Client / Job Number:
Date: 01/08/19
Weather: 32°F, cloudy
Time In: 08:40 **Time Out:** 12:15

Well Information

Depth to Water:	6.85 (from MP)
Total Depth:	18.35 (from MP)
Length of Water Column:	11.5
Volume of Water in Well:	1.87 gal
Three Well Volumes:	

Well Type:	(Flushmount)	Stick-Up	
Well Material:	Stainless Steel	(PVC)	
Well Locked:	Yes	(No)	
Measuring Point Marked:	(Yes)	No	
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other: Masterflex
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	Other:

Duration of Pumping: 120 (min) Pump start 10:00
Average Pumping Rate: 200 (ml/min) Water-Quality Meter Type: YSI
Total Volume Removed: 6.19 (gal) Did well go dry: (Yes) No

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3875 ml = 0.1337 cubic feet

Unit Stability

pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	10:55	11:00	11:05	11:10	11:15	11:20	11:25	11:30	11:35
Volume Purged (mL)	11,000	12,000	13,000	14,000	15,000	16,000	17,000	18,000	19,000
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	12.1	12.1	13.4	12.6	12.5	12.4	12.1	12.1	12.1
pH	7.44	7.44	7.45	7.47	7.48	7.48	7.47	7.47	7.48
Temp. (C)	13.6	13.8	13.9	13.5	12.9	12.5	13.1	14.8	14.6
Conductivity (mS/cm)	1.240	1.243	1.256	1.256	1.226	1.226	1.208	1.250	1.[illegible]
Dissolved Oxygen	1.49	1.52	2.07	2.67	2.70	2.67	2.64	2.82	4.03
ORP (mV)	-78.6	-78.7	-80.9	-80.4	-77.2	-76.1	-74.9	-74.0	-84.8
Turbidity (NTU)	1,682.7	1,046.5	646.4	593.4	538.2	516.8	477.8	312.9	142.3
Notes:									

Sampling Information

Analyses	#	Laboratory
TCL PCBs	2	STL Buffalo, NY
TCL VOCs	3	STL Canton, OH
1,1,1-TCA, TCE	3	STL Canton, OH
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH
Sample ID: MW68-055	Sample Time: N/A	08:00 on 1/9/18
MS/MSD: Yes	No	
Duplicate: Yes	No	
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0 - Flow changing Frequently
- Very difficult to Stabilize

NYSEG Goheen, NY
HMI Herkimer, NY
Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Maxwell, E. Green
Client / Job Number:
Weather: 32°F, Cloudy
Well ID: MW08-055
Date: 01/08/19
Time In: 09:14 **Time Out:** 12:15

Well Information

Depth to Water:	6.85 (from MP)
Total Depth:	18.35 (from MP)
Length of Water Column:	11.6 Ft
Volume of Water in Well:	1.892 gal
Three Well Volumes:	

Well Type:		Flushmount	Stick-Up
Well Material:		Stainless Steel	PVC
Well Locked:		Yes	No
Measuring Point Marked:		Yes	No
Well Diameter:	1"	2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other: Marsden
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	Other:
Duration of Pumping:	(min)	Pump Start 10:00		
Average Pumping Rate:	200 (ml/min)	Water-Quality Meter Type:		YSI
Total Volume Removed:	6.19 (gal)	Did well go dry:	Yes	No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L = 3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	11:40	11:45	11:50	11:55	12:00	12:05	~~12:10~~	Sample 08:00 1/9/19	
Volume Purged (mL)	20,000	21,000	22,000	23,000	24,000	25,000			
Rate (mL/min)	200	200	200	200	200	200			
Depth to Water (ft.)	12.1	12.1	14.6	16.8	18.35				
pH	7.49	7.51	7.46	7.62				~~6.79~~ 6.79	
Temp. (C)	14.3	15.9	15.0	15.5				9.1	
Conductivity (mS/cm)	1.276	1.312	1.269	1.261				1.69	
Dissolved Oxygen	4.23	4.40	2.76	3.91				4.74	
ORP (mV)	-84.7	-91.8	-60.6	-73.6				30.9	
Turbidity (NTU)	165.3	165.8	1,837.4	2,000				52.6	
Notes:		- Flow Stopped - Reset Pump			- well went Dry				

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	3	~~STL Canton, OH~~
~~1,1,1 TCA, TCE~~	3	~~STL Canton, OH~~
Ethylbenzene, ~~Isopropylbenzene,~~ ~~Xylene~~	3	~~STL Canton, OH~~
Sample ID: MW08-055	Sample Time: ~~12:15~~ 08:00 1/9/19	
MS/MSD: Yes	No	
Duplicate: Yes	No	
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0
- Flow changing Frequently
- very difficult to Stabilize
- well went dry 01/08/19 @ 12:00
- Will try again on 01/09/19.
- Resampled by bailing 01/09/19 @ 08:00

NYSEG Goshen, NY

1 of 2

~~HMI Herkimer, NY~~

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Maxwell, E. Green
Client / Job Number: NYSEG
Weather: 34°F, cloudy
Well ID: MW08-05D
Date: 01/08/19
Time In: 13.00 **Time Out:** 14.46

Well Information

Depth to Water:	3.65 (from MP)
Total Depth:	36 (from MP)
Length of Water Column:	32.35 ft
Volume of Water in Well:	5.27 gal
Three Well Volumes:	

Well Type:		(Flushmount)	Stick-Up
Well Material:	Stainless Steel		(PVC)
Well Locked:		Yes	(No)
Measuring Point Marked:		(Yes)	No
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	(Other: Monsoon)
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	(Other: Monsoon)

Duration of Pumping: 85 (min) Start Pump: 13:10
Average Pumping Rate: 200 (ml/min) Water-Quality Meter Type: YSI Pro
Total Volume Removed: 4.39 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	13:20	13:25	13:30	13:35	13:40	13:45	13:50	13:55	14:00
Volume Purged (mL)	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	4.3	4.1	3.8	3.7	3.7	3.65	3.65	3.65	3.65
pH	7.47	7.44	7.45	7.45	7.45	7.44	7.44	7.44	7.44
Temp. (C)	11.8	12.9	13.3	12.4	12.0	13.0	13.1	12.9	13.0
Conductivity (mS/cm)	1.267	1.331	1.341	1.320	1.321	1.316	1.314	1.315	1.316
Dissolved Oxygen	1.93	0.46	0.20	0.18	0.15	0.57	0.80	0.68	0.62
ORP (mV)	2.1	-52.7	-81.2	-84.2	-90.2	-91.7	-92.8	-96.8	-100.2
Turbidity (NTU)	358.5	165.7	156.3	127.9	97.9	89.8	91.3	94.4	83.2
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	~~3~~	~~STL Canton, OH~~
Ethylbenzene, ~~Isopropylbenzene,~~ Xylene	~~3~~	~~STL Canton, OH~~
Sample ID: MW08-05D	Sample Time: 14:35	
MS/MSD: Yes (No)		
Duplicate: Yes (No)		
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0.0

BTEX 3
PAHs 2
Cyanide 1

2of2 back

NYSEG Goshen, NY

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: J Maxwell **Well ID:** MW08-058

Client / Job Number: **Date:**

Weather: **Time In:** **Time Out:**

Well Information See page 1

Depth to Water:	(from MP)
Total Depth:	(from MP)
Length of Water Column:	
Volume of Water in Well:	
Three Well Volumes:	

Well Type:	Flushmount	Stick-Up	
Well Material:	Stainless Steel	PVC	
Well Locked:	Yes	No	
Measuring Point Marked:	Yes	No	
Well Diameter:	1"	2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	Other:

Duration of Pumping:	(min)		
Average Pumping Rate:	(ml/min)	Water-Quality Meter Type:	
Total Volume Removed:	(gal)	Did well go dry: Yes	No

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3875 ml = 0.1337 cubic feet

Unit Stability

pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	1405	1410	1415	1420	1425	1430	1435	Sample Time	
Volume Purged (mL)	11000	12000	13000	14000	15000	16000	17000		
Rate (mL/min)	200	200	200	200	200	200	200		
Depth to Water (ft.)	3.65	3.65	3.65	3.65	3.65	3.65	3.65		
pH	7.43	7.44	7.44	7.44	7.44	7.44			
Temp. (C)	13.2	12.8	12.5	12.5	12.5	12.5			
Conductivity (mS/cm)	1.322	1.312	1.310	1.315	1.305	1.299			
Dissolved Oxygen	0.65	0.61	0.43	0.43	0.42	0.41			
ORP (mV)	-102.2	-106.2	-110.8	-110.9	-111.1	-111.8			
Turbidity (NTU)	70.2	56.0	54.3	46.8	46.6	45.8			
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	3	STL Canton, OH
~~1,1,1 TCA, TCE~~	~~3~~	~~STL Canton, OH~~
Ethylbenzene, ~~Isopropylbenzene~~, Xylene	3	STL Canton, OH

Sample ID: MW08-058 Sample Time: 1435

MS/MSD: Yes No

Duplicate: Yes No

Duplicate ID Dup. Time:

Problems / Observations

PID = 0.0

BTEX 3

PAHs 2

Cyanide 1

NYSEG Goshen NY

~~HMI Herkimer, NY~~

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: EGrey | **Well ID:** MW08-06S
Client / Job Number: NYSEG | **Date:** 1/9/19
Weather: 40's Overcast | **Time In:** 843 **Time Out:** 0940

Well Information

Depth to Water:	8.05	(from MP)
Total Depth:	19.85	(from MP)
Length of Water Column:	11.8	
Volume of Water in Well:	1.92	
Three Well Volumes:	5.77	

Well Type:		(Flushmount)	Stick-Up
Well Material:	Stainless Steel		(PVC)
Well Locked:	Yes		(No)
Measuring Point Marked:		(Yes)	No
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	(Other): Monsoon
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	(Other) Monsoon

Duration of Pumping: 40 (min)
Average Pumping Rate: 175 (ml/min) Water-Quality Meter Type: YSI Pro
Total Volume Removed: 2.0 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter: ~~Gal~~	1	2	3	4	5	6	7	8	9
	0850	0900	0905	0910	0915	0920	0925	0930	0935 Sample Time
Volume Purged (mL)	0	0.3	0.55	0.8	1.15	1.35	1.60	1.75	
Rate (mL/min)	225	175	200	200	175	150	175	150	
Depth to Water (ft.)	6.74	9.00	9.31	9.62	9.79	9.83	9.85	9.86	
pH	7.00	6.76	6.76	6.76	6.76	6.77	6.77	6.76	
Temp. (C)	12.1	11.6	11.9	12.0	11.9	12.1	11.9	11.8	
Conductivity (mS/cm)	1476	1524	1535	1531	1533	1513	1506	1498	
Dissolved Oxygen	4.04	2.70	2.17	1.94	1.75	1.70	1.66	1.68	
ORP (mV)	89.9	-6.7	-37.2	-51.1	-57.5	-58.9	-60.7	-60.4	
Turbidity (NTU)	191.4	106.3	72.1	45.1	33.9	25.6	15.1	13.5	
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	2	~~STL Buffalo, NY~~
TCL ~~VOCs~~	3	STL Canton, OH
1,1,1-TCA, TCE	3	STL Canton, OH
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH
Sample ID: MW08-06S	Sample Time: 0935	
MS/MSD: Yes	(No)	
Duplicate: Yes	(No)	
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0.0
BTEX 3
PAHs 2
Cyanide 1

NYSEG Goshen, NY

~~HMI Herkimer, NY~~

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: E Green
Client / Job Number: NYSEG
Weather: 40's Overcast
Well ID: MW08-06D
Date: 1/9/19
Time In: 1000 **Time Out:** 1100

Well Information

Depth to Water:	2.79	(from MP)
Total Depth:	2. 40.13	(from MP)
Length of Water Column:	37.34	
Volume of Water in Well:	6.06	
Three Well Volumes:	18.26	

Well Type:		(Flushmount)	Stick-Up
Well Material:	Stainless Steel		(PVC)
Well Locked:	Yes		(No)
Measuring Point Marked:	Yes		(No)
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	(Other: Monsoon)
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	(Other: Monsoon)

Duration of Pumping: 50 (min)
Average Pumping Rate: 250 (ml/min)
Total Volume Removed: 3.5 (gal)
Water-Quality Meter Type: YSI PRO
Did well go dry: Yes (No)

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3875 ml = 0.1337 cubic feet

Unit Stability

pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	1000	1010	1015	1020	1025	1030	1035	1040	1045
Volume Purged (mL)	0	0.4	1.0	1.4	1.75	2.2	2.6	2.95	3.3
Rate (mL/min)	350	275	275	250	250	250	250	250	250
Depth to Water (ft.)	3.30	3.07	2.96	2.94	2.95	2.95	3.01	3.04	3.03
pH	7.14	6.97	6.97	6.97	6.97	6.97	6.97	6.97	6.97
Temp. (C)	12.3	12.2	12.1	12.1	12.0	12.3	12.4	12.5	12.3
Conductivity (mS/cm)	0.47	1.155	1.144	1.144	1.155	1.155	1.159	1.157	1.159
Dissolved Oxygen	3.77	1.34	1.50	1.46	1.21	1.13	1.00	1.00	0.97
ORP (mV)	20.7	-12.4	-1.9	1.7	-11.8	-18.4	-26.7	-29.1	-29.8
Turbidity (NTU)	1000+	820.1	425.3	241.7	74.5	56.1	16.6	24.3	6.7
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	~~3~~	~~STL Canton, OH~~
~~Ethylbenzene, Isopropylbenzene,~~ Xylene	~~3~~	~~STL Canton,~~ OH
Sample ID: MW08-06D	Sample Time: 1050	
MS/MSD: Yes (No)		
Duplicate: Yes (No)		
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0.0

BTEX 3
PAHs 2
Cyanide 1

NYSEG Goshen, NY

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: J Maxwell
Well ID: MW08-07S
Client / Job Number: NYSEG
Date: 1/9/14
Weather: 40's Cloudy
Time In: 0820 **Time Out:** 1120

Well Information

Depth to Water:	6.2	(from MP)
Total Depth:	15.1	(from MP)
Length of Water Column:	8.9	
Volume of Water in Well:	0.35	
Three Well Volumes:	1.17	

Well Type:	(Flushmount)		~~Stick-Up~~
Well Material:	Stainless Steel		(PVC)
Well Locked:	Yes		(No)
Measuring Point Marked:	Yes		(No)
Well Diameter:	(1")	2"	Other:

Purging Information

Purging Method:	Bailer	(Peristaltic)	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	(Peristaltic)	Grundfos	Other:

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Duration of Pumping: 15 (min)

Average Pumping Rate: 200 (ml/min) Water-Quality Meter Type: YSI pro

Total Volume Removed: 1.05 (gal) Did well go dry: (Yes) No

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	0840	0845		1120 Sample Time					
Volume Purged (mL)	2000	3000							
Rate (mL/min)	200								
Depth to Water (ft.)	14.3								
pH	7.41								
Temp. (C)	12.4								
Conductivity (mS/cm)	1.625								
Dissolved Oxygen	0.15								
ORP (mV)	62.7								
Turbidity (NTU)	888.2								
Notes:		*well dry							

Sampling Information

Analyses	#	Laboratory
TCL PCBs	2	STL Buffalo, NY
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	~~3~~	~~STL Canton, OH~~
Ethylbenzene, ~~Isopropylbenzene,~~ Xylene	3	STL Canton, OH
Sample ID: MW08-07S	Sample Time: 1120	
MS/MSD: Yes (No)		
Duplicate: Yes (No)		
Duplicate ID	Dup. Time:	

PID = 0.0

BTEX 3

PAHs 2

Cyanide 1

Problems / Observations

- Well went dry after 15 minutes of pumping
- Water is very turbid
- Well Sampled 2 hours after going dry

NYSEG Goshen, NY

~~HMI Herkimer, NY~~

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Maxwell, E. Green **Well ID:** MW08-07SD
Client / Job Number: NYSEG **Date:** 01/09/19
Weather: 32°F, Cloudy **Time In:** 09:23 **Time Out:** 1030

Well Information

Depth to Water:	7.1 (from MP)
Total Depth:	35.4 ft (from MP)
Length of Water Column:	28.3 ft
Volume of Water in Well:	4.61 gal
Three Well Volumes:	13.83

Well Type:	(Flushmount)		Stick-Up
Well Material:	Stainless Steel		(PVC)
Well Locked:	Yes		(No)
Measuring Point Marked:	(Yes)		No
Well Diameter:	(1")	2"	Other:

Purging Information

Purging Method:	Bailer	(Peristaltic)	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	(Peristaltic)	Grundfos	Other:

Duration of Pumping: 55 (min) Start Pump. 09:30
Average Pumping Rate: 150 (ml/min) Water-Quality Meter Type: YSI
Total Volume Removed: 2.13 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9	Sample Time
	09:40	09:45	09:50	09:55	10:00	10:05	10:10	10:15	10:20	10:25
Volume Purged (mL)	1,500	2,250	3,000	3,750	4,500	5,250	6,000	6,750	7,500	7,250
Rate (mL/min)	150	150	150	150	150	150	150	150	150	150
Depth to Water (ft.)	10.3	10.4	8.4	7.1	7.1	7.1	7.1	7.1	7.1	7.1
pH	7.04	7.04	7.03	7.06	7.03	7.05	7.04	7.04	7.04	7.04
Temp. (C)	11.3	11.6	11.3	11.4	11.2	11.2	11.2	11.2	11.2	11.2
Conductivity (mS/cm)	1.468	1.480	1.467	1.470	1.464	1.456	1.460	1.458	1.461	1.46
Dissolved Oxygen	0.75	0.49	0.40	0.36	0.30	0.29	0.29	0.27	0.27	0.27
ORP (mV)	67.7	123.6	111.4	107.3	102.0	96.9	97.7	95.5	96.1	96.5
Turbidity (NTU)	478.8	344.2	265.2	150.8	101.4	82.5	45.5	43.8	41.9	38.6
Notes:										

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	2	STL Buffalo, NY
~~TCL VOCs~~	3	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	3	~~STL Canton, OH~~
~~Ethylbenzene, Isopropylbenzene, Xylene~~	3	~~STL Canton, OH~~

Sample ID: MW08-07S Sample Time: 10:25
MS/MSD: Yes (No)
Duplicate: Yes (No)
Duplicate ID Dup. Time:

BTEX 3
PAHs 2
Cyanide 1

Problems / Observations

PID = 0 - well in good condition

Note: MW08-07S on back

NYSEG Goshen, NY
~~HMI Herkimer, NY~~

Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel:	J. Maxwell, E. Green	Well ID:	MW-08-05
Client / Job Number:	NYSEG	Date:	01/08/19
Weather:	28°F, Cloudy	Time In: 08:20	Time Out: 9:36

Well Information

Depth to Water:	6.55	(from MP)
Total Depth:	12.45	(from MP)
Length of Water Column:	5.9 ft	
Volume of Water in Well:	0.96 gal	
Three Well Volumes:	2.88	

Well Type:	(Flushmount)	Stick-Up	
Well Material:	Stainless Steel	(PVC)	
Well Locked:	Yes	(No)	
Measuring Point Marked:	Yes	(No)	
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	(Other) Monsoon
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	(Other) Monsoon

Duration of Pumping: 50 (min) Pump Start 08:30

Average Pumping Rate: 200 (ml/min) Water-Quality Meter Type: YSI

Total Volume Removed: 2.58 (gal) Did well go dry: Yes (No)

Conversion Factors	1" ID	2" ID	4" ID	6" ID
gal / ft. of water	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1 08:40	2 08:45	3 08:50	4 08:55	5 09:00	6 09:05	7 09:10	8 09:15	9 09:20 (sample time)
Volume Purged (mL)	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
Rate (mL/min)	200	200	200	200	200	200	200	200	200
Depth to Water (ft.)	6.5	6.5	6.55	6.55	6.55	6.55	6.55	6.55	
pH	7.01	7.01	7.01	7.00	7.00	7.00	7.00	7.00	
Temp. (C)	10.4	10.3	10.6	10.5	10.7	10.5	10.9	11.0	
Conductivity (mS/cm)	3.073	3.075	3.117	3.121	3.147	3.154	3.179	3.178	
Dissolved Oxygen	0.34	0.31	0.25	0.16	0.14	0.11	0.08	0.08	
ORP (mV)	147.2	148.1	124.2	93.1	85.5	74.7	68.4	66.9	
Turbidity (NTU)	164.0	99.4	48.0	18.0	11.4	8.5	11.7	11.4	
Notes:									

Sampling Information

Analyses	#	Laboratory
TCL PCBs	2	STL Buffalo, NY
TCL VOCs	3	STL Canton, OH
1,1,1-TCA, TCE	3	STL Canton, OH
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH
Sample ID: MW-08-05	Sample Time: 09:20	
MS/MSD:	Yes (No)	
Duplicate:	Yes (No)	
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0.0

NYSEG Goshen, NY
~~HMI Herkimer, NY~~
Site

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Maxwell, C. Green
Client / Job Number: NYSEG
Weather: 27°F, Cloudy
Well ID: MW19-08D
Date: 01/07/19
Time In: 15:00 **Time Out:** 18:00

Well Information

Depth to Water:	7.1 ft (from MP)
Total Depth:	37.19 (from MP)
Length of Water Column:	30.09
Volume of Water in Well:	4.9 gal
Three Well Volumes:	14.7

Well Type:	Flushmount	(Stick-Up)	
Well Material:	Stainless Steel	(PVC)	
Well Locked:	(Yes)	No	
Measuring Point Marked:	(Yes)	No	
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	(Other: Masterflex)
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	(Other: Masterflex)

Duration of Pumping: 135 (min) Start Pump 15:10
Average Pumping Rate: 150 (ml/min) Water-Quality Meter Type: YSI
Total Volume Removed: 5.5 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	15:20	15:25	15:30	15:35	15:40	15:45	15:50	15:55	16:00
Volume Purged (mL)	1500	2,250	3,000	3,750	4,500	5,250	6,000	6,750	7,500
Rate (mL/min)	150	150	150	150	150	150	150	150	150
Depth to Water (ft.)	7.1	7.1	7.25	7.4	7.4	7.4	7.4	7.35	7.4
pH	7.79	7.73	7.66	7.59	7.50	7.49	7.44	7.43	7.40
Temp. (C)	7.7	9.5	10.6	8.4	9.1	8.3	7.7	9.8	10.0
Conductivity (mS/cm)	1.670	1.709	1.698	1.719	1.724	1.686	1.652	1.701	1.711
Dissolved Oxygen	0.71	0.41	0.21	0.12	0.08	0.06	0.06	0.07	0.05
ORP (mV)	38.6	1.5	-52.1	-129.7	-220.7	-252.1	-280	-336.1	-374.7
Turbidity (NTU)	2,851	2,422	2,880	2,945	2,950	2,750	2,542	2,973	2,625
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	3	~~STL Canton, OH~~
~~Ethylbenzene, Isopropylbenzene,~~ Xylene	3	~~STL Canton, OH~~
Sample ID: MW19-08D	Sample Time: 17:05	
MS/MSD: Yes (No)		
Duplicate: Yes (No)		
Duplicate ID	...p. Time	

PID = 0

BTEX 3
PAHs 2
Cyanide 1

Problems / Observations

- Took very long to stabilize

NYSEG Goshen, NY

~~HMI Herkimer, NY~~

Site

2 of 3

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Maxwell, E. Green
Well ID: MW18-08D
Client / Job Number:
Date: 01/07/19
Weather: 27°F, cloudy
Time In: 15:00 **Time Out:** 18:00

Well Information

Depth to Water:	7.1 (from MP)
Total Depth:	37.19 (from MP)
Length of Water Column:	30.09
Volume of Water in Well:	4.9 (gal)
Three Well Volumes:	

Well Type:	Flushmount	(Stick-Up)	
Well Material:	Stainless Steel	(PVC)	
Well Locked:	(Yes)	No	
Measuring Point Marked:	(Yes)	No	
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other: Monsoon
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	Other:

Duration of Pumping: 135 (min) Start Pump 15:10
Average Pumping Rate: 60 (ml/min) Water-Quality Meter Type: YSI
Total Volume Removed: ~~2,355~~ 55 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	16:05	16:10	16:15	16:20	16:25	16:30	16:35	16:40	16:45
Volume Purged (mL)	8,250	9,000	9,750	10,500	11,250	12,000	12,750	13,500	14,250
Rate (mL/min)	150	150	150	150	150	150	150	150	150
Depth to Water (ft.)	7.3	7.3	7.25	7.25	7.2	7.2	7.2	7.1	7.1
pH	7.35	7.32	7.30	7.25	7.22	7.19	7.16	7.15	7.15
Temp. (C)	10.5	11.7	12.1	11.5	11.8	11.1	11.7	11.0	12.3
Conductivity (mS/cm)	1.703	1.733	1.724	1.656	1.623	1.562	1.558	1.514	1.553
Dissolved Oxygen	0.02	0.02	0.02	0	0	-0.01	-0.01	-0.01	-0.01
ORP (mV)	-419	-408	-428.6	-419.3	-427	-407	-399.6	-379.1	-370.8
Turbidity (NTU)	2,350	2,408.1	1,700	1618.1	1,349.1	1,034.1	962.5	690.1	450.9
Notes:									

Sampling Information

Analyses	#	Laboratory
TCL PCBs	2	STL Buffalo, NY
TCL VOCs	3	STL Canton, OH
1,1,1-TCA, TCE	3	STL Canton, OH
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH

Sample ID: MW18-08D Sample Time: 17:25
MS/MSD: Yes (No)
Duplicate: Yes (No)
Duplicate ID Dup. Time:

BTEX 3
PAHs 2
Cyanide 1

Problems / Observations

PID = 0 – Took long to stabilize

NYSEG Goshen, NY

~~HMI Herkimer, NY~~

Site

3 of 3

Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: J. Maxwell, E. Green
Well ID: MW18-08D
Client / Job Number:
Date: 01/07/19
Weather: 27°F, cloudy
Time In: 1500 **Time Out:**

Well Information

Depth to Water:	7.1	(from MP)
Total Depth:	37.19	(from MP)
Length of Water Column:	30.09	
Volume of Water in Well:	4.9	
Three Well Volumes:		

Well Type:	Flushmount		(Stick-Up)
Well Material:	Stainless Steel		(PVC)
Well Locked:	(Yes)		No
Measuring Point Marked:	(Yes)		No
Well Diameter:	1"	(2")	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other: Monsoon
Tubing/Bailer Material:	St. Steel	(Polyethylene)	Teflon	Other:
Sampling Method:	(Bailer (VOCs))	Peristaltic	Grundfos	Other:

Duration of Pumping: 135 (min) Start Pump 1511
Average Pumping Rate: 150 (ml/min) Water-Quality Meter Type: YSI
Total Volume Removed: 5.5 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	1650	1655	1700	1705	1710	1715	1720	1725	
Volume Purged (mL)	15,000	15,750	16,500	17,250	18,000	19,750	20,500	Sample Time	
Rate (mL/min)	150	150	150	150	150	150	150		
Depth to Water (ft.)	7.1	7.1	7.1	7.1	7.1	7.1	7.1		
pH	7.14	7.13	7.13	7.12	7.13	7.13	7.12		
Temp. (C)	12.2	12.2	10.5	11.8	11.7	11.7	11.7		
Conductivity (mS/cm)	1.533	1.532	1.456	1.504	1.483	1.482	1.483		
Dissolved Oxygen	-0.02	-0.02	-0.03	-0.02	-0.02	-0.02	-0.02		
ORP (mV)	-374.6	-373.1	-343	-330	-328.3	-328.1	-327.9		
Turbidity (NTU)	314.6	273.8	184.1	120.1	47.6	48.2	49.3		
Notes:									

Sampling Information

Analyses	#	Laboratory
TCL PCBs	2	STL Buffalo, NY
TCL VOCs	3	STL Canton, OH
1,1,1-TCA, TCE	3	STL Canton, OH
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH
Sample ID: MW18-08D	Sample Time: 1725	
MS/MSD: Yes (No)		
Duplicate: Yes (No)		
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0

- Took long to stabilize

NYSEG Goshen, NY

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: J Maxwell
Well ID: MW18-045
Client / Job Number: NYSEG
Date: 1/7/19
Weather: 30's Cloudy
Time In: 1310 **Time Out:** 1440

Well Information

Depth to Water:	12.4 (from MP)
Total Depth:	22.52 (from MP)
Length of Water Column:	10.12
Volume of Water in Well:	1.65
Three Well Volumes:	4.95

Well Type:	Flushmount		Stick-Up
Well Material:	Stainless Steel		PVC
Well Locked:		Yes	No
Measuring Point Marked:		Yes	No
Well Diameter:	1"	2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other Monsoon
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	Other Monsoon

Duration of Pumping: 90 (min)
Average Pumping Rate: 150 (ml/min) Water-Quality Meter Type: YSI Pro
Total Volume Removed: 2.17 (gal) Did well go dry: Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	1345	1350	1355	1400	1405	1410	1415	1420	1425
Volume Purged (mL)	0.3	0.45	0.6	0.75	0.9	1.10	1.25	1.45	1.65
Rate (mL/min)	150	150	150	150	150	150	150	150	150
Depth to Water (ft.)	12.45	12.46	12.41	12.38	12.41	12.48	12.46	12.46	12.48
pH	6.95	6.96	6.96	6.93	6.91	6.90	6.90	6.90	6.90
Temp. (C)	8.4	7.4	10.1	10.0	10.0	10.3	9.9	10.8	10.4
Conductivity (mS/cm)	1.577	2.272	1.632	1.655	1.679	1.710	1.712	1.741	1.742
Dissolved Oxygen	1.51	1.43	1.32	1.04	0.93	0.71	0.59	0.56	0.57
ORP (mV)	189.8	201.8	204.2	205.1	205.3	206.4	207.8	207.8	208.2
Turbidity (NTU)	735	731	416	136.4	99.0	65.2	58.1	43.3	44.1
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
~~1,1,1-TCA, TCE~~	~~3~~	~~STL Canton, OH~~
Ethylbenzene, ~~Isopropylbenzene~~, Xylene	3	~~STL Canton, OH~~
Sample ID: MW18-045	Sample Time: 1430	
MS/MSD: Yes No		
Duplicate: Yes No		
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 6.0

BTEX 3
PAHs 2
Cyanide 1

NYSEG Goshen, NY

1 of 2

~~HMI Herkimer, NY~~

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: Evan Green
Client / Job Number: NYSEG
Weather: 30's Overcast

Well ID: MW18-04D
Date: ~~5~~ 1/7/19
Time In: 1336 **Time Out:** 1520

Well Information

Depth to Water:	7.96	(from MP)
Total Depth:	42.1	(from MP)
Length of Water Column:	34.14	
Volume of Water in Well:	5.56	
Three Well Volumes:	16.69	

Well Type:	Flushmount		Stick-Up
Well Material:	Stainless Steel		PVC
Well Locked:	Yes		No
Measuring Point Marked:	Yes		No
Well Diameter:	1"	2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other: Monsoon
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	Other: Monsoon

Duration of Pumping: 100 (min)
Average Pumping Rate: 175 (ml/min)
Total Volume Removed: 9.5 (gal)
Water-Quality Meter Type: YSI Pro
Did well go dry: Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3875 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter:	1	2	3	4	5	6	7	8	9
	1340	1345	1350	1355	1400	1405	1410	1415	1420
Volume Purged (mL)	0	1.0	1.5	2.0	2.75	3.25	4.0	4.25	5.0
Rate (mL/min)	400	175	150	150	175	200	175	200	175
Depth to Water (ft.)	11.94	11.85	11.40	11.36	11.35	11.33	11.21	11.11	11.09
pH	7.74	7.96	7.96	7.74	7.71	7.70	7.66	7.66	7.65
Temp. (C)	12.2	11.2	10.5	12.0	11.3	11.3	11.4	11.7	11.7
Conductivity (mS/cm)	0.792	0.799	0.792	0.795	0.795	0.797	0.794	0.806	0.815
Dissolved Oxygen	1.74	0.66	0.79	0.69	0.66	0.66	0.68	0.63	0.62
ORP (mV)	-303.9	-380.3	-424.1	-499.6	-501.4	-497.6	-499.7	-491.8	-486.5
Turbidity (NTU)	62.2	930.6	1010	1031	576.1	503.1	356.6	555.5	471.3
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
1,1,1-TCA, TCE	3	STL Canton, OH
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH
Sample ID: MW18-04D	Sample Time: 1515	
MS/MSD: Yes	No	
Duplicate: Yes	No	
Duplicate ID	Dup. Time:	

Problems / Observations

PID = 0.0 ppm headspace

BTEX 3

PAHs 2

Cyanide 1

NYSEG Goshen, NY 2 of 2

~~HMI Herkimer, NY~~

Site *Event*

GROUNDWATER SAMPLING LOG

Sampling Personnel: EGreen **Well ID:** MW18-04D

Client / Job Number: **Date:**

Weather: **Time In:** **Time Out:**

Well Information See page 1

Depth to Water:	(from MP)
Total Depth:	(from MP)
Length of Water Column:	
Volume of Water in Well:	
Three Well Volumes:	

Well Type:	Flushmount	Stick-Up	
Well Material:	Stainless Steel	PVC	
Well Locked:	Yes	No	
Measuring Point Marked:	Yes	No	
Well Diameter:	1"	2"	Other:

Purging Information

Purging Method:	Bailer	Peristaltic	Grundfos	Other:
Tubing/Bailer Material:	St. Steel	Polyethylene	Teflon	Other:
Sampling Method:	Bailer (VOCs)	Peristaltic	Grundfos	Other:

Duration of Pumping:	(min)		
Average Pumping Rate:	(ml/min)	Water-Quality Meter Type:	
Total Volume Removed:	(gal)	Did well go dry: Yes	No

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3875 ml = 0.1337 cubic feet

Unit Stability

pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

Time: / Parameter: ~~SG~~	1	2	3	4	5	6	7	8	9
	1425	1430	1435	1440	1445	1450	1455	1500	1505
Volume Purged (mL)	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5
Rate (mL/min)	200	200	200	200	175	175	175	175	175
Depth to Water (ft.)	11.25	11.32	11.34	11.39	11.36	11.35	11.36	11.37	11.38
pH	7.63	7.62	7.63	7.61	7.61	7.61	7.60	7.60	
Temp. (C)	12.0	11.9	12.0	12.0	11.8	11.6	11.7	11.7	11.6
Conductivity (mS/cm)	0.813	0.817	0.818	0.816	0.815	0.817	0.816	0.817	0.816
Dissolved Oxygen	0.59	0.58	0.58	0.58	0.58	0.58	0.56	0.56	0.56
ORP (mV)	-492.6	-486.1	-480.9	-478.1	-469.3	-466.3	-470.8	-466.1	-466.5
Turbidity (NTU)	287.1	211.8	149.4	141.2	106.4	81.2	63.3	55.1	42.2
Notes:									

Sampling Information

Analyses	#	Laboratory
~~TCL PCBs~~	~~2~~	~~STL Buffalo, NY~~
~~TCL VOCs~~	~~3~~	~~STL Canton, OH~~
1,~~1~~ ~~TCA~~, TCE	3	STL Canton, ~~OH~~
Ethylbenzene, Isopropylbenzene, Xylene	3	STL Canton, OH
Sample ID: MW18-04D	Sample Time: 1515	
MS/MSD: Yes (No)		
Duplicate: Yes (No)		
Duplicate ID	Dup. Time:	

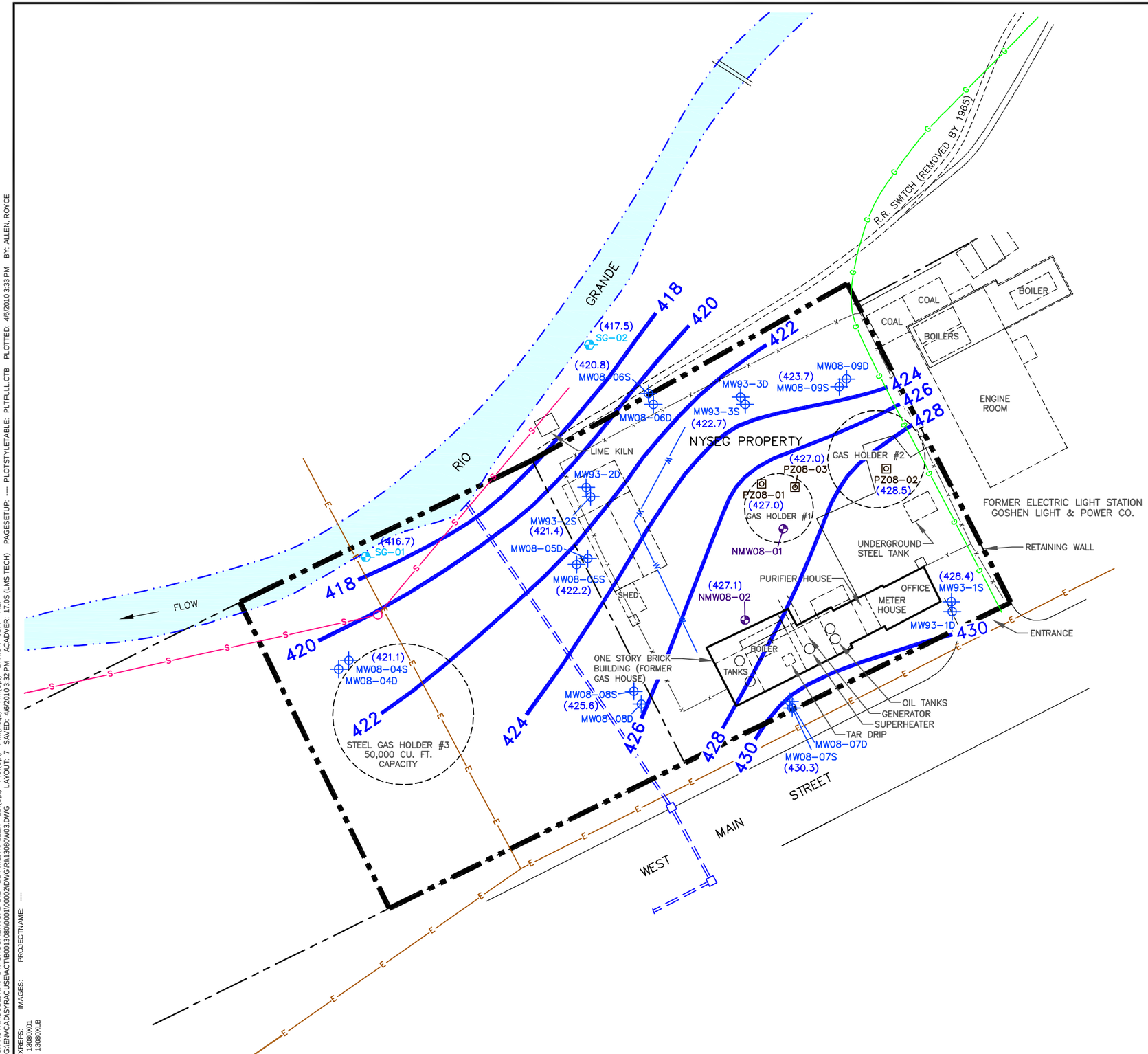
Problems / Observations

PID =

See page 1

ATTACHMENT 3

Remedial Investigation Potentiometric Surface Maps



LEGEND:

- MW08-05D — MONITORING WELL LOCATION
- NMW08-01 — NAPL MONITORING WELL LOCATION
- PZ08-02 — PIEZOMETER LOCATION
- SG-01 — STAFF GAUGE LOCATION
- (421.4) — WATER TABLE ELEVATION
- 422 — WATER TABLE ELEVATION CONTOUR
- FORMER STRUCTURE (1889–1945)
- NYSEG PROPERTY LINE (SITE)
- G — GAS LINE
- W — WATER LINE
- S — SEWER LINE
- E — ELECTRIC LINE
- STORM LINE
- PROPERTY LINE
- FENCE LINE

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. LOCATIONS OF FORMER STRUCTURES ARE BASED ON SANBORN FIRE INSURANCE MAPS FROM 1889 THROUGH 1939.

0 40' 80'

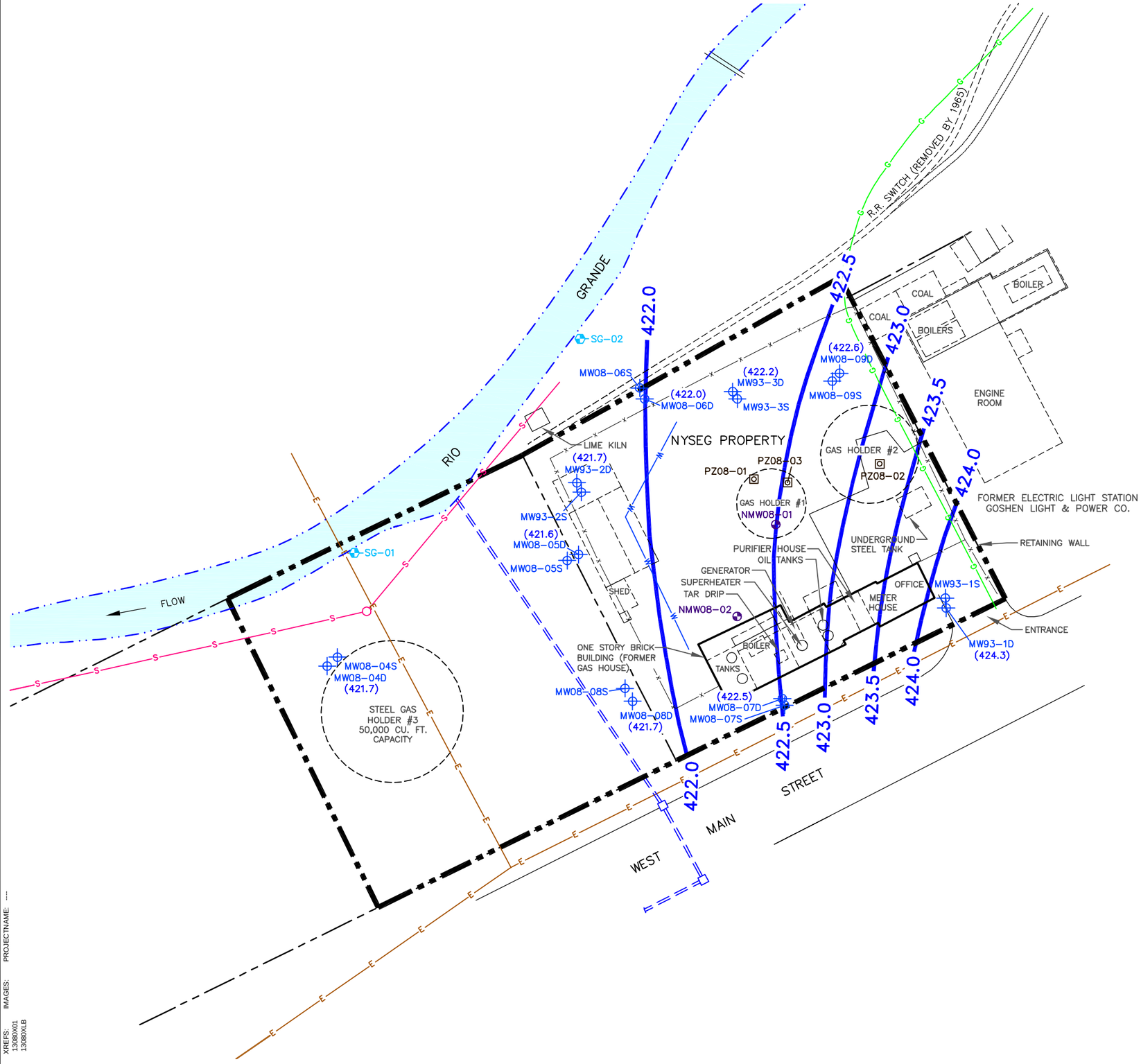
GRAPHIC SCALE

NEW YORK STATE ELECTRIC AND GAS CORPORATION
ORANGE COUNTY, NEW YORK
GOSHEN FORMER MGP SITE
REMEDIAL INVESTIGATION

WATER TABLE MARCH 30, 2009

ARCADIS

FIGURE 7



LEGEND:

MW08-05D	MONITORING WELL LOCATION
NMW08-01	NAPL MONITORING WELL LOCATION
PZ08-02	PIEZOMETER LOCATION
SG-01	STAFF GAUGE LOCATION
(422.5)	POTENTIOMETRIC SURFACE ELEVATION
422.5	POTENTIOMETRIC SURFACE CONTOURS
	FORMER STRUCTURE (1889-1945)
	NYSEG PROPERTY LINE (SITE)
G	GAS LINE
W	WATER LINE
S	SEWER LINE
E	ELECTRIC LINE
	STORM LINE
	PROPERTY LINE
x	FENCE LINE

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. LOCATIONS OF FORMER STRUCTURES ARE BASED ON SANBORN FIRE INSURANCE MAPS FROM 1889 THROUGH 1939.

0 40' 80'

GRAPHIC SCALE

NEW YORK STATE ELECTRIC AND GAS CORPORATION
ORANGE COUNTY, NEW YORK
GOSHEN FORMER MGP SITE
REMEDIAL INVESTIGATION

DEEP OVERBURDEN POTENTIOMETRIC SURFACE MARCH 30, 2009

ARCADIS

FIGURE **8**

ATTACHMENT 4

Groundwater Sample Laboratory Analytical Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-147692-1
Client Project/Site: NYSEG - Goshen MGP Site

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Jason Golubski

Melissa Deyo

Authorized for release by:
1/31/2019 5:04:43 PM

Melissa Deyo, Project Manager I
(716)504-9874
melissa.deyo@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

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

Glossary

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

Job ID: 480-147692-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-147692-1

Receipt
The samples were received on 1/10/2019 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.6º C, 0.9º C and 1.1º C.

GC/MS VOA
Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW08-05S (480-147692-11). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method(s) 8270D: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW08-05S (480-147692-11). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following sample was diluted due to the abundance of non-target analytes: MW08-07S (480-147692-15). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: MW93-1S (480-147692-8) and MW93-1S DUP (480-147692-9). Elevated reporting limits (RLs) are provided.

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

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Client Sample ID: MW18-04S — Lab Sample ID: 480-147692-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.0065	J	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW18-04D — Lab Sample ID: 480-147692-2

No Detections.

Client Sample ID: MW18-08D — Lab Sample ID: 480-147692-3

No Detections.

Client Sample ID: MW08-08S — Lab Sample ID: 480-147692-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	32		1.0	0.41	ug/L	1		8260C	Total/NA
Total BTEX	32		2.0	1.0	ug/L	1		8260C	Total/NA
Fluoranthene	0.40	J	5.0	0.40	ug/L	1		8270D	Total/NA
Pyrene	0.35	J	5.0	0.34	ug/L	1		8270D	Total/NA
Cyanide, Total	0.0076	J	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW93-02S — Lab Sample ID: 480-147692-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.0097	J	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW93-2D — Lab Sample ID: 480-147692-6

No Detections.

Client Sample ID: MW08-05D — Lab Sample ID: 480-147692-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.42	J	5.0	0.40	ug/L	1		8270D	Total/NA
Pyrene	0.40	J	5.0	0.34	ug/L	1		8270D	Total/NA
Cyanide, Total	0.065		0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW93-1S — Lab Sample ID: 480-147692-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	2.4	J	25	1.9	ug/L	5		8270D	Total/NA
Anthracene	1.5	J	25	1.4	ug/L	5		8270D	Total/NA
Benzo[a]anthracene	8.3	J	25	1.8	ug/L	5		8270D	Total/NA
Benzo[a]pyrene	11	J	25	2.4	ug/L	5		8270D	Total/NA
Benzo[b]fluoranthene	15	J	25	1.7	ug/L	5		8270D	Total/NA
Benzo[g,h,i]perylene	8.7	J	25	1.8	ug/L	5		8270D	Total/NA
Benzo[k]fluoranthene	6.4	J	25	3.7	ug/L	5		8270D	Total/NA
Chrysene	8.2	J	25	1.7	ug/L	5		8270D	Total/NA
Dibenz(a,h)anthracene	2.9	J	25	2.1	ug/L	5		8270D	Total/NA
Fluoranthene	13	J	25	2.0	ug/L	5		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	7.8	J	25	2.4	ug/L	5		8270D	Total/NA
Phenanthrene	3.2	J	25	2.2	ug/L	5		8270D	Total/NA
Pyrene	12	J	25	1.7	ug/L	5		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Client Sample ID: MW93-1S (Continued) — Lab Sample ID: 480-147692-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.0076	J	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW93-1S DUP — Lab Sample ID: 480-147692-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	4.8	J	25	1.8	ug/L	5		8270D	Total/NA
Benzo[a]pyrene	7.5	J	25	2.4	ug/L	5		8270D	Total/NA
Benzo[b]fluoranthene	9.9	J	25	1.7	ug/L	5		8270D	Total/NA
Benzo[g,h,i]perylene	5.6	J	25	1.8	ug/L	5		8270D	Total/NA
Benzo[k]fluoranthene	3.9	J	25	3.7	ug/L	5		8270D	Total/NA
Chrysene	5.4	J	25	1.7	ug/L	5		8270D	Total/NA
Fluoranthene	8.3	J	25	2.0	ug/L	5		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	5.3	J	25	2.4	ug/L	5		8270D	Total/NA
Pyrene	7.3	J	25	1.7	ug/L	5		8270D	Total/NA
Cyanide, Total	0.0086	J	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW93-1D — Lab Sample ID: 480-147692-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.0062	J	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW08-05S — Lab Sample ID: 480-147692-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	690		10	4.1	ug/L	10		8260C	Total/NA
Toluene	19		10	5.1	ug/L	10		8260C	Total/NA
Ethylbenzene	57		10	7.4	ug/L	10		8260C	Total/NA
m-Xylene & p-Xylene	39		20	6.6	ug/L	10		8260C	Total/NA
o-Xylene	29		10	7.6	ug/L	10		8260C	Total/NA
Xylenes, Total	68		20	6.6	ug/L	10		8260C	Total/NA
Total BTEX	830		20	10	ug/L	10		8260C	Total/NA
Acenaphthene	15	J	25	2.1	ug/L	5		8270D	Total/NA
Acenaphthylene	12	J	25	1.9	ug/L	5		8270D	Total/NA
Anthracene	7.3	J	25	1.4	ug/L	5		8270D	Total/NA
Fluoranthene	12	J	25	2.0	ug/L	5		8270D	Total/NA
Fluorene	38		25	1.8	ug/L	5		8270D	Total/NA
Naphthalene	67		25	3.8	ug/L	5		8270D	Total/NA
Phenanthrene	31		25	2.2	ug/L	5		8270D	Total/NA
Pyrene	7.8	J	25	1.7	ug/L	5		8270D	Total/NA
Cyanide, Total	0.038		0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW08-06S — Lab Sample ID: 480-147692-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.064		0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW08-07D — Lab Sample ID: 480-147692-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.0059	J	0.010	0.0050	mg/L	1		9012B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Client Sample ID: MW08-06D — Lab Sample ID: 480-147692-14

No Detections.

Client Sample ID: MW08-07S — Lab Sample ID: 480-147692-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.012		0.010	0.0050	mg/L	1		9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW18-04S

Date Collected: 01/07/19 14:30
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/10/19 23:54	1
Toluene	ND		1.0	0.51	ug/L			01/10/19 23:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/10/19 23:54	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/10/19 23:54	1
o-Xylene	ND		1.0	0.76	ug/L			01/10/19 23:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/10/19 23:54	1
Total BTEX	ND		2.0	1.0	ug/L			01/10/19 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*01/10/19 23:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*01/10/19 23:54*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/10/19 23:54*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/10/19 23:54*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 19:43	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 19:43	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 19:43	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 19:43	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 19:43	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 19:43	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 19:43	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 19:43	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 19:43	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 19:43	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*48 - 120*	*01/10/19 14:15*	*01/29/19 19:43*	*1*
Nitrobenzene-d5 (Surr)	*80*		*46 - 120*	*01/10/19 14:15*	*01/29/19 19:43*	*1*
p-Terphenyl-d14 (Surr)	*98*		*59 - 136*	*01/10/19 14:15*	*01/29/19 19:43*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0065**	**J**	0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:21	1

Client Sample ID: MW18-04D

Date Collected: 01/07/19 15:15
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 00:18	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 00:18	1

Client Sample ID: MW18-04D

Date Collected: 01/07/19 15:15
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 00:18	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 00:18	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 00:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 00:18	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 00:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*01/11/19 00:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*01/11/19 00:18*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*01/11/19 00:18*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/11/19 00:18*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 20:12	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 20:12	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 20:12	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 20:12	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 20:12	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 20:12	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 20:12	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 20:12	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 20:12	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 20:12	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*48 - 120*	*01/10/19 14:15*	*01/29/19 20:12*	*1*
Nitrobenzene-d5 (Surr)	*83*		*46 - 120*	*01/10/19 14:15*	*01/29/19 20:12*	*1*
p-Terphenyl-d14 (Surr)	*97*		*59 - 136*	*01/10/19 14:15*	*01/29/19 20:12*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:22	1

Client Sample ID: MW18-08D

Date Collected: 01/07/19 17:25
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 00:41	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 00:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 00:41	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 00:41	1

Client Sample ID: MW18-08D

Lab Sample ID: 480-147692-3

Date Collected: 01/07/19 17:25

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 00:41	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 00:41	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 00:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*01/11/19 00:41*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 00:41*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*01/11/19 00:41*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 20:40	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 20:40	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 20:40	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 20:40	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 20:40	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 20:40	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 20:40	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 20:40	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 20:40	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 20:40	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*48 - 120*	*01/10/19 14:15*	*01/29/19 20:40*	*1*
Nitrobenzene-d5 (Surr)	*76*		*46 - 120*	*01/10/19 14:15*	*01/29/19 20:40*	*1*
p-Terphenyl-d14 (Surr)	*85*		*59 - 136*	*01/10/19 14:15*	*01/29/19 20:40*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:24	1

Client Sample ID: MW08-08S

Lab Sample ID: 480-147692-4

Date Collected: 01/08/19 09:20

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**32**		1.0	0.41	ug/L			01/11/19 01:05	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 01:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 01:05	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 01:05	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 01:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 01:05	1

Client Sample ID: MW08-08S

Lab Sample ID: 480-147692-4

Date Collected: 01/08/19 09:20

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**32**		2.0	1.0	ug/L			01/11/19 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*01/11/19 01:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*01/11/19 01:05*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*01/11/19 01:05*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*01/11/19 01:05*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 14:16	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 14:16	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 14:16	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 14:16	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 14:16	1
Fluoranthene	**0.40**	**J**	5.0	0.40	ug/L		01/10/19 14:15	01/30/19 14:16	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 14:16	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 14:16	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 14:16	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 14:16	1
Pyrene	**0.35**	**J**	5.0	0.34	ug/L		01/10/19 14:15	01/30/19 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*48 - 120*	*01/10/19 14:15*	*01/30/19 14:16*	*1*
Nitrobenzene-d5 (Surr)	*89*		*46 - 120*	*01/10/19 14:15*	*01/30/19 14:16*	*1*
p-Terphenyl-d14 (Surr)	*93*		*59 - 136*	*01/10/19 14:15*	*01/30/19 14:16*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0076**	**J**	0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:25	1

Client Sample ID: MW93-02S

Lab Sample ID: 480-147692-5

Date Collected: 01/08/19 09:40

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 01:28	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 01:28	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 01:28	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 01:28	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 01:28	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 01:28	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 01:28	1

Client Sample ID: MW93-02S

Lab Sample ID: 480-147692-5

Date Collected: 01/08/19 09:40

Matrix: Water

Date Received: 01/10/19 01:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*01/11/19 01:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 01:28*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*01/11/19 01:28*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/11/19 01:28*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 21:37	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 21:37	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 21:37	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 21:37	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 21:37	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 21:37	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 21:37	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 21:37	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 21:37	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 21:37	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*48 - 120*	*01/10/19 14:15*	*01/29/19 21:37*	*1*
Nitrobenzene-d5 (Surr)	*83*		*46 - 120*	*01/10/19 14:15*	*01/29/19 21:37*	*1*
p-Terphenyl-d14 (Surr)	*86*		*59 - 136*	*01/10/19 14:15*	*01/29/19 21:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0097**	**J**	0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:27	1

Client Sample ID: MW93-2D

Lab Sample ID: 480-147692-6

Date Collected: 01/08/19 11:35

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 01:52	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 01:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 01:52	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 01:52	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 01:52	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 01:52	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 01:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*01/11/19 01:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 01:52*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 01:52*	*1*

Client Sample ID: MW93-2D

Lab Sample ID: 480-147692-6

Date Collected: 01/08/19 11:35

Matrix: Water

Date Received: 01/10/19 01:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*01/11/19 01:52*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 19:15	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 19:15	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 19:15	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 19:15	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 19:15	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 19:15	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 19:15	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 19:15	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 19:15	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 19:15	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	*91*		*48 - 120*	*01/10/19 14:15*	*01/29/19 19:15*	*1*
Nitrobenzene-d5 (Surr)	*86*		*46 - 120*	*01/10/19 14:15*	*01/29/19 19:15*	*1*
p-Terphenyl-d14 (Surr)	*103*		*59 - 136*	*01/10/19 14:15*	*01/29/19 19:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	F1	0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:01	1

Client Sample ID: MW08-05D

Lab Sample ID: 480-147692-7

Date Collected: 01/08/19 14:35

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 02:15	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 02:15	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 02:15	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 02:15	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 02:15	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 02:15	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 02:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 02:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*01/11/19 02:15*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*01/11/19 02:15*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*01/11/19 02:15*	*1*

Client Sample ID: MW08-05D

Lab Sample ID: 480-147692-7

Date Collected: 01/08/19 14:35

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 14:45	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 14:45	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 14:45	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 14:45	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 14:45	1
Fluoranthene	**0.42**	**J**	5.0	0.40	ug/L		01/10/19 14:15	01/30/19 14:45	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 14:45	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 14:45	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 14:45	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 14:45	1
Pyrene	**0.40**	**J**	5.0	0.34	ug/L		01/10/19 14:15	01/30/19 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*48 - 120*	*01/10/19 14:15*	*01/30/19 14:45*	*1*
Nitrobenzene-d5 (Surr)	*77*		*46 - 120*	*01/10/19 14:15*	*01/30/19 14:45*	*1*
p-Terphenyl-d14 (Surr)	*94*		*59 - 136*	*01/10/19 14:15*	*01/30/19 14:45*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.065**		0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:31	1

Client Sample ID: MW93-1S

Lab Sample ID: 480-147692-8

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 02:39	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 02:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 02:39	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 02:39	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 02:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 02:39	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*01/11/19 02:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 02:39*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 02:39*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*01/11/19 02:39*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 15:14	5
Acenaphthylene	**2.4**	**J**	25	1.9	ug/L		01/10/19 14:15	01/30/19 15:14	5

Client Sample ID: MW93-1S

Lab Sample ID: 480-147692-8

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	1.5	J	25	1.4	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[a]anthracene	8.3	J	25	1.8	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[a]pyrene	11	J	25	2.4	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[b]fluoranthene	15	J	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[g,h,i]perylene	8.7	J	25	1.8	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[k]fluoranthene	6.4	J	25	3.7	ug/L		01/10/19 14:15	01/30/19 15:14	5
Chrysene	8.2	J	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:14	5
Dibenz(a,h)anthracene	2.9	J	25	2.1	ug/L		01/10/19 14:15	01/30/19 15:14	5
Fluoranthene	13	J	25	2.0	ug/L		01/10/19 14:15	01/30/19 15:14	5
Fluorene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 15:14	5
Indeno[1,2,3-cd]pyrene	7.8	J	25	2.4	ug/L		01/10/19 14:15	01/30/19 15:14	5
Naphthalene	ND		25	3.8	ug/L		01/10/19 14:15	01/30/19 15:14	5
Phenanthrene	3.2	J	25	2.2	ug/L		01/10/19 14:15	01/30/19 15:14	5
Pyrene	12	J	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:14	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*48 - 120*	*01/10/19 14:15*	*01/30/19 15:14*	*5*
Nitrobenzene-d5 (Surr)	*66*		*46 - 120*	*01/10/19 14:15*	*01/30/19 15:14*	*5*
p-Terphenyl-d14 (Surr)	*83*		*59 - 136*	*01/10/19 14:15*	*01/30/19 15:14*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0076	J	0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:32	1

Client Sample ID: MW93-1S DUP

Lab Sample ID: 480-147692-9

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 03:03	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 03:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 03:03	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 03:03	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 03:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 03:03	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 03:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*01/11/19 03:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*01/11/19 03:03*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 03:03*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*01/11/19 03:03*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 15:43	5
Acenaphthylene	ND		25	1.9	ug/L		01/10/19 14:15	01/30/19 15:43	5
Anthracene	ND		25	1.4	ug/L		01/10/19 14:15	01/30/19 15:43	5
Benzo[a]anthracene	4.8	J	25	1.8	ug/L		01/10/19 14:15	01/30/19 15:43	5

Client Sample ID: MW93-1S DUP

Lab Sample ID: 480-147692-9

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	**7.5**	**J**	25	2.4	ug/L		01/10/19 14:15	01/30/19 15:43	5
Benzo[b]fluoranthene	**9.9**	**J**	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:43	5
Benzo[g,h,i]perylene	**5.6**	**J**	25	1.8	ug/L		01/10/19 14:15	01/30/19 15:43	5
Benzo[k]fluoranthene	**3.9**	**J**	25	3.7	ug/L		01/10/19 14:15	01/30/19 15:43	5
Chrysene	**5.4**	**J**	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:43	5
Dibenz(a,h)anthracene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 15:43	5
Fluoranthene	**8.3**	**J**	25	2.0	ug/L		01/10/19 14:15	01/30/19 15:43	5
Fluorene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 15:43	5
Indeno[1,2,3-cd]pyrene	**5.3**	**J**	25	2.4	ug/L		01/10/19 14:15	01/30/19 15:43	5
Naphthalene	ND		25	3.8	ug/L		01/10/19 14:15	01/30/19 15:43	5
Phenanthrene	ND		25	2.2	ug/L		01/10/19 14:15	01/30/19 15:43	5
Pyrene	**7.3**	**J**	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:43	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*48 - 120*	*01/10/19 14:15*	*01/30/19 15:43*	*5*
Nitrobenzene-d5 (Surr)	*66*		*46 - 120*	*01/10/19 14:15*	*01/30/19 15:43*	*5*
p-Terphenyl-d14 (Surr)	*82*		*59 - 136*	*01/10/19 14:15*	*01/30/19 15:43*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0086**	**J**	0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:35	1

Client Sample ID: MW93-1D

Lab Sample ID: 480-147692-10

Date Collected: 01/08/19 16:30

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 03:27	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 03:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 03:27	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 03:27	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 03:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 03:27	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 03:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*01/11/19 03:27*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 03:27*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*01/11/19 03:27*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 16:12	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 16:12	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 16:12	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 16:12	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 16:12	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 16:12	1

Client Sample ID: MW93-1D

Lab Sample ID: 480-147692-10

Date Collected: 01/08/19 16:30

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 16:12	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 16:12	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 16:12	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 16:12	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/30/19 16:12	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 16:12	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 16:12	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 16:12	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 16:12	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*48 - 120*	*01/10/19 14:15*	*01/30/19 16:12*	*1*
Nitrobenzene-d5 (Surr)	*76*		*46 - 120*	*01/10/19 14:15*	*01/30/19 16:12*	*1*
p-Terphenyl-d14 (Surr)	*87*		*59 - 136*	*01/10/19 14:15*	*01/30/19 16:12*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0062**	**J**	0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:52	1

Client Sample ID: MW08-05S

Lab Sample ID: 480-147692-11

Date Collected: 01/09/19 08:00

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**690**		10	4.1	ug/L			01/11/19 03:50	10
Toluene	**19**		10	5.1	ug/L			01/11/19 03:50	10
Ethylbenzene	**57**		10	7.4	ug/L			01/11/19 03:50	10
m-Xylene & p-Xylene	**39**		20	6.6	ug/L			01/11/19 03:50	10
o-Xylene	**29**		10	7.6	ug/L			01/11/19 03:50	10
Xylenes, Total	**68**		20	6.6	ug/L			01/11/19 03:50	10
Total BTEX	**830**		20	10	ug/L			01/11/19 03:50	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*01/11/19 03:50*	*10*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*01/11/19 03:50*	*10*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*01/11/19 03:50*	*10*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/11/19 03:50*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**15**	**J**	25	2.1	ug/L		01/10/19 14:15	01/29/19 23:59	5
Acenaphthylene	**12**	**J**	25	1.9	ug/L		01/10/19 14:15	01/29/19 23:59	5
Anthracene	**7.3**	**J**	25	1.4	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[a]anthracene	ND		25	1.8	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[a]pyrene	ND		25	2.4	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[b]fluoranthene	ND		25	1.7	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[g,h,i]perylene	ND		25	1.8	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[k]fluoranthene	ND		25	3.7	ug/L		01/10/19 14:15	01/29/19 23:59	5

Client Sample ID: MW08-05S

Date Collected: 01/09/19 08:00
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		25	1.7	ug/L		01/10/19 14:15	01/29/19 23:59	5
Dibenz(a,h)anthracene	ND		25	2.1	ug/L		01/10/19 14:15	01/29/19 23:59	5
Fluoranthene	**12**	**J**	25	2.0	ug/L		01/10/19 14:15	01/29/19 23:59	5
Fluorene	**38**		25	1.8	ug/L		01/10/19 14:15	01/29/19 23:59	5
Indeno[1,2,3-cd]pyrene	ND		25	2.4	ug/L		01/10/19 14:15	01/29/19 23:59	5
Naphthalene	**67**		25	3.8	ug/L		01/10/19 14:15	01/29/19 23:59	5
Phenanthrene	**31**		25	2.2	ug/L		01/10/19 14:15	01/29/19 23:59	5
Pyrene	**7.8**	**J**	25	1.7	ug/L		01/10/19 14:15	01/29/19 23:59	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*48 - 120*	*01/10/19 14:15*	*01/29/19 23:59*	*5*
Nitrobenzene-d5 (Surr)	*73*		*46 - 120*	*01/10/19 14:15*	*01/29/19 23:59*	*5*
p-Terphenyl-d14 (Surr)	*85*		*59 - 136*	*01/10/19 14:15*	*01/29/19 23:59*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.038**		0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:53	1

Client Sample ID: MW08-06S

Date Collected: 01/09/19 09:35
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 04:14	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 04:14	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 04:14	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 04:14	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 04:14	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 04:14	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 04:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*01/11/19 04:14*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*01/11/19 04:14*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*01/11/19 04:14*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 00:28	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 00:28	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 00:28	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 00:28	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 00:28	1

Client Sample ID: MW08-06S

Lab Sample ID: 480-147692-12

Date Collected: 01/09/19 09:35

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/30/19 00:28	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 00:28	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 00:28	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 00:28	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 00:28	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*48 - 120*	*01/10/19 14:15*	*01/30/19 00:28*	*1*
Nitrobenzene-d5 (Surr)	*84*		*46 - 120*	*01/10/19 14:15*	*01/30/19 00:28*	*1*
p-Terphenyl-d14 (Surr)	*100*		*59 - 136*	*01/10/19 14:15*	*01/30/19 00:28*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.064**		0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:55	1

Client Sample ID: MW08-07D

Lab Sample ID: 480-147692-13

Date Collected: 01/09/19 10:25

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 04:37	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 04:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 04:37	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 04:37	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 04:37	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 04:37	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 04:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*01/11/19 04:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 04:37*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 04:37*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*01/11/19 04:37*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 00:56	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 00:56	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 00:56	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 00:56	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 00:56	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/30/19 00:56	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 00:56	1

Client Sample ID: MW08-07D

Date Collected: 01/09/19 10:25
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 00:56	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 00:56	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 00:56	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*48 - 120*	*01/10/19 14:15*	*01/30/19 00:56*	*1*
Nitrobenzene-d5 (Surr)	*80*		*46 - 120*	*01/10/19 14:15*	*01/30/19 00:56*	*1*
p-Terphenyl-d14 (Surr)	*98*		*59 - 136*	*01/10/19 14:15*	*01/30/19 00:56*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0059**	**J**	0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:56	1

Client Sample ID: MW08-06D

Date Collected: 01/09/19 10:50
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 05:01	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 05:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 05:01	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 05:01	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 05:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 05:01	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*01/11/19 05:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*01/11/19 05:01*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*01/11/19 05:01*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*01/11/19 05:01*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 01:24	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 01:24	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 01:24	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 01:24	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 01:24	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/30/19 01:24	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 01:24	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 01:24	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 01:24	1

Client Sample ID: MW08-06D

Date Collected: 01/09/19 10:50
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-14
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 01:24	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*48 - 120*	*01/10/19 14:15*	*01/30/19 01:24*	*1*
Nitrobenzene-d5 (Surr)	*88*		*46 - 120*	*01/10/19 14:15*	*01/30/19 01:24*	*1*
p-Terphenyl-d14 (Surr)	*98*		*59 - 136*	*01/10/19 14:15*	*01/30/19 01:24*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 11:01	1

Client Sample ID: MW08-07S

Date Collected: 01/09/19 11:20
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-15
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 05:25	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 05:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 05:25	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 05:25	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 05:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 05:25	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 05:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 05:25*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*01/11/19 05:25*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/11/19 05:25*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 01:52	5
Acenaphthylene	ND		25	1.9	ug/L		01/10/19 14:15	01/30/19 01:52	5
Anthracene	ND		25	1.4	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[a]anthracene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[a]pyrene	ND		25	2.4	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[b]fluoranthene	ND		25	1.7	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[g,h,i]perylene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[k]fluoranthene	ND		25	3.7	ug/L		01/10/19 14:15	01/30/19 01:52	5
Chrysene	ND		25	1.7	ug/L		01/10/19 14:15	01/30/19 01:52	5
Dibenz(a,h)anthracene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 01:52	5
Fluoranthene	ND		25	2.0	ug/L		01/10/19 14:15	01/30/19 01:52	5
Fluorene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 01:52	5
Indeno[1,2,3-cd]pyrene	ND		25	2.4	ug/L		01/10/19 14:15	01/30/19 01:52	5
Naphthalene	ND		25	3.8	ug/L		01/10/19 14:15	01/30/19 01:52	5
Phenanthrene	ND		25	2.2	ug/L		01/10/19 14:15	01/30/19 01:52	5
Pyrene	ND		25	1.7	ug/L		01/10/19 14:15	01/30/19 01:52	5

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Client Sample ID: MW08-07S
Date Collected: 01/09/19 11:20
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-15
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*48 - 120*	*01/10/19 14:15*	*01/30/19 01:52*	*5*
Nitrobenzene-d5 (Surr)	*69*		*46 - 120*	*01/10/19 14:15*	*01/30/19 01:52*	*5*
p-Terphenyl-d14 (Surr)	*86*		*59 - 136*	*01/10/19 14:15*	*01/30/19 01:52*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.012**		0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 11:02	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-147692-1	MW18-04S	99	106	103	108
480-147692-2	MW18-04D	95	109	104	108
480-147692-3	MW18-08D	96	105	103	110
480-147692-4	MW08-08S	95	104	101	105
480-147692-5	MW93-02S	97	107	104	108
480-147692-6	MW93-2D	98	107	103	107
480-147692-6 MS	MW93-2D	99	109	105	112
480-147692-6 MSD	MW93-2D	100	109	103	114
480-147692-7	MW08-05D	96	104	99	104
480-147692-8	MW93-1S	98	107	103	110
480-147692-9	MW93-1S DUP	99	110	103	110
480-147692-10	MW93-1D	96	108	103	110
480-147692-11	MW08-05S	97	105	102	108
480-147692-12	MW08-06S	96	105	101	107
480-147692-13	MW08-07D	100	107	103	105
480-147692-14	MW08-06D	100	109	105	109
480-147692-15	MW08-07S	96	107	98	108
LCS 480-454637/5	Lab Control Sample	99	110	108	114
MB 480-454637/7	Method Blank	96	110	103	112

Surrogate Legend

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

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(59-136)
480-147692-1	MW18-04S	85	80	98
480-147692-2	MW18-04D	91	83	97
480-147692-3	MW18-08D	83	76	85
480-147692-4	MW08-08S	95	89	93
480-147692-5	MW93-02S	92	83	86
480-147692-6	MW93-2D	91	86	103
480-147692-6 MS	MW93-2D	94	95	107
480-147692-6 MSD	MW93-2D	91	87	103
480-147692-7	MW08-05D	86	77	94
480-147692-8	MW93-1S	85	66	83
480-147692-9	MW93-1S DUP	80	66	82
480-147692-10	MW93-1D	82	76	87
480-147692-11	MW08-05S	92	73	85
480-147692-12	MW08-06S	93	84	100
480-147692-13	MW08-07D	87	80	98
480-147692-14	MW08-06D	96	88	98
480-147692-15	MW08-07S	85	69	86

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
		FBP	NBZ	TPHd14						
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(59-136)						
LCS 480-454559/2-A	Lab Control Sample	94	91	118						
MB 480-454559/1-A	Method Blank	90	81	117						

Surrogate Legend

FBP = 2-Fluorobiphenyl

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

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

Lab Sample ID: MB 480-454637/7
Matrix: Water
Analysis Batch: 454637

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/10/19 22:12	1
Toluene	ND		1.0	0.51	ug/L			01/10/19 22:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/10/19 22:12	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/10/19 22:12	1
o-Xylene	ND		1.0	0.76	ug/L			01/10/19 22:12	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/10/19 22:12	1
Total BTEX	ND		2.0	1.0	ug/L			01/10/19 22:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/10/19 22:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*01/10/19 22:12*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/10/19 22:12*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*01/10/19 22:12*	*1*

Lab Sample ID: LCS 480-454637/5
Matrix: Water
Analysis Batch: 454637

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	23.7		ug/L		95	71 - 124
Toluene	25.0	23.2		ug/L		93	80 - 122
Ethylbenzene	25.0	23.7		ug/L		95	77 - 123
m-Xylene & p-Xylene	25.0	23.9		ug/L		96	76 - 122
o-Xylene	25.0	23.3		ug/L		93	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*
Dibromofluoromethane (Surr)	*114*		*75 - 123*

Lab Sample ID: 480-147692-6 MS
Matrix: Water
Analysis Batch: 454637

Client Sample ID: MW93-2D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		25.0	23.7		ug/L		95	71 - 124
Toluene	ND		25.0	22.5		ug/L		90	80 - 122
Ethylbenzene	ND		25.0	23.4		ug/L		93	77 - 123
m-Xylene & p-Xylene	ND		25.0	24.1		ug/L		96	76 - 122
o-Xylene	ND		25.0	23.1		ug/L		92	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*
Dibromofluoromethane (Surr)	*112*		*75 - 123*

Lab Sample ID: 480-147692-6 MSD
Matrix: Water
Analysis Batch: 454637

Client Sample ID: MW93-2D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		25.0	23.8		ug/L		95	71 - 124	0	13
Toluene	ND		25.0	22.6		ug/L		91	80 - 122	0	15
Ethylbenzene	ND		25.0	22.8		ug/L		91	77 - 123	3	15
m-Xylene & p-Xylene	ND		25.0	23.8		ug/L		95	76 - 122	1	16
o-Xylene	ND		25.0	23.5		ug/L		94	76 - 122	2	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*
Dibromofluoromethane (Surr)	*114*		*75 - 123*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-454559/1-A
Matrix: Water
Analysis Batch: 456996

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 454559

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 17:18	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 17:18	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 17:18	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 17:18	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 17:18	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 17:18	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 17:18	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 17:18	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 17:18	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 17:18	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 17:18	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 17:18	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 17:18	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 17:18	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 17:18	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 17:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*48 - 120*	*01/10/19 14:15*	*01/29/19 17:18*	*1*
Nitrobenzene-d5 (Surr)	*81*		*46 - 120*	*01/10/19 14:15*	*01/29/19 17:18*	*1*
p-Terphenyl-d14 (Surr)	*117*		*59 - 136*	*01/10/19 14:15*	*01/29/19 17:18*	*1*

Lab Sample ID: LCS 480-454559/2-A
Matrix: Water
Analysis Batch: 456996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	32.0	29.8		ug/L		93	60 - 120
Acenaphthylene	32.0	31.1		ug/L		97	63 - 120
Anthracene	32.0	33.2		ug/L		104	67 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-454559/2-A
Matrix: Water
Analysis Batch: 456996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 454559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	32.0	34.9		ug/L		109	70 - 121
Benzo[a]pyrene	32.0	35.9		ug/L		112	60 - 123
Benzo[b]fluoranthene	32.0	37.7		ug/L		118	66 - 126
Benzo[g,h,i]perylene	32.0	35.9		ug/L		112	66 - 150
Benzo[k]fluoranthene	32.0	35.9		ug/L		112	65 - 124
Chrysene	32.0	34.1		ug/L		107	69 - 120
Dibenz(a,h)anthracene	32.0	35.5		ug/L		111	65 - 135
Fluoranthene	32.0	33.7		ug/L		105	69 - 126
Fluorene	32.0	32.7		ug/L		102	66 - 120
Indeno[1,2,3-cd]pyrene	32.0	35.5		ug/L		111	69 - 146
Naphthalene	32.0	30.9		ug/L		97	57 - 120
Phenanthrene	32.0	33.8		ug/L		106	68 - 120
Pyrene	32.0	34.3		ug/L		107	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*94*		*48 - 120*
Nitrobenzene-d5 (Surr)	*91*		*46 - 120*
p-Terphenyl-d14 (Surr)	*118*		*59 - 136*

Lab Sample ID: 480-147692-6 MS
Matrix: Water
Analysis Batch: 456996

Client Sample ID: MW93-2D
Prep Type: Total/NA
Prep Batch: 454559

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		32.0	29.8		ug/L		93	48 - 120
Acenaphthylene	ND		32.0	31.3		ug/L		98	63 - 120
Anthracene	ND		32.0	31.3		ug/L		98	65 - 122
Benzo[a]anthracene	ND		32.0	33.5		ug/L		105	43 - 124
Benzo[a]pyrene	ND		32.0	33.5		ug/L		105	23 - 125
Benzo[b]fluoranthene	ND		32.0	35.2		ug/L		110	27 - 127
Benzo[g,h,i]perylene	ND		32.0	34.0		ug/L		106	16 - 147
Benzo[k]fluoranthene	ND		32.0	33.6		ug/L		105	20 - 124
Chrysene	ND		32.0	33.5		ug/L		105	44 - 122
Dibenz(a,h)anthracene	ND		32.0	33.8		ug/L		106	16 - 139
Fluoranthene	ND		32.0	33.5		ug/L		105	63 - 129
Fluorene	ND		32.0	32.2		ug/L		101	62 - 120
Indeno[1,2,3-cd]pyrene	ND		32.0	33.9		ug/L		106	16 - 140
Naphthalene	ND		32.0	31.0		ug/L		97	45 - 120
Phenanthrene	ND		32.0	33.6		ug/L		105	65 - 122
Pyrene	ND		32.0	33.8		ug/L		106	58 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*94*		*48 - 120*
Nitrobenzene-d5 (Surr)	*95*		*46 - 120*
p-Terphenyl-d14 (Surr)	*107*		*59 - 136*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-147692-6 MSD — **Client Sample ID: MW93-2D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 456996 — **Prep Batch: 454559**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		32.0	28.9		ug/L		90	48 - 120	3	24
Acenaphthylene	ND		32.0	30.2		ug/L		94	63 - 120	4	18
Anthracene	ND		32.0	30.8		ug/L		96	65 - 122	2	15
Benzo[a]anthracene	ND		32.0	31.9		ug/L		100	43 - 124	5	15
Benzo[a]pyrene	ND		32.0	31.4		ug/L		98	23 - 125	7	15
Benzo[b]fluoranthene	ND		32.0	33.7		ug/L		105	27 - 127	4	15
Benzo[g,h,i]perylene	ND		32.0	31.6		ug/L		99	16 - 147	7	15
Benzo[k]fluoranthene	ND		32.0	32.2		ug/L		101	20 - 124	4	22
Chrysene	ND		32.0	31.3		ug/L		98	44 - 122	7	15
Dibenz(a,h)anthracene	ND		32.0	31.7		ug/L		99	16 - 139	7	15
Fluoranthene	ND		32.0	32.8		ug/L		103	63 - 129	2	15
Fluorene	ND		32.0	30.9		ug/L		97	62 - 120	4	15
Indeno[1,2,3-cd]pyrene	ND		32.0	31.3		ug/L		98	16 - 140	8	15
Naphthalene	ND		32.0	29.9		ug/L		94	45 - 120	3	29
Phenanthrene	ND		32.0	32.5		ug/L		102	65 - 122	3	15
Pyrene	ND		32.0	32.2		ug/L		101	58 - 128	5	19

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*48 - 120*
Nitrobenzene-d5 (Surr)	*87*		*46 - 120*
p-Terphenyl-d14 (Surr)	*103*		*59 - 136*

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-454909/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454969 — **Prep Batch: 454909**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 13:56	1

Lab Sample ID: LCS 480-454909/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454969 — **Prep Batch: 454909**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.272		mg/L		109	90 - 110

Lab Sample ID: 480-147692-6 MS — **Client Sample ID: MW93-2D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454969 — **Prep Batch: 454909**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND	F1	0.100	0.123	F1	mg/L		123	90 - 110

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 480-147692-6 MSD — **Client Sample ID: MW93-2D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454969 — **Prep Batch: 454909**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND	F1	0.100	0.122	F1	mg/L		122	90 - 110	1	15

Lab Sample ID: 480-147692-7 MS — **Client Sample ID: MW08-05D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 454969 — **Prep Batch: 454909**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.065		0.100	0.169		mg/L		104	90 - 110

Lab Sample ID: MB 480-455137/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 455313 — **Prep Batch: 455137**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:26	1

Lab Sample ID: LCS 480-455137/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 455313 — **Prep Batch: 455137**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.410		mg/L		103	90 - 110

Lab Sample ID: LCS 480-455137/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 455313 — **Prep Batch: 455137**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.252		mg/L		101	90 - 110

Lab Sample ID: 480-147692-9 MS — **Client Sample ID: MW93-1S DUP**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 455313 — **Prep Batch: 455137**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0086	J	0.100	0.114		mg/L		105	90 - 110

Lab Sample ID: 480-147692-15 MS — **Client Sample ID: MW08-07S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 455313 — **Prep Batch: 455137**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.012		0.100	0.119		mg/L		108	90 - 110

Lab Sample ID: 480-147692-8 DU — **Client Sample ID: MW93-1S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 455313 — **Prep Batch: 455137**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.0076	J	0.00767	J	mg/L		0.5	15

GC/MS VOA

Analysis Batch: 454637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147692-1	MW18-04S	Total/NA	Water	8260C	
480-147692-2	MW18-04D	Total/NA	Water	8260C	
480-147692-3	MW18-08D	Total/NA	Water	8260C	
480-147692-4	MW08-08S	Total/NA	Water	8260C	
480-147692-5	MW93-02S	Total/NA	Water	8260C	
480-147692-6	MW93-2D	Total/NA	Water	8260C	
480-147692-7	MW08-05D	Total/NA	Water	8260C	
480-147692-8	MW93-1S	Total/NA	Water	8260C	
480-147692-9	MW93-1S DUP	Total/NA	Water	8260C	
480-147692-10	MW93-1D	Total/NA	Water	8260C	
480-147692-11	MW08-05S	Total/NA	Water	8260C	
480-147692-12	MW08-06S	Total/NA	Water	8260C	
480-147692-13	MW08-07D	Total/NA	Water	8260C	
480-147692-14	MW08-06D	Total/NA	Water	8260C	
480-147692-15	MW08-07S	Total/NA	Water	8260C	
MB 480-454637/7	Method Blank	Total/NA	Water	8260C	
LCS 480-454637/5	Lab Control Sample	Total/NA	Water	8260C	
480-147692-6 MS	MW93-2D	Total/NA	Water	8260C	
480-147692-6 MSD	MW93-2D	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 454559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147692-1	MW18-04S	Total/NA	Water	3510C	
480-147692-2	MW18-04D	Total/NA	Water	3510C	
480-147692-3	MW18-08D	Total/NA	Water	3510C	
480-147692-4	MW08-08S	Total/NA	Water	3510C	
480-147692-5	MW93-02S	Total/NA	Water	3510C	
480-147692-6	MW93-2D	Total/NA	Water	3510C	
480-147692-7	MW08-05D	Total/NA	Water	3510C	
480-147692-8	MW93-1S	Total/NA	Water	3510C	
480-147692-9	MW93-1S DUP	Total/NA	Water	3510C	
480-147692-10	MW93-1D	Total/NA	Water	3510C	
480-147692-11	MW08-05S	Total/NA	Water	3510C	
480-147692-12	MW08-06S	Total/NA	Water	3510C	
480-147692-13	MW08-07D	Total/NA	Water	3510C	
480-147692-14	MW08-06D	Total/NA	Water	3510C	
480-147692-15	MW08-07S	Total/NA	Water	3510C	
MB 480-454559/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-454559/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-147692-6 MS	MW93-2D	Total/NA	Water	3510C	
480-147692-6 MSD	MW93-2D	Total/NA	Water	3510C	

Analysis Batch: 456996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147692-1	MW18-04S	Total/NA	Water	8270D	454559
480-147692-2	MW18-04D	Total/NA	Water	8270D	454559
480-147692-3	MW18-08D	Total/NA	Water	8270D	454559
480-147692-5	MW93-02S	Total/NA	Water	8270D	454559

GC/MS Semi VOA (Continued)

Analysis Batch: 456996 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147692-6	MW93-2D	Total/NA	Water	8270D	454559
480-147692-11	MW08-05S	Total/NA	Water	8270D	454559
480-147692-12	MW08-06S	Total/NA	Water	8270D	454559
480-147692-13	MW08-07D	Total/NA	Water	8270D	454559
480-147692-14	MW08-06D	Total/NA	Water	8270D	454559
480-147692-15	MW08-07S	Total/NA	Water	8270D	454559
MB 480-454559/1-A	Method Blank	Total/NA	Water	8270D	454559
LCS 480-454559/2-A	Lab Control Sample	Total/NA	Water	8270D	454559
480-147692-6 MS	MW93-2D	Total/NA	Water	8270D	454559
480-147692-6 MSD	MW93-2D	Total/NA	Water	8270D	454559

Analysis Batch: 457106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147692-4	MW08-08S	Total/NA	Water	8270D	454559
480-147692-7	MW08-05D	Total/NA	Water	8270D	454559
480-147692-8	MW93-1S	Total/NA	Water	8270D	454559
480-147692-9	MW93-1S DUP	Total/NA	Water	8270D	454559
480-147692-10	MW93-1D	Total/NA	Water	8270D	454559

General Chemistry

Prep Batch: 454909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147692-1	MW18-04S	Total/NA	Water	9012B	
480-147692-2	MW18-04D	Total/NA	Water	9012B	
480-147692-3	MW18-08D	Total/NA	Water	9012B	
480-147692-4	MW08-08S	Total/NA	Water	9012B	
480-147692-5	MW93-02S	Total/NA	Water	9012B	
480-147692-6	MW93-2D	Total/NA	Water	9012B	
480-147692-7	MW08-05D	Total/NA	Water	9012B	
MB 480-454909/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-454909/2-A	Lab Control Sample	Total/NA	Water	9012B	
480-147692-6 MS	MW93-2D	Total/NA	Water	9012B	
480-147692-6 MSD	MW93-2D	Total/NA	Water	9012B	
480-147692-7 MS	MW08-05D	Total/NA	Water	9012B	

Analysis Batch: 454969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147692-1	MW18-04S	Total/NA	Water	9012B	454909
480-147692-2	MW18-04D	Total/NA	Water	9012B	454909
480-147692-3	MW18-08D	Total/NA	Water	9012B	454909
480-147692-4	MW08-08S	Total/NA	Water	9012B	454909
480-147692-5	MW93-02S	Total/NA	Water	9012B	454909
480-147692-6	MW93-2D	Total/NA	Water	9012B	454909
480-147692-7	MW08-05D	Total/NA	Water	9012B	454909
MB 480-454909/1-A	Method Blank	Total/NA	Water	9012B	454909
LCS 480-454909/2-A	Lab Control Sample	Total/NA	Water	9012B	454909
480-147692-6 MS	MW93-2D	Total/NA	Water	9012B	454909
480-147692-6 MSD	MW93-2D	Total/NA	Water	9012B	454909
480-147692-7 MS	MW08-05D	Total/NA	Water	9012B	454909

General Chemistry (Continued)

Prep Batch: 455137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147692-8	MW93-1S	Total/NA	Water	9012B	
480-147692-9	MW93-1S DUP	Total/NA	Water	9012B	
480-147692-10	MW93-1D	Total/NA	Water	9012B	
480-147692-11	MW08-05S	Total/NA	Water	9012B	
480-147692-12	MW08-06S	Total/NA	Water	9012B	
480-147692-13	MW08-07D	Total/NA	Water	9012B	
480-147692-14	MW08-06D	Total/NA	Water	9012B	
480-147692-15	MW08-07S	Total/NA	Water	9012B	
MB 480-455137/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-455137/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-455137/3-A	Lab Control Sample	Total/NA	Water	9012B	
480-147692-9 MS	MW93-1S DUP	Total/NA	Water	9012B	
480-147692-15 MS	MW08-07S	Total/NA	Water	9012B	
480-147692-8 DU	MW93-1S	Total/NA	Water	9012B	

Analysis Batch: 455313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147692-8	MW93-1S	Total/NA	Water	9012B	455137
480-147692-9	MW93-1S DUP	Total/NA	Water	9012B	455137
480-147692-10	MW93-1D	Total/NA	Water	9012B	455137
480-147692-11	MW08-05S	Total/NA	Water	9012B	455137
480-147692-12	MW08-06S	Total/NA	Water	9012B	455137
480-147692-13	MW08-07D	Total/NA	Water	9012B	455137
480-147692-14	MW08-06D	Total/NA	Water	9012B	455137
480-147692-15	MW08-07S	Total/NA	Water	9012B	455137
MB 480-455137/1-A	Method Blank	Total/NA	Water	9012B	455137
LCS 480-455137/2-A	Lab Control Sample	Total/NA	Water	9012B	455137
LCS 480-455137/3-A	Lab Control Sample	Total/NA	Water	9012B	455137
480-147692-9 MS	MW93-1S DUP	Total/NA	Water	9012B	455137
480-147692-15 MS	MW08-07S	Total/NA	Water	9012B	455137
480-147692-8 DU	MW93-1S	Total/NA	Water	9012B	455137

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Client Sample ID: MW18-04S

Lab Sample ID: 480-147692-1

Date Collected: 01/07/19 14:30

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/10/19 23:54	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	456996	01/29/19 19:43	RJS	TAL BUF
Total/NA	Prep	9012B			454909	01/14/19 09:00	LAW	TAL BUF
Total/NA	Analysis	9012B		1	454969	01/14/19 14:21	CLT	TAL BUF

Client Sample ID: MW18-04D

Lab Sample ID: 480-147692-2

Date Collected: 01/07/19 15:15

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 00:18	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	456996	01/29/19 20:12	RJS	TAL BUF
Total/NA	Prep	9012B			454909	01/14/19 09:00	LAW	TAL BUF
Total/NA	Analysis	9012B		1	454969	01/14/19 14:22	CLT	TAL BUF

Client Sample ID: MW18-08D

Lab Sample ID: 480-147692-3

Date Collected: 01/07/19 17:25

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 00:41	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	456996	01/29/19 20:40	RJS	TAL BUF
Total/NA	Prep	9012B			454909	01/14/19 09:00	LAW	TAL BUF
Total/NA	Analysis	9012B		1	454969	01/14/19 14:24	CLT	TAL BUF

Client Sample ID: MW08-08S

Lab Sample ID: 480-147692-4

Date Collected: 01/08/19 09:20

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 01:05	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	457106	01/30/19 14:16	RJS	TAL BUF
Total/NA	Prep	9012B			454909	01/14/19 09:00	LAW	TAL BUF
Total/NA	Analysis	9012B		1	454969	01/14/19 14:25	CLT	TAL BUF

Client Sample ID: MW93-02S

Lab Sample ID: 480-147692-5

Date Collected: 01/08/19 09:40

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 01:28	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	456996	01/29/19 21:37	RJS	TAL BUF
Total/NA	Prep	9012B			454909	01/14/19 09:00	LAW	TAL BUF
Total/NA	Analysis	9012B		1	454969	01/14/19 14:27	CLT	TAL BUF

Client Sample ID: MW93-2D

Lab Sample ID: 480-147692-6

Date Collected: 01/08/19 11:35

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 01:52	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	456996	01/29/19 19:15	RJS	TAL BUF
Total/NA	Prep	9012B			454909	01/14/19 09:00	LAW	TAL BUF
Total/NA	Analysis	9012B		1	454969	01/14/19 14:01	CLT	TAL BUF

Client Sample ID: MW08-05D

Lab Sample ID: 480-147692-7

Date Collected: 01/08/19 14:35

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 02:15	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	457106	01/30/19 14:45	RJS	TAL BUF
Total/NA	Prep	9012B			454909	01/14/19 09:00	LAW	TAL BUF
Total/NA	Analysis	9012B		1	454969	01/14/19 14:31	CLT	TAL BUF

Client Sample ID: MW93-1S

Lab Sample ID: 480-147692-8

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 02:39	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		5	457106	01/30/19 15:14	RJS	TAL BUF
Total/NA	Prep	9012B			455137	01/15/19 11:50	LAW	TAL BUF
Total/NA	Analysis	9012B		1	455313	01/16/19 10:32	MDL	TAL BUF

Client Sample ID: MW93-1S DUP

Lab Sample ID: 480-147692-9

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 03:03	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		5	457106	01/30/19 15:43	RJS	TAL BUF
Total/NA	Prep	9012B			455137	01/15/19 11:50	LAW	TAL BUF
Total/NA	Analysis	9012B		1	455313	01/16/19 10:35	MDL	TAL BUF

Client Sample ID: MW93-1D

Lab Sample ID: 480-147692-10

Date Collected: 01/08/19 16:30

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 03:27	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	457106	01/30/19 16:12	RJS	TAL BUF
Total/NA	Prep	9012B			455137	01/15/19 11:50	LAW	TAL BUF
Total/NA	Analysis	9012B		1	455313	01/16/19 10:52	MDL	TAL BUF

Client Sample ID: MW08-05S

Lab Sample ID: 480-147692-11

Date Collected: 01/09/19 08:00

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	454637	01/11/19 03:50	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		5	456996	01/29/19 23:59	RJS	TAL BUF
Total/NA	Prep	9012B			455137	01/15/19 11:50	LAW	TAL BUF
Total/NA	Analysis	9012B		1	455313	01/16/19 10:53	MDL	TAL BUF

Client Sample ID: MW08-06S

Lab Sample ID: 480-147692-12

Date Collected: 01/09/19 09:35

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 04:14	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	456996	01/30/19 00:28	RJS	TAL BUF
Total/NA	Prep	9012B			455137	01/15/19 11:50	LAW	TAL BUF
Total/NA	Analysis	9012B		1	455313	01/16/19 10:55	MDL	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Client Sample ID: MW08-07D

Lab Sample ID: 480-147692-13

Date Collected: 01/09/19 10:25

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 04:37	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	456996	01/30/19 00:56	RJS	TAL BUF
Total/NA	Prep	9012B			455137	01/15/19 11:50	LAW	TAL BUF
Total/NA	Analysis	9012B		1	455313	01/16/19 10:56	MDL	TAL BUF

Client Sample ID: MW08-06D

Lab Sample ID: 480-147692-14

Date Collected: 01/09/19 10:50

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 05:01	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		1	456996	01/30/19 01:24	RJS	TAL BUF
Total/NA	Prep	9012B			455137	01/15/19 11:50	LAW	TAL BUF
Total/NA	Analysis	9012B		1	455313	01/16/19 11:01	MDL	TAL BUF

Client Sample ID: MW08-07S

Lab Sample ID: 480-147692-15

Date Collected: 01/09/19 11:20

Matrix: Water

Date Received: 01/10/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	454637	01/11/19 05:25	KMN	TAL BUF
Total/NA	Prep	3510C			454559	01/10/19 14:15	ATG	TAL BUF
Total/NA	Analysis	8270D		5	456996	01/30/19 01:52	RJS	TAL BUF
Total/NA	Prep	9012B			455137	01/15/19 11:50	LAW	TAL BUF
Total/NA	Analysis	9012B		1	455313	01/16/19 11:02	MDL	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Total BTEX

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-147692-1	MW18-04S	Water	01/07/19 14:30	01/10/19 01:00
480-147692-2	MW18-04D	Water	01/07/19 15:15	01/10/19 01:00
480-147692-3	MW18-08D	Water	01/07/19 17:25	01/10/19 01:00
480-147692-4	MW08-08S	Water	01/08/19 09:20	01/10/19 01:00
480-147692-5	MW93-02S	Water	01/08/19 09:40	01/10/19 01:00
480-147692-6	MW93-2D	Water	01/08/19 11:35	01/10/19 01:00
480-147692-7	MW08-05D	Water	01/08/19 14:35	01/10/19 01:00
480-147692-8	MW93-1S	Water	01/08/19 14:55	01/10/19 01:00
480-147692-9	MW93-1S DUP	Water	01/08/19 14:55	01/10/19 01:00
480-147692-10	MW93-1D	Water	01/08/19 16:30	01/10/19 01:00
480-147692-11	MW08-05S	Water	01/09/19 08:00	01/10/19 01:00
480-147692-12	MW08-06S	Water	01/09/19 09:35	01/10/19 01:00
480-147692-13	MW08-07D	Water	01/09/19 10:25	01/10/19 01:00
480-147692-14	MW08-06D	Water	01/09/19 10:50	01/10/19 01:00
480-147692-15	MW08-07S	Water	01/09/19 11:20	01/10/19 01:00

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Syracuse #225

Chain of Custody Record

1 of 2

TestAmerica

Client Information	Sampler: Evan Grun	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-123234-28229.1
Client Contact: Mr. Jason Golubski	Phone: (603) 305-2692	E-Mail: melissa.deyo@testamericainc.com		Page: Page 1 of 3
Company: ARCADIS U.S. Inc				Job #: 480-147692 COC
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested: ASAP			
City: Syracuse	TAT Requested (days): Standard			
State, Zip: NY, 13202				
Phone: 1(716)597-7620	PO #: B0013080.0006.00011			
Email: jason.golubski@arcadis-us.com	WO #: Same as Above			
Project Name: NYSEG - Goshen Project	Project #: 48011613			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - BTEX	8270D - PAHs	6012B - Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	B		
MW18-04S	1/7/19	1430	G	Water			3	2	1		
MW 18-04D	1/7/19	1515	G	Water			3	2	1		
MW18-08D	1/7/19	1725	G	Water			3	2	1		
MW08-08S	1/8/19	920	G	Water			3	2	1		
MW93-02S	1/8/19	940	G	Water			3	2	1		
MW93-2D	1/8/19	1133	G	Water			3	2	1		
MW 93 - 2D MS	1/8/19	1135	G	Water			3	2	1		
MW 93 - 2D MSD	1/8/19	1135	G	Water			3	2	1		
MW08-05D	1/8/19	1435	G	Water			3	2	1		
MW93-1S	1/8/19	1455	G	Water			3	2	1		
MW 93-1S Dup	1/8/19	1455	G	Water			3	2	1		

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

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

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

Special Instructions/QC Requirements:

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

	Date/Time	Company		Date/Time	Company
Relinquished by: Evan Grun	1/9/19 1630	Arcadis	Received by: [illegible]	1/9-19 1630	SYR
Relinquished by: R. Enright	1-9-19, 19:00	SYR	Received by: Melissa@	01-10-19 0930	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 0100	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9 1.1 2.6 #3

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Syracuse #225

Chain of Custody Record

2 of 2

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-123234-28229.2
Client Contact: Mr. Jason Golubski	Phone:	E-Mail: melissa.deyo@testamericainc.com		Page: Page 2 of 3
Company: ARCADIS U.S. Inc		Analysis Requested		Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			Preservation Codes:
City: Syracuse	TAT Requested (days): Standard			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:
State, Zip: NY, 13202	PO #: B0013080.0006.00011			
Phone:	WO #:			
Email: jason.golubski@arcadis-us.com	Project #: 48011613			
Project Name: NYSEG - Goshen Project	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - BTEX	8270D - PAHs	9012B - Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	B		
MW93-10	1/8/19	1630	G	Water			3	2	1		
MW08-05S	1/9/19	0800	G	Water			3	2	1		
MW08-06S	1/9/19	0935	G	Water			3	2	1		
MW08-07D	1/9/19	1025	G	Water			3	2	1		
MW08-06D	1/9/19	1050	G	Water			3	2	1		
MW08-07S	1/9/19	1120	G	Water			3	2	1		
				Water							
				Water							
1-10-19 AP				Water							
				Water							
				Water							

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 1/9/19 1630	Company: Arcadis	Received by:	Date/Time: 1-9-19 1630	Company: SYR
Relinquished by: R.E. 1/9/19	Date/Time: 1-9-19, 19:00	Company: Syr	Received by:	Date/Time: 01-10-19 ~~0235~~ 0100	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9 #3

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-147692-1

Login Number: 147692

List Source: TestAmerica Buffalo

List Number: 1

Creator: Velickovic, Zoran

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

ATTACHMENT 5

Data Usability Summary Report

ARCADIS Design & Consultancy for natural and built assets

NYSEG – Goshen Former MGP Site

Data Usability Summary Report

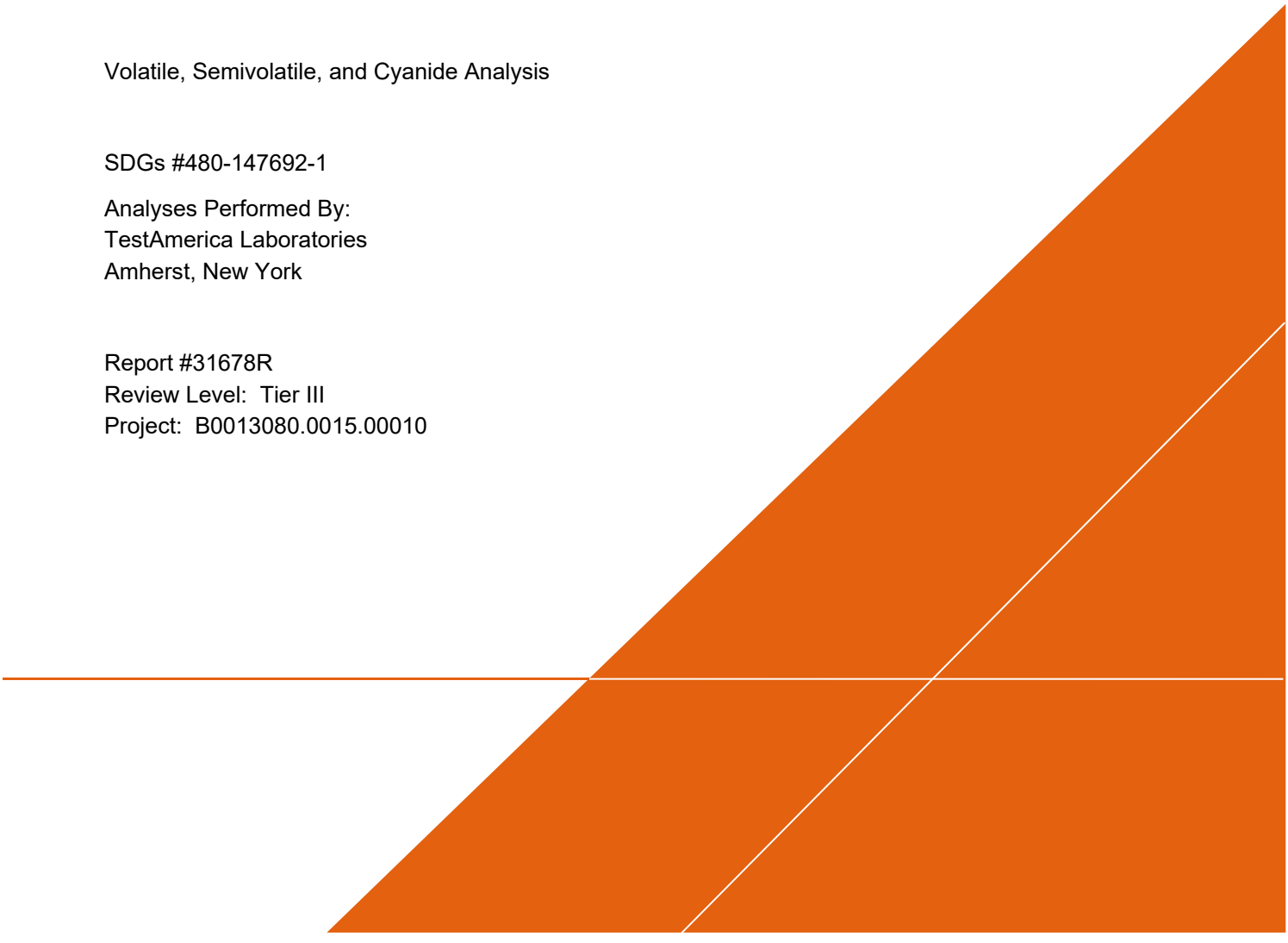
Goshen, New York

Volatile, Semivolatile, and Cyanide Analysis

SDGs #480-147692-1

Analyses Performed By:
TestAmerica Laboratories
Amherst, New York

Report #31678R
Review Level: Tier III
Project: B0013080.0015.00010



SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #480-147692-1 for samples collected in association with the NYSEG Goshen Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis			
					VOC	SVOC	MET	MISC
MW18-04S 01072019	480-147692-1	Water	1/7/2019		X	X		X
MW18-04D 01072019	480-147692-2	Water	1/7/2019		X	X		X
MW18-08D 01072019	480-147692-3	Water	1/7/2019		X	X		X
MW08-08S 01082019	480-147692-4	Water	1/8/2019		X	X		X
MW93-02S 01082019	480-147692-5	Water	1/8/2019		X	X		X
MW93-2D 01082019	480-147692-6	Water	1/8/2019		X	X		X
MW08-05D 01082019	480-147692-7	Water	1/8/2019		X	X		X
MW93-1S 01082019	480-147692-8	Water	1/8/2019		X	X		X
MW93-1S DUP 01082019	480-147692-9	Water	1/8/2019	MW93-1S 01082019	X	X		X
MW93-1D 01082019	480-147692-10	Water	1/8/2019		X	X		X
MW08-05S 01092019	480-147692-11	Water	1/9/2019		X	X		X
MW08-06S 01092019	480-147692-12	Water	1/9/2019		X	X		X
MW08-07D 01092019	480-147692-13	Water	1/9/2019		X	X		X
MW08-06D 01092019	480-147692-14	Water	1/9/2019		X	X		X
MW08-07S 01092019	480-147692-15	Water	1/9/2019		X	X		X

Note:

1. The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample ID MW93-2D 01082019 for VOC and SVOC analysis. The MS/MSD analysis was performed on sample ID -6. The MS analysis was performed on sample IDs MW08-05D 01082019, MW93-1S DUP 01082019, and MW08-07S 01092019 for cyanide analysis.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:
QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United Stated Environmental Protection Agency (USEPA) SW-846 Methods 8260C and 8270D. Data were reviewed in accordance with USEPA Region II SOPs and USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

DATA REVIEW REPORT

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260C	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

Note:
s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW93-1S 01082019/ MW93-1S DUP 01082019	All compounds	U	U	AC

Notes:
AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT		X		X	

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
windows					
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270D	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW93-1S 01082019/ MW93-1S DUP 01082019	Acenaphthylene	2.4 J	25 U	AC
	Anthracene	1.5 J	25 U	
	Benzo[a]anthracene	8.3 J	4.8 J	
	Benzo[a]pyrene	11 J	7.5 J	
	Benzo[b]fluoranthene	15 J	9.9 J	
	Benzo[g,h,i]perylene	8.7 J	5.6 J	
	Benzo[k]fluoranthene	6.4 J	3.9 J	
	Chrysene	8.2 J	5.4 J	
	Dibenz(a,h)anthracene	2.9 J	25 U	
	Fluoranthene	13 J	8.3 J	
	Indeno[1,2,3-cd]pyrene	7.8 J	5.3 J	
	Phenanthrene	3.2 J	25 U	
	Pyrene	12 J	7.3 J	

Notes:
AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)	X				X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
F. Reconstructed ion chromatograms		X		X	
G. Quantitation Reports		X		X	
H. RT of sample compounds within the established RT windows		X		X	

SVOCs: SW-846 8270		Reported		Performance Acceptable		Not Required
		No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)						
I.	Quantitation transcriptions/calculations		X		X	
J.	Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency USEPA Methods, SW846 method 9012B. Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).

- Quantitation (Q) Qualifiers

  E The reported value is estimated due to the presence of interference.

  N Spiked sample recovery is not within control limits.

  * Duplicate analysis is not within control limits.

- Validation Qualifiers

  J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

  UB Analyte considered non-detect at the listed value due to associated blank contamination.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Cyanide, Total by SW846 9012B	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of greater than 12.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were detected in the associated QA blanks; however, the associated sample results were greater than the BAL and/or were non-detect. No other qualification of the sample results was required.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of

four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

The MS and/or MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

The laboratory duplicate was not performed on a sample within this SDG.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW93-1S 01082019/ MW93-1S DUP 01082019	Cyanide	0.0076 J	0.0086 J	AC

Note:
AC = acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: 9012B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate(MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD – relative standard deviation
%R - percent recovery
RPD - relative percent difference,

%D – difference

SAMPLE COMPLIANCE REPORT

SDG	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-147692-1	1/7/2019	SW846	MW18-04S 01072019	Water	Yes	Yes	--	--	yes	
	1/7/2019	SW846	MW18-04D 01072019	Water	Yes	Yes	--	--	yes	
	1/7/2019	SW846	MW18-08D 01072019	Water	Yes	Yes	--	--	yes	
	1/8/2019	SW846	MW08-08S 01082019	Water	Yes	Yes	--	--	yes	
	1/8/2019	SW846	MW93-02S 01082019	Water	Yes	Yes	--	--	yes	
	1/8/2019	SW846	MW93-2D 01082019	Water	Yes	Yes	--	--	yes	
	1/8/2019	SW846	MW08-05D 01082019	Water	Yes	Yes	--	--	yes	
	1/8/2019	SW846	MW93-1S 01082019	Water	Yes	Yes	--	--	yes	
	1/8/2019	SW846	MW93-1S DUP 01082019	Water	Yes	Yes	--	--	yes	
	1/8/2019	SW846	MW93-1D 01082019	Water	Yes	Yes	--	--	yes	
	1/9/2019	SW846	MW08-05S 01092019	Water	Yes	Yes	--	--	yes	
	1/9/2019	SW846	MW08-06S 01092019	Water	Yes	Yes	--	--	yes	
	1/9/2019	SW846	MW08-07D 01092019	Water	Yes	Yes	--	--	yes	
	1/9/2019	SW846	MW08-06D 01092019	Water	Yes	Yes	--	--	yes	
	1/9/2019	SW846	MW08-07S 01092019	Water	Yes	Yes	--	--	yes	

Notes:

SDG = sample delivery group

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Todd Church

SIGNATURE: 

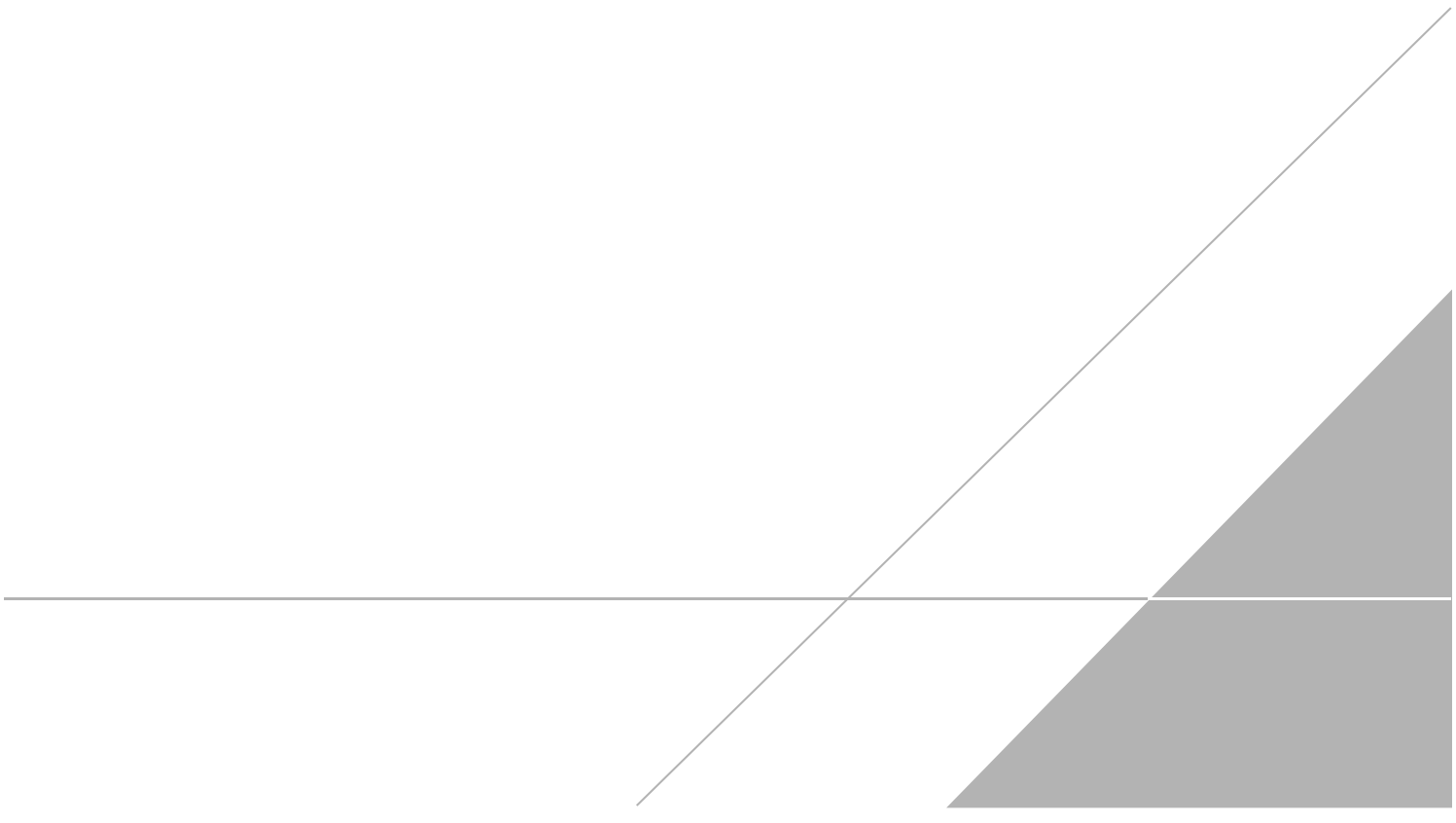
DATE: February 26, 2019

PEER REVIEW: Dennis Capria

DATE: February 27, 2019

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS



TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Syracuse #225

Chain of Custody Record

1 of 2

TestAmerica

Client Information	Sampler: Evan Grun	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-123234-28229.1
Client Contact: Mr. Jason Golubski	Phone: (603) 305-2692	E-Mail: melissa.deyo@testamericainc.com		Page: Page 1 of 3
Company: ARCADIS U.S. Inc				Job #: 480-147692 COC
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested: ASAP			
City: Syracuse	TAT Requested (days): Standard			
State, Zip: NY, 13202				
Phone: 1(716)597-7620	PO #: B0013080.0006.00011			
Email: jason.golubski@arcadis-us.com	WO #: Same as Above			
Project Name: NYSEG - Goshen Project	Project #: 48011613			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - BTEX	8270D - PAHs	6012B - Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	B		
MW18-04S	1/7/19	1430	G	Water			3	2	1		
MW 18-04D	1/7/19	1515	G	Water			3	2	1		
MW18-08D	1/7/19	1725	G	Water			3	2	1		
MW08-08S	1/8/19	920	G	Water			3	2	1		
MW93-02S	1/8/19	940	G	Water			3	2	1		
MW93-2D	1/8/19	1133	G	Water			3	2	1		
MW 93 - 2D MS	1/8/19	1135	G	Water			3	2	1		
MW 93 - 2D MSD	1/8/19	1135	G	Water			3	2	1		
MW08-05D	1/8/19	1435	G	Water			3	2	1		
MW93-1S	1/8/19	1455	G	Water			3	2	1		
MW 93-1S Dup	1/8/19	1455	G	Water			3	2	1		

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

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

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

Special Instructions/QC Requirements:

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

	Date/Time	Company		Date/Time	Company
Relinquished by: Evan Grun	1/9/19 1630	Arcadis	Received by: [illegible]	1/9-19 1630	SYR
Relinquished by: R. Enright	1-9-19, 19:00	SYR	Received by: Melissa@	01-10-19 0930	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 0100	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9 1.1 2.6 #3

Ver: 08/04/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Syracuse #225

Chain of Custody Record

2 of 2

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler:	Lab PM: Deyo, Melissa L	Carrier Tracking No(s):	COC No: 480-123234-28229.2
Client Contact: Mr. Jason Golubski	Phone:	E-Mail: melissa.deyo@testamericainc.com		Page: Page 2 of 3
Company: ARCADIS U.S. Inc		Analysis Requested		Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			Preservation Codes:
City: Syracuse	TAT Requested (days): Standard			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:
State, Zip: NY, 13202	PO #: B0013080.0006.00011			
Phone:	WO #:			
Email: jason.golubski@arcadis-us.com	Project #: 48011613			
Project Name: NYSEG - Goshen Project	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - BTEX	8270D - PAHs	9012B - Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	B		
MW93-10	1/8/19	1630	G	Water			3	2	1		
MW08-05S	1/9/19	0800	G	Water			3	2	1		
MW08-06S	1/9/19	0935	G	Water			3	2	1		
MW08-07D	1/9/19	1025	G	Water			3	2	1		
MW08-06D	1/9/19	1050	G	Water			3	2	1		
MW08-07S	1/9/19	1120	G	Water			3	2	1		
				Water							
				Water							
1-10-19 AP				Water							
				Water							
				Water							

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 1/9/19 1630	Company: Arcadis	Received by:	Date/Time: 1-9-19 1630	Company: SYR
Relinquished by: R.E. 1/9/19	Date/Time: 1-9-19, 19:00	Company: Syr	Received by:	Date/Time: 01-10-19 ~~0235~~ 0100	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9 #3

Ver: 08/04/2016

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

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

Glossary

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

Client Sample ID: MW18-04S

Date Collected: 01/07/19 14:30
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/10/19 23:54	1
Toluene	ND		1.0	0.51	ug/L			01/10/19 23:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/10/19 23:54	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/10/19 23:54	1
o-Xylene	ND		1.0	0.76	ug/L			01/10/19 23:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/10/19 23:54	1
Total BTEX	ND		2.0	1.0	ug/L			01/10/19 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*01/10/19 23:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*01/10/19 23:54*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/10/19 23:54*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/10/19 23:54*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 19:43	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 19:43	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 19:43	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 19:43	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 19:43	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 19:43	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 19:43	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 19:43	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 19:43	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 19:43	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 19:43	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*48 - 120*	*01/10/19 14:15*	*01/29/19 19:43*	*1*
Nitrobenzene-d5 (Surr)	*80*		*46 - 120*	*01/10/19 14:15*	*01/29/19 19:43*	*1*
p-Terphenyl-d14 (Surr)	*98*		*59 - 136*	*01/10/19 14:15*	*01/29/19 19:43*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0065**	**J**	0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:21	1

Client Sample ID: MW18-04D

Date Collected: 01/07/19 15:15
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 00:18	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 00:18	1

Client Sample ID: MW18-04D

Date Collected: 01/07/19 15:15
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 00:18	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 00:18	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 00:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 00:18	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 00:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*01/11/19 00:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*01/11/19 00:18*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*01/11/19 00:18*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/11/19 00:18*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 20:12	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 20:12	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 20:12	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 20:12	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 20:12	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 20:12	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 20:12	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 20:12	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 20:12	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 20:12	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 20:12	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*48 - 120*	*01/10/19 14:15*	*01/29/19 20:12*	*1*
Nitrobenzene-d5 (Surr)	*83*		*46 - 120*	*01/10/19 14:15*	*01/29/19 20:12*	*1*
p-Terphenyl-d14 (Surr)	*97*		*59 - 136*	*01/10/19 14:15*	*01/29/19 20:12*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:22	1

Client Sample ID: MW18-08D

Date Collected: 01/07/19 17:25
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 00:41	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 00:41	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 00:41	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 00:41	1

Client Sample ID: MW18-08D

Lab Sample ID: 480-147692-3

Date Collected: 01/07/19 17:25

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 00:41	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 00:41	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 00:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*01/11/19 00:41*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 00:41*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*01/11/19 00:41*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 20:40	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 20:40	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 20:40	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 20:40	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 20:40	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 20:40	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 20:40	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 20:40	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 20:40	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 20:40	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 20:40	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*48 - 120*	*01/10/19 14:15*	*01/29/19 20:40*	*1*
Nitrobenzene-d5 (Surr)	*76*		*46 - 120*	*01/10/19 14:15*	*01/29/19 20:40*	*1*
p-Terphenyl-d14 (Surr)	*85*		*59 - 136*	*01/10/19 14:15*	*01/29/19 20:40*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:24	1

Client Sample ID: MW08-08S

Lab Sample ID: 480-147692-4

Date Collected: 01/08/19 09:20

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**32**		1.0	0.41	ug/L			01/11/19 01:05	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 01:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 01:05	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 01:05	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 01:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 01:05	1

Client Sample ID: MW08-08S

Lab Sample ID: 480-147692-4

Date Collected: 01/08/19 09:20

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**32**		2.0	1.0	ug/L			01/11/19 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*01/11/19 01:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*01/11/19 01:05*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*01/11/19 01:05*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*01/11/19 01:05*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 14:16	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 14:16	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 14:16	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 14:16	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 14:16	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 14:16	1
Fluoranthene	**0.40**	**J**	5.0	0.40	ug/L		01/10/19 14:15	01/30/19 14:16	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 14:16	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 14:16	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 14:16	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 14:16	1
Pyrene	**0.35**	**J**	5.0	0.34	ug/L		01/10/19 14:15	01/30/19 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*48 - 120*	*01/10/19 14:15*	*01/30/19 14:16*	*1*
Nitrobenzene-d5 (Surr)	*89*		*46 - 120*	*01/10/19 14:15*	*01/30/19 14:16*	*1*
p-Terphenyl-d14 (Surr)	*93*		*59 - 136*	*01/10/19 14:15*	*01/30/19 14:16*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0076**	**J**	0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:25	1

Client Sample ID: MW93-02S

Lab Sample ID: 480-147692-5

Date Collected: 01/08/19 09:40

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 01:28	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 01:28	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 01:28	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 01:28	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 01:28	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 01:28	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 01:28	1

Client Sample ID: MW93-02S

Lab Sample ID: 480-147692-5

Date Collected: 01/08/19 09:40

Matrix: Water

Date Received: 01/10/19 01:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*01/11/19 01:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 01:28*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*01/11/19 01:28*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/11/19 01:28*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 21:37	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 21:37	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 21:37	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 21:37	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 21:37	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 21:37	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 21:37	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 21:37	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 21:37	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 21:37	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 21:37	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*48 - 120*	*01/10/19 14:15*	*01/29/19 21:37*	*1*
Nitrobenzene-d5 (Surr)	*83*		*46 - 120*	*01/10/19 14:15*	*01/29/19 21:37*	*1*
p-Terphenyl-d14 (Surr)	*86*		*59 - 136*	*01/10/19 14:15*	*01/29/19 21:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0097**	**J**	0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:27	1

Client Sample ID: MW93-2D

Lab Sample ID: 480-147692-6

Date Collected: 01/08/19 11:35

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 01:52	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 01:52	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 01:52	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 01:52	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 01:52	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 01:52	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 01:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*01/11/19 01:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 01:52*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 01:52*	*1*

Client Sample ID: MW93-2D

Lab Sample ID: 480-147692-6

Date Collected: 01/08/19 11:35

Matrix: Water

Date Received: 01/10/19 01:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*01/11/19 01:52*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/29/19 19:15	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/29/19 19:15	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/29/19 19:15	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/29/19 19:15	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/29/19 19:15	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/29/19 19:15	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/29/19 19:15	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/29/19 19:15	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/29/19 19:15	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/29/19 19:15	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/29/19 19:15	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/29/19 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	*91*		*48 - 120*	*01/10/19 14:15*	*01/29/19 19:15*	*1*
Nitrobenzene-d5 (Surr)	*86*		*46 - 120*	*01/10/19 14:15*	*01/29/19 19:15*	*1*
p-Terphenyl-d14 (Surr)	*103*		*59 - 136*	*01/10/19 14:15*	*01/29/19 19:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	F1	0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:01	1

Client Sample ID: MW08-05D

Lab Sample ID: 480-147692-7

Date Collected: 01/08/19 14:35

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 02:15	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 02:15	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 02:15	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 02:15	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 02:15	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 02:15	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 02:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 02:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*01/11/19 02:15*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*01/11/19 02:15*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*01/11/19 02:15*	*1*

Client Sample ID: MW08-05D

Lab Sample ID: 480-147692-7

Date Collected: 01/08/19 14:35

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 14:45	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 14:45	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 14:45	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 14:45	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 14:45	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 14:45	1
Fluoranthene	**0.42**	**J**	5.0	0.40	ug/L		01/10/19 14:15	01/30/19 14:45	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 14:45	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 14:45	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 14:45	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 14:45	1
Pyrene	**0.40**	**J**	5.0	0.34	ug/L		01/10/19 14:15	01/30/19 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*48 - 120*	*01/10/19 14:15*	*01/30/19 14:45*	*1*
Nitrobenzene-d5 (Surr)	*77*		*46 - 120*	*01/10/19 14:15*	*01/30/19 14:45*	*1*
p-Terphenyl-d14 (Surr)	*94*		*59 - 136*	*01/10/19 14:15*	*01/30/19 14:45*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.065**		0.010	0.0050	mg/L		01/14/19 09:00	01/14/19 14:31	1

Client Sample ID: MW93-1S

Lab Sample ID: 480-147692-8

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 02:39	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 02:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 02:39	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 02:39	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 02:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 02:39	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*01/11/19 02:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 02:39*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 02:39*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*01/11/19 02:39*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 15:14	5
Acenaphthylene	**2.4**	**J**	25	1.9	ug/L		01/10/19 14:15	01/30/19 15:14	5

Client Sample ID: MW93-1S

Lab Sample ID: 480-147692-8

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	1.5	J	25	1.4	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[a]anthracene	8.3	J	25	1.8	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[a]pyrene	11	J	25	2.4	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[b]fluoranthene	15	J	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[g,h,i]perylene	8.7	J	25	1.8	ug/L		01/10/19 14:15	01/30/19 15:14	5
Benzo[k]fluoranthene	6.4	J	25	3.7	ug/L		01/10/19 14:15	01/30/19 15:14	5
Chrysene	8.2	J	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:14	5
Dibenz(a,h)anthracene	2.9	J	25	2.1	ug/L		01/10/19 14:15	01/30/19 15:14	5
Fluoranthene	13	J	25	2.0	ug/L		01/10/19 14:15	01/30/19 15:14	5
Fluorene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 15:14	5
Indeno[1,2,3-cd]pyrene	7.8	J	25	2.4	ug/L		01/10/19 14:15	01/30/19 15:14	5
Naphthalene	ND		25	3.8	ug/L		01/10/19 14:15	01/30/19 15:14	5
Phenanthrene	3.2	J	25	2.2	ug/L		01/10/19 14:15	01/30/19 15:14	5
Pyrene	12	J	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:14	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*48 - 120*	*01/10/19 14:15*	*01/30/19 15:14*	*5*
Nitrobenzene-d5 (Surr)	*66*		*46 - 120*	*01/10/19 14:15*	*01/30/19 15:14*	*5*
p-Terphenyl-d14 (Surr)	*83*		*59 - 136*	*01/10/19 14:15*	*01/30/19 15:14*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0076	J	0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:32	1

Client Sample ID: MW93-1S DUP

Lab Sample ID: 480-147692-9

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 03:03	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 03:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 03:03	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 03:03	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 03:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 03:03	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 03:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*01/11/19 03:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*01/11/19 03:03*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 03:03*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*01/11/19 03:03*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 15:43	5
Acenaphthylene	ND		25	1.9	ug/L		01/10/19 14:15	01/30/19 15:43	5
Anthracene	ND		25	1.4	ug/L		01/10/19 14:15	01/30/19 15:43	5
Benzo[a]anthracene	4.8	J	25	1.8	ug/L		01/10/19 14:15	01/30/19 15:43	5

Client Sample ID: MW93-1S DUP

Lab Sample ID: 480-147692-9

Date Collected: 01/08/19 14:55

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	**7.5**	**J**	25	2.4	ug/L		01/10/19 14:15	01/30/19 15:43	5
Benzo[b]fluoranthene	**9.9**	**J**	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:43	5
Benzo[g,h,i]perylene	**5.6**	**J**	25	1.8	ug/L		01/10/19 14:15	01/30/19 15:43	5
Benzo[k]fluoranthene	**3.9**	**J**	25	3.7	ug/L		01/10/19 14:15	01/30/19 15:43	5
Chrysene	**5.4**	**J**	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:43	5
Dibenz(a,h)anthracene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 15:43	5
Fluoranthene	**8.3**	**J**	25	2.0	ug/L		01/10/19 14:15	01/30/19 15:43	5
Fluorene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 15:43	5
Indeno[1,2,3-cd]pyrene	**5.3**	**J**	25	2.4	ug/L		01/10/19 14:15	01/30/19 15:43	5
Naphthalene	ND		25	3.8	ug/L		01/10/19 14:15	01/30/19 15:43	5
Phenanthrene	ND		25	2.2	ug/L		01/10/19 14:15	01/30/19 15:43	5
Pyrene	**7.3**	**J**	25	1.7	ug/L		01/10/19 14:15	01/30/19 15:43	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*48 - 120*	*01/10/19 14:15*	*01/30/19 15:43*	*5*
Nitrobenzene-d5 (Surr)	*66*		*46 - 120*	*01/10/19 14:15*	*01/30/19 15:43*	*5*
p-Terphenyl-d14 (Surr)	*82*		*59 - 136*	*01/10/19 14:15*	*01/30/19 15:43*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0086**	**J**	0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:35	1

Client Sample ID: MW93-1D

Lab Sample ID: 480-147692-10

Date Collected: 01/08/19 16:30

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 03:27	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 03:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 03:27	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 03:27	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 03:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 03:27	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 03:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*77 - 120*		*01/11/19 03:27*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 03:27*	*1*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*01/11/19 03:27*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 16:12	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 16:12	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 16:12	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 16:12	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 16:12	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 16:12	1

Client Sample ID: MW93-1D

Lab Sample ID: 480-147692-10

Date Collected: 01/08/19 16:30

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 16:12	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 16:12	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 16:12	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 16:12	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/30/19 16:12	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 16:12	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 16:12	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 16:12	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 16:12	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*48 - 120*	*01/10/19 14:15*	*01/30/19 16:12*	*1*
Nitrobenzene-d5 (Surr)	*76*		*46 - 120*	*01/10/19 14:15*	*01/30/19 16:12*	*1*
p-Terphenyl-d14 (Surr)	*87*		*59 - 136*	*01/10/19 14:15*	*01/30/19 16:12*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0062**	**J**	0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:52	1

Client Sample ID: MW08-05S

Lab Sample ID: 480-147692-11

Date Collected: 01/09/19 08:00

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**690**		10	4.1	ug/L			01/11/19 03:50	10
Toluene	**19**		10	5.1	ug/L			01/11/19 03:50	10
Ethylbenzene	**57**		10	7.4	ug/L			01/11/19 03:50	10
m-Xylene & p-Xylene	**39**		20	6.6	ug/L			01/11/19 03:50	10
o-Xylene	**29**		10	7.6	ug/L			01/11/19 03:50	10
Xylenes, Total	**68**		20	6.6	ug/L			01/11/19 03:50	10
Total BTEX	**830**		20	10	ug/L			01/11/19 03:50	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*01/11/19 03:50*	*10*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*01/11/19 03:50*	*10*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*01/11/19 03:50*	*10*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/11/19 03:50*	*10*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**15**	**J**	25	2.1	ug/L		01/10/19 14:15	01/29/19 23:59	5
Acenaphthylene	**12**	**J**	25	1.9	ug/L		01/10/19 14:15	01/29/19 23:59	5
Anthracene	**7.3**	**J**	25	1.4	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[a]anthracene	ND		25	1.8	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[a]pyrene	ND		25	2.4	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[b]fluoranthene	ND		25	1.7	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[g,h,i]perylene	ND		25	1.8	ug/L		01/10/19 14:15	01/29/19 23:59	5
Benzo[k]fluoranthene	ND		25	3.7	ug/L		01/10/19 14:15	01/29/19 23:59	5

Client Sample ID: MW08-05S

Date Collected: 01/09/19 08:00
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		25	1.7	ug/L		01/10/19 14:15	01/29/19 23:59	5
Dibenz(a,h)anthracene	ND		25	2.1	ug/L		01/10/19 14:15	01/29/19 23:59	5
Fluoranthene	**12**	**J**	25	2.0	ug/L		01/10/19 14:15	01/29/19 23:59	5
Fluorene	**38**		25	1.8	ug/L		01/10/19 14:15	01/29/19 23:59	5
Indeno[1,2,3-cd]pyrene	ND		25	2.4	ug/L		01/10/19 14:15	01/29/19 23:59	5
Naphthalene	**67**		25	3.8	ug/L		01/10/19 14:15	01/29/19 23:59	5
Phenanthrene	**31**		25	2.2	ug/L		01/10/19 14:15	01/29/19 23:59	5
Pyrene	**7.8**	**J**	25	1.7	ug/L		01/10/19 14:15	01/29/19 23:59	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*48 - 120*	*01/10/19 14:15*	*01/29/19 23:59*	*5*
Nitrobenzene-d5 (Surr)	*73*		*46 - 120*	*01/10/19 14:15*	*01/29/19 23:59*	*5*
p-Terphenyl-d14 (Surr)	*85*		*59 - 136*	*01/10/19 14:15*	*01/29/19 23:59*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.038**		0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:53	1

Client Sample ID: MW08-06S

Date Collected: 01/09/19 09:35
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 04:14	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 04:14	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 04:14	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 04:14	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 04:14	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 04:14	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 04:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*01/11/19 04:14*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*01/11/19 04:14*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*01/11/19 04:14*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 00:28	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 00:28	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 00:28	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 00:28	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 00:28	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 00:28	1

Client Sample ID: MW08-06S

Lab Sample ID: 480-147692-12

Date Collected: 01/09/19 09:35

Matrix: Water

Date Received: 01/10/19 01:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/30/19 00:28	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 00:28	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 00:28	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 00:28	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 00:28	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*48 - 120*	*01/10/19 14:15*	*01/30/19 00:28*	*1*
Nitrobenzene-d5 (Surr)	*84*		*46 - 120*	*01/10/19 14:15*	*01/30/19 00:28*	*1*
p-Terphenyl-d14 (Surr)	*100*		*59 - 136*	*01/10/19 14:15*	*01/30/19 00:28*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.064**		0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:55	1

Client Sample ID: MW08-07D

Lab Sample ID: 480-147692-13

Date Collected: 01/09/19 10:25

Matrix: Water

Date Received: 01/10/19 01:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 04:37	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 04:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 04:37	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 04:37	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 04:37	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 04:37	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 04:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*01/11/19 04:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 04:37*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*01/11/19 04:37*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*01/11/19 04:37*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 00:56	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 00:56	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 00:56	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 00:56	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 00:56	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 00:56	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/30/19 00:56	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 00:56	1

Client Sample ID: MW08-07D

Date Collected: 01/09/19 10:25
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 00:56	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 00:56	1
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 00:56	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*48 - 120*	*01/10/19 14:15*	*01/30/19 00:56*	*1*
Nitrobenzene-d5 (Surr)	*80*		*46 - 120*	*01/10/19 14:15*	*01/30/19 00:56*	*1*
p-Terphenyl-d14 (Surr)	*98*		*59 - 136*	*01/10/19 14:15*	*01/30/19 00:56*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0059**	**J**	0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 10:56	1

Client Sample ID: MW08-06D

Date Collected: 01/09/19 10:50
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 05:01	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 05:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 05:01	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 05:01	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 05:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 05:01	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 120*		*01/11/19 05:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*01/11/19 05:01*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*01/11/19 05:01*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*01/11/19 05:01*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		01/10/19 14:15	01/30/19 01:24	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/10/19 14:15	01/30/19 01:24	1
Anthracene	ND		5.0	0.28	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/10/19 14:15	01/30/19 01:24	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/10/19 14:15	01/30/19 01:24	1
Chrysene	ND		5.0	0.33	ug/L		01/10/19 14:15	01/30/19 01:24	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/10/19 14:15	01/30/19 01:24	1
Fluoranthene	ND		5.0	0.40	ug/L		01/10/19 14:15	01/30/19 01:24	1
Fluorene	ND		5.0	0.36	ug/L		01/10/19 14:15	01/30/19 01:24	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/10/19 14:15	01/30/19 01:24	1
Naphthalene	ND		5.0	0.76	ug/L		01/10/19 14:15	01/30/19 01:24	1

Client Sample ID: MW08-06D

Date Collected: 01/09/19 10:50
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-14
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		5.0	0.44	ug/L		01/10/19 14:15	01/30/19 01:24	1
Pyrene	ND		5.0	0.34	ug/L		01/10/19 14:15	01/30/19 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*48 - 120*	*01/10/19 14:15*	*01/30/19 01:24*	*1*
Nitrobenzene-d5 (Surr)	*88*		*46 - 120*	*01/10/19 14:15*	*01/30/19 01:24*	*1*
p-Terphenyl-d14 (Surr)	*98*		*59 - 136*	*01/10/19 14:15*	*01/30/19 01:24*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 11:01	1

Client Sample ID: MW08-07S

Date Collected: 01/09/19 11:20
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-15
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			01/11/19 05:25	1
Toluene	ND		1.0	0.51	ug/L			01/11/19 05:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/11/19 05:25	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			01/11/19 05:25	1
o-Xylene	ND		1.0	0.76	ug/L			01/11/19 05:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/11/19 05:25	1
Total BTEX	ND		2.0	1.0	ug/L			01/11/19 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*01/11/19 05:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*01/11/19 05:25*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*01/11/19 05:25*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*01/11/19 05:25*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 01:52	5
Acenaphthylene	ND		25	1.9	ug/L		01/10/19 14:15	01/30/19 01:52	5
Anthracene	ND		25	1.4	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[a]anthracene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[a]pyrene	ND		25	2.4	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[b]fluoranthene	ND		25	1.7	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[g,h,i]perylene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 01:52	5
Benzo[k]fluoranthene	ND		25	3.7	ug/L		01/10/19 14:15	01/30/19 01:52	5
Chrysene	ND		25	1.7	ug/L		01/10/19 14:15	01/30/19 01:52	5
Dibenz(a,h)anthracene	ND		25	2.1	ug/L		01/10/19 14:15	01/30/19 01:52	5
Fluoranthene	ND		25	2.0	ug/L		01/10/19 14:15	01/30/19 01:52	5
Fluorene	ND		25	1.8	ug/L		01/10/19 14:15	01/30/19 01:52	5
Indeno[1,2,3-cd]pyrene	ND		25	2.4	ug/L		01/10/19 14:15	01/30/19 01:52	5
Naphthalene	ND		25	3.8	ug/L		01/10/19 14:15	01/30/19 01:52	5
Phenanthrene	ND		25	2.2	ug/L		01/10/19 14:15	01/30/19 01:52	5
Pyrene	ND		25	1.7	ug/L		01/10/19 14:15	01/30/19 01:52	5

Client: ARCADIS U.S. Inc
Project/Site: NYSEG - Goshen MGP Site

TestAmerica Job ID: 480-147692-1

Client Sample ID: MW08-07S
Date Collected: 01/09/19 11:20
Date Received: 01/10/19 01:00

Lab Sample ID: 480-147692-15
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*48 - 120*	*01/10/19 14:15*	*01/30/19 01:52*	*5*
Nitrobenzene-d5 (Surr)	*69*		*46 - 120*	*01/10/19 14:15*	*01/30/19 01:52*	*5*
p-Terphenyl-d14 (Surr)	*86*		*59 - 136*	*01/10/19 14:15*	*01/30/19 01:52*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.012**		0.010	0.0050	mg/L		01/15/19 11:50	01/16/19 11:02	1

ATTACHMENT 6

Site Inspection Forms

Goshen Former MGP Site
Goshen, Orange County, New York
Site-Wide Inspection Form

Date: 3/15/18
Personnel: J. Bistrovich, N. Griffith
Time of Arrival: 1030
Time of Departure: 1330

Weather Conditions: Cloudy
Temperature: 35°F
Wind Speed: 10-12 mph
Wind Direction (from): W/NW

Inspection Checklist	Yes	No	Comments
Asphalt Cover			
Intrusive Activities Being Performed?			
- Trenching?		X	
- Excavation?		X	
- Tunneling?		X	
- Saw cutting?		X	
Signs of Previous Intrusive Activities Performed?			
- New drainage feature?		X	
- Evidence of a new underground utility?	X		NEW SEWER LINE INSTALLED IN 2017.
- New grass/vegetation/asphalt?	X		ASPHALT CUT AND REPLACED
- Other (e.g., cracking, potholes, depressions)	X		SOME CRACKING (MINOR).
Monitoring Well Condition			
NAPL monitoring needs to be performed this year?	X		
Covers secure?	X		NMW08-02 COVER BOLTS DAMAGED.
Casing in need of repair?		X	
Concrete surface seal intact?	X		
Settling in area around well?		X	
Well obstructed?	X		MW93-02S, MW93-02D obstructed by PIPE RACK
Ponded water above well?		X	
Well screen silted in?		X	
Well in need of redevelopment?		X	

General Comments/Suggested Action Items:

MW08-04S, MW08-04D, MW08-06S, MW08-06D, MW08-08D NOT LOCATED DUE TO SNOW DEPTH.

Goshen Former MGP Site
Goshen, Orange County, New York
Site-Wide Inspection Form

Date: 6/13/18
Personnel: J. Bistrovich, N. Griffith
Time of Arrival: 1000
Time of Departure: 1300

Weather Conditions: Cloudy
Temperature: 65° F
Wind Speed: 7 mph
Wind Direction (from): SSW

Inspection Checklist	Yes	No	Comments
Asphalt Cover			
Intrusive Activities Being Performed?			
- Trenching?		X	
- Excavation?		X	
- Tunneling?		X	
- Saw cutting?		X	
Signs of Previous Intrusive Activities Performed?			
- New drainage feature?		X	
- Evidence of a new underground utility?	X		
- New grass/vegetation/asphalt?	X		
- Other (e.g., cracking, potholes, depressions)	X		
Monitoring Well Condition			
NAPL monitoring needs to be performed this year?	X		
Covers secure?	X		
Casing in need of repair?		X	
Concrete surface seal intact?	X		
Settling in area around well?		X	
Well obstructed?	X		MW93-02S, MW93-02D obstructed.
Ponded water above well?		X	
Well screen silted in?		X	
Well in need of redevelopment?		X	

General Comments/Suggested Action Items:

MW08-04S, MW08-04D, MW08-08D NOT LOCATED

NMW08-02 COVER BOLTS FIXED.

Goshen Former MGP Site
Goshen, Orange County, New York
Site-Wide Inspection Form

Date:	9/14/18	**Weather Conditions:**	Overcast
Personnel:	J Bostrough, N. Griffith	**Temperature:**	70° F
Time of Arrival:	1000	**Wind Speed:**	6 mpH
Time of Departure:	1300	**Wind Direction (from):**	SE

Inspection Checklist	Yes	No	Comments
Asphalt Cover			
Intrusive Activities Being Performed?			
- Trenching?		X	
- Excavation?		X	
- Tunneling?		X	
- Saw cutting?		X	
Signs of Previous Intrusive Activities Performed?			
- New drainage feature?		X	
- Evidence of a new underground utility?		X	
- New grass/vegetation/asphalt?		X	
- Other (e.g., cracking, potholes, depressions)		X	
Monitoring Well Condition			
NAPL monitoring needs to be performed this year?	X		
Covers secure?	X		
Casing in need of repair?		X	
Concrete surface seal intact?	X		
Settling in area around well?		X	
Well obstructed?		X	
Ponded water above well?		X	
Well screen silted in?		X	
Well in need of redevelopment?		X	

General Comments/Suggested Action Items:

MW08-04S, MW08-04D, MW08-08D NOT LOCATED.

Goshen Former MGP Site
Goshen, Orange County, New York
Site-Wide Inspection Form

Date: 1/9/19

Personnel: Evan Green

Time of Arrival: 0900 - 1/7/19

Time of Departure: 1215 - 1/9/19

Weather Conditions: Overcast

Temperature: 30's - 40's°F

Wind Speed: 10 mph

Wind Direction (from): NW

Inspection Checklist	Yes	No	Comments
Asphalt Cover			
Intrusive Activities Being Performed?			
- Trenching?		X	
- Excavation?		X	
- Tunneling?		X	
- Saw cutting?		X	
Signs of Previous Intrusive Activities Performed?			
- New drainage feature?		X	
- Evidence of a new underground utility?		X	
- New grass/vegetation/asphalt?		X	
- Other (e.g., cracking, potholes, depressions)		X	
Monitoring Well Condition			
NAPL monitoring needs to be performed this year?		X	**Completed on 1/7/19**
Covers secure?	X		
Casing in need of repair?	X		**MW08-05S, MW08-05D, and MW08-08S**
Concrete surface seal intact?	X		
Settling in area around well?		X	
Well obstructed?	X		**Slight obstruction in MW93-1D**
Ponded water above well?		X	
Well screen silted in?	X		**Silt in screen of MW08-05S**
Well in need of redevelopment?	X		**Redevelop MW08-05S**

General Comments/Suggested Action Items:

All wells are currently usable however, minor repairs/redevelopment may be warranted.

New utility building constructed at NW corner of the service center building, asphalt cover removed in this area, ground intrusive activities appear to be limited to less than 6-inches.