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ENVIRONMENTAL
ASSESSMENT &
REMEDIATIONS

March 8, 2019

Payson D. Long
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7015

RE: SITE NO. 152029 - SPECTRUM FINISHING CORPORATION, 50 DALE STREET, WEST BABYLON – NOVEMBER 2018 GROUNDWATER SAMPLING EVENT

Mr. Long:

This letter summarizes recent activities conducted by Environmental Assessment & Remediations (EAR) at the above referenced site, as directed by the New York State Department of Environmental Conservation (NYSDEC). The scope of work included a site inspection and groundwater sample collection for field screening and laboratory analysis. A site location map has been included as Figure 1.

SITE INSPECTION

An inspection was conducted on November 9, 2018 to inspect the site for surficial disturbances, site conditions and monitoring well locations, accessibility and condition. During the inspection, the businesses located within the monitoring well network were notified of the upcoming groundwater sampling schedule. The property remains secured with a chain-link fence and showed no evidence of surficial disturbances or excavation activities since the last site inspection. Overseas containers, roll-off dumpsters and miscellaneous construction materials were present in the southeast corner of the property. Photographs collected during the inspection are provided in Appendix A.

The following summarizes the condition of the monitoring well network upon site inspection/groundwater sampling:

- MW-03S and MW-03D wells were not located
- MW-11S was located with a metal detector and after overgrowth clearing during groundwater sampling
- MW-04 well manhole contained asphalt debris from recent asphalt resurfacing; the debris was removed prior to groundwater sample collection

The remaining monitoring wells in the network were located and observed to be in good condition, including the off-site 'sentinel' wells, MW-16S and MW-16D1. A site map with well locations is provided as Figure 2.

GROUNDWATER MONITORING AND SAMPLING

On November 20 and 26, 2018, EAR collected groundwater samples from 19 monitoring wells following EAR and laboratory standard procedures and protocol[1]. Prior to sample collection, depth-to-water and total well depths were gauged and recorded. Groundwater samples were collected utilizing an inertia pump and dedicated polyethylene tubing at each well. Purge water was screened using a YSI multi-parameter probe with a flow-thru cell. All wells were purged a minimum of one well volume with

[1] Groundwater was collected following EAR's standard procedure to prevent cross-contamination between samples and to ensure sample integrity. Samples collected for laboratory analysis were placed into the appropriate sample containers and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius for transport (containers and coolers provided by the laboratory). Samples collected for PFAS were stored in a separate cooler. Chain-of-Custody forms were completed, and possession was maintained between sampling personnel and the laboratory during each sampling event. Samples were delivered to the laboratory via TestAmerica courier.)

purging continuing until values for temperature, pH, and oxidation/reduction potential (ORP) reached stabilization. These parameters, as well as dissolved oxygen and specific conductivity, were recorded prior to sample collection. Following sample collection, purge water was containerized in a 55-gallon drum and staged on-site, as directed by the NYSDEC. Monitoring well gauging data reported as liquid level and groundwater field screening results are provided in Table 1.

Groundwater samples were submitted to NYSDEC standby contracted laboratory (TestAmerica, Inc.) for analysis of volatile organic compounds (VOCs) chlorinated list via EPA Method 8260C, target analyte list (TAL) metals via EPA Methods 6010C and 7470A, EPA 8270D BNA SIM for 1,4 dioxane analysis and perfluorinated compounds/perfluoroalkyl substances (PFC/PFAS) via EPA Method 537 Modified with 21 analytes reported. A total of 19 water samples, two blind duplicates and one MS/MSD were submitted for VOCs and TAL metals analysis. A total of six water samples and one blind duplicate were submitted for 1,4 dioxane analysis. A total of six water samples, one blind duplicate, one MS/MSD and two equipment blanks were submitted for PFC/PFAS analysis. Category B deliverables and 10-day turnaround-time were requested for all analysis.

Analytical results of VOCs and 1,4 dioxane are compared to the Division of Water Technical & Operational Guidance Series[2] (TOGS 1.1.1) on Table 2, with the comparison for TAL metals on Table 3. PFC/PFAS analytical results are compared to the USEPA health advisory level[3] on Tables 4. A table calculating the relative percent difference of duplicate samples for VOCs and TAL metals is provided as Table 5. The relative percent difference of duplicate samples for PFC/PFAS and 1,4-dioxane are calculated in Table 6. Site maps of posted chemical concentrations are included as Figures 3 through 7. Time-series plots for metals contaminant concentrations are included as Figure 8.

Sample analysis chemistry data was validated and a data usability summary report (DUSR) was prepared by a third-party laboratory services (Alpha Geoscience, Clifton Park, NY). The validated data was compiled with the field activities data into an EQuIS EDD file package and submitted to NYENVDATA. The DUSRs have been included as Appendix B.

WASTE DISPOSAL

A waste profile sample was collected for laboratory analysis on November 20, 2018 after completion of groundwater sampling activities. The waste profile sample was submitted to TestAmerica laboratory for analysis by EPA Method 8260C TCL, TCLP Metals by EPA Method 6010D and 7470A and semi-volatile organic compounds (SVOCs) by 8270C with a 10-day turnaround time and Category A deliverables requested. Drum disposal was coordinated through a state response contractor, AB Environmental, and transported for disposal on January 10, 2019. The waste characterization laboratory analytical report is provided in Appendix C and the waste manifest in Appendix D.

Should you have any questions regarding the activities or data detailed in this report, please feel free to contact me at 631.447.6400.ext.159.

Regards,

Digitally signed by
Pat Benedetto
Date: 2019.03.08
12:01:28 -05'00'

Pat Benedetto
Project Manager

Cc: J. Allen (EAR)
R. Ancona (EAR)

[2] NYSDEC Division of Water Technical & Operational Guidance Series 1.1.1 - Ambient Water Quality Standards and Guidance Values, Class GA (groundwater).
[3] EPA 2018 Edition of Drinking Water Standards and Health Advisories

LIST OF TABLES

LIST OF FIGURES

APPENDICES

Spectrum Finishing
Site #152029
50 Dale Street
West Babylon, NY 11704

Liquid Level And Groundwater Field Screening Summary*

Well ID	Date Collected	TWD (ft)	DTW (ft)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Oxidation Reduction Potential (mV)	pH	Conductivity (uS)
MW-1D1	11/26/18	49.40	18.29	0.95	14.85	34.3	5.79	252
MW-1S	11/20/18	24.50	21.38	1.47	15.48	-151.5	6.05	204
MW-2D	11/26/18	48.75	18.71	1.22	14.77	149.1	5.60	328
MW-2S	11/26/18	24.21	18.72	0.85	16.17	124.5	6.17	192
MW-4D	11/20/18	47.54	17.98	0.78	14.21	133.3	5.24	270
MW-4S	11/20/18	22.70	17.95	0.75	14.22	132.1	5.31	56
MW-5D1	11/20/18	49.92	18.42	0.72	14.88	-131.2	5.20	260
MW-6D1	11/20/18	49.25	17.63	1.06	14.59	125.4	5.14	246
MW-6S	11/20/18	26.59	17.59	1.33	15.27	78.3	5.87	225
MW-07D1	11/20/18	26.40	18.75	0.59	14.77	118.3	5.32	258
MW-07S	11/20/18	49.97	18.95	0.63	15.34	24.4	6.10	130
MW-9S	11/20/18	23.48	22.02	1.04	14.25	146.1	5.83	246
MW-11S	11/20/18	25.80	21.22	0.79	15.62	148.4	6.12	180
MW-12D1	11/26/18	49.51	20.63	0.97	14.82	79.3	5.75	327
MW-12S	11/20/18	26.82	21.04	0.61	15.47	145.6	6.15	212
MW-14D1	11/26/18	49.59	17.72	0.70	14.92	92.8	5.75	304
MW-14S	11/20/18	23.76	20.50	1.20	15.54	158.6	5.86	225
MW-16D1	11/26/18	90.15	11.91	0.78	13.98	135.7	5.96	250
MW-16S	11/20/18	50.12	14.98	0.27	13.32	161.9	5.81	337

NOTES:
*-screening performed with a multi-parameter probe utilizing a flow-through cell
MW-03S&D could not be located; gauging and screening data were not collected
TWD - total well depth DTW - depth to water

Spectrum Finishing
Site #152029
50 Dale Street
West Babylon, NY 11704

Groundwater Analytical Results – 1,4-Dioxane and Volatile Organic Compounds (ug/L)
EPA Method 8270D SIM (1,4-Dioxane) and 8260C via TestAmerica, Inc.

Location	Date Collected	1,4-Dioxane	1,1,1 Trichloroethane	Chloroform	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethylene	Total VOCs
MW-1D1	11/26/18	-	<1	<1	<1	**0.37 J**	<1	**0.37 J**
MW-1S	11/20/18		<1	**6**	<1	<1	<1	**6**
MW-2D	11/26/18	-	<1	<1	<1	**0.49 J**	<1	**0.49 J**
MW-2S	11/26/18	-	<1	<1	<1	**3.90**	<1	**4**
MW-4D	11/20/18		<1	<1	<1	**0.37 J**	<1	**0.37 J**
MW-4S	11/20/18	-	<1	<1	<1	<1	<1	<22
MW-5D1	11/20/18	-	<1	<1	<1	**0.45 J**	**0.31 J**	**0.76 J**
MW-6D1	11/20/18	-	<1	<1	<1	**0.30 J**	<1	**0.30 J**
MW-6S	11/20/18	-	<1	<1	<1	**2.90**	<1	**3**
MW-7D1	11/20/18	-	<1	<1	<1	<1	<1	<22
MW-7S	11/20/18	-	<1	<1	**0.62 J**	**8.4**	<1	**9.02 J**
MW-9S	11/20/18	<0.2	<1	<1	<1	**0.86 J**	<1	**0.86 J**
MW-11S	11/20/18	<0.2	<1	<1	<1	**0.77 J**	<1	**0.77 J**
MW-12D1	11/26/18	-	<1	**0.37 J**	<1	<1	<1	**0.37 J**
MW-12S	11/20/19	**0.87**	-	-	-	-	-	-
MW-14D1	11/26/18	-	<1	<1	<1	<1	<1	<21
MW-14S	11/20/18	<0.2	<1	<1	<1	**0.61 J**	<1	**0.61 J**
MW-16D1	11/26/18	-	**0.50 J**	<1	<1	**0.52 J**	**1.90**	**2.92 J**
MW-16S	11/20/18	**0.48**	<1	<1	<1	<1	<1	<22

ClassGA Standard Values[1]	nv	**5**	**7**	**5**	**5**	**5**	nv
ClassGA Guidance Values[1]	nv	nv	nv	nv	nv	nv	nv

NOTE:
[1]NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), Source of Drinking Water (groundwater)
J - result is higher than the method detection limit, but lower than the reporting limit
nv - no value for standard/guidance
Total VOCs - estimate sum of concentrations above the lower reporting limit
- indicates concentration in exceedance of standard/guidance value

The chemicals listed below were reported below the lower reporting limit(LRL):

1,1 Dichloroethane
1,1 Dichloroethene
1,1,2 Trichloroethane
1,1,2,2 Tetrachloroethane
1,1-Biphenyl
1,2 Dibromoethane
1,2 Dichlorobenzene
1,2 Dichloroethane
1,2 Dichloropropane
1,2,3 Trichlorobenzene
1,2,4 Trichlorobenzene
1,2,4,5-Tetrachlorobenzene
1,3 Dichlorobenzene
1,4 Dichlorobenzene
1,4-Dioxane
2,3,4,6-Tetrachlorophenol
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Hexanone
2-Methyl-4,6-dinitrophenol
2-Methylnaphthalene
2-Nitroaniline
2-Nitrophenol
3,3-Dichlorobenzidine
3-Nitroaniline
4-Bromophenyl-phenylether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl-phenylether
4-Methyl-2-Pentanone
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Acetone
Acetophenone
Anthracene
Atrazine
Benzaldehyde
Benzene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
bis(2-Chloroethoxy)methane
bis(2-Chloroethyl)ether
bis(2-Chloroisopropyl)ether
bis(2-Ethylhexyl)phthalate
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Butylbenzylphthalate
c 1,3 Dichloropropene
Caprolactam
Carbazole
Carbon Disulfide
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloromethane
Chrysene
Cyclohexane
Cyclohexane, methyl-
Dibenzo(a,h)anthracene
Dibenzofuran
Dibromochloromethane
Dibromochloropropane
Dichlorodifluoromethane
Diethylphthalate
Dimethylphthalate
Di-n-butylphthalate
Di-n-octylphthalate
Ethylbenzene
Fluoranthene
Fluorene
Freon 113
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno(1,2,3-cd)pyrene
Isophorone
Isopropylbenzene
m + p Xylene
Methyl acetate
Methyl Ethyl Ketone
Methylene Chloride
MTBE
Naphthalene
Nitrobenzene
N-Nitrosodi-N-Propylamine
N-Nitrosodiphenylamine
o-cresol
o-Xylene
p-cresol
Pentachlorophenol
Phenanthrene
Phenol (total)
Pyrene
Styrene
t 1,3 Dichloropropene
Toluene
Total BTEX
trans-1,2-Dichloroethene
Trichlorofluoromethane
Vinyl Chloride
Xylenes Total

Spectrum Finishing
Site #152029
50 Dale Street
West Babylon, NY 11704

Groundwater Analytical Results – Metals (ug/L)
EPA Method 6010 and 7470 via TestAmerica, Inc.

Location	Date Collected	Aluminum	Arsenic	Barium	Cadmium	Calcium	Chromium (total)	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Vanadium	Zinc
MW-1D1	11/26/18	**43.60 J**	<15	**55.30 J**	<4	**12,100**	<10	<50	<25	**53.30 J**	<10	**2,750 J**	**6 J**	<0.20	<40	**2,720 J**	**22,000**	<50	<30
MW-1S	11/20/18	**188 J**	<15	**16.20 J**	**0.69 J**	**17,600**	<10	<50	<25	**113 J**	<10	**3,050 J**	**80.5**	<0.20	<40	**4,090 J**	**20,200**	<50	**9.20 J**
MW-2D	11/26/18	**30.80 J**	<15	**75 J**	<4	**16,100**	<10	<50	<25	**34.50 J**	<10	**3,140 J**	**5 J**	<0.20	<40	**3,460 J**	**29,800**	<50	<30
MW-2S	11/26/18	**51.30 J**	<15	**26 J**	**0.28 J**	**13,700**	<10	<50	**14.30 J**	**137 J**	**8.40 J**	**2,590 J**	**10 J**	<0.20	<40	**2,270 J**	**12,500**	<50	**4.50 J**
MW-4D	11/20/18	**454**	<15	**81.80 J**	**1.60 J**	**17,200**	**28.4**	<50	**68.4**	**1,330**	**3.40 J**	**4,240 J**	**22.5**	<0.20	**3.20 J**	**3,490 J**	**26,700**	<50	**27.80 J**
MW-4S	11/20/18	**213**	<15	**10.70 J**	**3.80 J**	**5,320**	**1.90 J**	<50	**14.30 J**	**342**	**5.30 J**	**1,260 J**	**8.20 J**	<0.20	**2.60 J**	**364 J**	**4,390 J**	<50	**28.40 J**
MW-5D1	11/20/18	**289**	<15	**68.80 J**	**1.80 J**	**15,700**	**6.20 J**	<50	<25	**432**	<10	**3,170 J**	**163**	<0.20	<40	**3,400 J**	**25,700**	<50	**5.40 J**
MW-6D1	11/20/18	**70.60 J**	<15	**62.90 J**	**0.33 J**	**14,000**	<10	<50	<25	**183**	<10	**3,280 J**	**8.60 J**	<0.20	<40	**3,210 J**	**23,000**	<50	**4 J**
MW-6S	11/20/18	**66.90 J**	<15	**39.40 J**	**111**	**18,200**	**36**	<50	<25	**129 J**	<10	**3,160 J**	**6.20 J**	<0.20	**30.60 J**	**3,940 J**	**15,800**	<50	**11.20 J**
MW-7D1	11/20/18	**74.70 J**	<15	**49.90 J**	<4	**15,200**	<10	<50	<25	**162**	<10	**2,950 J**	**3.40 J**	<0.20	<40	**2,790 J**	**26,800**	<50	<30
MW-7S	11/20/18	**2,200**	**3.90 J**	**82.30 J**	**6.4**	**18,000**	**24.9**	**6.50 J**	**78.3**	**7,900**	**37.9**	**2,800 J**	**2,040**	**0.15 J**	**12.80 J**	**2,750 J**	**4,450 J**	**8.30 J**	**162**
MW-9S	11/20/18	**39.60 J**	<15	**32.30 J**	<4	**17,400**	<10	<50	<25	<150	<10	**3,110 J**	**18.4**	<0.20	<40	**3,180 J**	**26,200**	<50	**12.50 J**
MW-11S	11/20/18	**563**	<15	**20.70 J**	**0.41 J**	**21,300**	<10	<50	<25	**748**	**4.40 J**	**3,390 J**	**21.2**	<0.20	<40	**1,620 J**	**11,700**	<50	**26 J**
MW-12D1	11/26/18	**98 J**	<15	**72.20 J**	**12.8**	**18,100**	**20.8**	<50	**26.2**	**254**	<10	**3,940 J**	**18.2**	<0.20	**14.60 J**	**3,560 J**	**27,000**	<50	**20.20 J**
MW-12S	11/20/18	**178 J**	<15	**24.70 J**	**72.2**	**22,700**	**32.3**	<50	<25	**240**	<10	**3,050 J**	**6.30 J**	<0.20	**59.8**	**2,420 J**	**15,700**	<50	**23.80 J**
MW-14D1	11/26/18	<200	<15	**78.80 J**	<4	**15,600**	<10	<50	<25	**345**	<10	**3,130 J**	**9.50 J**	<0.20	<40	**3,990 J**	**27,800**	<50	**7.50 J**
MW-14S	11/20/18	**42.50 J**	<15	**35.50 J**	**16.2**	**20,700**	<10	<50	<25	**85.90 J**	<10	**3,450 J**	**4.80 J**	<0.20	<40	**3,750 J**	**18,500**	<50	<30
MW-16D1	11/26/18	**217**	<15	**38.30 J**	<4	**13,300**	<10	<50	<25	**321**	<10	**3,370 J**	**7.70 J**	<0.20	<40	**1,730 J**	**21,900**	<50	**3.90 J**
MW-16S	11/20/18	**94 J**	<15	**88.80 J**	<4	**20,300**	<10	<50	<25	**176**	<10	**3,250 J**	**9 J**	<0.20	<40	**4,220 J**	**43,800**	<50	<30

ClassGA Standard Values[1]	nv	**25**	**1,000**	**5**	nv	**50**	nv	**200**	**300**	**25**	nv	**300**	**0.7**	**100**	nv	**20,000**	nv	nv
ClassGA Guidance Values[1]	nv	nv	nv	nv	nv	nv	nv	nv	nv	nv	**35,000**	nv	nv	nv	nv	nv	nv	**2,000**

Note:

[1]NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), Source of Drinking Water (groundwater)

J - result is higher than t- indicates concentration in exceedance of standard/guidance value

nv - no value for standard/guidance

The chemicals listed below were reported below the LRL:

Antimony Beryllium Silver Selenium Thallium

Spectrum Finishing
Site #152029
50 Dale Street
West Babylon, NY

Groundwater Analytical Results – PFC/PFAS (ng/L)
EPA Method 537 modified via TestAmerica, Inc.

Location	Date Collected	Combined PFOA & PFOS	Perfluorobutanesulfonic Acid (PFBS)	Perfluorobutyric Acid (PFBA)	Perfluorodecanoic Acid (PFDA)	Perfluorododecanoic Acid (PFDoA)	Perfluoroheptanoic Acid (PFHpA)	Perfluorohexanesulfonic Acid (PFHxS)	Perfluorohexanoic Acid (PFHxA)	Perfluorononanoic Acid (PFNA)	Perfluorooctanesulfonic Acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluoropentanoic Acid (PFPeA)	Perfluorotridecanoic Acid (PFTriA)	Perfluoroundecanoic Acid (PFUnA)	SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)
MW-1S	11/20/18	**30.1**	**4.39**	**4.46**	**0.80 J**	<1.74	**4.76**	**0.68 J**	**5.8**	**3.4**	**19.8**	**10.3**	**7.74 J**	<1.74	**0.50 BJ**	<17.40
MW-9S	11/20/18	**42.5**	**3.37**	**28.9**	**1.60 J**	<1.83	**17.5**	**1.85**	**51.9**	**3.05**	**20.8**	**21.7**	**91**	<1.83	**0.63 BJ**	**46.3**
MW-11S	11/20/18	**42**	**5.35**	**7.07**	**7.73**	**1.69**	**9.66**	**1 J**	**12.4**	**4.97**	**27.9**	**14.1**	**13.1**	**0.59 J**	**1.95**	<16.90
MW-12S	11/20/18	**16.17**	**3.06**	**3.22**	**0.92 J**	<1.62	**2.6**	**0.99 J**	**3.24**	**1.13 J**	**9.47**	**6.7**	**3.43 J**	<1.62	**0.25 BJ**	<16.20
MW-14S	11/20/18	**29.6**	**2.47**	**6.73**	**1.88**	<1.77	**6.06**	**1.47 J**	**11.2**	**2.42**	**14.6**	**15**	**9.61**	<1.77	**0.70 BJ**	<17.70
MW-16S	11/20/18	**62.1**	**3.17**	**12.2**	**0.70 J**	<1.70	**15**	**6.99**	**21.6**	**2.28**	**43.5**	**18.6**	**25.5**	<1.70	**0.72 BJ**	<17
Equipment Blank Meter	11/20/18	<3.54	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	<1.77	**0.29 BJ**	<17.70
Equipment Blank Tubing	11/20/18	<3.64	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<1.82	<18.20
USEPA Health Advisory Level[1]		**70**	nv	nv	nv	nv	nv	nv	nv	nv	**70**	**70**	nv	nv	nv	nv

NOTE:
[1]EPA 2018 Edition of the Drinking Water Standards and Health Advisories (ng/L)
J - result is higher than the method detection limit, but lower than the reporting limit
nv - no value for standard/guidance
bolded values - analytical results with detections above the lower reporting limit
Meter - denotes water level meter probe used for well gauging measurements
Tubing - denotes tubing material used to conduct groundwater sampling event

The chemicals listed below were reported below the lower reporting limit(LRL):

2-(N-methyl perfluorooctanesulfonamido) acetic acid
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine
Perfluorodecane Sulfonic Acid
Perfluoroheptane Sulfonate (PFHpS)
Perfluorooctane Sulfonamide (FOSA)
Perfluorotetradecanoic Acid (PFTeA)
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)

Spectrum Finishing
Site #152029
50 Dale Street
West Babylon, NY 11704

Relative Percent Difference of Duplicated Samples (VOCs) (ug/L)
EPA Method 8260C via TestAmerica, Inc.

Parameter	Original Sample MW-12D1 11/20/2018	Blind Duplicate MW-V 11/20/2018	Relative Percent Difference	Original Sample MW-04S 11/20/2018	Blind Duplicate MW-X 11/20/2018	Relative Percent Difference
1,1 Dichloroethane	<1	<1	nv	<1	<1	nv
1,1 Dichloroethene	<1	<1	nv	<1	<1	nv
1,1,1 Trichloroethane	<1	<1	nv	<1	<1	nv
1,1,2 Trichloroethane	<1	<1	nv	<1	<1	nv
1,1,2,2 Tetrachloroethane	<1	<1	nv	<1	<1	nv
1,2 Dichloroethane	-	-	-	<1	<1	nv
1,2 Dichloropropane	<1	<1	nv	<1	<1	nv
1,2-DICHLOROETHANE-D4	**46**	**48**	**4.26%**	**46**	**52**	**12.24%**
4-Bromofluorobenzene	**43**	**45**	**4.55%**	**48**	**53**	**9.90%**
Bromodichloromethane	<1	<1	nv	<1	<1	nv
c 1,3 Dichloropropene	<1	<1	nv	<1	<1	nv
Carbon Tetrachloride	<1	<1	nv	<1	<1	nv
Chlorobenzene	<1	<1	nv	<1	<1	nv
Chloroethane	<1	<1	nv	<1	<1	nv
Chloroform	**0.37**	<1	nv	<1	<1	nv
Chloromethane	<1	<1	nv	<1	<1	nv
cis-1,2-Dichloroethene	<1	<1	nv	<1	<1	nv
Dibromochloromethane	<1	<1	nv	<1	<1	nv
Dibromofluoromethane	**52**	**53**	**1.90%**	**50**	**55**	**9.52%**
Methylene Chloride	<1	<1	nv	<1	<1	nv
t 1,3 Dichloropropene	<1	<1	nv	<1	<1	nv
Tetrachloroethene	<1	**0.29**	nv	<1	<1	nv
TOLUENE-D8	**44**	**43**	**2.30%**	**46**	**52**	**12.24%**
trans-1,2-Dichloroethene	<1	<1	nv	<1	<1	nv
Trichloroethylene	<1	<1	nv	<1	<1	nv
Vinyl Chloride	<1	<1	nv	<1	<1	nv

Relative Percent Difference of Duplicated Samples (Metals) (mg/L)
EPA Method 6010 and Method 7470 via TestAmerica, Inc.

Aluminum	**98**	**69.3**	**34.31%**	**213**	**258**	**19.11%**
Antimony	<20	<20	nv	<20	<20	nv
Arsenic	<15	<15	nv	<15	<15	nv
Barium	**72.2**	**70.9**	**1.82%**	**10.7**	**11**	**2.76%**
Beryllium	<2	<2	nv	<2	<2	nv
Cadmium	**12.8**	**13.4**	**4.58%**	**3.8**	**3.9**	**2.60%**
Calcium	**18,100**	**18,200**	**0.55%**	**5,320**	**5,550**	**4.23%**
Chromium (total)	**20.8**	**21.2**	**1.90%**	**1.9**	**2.3**	**19.05%**
Cobalt	<50	<50	nv	<50	<50	nv
Copper	**26.2**	**24.8**	**5.49%**	**14.3**	**15.2**	**6.10%**
Iron	**254**	**156**	**47.80%**	**342**	**403**	**16.38%**
Lead	<10	<10	nv	**5.3**	**3.5**	**40.91%**
Magnesium	**3,940**	**3,870**	**1.79%**	**1,260**	**1,370**	**8.37%**
Manganese	**18.2**	**14.8**	**20.61%**	**8.2**	**9.6**	**15.73%**
Mercury	<0.2	<0.2	nv	<0.2	<0.2	nv
Nickel	**14.6**	**15.1**	**3.37%**	**2.6**	**3**	**14.29%**
Potassium	**3560**	**3610**	**1.39%**	**364**	**364**	**0.00%**
Selenium	<20	<20	nv	<20	<20	nv
Silver	<10	<10	nv	<10	<10	nv
Sodium	**27,000**	**26,900**	**0.37%**	**4,390**	**4,480**	**2.03%**
Thallium	<20	<20	nv	<20	<20	nv
Vanadium	<50	<50	nv	<50	<50	nv
Zinc	**20.2**	**19.7**	**2.51%**	**28.4**	**30.4**	**6.80%**

NOTE:
nv - no value for relative percent difference; results below reporting limit

Spectrum Finishing
Site #152029
50 Dale Street
West Babylon, NY 11704

Relative Percent Difference of Duplicated Samples (PFC/PFAS) (ng/L)
EPA Method 537 modified via TestAmerica, Inc.

Parameter	Original Sample MW-12S 11/20/18	Blind Duplicate MW-Y 11/20/18	Relative Percent Difference
13C2-Perfluorodecanoic acid	**63.7**	**76**	**17.61%**
13C2-Perfluorododecanoic acid	**68.9**	**55.9**	**20.83%**
13C2-Perfluorohexanoic acid	**49.6**	**62.1**	**22.38%**
13C2-Perfluorotetradecanoic acid	**71.6**	**49.1**	**37.28%**
13C2-Perfluoroundecanoic acid	**71.2**	**77.8**	**8.86%**
13C3-PERFLUOROBUTANE SULFONATE	**48.6**	**46.2**	**5.06%**
13C4-Perfluorobutanoic acid	**31.4**	**76.1**	**83.16%**
13C4-Perfluoroheptanoic acid	**61.2**	**71.2**	**15.11%**
13C4-Perfluorooctanesulfonate	**70.2**	**52.2**	**29.41%**
13C4-Perfluorooctanoic acid	**66.7**	**75.8**	**12.77%**
13C5-Perfluorononanoic acid	**71.7**	**75.5**	**5.16%**
13C5-Perfluoropentanoic acid	**58.4**	**89.8**	**42.38%**
13C8-Perfluorooctanesulfonamide	**61**	**26.7**	**78.22%**
18O2-Perfluorohexanesulfonic acid	**68.7**	**47**	**37.51%**
2-(N-methyl perfluorooctanesulfonamido) acetic acid	<16.2	<17.2	nv
Combined PFOA & PFOS	**16.17**	<3.44	nv
N-deuterioethylperfluoro-1-octanesulfonamidoacetic acid	**63**	**57.7**	**8.78%**
N-deuteriomethylperfluoro-1-octanesulfonamidoacetic acid	**53.7**	**57**	**5.96%**
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	<16.2	<17.2	nv
Perfluorobutanesulfonic Acid (PFBS)	**3.06**	<1.72	nv
Perfluorobutyric Acid (PFBA)	**3.22**	<1.72	nv
Perfluorodecane Sulfonic Acid	<1.62	<1.72	nv
Perfluorodecanoic Acid (PFDA)	**0.92**	<1.72	nv
Perfluorododecanoic Acid (PFDoA)	<1.62	<1.72	nv
Perfluoroheptane Sulfonate (PFHpS)	<1.62	<1.72	nv
Perfluoroheptanoic Acid (PFHpA)	**2.6**	<1.72	**40.74%**
Perfluorohexanesulfonic Acid (PFHxS)	**0.99**	<1.72	**53.87%**
Perfluorohexanoic Acid (PFHxA)	**3.24**	<1.72	**61.29%**
Perfluorononanoic Acid (PFNA)	**1.13**	<1.72	**41.40%**
Perfluorooctane Sulfonamide (FOSA)	<1.62	<1.72	nv
Perfluorooctanesulfonic Acid (PFOS)	**9.47**	<1.72	nv
Perfluorooctanoic Acid (PFOA)	**6.7**	<1.72	nv
Perfluoropentanoic Acid (PFPeA)	**3.43**	<8.61	nv
Perfluorotetradecanoic Acid (PFTeA)	<1.62	<1.72	nv
Perfluorotridecanoic Acid (PFTriA)	<1.62	<1.72	nv
Perfluoroundecanoic Acid (PFUnA)	**0.25**	<1.72	nv
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-13C2]-decane sulfonate (6:2)	**86.5**	**87.9**	**1.61%**
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-13C2]-octane sulfonate (6:2)	**131**	**69.7**	**61.09%**
SODIUM 1H,1H,2H,2H-PERFLUORODECANE SULFONATE (8:2)	<16.2	<17.2	nv
SODIUM 1H,1H,2H,2H-PERFLUOROOCTANE SULFONATE (6:2)	<16.2	<17.2	nv

Relative Percent Difference of Duplicated Samples (1,4-Dioxane) (ug/L)
EPA Method 8270D BNA SIM via TestAmerica, Inc.

1,4-Dioxane	**0.87**	<0.2	nv
1,4-Dioxane-D8	**13**	**12**	**8.00%**

NOTE:
nv - no value for relative percent difference; results below reporting limit

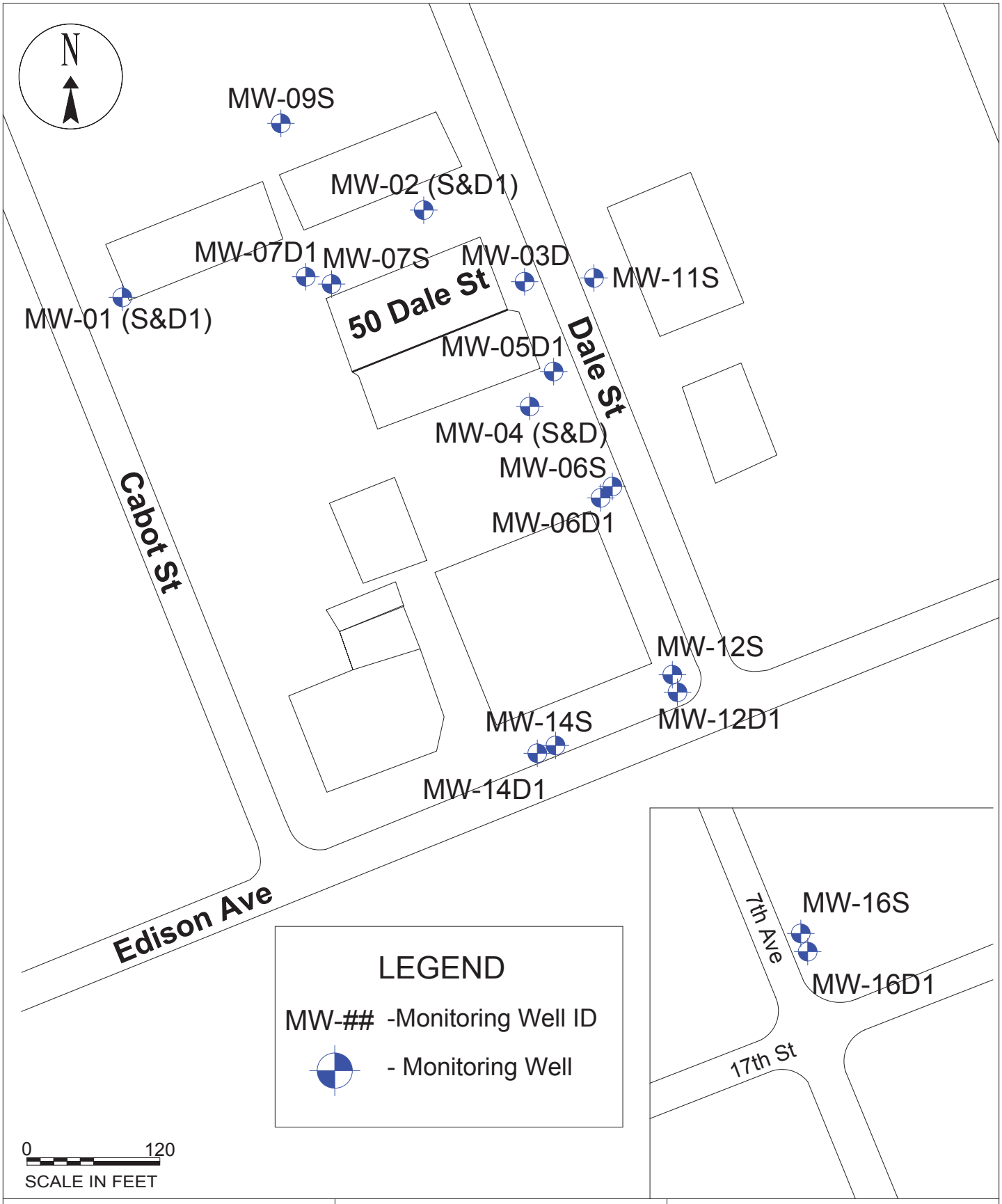
ENVIRONMENTAL ASSESSMENT & REMEDIATIONS
225 Atlantic Avenue
Patchogue, New York 11772
Tel (888) 327-6789
Fax (631) 447-7497
Email: Info@Enviro-Asmnt.com
www.Enviro-Asmnt.com

NOT TO SCALE

FIGURE 1

Site Location Map

Spectrum Finishing
50 Dale Street
West Babylon, NY 11704



225 Atlantic Avenue
Patchogue, New York 11772
Tel (888) 327-6789
Fax (631) 447-6497
Email Info@Enviro-Asmnt.com
WWW.Enviro-Asmnt.com

SITE MAP

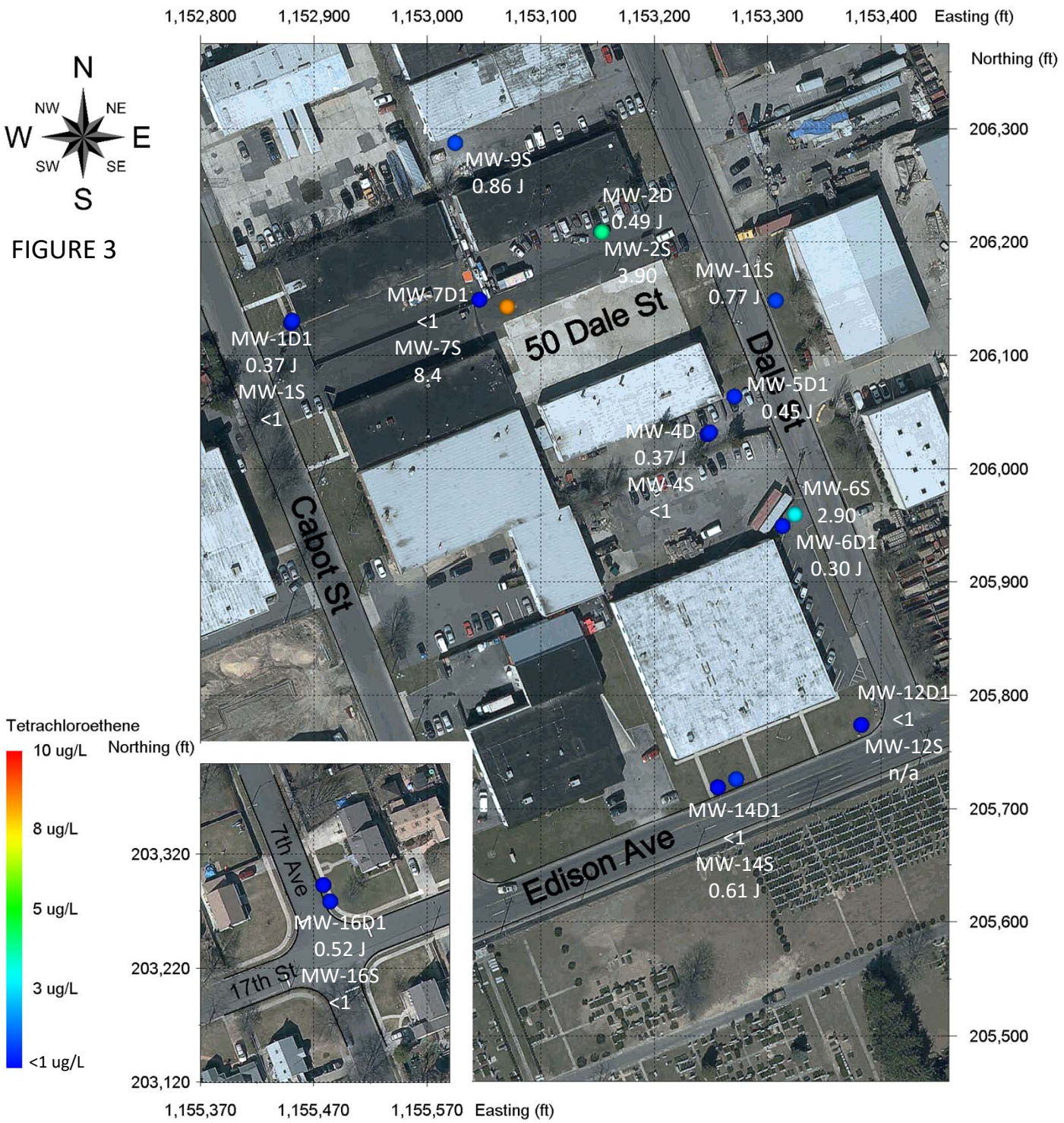
FIGURE 2

SPECTRUM FINISHING
SITE ID - 152029
50 DALE STREET
WEST BABLYON, NY

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Spectrum Finishing NYSDEC Site #152029
50 Dale Street West Babylon, NY 11704
November 2018 Groundwater Sampling Event
2-D Post Map Analytical Results

FIGURE 3

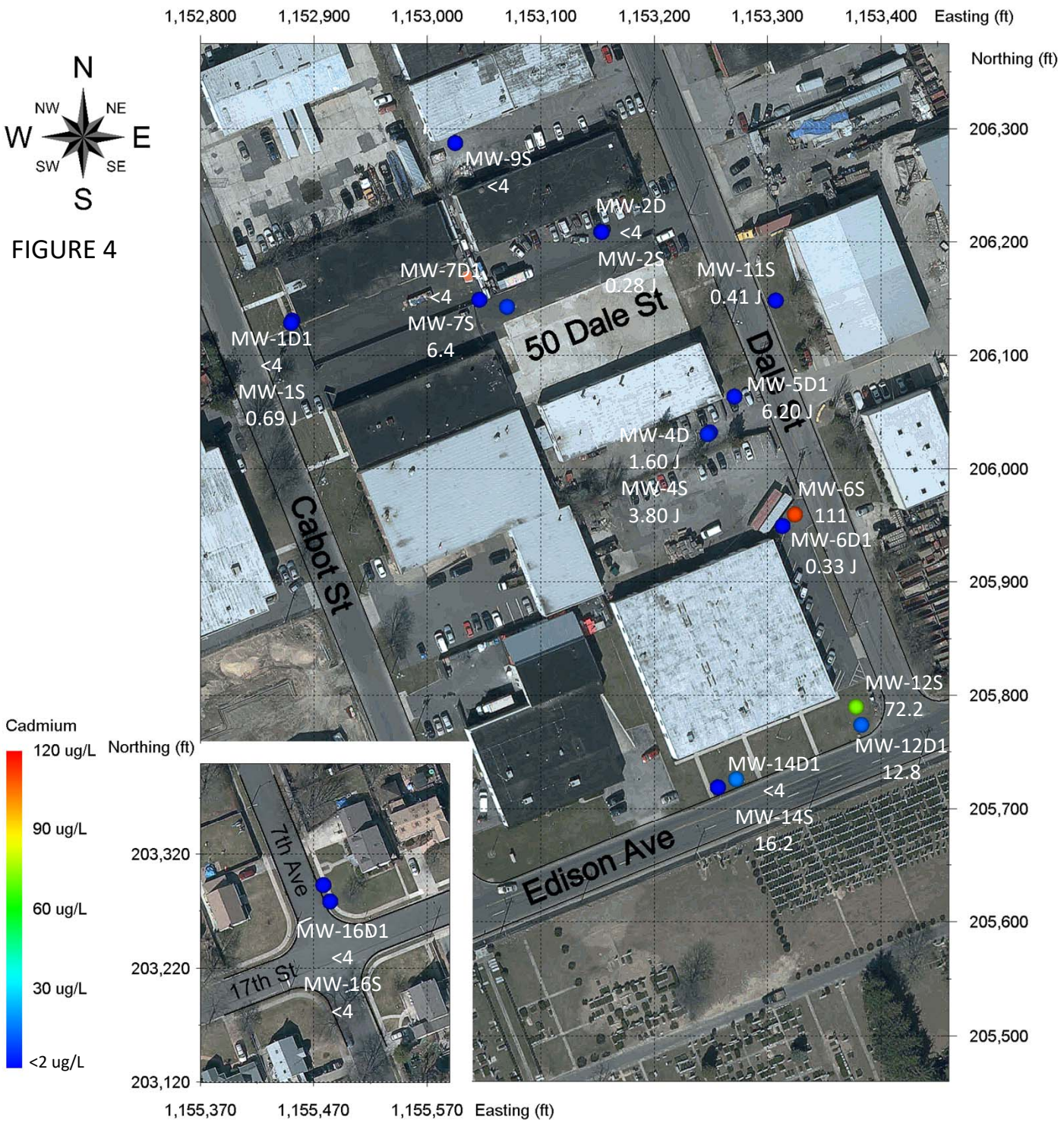


Concentrations reported at <RL are posted as 1/2RL.

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Spectrum Finishing NYSDEC Site #152029
50 Dale Street West Babylon, NY 11704
November 2018 Groundwater Sampling Event
2-D Post Map Analytical Results

FIGURE 4

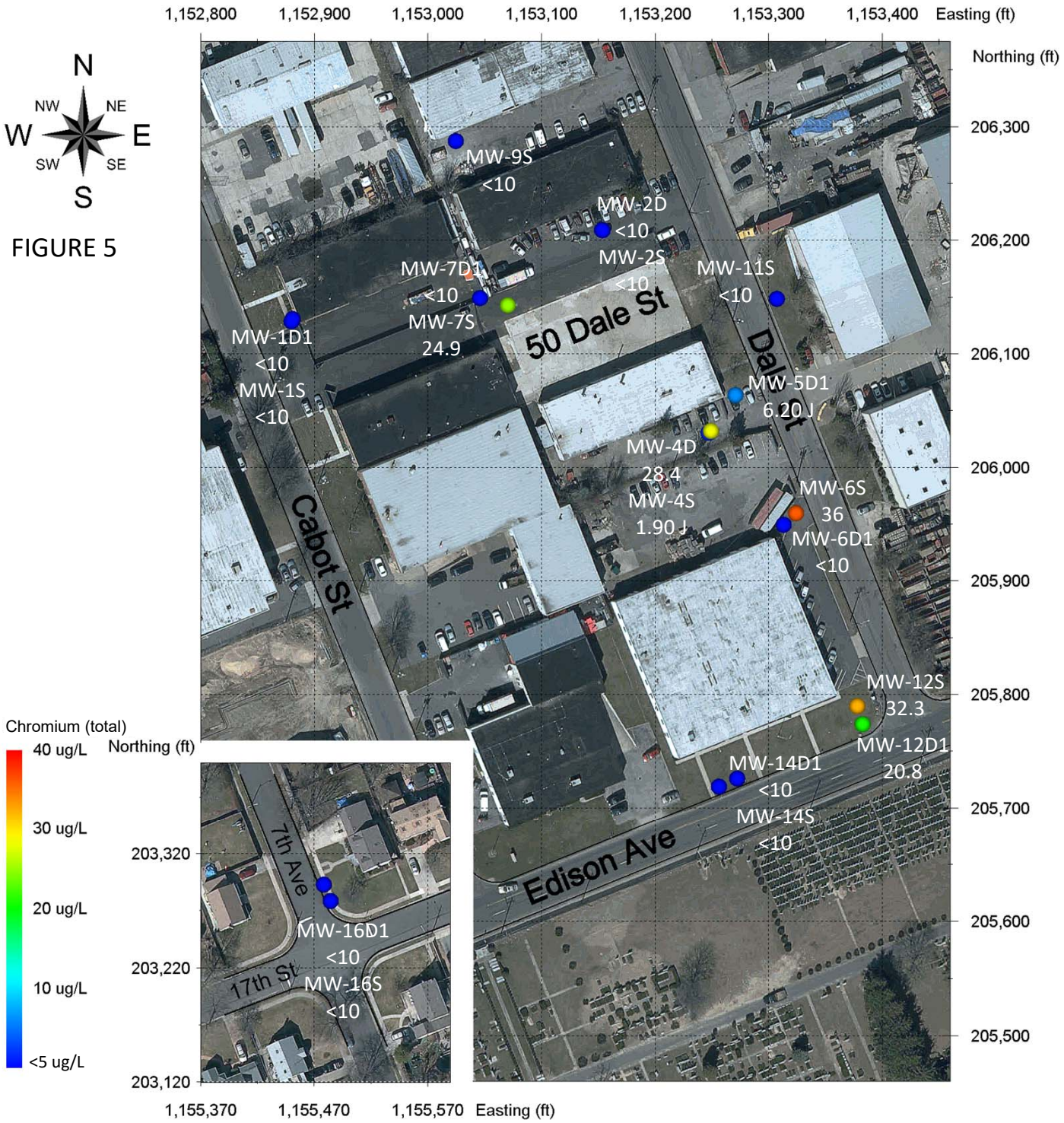


Concentrations reported at <RL are posted as 1/2RL.

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Spectrum Finishing NYSDEC Site #152029
50 Dale Street West Babylon, NY 11704
November 2018 Groundwater Sampling Event
2-D Post Map Analytical Results

FIGURE 5

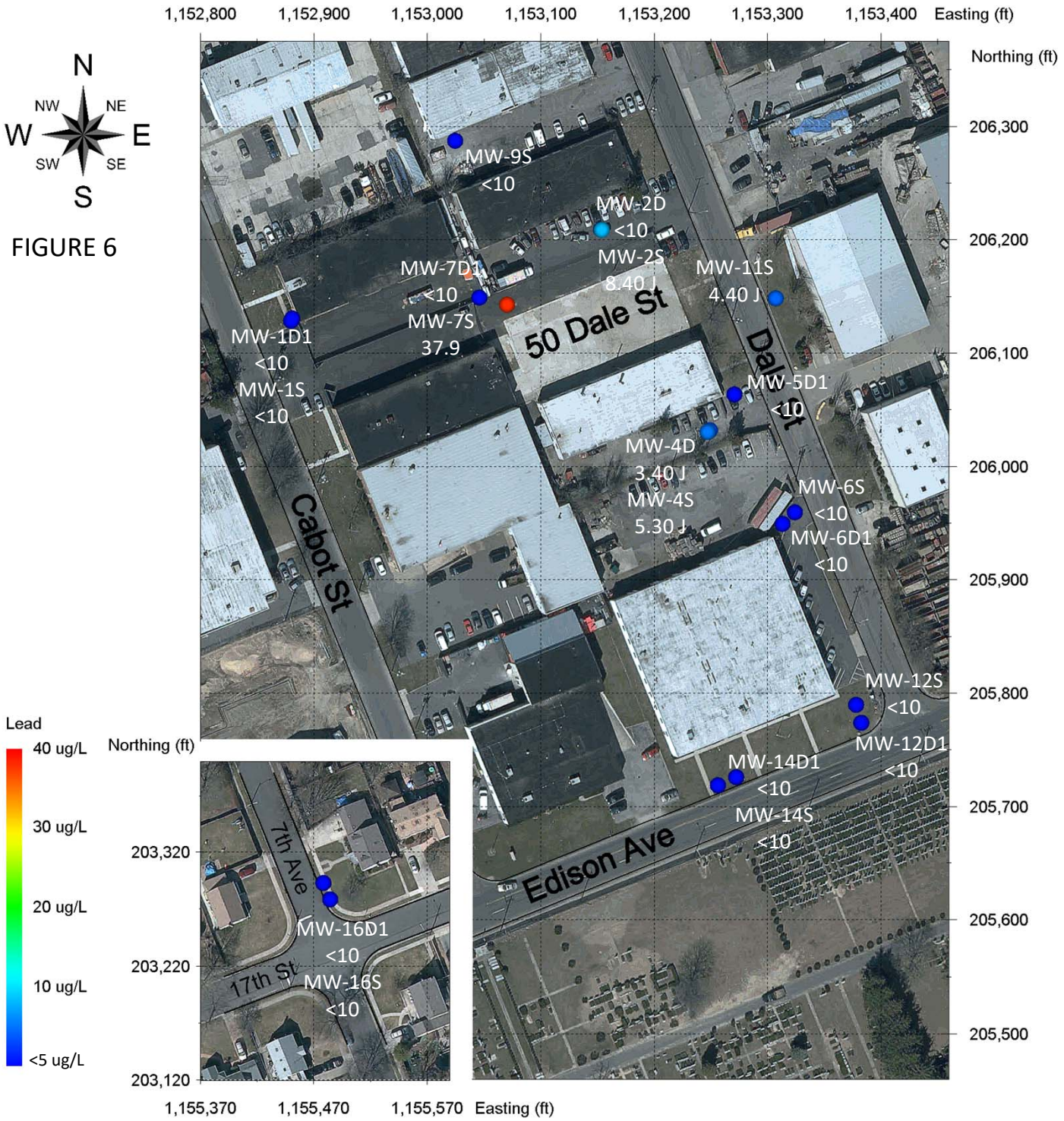


Concentrations reported at <RL are posted as 1/2RL.

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Spectrum Finishing NYSDEC Site #152029
50 Dale Street West Babylon, NY 11704
November 2018 Groundwater Sampling Event
2-D Post Map Analytical Results

FIGURE 6

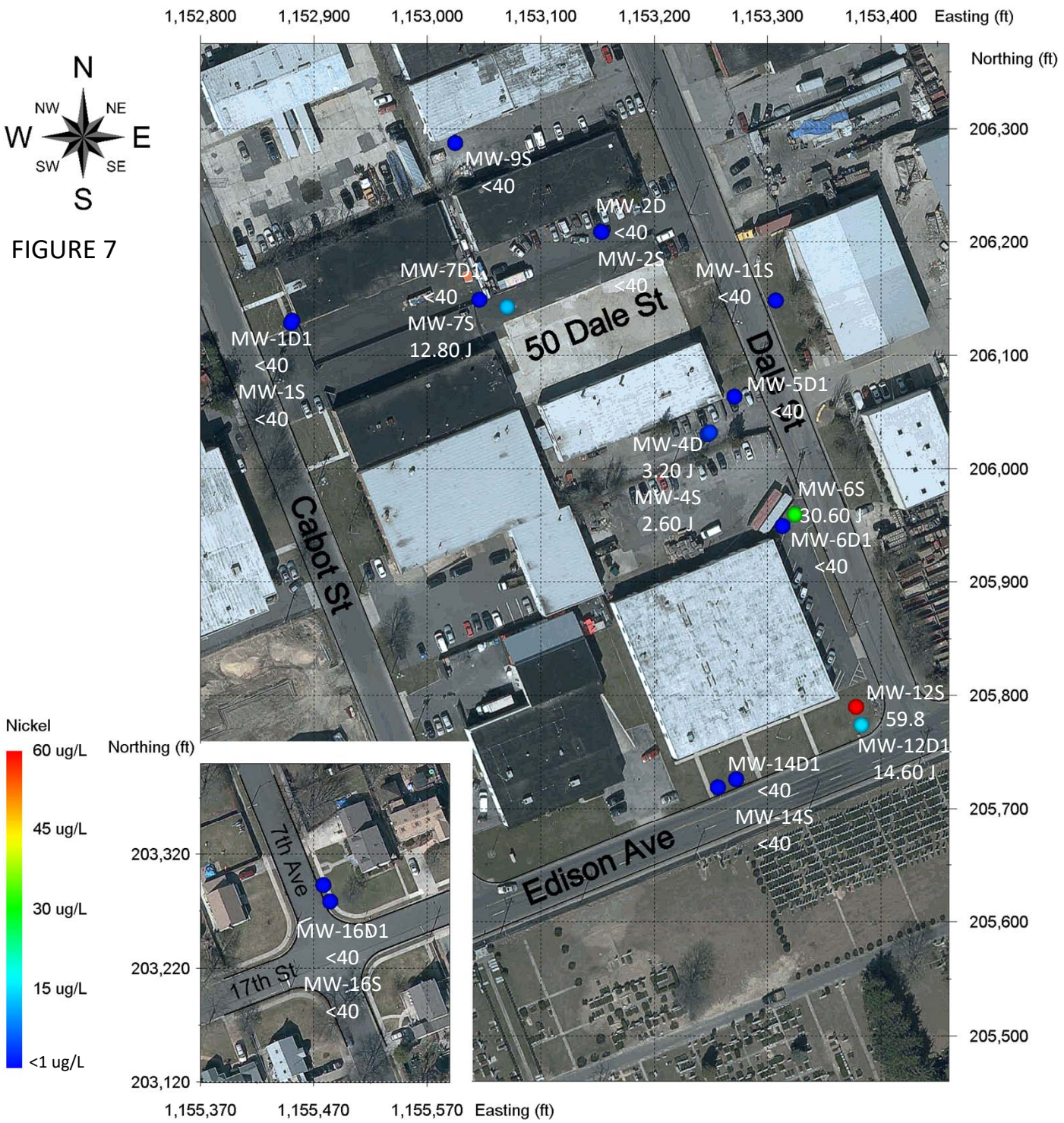


Concentrations reported at <RL are posted as 1/2RL.

ENVIRONMENTAL ASSESSMENT & REMEDIATIONS

Spectrum Finishing NYSDEC Site #152029
50 Dale Street West Babylon, NY 11704
November 2018 Groundwater Sampling Event
2-D Post Map Analytical Results

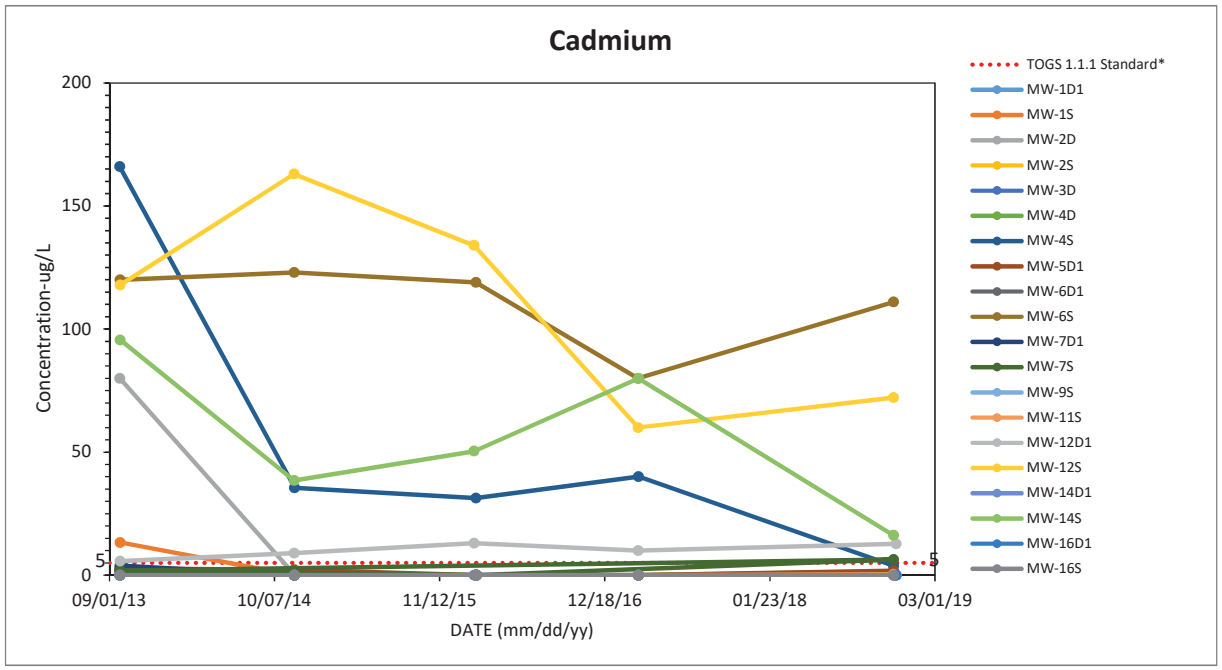
FIGURE 7

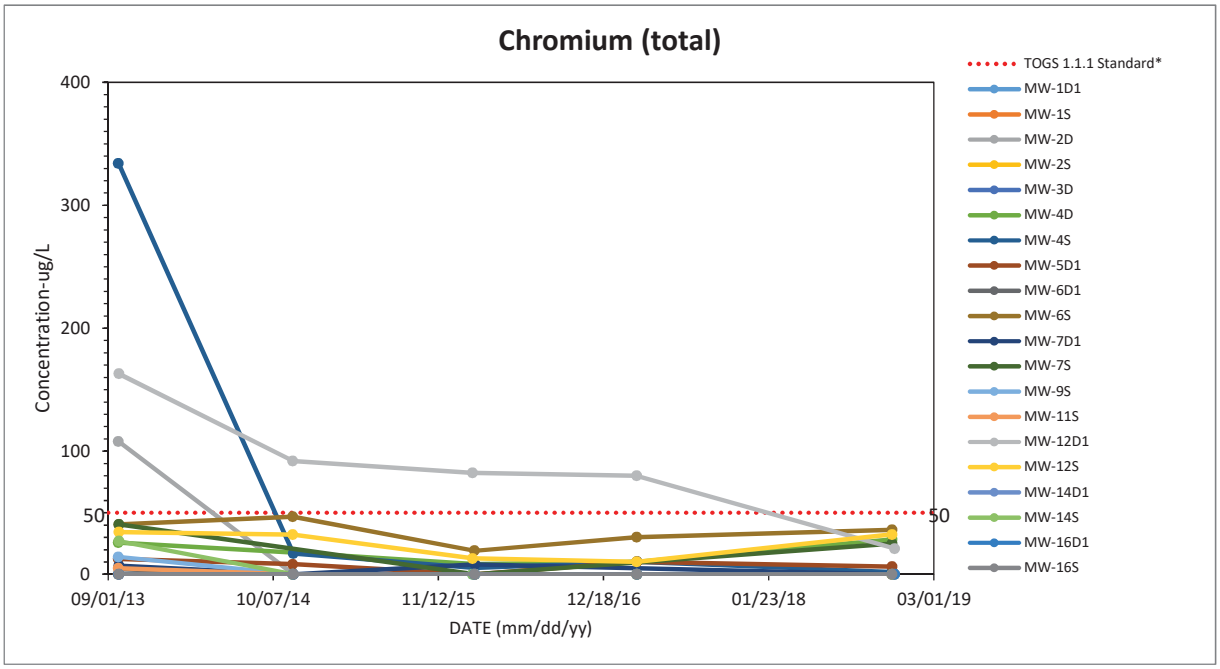


Concentrations reported at <RL are posted as 1/2RL.

Spectrum Finishing
Site #152029
50 Dale Street
West Babylon, NY 11704

Time-Series Plots of Dissolved Metals Concentrations

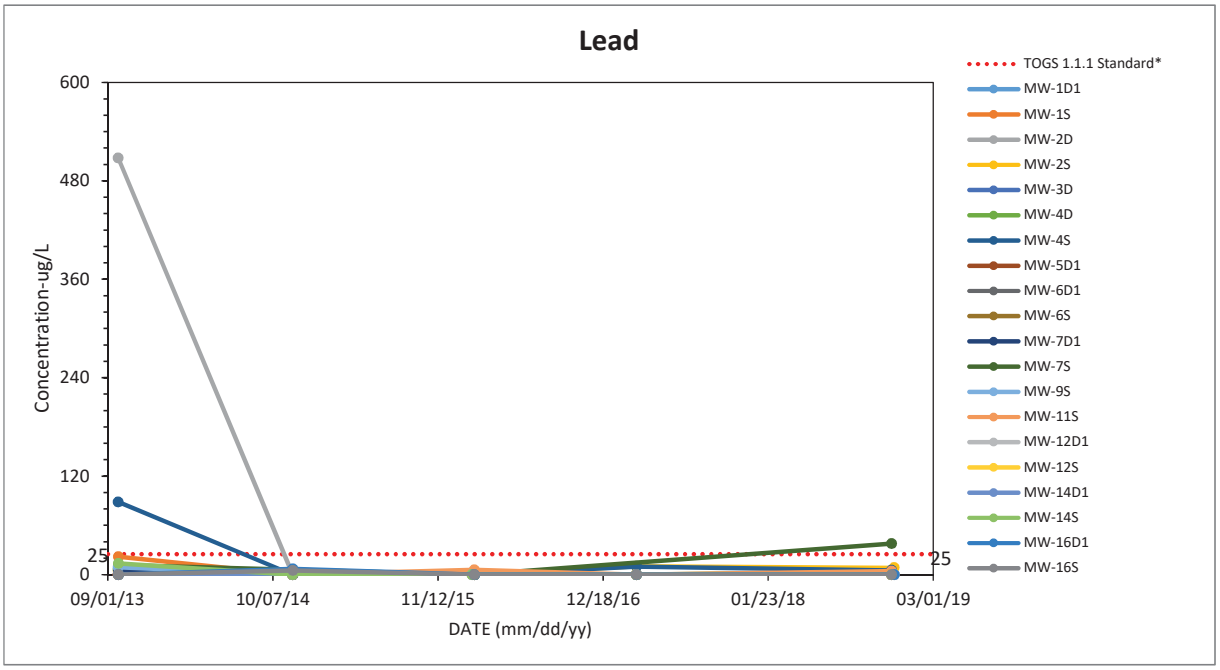


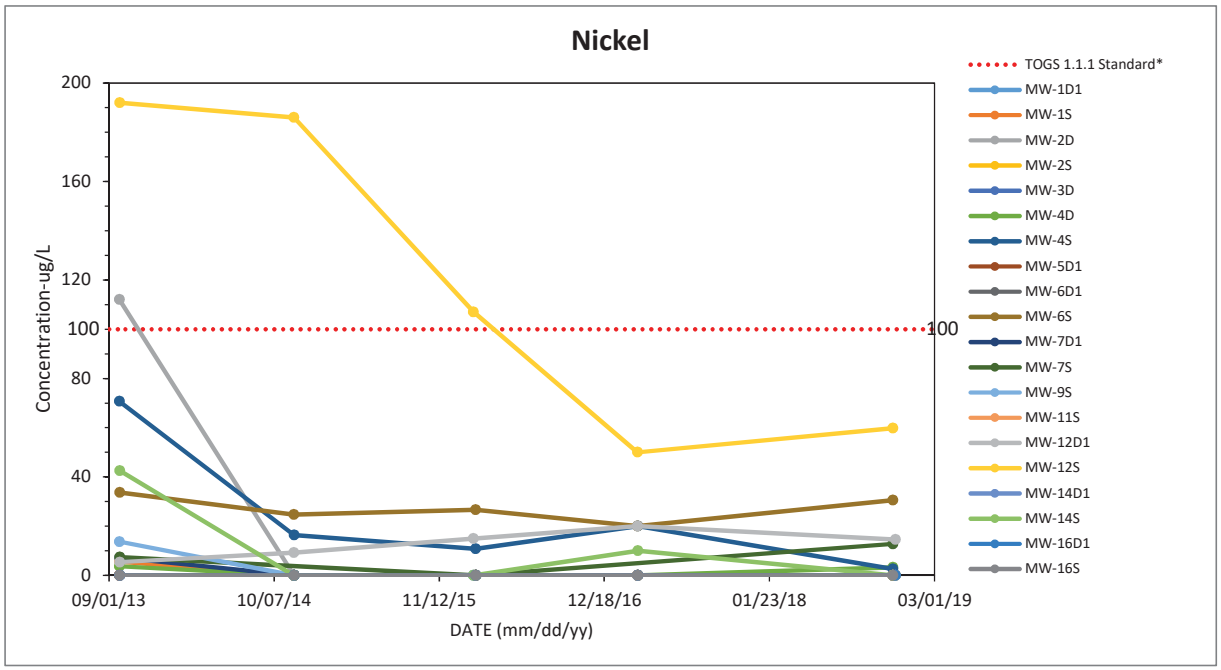


Note:
*-NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), Source of Drinking Water (groundwater)

Spectrum Finishing
Site #152029
50 Dale Street
West Babylon, NY 11704

Time-Series Plots of Dissolved Metals Concentrations





Note:
*-NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), Source of Drinking Water (groundwater)

Spectrum Finishing Corp.
50 Dale Street
West Babylon, NY 11704
NYSDEC Site# 152029

Photograph 1: Restricted Excavation Location for drainage structure, DS – 5. No apparent subsurface disturbances associated with this drainage structure location.

Photograph 2: Restricted excavation location for drainage structure, DS – 2. No apparent subsurface disturbances associated with this drainage structure location.

Photograph 3: Restricted excavation location for the East Alley located between 50 Dale Street and the neighboring 40 Dale Street. Subsurface appears intact and used for staging materials/equipment.

Photograph 4: Restricted excavation location cesspool, CP – 7. Estimated location due to roll-off container obstructing line of sight. No subsurface disturbances noted in the area.

Photograph 5: Restricted excavation location for cesspool, CP – 8. No apparent subsurface disturbances noted in accordance with restricted use.

Photograph 6: Restricted excavation location of the sump excavation area located on the 50 Dale Street Property. Area appears active for storage, staging of equipment, and vehicle traffic.

Photograph 7: General area of restricted excavation cesspool locations, CP – 3 & CP – 4. Area currently in use for material and equipment storage with no subsurface disturbance noted.

Photograph 8: Restricted excavation location drainage structure, DS – 9. No apparent subsurface disturbances noted and in accordance with restricted use.

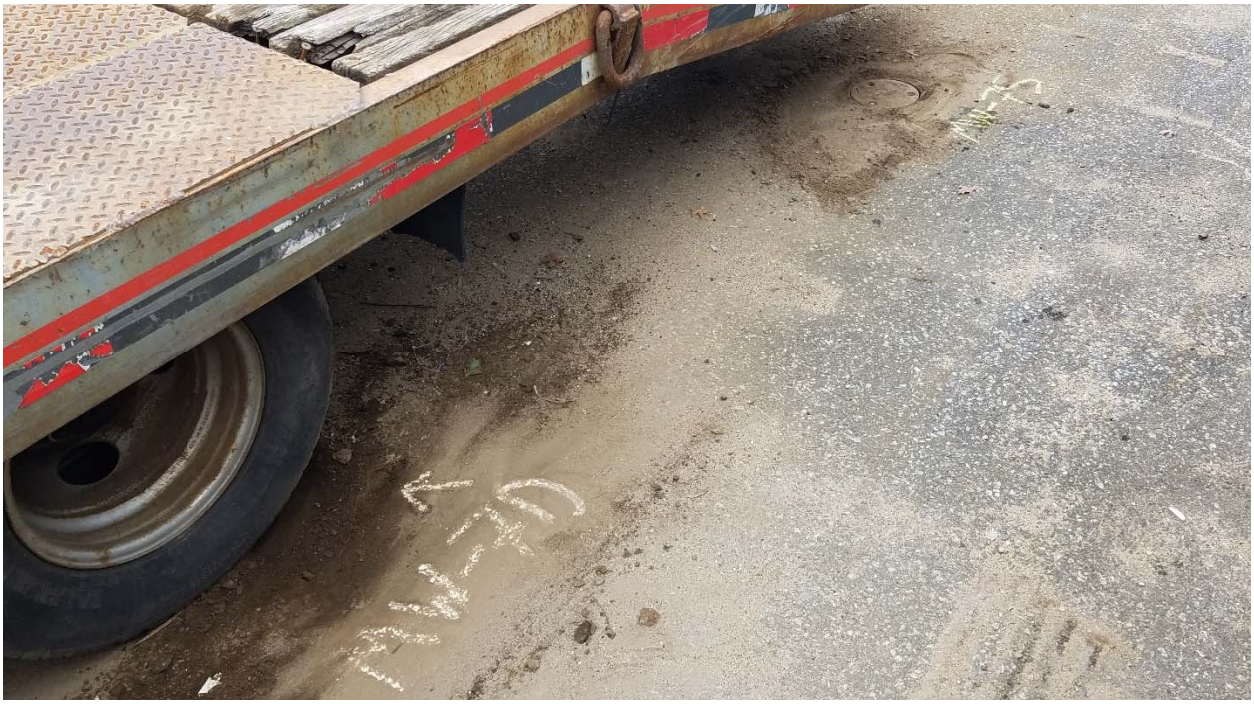
Photograph 9: Monitoring well manhole containing MW-01S & MW-01D1.

Photograph 10: Monitoring well manhole containing MW-02S & MW-02D.

Photograph 11: Monitoring well manhole containing MW-04S & MW-04D. Asphalt cleared from casing prior to sampling event.

Photograph 12: Monitoring well manhole containing MW-05D.

Photograph 13: Monitoring well manhole containing for both MW-06S (left) & MW-06D (right).



Photograph 14: Monitoring well manhole locations for MW-07D (lower-left) & MW-01S (upper-right).

Photograph 15: Monitoring well manhole location for MW-09S.

Photograph 16: Monitoring well manhole location for MW-12S (foreground) & MW-12D1 (background).

Photograph 17: Monitoring well manhole locations for MW-14S (left) & MW-14D (right).

Photograph 18: Monitoring well manhole location for MW-16S (left) & MW-16D1 (right).

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December 18, 2018

Mr. Pat Benedetto
Project Manager/Engineer
Environmental Assessment & Remediations
225 Atlantic Avenue
Patchogue, New York 12020

Re: Data Usability Summary Reports
DEC West Babylon 50
November 2018 Ground Water Sampling Events

Dear Mr. Benedetto:

The data usability summary reports (DUSRs) and data validation summaries are attached to this letter for the DEC West Babylon 50, November 2018 ground water sampling events. The data for TestAmerica Edison job numbers 460-169870-1, 460-169885-1, and 460-170051-1, and Test America Burlington job number 200-46371-1 are acceptable with minor issues that are identified and discussed in the DUSRs and validation summaries. There are no data that were qualified as rejected, unusable (R) in the data packs.

Lists of common data validation acronyms and data validation qualifers are attached to this letter to assist you in interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Environmental Assessment & Remediations.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

DCA:dca
attachments

Z:\projects\2018\18621-18640\18625-DEC West Babylon\West Babylon-181.ltr.wpd

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high andassociated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

Polyfluorinated Alkyl Substances (PFAS) Acronyms

PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTriA or PFTrDA	Perfluorotridecanoic acid
PFTeA or PFTA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid
PFPeS	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpS	Perfluoroheptanesulfonic acid
PFOS	Perfluorooctanesulfonic acid
PFNS	Perfluorononanesulfonic acid
PFDS	Perfluorodecanesulfonic acid
FOSA	Perfluorooctane Sulfonamide
NMeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid
4:2 FTS or 4:2	1H, 1H, 2H, 2H-perfluorohexanesulfonic acid
6:2 FTS or 6:2	1H, 1H, 2H, 2H-perfluorooctanesulfonic acid
8:2 FTS or 8:2	1H, 1H, 2H, 2H-perfluorodecanesulfonic acid

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

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Data Usability Summary Report for
TestAmerica, Job No: 200-46371-1

6 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank Meter, and 1 Equipment Blank Tubing
Collected November 20, 2018

Prepared by: Donald Anné
December 18, 2018

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results for 6 ground water samples, 1 field duplicate, 1 equipment blank meter, and 1 equipment blank tubing analyzed for PFAS compounds.

The overall performances of the analyses are acceptable. TestAmerica Burlington did fulfill the requirements of the analytical methods.

The data are mostly acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- Positive PFAS results for PFUnA were qualified as "not detected" (U) for samples MW-09S, MW-14S, MW-01S, MW-12S, MW-16S, and EQUIPMENT BLANK METER because the levels reported in the samples are not significantly greater than (more than 3 times) the associated method blank level.

- The PFAS undiluted results for 9 compounds were qualified as estimated (J) in sample MW-12S because the compounds were detected in sample MW-12S, but not in its duplicate MW-Y.

- The PFAS result for 6:2 FTS was qualified as estimated (J) in sample MW-09S because surrogate recovery associated with this result was above control limits in the sample.

- The PFAS results for PFPeA were qualified as estimated, biased low (J-) in samples MW-09S, MW-14S, MW-01S, MW-11S, MW-12S, and MW-16S because the internal standard areas were above control limits in the samples.

All data are considered usable with estimated (J or J-) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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QA/QC Review of Method 537 (Modified) PFAS Data
for TestAmerica Burlington, Job No: 200-46371-1

6 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank Meter, and 1 Equipment Blank Tubing
Collected November 20, 2018

Prepared by: Donald Anné
December 18, 2018

Holding Times: Samples were analyzed within USEPA holding times.

Initial Calibration (External Standard): The %RSDs for applicable PFAS compounds were below the method maximums , as required.

Continuing Calibration: The %Ds for applicable PFAS compounds were below the allowable maximums, as required

Blanks: Method blank MB 200-137702/1-A contained a trace of PFUnA (0.325 ng/L). Positive results for PFUnA that are less than 3 times the highest blank level should be reported as not detected (U) in associated samples.

Surrogate Recovery: The surrogate recoveries for M262FTS in samples MW-09S, MW-14S, MW-01S, MW-11S, and MW-12S were above QC limits. Positive results for compounds associated with M262FTS should be considered estimated (J) in samples MW-09S, MW-14S, MW-01S, MW-11S, and MW-12S.

Internal Standard Area Summary: The internal standard retention areas and times were within control limits for the undiluted samples.

The internal standard areas for all 6 diluted samples and the diluted duplicate were above control limits. Positive results from the diluted analyses should be considered estimated, biased low (J-) for the 6 samples and the duplicate.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for spiked PFAS compounds were below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-12S.

Laboratory Control Sample: The percent recoveries for spiked compounds were within QC limits for aqueous sample LCS 200-137702/2-A.

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Field Duplicates: The analyses of aqueous field duplicate pair MW-12S/MW-Y, the sample MW-12S reported detectable concentrations of 11 target PFAS. The duplicate sample MW-Y reported target compounds as not detected. The results for the MW-Y should be disregarded and the use of the results for sample MW-12S is recommended and detected PFAS results be considered estimated (J).

Compound ID: Checked compounds and surrogates were within LC quantitation limits.

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-46371-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): C-18 ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	PFBA #	PFBS #	PFHxA #	PFHpA #	PFHxS #	M262FTS #	PFOA #	PFNA #
MW-09S	200-46371-1	39	60	58	72	81	162 *	84	84
MW-14S	200-46371-2	38	59	52	70	77	167 *	76	78
MW-01S	200-46371-3	41	66	61	72	83	165 *	82	88
MW-11S	200-46371-4	36	60	55	70	78	198 *	84	83
MW-12S	200-46371-5	39	64	61	75	89	171 *	82	88
MW-16S	200-46371-6	42	72	48	66	77	135	75	78
EQUIPMENT BLANK METER	200-46371-7	85	66	82	86	64	98	89	90
EQUIPMENT BLANK TUBING	200-46371-8	86	62	77	85	64	103	87	88
MW-Y	200-46371-9	88	58	72	83	58	85	88	88
	MB 200-137702/1-A	73	75	83	70	74	137	80	84
	LCS 200-137702/2-A	79	79	86	72	80	150	89	85
MW-12S MS	200-46371-5 MS	40	65	58	73	82	161 *	87	86
MW-12S MSD	200-46371-5 MSD	40	58	59	74	83	166 *	78	85

	QC LIMITS
PFBA = 13C4 PFBA	25-150
PFBS = 13C3 PFBS	25-150
PFHxA = 13C2 PFHxA	25-150
PFHpA = 13C4 PFHpA	25-150
PFHxS = 18O2 PFHxS	25-150
M262FTS = M2-6:2 FTS	25-150
PFOA = 13C4 PFOA	25-150
PFNA = 13C5 PFNA	25-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-46371-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): C-18 ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	PFOS #	M282FTS #	PFDA #	d3NMFOS #	d5NEFOS #	PFUnA #	PFOSA #	PFDoA #
MW-09S	200-46371-1	84	119	83	64	77	86	68	81
MW-14S	200-46371-2	85	110	79	62	70	83	61	78
MW-01S	200-46371-3	85	104	84	62	72	82	64	78
MW-11S	200-46371-4	86	123	82	68	75	84	67	76
MW-12S	200-46371-5	91	111	79	66	78	88	75	85
MW-16S	200-46371-6	79	101	82	66	75	87	60	82
EQUIPMENT BLANK METER	200-46371-7	73	88	86	64	72	89	40	80
EQUIPMENT BLANK TUBING	200-46371-8	66	88	82	68	80	89	45	81
MW-Y	200-46371-9	63	107	88	66	67	90	31	65
	MB 200-137702/1-A	77	83	82	60	68	84	48	80
	LCS 200-137702/2-A	84	93	84	68	73	87	51	85
MW-12S MS	200-46371-5 MS	88	113	80	65	75	84	71	85
MW-12S MSD	200-46371-5 MSD	85	109	80	66	74	81	69	85

	QC LIMITS
PFOS = 13C4 PFOS	25-150
M282FTS = M2-8:2 FTS	25-150
PFDA = 13C2 PFDA	25-150
d3NMFOS = d3-NMeFOSAA	25-150
d5NEFOS = d5-NEtFOSAA	25-150
PFUnA = 13C2 PFUnA	25-150
PFOSA = 13C8 FOSA	25-150
PFDoA = 13C2 PFDoA	25-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-46371-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): C-18 ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	PFTDA #
MW-09S	200-46371-1	82
MW-14S	200-46371-2	75
MW-01S	200-46371-3	74
MW-11S	200-46371-4	80
MW-12S	200-46371-5	88
MW-16S	200-46371-6	82
EQUIPMENT BLANK METER	200-46371-7	66
EQUIPMENT BLANK TUBING	200-46371-8	79
MW-Y	200-46371-9	57
	MB 200-137702/1-A	74
	LCS 200-137702/2-A	77
MW-12S MS	200-46371-5 MS	84
MW-12S MSD	200-46371-5 MSD	85

	QC LIMITS
PFTDA = 13C2 PFTeDA	25-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-46371-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): C-18 ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	PFPeA #
MW-09S	200-46371-1	79
MW-14S	200-46371-2	86
MW-01S	200-46371-3	75
MW-11S	200-46371-4	84
MW-12S	200-46371-5	72
MW-16S	200-46371-6	87
EQUIPMENT BLANK METER	200-46371-7	105
EQUIPMENT BLANK TUBING	200-46371-8	108
MW-Y	200-46371-9	104
	MB 200-137702/1-A	98
	LCS 200-137702/2-A	103
MW-12S MS	200-46371-5 MS	76
MW-12S MSD	200-46371-5 MSD	84

	QC LIMITS
PFPeA = 13C5-PFPeA DNU	25-150

Column to be used to flag recovery values

FORM II 537 (modified)

Diluted Run for PFPeA

FORM VIII

LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46371-1

SDG No.:

Sample No.: CCVIS 200-138023/6 Date Analyzed: 12/11/2018 13:56

Instrument ID: LC410 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): PF121118A06.d Heated Purge: (Y/N) N

Calibration ID: 40218

		13PFOA					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		884281	4.51				
UPPER LIMIT		1326422	4.71				
LOWER LIMIT		442141	4.31				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVL 200-138023/7		914852	4.51				
CCV 200-138023/8		769955	4.48				
MB 200-137702/1-A		975631	4.47				
LCS 200-137702/2-A		827401	4.47				
200-46371-1	MW-09S	168829*	4.47				
200-46371-2	MW-14S	177264*	4.47				
200-46371-3	MW-01S	188561*	4.47				
200-46371-4	MW-11S	184410*	4.45				
200-46371-5	MW-12S	175558*	4.47				
200-46371-5 MS	MW-12S MS	197471*	4.45				
200-46371-5 MSD	MW-12S MSD	182593*	4.47				
200-46371-6	MW-16S	159197*	4.47				
200-46371-7	EQUIPMENT BLANK_METER	833523	4.45				
200-46371-8	EQUIPMENT BLANK_TUBING	791951	4.43				
CCV 200-138023/21		728177	4.45				
200-46371-9	MW-Y	177694*	4.43				
CCV 200-138023/34		841555	4.43				

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46371-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 200-137702/1-A

Matrix: Water Lab File ID: PF120618A19.d

Analysis Method: 537 (modified) Date Collected:

Extraction Method: 3535 Date Extracted: 12/03/2018 12:30

Sample wt/vol: 250(mL) Date Analyzed: 12/06/2018 19:24

Con. Extract Vol.: 0.5(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 137865 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	2.00	U	2.00	0.41
307-24-4	Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.24
375-85-9	Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.32
335-67-1	Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.32
375-95-1	Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.38
335-76-2	Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.38
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.325	J	2.00	0.25
307-55-1	Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.35
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.24
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.45
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.44
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.26
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	2.00	U	2.00	0.82
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.76
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.53
754-91-6	Perfluorooctanesulfonamide (FOSA)	2.00	U	2.00	0.56
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20.0	U	20.0	0.45
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20.0	U	20.0	0.70
27619-97-2	6:2 FTS	20.0	U	20.0	1.00
39108-34-4	8:2 FTS	20.0	U	20.0	0.56

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC-WESTBABYLON50, NY,Spectrum,152029

TestAmerica Job ID: 200-46371-1

Client Sample ID: MW-09S
Date Collected: 11/20/18 09:12
Date Received: 11/26/18 08:50

Lab Sample ID: 200-46371-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**28.9**		1.83	0.38	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluoropentanoic acid (PFPeA)	**91.0**	J-	9.16	3.43	ng/L		12/03/18 12:30	12/11/18 15:15	5
Perfluorohexanoic acid (PFHxA)	**51.9**		1.83	0.22	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluoroheptanoic acid (PFHpA)	**17.5**		1.83	0.29	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorooctanoic acid (PFOA)	**21.7**		1.83	0.29	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorononanoic acid (PFNA)	**3.05**		1.83	0.35	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorodecanoic acid (PFDA)	**1.60**	J	1.83	0.35	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluoroundecanoic acid (PFUnA)	**0.63**	J B U	1.83	0.23	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorododecanoic acid (PFDoA)	1.83	U	1.83	0.32	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorotridecanoic acid (PFTriA)	1.83	U	1.83	0.22	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorotetradecanoic acid (PFTeA)	1.83	U	1.83	0.41	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorobutanesulfonic acid (PFBS)	**3.37**		1.83	0.40	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorohexanesulfonic acid (PFHxS)	**1.85**		1.83	0.24	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.83	U	1.83	0.75	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorooctanesulfonic acid (PFOS)	**20.8**		1.83	0.70	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorodecanesulfonic acid (PFDS)	1.83	U	1.83	0.49	ng/L		12/03/18 12:30	12/06/18 19:56	1
Perfluorooctanesulfonamide (FOSA)	1.83	U	1.83	0.51	ng/L		12/03/18 12:30	12/06/18 19:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18.3	U	18.3	0.41	ng/L		12/03/18 12:30	12/06/18 19:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18.3	U	18.3	0.64	ng/L		12/03/18 12:30	12/06/18 19:56	1
6:2 FTS	**46.3**	J	18.3	0.92	ng/L		12/03/18 12:30	12/06/18 19:56	1
8:2 FTS	18.3	U	18.3	0.51	ng/L		12/03/18 12:30	12/06/18 19:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*39*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C5-PFPeA DNU	*79*		*25 - 150*	*12/03/18 12:30*	*12/11/18 15:15*	*5*
13C2 PFHxA	*58*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C4 PFHpA	*72*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C4 PFOA	*84*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C5 PFNA	*84*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C2 PFDA	*83*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C2 PFUnA	*86*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C2 PFDoA	*81*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C2 PFTeDA	*82*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C3 PFBS	*60*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
18O2 PFHxS	*81*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C4 PFOS	*84*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
13C8 FOSA	*68*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
d3-NMeFOSAA	*64*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
d5-NEtFOSAA	*77*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
M2-6:2 FTS	*162*	*	*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*
M2-8:2 FTS	*119*		*25 - 150*	*12/03/18 12:30*	*12/06/18 19:56*	*1*

Qualified Data

Client Sample ID: MW-14S

Date Collected: 11/20/18 10:08
Date Received: 11/26/18 08:50

Lab Sample ID: 200-46371-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.73**		1.77	0.36	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluoropentanoic acid (PFPeA)	**9.61**	J-	8.85	3.32	ng/L		12/03/18 12:30	12/11/18 15:31	5
Perfluorohexanoic acid (PFHxA)	**11.2**		1.77	0.21	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluoroheptanoic acid (PFHpA)	**6.06**		1.77	0.28	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorooctanoic acid (PFOA)	**15.0**		1.77	0.28	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorononanoic acid (PFNA)	**2.42**		1.77	0.34	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorodecanoic acid (PFDA)	**1.88**		1.77	0.34	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluoroundecanoic acid (PFUnA)	**0.70**	J B U	1.77	0.22	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorododecanoic acid (PFDoA)	1.77	U	1.77	0.31	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorotridecanoic acid (PFTriA)	1.77	U	1.77	0.21	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorotetradecanoic acid (PFTeA)	1.77	U	1.77	0.40	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorobutanesulfonic acid (PFBS)	**2.47**		1.77	0.39	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorohexanesulfonic acid (PFHxS)	**1.47**	J	1.77	0.23	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.77	U	1.77	0.73	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorooctanesulfonic acid (PFOS)	**14.6**		1.77	0.67	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorodecanesulfonic acid (PFDS)	1.77	U	1.77	0.47	ng/L		12/03/18 12:30	12/06/18 20:12	1
Perfluorooctanesulfonamide (FOSA)	1.77	U	1.77	0.50	ng/L		12/03/18 12:30	12/06/18 20:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17.7	U	17.7	0.40	ng/L		12/03/18 12:30	12/06/18 20:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17.7	U	17.7	0.62	ng/L		12/03/18 12:30	12/06/18 20:12	1
6:2 FTS	17.7	U	17.7	0.89	ng/L		12/03/18 12:30	12/06/18 20:12	1
8:2 FTS	17.7	U	17.7	0.50	ng/L		12/03/18 12:30	12/06/18 20:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*38*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C5-PFPeA DNU	*86*		*25 - 150*	*12/03/18 12:30*	*12/11/18 15:31*	*5*
13C2 PFHxA	*52*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C4 PFHpA	*70*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C4 PFOA	*76*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C5 PFNA	*78*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C2 PFDA	*79*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C2 PFUnA	*83*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C2 PFDoA	*78*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C2 PFTeDA	*75*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C3 PFBS	*59*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
18O2 PFHxS	*77*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C4 PFOS	*85*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
13C8 FOSA	*61*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
d3-NMeFOSAA	*62*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
d5-NEtFOSAA	*70*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
M2-6:2 FTS	*167*	*	*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*
M2-8:2 FTS	*110*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:12*	*1*

Client Sample ID: MW-01S
Date Collected: 11/20/18 10:45
Date Received: 11/26/18 08:50

Lab Sample ID: 200-46371-3
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D*	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.46**		1.74	0.36	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluoropentanoic acid (PFPeA)	**7.74**	J J-	8.71	3.27	ng/L		12/03/18 12:30	12/11/18 15:47	5
Perfluorohexanoic acid (PFHxA)	**5.80**		1.74	0.21	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluoroheptanoic acid (PFHpA)	**4.76**		1.74	0.28	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorooctanoic acid (PFOA)	**10.3**		1.74	0.28	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorononanoic acid (PFNA)	**3.40**		1.74	0.33	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorodecanoic acid (PFDA)	**0.80**	J	1.74	0.33	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluoroundecanoic acid (PFUnA)	**0.50**	J B U	1.74	0.22	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorododecanoic acid (PFDoA)	1.74	U	1.74	0.30	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorotridecanoic acid (PFTriA)	1.74	U	1.74	0.21	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorotetradecanoic acid (PFTeA)	1.74	U	1.74	0.39	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorobutanesulfonic acid (PFBS)	**4.39**		1.74	0.38	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorohexanesulfonic acid (PFHxS)	**0.68**	J	1.74	0.23	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.74	U	1.74	0.71	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorooctanesulfonic acid (PFOS)	**19.8**		1.74	0.66	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorodecanesulfonic acid (PFDS)	1.74	U	1.74	0.46	ng/L		12/03/18 12:30	12/06/18 20:28	1
Perfluorooctanesulfonamide (FOSA)	1.74	U	1.74	0.49	ng/L		12/03/18 12:30	12/06/18 20:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17.4	U	17.4	0.39	ng/L		12/03/18 12:30	12/06/18 20:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17.4	U	17.4	0.61	ng/L		12/03/18 12:30	12/06/18 20:28	1
6:2 FTS	17.4	U	17.4	0.87	ng/L		12/03/18 12:30	12/06/18 20:28	1
8:2 FTS	17.4	U	17.4	0.49	ng/L		12/03/18 12:30	12/06/18 20:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*41*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C5-PFPeA DNU	*75*		*25 - 150*	*12/03/18 12:30*	*12/11/18 15:47*	*5*
13C2 PFHxA	*61*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C4 PFHpA	*72*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C4 PFOA	*82*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C5 PFNA	*88*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C2 PFDA	*84*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C2 PFUnA	*82*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C2 PFDoA	*78*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C2 PFTeDA	*74*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C3 PFBS	*66*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
18O2 PFHxS	*83*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C4 PFOS	*85*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
13C8 FOSA	*64*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
d3-NMeFOSAA	*62*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
d5-NEtFOSAA	*72*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
M2-6:2 FTS	*165*	*	*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*
M2-8:2 FTS	*104*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:28*	*1*

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC-WESTBABYLON50, NY,Spectrum,152029

TestAmerica Job ID: 200-46371-1

Client Sample ID: MW-11S

Date Collected: 11/20/18 11:20
Date Received: 11/26/18 08:50

Lab Sample ID: 200-46371-4

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.07**		1.69	0.35	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluoropentanoic acid (PFPeA)	**13.1**	J-	8.46	3.17	ng/L		12/03/18 12:30	12/11/18 16:03	5
Perfluorohexanoic acid (PFHxA)	**12.4**		1.69	0.20	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluoroheptanoic acid (PFHpA)	**9.66**		1.69	0.27	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorooctanoic acid (PFOA)	**14.1**		1.69	0.27	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorononanoic acid (PFNA)	**4.97**		1.69	0.32	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorodecanoic acid (PFDA)	**7.73**		1.69	0.32	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluoroundecanoic acid (PFUnA)	**1.95**	**B**	1.69	0.21	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorododecanoic acid (PFDoA)	**1.69**		1.69	0.30	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorotridecanoic acid (PFTriA)	**0.59**	**J**	1.69	0.20	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorotetradecanoic acid (PFTeA)	1.69	U	1.69	0.38	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorobutanesulfonic acid (PFBS)	**5.35**		1.69	0.37	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorohexanesulfonic acid (PFHxS)	**1.0**	**J**	1.69	0.22	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.69	U	1.69	0.69	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorooctanesulfonic acid (PFOS)	**27.9**		1.69	0.64	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorodecanesulfonic acid (PFDS)	1.69	U	1.69	0.45	ng/L		12/03/18 12:30	12/06/18 20:44	1
Perfluorooctanesulfonamide (FOSA)	1.69	U	1.69	0.47	ng/L		12/03/18 12:30	12/06/18 20:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	16.9	U	16.9	0.38	ng/L		12/03/18 12:30	12/06/18 20:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	16.9	U	16.9	0.59	ng/L		12/03/18 12:30	12/06/18 20:44	1
6:2 FTS	16.9	U	16.9	0.85	ng/L		12/03/18 12:30	12/06/18 20:44	1
8:2 FTS	16.9	U	16.9	0.47	ng/L		12/03/18 12:30	12/06/18 20:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*36*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C5-PFPeA DNU	*84*		*25 - 150*	*12/03/18 12:30*	*12/11/18 16:03*	*5*
13C2 PFHxA	*55*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C4 PFHpA	*70*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C4 PFOA	*84*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C5 PFNA	*83*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C2 PFDA	*82*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C2 PFUnA	*84*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C2 PFDoA	*76*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C2 PFTeDA	*80*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C3 PFBS	*60*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
18O2 PFHxS	*78*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C4 PFOS	*86*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
13C8 FOSA	*67*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
d3-NMeFOSAA	*68*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
d5-NEtFOSAA	*75*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
M2-6:2 FTS	*198*	*	*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*
M2-8:2 FTS	*123*		*25 - 150*	*12/03/18 12:30*	*12/06/18 20:44*	*1*

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC-WESTBABYLON50, NY,Spectrum,152029

TestAmerica Job ID: 200-46371-1

Client Sample ID: MW-12S
Date Collected: 11/20/18 12:10
Date Received: 11/26/18 08:50

Lab Sample ID: 200-46371-5
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.22**		1.62	0.33	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluoropentanoic acid (PFPeA)	**3.43**	J	8.11	3.04	ng/L		12/03/18 12:30	12/11/18 16:18	5
Perfluorohexanoic acid (PFHxA)	**3.24**		1.62	0.19	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluoroheptanoic acid (PFHpA)	**2.60**		1.62	0.26	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorooctanoic acid (PFOA)	**6.70**		1.62	0.26	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorononanoic acid (PFNA)	**1.13**	J	1.62	0.31	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorodecanoic acid (PFDA)	**0.92**	J	1.62	0.31	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluoroundecanoic acid (PFUnA)	**0.25**	J B	1.62	0.20	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorododecanoic acid (PFDoA)	1.62	U	1.62	0.28	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorotridecanoic acid (PFTriA)	1.62	U	1.62	0.19	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorotetradecanoic acid (PFTeA)	1.62	U	1.62	0.37	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorobutanesulfonic acid (PFBS)	**3.06**		1.62	0.36	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorohexanesulfonic acid (PFHxS)	**0.99**	J	1.62	0.21	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.62	U	1.62	0.67	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorooctanesulfonic acid (PFOS)	**9.47**		1.62	0.62	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorodecanesulfonic acid (PFDS)	1.62	U	1.62	0.43	ng/L		12/03/18 12:30	12/06/18 20:59	1
Perfluorooctanesulfonamide (FOSA)	1.62	U	1.62	0.45	ng/L		12/03/18 12:30	12/06/18 20:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	16.2	U	16.2	0.37	ng/L		12/03/18 12:30	12/06/18 20:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	16.2	U	16.2	0.57	ng/L		12/03/18 12:30	12/06/18 20:59	1
6:2 FTS	16.2	U	16.2	0.81	ng/L		12/03/18 12:30	12/06/18 20:59	1
8:2 FTS	16.2	U	16.2	0.45	ng/L		12/03/18 12:30	12/06/18 20:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	39		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C5-PFPeA DNU	72		25 - 150	12/03/18 12:30	12/11/18 16:18	5
13C2 PFHxA	61		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C4 PFHpA	75		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C4 PFOA	82		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C5 PFNA	88		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C2 PFDA	79		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C2 PFUnA	88		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C2 PFDoA	85		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C2 PFTeDA	88		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C3 PFBS	64		25 - 150	12/03/18 12:30	12/06/18 20:59	1
18O2 PFHxS	89		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C4 PFOS	91		25 - 150	12/03/18 12:30	12/06/18 20:59	1
13C8 FOSA	75		25 - 150	12/03/18 12:30	12/06/18 20:59	1
d3-NMeFOSAA	66		25 - 150	12/03/18 12:30	12/06/18 20:59	1
d5-NEtFOSAA	78		25 - 150	12/03/18 12:30	12/06/18 20:59	1
M2-6:2 FTS	171	*	25 - 150	12/03/18 12:30	12/06/18 20:59	1
M2-8:2 FTS	111		25 - 150	12/03/18 12:30	12/06/18 20:59	1

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC-WESTBABYLON50, NY,Spectrum,152029

TestAmerica Job ID: 200-46371-1

Client Sample ID: MW-16S

Date Collected: 11/20/18 13:45
Date Received: 11/26/18 08:50

Lab Sample ID: 200-46371-6

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**12.2**		1.70	0.35	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluoropentanoic acid (PFPeA)	**25.5**	J-	8.51	3.19	ng/L		12/03/18 12:30	12/11/18 17:06	5
Perfluorohexanoic acid (PFHxA)	**21.6**		1.70	0.20	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluoroheptanoic acid (PFHpA)	**15.0**		1.70	0.27	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorooctanoic acid (PFOA)	**18.6**		1.70	0.27	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorononanoic acid (PFNA)	**2.28**		1.70	0.32	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorodecanoic acid (PFDA)	**0.70**	J	1.70	0.32	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluoroundecanoic acid (PFUnA)	**0.72**	J B U	1.70	0.21	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorododecanoic acid (PFDoA)	1.70	U	1.70	0.30	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorotridecanoic acid (PFTriA)	1.70	U	1.70	0.20	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorotetradecanoic acid (PFTeA)	1.70	U	1.70	0.38	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorobutanesulfonic acid (PFBS)	**3.17**		1.70	0.37	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorohexanesulfonic acid (PFHxS)	**6.99**		1.70	0.22	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.70	U	1.70	0.70	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorooctanesulfonic acid (PFOS)	**43.5**		1.70	0.65	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorodecanesulfonic acid (PFDS)	1.70	U	1.70	0.45	ng/L		12/03/18 12:30	12/06/18 21:47	1
Perfluorooctanesulfonamide (FOSA)	1.70	U	1.70	0.48	ng/L		12/03/18 12:30	12/06/18 21:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17.0	U	17.0	0.38	ng/L		12/03/18 12:30	12/06/18 21:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17.0	U	17.0	0.60	ng/L		12/03/18 12:30	12/06/18 21:47	1
6:2 FTS	17.0	U	17.0	0.85	ng/L		12/03/18 12:30	12/06/18 21:47	1
8:2 FTS	17.0	U	17.0	0.48	ng/L		12/03/18 12:30	12/06/18 21:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	42		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C5-PFPeA DNU	87		25 - 150	12/03/18 12:30	12/11/18 17:06	5
13C2 PFHxA	48		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C4 PFHpA	66		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C4 PFOA	75		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C5 PFNA	78		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C2 PFDA	82		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C2 PFUnA	87		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C2 PFDoA	82		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C2 PFTeDA	82		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C3 PFBS	72		25 - 150	12/03/18 12:30	12/06/18 21:47	1
18O2 PFHxS	77		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C4 PFOS	79		25 - 150	12/03/18 12:30	12/06/18 21:47	1
13C8 FOSA	60		25 - 150	12/03/18 12:30	12/06/18 21:47	1
d3-NMeFOSAA	66		25 - 150	12/03/18 12:30	12/06/18 21:47	1
d5-NEtFOSAA	75		25 - 150	12/03/18 12:30	12/06/18 21:47	1
M2-6:2 FTS	135		25 - 150	12/03/18 12:30	12/06/18 21:47	1
M2-8:2 FTS	101		25 - 150	12/03/18 12:30	12/06/18 21:47	1

Client Sample ID: EQUIPMENT BLANK_METER

Date Collected: 11/20/18 10:00
Date Received: 11/26/18 08:50

Lab Sample ID: 200-46371-7
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.77	U	1.77	0.36	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluoropentanoic acid (PFPeA)	1.77	U	1.77	0.67	ng/L		12/03/18 12:30	12/11/18 17:22	1
Perfluorohexanoic acid (PFHxA)	1.77	U	1.77	0.21	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluoroheptanoic acid (PFHpA)	1.77	U	1.77	0.28	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorooctanoic acid (PFOA)	1.77	U	1.77	0.28	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorononanoic acid (PFNA)	1.77	U	1.77	0.34	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorodecanoic acid (PFDA)	1.77	U	1.77	0.34	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluoroundecanoic acid (PFUnA)	**0.29**	**J B U**	1.77	0.22	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorododecanoic acid (PFDoA)	1.77	U	1.77	0.31	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorotridecanoic acid (PFTriA)	1.77	U	1.77	0.21	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorotetradecanoic acid (PFTeA)	1.77	U	1.77	0.40	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorobutanesulfonic acid (PFBS)	1.77	U	1.77	0.39	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorohexanesulfonic acid (PFHxS)	1.77	U	1.77	0.23	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.77	U	1.77	0.73	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorooctanesulfonic acid (PFOS)	1.77	U	1.77	0.67	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorodecanesulfonic acid (PFDS)	1.77	U	1.77	0.47	ng/L		12/03/18 12:30	12/06/18 22:03	1
Perfluorooctanesulfonamide (FOSA)	1.77	U	1.77	0.50	ng/L		12/03/18 12:30	12/06/18 22:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17.7	U	17.7	0.40	ng/L		12/03/18 12:30	12/06/18 22:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17.7	U	17.7	0.62	ng/L		12/03/18 12:30	12/06/18 22:03	1
6:2 FTS	17.7	U	17.7	0.89	ng/L		12/03/18 12:30	12/06/18 22:03	1
8:2 FTS	17.7	U	17.7	0.50	ng/L		12/03/18 12:30	12/06/18 22:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*85*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C5-PFPeA DNU	*105*		*25 - 150*	*12/03/18 12:30*	*12/11/18 17:22*	*1*
13C2 PFHxA	*82*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C4 PFHpA	*86*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C4 PFOA	*89*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C5 PFNA	*90*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C2 PFDA	*86*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C2 PFUnA	*89*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C2 PFDoA	*80*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C2 PFTeDA	*66*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C3 PFBS	*66*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
18O2 PFHxS	*64*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C4 PFOS	*73*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
13C8 FOSA	*40*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
d3-NMeFOSAA	*64*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
d5-NEtFOSAA	*72*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
M2-6:2 FTS	*98*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*
M2-8:2 FTS	*88*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:03*	*1*

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC-WESTBABYLON50, NY,Spectrum,152029

TestAmerica Job ID: 200-46371-1

Client Sample ID: EQUIPMENT BLANK_TUBING

Date Collected: 11/20/18 10:00
Date Received: 11/26/18 08:50

Lab Sample ID: 200-46371-8
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.82	U	1.82	0.37	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluoropentanoic acid (PFPeA)	1.82	U	1.82	0.68	ng/L		12/03/18 12:30	12/11/18 17:38	1
Perfluorohexanoic acid (PFHxA)	1.82	U	1.82	0.22	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluoroheptanoic acid (PFHpA)	1.82	U	1.82	0.29	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorooctanoic acid (PFOA)	1.82	U	1.82	0.29	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorononanoic acid (PFNA)	1.82	U	1.82	0.35	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorodecanoic acid (PFDA)	1.82	U	1.82	0.35	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluoroundecanoic acid (PFUnA)	1.82	U	1.82	0.23	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorododecanoic acid (PFDoA)	1.82	U	1.82	0.32	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorotridecanoic acid (PFTriA)	1.82	U	1.82	0.22	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorotetradecanoic acid (PFTeA)	1.82	U	1.82	0.41	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorobutanesulfonic acid (PFBS)	1.82	U	1.82	0.40	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorohexanesulfonic acid (PFHxS)	1.82	U	1.82	0.24	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.82	U	1.82	0.75	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorooctanesulfonic acid (PFOS)	1.82	U	1.82	0.69	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorodecanesulfonic acid (PFDS)	1.82	U	1.82	0.48	ng/L		12/03/18 12:30	12/06/18 22:19	1
Perfluorooctanesulfonamide (FOSA)	1.82	U	1.82	0.51	ng/L		12/03/18 12:30	12/06/18 22:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18.2	U	18.2	0.41	ng/L		12/03/18 12:30	12/06/18 22:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18.2	U	18.2	0.64	ng/L		12/03/18 12:30	12/06/18 22:19	1
6:2 FTS	18.2	U	18.2	0.91	ng/L		12/03/18 12:30	12/06/18 22:19	1
8:2 FTS	18.2	U	18.2	0.51	ng/L		12/03/18 12:30	12/06/18 22:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C5-PFPeA DNU	*108*		*25 - 150*	*12/03/18 12:30*	*12/11/18 17:38*	*1*
13C2 PFHxA	*77*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C4 PFHpA	*85*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C4 PFOA	*87*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C5 PFNA	*88*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C2 PFDA	*82*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C2 PFUnA	*89*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C2 PFDoA	*81*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C2 PFTeDA	*79*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C3 PFBS	*62*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
18O2 PFHxS	*64*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C4 PFOS	*66*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
13C8 FOSA	*45*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
d3-NMeFOSAA	*68*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
d5-NEtFOSAA	*80*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
M2-6:2 FTS	*103*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*
M2-8:2 FTS	*88*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:19*	*1*

Client Sample ID: MW-Y

Date Collected: 11/20/18 00:00
Date Received: 11/26/18 08:50

Lab Sample ID: 200-46371-9

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.72	U	1.72	0.35	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluoropentanoic acid (PFPeA)	8.61	U	8.61	3.23	ng/L		12/03/18 12:30	12/11/18 18:09	5
Perfluorohexanoic acid (PFHxA)	1.72	U	1.72	0.21	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluoroheptanoic acid (PFHpA)	1.72	U	1.72	0.28	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorooctanoic acid (PFOA)	1.72	U	1.72	0.28	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorononanoic acid (PFNA)	1.72	U	1.72	0.33	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorodecanoic acid (PFDA)	1.72	U	1.72	0.33	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluoroundecanoic acid (PFUnA)	1.72	U	1.72	0.22	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorododecanoic acid (PFDoA)	1.72	U	1.72	0.30	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorotridecanoic acid (PFTriA)	1.72	U	1.72	0.21	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorotetradecanoic acid (PFTeA)	1.72	U	1.72	0.39	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorobutanesulfonic acid (PFBS)	1.72	U	1.72	0.38	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorohexanesulfonic acid (PFHxS)	1.72	U	1.72	0.22	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.72	U	1.72	0.71	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorooctanesulfonic acid (PFOS)	1.72	U	1.72	0.65	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorodecanesulfonic acid (PFDS)	1.72	U	1.72	0.46	ng/L		12/03/18 12:30	12/06/18 22:51	1
Perfluorooctanesulfonamide (FOSA)	1.72	U	1.72	0.48	ng/L		12/03/18 12:30	12/06/18 22:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17.2	U	17.2	0.39	ng/L		12/03/18 12:30	12/06/18 22:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17.2	U	17.2	0.60	ng/L		12/03/18 12:30	12/06/18 22:51	1
6:2 FTS	17.2	U	17.2	0.86	ng/L		12/03/18 12:30	12/06/18 22:51	1
8:2 FTS	17.2	U	17.2	0.48	ng/L		12/03/18 12:30	12/06/18 22:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C5-PFPeA DNU	*104*		*25 - 150*	*12/03/18 12:30*	*12/11/18 18:09*	*5*
13C2 PFHxA	*72*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C4 PFHpA	*83*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C4 PFOA	*88*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C5 PFNA	*88*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C2 PFDA	*88*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C2 PFUnA	*90*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C2 PFDoA	*65*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C2 PFTeDA	*57*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C3 PFBS	*58*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
18O2 PFHxS	*58*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C4 PFOS	*63*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
13C8 FOSA	*31*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
d3-NMeFOSAA	*66*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
d5-NEtFOSAA	*67*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
M2-6:2 FTS	*85*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*
M2-8:2 FTS	*107*		*25 - 150*	*12/03/18 12:30*	*12/06/18 22:51*	*1*

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Water Supply

Data Usability Summary Report for
TestAmerica Edison, Job No. 460-169870-1

7 Ground Water Samples and 1 Field Duplicate
Collected November 20, 2018

Prepared by: Donald Anné
December 18, 2018

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results for 7 ground water samples and 1 field duplicate analyzed for chlorinated volatiles and TAL metals.

The overall performances of the analyses are acceptable. TestAmerica Edison did fulfill the requirements of the analytical methods.

The data are acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The "not detected" volatile result for 1,2-dichloropropane was qualified as "estimated" (UJ) for sample MW-06S because 1 of 2 percent recoveries for 1,2-dichloropropane was below QC limits, but not below 30% for aqueous MS/MSD sample MW-06S.

All data are considered usable, with estimated (UJ) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of Method 8260C Volatiles Data
for TestAmerica Edison, Job No: 460-169870-1

7 Ground Water Samples and 1 Field Duplicate
Collected November 20, 2018

Prepared by: Donald Anné
December 18, 2018

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The RRFs for applicable compounds were above the method minimums and the %RSDs were below the method maximum, as required.

The average RRFs for target compounds were above the allowable minimum (0.010) and %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for applicable compounds were above the method minimums and the %Ds were below the method maximum, as required.

The RRFs for target compounds were below the allowable minimum (0.010) and the %Ds were below the allowable maximum (20%), as required.

Blanks: The analysis of the method blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogates recoveries were within control limits for the ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target compounds were below the allowable maximum, but 1 of 2 percent recoveries for 1,2-dichloropropane was below QC limits, but not below 30% for aqueous MS/MSD sample MW-06S. The "not detected" result for 1,2-dichloropropane should be considered estimated (UJ) in sample MW-06S.

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Laboratory Control Sample: The percent recoveries for target compounds were within QC limits for aqueous sample 460-572884/4.

Field Duplicates: The analyses of aqueous field duplicate pair MW-04S/MW-X reported target compounds as not detected; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked compounds and surrogates were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-169870-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B38096.D

Lab ID: 460-169870-1 MS Client ID: MW-06S MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,2-Dichloropropane	200	1.0 U	150	75	77-123	*
Carbon tetrachloride	200	1.0 U	190	95	70-132	
Chlorobenzene	200	1.0 U	181	90	80-120	
Chlorodibromomethane	200	1.0 U	166	83	73-120	
Chloroethane	200	1.0 U	130	65	52-150	
Chloroform	200	1.0 U	195	97	80-120	
Chloromethane	200	1.0 U	141	70	56-131	
cis-1,2-Dichloroethene	200	1.0 U	182	91	80-120	
cis-1,3-Dichloropropene	200	1.0 U	164	82	77-120	
Dichlorobromomethane	200	1.0 U	168	84	76-120	
Methylene Chloride	200	1.0 U	182	91	77-123	
Tetrachloroethene	200	2.9	193	95	78-122	
trans-1,2-Dichloroethene	200	1.0 U	186	93	79-120	
trans-1,3-Dichloropropene	200	1.0 U	157	78	76-120	
Trichloroethene	200	1.0 U	181	90	77-120	
Vinyl chloride	200	1.0 U	140	70	62-138	
1,1-Dichloroethene	200	1.0 U	180	90	74-123	
1,1-Dichloroethane	200	1.0 U	166	83	77-123	
1,1,1-Trichloroethane	200	1.0 U	183	91	75-125	
1,2-Dichloroethane	200	1.0 U	185	92	76-121	
1,1,2-Trichloroethane	200	1.0 U	161	81	78-120	
1,1,2,2-Tetrachloroethane	200	1.0 U	172	86	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-169870-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B38097.D

Lab ID: 460-169870-1 MSD Client ID: MW-06S MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,2-Dichloropropane	200	171	85	13	30	77-123	
Carbon tetrachloride	200	211	106	11	30	70-132	
Chlorobenzene	200	197	98	8	30	80-120	
Chlorodibromomethane	200	186	93	11	30	73-120	
Chloroethane	200	153	77	17	30	52-150	
Chloroform	200	223	112	14	30	80-120	
Chloromethane	200	162	81	14	30	56-131	
cis-1,2-Dichloroethene	200	206	103	12	30	80-120	
cis-1,3-Dichloropropene	200	175	88	6	30	77-120	
Dichlorobromomethane	200	185	92	10	30	76-120	
Methylene Chloride	200	196	98	7	30	77-123	
Tetrachloroethene	200	210	104	9	30	78-122	
trans-1,2-Dichloroethene	200	221	111	17	30	79-120	
trans-1,3-Dichloropropene	200	166	83	6	30	76-120	
Trichloroethene	200	202	101	11	30	77-120	
Vinyl chloride	200	160	80	14	30	62-138	
1,1-Dichloroethene	200	199	99	10	30	74-123	
1,1-Dichloroethane	200	181	91	9	30	77-123	
1,1,1-Trichloroethane	200	208	104	13	30	75-125	
1,2-Dichloroethane	200	209	105	12	30	76-121	
1,1,2-Trichloroethane	200	173	86	7	30	78-120	
1,1,2,2-Tetrachloroethane	200	188	94	9	30	74-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of TAL Metals Data for
TestAmerica Edison, Job No: 460-169870-1

7 Ground Water Samples and 1 Field Duplicate
Collected November 20, 2018

Prepared by: Donald Anné
December 18, 2018

Holding Times: Samples were analyzed within the USEPA SW-846 holding times.

Initial and Continuing Calibration Verification: The percent recoveries for TAL metals were within control limits (80-120% for mercury and 90-110% for all other metals).

Low Level Initial and Continuing Calibration Verification: The percent recoveries for TAL metals were within laboratory QC limits (70-130%).

Blanks: The analyses for initial and continuing calibration, and preparation blanks associated with samples reported TAL metals as not detected.

ICP Interference Check Sample: The percent recoveries for applicable metals were within control limits (80-120%) for the interference check standards.

Spike Sample Recovery: The percent recoveries for applicable TAL metals were within control limits (75-125%) for aqueous spike sample MW-06S, and aqueous batch spike samples 460-170072-D-1-C and 460-169885-D-1-C.

Laboratory Duplicates: The relative percent differences for applicable TAL metals were below the allowable maximum (20%) for aqueous batch duplicate samples 460-170072-D-1-B and 460-169885-D-1-B, as required.

Field Duplicates: The relative percent differences for applicable metals were below the allowable maximum (20%) for aqueous field duplicate pair MW-04S/MW-X (attached table), as required.

Laboratory Control Sample: The percent recoveries for TAL metals were within control limits (80-120%) for aqueous samples LCS 460-572110/2-A, LCS 460-572225/2-A, and LCS 460-573020/2-A.

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Linear Range Check Sample: The percent recoveries for applicable metals were within control limits (90-110%) for aqueous sample LRC 460-572572/14.

ICP Serial Dilution: The %Ds for applicable metals were below the allowable maximum (10%) for aqueous batch serial dilution sample 460-170072-D-1-A, as required.

Detection Limits: The MDLs were at or below the RLs, as required.

TAL Metals

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. 460-169870-1

S1= MW-04S **S2=** MW-X

Analyte	S1	S2	RPD (%)
aluminum	213	258	19%
antimony	ND	ND	NC
arsenic	ND	ND	NC
barium	**10.7**	**11.0**	NC
beryllium	ND	ND	NC
cadmium	**3.8**	**3.90**	NC
calcium	5320	5550	4%
chromium	**1.9**	**2.3**	NC
cobalt	ND	ND	NC
copper	**14.3**	**15.2**	NC
iron	342	403	16%
lead	**5.3**	**3.5**	NC
magnesium	**1260**	**1370**	NC
manganese	**8.2**	**9.6**	NC
mercury	ND	ND	NC
nickel	**2.6**	**3.0**	NC
potassium	**364**	**364**	NC
selenium	ND	ND	NC
silver	ND	ND	NC
sodium	**4390**	**4480**	NC
thallium	ND	ND	NC
vanadium	ND	ND	NC
zinc	**28.4**	30.4	NC

* RPD is above the allowable maximum 20%.

All results are in units of ug/L.

Bold numbers were values that below the CRDL.
ND - Not detected.
NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC-WESTBABYLON50, NY,Spectrum,152029

TestAmerica Job ID: 460-169870-1

Client Sample ID: MW-06S
Date Collected: 11/20/18 10:20
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U UJ	1.0	0.35	ug/L			12/04/18 08:27	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/04/18 08:27	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/04/18 08:27	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/04/18 08:27	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/04/18 08:27	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/04/18 08:27	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/04/18 08:27	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/04/18 08:27	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/04/18 08:27	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/04/18 08:27	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/04/18 08:27	1
Tetrachloroethene	**2.9**		1.0	0.25	ug/L			12/04/18 08:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/04/18 08:27	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/04/18 08:27	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/04/18 08:27	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/04/18 08:27	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/04/18 08:27	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			/04/18 08:27	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			/04/18 08:27	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			/04/18 08:27	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			/04/18 08:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			/04/18 08:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*74 - 132*	*/04/18 08:27*	*1*
4-Bromofluorobenzene	*108*		*77 - 124*	*/04/18 08:27*	*1*
Dibromofluoromethane (Surr)	*117*		*72 - 131*	*/04/18 08:27*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*	*/04/18 08:27*	*1*

Qualified Data

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**66.9**	**J**	200	28.6	ug/L		11/29/18 23:45	12/02/18 16:22	1
Antimony	20.0	U	20.0	2.9	ug/L		11/29/18 23:45	12/02/18 16:22	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/29/18 23:45	12/02/18 16:22	1
Barium	**39.4**	**J**	200	7.7	ug/L		11/29/18 23:45	12/02/18 16:22	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/29/18 23:45	12/02/18 16:22	1
Cadmium	**111**		4.0	0.22	ug/L		11/29/18 23:45	12/02/18 16:22	1
Calcium	**18200**		5000	222	ug/L		11/29/18 23:45	12/02/18 16:22	1
Chromium	**36.0**		10.0	1.3	ug/L		11/29/18 23:45	12/02/18 16:22	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:22	1
Copper	25.0	U	25.0	5.1	ug/L		11/29/18 23:45	12/02/18 16:22	1
Iron	**129**	**J**	150	34.2	ug/L		11/29/18 23:45	12/02/18 16:22	1
Lead	10.0	U	10.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:22	1
Magnesium	**3160**	**J**	5000	177	ug/L		11/29/18 23:45	12/02/18 16:22	1
Manganese	**6.2**	**J**	15.0	0.99	ug/L		11/29/18 23:45	12/02/18 16:22	1
Nickel	**30.6**	**J**	40.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:22	1
Potassium	**3940**	**J**	5000	323	ug/L		11/29/18 23:45	12/02/18 16:22	1
Selenium	20.0	U	20.0	6.6	ug/L		11/29/18 23:45	12/02/18 16:22	1
Silver	10.0	U	10.0	1.1	ug/L		11/29/18 23:45	12/02/18 16:22	1
Sodium	**15800**		5000	460	ug/L		11/29/18 23:45	12/02/18 16:22	1

Client Sample ID: MW-06S

Date Collected: 11/20/18 10:20
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-1
Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	20.0	U	20.0	5.4	ug/L		11/29/18 23:45	12/02/18 16:22	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:22	1
Zinc	**11.2**	**J**	30.0	3.6	ug/L		11/29/18 23:45	12/02/18 16:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 14:45	1

Client Sample ID: MW-06D1

Date Collected: 11/20/18 10:54
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/04/18 08:51	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/04/18 08:51	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/04/18 08:51	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/04/18 08:51	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/04/18 08:51	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/04/18 08:51	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/04/18 08:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/04/18 08:51	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/04/18 08:51	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/04/18 08:51	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/04/18 08:51	1
Tetrachloroethene	**0.30**	**J**	1.0	0.25	ug/L			12/04/18 08:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/04/18 08:51	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/04/18 08:51	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/04/18 08:51	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/04/18 08:51	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/04/18 08:51	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/04/18 08:51	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/04/18 08:51	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 08:51	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 08:51	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/04/18 08:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*74 - 132*		*12/04/18 08:51*	*1*
4-Bromofluorobenzene	*97*		*77 - 124*		*12/04/18 08:51*	*1*
Dibromofluoromethane (Surr)	*101*		*72 - 131*		*12/04/18 08:51*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*12/04/18 08:51*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**70.6**	**J**	200	28.6	ug/L		11/29/18 23:45	12/02/18 16:25	1
Antimony	20.0	U	20.0	2.9	ug/L		11/29/18 23:45	12/02/18 16:25	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/29/18 23:45	12/02/18 16:25	1
Barium	**62.9**	**J**	200	7.7	ug/L		11/29/18 23:45	12/02/18 16:25	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/29/18 23:45	12/02/18 16:25	1

Client Sample ID: MW-06D1

Date Collected: 11/20/18 10:54
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-2

Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	**0.33**	**J**	4.0	0.22	ug/L		11/29/18 23:45	12/02/18 16:25	1
Calcium	**14000**		5000	222	ug/L		11/29/18 23:45	12/02/18 16:25	1
Chromium	10.0	U	10.0	1.3	ug/L		11/29/18 23:45	12/02/18 16:25	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:25	1
Copper	25.0	U	25.0	5.1	ug/L		11/29/18 23:45	12/02/18 16:25	1
Iron	**183**		150	34.2	ug/L		11/29/18 23:45	12/02/18 16:25	1
Lead	10.0	U	10.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:25	1
Magnesium	**3280**	**J**	5000	177	ug/L		11/29/18 23:45	12/02/18 16:25	1
Manganese	**8.6**	**J**	15.0	0.99	ug/L		11/29/18 23:45	12/02/18 16:25	1
Nickel	40.0	U	40.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:25	1
Potassium	**3210**	**J**	5000	323	ug/L		11/29/18 23:45	12/02/18 16:25	1
Selenium	20.0	U	20.0	6.6	ug/L		11/29/18 23:45	12/02/18 16:25	1
Silver	10.0	U	10.0	1.1	ug/L		11/29/18 23:45	12/02/18 16:25	1
Sodium	**23000**		5000	460	ug/L		11/29/18 23:45	12/02/18 16:25	1
Thallium	20.0	U	20.0	5.4	ug/L		11/29/18 23:45	12/02/18 16:25	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:25	1
Zinc	**4.0**	**J**	30.0	3.6	ug/L		11/29/18 23:45	12/02/18 16:25	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 15:14	1

Client Sample ID: MW-05D1

Date Collected: 11/20/18 11:27
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/04/18 09:16	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/04/18 09:16	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/04/18 09:16	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/04/18 09:16	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/04/18 09:16	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/04/18 09:16	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/04/18 09:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/04/18 09:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/04/18 09:16	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/04/18 09:16	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/04/18 09:16	1
Tetrachloroethene	**0.45**	**J**	1.0	0.25	ug/L			12/04/18 09:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/04/18 09:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/04/18 09:16	1
Trichloroethene	**0.31**	**J**	1.0	0.31	ug/L			12/04/18 09:16	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/04/18 09:16	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/04/18 09:16	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/04/18 09:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/04/18 09:16	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 09:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 09:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/04/18 09:16	1

Client Sample ID: MW-05D1

Date Collected: 11/20/18 11:27
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-3

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*74 - 132*		*12/04/18 09:16*	*1*
4-Bromofluorobenzene	*103*		*77 - 124*		*12/04/18 09:16*	*1*
Dibromofluoromethane (Surr)	*110*		*72 - 131*		*12/04/18 09:16*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*12/04/18 09:16*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**289**		200	28.6	ug/L		11/29/18 23:45	12/02/18 16:29	1
Antimony	20.0	U	20.0	2.9	ug/L		11/29/18 23:45	12/02/18 16:29	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/29/18 23:45	12/02/18 16:29	1
Barium	**68.8**	**J**	200	7.7	ug/L		11/29/18 23:45	12/02/18 16:29	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/29/18 23:45	12/02/18 16:29	1
Cadmium	**1.8**	**J**	4.0	0.22	ug/L		11/29/18 23:45	12/02/18 16:29	1
Calcium	**15700**		5000	222	ug/L		11/29/18 23:45	12/02/18 16:29	1
Chromium	**6.2**	**J**	10.0	1.3	ug/L		11/29/18 23:45	12/02/18 16:29	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:29	1
Copper	25.0	U	25.0	5.1	ug/L		11/29/18 23:45	12/02/18 16:29	1
Iron	**432**		150	34.2	ug/L		11/29/18 23:45	12/02/18 16:29	1
Lead	10.0	U	10.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:29	1
Magnesium	**3170**	**J**	5000	177	ug/L		11/29/18 23:45	12/02/18 16:29	1
Manganese	**163**		15.0	0.99	ug/L		11/29/18 23:45	12/02/18 16:29	1
Nickel	40.0	U	40.0	1.7	ug/L		11/29/18 23:45	12/02/18 16:29	1
Potassium	**3400**	**J**	5000	323	ug/L		11/29/18 23:45	12/02/18 16:29	1
Selenium	20.0	U	20.0	6.6	ug/L		11/29/18 23:45	12/02/18 16:29	1
Silver	10.0	U	10.0	1.1	ug/L		11/29/18 23:45	12/02/18 16:29	1
Sodium	**25700**		5000	460	ug/L		11/29/18 23:45	12/02/18 16:29	1
Thallium	20.0	U	20.0	5.4	ug/L		11/29/18 23:45	12/02/18 16:29	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/29/18 23:45	12/02/18 16:29	1
Zinc	**5.4**	**J**	30.0	3.6	ug/L		11/29/18 23:45	12/02/18 16:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 15:16	1

Client Sample ID: MW-04D

Date Collected: 11/20/18 12:00
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/04/18 09:41	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/04/18 09:41	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/04/18 09:41	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/04/18 09:41	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/04/18 09:41	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/04/18 09:41	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/04/18 09:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/04/18 09:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/04/18 09:41	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/04/18 09:41	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/04/18 09:41	1

Client Sample ID: MW-04D

Date Collected: 11/20/18 12:00
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**0.37**	**J**	1.0	0.25	ug/L			12/04/18 09:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/04/18 09:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/04/18 09:41	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/04/18 09:41	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/04/18 09:41	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/04/18 09:41	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/04/18 09:41	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/04/18 09:41	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 09:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 09:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/04/18 09:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*74 - 132*		*12/04/18 09:41*	*1*
4-Bromofluorobenzene	*95*		*77 - 124*		*12/04/18 09:41*	*1*
Dibromofluoromethane (Surr)	*98*		*72 - 131*		*12/04/18 09:41*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*12/04/18 09:41*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**454**		200	28.6	ug/L		11/30/18 09:51	12/02/18 19:38	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 19:38	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 19:38	1
Barium	**81.8**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 19:38	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 19:38	1
Cadmium	**1.6**	**J**	4.0	0.22	ug/L		11/30/18 09:51	12/02/18 19:38	1
Calcium	**17200**		5000	222	ug/L		11/30/18 09:51	12/02/18 19:38	1
Chromium	**28.4**		10.0	1.3	ug/L		11/30/18 09:51	12/02/18 19:38	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:38	1
Copper	**68.4**		25.0	5.1	ug/L		11/30/18 09:51	12/02/18 19:38	1
Iron	**1330**		150	34.2	ug/L		11/30/18 09:51	12/02/18 19:38	1
Lead	**3.4**	**J**	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:38	1
Magnesium	**4240**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 19:38	1
Manganese	**22.5**		15.0	0.99	ug/L		11/30/18 09:51	12/02/18 19:38	1
Nickel	**3.2**	**J**	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:38	1
Potassium	**3490**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 19:38	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 19:38	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 19:38	1
Sodium	**26700**		5000	460	ug/L		11/30/18 09:51	12/02/18 19:38	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 19:38	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:38	1
Zinc	**27.8**	**J**	30.0	3.6	ug/L		11/30/18 09:51	12/02/18 19:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 15:18	1

Client Sample ID: MW-04S

Date Collected: 11/20/18 12:30
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/04/18 10:06	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/04/18 10:06	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/04/18 10:06	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/04/18 10:06	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/04/18 10:06	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/04/18 10:06	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/04/18 10:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/04/18 10:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/04/18 10:06	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/04/18 10:06	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/04/18 10:06	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/04/18 10:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/04/18 10:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/04/18 10:06	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/04/18 10:06	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/04/18 10:06	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/04/18 10:06	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/04/18 10:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/04/18 10:06	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 10:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 10:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/04/18 10:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*74 - 132*		*12/04/18 10:06*	*1*
4-Bromofluorobenzene	*97*		*77 - 124*		*12/04/18 10:06*	*1*
Dibromofluoromethane (Surr)	*99*		*72 - 131*		*12/04/18 10:06*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*12/04/18 10:06*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**213**		200	28.6	ug/L		11/30/18 09:51	12/02/18 19:42	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 19:42	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 19:42	1
Barium	**10.7**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 19:42	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 19:42	1
Cadmium	**3.8**	**J**	4.0	0.22	ug/L		11/30/18 09:51	12/02/18 19:42	1
Calcium	**5320**		5000	222	ug/L		11/30/18 09:51	12/02/18 19:42	1
Chromium	**1.9**	**J**	10.0	1.3	ug/L		11/30/18 09:51	12/02/18 19:42	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:42	1
Copper	**14.3**	**J**	25.0	5.1	ug/L		11/30/18 09:51	12/02/18 19:42	1
Iron	**342**		150	34.2	ug/L		11/30/18 09:51	12/02/18 19:42	1
Lead	**5.3**	**J**	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:42	1
Magnesium	**1260**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 19:42	1
Manganese	**8.2**	**J**	15.0	0.99	ug/L		11/30/18 09:51	12/02/18 19:42	1
Nickel	**2.6**	**J**	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:42	1
Potassium	**364**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 19:42	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 19:42	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 19:42	1
Sodium	**4390**	**J**	5000	460	ug/L		11/30/18 09:51	12/02/18 19:42	1

Client Sample ID: MW-04S

Date Collected: 11/20/18 12:30
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-5
Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 19:42	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:42	1
Zinc	**28.4**	**J**	30.0	3.6	ug/L		11/30/18 09:51	12/02/18 19:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 15:23	1

Client Sample ID: MW-07S

Date Collected: 11/20/18 13:39
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/04/18 10:30	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/04/18 10:30	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/04/18 10:30	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/04/18 10:30	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/04/18 10:30	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/04/18 10:30	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/04/18 10:30	1
cis-1,2-Dichloroethene	**0.62**	**J**	1.0	0.22	ug/L			12/04/18 10:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/04/18 10:30	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/04/18 10:30	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/04/18 10:30	1
Tetrachloroethene	**8.4**		1.0	0.25	ug/L			12/04/18 10:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/04/18 10:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/04/18 10:30	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/04/18 10:30	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/04/18 10:30	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/04/18 10:30	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/04/18 10:30	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/04/18 10:30	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 10:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 10:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/04/18 10:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*74 - 132*		*12/04/18 10:30*	*1*
4-Bromofluorobenzene	*105*		*77 - 124*		*12/04/18 10:30*	*1*
Dibromofluoromethane (Surr)	*107*		*72 - 131*		*12/04/18 10:30*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*12/04/18 10:30*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2200**		200	28.6	ug/L		11/30/18 09:51	12/02/18 19:45	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 19:45	1
Arsenic	**3.9**	**J**	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 19:45	1
Barium	**82.3**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 19:45	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 19:45	1

Client Sample ID: MW-07S

Date Collected: 11/20/18 13:39
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-6
Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	**6.4**		4.0	0.22	ug/L		11/30/18 09:51	12/02/18 19:45	1
Calcium	**18000**		5000	222	ug/L		11/30/18 09:51	12/02/18 19:45	1
Chromium	**24.9**		10.0	1.3	ug/L		11/30/18 09:51	12/02/18 19:45	1
Cobalt	**6.5**	**J**	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:45	1
Copper	**78.3**		25.0	5.1	ug/L		11/30/18 09:51	12/02/18 19:45	1
Iron	**7900**		150	34.2	ug/L		11/30/18 09:51	12/02/18 19:45	1
Lead	**37.9**		10.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:45	1
Magnesium	**2800**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 19:45	1
Manganese	**2040**		15.0	0.99	ug/L		11/30/18 09:51	12/02/18 19:45	1
Nickel	**12.8**	**J**	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:45	1
Potassium	**2750**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 19:45	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 19:45	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 19:45	1
Sodium	**4450**	**J**	5000	460	ug/L		11/30/18 09:51	12/02/18 19:45	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 19:45	1
Vanadium	**8.3**	**J**	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:45	1
Zinc	**162**		30.0	3.6	ug/L		11/30/18 09:51	12/02/18 19:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.15**	**J**	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 15:25	1

Client Sample ID: MW-07D1

Date Collected: 11/20/18 13:57
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/04/18 10:55	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/04/18 10:55	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/04/18 10:55	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/04/18 10:55	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/04/18 10:55	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/04/18 10:55	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/04/18 10:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/04/18 10:55	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/04/18 10:55	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/04/18 10:55	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/04/18 10:55	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/04/18 10:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/04/18 10:55	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/04/18 10:55	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/04/18 10:55	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/04/18 10:55	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/04/18 10:55	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/04/18 10:55	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/04/18 10:55	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 10:55	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 10:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/04/18 10:55	1

Client Sample ID: MW-07D1

Date Collected: 11/20/18 13:57
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-7
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*74 - 132*		*12/04/18 10:55*	*1*
4-Bromofluorobenzene	*98*		*77 - 124*		*12/04/18 10:55*	*1*
Dibromofluoromethane (Surr)	*104*		*72 - 131*		*12/04/18 10:55*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*12/04/18 10:55*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**74.7**	**J**	200	28.6	ug/L		11/30/18 09:51	12/02/18 19:49	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 19:49	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 19:49	1
Barium	**49.9**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 19:49	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 19:49	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/30/18 09:51	12/02/18 19:49	1
Calcium	**15200**		5000	222	ug/L		11/30/18 09:51	12/02/18 19:49	1
Chromium	10.0	U	10.0	1.3	ug/L		11/30/18 09:51	12/02/18 19:49	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:49	1
Copper	25.0	U	25.0	5.1	ug/L		11/30/18 09:51	12/02/18 19:49	1
Iron	**162**		150	34.2	ug/L		11/30/18 09:51	12/02/18 19:49	1
Lead	10.0	U	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:49	1
Magnesium	**2950**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 19:49	1
Manganese	**3.4**	**J**	15.0	0.99	ug/L		11/30/18 09:51	12/02/18 19:49	1
Nickel	40.0	U	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:49	1
Potassium	**2790**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 19:49	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 19:49	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 19:49	1
Sodium	**26800**		5000	460	ug/L		11/30/18 09:51	12/02/18 19:49	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 19:49	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:49	1
Zinc	30.0	U	30.0	3.6	ug/L		11/30/18 09:51	12/02/18 19:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 15:26	1

Client Sample ID: MW-X

Date Collected: 11/20/18 00:00
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/04/18 11:20	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/04/18 11:20	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/04/18 11:20	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/04/18 11:20	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/04/18 11:20	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/04/18 11:20	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/04/18 11:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/04/18 11:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/04/18 11:20	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/04/18 11:20	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/04/18 11:20	1

Client Sample ID: MW-X

Date Collected: 11/20/18 00:00
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169870-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/04/18 11:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/04/18 11:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/04/18 11:20	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/04/18 11:20	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/04/18 11:20	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/04/18 11:20	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/04/18 11:20	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/04/18 11:20	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 11:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/04/18 11:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/04/18 11:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*74 - 132*		*12/04/18 11:20*	*1*
4-Bromofluorobenzene	*106*		*77 - 124*		*12/04/18 11:20*	*1*
Dibromofluoromethane (Surr)	*110*		*72 - 131*		*12/04/18 11:20*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*12/04/18 11:20*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**258**		200	28.6	ug/L		11/30/18 09:51	12/02/18 19:53	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 19:53	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 19:53	1
Barium	**11.0**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 19:53	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 19:53	1
Cadmium	**3.9**	**J**	4.0	0.22	ug/L		11/30/18 09:51	12/02/18 19:53	1
Calcium	**5550**		5000	222	ug/L		11/30/18 09:51	12/02/18 19:53	1
Chromium	**2.3**	**J**	10.0	1.3	ug/L		11/30/18 09:51	12/02/18 19:53	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:53	1
Copper	**15.2**	**J**	25.0	5.1	ug/L		11/30/18 09:51	12/02/18 19:53	1
Iron	**403**		150	34.2	ug/L		11/30/18 09:51	12/02/18 19:53	1
Lead	**3.5**	**J**	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:53	1
Magnesium	**1370**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 19:53	1
Manganese	**9.6**	**J**	15.0	0.99	ug/L		11/30/18 09:51	12/02/18 19:53	1
Nickel	**3.0**	**J**	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:53	1
Potassium	**364**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 19:53	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 19:53	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 19:53	1
Sodium	**4480**	**J**	5000	460	ug/L		11/30/18 09:51	12/02/18 19:53	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 19:53	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:53	1
Zinc	**30.4**		30.0	3.6	ug/L		11/30/18 09:51	12/02/18 19:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 12:46	12/04/18 15:28	1

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Data Usability Summary Report for
TestAmerica Edison, Job No. 460-169885-1

6 Ground Water Samples and 1 Field Duplicate
Collected November 20, 2018

Prepared by: Donald Anné
December 18, 2018

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results for 6 ground water samples and 1 field duplicate analyzed for 1,4-dioxane, 5 ground water samples analyzed chlorinated volatiles, and 6 ground water samples analyzed for TAL metals.

The overall performances of the analyses are acceptable. TestAmerica Edison did fulfill the requirements of the analytical methods.

The data are acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The positive result for 1,4-dioxane was qualified as "estimated, biased low" (J-) for sample MW-12S because 2 of 2 percent recoveries for 1,4-dioxane were below QC limits, but not below 30% for aqueous MS/MSD sample MW-12S.

All data are considered usable, with estimated (J-) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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QA/QC Review of Method 8260C Volatiles Data
for TestAmerica Edison, Job No: 460-169885-1

5 Ground Water Samples
Collected November 20, 2018

Prepared by: Donald Anné
December 18, 2018

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The RRFs for applicable compounds were above the method minimums and the %RSDs were below the method maximum, as required.

The average RRFs for target compounds were above the allowable minimum (0.010) and %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for applicable compounds were above the method minimums and the %Ds were below the method maximum, as required.

The RRFs for target compounds were below the allowable minimum (0.010) and the %Ds were below the allowable maximum (20%), as required.

Blanks: The analysis of the method blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogates recoveries were within control limits for the ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target compounds were below the allowable maximum and the percent recoveries were within QC limits for aqueous batch MS/MSD sample 460-169787-C-7.

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Laboratory Control Sample: The percent recoveries for target compounds were within QC limits for aqueous sample 460-572219/5.

Compound ID: Checked compounds and surrogates were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

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QA/QC Review of Method 8270D SIM 1,4-Dioxane
Data for TestAmerica Edison, Job No: 460-169885-1

6 Ground Water Samples and 1 Field Duplicate
Collected November 20, 2018

Prepared by: Donald Anné
December 18, 2018

Holding Times: The samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The DFTPP tuning criteria were within control limits.

Initial Calibration: The average RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %RSD was below the allowable maximum (30%), as required.

Continuing Calibration: The RRF for 1,4-dioxane was above the allowable minimum (0.010) and the %D was below the allowable maximum (20%), as required.

Blanks: The analysis of the method blank reported 1,4-dioxane as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent difference for 1,4-dioxane was above the allowable maximum, but 2 of 2 percent recoveries were below QC limits, but not below 30% for aqueous MS/MSD sample MW-12S. The positive result for 1,4-dioxane should be considered estimated, biased low (J-) in sample MW-12S.

Laboratory Control Sample: The relative percent difference for 1,4-dioxane was above the allowable maximum and the percent recoveries were within QC limits for aqueous samples LCS 460-570972/2-A and LCSD 460-570972/3-A.

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Field Duplicates: The analyses of aqueous field duplicate pair MW-12S/MW-Y, the sample MW-12S reported detectable concentrations of 1,4-dioxane. The duplicate sample MW-Y reported 1,4-dioxane as not detected. The results for the MW-Y should be disregarded and the use of the result for sample MW-12S is recommended and detected result be considered estimated (J).

Compound ID: Checked surrogates and 1,4-dioxane results were within GC quantitation limits..

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-169885-1

SDG No.:

Matrix: Water Level: Low Lab File ID: C32049.D

Lab ID: 460-169885-5 MS Client ID: MW-12S MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	1.60	0.87	1.63	47	70-130	*
1,4-Dioxane-d8	32.0	13	12.6	39	10-150	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Edison Job No.: 460-169885-1

SDG No.:

Matrix: Water Level: Low Lab File ID: C32050.D

Lab ID: 460-169885-5 MSD Client ID: MW-12S MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	1.60	1.90	64	15	20	70-130	*
1,4-Dioxane-d8	32.0	12.4	39			10-150	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

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QA/QC Review of TAL Metals Data for
TestAmerica Edison, Job No: 460-169885-1

6 Ground Water Samples
Collected November 20, 2018

Prepared by: Donald Anné
December 18, 2018

Holding Times: Samples were analyzed within the USEPA SW-846 holding times.

Initial and Continuing Calibration Verification: The percent recoveries for TAL metals were within control limits (80-120% for mercury and 90-110% for all other metals).

Low Level Initial and Continuing Calibration Verification: The percent recoveries for TAL metals were within laboratory QC limits (70-130%).

Blanks: The analyses for initial and continuing calibration, and preparation blanks associated with samples reported TAL metals as not detected.

ICP Interference Check Sample: The percent recoveries for applicable metals were within control limits (80-120%) for the interference check standards.

Spike Sample Recovery: The percent recoveries for applicable TAL metals were within control limits (75-125%) for aqueous spike sample MW-09S and aqueous batch spike sample 460-169872-F3-F.

Laboratory Duplicates: The relative percent differences for applicable TAL metals were below the allowable maximum (20%) for aqueous duplicate sample MW-09S, as required.

Laboratory Control Sample: The percent recoveries for TAL metals were within control limits (80-120%) for aqueous samples LCS 460-572225/2-A and LCS 460-573020/2-A.

Linear Range Check Sample: The percent recoveries for applicable metals were within control limits (90-110%) for aqueous sample LRC 460-572572/14.

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ICP Serial Dilution: The %Ds for applicable metals were below the allowable maximum (10%) for aqueous dilution sample MW-09S, as required.

Detection Limits: The MDLs were at or below the RLs, as required.

Client Sample ID: MW-09S

Date Collected: 11/20/18 09:12
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/30/18 20:31	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/30/18 20:31	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/30/18 20:31	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/30/18 20:31	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/30/18 20:31	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/30/18 20:31	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/30/18 20:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/30/18 20:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/30/18 20:31	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/30/18 20:31	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/30/18 20:31	1
Tetrachloroethene	**0.86**	**J**	1.0	0.25	ug/L			11/30/18 20:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/30/18 20:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/30/18 20:31	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/30/18 20:31	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/30/18 20:31	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			1/30/18 20:31	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			1/30/18 20:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			1/30/18 20:31	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			1/30/18 20:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			1/30/18 20:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			1/30/18 20:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*74 - 132*	*1/30/18 20:31*	*1*
4-Bromofluorobenzene	*91*		*77 - 124*	*1/30/18 20:31*	*1*
Dibromofluoromethane (Surr)	*110*		*72 - 131*	*1/30/18 20:31*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*	*1/30/18 20:31*	*1*

Qualified Data

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.016	ug/L		11/25/18 11:55	11/25/18 23:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*41*		*10 - 150*	*11/25/18 11:55*	*11/25/18 23:14*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**39.6**	**J**	200	28.6	ug/L		11/30/18 09:51	12/02/18 19:30	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 19:30	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 19:30	1
Barium	**32.3**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 19:30	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 19:30	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/30/18 09:51	12/02/18 19:30	1
Calcium	**17400**		5000	222	ug/L		11/30/18 09:51	12/02/18 19:30	1
Chromium	10.0	U	10.0	1.3	ug/L		11/30/18 09:51	12/02/18 19:30	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:30	1
Copper	25.0	U	25.0	5.1	ug/L		11/30/18 09:51	12/02/18 19:30	1
Iron	150	U	150	34.2	ug/L		11/30/18 09:51	12/02/18 19:30	1
Lead	10.0	U	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:30	1
Magnesium	**3110**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 19:30	1

Client Sample ID: MW-09S

Date Collected: 11/20/18 09:12
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-1

Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**18.4**		15.0	0.99	ug/L		11/30/18 09:51	12/02/18 19:30	1
Nickel	40.0	U	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 19:30	1
Potassium	**3180**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 19:30	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 19:30	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 19:30	1
Sodium	**26200**		5000	460	ug/L		11/30/18 09:51	12/02/18 19:30	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 19:30	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 19:30	1
Zinc	**12.5**	**J**	30.0	3.6	ug/L		11/30/18 09:51	12/02/18 19:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 13:04	12/04/18 16:18	1

Client Sample ID: MW-14S

Date Collected: 11/20/18 10:08
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/30/18 20:55	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/30/18 20:55	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/30/18 20:55	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/30/18 20:55	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/30/18 20:55	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/30/18 20:55	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/30/18 20:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/30/18 20:55	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/30/18 20:55	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/30/18 20:55	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/30/18 20:55	1
Tetrachloroethene	**0.61**	**J**	1.0	0.25	ug/L			11/30/18 20:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/30/18 20:55	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/30/18 20:55	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/30/18 20:55	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/30/18 20:55	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/30/18 20:55	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/30/18 20:55	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/30/18 20:55	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 20:55	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 20:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/30/18 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*74 - 132*		*11/30/18 20:55*	*1*
4-Bromofluorobenzene	*92*		*77 - 124*		*11/30/18 20:55*	*1*
Dibromofluoromethane (Surr)	*110*		*72 - 131*		*11/30/18 20:55*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*11/30/18 20:55*	*1*

Client Sample ID: MW-14S

Date Collected: 11/20/18 10:08
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-2

Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.016	ug/L		11/25/18 11:55	11/25/18 23:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*41*		*10 - 150*	*11/25/18 11:55*	*11/25/18 23:30*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**42.5**	**J**	200	28.6	ug/L		11/30/18 09:51	12/02/18 20:08	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 20:08	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 20:08	1
Barium	**35.5**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 20:08	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 20:08	1
Cadmium	**16.2**		4.0	0.22	ug/L		11/30/18 09:51	12/02/18 20:08	1
Calcium	**20700**		5000	222	ug/L		11/30/18 09:51	12/02/18 20:08	1
Chromium	10.0	U	10.0	1.3	ug/L		11/30/18 09:51	12/02/18 20:08	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:08	1
Copper	25.0	U	25.0	5.1	ug/L		11/30/18 09:51	12/02/18 20:08	1
Iron	**85.9**	**J**	150	34.2	ug/L		11/30/18 09:51	12/02/18 20:08	1
Lead	10.0	U	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:08	1
Magnesium	**3450**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 20:08	1
Manganese	**4.8**	**J**	15.0	0.99	ug/L		11/30/18 09:51	12/02/18 20:08	1
Nickel	40.0	U	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:08	1
Potassium	**3750**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 20:08	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 20:08	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 20:08	1
Sodium	**18500**		5000	460	ug/L		11/30/18 09:51	12/02/18 20:08	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 20:08	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:08	1
Zinc	30.0	U	30.0	3.6	ug/L		11/30/18 09:51	12/02/18 20:08	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 13:04	12/04/18 16:20	1

Client Sample ID: MW-01S

Date Collected: 11/20/18 10:45
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/30/18 21:19	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/30/18 21:19	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/30/18 21:19	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/30/18 21:19	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/30/18 21:19	1
Chloroform	**6.0**		1.0	0.33	ug/L			11/30/18 21:19	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/30/18 21:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/30/18 21:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/30/18 21:19	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/30/18 21:19	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/30/18 21:19	1

Client Sample ID: MW-01S
Date Collected: 11/20/18 10:45
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/30/18 21:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/30/18 21:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/30/18 21:19	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/30/18 21:19	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/30/18 21:19	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/30/18 21:19	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/30/18 21:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/30/18 21:19	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 21:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 21:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/30/18 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*74 - 132*		*11/30/18 21:19*	*1*
4-Bromofluorobenzene	*95*		*77 - 124*		*11/30/18 21:19*	*1*
Dibromofluoromethane (Surr)	*109*		*72 - 131*		*11/30/18 21:19*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*11/30/18 21:19*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.016	ug/L		11/25/18 11:55	11/25/18 23:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*37*		*10 - 150*	*11/25/18 11:55*	*11/25/18 23:47*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**188**	**J**	200	28.6	ug/L		11/30/18 09:51	12/02/18 20:12	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 20:12	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 20:12	1
Barium	**16.2**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 20:12	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 20:12	1
Cadmium	**0.69**	**J**	4.0	0.22	ug/L		11/30/18 09:51	12/02/18 20:12	1
Calcium	**17600**		5000	222	ug/L		11/30/18 09:51	12/02/18 20:12	1
Chromium	10.0	U	10.0	1.3	ug/L		11/30/18 09:51	12/02/18 20:12	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:12	1
Copper	25.0	U	25.0	5.1	ug/L		11/30/18 09:51	12/02/18 20:12	1
Iron	**113**	**J**	150	34.2	ug/L		11/30/18 09:51	12/02/18 20:12	1
Lead	10.0	U	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:12	1
Magnesium	**3050**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 20:12	1
Manganese	**80.5**		15.0	0.99	ug/L		11/30/18 09:51	12/02/18 20:12	1
Nickel	40.0	U	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:12	1
Potassium	**4090**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 20:12	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 20:12	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 20:12	1
Sodium	**20200**		5000	460	ug/L		11/30/18 09:51	12/02/18 20:12	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 20:12	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:12	1
Zinc	**9.2**	**J**	30.0	3.6	ug/L		11/30/18 09:51	12/02/18 20:12	1

Client Sample ID: MW-01S

Date Collected: 11/20/18 10:45
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-3
Matrix: Water

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 13:04	12/04/18 16:25	1

Client Sample ID: MW-11S

Date Collected: 11/20/18 11:20
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/30/18 21:43	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/30/18 21:43	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/30/18 21:43	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/30/18 21:43	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/30/18 21:43	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/30/18 21:43	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/30/18 21:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/30/18 21:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/30/18 21:43	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/30/18 21:43	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/30/18 21:43	1
Tetrachloroethene	**0.77**	**J**	1.0	0.25	ug/L			11/30/18 21:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/30/18 21:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/30/18 21:43	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/30/18 21:43	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/30/18 21:43	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/30/18 21:43	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/30/18 21:43	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/30/18 21:43	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 21:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 21:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/30/18 21:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*74 - 132*		*11/30/18 21:43*	*1*
4-Bromofluorobenzene	*98*		*77 - 124*		*11/30/18 21:43*	*1*
Dibromofluoromethane (Surr)	*108*		*72 - 131*		*11/30/18 21:43*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*11/30/18 21:43*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.016	ug/L		11/25/18 11:55	11/26/18 00:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*37*		*10 - 150*	*11/25/18 11:55*	*11/26/18 00:04*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**563**		200	28.6	ug/L		11/30/18 09:51	12/02/18 20:15	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 20:15	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 20:15	1
Barium	**20.7**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 20:15	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 20:15	1

Client Sample ID: MW-11S

Date Collected: 11/20/18 11:20
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-4
Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	**0.41**	**J**	4.0	0.22	ug/L		11/30/18 09:51	12/02/18 20:15	1
Calcium	**21300**		5000	222	ug/L		11/30/18 09:51	12/02/18 20:15	1
Chromium	10.0	U	10.0	1.3	ug/L		11/30/18 09:51	12/02/18 20:15	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:15	1
Copper	25.0	U	25.0	5.1	ug/L		11/30/18 09:51	12/02/18 20:15	1
Iron	**748**		150	34.2	ug/L		11/30/18 09:51	12/02/18 20:15	1
Lead	**4.4**	**J**	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:15	1
Magnesium	**3390**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 20:15	1
Manganese	**21.2**		15.0	0.99	ug/L		11/30/18 09:51	12/02/18 20:15	1
Nickel	40.0	U	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:15	1
Potassium	**1620**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 20:15	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 20:15	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 20:15	1
Sodium	**11700**		5000	460	ug/L		11/30/18 09:51	12/02/18 20:15	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 20:15	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:15	1
Zinc	**26.0**	**J**	30.0	3.6	ug/L		11/30/18 09:51	12/02/18 20:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 13:04	12/04/18 16:27	1

Client Sample ID: MW-12S

Date Collected: 11/20/18 12:10
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-5
Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.87**	J	0.20	0.016	ug/L		11/25/18 11:55	11/25/18 21:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*10 - 150*	*11/25/18 11:55*	*11/25/18 21:00*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**178**	**J**	200	28.6	ug/L		11/30/18 09:51	12/02/18 20:19	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 20:19	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 20:19	1
Barium	**24.7**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 20:19	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 20:19	1
Cadmium	**72.2**		4.0	0.22	ug/L		11/30/18 09:51	12/02/18 20:19	1
Calcium	**22700**		5000	222	ug/L		11/30/18 09:51	12/02/18 20:19	1
Chromium	**32.3**		10.0	1.3	ug/L		11/30/18 09:51	12/02/18 20:19	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:19	1
Copper	25.0	U	25.0	5.1	ug/L		11/30/18 09:51	12/02/18 20:19	1
Iron	**240**		150	34.2	ug/L		11/30/18 09:51	12/02/18 20:19	1
Lead	10.0	U	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:19	1
Magnesium	**3050**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 20:19	1
Manganese	**6.3**	**J**	15.0	0.99	ug/L		11/30/18 09:51	12/02/18 20:19	1
Nickel	**59.8**		40.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:19	1
Potassium	**2420**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 20:19	1

Client Sample ID: MW-12S

Date Collected: 11/20/18 12:10
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-5

Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 20:19	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 20:19	1
Sodium	**15700**		5000	460	ug/L		11/30/18 09:51	12/02/18 20:19	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 20:19	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:19	1
Zinc	**23.8**	**J**	30.0	3.6	ug/L		11/30/18 09:51	12/02/18 20:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 13:04	12/04/18 16:28	1

Client Sample ID: MW-16S

Date Collected: 11/20/18 13:45
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/30/18 22:08	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/30/18 22:08	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/30/18 22:08	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/30/18 22:08	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/30/18 22:08	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/30/18 22:08	1
Chloromethane	1.0	U	1.0	0.14	ug/L			11/30/18 22:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/30/18 22:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			11/30/18 22:08	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/30/18 22:08	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/30/18 22:08	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/30/18 22:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/30/18 22:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/30/18 22:08	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/30/18 22:08	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/30/18 22:08	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			11/30/18 22:08	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/30/18 22:08	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/30/18 22:08	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 22:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/30/18 22:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/30/18 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*74 - 132*		*11/30/18 22:08*	*1*
4-Bromofluorobenzene	*94*		*77 - 124*		*11/30/18 22:08*	*1*
Dibromofluoromethane (Surr)	*108*		*72 - 131*		*11/30/18 22:08*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*11/30/18 22:08*	*1*

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.48**		0.20	0.016	ug/L		11/25/18 11:55	11/26/18 00:20	1

Client Sample ID: MW-16S

Date Collected: 11/20/18 13:45
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-6
Matrix: Water

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*37*		*10 - 150*	*11/25/18 11:55*	*11/26/18 00:20*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**94.0**	**J**	200	28.6	ug/L		11/30/18 09:51	12/02/18 20:23	1
Antimony	20.0	U	20.0	2.9	ug/L		11/30/18 09:51	12/02/18 20:23	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/30/18 09:51	12/02/18 20:23	1
Barium	**88.8**	**J**	200	7.7	ug/L		11/30/18 09:51	12/02/18 20:23	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/30/18 09:51	12/02/18 20:23	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/30/18 09:51	12/02/18 20:23	1
Calcium	**20300**		5000	222	ug/L		11/30/18 09:51	12/02/18 20:23	1
Chromium	10.0	U	10.0	1.3	ug/L		11/30/18 09:51	12/02/18 20:23	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:23	1
Copper	25.0	U	25.0	5.1	ug/L		11/30/18 09:51	12/02/18 20:23	1
Iron	**176**		150	34.2	ug/L		11/30/18 09:51	12/02/18 20:23	1
Lead	10.0	U	10.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:23	1
Magnesium	**3250**	**J**	5000	177	ug/L		11/30/18 09:51	12/02/18 20:23	1
Manganese	**9.0**	**J**	15.0	0.99	ug/L		11/30/18 09:51	12/02/18 20:23	1
Nickel	40.0	U	40.0	1.7	ug/L		11/30/18 09:51	12/02/18 20:23	1
Potassium	**4220**	**J**	5000	323	ug/L		11/30/18 09:51	12/02/18 20:23	1
Selenium	20.0	U	20.0	6.6	ug/L		11/30/18 09:51	12/02/18 20:23	1
Silver	10.0	U	10.0	1.1	ug/L		11/30/18 09:51	12/02/18 20:23	1
Sodium	**43800**		5000	460	ug/L		11/30/18 09:51	12/02/18 20:23	1
Thallium	20.0	U	20.0	5.4	ug/L		11/30/18 09:51	12/02/18 20:23	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/30/18 09:51	12/02/18 20:23	1
Zinc	30.0	U	30.0	3.6	ug/L		11/30/18 09:51	12/02/18 20:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/04/18 13:04	12/04/18 16:30	1

Client Sample ID: MW-Y

Date Collected: 11/20/18 00:00
Date Received: 11/21/18 18:00

Lab Sample ID: 460-169885-7
Matrix: Water

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.016	ug/L		11/25/18 11:55	11/26/18 00:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*37*		*10 - 150*	*11/25/18 11:55*	*11/26/18 00:37*	*1*

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Data Usability Summary Report for
TestAmerica Edison, Job No. 460-170051-1

6 Ground Water Samples and 1 Field Duplicate
Collected November 26, 2018

Prepared by: Donald Anné
December 18, 2018

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results for 6 ground water samples and 1 field duplicate analyzed for chlorinated volatiles and TAL metals.

The overall performances of the analyses are acceptable. TestAmerica Edison did fulfill the requirements of the analytical methods.

The data are acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The positive metal results for iron were qualified as estimated (J) in samples MW-12D1 and MW-V because the relative percent difference for iron was above the allowable maximum in the aqueous field duplicate pair MW-12D1/MW-V.

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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QA/QC Review of Method 8260C Volatiles Data
for TestAmerica Edison, Job No: 460-170051-1

6 Ground Water Samples and 1 Field Duplicate
Collected November 26, 2018

Prepared by: Donald Anné
December 18, 2018

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The RRFs for applicable compounds were above the method minimums and the %RSDs were below the method maximum, as required.

The average RRFs for target compounds were above the allowable minimum (0.010) and %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for applicable compounds were above the method minimums and the %Ds were below the method maximum, as required.

The RRFs for target compounds were below the allowable minimum (0.010) and the %Ds were below the allowable maximum (20%), as required.

Blanks: The analysis of the method blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogates recoveries were within control limits for the ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target compounds were below the allowable maximum and the percent recoveries were within QC limits for aqueous batch MS/MSD sample 460-170186-C-2.

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Laboratory Control Sample: The percent recoveries for target compounds were within QC limits for aqueous sample 460-572379/5.

Field Duplicates: The analyses of aqueous field duplicate pair MW-12D1/MW-V reported target compounds as either not detected or below the lowest standard; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked compounds and surrogates were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

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QA/QC Review of TAL Metals Data for
TestAmerica Edison, Job No: 460-170051-1

6 Ground Water Samples and 1 Field Duplicate
Collected November 26, 2018

Prepared by: Donald Anné
December 18, 2018

Holding Times: Samples were analyzed within the USEAP SW-846 holding times.

Initial and Continuing Calibration Verification: The percent recoveries for TAL metals were within control limits (80-120% for mercury and 90-110% for all other metals).

Low Level Initial and Continuing Calibration Verification: The percent recoveries for TAL metals were within laboratory QC limits (70-130%).

Blanks: The analyses for initial and continuing calibration, and preparation blanks associated with samples reported TAL metals as not detected.

ICP Interference Check Sample: The percent recoveries for applicable metals were within control limits (80-120%) for the interference check standards.

Spike Sample Recovery: The percent recoveries for applicable TAL metals were within control limits (75-125%) for aqueous spike sample MW-02D and aqueous batch spike sample 460-170433-G-1-C.

Laboratory Duplicates: The relative percent differences for applicable TAL metals were below the allowable maximum (20%) for aqueous duplicate sample MW-02D, as required.

Field Duplicates: The relative percent difference for iron was above the allowable maximum (20%) for aqueous field duplicate pair MW-12D1/MW-V (attached table). Positive results for iron should be considered estimated (J) in samples MW-12D1 and MW-V.

Laboratory Control Sample: The percent recoveries for TAL metals were within control limits (80-120%) for aqueous samples LCS 460-572708/2-A and LCS 460-573301/2-A.

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Linear Range Check Sample: The percent recoveries for applicable metals were within control limits (90-110%) for aqueous sample LRC 460-573048/14.

ICP Serial Dilution: The %Ds for applicable metals were below the allowable maximum (10%) for aqueous serial dilution sample MW-02D, as required.

Detection Limits: The MDLs were at or below the RLs, as required.

TAL Metals

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. 460-170051-1

S1= MW-12D1 **S2=** MW-V

Analyte	S1	S2	RPD (%)
aluminum	**98.0**	**69.3**	NC
antimony	ND	ND	NC
arsenic	ND	ND	NC
barium	**72.2**	**70.9**	NC
beryllium	ND	ND	NC
cadmium	12.8	13.4	5%
calcium	18100	18200	1%
chromium	20.8	21.2	2%
cobalt	ND	ND	NC
copper	26.2	**24.8**	NC
iron	254	156	48% *
lead	ND	ND	NC
magnesium	**3940**	**3870**	NC
manganese	18.2	**14.8**	NC
mercury	ND	ND	NC
nickel	**14.6**	**15.1**	NC
potassium	**3560**	**3610**	NC
selenium	ND	ND	NC
silver	ND	ND	NC
sodium	27000	26900	0%
thallium	ND	ND	NC
vanadium	ND	ND	NC
zinc	**20.2**	**19.7**	NC

* RPD is above the allowable maximum 20%.

All results are in units of ug/L.

Bold numbers were values that below the CRDL.
ND - Not detected.
NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.

Client Sample ID: MW-02S
Date Collected: 11/26/18 08:37
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/01/18 07:56	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/01/18 07:56	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/01/18 07:56	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/01/18 07:56	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/01/18 07:56	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/01/18 07:56	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/01/18 07:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/01/18 07:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/01/18 07:56	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/01/18 07:56	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/01/18 07:56	1
Tetrachloroethene	**3.9**		1.0	0.25	ug/L			12/01/18 07:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/01/18 07:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/01/18 07:56	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/01/18 07:56	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/01/18 07:56	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			1/18 07:56	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			1/18 07:56	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			1/18 07:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			01/18 07:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			01/18 07:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*74 - 132*	*/01/18 07:56*	*1*
4-Bromofluorobenzene	*88*		*77 - 124*	*/01/18 07:56*	*1*
Dibromofluoromethane (Surr)	*106*		*72 - 131*	*/01/18 07:56*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*	*/01/18 07:56*	*1*

Qualified Data

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**51.3**	**J**	200	28.6	ug/L		12/03/18 08:48	12/04/18 20:38	1
Antimony	20.0	U	20.0	2.9	ug/L		12/03/18 08:48	12/04/18 20:38	1
Arsenic	15.0	U	15.0	2.7	ug/L		12/03/18 08:48	12/04/18 20:38	1
Barium	**26.0**	**J**	200	7.7	ug/L		12/03/18 08:48	12/04/18 20:38	1
Beryllium	2.0	U	2.0	0.23	ug/L		12/03/18 08:48	12/04/18 20:38	1
Cadmium	**0.28**	**J**	4.0	0.22	ug/L		12/03/18 08:48	12/04/18 20:38	1
Calcium	**13700**		5000	222	ug/L		12/03/18 08:48	12/04/18 20:38	1
Chromium	10.0	U	10.0	1.3	ug/L		12/03/18 08:48	12/04/18 20:38	1
Cobalt	50.0	U	50.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:38	1
Copper	**14.3**	**J**	25.0	5.1	ug/L		12/03/18 08:48	12/04/18 20:38	1
Iron	**137**	**J**	150	34.2	ug/L		12/03/18 08:48	12/04/18 20:38	1
Lead	**8.4**	**J**	10.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:38	1
Magnesium	**2590**	**J**	5000	177	ug/L		12/03/18 08:48	12/04/18 20:38	1
Manganese	**10**	**J**	15.0	0.99	ug/L		12/03/18 08:48	12/04/18 20:38	1
Nickel	40.0	U	40.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:38	1
Potassium	**2270**	**J**	5000	323	ug/L		12/03/18 08:48	12/04/18 20:38	1
Selenium	20.0	U	20.0	6.6	ug/L		12/03/18 08:48	12/04/18 20:38	1
Silver	10.0	U	10.0	1.1	ug/L		12/03/18 08:48	12/04/18 20:38	1
Sodium	**12500**		5000	460	ug/L		12/03/18 08:48	12/04/18 20:38	1
Thallium	20.0	U	20.0	5.4	ug/L		12/03/18 08:48	12/04/18 20:38	1

Client Sample ID: MW-02S

Date Collected: 11/26/18 08:37
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-1
Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	50.0	U	50.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:38	1
Zinc	**4.5**	**J**	30.0	3.6	ug/L		12/03/18 08:48	12/04/18 20:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/05/18 12:16	12/05/18 14:42	1

Client Sample ID: MW-02D

Date Collected: 11/26/18 09:15
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/01/18 08:20	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/01/18 08:20	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/01/18 08:20	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/01/18 08:20	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/01/18 08:20	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/01/18 08:20	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/01/18 08:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/01/18 08:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/01/18 08:20	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/01/18 08:20	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/01/18 08:20	1
Tetrachloroethene	**0.49**	**J**	1.0	0.25	ug/L			12/01/18 08:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/01/18 08:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/01/18 08:20	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/01/18 08:20	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/01/18 08:20	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/01/18 08:20	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/01/18 08:20	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/01/18 08:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/01/18 08:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/01/18 08:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*74 - 132*		*12/01/18 08:20*	*1*
4-Bromofluorobenzene	*91*		*77 - 124*		*12/01/18 08:20*	*1*
Dibromofluoromethane (Surr)	*107*		*72 - 131*		*12/01/18 08:20*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*12/01/18 08:20*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**30.8**	**J**	200	28.6	ug/L		12/03/18 08:48	12/04/18 20:27	1
Antimony	20.0	U	20.0	2.9	ug/L		12/03/18 08:48	12/04/18 20:27	1
Arsenic	15.0	U	15.0	2.7	ug/L		12/03/18 08:48	12/04/18 20:27	1
Barium	**75.0**	**J**	200	7.7	ug/L		12/03/18 08:48	12/04/18 20:27	1
Beryllium	2.0	U	2.0	0.23	ug/L		12/03/18 08:48	12/04/18 20:27	1
Cadmium	4.0	U	4.0	0.22	ug/L		12/03/18 08:48	12/04/18 20:27	1
Calcium	**16100**		5000	222	ug/L		12/03/18 08:48	12/04/18 20:27	1

Client Sample ID: MW-02D

Date Collected: 11/26/18 09:15
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-2

Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	10.0	U	10.0	1.3	ug/L		12/03/18 08:48	12/04/18 20:27	1
Cobalt	50.0	U	50.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:27	1
Copper	25.0	U	25.0	5.1	ug/L		12/03/18 08:48	12/04/18 20:27	1
Iron	**34.5**	**J**	150	34.2	ug/L		12/03/18 08:48	12/04/18 20:27	1
Lead	10.0	U	10.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:27	1
Magnesium	**3140**	**J**	5000	177	ug/L		12/03/18 08:48	12/04/18 20:27	1
Manganese	**5.0**	**J**	15.0	0.99	ug/L		12/03/18 08:48	12/04/18 20:27	1
Nickel	40.0	U	40.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:27	1
Potassium	**3460**	**J**	5000	323	ug/L		12/03/18 08:48	12/04/18 20:27	1
Selenium	20.0	U	20.0	6.6	ug/L		12/03/18 08:48	12/04/18 20:27	1
Silver	10.0	U	10.0	1.1	ug/L		12/03/18 08:48	12/04/18 20:27	1
Sodium	**29800**		5000	460	ug/L		12/03/18 08:48	12/04/18 20:27	1
Thallium	20.0	U	20.0	5.4	ug/L		12/03/18 08:48	12/04/18 20:27	1
Vanadium	50.0	U	50.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:27	1
Zinc	30.0	U	30.0	3.6	ug/L		12/03/18 08:48	12/04/18 20:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/05/18 12:16	12/05/18 14:43	1

Client Sample ID: MW-12D1

Date Collected: 11/26/18 10:03
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/01/18 08:44	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/01/18 08:44	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/01/18 08:44	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/01/18 08:44	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/01/18 08:44	1
Chloroform	**0.37**	**J**	1.0	0.33	ug/L			12/01/18 08:44	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/01/18 08:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/01/18 08:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/01/18 08:44	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/01/18 08:44	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/01/18 08:44	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/01/18 08:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/01/18 08:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/01/18 08:44	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/01/18 08:44	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/01/18 08:44	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/01/18 08:44	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/01/18 08:44	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/01/18 08:44	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/01/18 08:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/01/18 08:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*74 - 132*		*12/01/18 08:44*	*1*

Client Sample ID: MW-12D1

Date Collected: 11/26/18 10:03
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-3

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*77 - 124*		*12/01/18 08:44*	*1*
Dibromofluoromethane (Surr)	*105*		*72 - 131*		*12/01/18 08:44*	*1*
Toluene-d8 (Surr)	*87*		*80 - 120*		*12/01/18 08:44*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**98.0**	**J**	200	28.6	ug/L		12/03/18 08:48	12/04/18 20:42	1
Antimony	20.0	U	20.0	2.9	ug/L		12/03/18 08:48	12/04/18 20:42	1
Arsenic	15.0	U	15.0	2.7	ug/L		12/03/18 08:48	12/04/18 20:42	1
Barium	**72.2**	**J**	200	7.7	ug/L		12/03/18 08:48	12/04/18 20:42	1
Beryllium	2.0	U	2.0	0.23	ug/L		12/03/18 08:48	12/04/18 20:42	1
Cadmium	**12.8**		4.0	0.22	ug/L		12/03/18 08:48	12/04/18 20:42	1
Calcium	**18100**		5000	222	ug/L		12/03/18 08:48	12/04/18 20:42	1
Chromium	**20.8**		10.0	1.3	ug/L		12/03/18 08:48	12/04/18 20:42	1
Cobalt	50.0	U	50.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:42	1
Copper	**26.2**		25.0	5.1	ug/L		12/03/18 08:48	12/04/18 20:42	1
Iron	**254**	J	150	34.2	ug/L		12/03/18 08:48	12/04/18 20:42	1
Lead	10.0	U	10.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:42	1
Magnesium	**3940**	**J**	5000	177	ug/L		12/03/18 08:48	12/04/18 20:42	1
Manganese	**18.2**		15.0	0.99	ug/L		12/03/18 08:48	12/04/18 20:42	1
Nickel	**14.6**	**J**	40.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:42	1
Potassium	**3560**	**J**	5000	323	ug/L		12/03/18 08:48	12/04/18 20:42	1
Selenium	20.0	U	20.0	6.6	ug/L		12/03/18 08:48	12/04/18 20:42	1
Silver	10.0	U	10.0	1.1	ug/L		12/03/18 08:48	12/04/18 20:42	1
Sodium	**27000**		5000	460	ug/L		12/03/18 08:48	12/04/18 20:42	1
Thallium	20.0	U	20.0	5.4	ug/L		12/03/18 08:48	12/04/18 20:42	1
Vanadium	50.0	U	50.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:42	1
Zinc	**20.2**	**J**	30.0	3.6	ug/L		12/03/18 08:48	12/04/18 20:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/05/18 12:16	12/05/18 14:45	1

Client Sample ID: MW-14D1

Date Collected: 11/26/18 11:04
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/01/18 09:08	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/01/18 09:08	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/01/18 09:08	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/01/18 09:08	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/01/18 09:08	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/01/18 09:08	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/01/18 09:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/01/18 09:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/01/18 09:08	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/01/18 09:08	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/01/18 09:08	1

Client Sample ID: MW-14D1

Date Collected: 11/26/18 11:04
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			12/01/18 09:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/01/18 09:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/01/18 09:08	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/01/18 09:08	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/01/18 09:08	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/01/18 09:08	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/01/18 09:08	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/01/18 09:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/01/18 09:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/01/18 09:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*74 - 132*		*12/01/18 09:08*	*1*
4-Bromofluorobenzene	*86*		*77 - 124*		*12/01/18 09:08*	*1*
Dibromofluoromethane (Surr)	*105*		*72 - 131*		*12/01/18 09:08*	*1*
Toluene-d8 (Surr)	*87*		*80 - 120*		*12/01/18 09:08*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	200	U	200	28.6	ug/L		12/03/18 08:48	12/04/18 20:46	1
Antimony	20.0	U	20.0	2.9	ug/L		12/03/18 08:48	12/04/18 20:46	1
Arsenic	15.0	U	15.0	2.7	ug/L		12/03/18 08:48	12/04/18 20:46	1
Barium	**78.8**	**J**	200	7.7	ug/L		12/03/18 08:48	12/04/18 20:46	1
Beryllium	2.0	U	2.0	0.23	ug/L		12/03/18 08:48	12/04/18 20:46	1
Cadmium	4.0	U	4.0	0.22	ug/L		12/03/18 08:48	12/04/18 20:46	1
Calcium	**15600**		5000	222	ug/L		12/03/18 08:48	12/04/18 20:46	1
Chromium	10.0	U	10.0	1.3	ug/L		12/03/18 08:48	12/04/18 20:46	1
Cobalt	50.0	U	50.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:46	1
Copper	25.0	U	25.0	5.1	ug/L		12/03/18 08:48	12/04/18 20:46	1
Iron	**345**		150	34.2	ug/L		12/03/18 08:48	12/04/18 20:46	1
Lead	10.0	U	10.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:46	1
Magnesium	**3130**	**J**	5000	177	ug/L		12/03/18 08:48	12/04/18 20:46	1
Manganese	**9.5**	**J**	15.0	0.99	ug/L		12/03/18 08:48	12/04/18 20:46	1
Nickel	40.0	U	40.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:46	1
Potassium	**3990**	**J**	5000	323	ug/L		12/03/18 08:48	12/04/18 20:46	1
Selenium	20.0	U	20.0	6.6	ug/L		12/03/18 08:48	12/04/18 20:46	1
Silver	10.0	U	10.0	1.1	ug/L		12/03/18 08:48	12/04/18 20:46	1
Sodium	**27800**		5000	460	ug/L		12/03/18 08:48	12/04/18 20:46	1
Thallium	20.0	U	20.0	5.4	ug/L		12/03/18 08:48	12/04/18 20:46	1
Vanadium	50.0	U	50.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:46	1
Zinc	**7.5**	**J**	30.0	3.6	ug/L		12/03/18 08:48	12/04/18 20:46	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/05/18 12:16	12/05/18 14:47	1

Client Sample ID: MW-01D1

Date Collected: 11/26/18 11:57
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/01/18 09:32	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/01/18 09:32	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/01/18 09:32	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/01/18 09:32	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/01/18 09:32	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/01/18 09:32	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/01/18 09:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/01/18 09:32	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/01/18 09:32	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/01/18 09:32	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/01/18 09:32	1
Tetrachloroethene	**0.37**	**J**	1.0	0.25	ug/L			12/01/18 09:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/01/18 09:32	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/01/18 09:32	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/01/18 09:32	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/01/18 09:32	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/01/18 09:32	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/01/18 09:32	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/01/18 09:32	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/01/18 09:32	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/01/18 09:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*74 - 132*		*12/01/18 09:32*	*1*
4-Bromofluorobenzene	*90*		*77 - 124*		*12/01/18 09:32*	*1*
Dibromofluoromethane (Surr)	*109*		*72 - 131*		*12/01/18 09:32*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*12/01/18 09:32*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**43.6**	**J**	200	28.6	ug/L		12/03/18 08:48	12/04/18 20:49	1
Antimony	20.0	U	20.0	2.9	ug/L		12/03/18 08:48	12/04/18 20:49	1
Arsenic	15.0	U	15.0	2.7	ug/L		12/03/18 08:48	12/04/18 20:49	1
Barium	**55.3**	**J**	200	7.7	ug/L		12/03/18 08:48	12/04/18 20:49	1
Beryllium	2.0	U	2.0	0.23	ug/L		12/03/18 08:48	12/04/18 20:49	1
Cadmium	4.0	U	4.0	0.22	ug/L		12/03/18 08:48	12/04/18 20:49	1
Calcium	**12100**		5000	222	ug/L		12/03/18 08:48	12/04/18 20:49	1
Chromium	10.0	U	10.0	1.3	ug/L		12/03/18 08:48	12/04/18 20:49	1
Cobalt	50.0	U	50.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:49	1
Copper	25.0	U	25.0	5.1	ug/L		12/03/18 08:48	12/04/18 20:49	1
Iron	**53.3**	**J**	150	34.2	ug/L		12/03/18 08:48	12/04/18 20:49	1
Lead	10.0	U	10.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:49	1
Magnesium	**2750**	**J**	5000	177	ug/L		12/03/18 08:48	12/04/18 20:49	1
Manganese	**6.0**	**J**	15.0	0.99	ug/L		12/03/18 08:48	12/04/18 20:49	1
Nickel	40.0	U	40.0	1.7	ug/L		12/03/18 08:48	12/04/18 20:49	1
Potassium	**2720**	**J**	5000	323	ug/L		12/03/18 08:48	12/04/18 20:49	1
Selenium	20.0	U	20.0	6.6	ug/L		12/03/18 08:48	12/04/18 20:49	1
Silver	10.0	U	10.0	1.1	ug/L		12/03/18 08:48	12/04/18 20:49	1
Sodium	**22000**		5000	460	ug/L		12/03/18 08:48	12/04/18 20:49	1
Thallium	20.0	U	20.0	5.4	ug/L		12/03/18 08:48	12/04/18 20:49	1

Client Sample ID: MW-01D1

Date Collected: 11/26/18 11:57
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-5
Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	50.0	U	50.0	2.5	ug/L		12/03/18 08:48	12/04/18 20:49	1
Zinc	30.0	U	30.0	3.6	ug/L		12/03/18 08:48	12/04/18 20:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/05/18 12:16	12/05/18 14:48	1

Client Sample ID: MW-16D1

Date Collected: 11/26/18 13:35
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/01/18 09:56	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/01/18 09:56	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/01/18 09:56	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/01/18 09:56	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/01/18 09:56	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/01/18 09:56	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/01/18 09:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/01/18 09:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/01/18 09:56	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/01/18 09:56	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/01/18 09:56	1
Tetrachloroethene	**0.52**	**J**	1.0	0.25	ug/L			12/01/18 09:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/01/18 09:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/01/18 09:56	1
Trichloroethene	**1.9**		1.0	0.31	ug/L			12/01/18 09:56	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/01/18 09:56	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/01/18 09:56	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/01/18 09:56	1
1,1,1-Trichloroethane	**0.50**	**J**	1.0	0.24	ug/L			12/01/18 09:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/01/18 09:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/01/18 09:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*74 - 132*		*12/01/18 09:56*	*1*
4-Bromofluorobenzene	*88*		*77 - 124*		*12/01/18 09:56*	*1*
Dibromofluoromethane (Surr)	*108*		*72 - 131*		*12/01/18 09:56*	*1*
Toluene-d8 (Surr)	*87*		*80 - 120*		*12/01/18 09:56*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**217**		200	28.6	ug/L		12/03/18 10:30	12/04/18 20:53	1
Antimony	20.0	U	20.0	2.9	ug/L		12/03/18 10:30	12/04/18 20:53	1
Arsenic	15.0	U	15.0	2.7	ug/L		12/03/18 10:30	12/04/18 20:53	1
Barium	**38.3**	**J**	200	7.7	ug/L		12/03/18 10:30	12/04/18 20:53	1
Beryllium	2.0	U	2.0	0.23	ug/L		12/03/18 10:30	12/04/18 20:53	1
Cadmium	4.0	U	4.0	0.22	ug/L		12/03/18 10:30	12/04/18 20:53	1
Calcium	**13300**		5000	222	ug/L		12/03/18 10:30	12/04/18 20:53	1

Client Sample ID: MW-16D1

Date Collected: 11/26/18 13:35
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-6
Matrix: Water

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	10.0	U	10.0	1.3	ug/L		12/03/18 10:30	12/04/18 20:53	1
Cobalt	50.0	U	50.0	1.7	ug/L		12/03/18 10:30	12/04/18 20:53	1
Copper	25.0	U	25.0	5.1	ug/L		12/03/18 10:30	12/04/18 20:53	1
Iron	**321**		150	34.2	ug/L		12/03/18 10:30	12/04/18 20:53	1
Lead	10.0	U	10.0	2.5	ug/L		12/03/18 10:30	12/04/18 20:53	1
Magnesium	**3370**	**J**	5000	177	ug/L		12/03/18 10:30	12/04/18 20:53	1
Manganese	**7.7**	**J**	15.0	0.99	ug/L		12/03/18 10:30	12/04/18 20:53	1
Nickel	40.0	U	40.0	1.7	ug/L		12/03/18 10:30	12/04/18 20:53	1
Potassium	**1730**	**J**	5000	323	ug/L		12/03/18 10:30	12/04/18 20:53	1
Selenium	20.0	U	20.0	6.6	ug/L		12/03/18 10:30	12/04/18 20:53	1
Silver	10.0	U	10.0	1.1	ug/L		12/03/18 10:30	12/04/18 20:53	1
Sodium	**21900**		5000	460	ug/L		12/03/18 10:30	12/04/18 20:53	1
Thallium	20.0	U	20.0	5.4	ug/L		12/03/18 10:30	12/04/18 20:53	1
Vanadium	50.0	U	50.0	2.5	ug/L		12/03/18 10:30	12/04/18 20:53	1
Zinc	**3.9**	**J**	30.0	3.6	ug/L		12/03/18 10:30	12/04/18 20:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/05/18 12:16	12/05/18 14:50	1

Client Sample ID: MW-V

Date Collected: 11/26/18 00:00
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			12/01/18 10:21	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			12/01/18 10:21	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			12/01/18 10:21	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			12/01/18 10:21	1
Chloroethane	1.0	U	1.0	0.32	ug/L			12/01/18 10:21	1
Chloroform	1.0	U	1.0	0.33	ug/L			12/01/18 10:21	1
Chloromethane	1.0	U	1.0	0.14	ug/L			12/01/18 10:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			12/01/18 10:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.46	ug/L			12/01/18 10:21	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			12/01/18 10:21	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			12/01/18 10:21	1
Tetrachloroethene	**0.29**	**J**	1.0	0.25	ug/L			12/01/18 10:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			12/01/18 10:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			12/01/18 10:21	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			12/01/18 10:21	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			12/01/18 10:21	1
1,1-Dichloroethene	1.0	U	1.0	0.12	ug/L			12/01/18 10:21	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			12/01/18 10:21	1
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			12/01/18 10:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			12/01/18 10:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			12/01/18 10:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*74 - 132*		*12/01/18 10:21*	*1*

Client Sample ID: MW-V

Date Collected: 11/26/18 00:00
Date Received: 11/27/18 20:00

Lab Sample ID: 460-170051-7

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*77 - 124*		*12/01/18 10:21*	*1*
Dibromofluoromethane (Surr)	*107*		*72 - 131*		*12/01/18 10:21*	*1*
Toluene-d8 (Surr)	*87*		*80 - 120*		*12/01/18 10:21*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**69.3**	**J**	200	28.6	ug/L		12/03/18 10:30	12/04/18 21:08	1
Antimony	20.0	U	20.0	2.9	ug/L		12/03/18 10:30	12/04/18 21:08	1
Arsenic	15.0	U	15.0	2.7	ug/L		12/03/18 10:30	12/04/18 21:08	1
Barium	**70.9**	**J**	200	7.7	ug/L		12/03/18 10:30	12/04/18 21:08	1
Beryllium	2.0	U	2.0	0.23	ug/L		12/03/18 10:30	12/04/18 21:08	1
Cadmium	**13.4**		4.0	0.22	ug/L		12/03/18 10:30	12/04/18 21:08	1
Calcium	**18200**		5000	222	ug/L		12/03/18 10:30	12/04/18 21:08	1
Chromium	**21.2**		10.0	1.3	ug/L		12/03/18 10:30	12/04/18 21:08	1
Cobalt	50.0	U	50.0	1.7	ug/L		12/03/18 10:30	12/04/18 21:08	1
Copper	**24.8**	**J**	25.0	5.1	ug/L		12/03/18 10:30	12/04/18 21:08	1
Iron	**156**	J	150	34.2	ug/L		12/03/18 10:30	12/04/18 21:08	1
Lead	10.0	U	10.0	2.5	ug/L		12/03/18 10:30	12/04/18 21:08	1
Magnesium	**3870**	**J**	5000	177	ug/L		12/03/18 10:30	12/04/18 21:08	1
Manganese	**14.8**	**J**	15.0	0.99	ug/L		12/03/18 10:30	12/04/18 21:08	1
Nickel	**15.1**	**J**	40.0	1.7	ug/L		12/03/18 10:30	12/04/18 21:08	1
Potassium	**3610**	**J**	5000	323	ug/L		12/03/18 10:30	12/04/18 21:08	1
Selenium	20.0	U	20.0	6.6	ug/L		12/03/18 10:30	12/04/18 21:08	1
Silver	10.0	U	10.0	1.1	ug/L		12/03/18 10:30	12/04/18 21:08	1
Sodium	**26900**		5000	460	ug/L		12/03/18 10:30	12/04/18 21:08	1
Thallium	20.0	U	20.0	5.4	ug/L		12/03/18 10:30	12/04/18 21:08	1
Vanadium	50.0	U	50.0	2.5	ug/L		12/03/18 10:30	12/04/18 21:08	1
Zinc	**19.7**	**J**	30.0	3.6	ug/L		12/03/18 10:30	12/04/18 21:08	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		12/05/18 12:16	12/05/18 14:52	1

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 460-169891-1

Job Description: DEC-WESTBABYLON50, NY,Spectrum,152029

Contract Number: C100700

For:
New York State D.E.C.
625 Broadway
4th Floor
Albany, NY 12233

Attention: Mr. Payson Long

Approved for release.
Allison L Bennett
Project Manager I
12/4/2018 4:08 PM

Designee for
Melissa Haas, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(203)944-1310
melissa.haas@testamericainc.com
12/04/2018

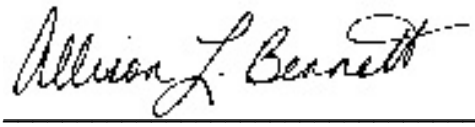
cc: Pat Benedetto
Dr. Dan Cornacchiulo
Eprocurement Email
Mr. Greg Mann
Mrs. Tracy Salvitti

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

Job Number: 460-169891-1

Job Description: DEC-WESTBABYLON50, NY,Spectrum,152029

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Allison L Bennett
Project Manager I
12/4/2018 4:08 PM

Designee for
Melissa Haas

Table of Contents

CASE NARRATIVE

Client: New York State D.E.C.

Project: DEC-WESTBABYLON50, NY,Spectrum,152029

Report Number: 460-169891-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The sample was received on 11/21/2018 6:00 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2º C.

Receipt Exceptions

One or more containers for the following sample was received broken or leaking: one of the voa vials were received broken. Waste Characterization (460-169891-1).

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample Waste Characterization (460-169891-1) was analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 12/04/2018.

No difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Sample Waste Characterization (460-169891-1) was analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 11/25/2018 and analyzed on 11/26/2018.

The continuing calibration verification (CCV) analyzed in batch 460-571025 was outside the method criteria for the following analyte(s): 2,4-Dinitrophenol, 2-Nitrophenol, 4,6-Dinitro-2-methylphenol, Indeno[1,2,3-cd]pyrene and Benzidine. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 460-570965 and analytical batch 460-571025 recovered outside control limits for the following analytes: 2-Nitrophenol and 2,4-Dinitrophenol. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 460-570965 and analytical batch 460-571025 recovered outside control limits for the following analytes: 4-Chloroaniline.

The laboratory control sample duplicate (LCSD) for preparation batch 460-570965 and analytical batch 460-571025 recovered outside control limits for the following analytes: Atrazine. Therefore, the data have been flagged and reported.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 460-570965 and analytical batch 460-571025 recovered outside control limits for the following analytes: Caprolactam and Atrazine.

The laboratory control sample duplicate (LCSD) for preparation batch 460-570965 and analytical batch 460-571025 recovered outside control limits for the following analyte(s): Atrazine. These analytes have been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

TCLP METALS

Sample Waste Characterization (460-169891-1) was analyzed for TCLP metals in accordance with 6010D. The samples were leached on 11/24/2018, prepared on 11/25/2018 and analyzed on 11/27/2018.

Arsenic was detected in method blank MB 460-571032/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Refer to the QC report for details.

No other difficulties were encountered during the TCLP metals analysis.

All quality control parameters were within the acceptance limits.

TCLP MERCURY

Sample Waste Characterization (460-169891-1) was analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 11/24/2018, and prepared and analyzed on 12/03/2018.

No difficulties were encountered during the TCLP Hg analysis.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: New York State D.E.C. Job Number: 460-169891-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-169891-1	**WASTE CHARACTERIZATION**					
1,3-Dichlorobenzene		1.7		1.0	ug/L	8260C
Acetone		13		5.0	ug/L	8260C
Tetrachloroethene		0.53	J	1.0	ug/L	8260C
Toluene		0.54	J	1.0	ug/L	8260C
TCLP						
Barium		19.1	J	200	ug/L	6010D
Cadmium		0.83	J	4.0	ug/L	6010D

METHOD SUMMARY

Client: New York State D.E.C. Job Number: 460-169891-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL EDI	SW846 8260C	
Purge and Trap	TAL EDI		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL EDI	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)	TAL EDI		SW846 3510C
Metals (ICP)	TAL EDI	SW846 6010D	
TCLP Extraction	TAL EDI		SW846 1311
Preparation, Total Metals	TAL EDI		SW846 3010A
Mercury (CVAA)	TAL EDI	SW846 7470A	
TCLP Extraction	TAL EDI		SW846 1311
Preparation, Mercury	TAL EDI		SW846 7470A

Lab References:

TAL EDI = TestAmerica Edison

Method References:

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

METHOD / ANALYST SUMMARY

Client: New York State D.E.C. Job Number: 460-169891-1

Method	Analyst	Analyst ID
SW846 8260C	Smith, Rachel A	RAS
SW846 8270D	Hamzi, Yahia A	YAH
SW846 6010D	Huang, Yixin	YZH
SW846 7470A	Sheikh, Razia B	RBS

SAMPLE SUMMARY

Client: New York State D.E.C. Job Number: 460-169891-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-169891-1	Waste Characterization	Water	11/20/2018 1459	11/21/2018 1800

SAMPLE RESULTS

Client: New York State D.E.C. Job Number: 460-169891-1

Client Sample ID: **Waste Characterization**

Lab Sample ID: 460-169891-1 Date Sampled: 11/20/2018 1459
Client Matrix: Water Date Received: 11/21/2018 1800

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-572957	Instrument ID:	CVOAMS8
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	J78644.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2018 1259			Final Weight/Volume:	5 mL
Prep Date:	12/04/2018 1259				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.24	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.37	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.31	1.0
1,1,2-Trichloroethane	1.0	U	0.43	1.0
1,1-Dichloroethane	1.0	U	0.26	1.0
1,1-Dichloroethene	1.0	U	0.12	1.0
1,2,3-Trichlorobenzene	1.0	U	0.36	1.0
1,2,4-Trichlorobenzene	1.0	U	0.37	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.38	1.0
1,2-Dichlorobenzene	1.0	U	0.43	1.0
1,2-Dichloroethane	1.0	U	0.43	1.0
1,2-Dichloropropane	1.0	U	0.35	1.0
1,3-Dichlorobenzene	1.7		0.34	1.0
1,4-Dichlorobenzene	1.0	U	0.76	1.0
1,4-Dioxane	50	U	28	50
2-Butanone (MEK)	5.0	U	1.9	5.0
2-Hexanone	5.0	U	2.9	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	2.7	5.0
Acetone	13		5.0	5.0
Benzene	1.0	U	0.43	1.0
Bromoform	1.0	U	0.54	1.0
Bromomethane	1.0	U	1.0	1.0
Carbon disulfide	1.0	U	0.16	1.0
Carbon tetrachloride	1.0	U	0.21	1.0
Chlorobenzene	1.0	U	0.38	1.0
Chlorobromomethane	1.0	U	0.41	1.0
Chlorodibromomethane	1.0	U	0.28	1.0
Chloroethane	1.0	U	0.32	1.0
Chloroform	1.0	U	0.33	1.0
Chloromethane	1.0	U	0.14	1.0
cis-1,2-Dichloroethene	1.0	U	0.22	1.0
cis-1,3-Dichloropropene	1.0	U	0.46	1.0
Cyclohexane	1.0	U	0.32	1.0
Dichlorobromomethane	1.0	U	0.34	1.0
Dichlorodifluoromethane	1.0	U	0.12	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.50	1.0
Isopropylbenzene	1.0	U	0.34	1.0
Methyl acetate	5.0	U	0.31	5.0
Methyl tert-butyl ether	1.0	U	0.47	1.0
Methylcyclohexane	1.0	U	0.26	1.0
Methylene Chloride	1.0	U	0.32	1.0
m-Xylene & p-Xylene	1.0	U	0.30	1.0
o-Xylene	1.0	U	0.36	1.0
Styrene	1.0	U	0.42	1.0
Tetrachloroethene	0.53	J	0.25	1.0

Client: New York State D.E.C. Job Number: 460-169891-1

Client Sample ID: **Waste Characterization**

Lab Sample ID: 460-169891-1 Date Sampled: 11/20/2018 1459
Client Matrix: Water Date Received: 11/21/2018 1800

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-572957	Instrument ID:	CVOAMS8
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	J78644.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2018 1259			Final Weight/Volume:	5 mL
Prep Date:	12/04/2018 1259				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	0.54	J	0.38	1.0
trans-1,2-Dichloroethene	1.0	U	0.24	1.0
trans-1,3-Dichloropropene	1.0	U	0.49	1.0
Trichloroethene	1.0	U	0.31	1.0
Trichlorofluoromethane	1.0	U	0.14	1.0
Vinyl chloride	1.0	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		74 - 132
4-Bromofluorobenzene	99		77 - 124
Dibromofluoromethane (Surr)	97		72 - 131
Toluene-d8 (Surr)	98		80 - 120

Client Sample ID: **Waste Characterization**

Lab Sample ID: 460-169891-1 Date Sampled: 11/20/2018 1459
Client Matrix: Water Date Received: 11/21/2018 1800

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Prep Method:	3510C	Prep Batch:	460-570965	Lab File ID:	M07550.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	11/26/2018 0846			Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1'-Biphenyl	10	U	1.2	10
1,2,4,5-Tetrachlorobenzene	10	U	1.2	10
2,2'-oxybis[1-chloropropane]	10	U	0.63	10
2,3,4,6-Tetrachlorophenol	10	U	0.75	10
2,4,5-Trichlorophenol	10	U	0.28	10
2,4,6-Trichlorophenol	10	U	0.30	10
2,4-Dichlorophenol	10	U	0.42	10
2,4-Dimethylphenol	10	U	0.24	10
2,4-Dinitrophenol	20	U *	14	20
2,4-Dinitrotoluene	2.0	U	1.0	2.0
2,6-Dinitrotoluene	2.0	U	0.39	2.0
2-Chloronaphthalene	10	U	1.2	10
2-Chlorophenol	10	U	0.38	10
2-Methylnaphthalene	10	U	1.1	10
2-Methylphenol	10	U	0.26	10
2-Nitroaniline	10	U	0.47	10
2-Nitrophenol	10	U *	0.75	10
3,3'-Dichlorobenzidine	10	U	1.4	10
3-Nitroaniline	10	U	0.96	10
4,6-Dinitro-2-methylphenol	20	U	13	20
4-Bromophenyl phenyl ether	10	U	0.75	10
4-Chloro-3-methylphenol	10	U	0.58	10
4-Chloroaniline	10	U *	1.9	10
4-Chlorophenyl phenyl ether	10	U	1.3	10
4-Methylphenol	10	U	0.24	10
4-Nitroaniline	10	U	0.54	10
4-Nitrophenol	20	U	0.69	20
Acenaphthene	10	U	1.1	10
Acenaphthylene	10	U	0.82	10
Acetophenone	10	U	0.79	10
Anthracene	10	U	0.63	10
Atrazine	2.0	U *	1.3	2.0
Benzaldehyde	10	U	0.59	10
Benzo[a]anthracene	1.0	U	0.59	1.0
Benzo[a]pyrene	1.0	U	0.41	1.0
Benzo[b]fluoranthene	2.0	U	1.1	2.0
Benzo[g,h,i]perylene	10	U	1.4	10
Benzo[k]fluoranthene	1.0	U	0.67	1.0
Bis(2-chloroethoxy)methane	10	U	0.24	10
Bis(2-chloroethyl)ether	1.0	U	0.30	1.0
Bis(2-ethylhexyl) phthalate	2.0	U	1.7	2.0
Butyl benzyl phthalate	10	U	0.85	10
Caprolactam	10	U *	0.68	10
Carbazole	10	U	0.68	10
Chrysene	2.0	U	0.91	2.0
Dibenz(a,h)anthracene	1.0	U	0.72	1.0

Client: New York State D.E.C. Job Number: 460-169891-1

Client Sample ID: **Waste Characterization**

Lab Sample ID: 460-169891-1 Date Sampled: 11/20/2018 1459
Client Matrix: Water Date Received: 11/21/2018 1800

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Prep Method:	3510C	Prep Batch:	460-570965	Lab File ID:	M07550.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	11/26/2018 0846			Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	10	U	1.1	10
Diethyl phthalate	10	U	0.98	10
Dimethyl phthalate	10	U	0.77	10
Di-n-butyl phthalate	10	U	0.84	10
Di-n-octyl phthalate	10	U	4.8	10
Fluoranthene	10	U	0.84	10
Fluorene	10	U	0.91	10
Hexachlorobenzene	1.0	U	0.40	1.0
Hexachlorobutadiene	1.0	U	0.78	1.0
Hexachlorocyclopentadiene	10	U	1.7	10
Hexachloroethane	2.0	U	1.2	2.0
Indeno[1,2,3-cd]pyrene	2.0	U	1.3	2.0
Isophorone	10	U	0.80	10
Naphthalene	10	U	1.1	10
Nitrobenzene	1.0	U	0.57	1.0
N-Nitrosodi-n-propylamine	1.0	U	0.43	1.0
N-Nitrosodiphenylamine	10	U	0.89	10
Pentachlorophenol	20	U	1.4	20
Phenanthrene	10	U	0.58	10
Phenol	10	U	0.29	10
Pyrene	10	U	1.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	82		26 - 139
2-Fluorobiphenyl	65		45 - 107
2-Fluorophenol (Surr)	30		25 - 58
Nitrobenzene-d5 (Surr)	73		51 - 108
Phenol-d5 (Surr)	20		14 - 39
Terphenyl-d14 (Surr)	84		40 - 148

Client: New York State D.E.C. Job Number: 460-169891-1

Client Sample ID: **Waste Characterization**

Lab Sample ID: 460-169891-1 Date Sampled: 11/20/2018 1459
Client Matrix: Water Date Received: 11/21/2018 1800

6010D Metals (ICP)-TCLP

Analysis Method:	6010D	Analysis Batch:	460-571160	Instrument ID:	ICP5
Prep Method:	3010A	Prep Batch:	460-571032	Lab File ID:	571031.asc
Dilution:	1.0	Leach Batch:	460-570846	Initial Weight/Volume:	50 mL
Analysis Date:	11/27/2018 0029			Final Weight/Volume:	50 mL
Prep Date:	11/25/2018 2115				
Leach Date:	11/24/2018 900				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Arsenic	15.0	U	2.7	15.0
Barium	19.1	J	7.7	200
Cadmium	0.83	J	0.22	4.0
Chromium	10.0	U	1.3	10.0
Lead	10.0	U	2.5	10.0
Selenium	20.0	U	6.6	20.0
Silver	10.0	U	1.1	10.0

7470A Mercury (CVAA)-TCLP

Analysis Method:	7470A	Analysis Batch:	460-572809	Instrument ID:	LEEMAN6
Prep Method:	7470A	Prep Batch:	460-572748	Lab File ID:	572741hg1.CSV
Dilution:	1.0	Leach Batch:	460-570846	Initial Weight/Volume:	30 mL
Analysis Date:	12/03/2018 1635			Final Weight/Volume:	30 mL
Prep Date:	12/03/2018 1231				
Leach Date:	11/24/2018 900				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.20	U	0.12	0.20

DATA REPORTING QUALIFIERS

Client: New York State D.E.C. Job Number: 460-169891-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	*	LCS or LCSD is outside acceptance limits.
	*	RPD of the LCS and LCSD exceeds the control limits
Metals		
	U	Indicates analyzed for but not detected.
	J	Sample result is greater than the MDL but below the CRDL

QUALITY CONTROL RESULTS

Client: New York State D.E.C. Job Number: 460-169891-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:460-572957					
LCS 460-572957/4	Lab Control Sample	T	Water	8260C	
LCSD 460-572957/5	Lab Control Sample Duplicate	T	Water	8260C	
MB 460-572957/8	Method Blank	T	Water	8260C	
460-169891-1	Waste Characterization	T	Water	8260C	
GC/MS Semi VOA					
Prep Batch: 460-570965					
LCS 460-570965/2-A	Lab Control Sample	T	Water	3510C	
LCS 460-570965/4-A	Lab Control Sample	T	Water	3510C	
LCSD 460-570965/3-A	Lab Control Sample Duplicate	T	Water	3510C	
LCSD 460-570965/5-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 460-570965/1-A	Method Blank	T	Water	3510C	
460-169891-1	Waste Characterization	T	Water	3510C	
Analysis Batch:460-571025					
LCS 460-570965/2-A	Lab Control Sample	T	Water	8270D	460-570965
LCS 460-570965/4-A	Lab Control Sample	T	Water	8270D	460-570965
LCSD 460-570965/3-A	Lab Control Sample Duplicate	T	Water	8270D	460-570965
LCSD 460-570965/5-A	Lab Control Sample Duplicate	T	Water	8270D	460-570965
MB 460-570965/1-A	Method Blank	T	Water	8270D	460-570965
460-169891-1	Waste Characterization	T	Water	8270D	460-570965

Report Basis
T = Total

Report Basis
T = Total

Client: New York State D.E.C. Job Number: 460-169891-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-570846					
LB 460-570846/1-C	TCLP SPLPE Leachate Blank	P	Water	1311	
LB 460-570846/1-D	TCLP SPLPE Leachate Blank	P	Water	1311	
460-169891-1	Waste Characterization	P	Water	1311	
Prep Batch: 460-570862					
LB 460-570862/1-H	TCLP SPLPE Leachate Blank	P	Water	1311	
Prep Batch: 460-571032					
LCS 460-571032/2-A ^2	Lab Control Sample	T	Water	3010A	
MB 460-571032/1-A	Method Blank	T	Water	3010A	
LB 460-570846/1-C	TCLP SPLPE Leachate Blank	P	Water	3010A	460-570846
460-169891-1	Waste Characterization	P	Water	3010A	460-570846
Analysis Batch:460-571160					
LCS 460-571032/2-A ^2	Lab Control Sample	T	Water	6010D	460-571032
MB 460-571032/1-A	Method Blank	T	Water	6010D	460-571032
LB 460-570846/1-C	TCLP SPLPE Leachate Blank	P	Water	6010D	460-571032
460-169891-1	Waste Characterization	P	Water	6010D	460-571032
Prep Batch: 460-571697					
MB 460-571697/1-A	Method Blank	T	Water	7470A	
LB 460-570846/1-D	TCLP SPLPE Leachate Blank	P	Water	7470A	460-570846
LB 460-570862/1-H	TCLP SPLPE Leachate Blank	P	Water	7470A	460-570862
Analysis Batch:460-571758					
MB 460-571697/1-A	Method Blank	T	Water	7470A	460-571697
LB 460-570846/1-D	TCLP SPLPE Leachate Blank	P	Water	7470A	460-571697
LB 460-570862/1-H	TCLP SPLPE Leachate Blank	P	Water	7470A	460-571697
Prep Batch: 460-572748					
LCS 460-572748/2-A	Lab Control Sample	T	Water	7470A	
MB 460-572748/1-A	Method Blank	T	Water	7470A	
460-169891-1	Waste Characterization	P	Water	7470A	460-570846
Analysis Batch:460-572809					
LCS 460-572748/2-A	Lab Control Sample	T	Water	7470A	460-572748
MB 460-572748/1-A	Method Blank	T	Water	7470A	460-572748
460-169891-1	Waste Characterization	P	Water	7470A	460-572748

Report Basis
P = TCLP
T = Total

Client: New York State D.E.C. Job Number: 460-169891-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	DBFM %Rec	TOL %Rec
460-169891-1	Waste Characterization	89	99	97	98
MB 460-572957/8		89	100	96	100
LCS 460-572957/4		89	101	96	100
LCSD 460-572957/5		89	99	95	100

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	74-132
BFB = 4-Bromofluorobenzene	77-124
DBFM = Dibromofluoromethane (Surr)	72-131
TOL = Toluene-d8 (Surr)	80-120

Client: New York State D.E.C. Job Number: 460-169891-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	PHL %Rec	TPHL %Rec
460-169891-1	Waste Characterization	82	65	30	73	20	84
MB 460-570965/1-A		83	87	53	102	38	94
LCS 460-570965/2-A		84	82	49	95	32	83
LCS 460-570965/4-A		82	84	49	99	34	91
LCSD 460-570965/3-A		86	86	49	100	33	91
LCSD 460-570965/5-A		85	90	53	104	38	93

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol (Surr)	26-139
FBP = 2-Fluorobiphenyl	45-107
2FP = 2-Fluorophenol (Surr)	25-58
NBZ = Nitrobenzene-d5 (Surr)	51-108
PHL = Phenol-d5 (Surr)	14-39
TPHL = Terphenyl-d14 (Surr)	40-148

Client: New York State D.E.C. Job Number: 460-169891-1

Method Blank - Batch: 460-572957

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-572957/8	Analysis Batch:	460-572957	Instrument ID:	CVOAMS8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	J78643.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2018 1224	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2018 1224				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.24	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.37	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.31	1.0
1,1,2-Trichloroethane	1.0	U	0.43	1.0
1,1-Dichloroethane	1.0	U	0.26	1.0
1,1-Dichloroethene	1.0	U	0.12	1.0
1,2,3-Trichlorobenzene	1.0	U	0.36	1.0
1,2,4-Trichlorobenzene	1.0	U	0.37	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.38	1.0
1,2-Dichlorobenzene	1.0	U	0.43	1.0
1,2-Dichloroethane	1.0	U	0.43	1.0
1,2-Dichloropropane	1.0	U	0.35	1.0
1,3-Dichlorobenzene	1.0	U	0.34	1.0
1,4-Dichlorobenzene	1.0	U	0.76	1.0
1,4-Dioxane	50	U	28	50
2-Butanone (MEK)	5.0	U	1.9	5.0
2-Hexanone	5.0	U	2.9	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	2.7	5.0
Acetone	5.0	U	5.0	5.0
Benzene	1.0	U	0.43	1.0
Bromoform	1.0	U	0.54	1.0
Bromomethane	1.0	U	1.0	1.0
Carbon disulfide	1.0	U	0.16	1.0
Carbon tetrachloride	1.0	U	0.21	1.0
Chlorobenzene	1.0	U	0.38	1.0
Chlorobromomethane	1.0	U	0.41	1.0
Chlorodibromomethane	1.0	U	0.28	1.0
Chloroethane	1.0	U	0.32	1.0
Chloroform	1.0	U	0.33	1.0
Chloromethane	1.0	U	0.14	1.0
cis-1,2-Dichloroethene	1.0	U	0.22	1.0
cis-1,3-Dichloropropene	1.0	U	0.46	1.0
Cyclohexane	1.0	U	0.32	1.0
Dichlorobromomethane	1.0	U	0.34	1.0
Dichlorodifluoromethane	1.0	U	0.12	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.50	1.0
Isopropylbenzene	1.0	U	0.34	1.0
Methyl acetate	5.0	U	0.31	5.0
Methyl tert-butyl ether	1.0	U	0.47	1.0
Methylcyclohexane	1.0	U	0.26	1.0
Methylene Chloride	1.0	U	0.32	1.0
m-Xylene & p-Xylene	1.0	U	0.30	1.0
o-Xylene	1.0	U	0.36	1.0
Styrene	1.0	U	0.42	1.0

Client: New York State D.E.C. Job Number: 460-169891-1

Method Blank - Batch: 460-572957

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 460-572957/8	Analysis Batch:	460-572957	Instrument ID:	CVOAMS8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	J78643.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2018 1224	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2018 1224				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Tetrachloroethene	1.0	U	0.25	1.0
Toluene	1.0	U	0.38	1.0
trans-1,2-Dichloroethene	1.0	U	0.24	1.0
trans-1,3-Dichloropropene	1.0	U	0.49	1.0
Trichloroethene	1.0	U	0.31	1.0
Trichlorofluoromethane	1.0	U	0.14	1.0
Vinyl chloride	1.0	U	0.17	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	74 - 132
4-Bromofluorobenzene	100	77 - 124
Dibromofluoromethane (Surr)	96	72 - 131
Toluene-d8 (Surr)	100	80 - 120

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-572957

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-572957/4	Analysis Batch:	460-572957	Instrument ID:	CVOAMS8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	J78639.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2018 1036	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2018 1036				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-572957/5	Analysis Batch:	460-572957	Instrument ID:	CVOAMS8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	J78640.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2018 1103	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2018 1103				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	84	90	75 - 125	8	30		
1,1,2,2-Tetrachloroethane	94	100	74 - 120	6	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	84	90	59 - 150	7	30		
1,1,2-Trichloroethane	92	100	78 - 120	9	30		
1,1-Dichloroethane	84	93	77 - 123	10	30		
1,1-Dichloroethene	90	95	74 - 123	5	30		
1,2,3-Trichlorobenzene	95	104	78 - 131	9	30		
1,2,4-Trichlorobenzene	83	94	80 - 124	12	30		
1,2-Dibromo-3-Chloropropane	98	101	55 - 134	3	30		
1,2-Dichlorobenzene	95	101	80 - 120	6	30		
1,2-Dichloroethane	85	91	76 - 121	7	30		
1,2-Dichloropropane	87	97	77 - 123	11	30		
1,3-Dichlorobenzene	93	102	80 - 120	9	30		
1,4-Dichlorobenzene	94	103	80 - 120	9	30		
1,4-Dioxane	98	107	10 - 150	8	30		
2-Butanone (MEK)	95	109	64 - 120	14	30		
2-Hexanone	102	110	71 - 125	7	30		
4-Methyl-2-pentanone (MIBK)	100	109	78 - 124	9	30		
Acetone	88	92	39 - 150	5	30		
Benzene	90	98	77 - 121	9	30		
Bromoform	93	99	53 - 120	6	30		
Bromomethane	68	86	10 - 150	23	30		
Carbon disulfide	81	90	69 - 133	9	30		
Carbon tetrachloride	82	87	70 - 132	6	30		
Chlorobenzene	95	101	80 - 120	7	30		
Chlorobromomethane	102	106	77 - 127	4	30		
Chlorodibromomethane	96	99	73 - 120	4	30		
Chloroethane	80	91	52 - 150	13	30		
Chloroform	85	92	80 - 120	9	30		
Chloromethane	75	84	56 - 131	11	30		
cis-1,2-Dichloroethene	93	104	80 - 120	11	30		
cis-1,3-Dichloropropene	87	96	77 - 120	10	30		
Cyclohexane	81	87	56 - 150	8	30		
Dichlorobromomethane	90	95	76 - 120	6	30		
Dichlorodifluoromethane	72	77	50 - 131	7	30		

Client: New York State D.E.C. Job Number: 460-169891-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-572957

Method: 8260C
Preparation: 5030C

LCS Lab Sample ID:	LCS 460-572957/4	Analysis Batch:	460-572957	Instrument ID:	CVOAMS8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	J78639.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2018 1036	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2018 1036				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-572957/5	Analysis Batch:	460-572957	Instrument ID:	CVOAMS8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	J78640.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	12/04/2018 1103	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/04/2018 1103				5 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Ethylbenzene	90	96	80 - 120	7	30		
Ethylene Dibromide	92	99	80 - 120	7	30		
Isopropylbenzene	85	90	80 - 123	6	30		
Methyl acetate	78	83	66 - 144	6	30		
Methyl tert-butyl ether	86	94	79 - 122	8	30		
Methylcyclohexane	70	74	61 - 145	5	30		
Methylene Chloride	88	96	77 - 123	9	30		
m-Xylene & p-Xylene	89	97	80 - 120	8	30		
o-Xylene	89	95	80 - 120	7	30		
Styrene	94	99	80 - 120	5	30		
Tetrachloroethene	93	102	78 - 122	9	30		
Toluene	91	97	80 - 120	6	30		
trans-1,2-Dichloroethene	90	99	79 - 120	9	30		
trans-1,3-Dichloropropene	87	91	76 - 120	5	30		
Trichloroethene	88	99	77 - 120	11	30		
Trichlorofluoromethane	79	87	71 - 143	10	30		
Vinyl chloride	81	88	62 - 138	9	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	89	74 - 132
4-Bromofluorobenzene	101	99	77 - 124
Dibromofluoromethane (Surr)	96	95	72 - 131
Toluene-d8 (Surr)	100	100	80 - 120

Client: New York State D.E.C. Job Number: 460-169891-1

Method Blank - Batch: 460-570965

Method: 8270D
Preparation: 3510C

Lab Sample ID:	MB 460-570965/1-A	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Client Matrix:	Water	Prep Batch:	460-570965	Lab File ID:	M07523.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/25/2018 2249	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1'-Biphenyl	10	U	1.2	10
1,2,4,5-Tetrachlorobenzene	10	U	1.2	10
2,2'-oxybis[1-chloropropane]	10	U	0.63	10
2,3,4,6-Tetrachlorophenol	10	U	0.75	10
2,4,5-Trichlorophenol	10	U	0.28	10
2,4,6-Trichlorophenol	10	U	0.30	10
2,4-Dichlorophenol	10	U	0.42	10
2,4-Dimethylphenol	10	U	0.24	10
2,4-Dinitrophenol	20	U	14	20
2,4-Dinitrotoluene	2.0	U	1.0	2.0
2,6-Dinitrotoluene	2.0	U	0.39	2.0
2-Chloronaphthalene	10	U	1.2	10
2-Chlorophenol	10	U	0.38	10
2-Methylnaphthalene	10	U	1.1	10
2-Methylphenol	10	U	0.26	10
2-Nitroaniline	10	U	0.47	10
2-Nitrophenol	10	U	0.75	10
3,3'-Dichlorobenzidine	10	U	1.4	10
3-Nitroaniline	10	U	0.96	10
4,6-Dinitro-2-methylphenol	20	U	13	20
4-Bromophenyl phenyl ether	10	U	0.75	10
4-Chloro-3-methylphenol	10	U	0.58	10
4-Chloroaniline	10	U	1.9	10
4-Chlorophenyl phenyl ether	10	U	1.3	10
4-Methylphenol	10	U	0.24	10
4-Nitroaniline	10	U	0.54	10
4-Nitrophenol	20	U	0.69	20
Acenaphthene	10	U	1.1	10
Acenaphthylene	10	U	0.82	10
Acetophenone	10	U	0.79	10
Anthracene	10	U	0.63	10
Atrazine	2.0	U	1.3	2.0
Benzaldehyde	10	U	0.59	10
Benzo[a]anthracene	1.0	U	0.59	1.0
Benzo[a]pyrene	1.0	U	0.41	1.0
Benzo[b]fluoranthene	2.0	U	1.1	2.0
Benzo[g,h,i]perylene	10	U	1.4	10
Benzo[k]fluoranthene	1.0	U	0.67	1.0
Bis(2-chloroethoxy)methane	10	U	0.24	10
Bis(2-chloroethyl)ether	1.0	U	0.30	1.0
Bis(2-ethylhexyl) phthalate	2.0	U	1.7	2.0
Butyl benzyl phthalate	10	U	0.85	10
Caprolactam	10	U	0.68	10
Carbazole	10	U	0.68	10
Chrysene	2.0	U	0.91	2.0

Client: New York State D.E.C. Job Number: 460-169891-1

Method Blank - Batch: 460-570965

Method: 8270D
Preparation: 3510C

Lab Sample ID:	MB 460-570965/1-A	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Client Matrix:	Water	Prep Batch:	460-570965	Lab File ID:	M07523.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/25/2018 2249	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dibenz(a,h)anthracene	1.0	U	0.72	1.0
Dibenzofuran	10	U	1.1	10
Diethyl phthalate	10	U	0.98	10
Dimethyl phthalate	10	U	0.77	10
Di-n-butyl phthalate	10	U	0.84	10
Di-n-octyl phthalate	10	U	4.8	10
Fluoranthene	10	U	0.84	10
Fluorene	10	U	0.91	10
Hexachlorobenzene	1.0	U	0.40	1.0
Hexachlorobutadiene	1.0	U	0.78	1.0
Hexachlorocyclopentadiene	10	U	1.7	10
Hexachloroethane	2.0	U	1.2	2.0
Indeno[1,2,3-cd]pyrene	2.0	U	1.3	2.0
Isophorone	10	U	0.80	10
Naphthalene	10	U	1.1	10
Nitrobenzene	1.0	U	0.57	1.0
N-Nitrosodi-n-propylamine	1.0	U	0.43	1.0
N-Nitrosodiphenylamine	10	U	0.89	10
Pentachlorophenol	20	U	1.4	20
Phenanthrene	10	U	0.58	10
Phenol	10	U	0.29	10
Pyrene	10	U	1.6	10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	83	26 - 139
2-Fluorobiphenyl	87	45 - 107
2-Fluorophenol (Surr)	53	25 - 58
Nitrobenzene-d5 (Surr)	102	51 - 108
Phenol-d5 (Surr)	38	14 - 39
Terphenyl-d14 (Surr)	94	40 - 148

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-570965

Method: 8270D
Preparation: 3510C

LCS Lab Sample ID:	LCS 460-570965/2-A	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Client Matrix:	Water	Prep Batch:	460-570965	Lab File ID:	M07524.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/25/2018 2310	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-570965/3-A	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Client Matrix:	Water	Prep Batch:	460-570965	Lab File ID:	M07525.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/25/2018 2331	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1'-Biphenyl	73	79	54 - 108	7	30		
1,2,4,5-Tetrachlorobenzene	69	70	46 - 105	1	30		
2,2'-oxybis[1-chloropropane]	76	80	50 - 108	5	30		
2,3,4,6-Tetrachlorophenol	89	93	57 - 122	5	30		
2,4,5-Trichlorophenol	89	93	59 - 117	4	30		
2,4,6-Trichlorophenol	94	99	62 - 120	5	30		
2,4-Dichlorophenol	82	88	62 - 102	7	30		
2,4-Dimethylphenol	79	83	61 - 95	5	30		
2,4-Dinitrophenol	121	128	45 - 125	5	30		*
2,4-Dinitrotoluene	92	96	70 - 123	4	30		
2,6-Dinitrotoluene	89	95	68 - 121	6	30		
2-Chloronaphthalene	72	78	54 - 105	8	30		
2-Chlorophenol	76	78	54 - 92	2	30		
2-Methylnaphthalene	64	69	47 - 104	7	30		
2-Methylphenol	63	64	43 - 80	2	30		
2-Nitroaniline	84	90	46 - 124	7	30		
2-Nitrophenol	107	115	58 - 109	7	30		*
3,3'-Dichlorobenzidine	75	94	68 - 123	22	30		
3-Nitroaniline	81	88	60 - 117	8	30		
4,6-Dinitro-2-methylphenol	114	122	59 - 132	7	30		
4-Bromophenyl phenyl ether	83	91	57 - 126	10	30		
4-Chloro-3-methylphenol	76	80	58 - 98	5	30		
4-Chloroaniline	53	82	51 - 108	44	30		*
4-Chlorophenyl phenyl ether	76	80	60 - 114	6	30		
4-Methylphenol	54	56	34 - 78	3	30		
4-Nitroaniline	78	83	48 - 135	7	30		
4-Nitrophenol	34	33	11 - 47	1	30		
Acenaphthene	76	81	58 - 107	7	30		
Acenaphthylene	84	91	61 - 106	8	30		
Acetophenone	79	82	54 - 115	5	30		
Anthracene	84	91	70 - 118	7	30		
Benzo[a]anthracene	90	96	73 - 119	6	30		
Benzo[a]pyrene	95	99	76 - 125	5	30		
Benzo[b]fluoranthene	96	104	78 - 123	7	30		
Benzo[g,h,i]perylene	99	101	63 - 133	2	30		

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-570965

Method: 8270D
Preparation: 3510C

LCS Lab Sample ID:	LCS 460-570965/2-A	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Client Matrix:	Water	Prep Batch:	460-570965	Lab File ID:	M07524.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/25/2018 2310	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-570965/3-A	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Client Matrix:	Water	Prep Batch:	460-570965	Lab File ID:	M07525.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/25/2018 2331	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzo[k]fluoranthene	91	103	71 - 126	12	30		
Bis(2-chloroethoxy)methane	82	90	67 - 104	9	30		
Bis(2-chloroethyl)ether	80	83	63 - 106	4	30		
Bis(2-ethylhexyl) phthalate	90	97	63 - 135	7	30		
Butyl benzyl phthalate	100	110	66 - 129	9	30		
Carbazole	87	91	68 - 121	4	30		
Chrysene	91	97	73 - 121	7	30		
Dibenz(a,h)anthracene	105	109	59 - 136	4	30		
Dibenzofuran	78	82	67 - 108	5	30		
Diethyl phthalate	81	85	61 - 129	4	30		
Dimethyl phthalate	84	86	65 - 121	3	30		
Di-n-butyl phthalate	87	93	64 - 130	6	30		
Di-n-octyl phthalate	85	92	64 - 131	8	30		
Fluoranthene	85	88	66 - 123	4	30		
Fluorene	77	83	67 - 112	7	30		
Hexachlorobenzene	85	90	63 - 125	6	30		
Hexachlorobutadiene	59	54	34 - 99	8	30		
Hexachlorocyclopentadiene	51	49	18 - 99	4	30		
Hexachloroethane	59	53	39 - 92	10	30		
Indeno[1,2,3-cd]pyrene	110	112	57 - 142	2	30		
Isophorone	84	90	55 - 105	7	30		
Naphthalene	70	77	51 - 98	9	30		
Nitrobenzene	88	92	56 - 106	5	30		
N-Nitrosodi-n-propylamine	81	84	48 - 118	4	30		
N-Nitrosodiphenylamine	88	95	69 - 118	8	30		
Pentachlorophenol	94	98	54 - 120	4	30		
Phenanthrene	84	91	70 - 117	9	30		
Phenol	37	40	16 - 43	7	30		
Pyrene	91	103	63 - 129	12	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	84	86	26 - 139
2-Fluorobiphenyl	82	86	45 - 107
2-Fluorophenol (Surr)	49	49	25 - 58
Nitrobenzene-d5 (Surr)	95	100	51 - 108
Phenol-d5 (Surr)	32	33	14 - 39

Client: New York State D.E.C. Job Number: 460-169891-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Terphenyl-d14 (Surr)	83	91	40 - 148

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 460-570965

Method: 8270D
Preparation: 3510C

LCS Lab Sample ID:	LCS 460-570965/4-A	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Client Matrix:	Water	Prep Batch:	460-570965	Lab File ID:	M07526.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/25/2018 2352	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 460-570965/5-A	Analysis Batch:	460-571025	Instrument ID:	CBNAMS17
Client Matrix:	Water	Prep Batch:	460-570965	Lab File ID:	M07527.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	11/26/2018 0013	Units:	ug/L	Final Weight/Volume:	2 mL
Prep Date:	11/25/2018 0942			Injection Volume:	5 uL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Atrazine	101	32	38 - 146	104	30		*
Benzaldehyde	85	91	46 - 111	6	30		
Caprolactam	22	11	10 - 43	69	30		*

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	82	85	26 - 139
2-Fluorobiphenyl	84	90	45 - 107
2-Fluorophenol (Surr)	49	53	25 - 58
Nitrobenzene-d5 (Surr)	99	104	51 - 108
Phenol-d5 (Surr)	34	38	14 - 39
Terphenyl-d14 (Surr)	91	93	40 - 148

Method Blank - Batch: 460-571032

Method: 6010D
Preparation: 3010A

Lab Sample ID:	MB 460-571032/1-A	Analysis Batch:	460-571160	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-571032	Lab File ID:	571031.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/26/2018 2345	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	11/25/2018 2115				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	3.44	J	2.7	15.0
Barium	200	U	7.7	200
Cadmium	4.0	U	0.22	4.0
Chromium	10.0	U	1.3	10.0
Lead	10.0	U	2.5	10.0
Selenium	20.0	U	6.6	20.0
Silver	10.0	U	1.1	10.0

TCLP SPLPE Leachate Blank - Batch: 460-571032

Method: 6010D
Preparation: 3010A
TCLP

Lab Sample ID:	LB 460-570846/1-C	Analysis Batch:	460-571160	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-571032	Lab File ID:	571031.asc
Dilution:	5.0	Leach Batch:	460-570846	Initial Weight/Volume:	50 mL
Analysis Date:	11/27/2018 0200	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	11/25/2018 2115				
Leach Date:	11/24/2018 0900				

Analyte	Result	Qual	MDL	RL
Arsenic	75.0	U	13.3	75.0
Barium	1000	U	38.4	1000
Cadmium	20.0	U	1.1	20.0
Chromium	50.0	U	6.3	50.0
Lead	50.0	U	12.3	50.0
Selenium	100	U	33.0	100
Silver	50.0	U	5.4	50.0

Client: New York State D.E.C. Job Number: 460-169891-1

Lab Control Sample - Batch: 460-571032

Method: 6010D
Preparation: 3010A

Lab Sample ID:	LCS 460-571032/2-A ^2	Analysis Batch:	460-571160	Instrument ID:	ICP5
Client Matrix:	Water	Prep Batch:	460-571032	Lab File ID:	571031.asc
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	11/26/2018 2349	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	11/25/2018 2115				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	5000	5354	107	80 - 120	
Barium	10000	10570	106	80 - 120	
Cadmium	1000	1171	117	80 - 120	
Chromium	5000	5302	106	80 - 120	
Lead	5000	5312	106	80 - 120	
Selenium	1000	1075	108	80 - 120	
Silver	500	537.4	107	80 - 120	

Method Blank - Batch: 460-571697

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 460-571697/1-A	Analysis Batch:	460-571758	Instrument ID:	LEEMAN6
Client Matrix:	Water	Prep Batch:	460-571697	Lab File ID:	571690hg1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	11/28/2018 1525	Units:	ug/L	Final Weight/Volume:	30 mL
Prep Date:	11/28/2018 1337				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.20	U	0.12	0.20

TCLP SPLPE Leachate Blank - Batch: 460-571697

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 460-570862/1-H	Analysis Batch:	460-571758	Instrument ID:	LEEMAN6
Client Matrix:	Water	Prep Batch:	460-571697	Lab File ID:	571690hg1.CSV
Dilution:	1.0	Leach Batch:	460-570862	Initial Weight/Volume:	30 mL
Analysis Date:	11/28/2018 1620	Units:	ug/L	Final Weight/Volume:	30 mL
Prep Date:	11/28/2018 1337				
Leach Date:	11/24/2018 1450				

Analyte	Result	Qual	MDL	RL
Mercury	0.20	U	0.12	0.20

TCLP SPLPE Leachate Blank - Batch: 460-571697

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 460-570846/1-D	Analysis Batch:	460-571758	Instrument ID:	LEEMAN6
Client Matrix:	Water	Prep Batch:	460-571697	Lab File ID:	571690hg1.CSV
Dilution:	1.0	Leach Batch:	460-570846	Initial Weight/Volume:	30 mL
Analysis Date:	11/28/2018 1622	Units:	ug/L	Final Weight/Volume:	30 mL
Prep Date:	11/28/2018 1337				
Leach Date:	11/24/2018 0900				

Analyte	Result	Qual	MDL	RL
Mercury	0.20	U	0.12	0.20

Client: New York State D.E.C. Job Number: 460-169891-1

Method Blank - Batch: 460-572748

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 460-572748/1-A	Analysis Batch:	460-572809	Instrument ID:	LEEMAN6
Client Matrix:	Water	Prep Batch:	460-572748	Lab File ID:	572741hg1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	12/03/2018 1616	Units:	ug/L	Final Weight/Volume:	30 mL
Prep Date:	12/03/2018 1231				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.20	U	0.12	0.20

Lab Control Sample - Batch: 460-572748

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 460-572748/2-A	Analysis Batch:	460-572809	Instrument ID:	LEEMAN6
Client Matrix:	Water	Prep Batch:	460-572748	Lab File ID:	572741hg1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	12/03/2018 1617	Units:	ug/L	Final Weight/Volume:	30 mL
Prep Date:	12/03/2018 1231				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	5.00	5.06	101	80 - 120	

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

NYSC
460-169891-1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
PAT BENEDETTO	RC/MH	DEC - WEST BABYLON SD
Company	**P.O.# / SITE**	**State (Location of site):** NJ: ☐ NY: ☒ Other:
EAR	152029	**Regulatory Program:** DEC DKQP: ☐
Address	**Analysis Turnaround Time**	**LAB USE ONLY**
225 ATLANTIC AVE.	Standard ☐	**Project No:**
City State	Rush Charges Authorized For:	**Job No:** 16989
PATCHOGUE NY 11772	2 Week ☐ 1 Week ☐ Other ☐	
Phone Fax		
(631) 447-6400		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	8270D - SVOC Semivol TCL BNA	TCLP METALS 6010D/7470A	8260C - TCL VOC Semi 01.2	Sample Numbers
WASTE CHARACTERIZATION	11/20/18	1459	AQ	6	2	1	3	

460-169891 Chain of Custody

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:			
Water:	✓	✓	2

Special Instructions CATEGORY A DELIVERABLES

Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	EAR	11/20/18 16:00	1) EAR FEDEX	EAR
Relinquished by 2)	Company EAR	Date / Time 11-21-18 11:15	Received by 2) WILLIAM A. VIGLIOTTA	Company EAR
Relinquished by 3) WILLIAM A. VIGLIOTTA	Company EAR	Date / Time 11-21-18 11:15	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 11/21/18 18:00	Received by 4)	Company TAEL

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

3.2 (3.2 TRIP

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 169891

Cooler Temperatures

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-036, Rev 4, 06/09/2014

Initials: _____ Date: 11/21/18

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-169891-1

Login Number: 169891
List Number: 1
Creator: DiGuardia, Joseph L

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Work Order : 242206

Date Printed : 2019-01-09 Date Created : Jan 9, 2019, 11:59 p.m.

Generator ID: 31389
Generator : DEC - WEST BABYLON 50
Address: 50 DALE STREET
City, st Zip: WEST BABYLON, 11704
Site Contact: PAT BENEDETTO
Site Phone: 6313754690
Hours:

Bill ID: 14746
Bill To : ENVIRONMENTAL ASSESSMENT AND REMEDIATION
Address: 225 ATLANTIC AVENUE
City, st Zip: PATCHOGUE, 11772
Site Contact: TOD
Site Phone: 6314458633
Payment Term: BILL

Work Description:

SCHEDULED FOR THURSDAY 1/10/19 SITE 1 @ 7:30 AM

SITE CONTACT: MICHAEL FORD 631-875-8723

BOX TRUCK
CDL DRIVER

REMOVE 2 DRUMS NON-HAZARDOUS PURGE WATER

Manifest Number	Service Name	Service Date	Team Members	Transporter	Facility	Truck Type
242206WA	CALL IN	Jan. 10, 2019	1	ABLE ENVIRONMENTAL SERVICE	AB OIL SERVICE LTD	BOX,

X _____ 1-10-19
Customer Signature Date

_____ 1-10-19
Driver Signature Date

X _____ NYSPC B6
Print Name Truck Number

7:42 | 7:43 | 7:54 | 7:58
MOB | Time In | Time Out | DE MOB