March 9, 2021

Jenelle Gaylord
Engineering Geologist
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7017

Re: **Conrail Groundwater Sampling Summary Report**
South of Cedar Street on Conrail Access Road
Hornellsville, New York
NYSDEC Site 851002
NYSDEC Standby Contract Call Out ID: 139343
LaBella Project #2161937.052

Dear Ms. Gaylord:

LaBella Associates, D.P.C. ("LaBella") is pleased to submit this summary report to document recent groundwater sampling event conducted at the Conrail Site, noted as New York State Department of Environmental Conservation (NYSDEC) Site No. 851002, located south of Cedar Street on a Conrail Access Road, Hornellsville, New York, herein referred to as the "Site" (see Figure 1). LaBella was retained by the NYSDEC through the NYSDEC Investigation & Remediation Standby Contract to conduct groundwater sampling under Call Out ID 139343.

SCOPE OF WORK

As requested by the NYSDEC, the following scope of work was completed by LaBella at the Site:

- Collect depth to groundwater measurements in five (5) on-Site wells;
- Using Per- and Polyfluoroalkyl Substances (PFAS)-free equipment, collect groundwater samples from five (5) monitoring wells using United States Environmental Protection Agency (USEPA) Low Flow Groundwater Sampling Procedures for analysis of emerging contaminants (1,4-Dioxane and PFAS), Semi-volatile Organic Compounds (SVOCs) and Metals;
- Appropriately preserve and ship samples in cooler(s) to the laboratory under chain-of-custody procedures for analytical testing;
- Subcontract a third party data validator to prepare a data usability summary report (DUSR);
- Prepare NYSDEC EQUIS EDD and submit to NYSDEC database; and
- Submit letter report summarizing sampling activities and results.

MONITORING WELL SAMPLING

On December 3, 2020 and December 4, 2020, a LaBella geologist mobilized to the Site to collect groundwater samples from the following five (5) on-site monitoring wells for analysis of emerging contaminants (1,4-Dioxane & PFAS), SVOCs, and Metals:

- GW-01
- GW-02
- GW-03
- GW-04
- GW-05

Prior to lowering any sampling equipment into each monitoring well, the depth to groundwater was measured to the nearest 0.01 foot (ft) using a water level meter and recorded on a groundwater sampling log. Groundwater purging and sampling was completed by use of a peristaltic pump using PFAS-free High Density Polyethylene (HDPE) tubing. Based on previous reports of these monitoring wells producing low volumes of water and having low recharge rates, the sample tubing was lowered into each well to a depth of approximately 1-2-ft above the well bottom.

USEPA Low Flow groundwater purging and sampling procedures, including the use of minimal drawdown techniques, were conducted at each of the five (5) wells sampled. These procedures included routine collection of groundwater quality measurements during purging until sufficient stabilization had occurred for each monitored parameter, allowing sample collection to be completed. Once stabilization was observed, the flow-through cell was removed from the pumping system and the sample was collected directly from the pump tubing. Water quality measurements observed during purging were recorded on low-flow sampling logs, included as Attachment A of this report.

Quality Assurance/Quality Control (QA/QC) samples including a blind duplicate (Duplicate), Matrix Spike/Matrix Spike Duplicate (MS/MSD), and an equipment rinsate blank (Equipment Blank) were also collected at the time of sampling. One (1) blind duplicate sample (Duplicate) and a MS/MSD were collected from well GW-01. Equipment rinsate blank ERB-1 was collected by pouring PFAS-free water over the sampling equipment prior to its use for sampling groundwater at the Site. It is noted that the flow through water quality cell and water level meter were decontaminated between uses using PFAS-free water provided by the contract lab Eurofins. New, dedicated PFAS-free HDPE tubing was used at each well for purging and sampling. Please note that well GW-05 went dry and was resampled the following day after recharging; samples collected on following day were labeled as GW-05b but are a reflection of GW-05.

Immediately following collection, samples were placed in a cooler on ice for preservation during handling and shipment to the analytical laboratory. The five (5) samples were sent to Eurofins, an appropriately accredited laboratory, and analyzed for the following parameters:

- SVOCs using USEPA Method 8270
- 1,4-Dioxane using EPA Method 8270 SIM
- Standard list PFAS using modified USEPA Method 537 (21 compounds)
- Metals using USEPA Method 6010C

As directed by the NYSDEC, the purge water evacuated from each well was reintroduced to the aquifer by discharging the water into the well headspace. Refer to Figure 2 for well locations.

ANALYTICAL RESULTS

Five (5) groundwater samples (including MS/MSD, Field Duplicate, and Equipment Blank) were collected and analyzed for SVOCs, 1,4-Dioxane, Metals, and Standard list PFAS. SVOCs and metals results were compared to New York State Codes, Rules, and Regulations (NYCRR) Part 703 Groundwater Quality Standards and Technical Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS), and PFAS/PFOS and 1,4-dioxane results were compared to applicable NYSDEC Screening Levels.

SVOCs:
SVOCs were detected in each of the four (4) groundwater samples above laboratory method detection limits (MDLs); however, the concentrations detected did not exceed NYCRR Part 703 or TOGS 1.1.1 Guidance Values.

1,4-Dioxane:
1,4-dioxane was detected in one groundwater sample (GW-05) above laboratory MDLs; however, the concentration detected did not exceed the NYSDEC screening level for 1,4-dioxane in groundwater.

PFAS:
PFAS were detected in four (4) of the five (5) groundwater samples above laboratory MDLs. Additionally, Perfluorooctanesulfonic Acid (PFOS) was detected in GW-05 and Perfluorooctanoic Acid (PFOA) in GW-04 and GW-05 above NYSDEC screening levels for PFAS.

METALS:
Metals were detected above laboratory method detection limits (MDLs) in all five (5) wells. Metals were not detected at concentrations above Technical Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) in each of the five (5) wells.

Summarized laboratory data is presented in attached Tables 1 through 3. The laboratory analytical data report is included in Attachment B of this report.

On March 8, 2021, a Data Usability Summary Report (DUSR) was prepared for the ASP Category B data report associated with this sampling event. Only minor data qualification changes were warranted by the DUSR. The data usability summary report (DUSR) is included as Attachment C of this report. The validated NYSDEC EQUIS EDD package will be submitted to the NYSDEC separately.

DEVIATIONS FROM CALLOUT ID 139343

The initial submitted callout from the NYSDEC outlined the sampling of five (5) monitoring wells (including MS/MSD, Field Duplicate, and Equipment Blank) for groundwater analysis of SVOCs, Metals, 1,4-Dioxane, and PFAS. The NYSDEC was notified of the following deviations to the callout:

- GW-03 was not analyzed for SVOCs due to insufficient volume submitted to the lab.

We appreciate the opportunity to serve your professional environmental engineering needs. If you have any questions please do not hesitate to contact us at 585-454-6110.

Respectfully submitted,

LaBella Associates

Allan J. Engelbert
Environmental Geologist

Attachments

Figure 1 – Site Location Map
Figure 2 – Groundwater Monitoring Well Locations

Table 1 – Summary of Detected Metals in Groundwater
Table 2 – Detected Semi-Volatile Compounds in Groundwater
Table 3 – Summary of Targeted PFAS in Groundwater

Attachment A – Field Logs
Attachment B – Laboratory Analytical Results
Attachment C – Data Usability Summary Report

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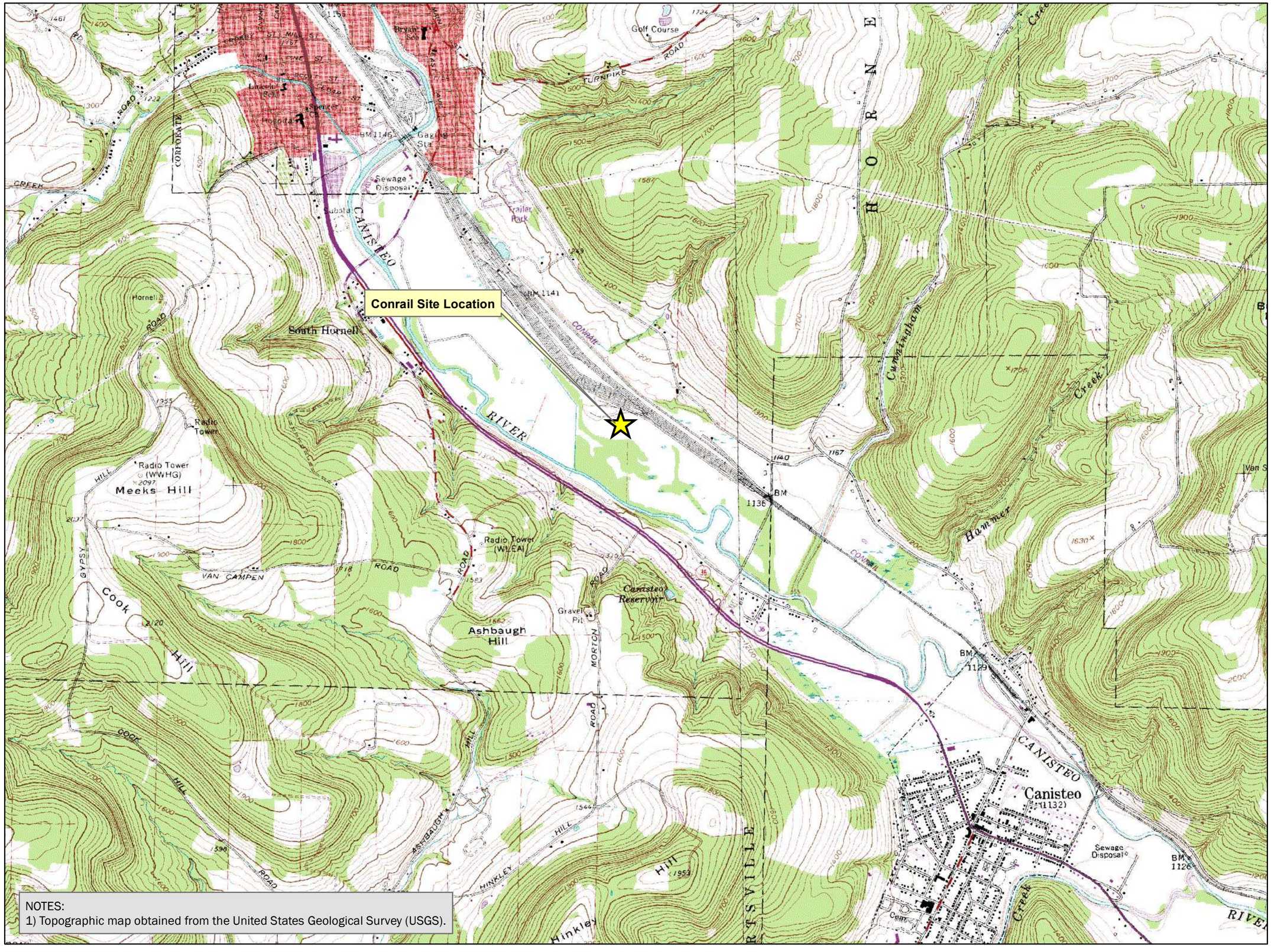
FIGURES



J:\NYSDEC\2161937 - Investigation & Remediation\052 - Conrail Hornellsville - CallOut ID 139343\Drawings\Figure 1 - Site Location Map.mxd

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Feet
1 inch = 2,000 feet

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CLIENT:
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PROJECT:

NYSDEC SITE 851002
CONRAIL
HORNELLSVILLE, NY

DRAWING NAME:

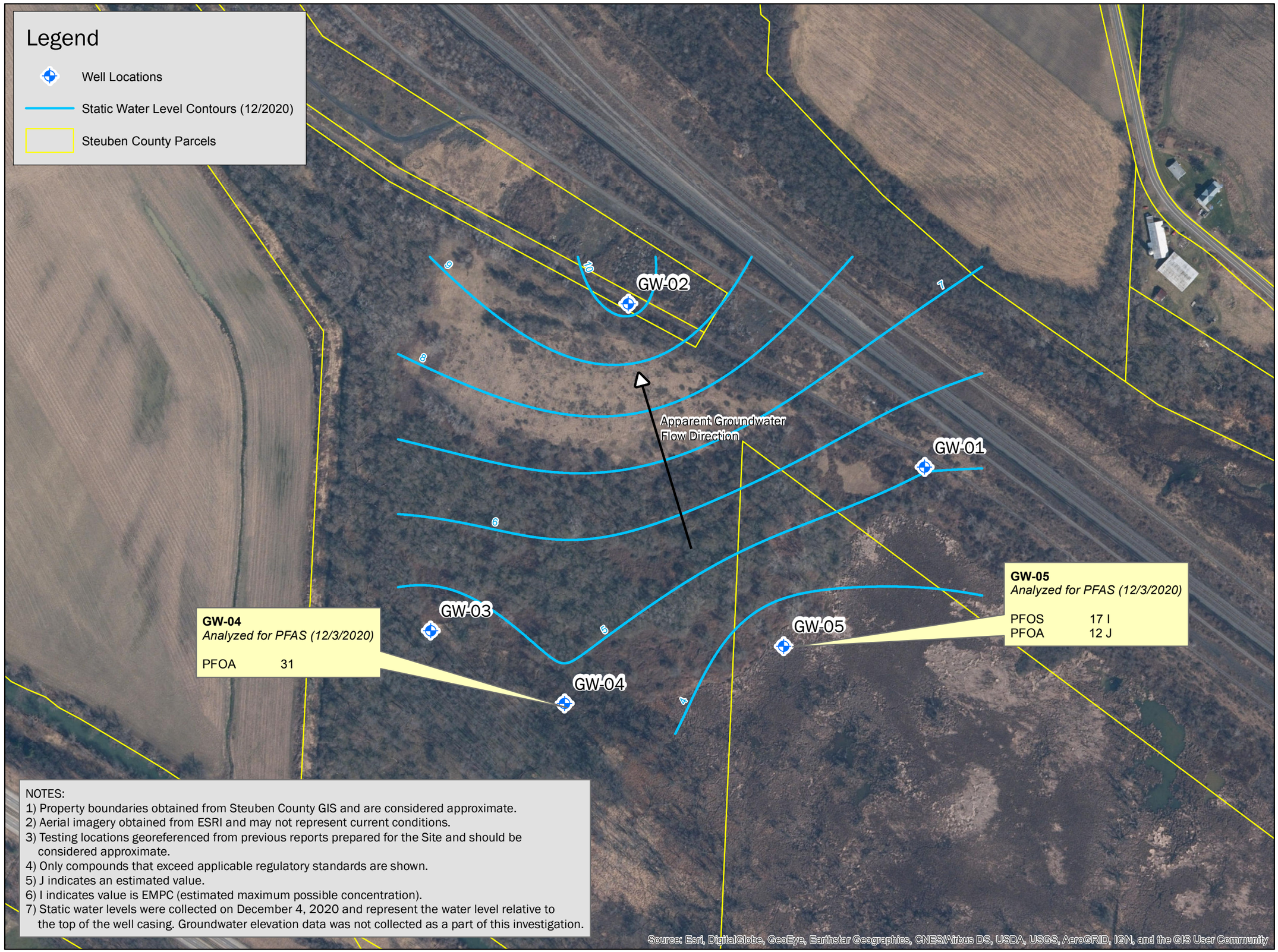
SITE LOCATION MAP

PROJECT #/DRAWING #/ DATE

2161937.052

FIGURE 1

3/1/2021



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CLIENT:
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PROJECT:

NYSDEC SITE 851002
CONRAIL
HORNELLSVILLE, NY

DRAWING NAME:

GROUNDWATER MONITORING WELL LOCATIONS

PROJECT #/DRAWING #/ DATE

2161937.052

FIGURE 2

3/29/2021

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TABLES

Table 1
Groundwater Sampling Report
Conrail Hornellsville, CallOut ID 139343
Summary of Targeted Metals in Groundwater
LaBella Project # 2161937.052

Sample ID	NYCRR Part 703 Groundwater Quality Standards	GW-01	DUPLICATE (GW-01)	GW-02	GW-03	GW-04	GW-05	GW-05B	EQUIPMENT BLANK
Pump Intake (ft bgs)		11.5	11.5	11.5	10.5	10.5	11	11	NA
Sample Date		12/3/2020	12/4/2020	12/4/2020	12/4/2020	12/3/2020	12/3/2020	12/4/2020	12/4/2020
Metals									
Aluminum	100*	<0.060	**1.1**	**1.9**	**16**	**0.54**	-	**0.85**	-
Antimony	3	<0.0068	**0.021**	**0.013** J	<0.0068	<0.0068	-	<0.0068	-
Arsenic	25	**0.0063** J	**0.04**	**0.043**	**0.027**	**0.0092** J	-	**0.048**	-
Barium	1000	**0.12** ^6+	**0.25** ^6+	**0.23** ^6+	**0.21** ^6+	**0.3** ^6+	-	**0.47** ^6+	-
Beryllium	3*	<0.00030	<0.00030	<0.00030	**0.00058** J	<0.00030	-	<0.00030	-
Cadmium	5	<0.00050	**0.0014** J	**0.0016** J	**0.00071** J	**0.00068** J	-	**0.0016** J	-
Calcium	NL	**181**	**124**	**132**	**45.1**	**277**	-	**190**	-
Chromium, trivalent	50	<0.0010	**0.0011** J	**0.0022** J	**0.016**	<0.0010	-	**0.0025** J	-
Cobalt	5*	<0.00063	**0.00088** J	**0.00081** J	**0.01**	**0.00093** J	-	**0.00076** J	-
Copper	200	<0.0016	**0.012**	**0.034**	**0.021**	<0.0016	-	<0.0016	-
Iron	300	**9.1** B	**16.4** B	**34.4** B	**19.2** B	**8.5** B	-	**16.4** B	-
Lead	25	<0.0030	**0.019**	**0.051**	**0.015**	**0.0041** J	-	**0.0053** J	-
Magnesium	35,000*	**29**	**23.9**	**27.2**	**10.5**	**164**	-	**103**	-
Manganese	300	**2** B	**2.5** B	**3.9** B	**2.1** B	**7.5** B	-	**2.5** B	-
Mercury	0.7	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	-	<0.00012	-
Nickel	100	<0.0013	**0.002** J	**0.0023** J	**0.039**	**0.0031** J	-	**0.0054** J	-
Potassium	NL	**1.7**	**2.1**	**1.6**	**3.5**	**11.3**	-	**32.2**	-
Selenium	10	<0.0087	**0.023** J	**0.017** J	<0.0087	<0.0087	-	<0.0087	-
Silver	50	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	-	<0.0017	-
Sodium	20000	**10.9** B	**8.2** B	**9.2** B	**251** B	**77.6** B	-	**211** B	-
Thallium	0.5*	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010	-
Vanadium	NL	<0.0015	**0.0024** J	**0.0032** J	**0.02**	<0.0015	-	<0.0015	-
Zinc	2,000*	**0.005** BJ	**0.031** B	**0.06** B	**0.059** B	**0.0048** J B	-	**0.0046** JB	-

NOTES:

Concentrations displayed in micrograms per liter (ug/L) or parts per billion (ppb)

"<" indicates concentration NOT detected above laboratory method detection limit (MDL)

Bold font indicates that the compound was detected at a concentration above its respective laboratory method detection limit (MDL)

Yellow highlight indicates that the compound was detected at a concentration above its respective 6 NYCRR Part 703 Groundwater Quality Standard or Technical and Operational Guidance Series (TOGS 1.1.1) Guidance Value

* indicates no Part 703 Standard, TOGS 1.1.1 Guidance Value is listed

Metals analyzed by USEPA Method 6010/7471

J indicates an estimated value

B indicates compound was found in the blank and sample.

^6+ indicates interference Check Standard (ICSA and/or ICSAB) is outside acceptance limits, high biased.

F1 indicates MS and/or MSD recovery exceeds control limits.

I indicates value is EMPC (estimated maximum possible concentration).

- indicates the sample was not analyzed for the associated compounds

NL indicates Not Listed

Red text indicates changes made from DUSR

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Table 2
Groundwater Sampling Report
Conrail Hornellsville, CallOut ID 139343
Summary of Targeted Semi-volatile Compounds in Groundwater
LaBella Project # 2161937.052

Sample ID	NYCRR Part 703 Groundwater Quality Standards	GW-01	DUPLICATE (GW-01)	GW-02	GW-03	GW-04	GW-05	GW-05B	EQUIPMENT BLANK
Pump Intake (ft bgs)		11.5	11.5	11.5	10.5	10.5	11	11	NA
Sample Date		12/3/2020	12/4/2020	12/4/2020	12/4/2020	12/3/2020	12/3/2020	12/4/2020	12/4/2020
Semivolatile organic compounds									
2,4,5-Trichlorophenol	1*	<0.48	<0.48	<0.48	-	<0.48	-	<0.48	-
2,4,6-Trichlorophenol	1*	<0.61	<0.61	<0.61	-	<0.61	-	<0.61	-
2,4-Dichlorophenol	5	<0.51	<0.51	<0.51	-	<0.51	-	<0.51	-
2,4-Dimethylphenol	50*	<0.50	<0.50	<0.50	-	<0.50	-	<0.50	-
2,4-Dinitrophenol	10*	<2.2	<2.2	<2.2	-	<2.2	-	<2.2	-
2,4-Dinitrotoluene	5	<0.45	<0.45	<0.45	-	<0.45	-	<0.45	-
2,6-Dinitrotoluene	5	<0.40	<0.40	<0.40	-	<0.40	-	<0.40	-
2-Chloronaphthalene	10*	<0.46	<0.46	<0.46	-	<0.46	-	<0.46	-
2-Chlorophenol	NL	<0.53	<0.53	<0.53	-	<0.53	-	<0.53	-
2-Methylnaphthalene	NL	<0.60	<0.60	<0.60	-	<0.60	-	<0.60	-
2-Methylphenol	NL	<0.40	<0.40	<0.40	-	<0.40	-	<0.40	-
2-Nitroaniline	5	<0.42	<0.42	<0.42	-	<0.42	-	<0.42	-
2-Nitrophenol	1	<0.48	<0.48	<0.48	-	<0.48	-	<0.48	-
3,3-Dichlorobenzidine	NL	<0.40	<0.40	<0.40	-	<0.40	-	<0.40	-
3-Nitroaniline	5	<0.48	<0.48	<0.48	-	<0.48	-	<0.48	-
4,6-Dinitro-2-Methylphenol	NL	<2.2	<2.2	<2.2	-	<2.2	-	<2.2	-
4-Bromophenyl-phenylether	NL	<0.45	<0.45	<0.45	-	<0.45	-	<0.45	-
4-Chloro-3-Methylphenol	NL	<0.45	<0.45	<0.45	-	<0.45	-	<0.45	-
4-Chloroaniline	5	<0.59	<0.59	<0.59	-	<0.59	-	<0.59	-
4-Chlorophenyl-Phenylether	NL	<0.35	<0.35	<0.35	-	<0.35	-	<0.35	-
4-Methyl Phenol (P-Cresol)	1	<0.36	<0.36	<0.36	-	<0.36	-	<0.36	-
4-Nitroaniline	5	<0.25	<0.25	<0.25	-	<0.25	-	<0.25	-
4-Nitrophenol	NL	<1.5	<1.5	<1.5	-	<1.5	-	<1.5	-
Acenaphthene	20*	<0.41	**2.5** J	**5.8**	-	<0.41	-	<0.41	-
Acenapthylene	NL	<0.38	<0.38	<0.38	-	<0.38	-	<0.38	-
Acetophenone	NL	<0.54	<0.54	<0.54	-	<0.54	-	<0.54	-
Anthracene	50*	<0.28	**0.45** J	**0.44** J	-	**0.9** J	-	**0.81** J	-
Atrazine	7.5	<0.46	<0.46	<0.46	-	<0.46	-	<0.46	-
Benzaldehyde	NL	<0.27	<0.27	<0.27	-	<0.27	-	<0.27	-
Benzo(a)anthracene	0.002*	<0.36	<0.36	<0.36	-	<0.36	-	<0.36	-
Benzo(a)pyrene	Not detectable	<0.47	<0.47	<0.47	-	<0.47	-	<0.47	-
Benzo(b)fluoranthene	0.002*	<0.34	<0.34	<0.34	-	<0.34	-	<0.34	-
Benzo(g,h,i)perylene	NL	<0.35	<0.35	<0.35	-	<0.35	-	<0.35	-
Benzo(k)fluoranthene	0.002*	<0.73	<0.73	<0.73	-	<0.73	-	<0.73	-
Benzylbutyl Phthalate	NL	<1.0	<1.0	<1.0	-	<1.0	-	<1.0	-
Biphenyl	NL	<0.65	<0.65	<0.65	-	<0.65	-	<0.65	-
Bis(2-chlorethoxy)methane	NL	<0.35	<0.35	<0.35	-	<0.35	-	<0.35	-
Bis(2-chloroethyl)ether	NL	<0.40	<0.40	<0.40	-	<0.40	-	<0.40	-
Bis(2-chloroiospropyl)ether)	NL	<0.52	<0.52	<0.52	-	<0.52	-	<0.52	-
Bis(2-ethylhexyl)phthalate	5	<2.2	<2.2	<2.2	-	<2.2	-	<2.2	-
Caprolactam	NL	<2.2 UJ	<2.2 UJ	<2.2 UJ	-	<2.2 UJ	-	<2.2 UJ	-
Carbozale	NL	<0.30	<0.30	<0.30	-	<0.30	-	<0.30	-
Chrysene	0.002*	<0.33	<0.33	<0.33	-	<0.33	-	<0.33	-
Dibenz(a,h)anthracene	NL	<0.42	<0.42	<0.42	-	<0.42	-	<0.42	-
Dibenzofuran	NL	<0.51	<0.51	<0.51	-	<0.51	-	<0.51	-
Diethyl Phthalate	50*	<0.22	<0.22	<0.22	-	<0.22	-	<0.22	-
Dimethyl Phthalate	50*	<0.36	<0.36	<0.36	-	<0.36	-	<0.36	-
Di-n-butyl Phthalate	50	<0.31	<0.31	<0.31	-	<0.31	-	<0.31	-
Di-n-octyl Phthalate	50*	<0.47	<0.47	<0.47	-	<0.47	-	<0.47	-
Fluoranthene	50*	<0.40	**1** J	**0.79** J	-	<0.40	-	<0.40	-
Fluorene	50*	<0.36	<0.36	<0.36	-	<0.36	-	<0.36	-
Hexachlorobenzene	0.04	<0.51	<0.51	<0.51	-	<0.51	-	<0.51	-
Hexachlorobutadiene	NL	<0.68 UJ	<0.68	<0.68	-	<0.68	-	<0.68	-
Hexachlorocyclopentadiene	5	<0.59 UJ	<0.59 UJ	<0.59 UJ	-	<0.59 UJ	-	<0.59 UJ	-
Hexachloroethane	5	<0.59	<0.59	<0.59	-	<0.59	-	<0.59	-
Indeno(1,2,3-cd)pyrene	0.002*	<0.47	<0.47	<0.47	-	<0.47	-	<0.47	-
Isophorone	50*	<0.43	<0.43	<0.43	-	<0.43	-	<0.43	-
Naphthalene	10*	<0.76	<0.76	<0.76	-	<0.76	-	<0.76	-
Nitrobenzene	0.4	<0.29	<0.29	<0.29	-	<0.29	-	<0.29	-
N-Nitrosodi-n-propylamine	NL	<0.54	<0.54	<0.54	-	<0.54	-	<0.54	-
N-Nitrosodiphenylamine	50*	<0.51	<0.51	<0.51	-	<0.51	-	<0.51	-
Pentachlorophenol	1	<2.2	<2.2 UJ	<2.2	-	<2.2	-	<2.2 UJ	-
Phenanthrene	50*	<0.44	**3.5** J	**4.2** J	-	<0.44	-	<0.44	-
Phenol	1	<0.39	<0.39	<0.39	-	<0.39	-	<0.39	-
Pyrene	50*	<0.34	**0.58** J	**0.48** J	-	<0.34	-	<0.34	-
1,4-Dioxane	1**	<0.095	<0.095	<0.095	<0.095	<0.095	**0.4**	-	-

NOTES:

Concentrations displayed in micrograms per liter (ug/L) or parts per billion (ppb)

Bold font indicates that the compound was detected at a concentration above its respective laboratory method detection limit (MDL)

Yellow highlight indicates that the compound was detected at a concentration above its respective 6 NYCRR Part 703 Groundwater Quality Standard or Technical and Operational Guidance Series (TOGS 1.1.1) Guidance Value

* indicates no Part 703 Standard, TOGS 1.1.1 Guidance Value is listed

** indicates the NYSDEC screening level for 1,4-dioxane in groundwater

SVOCs analyzed by USEPA Method 8270

J indicates an estimated value

"<" indicates concentration NOT detected above laboratory method detection limit (MDL)

B indicates compound was found in the blank and sample.

^6+ indicates interference Check Standard (ICSA and/or ICSAB) is outside acceptance limits, high biased.

F1 indicates MS and/or MSD recovery exceeds control limits.

I indicates value is EMPC (estimated maximum possible concentration).

- indicates the sample was not analyzed for the associated compounds

NL indicates Not Listed

Red text indicates changes made from DUSR

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Table 3
Groundwater Sampling Report
Conrail Hornellsville, CallOut ID 139343
Summary of Targeted PFAS Compounds in Groundwater
LaBella Project # 2161937.052

Sample ID	NYSDEC Screening Levels	GW-01	DUPLICATE (GW-01)	GW-02	GW-03	GW-04	GW-05	GW-05B	EQUIPMENT BLANK
Pump Intake (ft bgs)		11.5	11.5	11.5	10.5	10.5	11	11	NA
Sample Date		12/3/2020	12/4/2020	12/4/2020	12/4/2020	12/3/2020	12/3/2020	12/4/2020	12/4/2020
PFAS									
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	100	<0.43	<0.45 UJ	<0.43	<0.43	<0.43	<0.46		<0.43
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	100	<2.3	<2.4	<2.3	<2.4	<2.3	<2.5		<2.3
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	100	<1.1	<1.2 UJ	<1.1	<1.1 UJ	<1.1	<1.2 UJ	-	<1.1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	100	<1.2	<1.3 UJ	<1.2	<1.2	<1.2	<1.3	-	<1.2
Perfluorobutanesulfonic Acid (PFBS)	100	**0.35** J	<0.19 UJ	<0.19	<0.19	**1.1** J	<0.20	-	<0.19
Perfluorobutanoic Acid (PFBA)	100	<2.2 UJ	<2.3	<2.2	**5.5** J	**7.8** J	<2.4 UJ	-	<2.2
Perfluorodecanesulfonic Acid (PFDS)	100	<0.30	<0.31	<0.30	<0.30	<0.30	<0.32	-	<0.30
Perfluorodecanoic Acid (PFDA)	100	<0.29	<0.30 UJ	<0.29	<0.29	<0.29	<0.31	-	<0.29
Perfluorododecanoic Acid (PFDoA)	100	<0.51 F1	<0.53 UJ	<0.51	<0.52 UJ	<0.52	<0.54 UJ	-	<0.51
Perfluoroheptanesulfonic Acid (PFHpS)	100	<0.18	<0.18	<0.18	<0.18	<0.18	<0.19	-	<0.18
Perfluoroheptanoic Acid (PFHpA)	100	<0.23	<0.24 UJ	<0.23	**0.66** J	**5.4** J	**2.2** J	-	<0.23
Perfluorohexanesulfonic Acid (PFHxS)	100	<0.53	<0.55	<0.53	<0.54	**3.7** U	**2.5** U	-	<0.53
Perfluorohexanoic Acid (PFHxA)	100	<0.54	<0.56 UJ	<0.54	**0.81** J	**2.5** J	**2.8** J	-	<0.54
Perfluorononanoic Acid (PFNA)	100	<0.25	<0.26	<0.25	<0.25	<0.25	<0.27	-	<0.25
Perfluorooctanesulfonamide (FOSA)	100	<0.92	<0.95	<0.91	<0.92	<0.92	<0.97	-	<0.91
Perfluorooctanesulfonic Acid (PFOS)	10	<0.51	<0.52 UJ	<0.50	<0.51	<0.51	**17** I	-	<0.50
Perfluorooctanoic Acid (PFOA)	10	<0.80	<0.83 UJ	<0.79	**1.50** J	**31**	**12** J	-	<0.79
Perfluoropentanoic Acid (PFPeA)	100	<0.46	<0.48 UJ	<0.46	<0.46 UJ	**0.9** J	<0.49 UJ	-	<0.45
Perfluorotetradecanoic acid (PFTeA)	100	<0.68 F1	<0.71 UJ	<0.68	<0.69 UJ	<0.68	<0.72 UJ	-	<0.68
Perfluorotridecanoic acid (PFTriA)	100	<1.2	<1.3	<1.2	<1.2	<1.2	<1.3	-	<1.2
Perfluoroundecanoic Acid (PFUnA)	100	<1.0	<1.1 UJ	<1.0	<1.0	<1.0	<1.1	-	<1.0
Total PFOA and PFOS	-	Non-detect	Non-detect	Non-detect	Non-detect	1.1	0	-	Non-detect
Total PFAS	500	**0.35**	Non-detect	Non-detect	**8.47**	**52.4**	**36.5**	-	Non-detect

NOTES:

Concentratiosn displayed in nanograms per liter (ng/L) or parts per trillion (ppt).

Bold font indicates that the compound was detected at a concentration above its respective laboratory method detection limit (MDL)

Yellow highlight indicates that the compound was detected at a concentration above its respective NYSDEC PFAS Screening Level

PFAS analyzed by USEPA Method 537.1

UJ or J indicates an estimated value

"<" indicates concentration NOT detected above laboratory method detection limit (MDL)

B indicates compound was found in the blank and sample.

^6+ indicates interference Check Standard (ICSA and/or ICSAB) is outside acceptance limits, high biased.

F1 indicates MS and/or MSD recovery exceeds control limits.

I indicates value is EMPC (estimated maximum possible concentration).

Red text indicates changes made from DUSR

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ATTACHMENT A

Field Logs

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300 State Street
Rochester, New York 14614
Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: GW-01

Project Name: NYSDEC Site 851002 – Conrail
Location: Hornellsville, NY
Project No.: 2161937.052
Sampled By: J. Folger
Date: 12/3/2020
Weather: 45°F, Mostly clear

WELL SAMPLING INFORMATION

Well Diameter:	2”	Static Water Level:	5.05’
Depth of Well:	12.20’	Length of Well Screen:	
Measuring Point:	TOC	Depth to Top of Pump:	11.50’
Pump Type:	Peristaltic	Tubing Type:	HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
14:30			8.8	8.78	1.21	7.16	-85.5	17.7	5.05		
14:35			8.6	1.14	1.18	6.83	-64.8	14.6	5.11		
14:40			8.4	0.76	112	6.83	-61.0	9.73	5.14		
14:45			8.4	00.63	1.10	6.83	-58.7	7.88	5.16		
14:50			8.5	0.49	1.08	6.83	-58.2	5.34	5.17		
14:55			8.4	0.38	1.07	6.83	-58.5	4.08	5.18		
15:00			8.4	0.36	1.06	6.83	-58.7	335	5.18		

Total 1 Gallons Purged

Purge Time Start: 14:30 Purge Time End: 15:00 Final Static Water Level: 5.18’

OBSERVATIONS

Sampled at 15:00

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Rochester, New York 14614
Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: GW-02

Project Name: NYSDEC Site 851002 – Conrail
Location: Hornellsville, NY
Project No.: 2161937.052
Sampled By: J. Folger
Date: 12/4/2020
Weather: 40°F, Overcast

WELL SAMPLING INFORMATION

Well Diameter:	2”	Static Water Level:	10.27’
Depth of Well:	12.14’	Length of Well Screen:	
Measuring Point:	TOC	Depth to Top of Pump:	11.5’
Pump Type:	Peristaltic	Tubing Type:	HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
08:45			9.4	5.73	0.93	7.35	-112.0	18.7	10.27		
08:50			9.5	1.22	0.82	7.10	-110.3	17.8	10.45		
08:55			9.4	1.0	0.77	7.05	-101.6	10.80	10.50		
09:00			9.4	0.87	0.79	7.06	-104.7	10.34	10.50		
09:05			9.6	0.78	0.80	7.08	-105.0	9.80	10.50		
09:10			9.8	1.38	0.73	7.01	-89.6	4.24	10.50		
09:15			9.4	0.94	0.75	7.00	-96.4	4.97	10.80		
09:20			9.4	0.91	0.75	7.00	-97.7	5.33	10.91		

Total _____ Gallons Purged

Purge Time Start: 08:45 Purge Time End: 09:20 Final Static Water Level: 10.91’

OBSERVATIONS

Sampled at 09:20, sampled at this time due to drawdown concerns

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Facsimile: (585) 454-3066

WELL I.D.: GW-03

Project Name: NYSDEC Site 851002 – Conrail
Location: Hornellsville, NY
Project No.: 2161937.052
Sampled By: J. Folger
Date: 12/3/2020
Weather: 40°F, Mostly clear

WELL SAMPLING INFORMATION

Well Diameter:	2”	Static Water Level:	4.33’
Depth of Well:	10.84	Length of Well Screen:	
Measuring Point:	TOC	Depth to Top of Pump:	10.50’
Pump Type:	Peristaltic	Tubing Type:	

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
09:50			7.8	2.43	2.11	7.09	919.1	-18	4.23		
09:55			8.1	1.71	2.12	7.02	-17.1	-31	5.61		
10:00			8.2	1.28	2.12	7.02	-16.2	-34	6.25		
10:05			7.7	2.93	2.11	7.01	-15.2	-26	6.48		
10:10			9.1	0.79	2.12	7.00	-14.3	-18	7.51		
10:15			8.9	0.50	2.10	7.05	-25.7	1570	7.54		
10:20			9.5	0.49	2.12	7.00	-30.1	782	7.89		
10:25			9.7	0.45	2.12	7.00	-34.5	715	8.16		
10:30			9.7	0.42	2.11	7.00	-40.0	690	8.49		
10:35			9.9	0.54	2.0	6.98	-54.7	645	8.87		
10:40			9.7	1.37	1.65	6.95	-76.0	6901	9.44		
10:45			9.8	1.91	1.50	6.94	-77.7	1060	10.02		
10:50			9.7	3.41	1.39	6.95	-73.9	1152	10.52		

Total _____ Gallons Purged

Purge Time Start: 09:50 Purge Time End: 10:50 Final Static Water Level: 10:50

OBSERVATIONS

Well dry at 10:50

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Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: GW-04

Project Name: NYSDEC Site 851002 – Conrail
Location: Hornellsville, NY
Project No.: 2161937.052
Sampled By: J. Folger
Date: 12/3/2020
Weather: 45°F, Mostly clear

WELL SAMPLING INFORMATION

Well Diameter:	2”	Static Water Level:	4.98’
Depth of Well:	11.13’	Length of Well Screen:	
Measuring Point:	TOC	Depth to Top of Pump:	10.5
Pump Type:	Peristaltic	Tubing Type:	HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
12:30			10.1	3.34	2.08	6.96	24.4	103	4.98		
12:35			9.3	1.95	2.08	6.91	-11.6	145	5.34		
12:40			9.5	0.43	2.11	6.88	-21.9	111	5.42		
14:45			9.4	0.33	2.16	6.87	-34.4	85.2	5.41		
12:50			9.4	0.27	2.19	6.87	-45.5	67.0	5.40		
12:55			9.4	0.25	2.21	6.88	-52.8	55.2	5.37		
13:00			9.4	0.21	2.22	6.88	-60.1	45.0	5.38		
13:05			9.4	0.20	2.24	6.88	-65.1	33.6	5.38		
13:10			9.5	0.19	2.25	6.88	-68.2	24.9	5.39		

Total 1.25 Gallons Purged

Purge Time Start: 12:30 Purge Time End: 13:10 Final Static Water Level: 5.39’

OBSERVATIONS

Sampled at 13:10

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Facsimile: (585) 454-3066

WELL I.D.: GW-05

Project Name: NYSDEC Site 851002 – Conrail
Location: Hornellsville, NY
Project No.: 2161937.052
Sampled By: J. Folger
Date: 12/3/2020
Weather: 45°F, Mostly clear

WELL SAMPLING INFORMATION

Well Diameter:	2”	Static Water Level:	3.28’
Depth of Well:	11.25’	Length of Well Screen:	
Measuring Point:	TOC	Depth to Top of Pump:	11’
Pump Type:	Peristaltic	Tubing Type:	HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
11:20			10.7	4.44	2.37	6.79	-4.6	991	3.28		
11:25			10.6	0.58	2.40	6.80	-37.2	-46.0	4.59		
11:30			10.4	0.37	2.40	6.80	-45.2	27.1	5.23		
11:35			10.4	0.31	2.41	6.81	-49.4	23.4	5.84		
11:40			10.3	0.30	2.40	6.82	-51.1	25.0	6.29		

Total 0.3 Gallons Purged

Purge Time Start: 11:20 Purge Time End: 11:40 Final Static Water Level: 6.29’

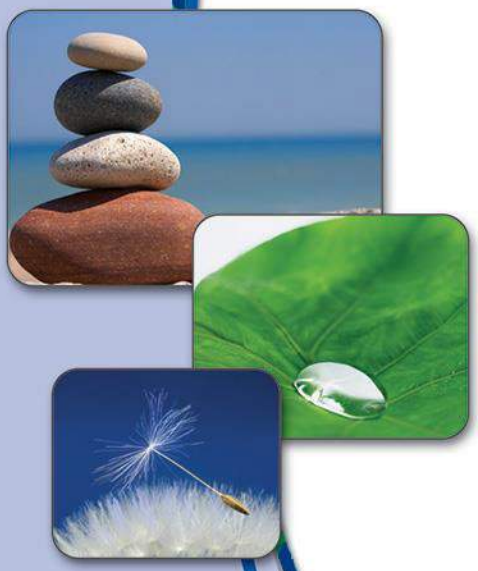
OBSERVATIONS

Sampled at 11:40

ATTACHMENT B

Laboratory Report

eurofins | Environment Testing America



ANALYTICAL REPORT

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

Laboratory Job ID: 480-179098-1
Client Project/Site: Conrail #851002

For:
New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, New York 12233-7014

Attn: Jenelle Gaylord

Authorized for release by:
12/22/2020 4:22:15 PM

Orlette Johnson, Senior Project Manager
(484)685-0864
Orlette.Johnson@Eurofinset.com

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.

Orlette Johnson
Senior Project Manager
12/22/2020 4:22:15 PM

Table of Contents

Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

LCMS

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*5	Isotope dilution analyte is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^6+	Interference Check Standard (ICSA and/or ICSAB) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job ID: 480-179098-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-179098-1

Receipt
The samples were received on 12/8/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.5º C, 2.8º C and 3.0º C.

Receipt Exceptions
Insufficient sample volume was provided for the following sample for 8270D TCL SVOC analysis; the client was notified: GW-03 (480-179098-4).

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 480-563323 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-563844 recovered above the upper control limit for Benzo[k]fluoranthene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: GW-05B (480-179098-6) and QA/QC (480-179098-7).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-563844 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

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

Metals
Method 6010C: The interference check standard solution (ICSA) associated with the following samples showed results for Barium at a level greater than 2 times the limit of detection (LOD). It is believed that the solution contains trace impurities of this element / these elements and the results are not due to matrix interference. These results are consistent with those found by the manufacturer of the ICSA solution. GW-02 (480-179098-1), GW-04 (480-179098-3), GW-03 (480-179098-4), GW-01 (480-179098-5), GW-01 (480-179098-5[MS]), GW-01 (480-179098-5[MSD]), GW-05B (480-179098-6), QA/QC (480-179098-7), (LCS 480-562652/2-A), (MB 480-562652/1-A), (480-179098-E-5-A PDS) and (480-179098-E-5-A SD ^5)

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

LCMS
Method 537 (modified): The laboratory control sample (LCS) for preparation batch 320-440511 and analytical batch 320-440834 recovered outside control limits for Perfluorodecanesulfonic acid (PFDS). PFDS was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 537 (modified): 13C4 PFBA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: GW-05 (480-179098-2). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS for the following samples: GW-01 (480-179098-5). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS and M2-8:2 FTS for the following sample: GW-01 (480-179098-5[MS]). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): 13C4 PFBA Isotope Dilution Analyte (IDA) recovery associated with the following samples is below the method recommended limit: GW-04 (480-179098-3). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater

Job ID: 480-179098-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

than 10:1, which is achieved for all IDA in the samples.

Method 537 (modified): The “I” qualifier means the transition mass ratio for the indicated analytes were outside of the established ratio limits. The qualitative identification of the analytes have some degree of uncertainty. However, analyst judgment was used to positively identify the analytes.

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

Organic Prep
Method 3535: The following samples were light brown with sediments prior to extraction:
GW-02 (480-179098-1), GW-05 (480-179098-2), GW-04 (480-179098-3), GW-03 (480-179098-4), GW-01 (480-179098-5), GW-01 (480-179098-5[MS]), GW-01 (480-179098-5[MSD]) and QA/QC (480-179098-7)

3535 PFC
Water
320-440511

Method 3535: During the solid phase extraction process, the following samples contained non-settable particulates which clogged the solid phase extraction column: GW-05 (480-179098-2), GW-04 (480-179098-3), GW-03 (480-179098-4) and QA/QC (480-179098-7).

3535 PFC
Water
320-440511

Method 3535: The following sample is cloudy after final voluming:
QA/QC (480-179098-7)

3535 PFC
Water
320-440511

Method 3535: The following samples are yellow after final voluming:
GW-05 (480-179098-2), GW-04 (480-179098-3) and GW-03 (480-179098-4)

3535 PFC
Water
320-440511

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: GW-02 — Lab Sample ID: 480-179098-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	5.8		5.0	0.41	ug/L	1		8270D	Total/NA
Anthracene	0.44	J	5.0	0.28	ug/L	1		8270D	Total/NA
Fluoranthene	0.79	J	5.0	0.40	ug/L	1		8270D	Total/NA
Phenanthrene	4.2	J	5.0	0.44	ug/L	1		8270D	Total/NA
Pyrene	0.48	J	5.0	0.34	ug/L	1		8270D	Total/NA
Aluminum	1.9		0.20	0.060	mg/L	1		6010C	Total/NA
Antimony	0.013	J	0.020	0.0068	mg/L	1		6010C	Total/NA
Arsenic	0.043		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.23	^6+	0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.0016	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	132		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0022	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.00081	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.034		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	34.4	B	0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.051		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	27.2		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	3.9	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0023	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	1.6		0.50	0.10	mg/L	1		6010C	Total/NA
Selenium	0.017	J	0.025	0.0087	mg/L	1		6010C	Total/NA
Sodium	9.2	B	1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.0032	J	0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.060	B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: GW-05 — Lab Sample ID: 480-179098-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.40		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA
Perfluorohexanoic acid (PFHxA)	2.8		2.0	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.2		2.0	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	12		2.0	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	0.56	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	17	I	2.0	0.53	ng/L	1		537 (modified)	Total/NA

Client Sample ID: GW-04 — Lab Sample ID: 480-179098-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.90	J	5.0	0.28	ug/L	1		8270D	Total/NA
Perfluorobutanoic acid (PFBA)	7.8		4.7	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.90	J	1.9	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.5		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.4		1.9	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	31		1.9	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		1.9	0.53	ng/L	1		537 (modified)	Total/NA
Aluminum	0.54		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.0092	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.30	^6+	0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.00068	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	277		0.50	0.10	mg/L	1		6010C	Total/NA
Cobalt	0.00093	J	0.0040	0.00063	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GW-04 (Continued) — Lab Sample ID: 480-179098-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	8.5	B	0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0041	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	164		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	7.5	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0031	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	11.3		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	77.6	B	1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0048	J B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: GW-03 — Lab Sample ID: 480-179098-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.5		4.7	2.3	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.81	J	1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.66	J	1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.5	J	1.9	0.80	ng/L	1		537 (modified)	Total/NA
Aluminum	16.0		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.027		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.21	^6+	0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.00058	J	0.0020	0.00030	mg/L	1		6010C	Total/NA
Cadmium	0.00071	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	45.1		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.016		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.010		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.021		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	19.2	B	0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.015		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	10.5		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	2.1	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.039		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	3.5		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	251	B	1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.020		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.059	B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: GW-01 — Lab Sample ID: 480-179098-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	0.35	J	1.9	0.19	ng/L	1		537 (modified)	Total/NA
Arsenic	0.0063	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.12	^6+	0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	181		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	9.1	B	0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	29.0		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	2.0	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	1.7		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	10.9	B	1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0050	J B	0.010	0.0015	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: GW-05B — Lab Sample ID: 480-179098-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.81	J	5.0	0.28	ug/L	1		8270D	Total/NA
Aluminum	0.85		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.048		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.47	^6+	0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.0016	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	190		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0025	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.00076	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Iron	16.4	B	0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0053	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	103		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	2.5	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0054	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	32.2		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	211	B	1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0046	J B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: QA-QC — Lab Sample ID: 480-179098-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	2.5	J	5.0	0.41	ug/L	1		8270D	Total/NA
Anthracene	0.45	J	5.0	0.28	ug/L	1		8270D	Total/NA
Fluoranthene	1.0	J	5.0	0.40	ug/L	1		8270D	Total/NA
Phenanthrene	3.5	J	5.0	0.44	ug/L	1		8270D	Total/NA
Pyrene	0.58	J	5.0	0.34	ug/L	1		8270D	Total/NA
Aluminum	1.1		0.20	0.060	mg/L	1		6010C	Total/NA
Antimony	0.021		0.020	0.0068	mg/L	1		6010C	Total/NA
Arsenic	0.040		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.25	^6+	0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.0014	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	124		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0011	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.00088	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.012		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	16.4	B	0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.019		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	23.9		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	2.5	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0020	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	2.1		0.50	0.10	mg/L	1		6010C	Total/NA
Selenium	0.023	J	0.025	0.0087	mg/L	1		6010C	Total/NA
Sodium	8.2	B	1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.0024	J	0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.031	B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: Equipment Blank — Lab Sample ID: 480-179098-8

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: GW-02

Date Collected: 12/04/20 09:20
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-1

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	ND		0.19	0.095	ug/L		12/09/20 09:01	12/10/20 23:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*24*		*15 - 110*	*12/09/20 09:01*	*12/10/20 23:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		12/09/20 15:12	12/16/20 10:12	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/09/20 15:12	12/16/20 10:12	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/16/20 10:12	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		12/09/20 15:12	12/16/20 10:12	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		12/09/20 15:12	12/16/20 10:12	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		12/09/20 15:12	12/16/20 10:12	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/16/20 10:12	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/09/20 15:12	12/16/20 10:12	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:12	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/09/20 15:12	12/16/20 10:12	1
2-Chlorophenol	ND		5.0	0.53	ug/L		12/09/20 15:12	12/16/20 10:12	1
2-Methylphenol	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:12	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/09/20 15:12	12/16/20 10:12	1
2-Nitroaniline	ND		10	0.42	ug/L		12/09/20 15:12	12/16/20 10:12	1
2-Nitrophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/16/20 10:12	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:12	1
3-Nitroaniline	ND		10	0.48	ug/L		12/09/20 15:12	12/16/20 10:12	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		12/09/20 15:12	12/16/20 10:12	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/09/20 15:12	12/16/20 10:12	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		12/09/20 15:12	12/16/20 10:12	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/09/20 15:12	12/16/20 10:12	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/09/20 15:12	12/16/20 10:12	1
Methylphenol, 3 & 4	ND		10	0.36	ug/L		12/09/20 15:12	12/16/20 10:12	1
4-Nitroaniline	ND		10	0.25	ug/L		12/09/20 15:12	12/16/20 10:12	1
4-Nitrophenol	ND		10	1.5	ug/L		12/09/20 15:12	12/16/20 10:12	1
Acenaphthene	**5.8**		5.0	0.41	ug/L		12/09/20 15:12	12/16/20 10:12	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/09/20 15:12	12/16/20 10:12	1
Acetophenone	ND		5.0	0.54	ug/L		12/09/20 15:12	12/16/20 10:12	1
Anthracene	**0.44**	**J**	5.0	0.28	ug/L		12/09/20 15:12	12/16/20 10:12	1
Atrazine	ND		5.0	0.46	ug/L		12/09/20 15:12	12/16/20 10:12	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/09/20 15:12	12/16/20 10:12	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/16/20 10:12	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/16/20 10:12	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/16/20 10:12	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		12/09/20 15:12	12/16/20 10:12	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		12/09/20 15:12	12/16/20 10:12	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/09/20 15:12	12/16/20 10:12	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:12	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/09/20 15:12	12/16/20 10:12	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/09/20 15:12	12/16/20 10:12	1
Caprolactam	ND		5.0	2.2	ug/L		12/09/20 15:12	12/16/20 10:12	1
Carbazole	ND		5.0	0.30	ug/L		12/09/20 15:12	12/16/20 10:12	1
Chrysene	ND		5.0	0.33	ug/L		12/09/20 15:12	12/16/20 10:12	1

Client Sample ID: GW-02

Date Collected: 12/04/20 09:20
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/09/20 15:12	12/16/20 10:12	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/09/20 15:12	12/16/20 10:12	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/09/20 15:12	12/16/20 10:12	1
Dibenzofuran	ND		10	0.51	ug/L		12/09/20 15:12	12/16/20 10:12	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/09/20 15:12	12/16/20 10:12	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/09/20 15:12	12/16/20 10:12	1
Fluoranthene	**0.79**	**J**	5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:12	1
Fluorene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/16/20 10:12	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/09/20 15:12	12/16/20 10:12	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/09/20 15:12	12/16/20 10:12	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/09/20 15:12	12/16/20 10:12	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/09/20 15:12	12/16/20 10:12	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/16/20 10:12	1
Isophorone	ND		5.0	0.43	ug/L		12/09/20 15:12	12/16/20 10:12	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/09/20 15:12	12/16/20 10:12	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/09/20 15:12	12/16/20 10:12	1
Naphthalene	ND		5.0	0.76	ug/L		12/09/20 15:12	12/16/20 10:12	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/09/20 15:12	12/16/20 10:12	1
Pentachlorophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/16/20 10:12	1
Phenanthrene	**4.2**	**J**	5.0	0.44	ug/L		12/09/20 15:12	12/16/20 10:12	1
Phenol	ND		5.0	0.39	ug/L		12/09/20 15:12	12/16/20 10:12	1
Pyrene	**0.48**	**J**	5.0	0.34	ug/L		12/09/20 15:12	12/16/20 10:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*89*		*46 - 120*	*12/09/20 15:12*	*12/16/20 10:12*	*1*
Phenol-d5 (Surr)	*50*		*22 - 120*	*12/09/20 15:12*	*12/16/20 10:12*	*1*
p-Terphenyl-d14 (Surr)	*70*		*60 - 148*	*12/09/20 15:12*	*12/16/20 10:12*	*1*
2,4,6-Tribromophenol (Surr)	*78*		*41 - 120*	*12/09/20 15:12*	*12/16/20 10:12*	*1*
2-Fluorobiphenyl	*95*		*48 - 120*	*12/09/20 15:12*	*12/16/20 10:12*	*1*
2-Fluorophenol (Surr)	*70*		*35 - 120*	*12/09/20 15:12*	*12/16/20 10:12*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.7	2.2	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.46	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.54	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.23	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.79	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.25	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.29	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.51	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.68	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.53	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.50	ng/L		12/09/20 19:06	12/11/20 06:43	1
Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30	ng/L		12/09/20 19:06	12/11/20 06:43	1

Client Sample ID: GW-02
Date Collected: 12/04/20 09:20
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.91	ng/L		12/09/20 19:06	12/11/20 06:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1	ng/L		12/09/20 19:06	12/11/20 06:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	1.2	ng/L		12/09/20 19:06	12/11/20 06:43	1
6:2 FTS	ND		4.7	2.3	ng/L		12/09/20 19:06	12/11/20 06:43	1
8:2 FTS	ND		1.9	0.43	ng/L		12/09/20 19:06	12/11/20 06:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*58*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C5 PFPeA	*73*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C2 PFHxA	*86*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C4 PFHpA	*87*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C4 PFOA	*91*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C5 PFNA	*95*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C2 PFDA	*91*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C2 PFUnA	*87*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C2 PFDoA	*75*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C2 PFTeDA	*74*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C3 PFBS	*90*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
18O2 PFHxS	*95*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C4 PFOS	*92*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
13C8 FOSA	*100*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
d3-NMeFOSAA	*85*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
d5-NEtFOSAA	*99*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
M2-6:2 FTS	*118*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*
M2-8:2 FTS	*110*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:43*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.9**		0.20	0.060	mg/L		12/10/20 10:00	12/11/20 20:42	1
Antimony	**0.013**	**J**	0.020	0.0068	mg/L		12/10/20 10:00	12/11/20 20:42	1
Arsenic	**0.043**		0.015	0.0056	mg/L		12/10/20 10:00	12/11/20 20:42	1
Barium	**0.23**	**^6+**	0.0020	0.00070	mg/L		12/10/20 10:00	12/11/20 20:42	1
Beryllium	ND		0.0020	0.00030	mg/L		12/10/20 10:00	12/11/20 20:42	1
Cadmium	**0.0016**	**J**	0.0020	0.00050	mg/L		12/10/20 10:00	12/11/20 20:42	1
Calcium	**132**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 20:42	1
Chromium	**0.0022**	**J**	0.0040	0.0010	mg/L		12/10/20 10:00	12/11/20 20:42	1
Cobalt	**0.00081**	**J**	0.0040	0.00063	mg/L		12/10/20 10:00	12/11/20 20:42	1
Copper	**0.034**		0.010	0.0016	mg/L		12/10/20 10:00	12/11/20 20:42	1
Iron	**34.4**	**B**	0.050	0.019	mg/L		12/10/20 10:00	12/11/20 20:42	1
Lead	**0.051**		0.010	0.0030	mg/L		12/10/20 10:00	12/11/20 20:42	1
Magnesium	**27.2**		0.20	0.043	mg/L		12/10/20 10:00	12/11/20 20:42	1
Manganese	**3.9**	**B**	0.0030	0.00040	mg/L		12/10/20 10:00	12/11/20 20:42	1
Nickel	**0.0023**	**J**	0.010	0.0013	mg/L		12/10/20 10:00	12/11/20 20:42	1
Potassium	**1.6**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 20:42	1
Selenium	**0.017**	**J**	0.025	0.0087	mg/L		12/10/20 10:00	12/11/20 20:42	1
Silver	ND		0.0060	0.0017	mg/L		12/10/20 10:00	12/11/20 20:42	1
Sodium	**9.2**	**B**	1.0	0.32	mg/L		12/10/20 10:00	12/11/20 20:42	1
Thallium	ND		0.020	0.010	mg/L		12/10/20 10:00	12/11/20 20:42	1
Vanadium	**0.0032**	**J**	0.0050	0.0015	mg/L		12/10/20 10:00	12/11/20 20:42	1

Client Sample ID: GW-02

Date Collected: 12/04/20 09:20
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.060**	**B**	0.010	0.0015	mg/L		12/10/20 10:00	12/11/20 20:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/10/20 13:19	12/10/20 18:49	1

Client Sample ID: GW-05

Date Collected: 12/03/20 11:40
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-2
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	**0.40**		0.19	0.095	ug/L		12/09/20 09:01	12/11/20 13:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*25*		*15 - 110*	*12/09/20 09:01*	*12/11/20 13:16*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	2.4	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorohexanoic acid (PFHxA)	**2.8**		2.0	0.57	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluoroheptanoic acid (PFHpA)	**2.2**		2.0	0.25	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorooctanoic acid (PFOA)	**12**		2.0	0.84	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.54	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.72	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorohexanesulfonic acid (PFHxS)	**2.5**		2.0	0.56	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorooctanesulfonic acid (PFOS)	**17**	**I**	2.0	0.53	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorodecanesulfonic acid (PFDS)	ND	*	2.0	0.32	ng/L		12/09/20 19:06	12/11/20 06:52	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.97	ng/L		12/09/20 19:06	12/11/20 06:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	1.2	ng/L		12/09/20 19:06	12/11/20 06:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	1.3	ng/L		12/09/20 19:06	12/11/20 06:52	1
6:2 FTS	ND		5.0	2.5	ng/L		12/09/20 19:06	12/11/20 06:52	1
8:2 FTS	ND		2.0	0.46	ng/L		12/09/20 19:06	12/11/20 06:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*15*	**5*	*25 - 150*	*12/09/20 19:06*	*12/11/20 06:52*	*1*
13C5 PFPeA	*30*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:52*	*1*
13C2 PFHxA	*47*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:52*	*1*
13C4 PFHpA	*57*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:52*	*1*
13C4 PFOA	*68*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:52*	*1*
13C5 PFNA	*73*		*25 - 150*	*12/09/20 19:06*	*12/11/20 06:52*	*1*

Client Sample ID: GW-05

Date Collected: 12/03/20 11:40
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-2
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	76		25 - 150	12/09/20 19:06	12/11/20 06:52	1
13C2 PFUnA	82		25 - 150	12/09/20 19:06	12/11/20 06:52	1
13C2 PFDoA	62		25 - 150	12/09/20 19:06	12/11/20 06:52	1
13C2 PFTeDA	69		25 - 150	12/09/20 19:06	12/11/20 06:52	1
13C3 PFBS	73		25 - 150	12/09/20 19:06	12/11/20 06:52	1
18O2 PFHxS	82		25 - 150	12/09/20 19:06	12/11/20 06:52	1
13C4 PFOS	83		25 - 150	12/09/20 19:06	12/11/20 06:52	1
13C8 FOSA	85		25 - 150	12/09/20 19:06	12/11/20 06:52	1
d3-NMeFOSAA	68		25 - 150	12/09/20 19:06	12/11/20 06:52	1
d5-NEtFOSAA	88		25 - 150	12/09/20 19:06	12/11/20 06:52	1
M2-6:2 FTS	105		25 - 150	12/09/20 19:06	12/11/20 06:52	1
M2-8:2 FTS	117		25 - 150	12/09/20 19:06	12/11/20 06:52	1

Client Sample ID: GW-04

Date Collected: 12/03/20 13:10
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-3
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	ND		0.19	0.095	ug/L		12/09/20 09:01	12/11/20 13:39	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	24		15 - 110	12/09/20 09:01	12/11/20 13:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		12/09/20 15:12	12/16/20 10:40	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/09/20 15:12	12/16/20 10:40	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/16/20 10:40	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		12/09/20 15:12	12/16/20 10:40	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		12/09/20 15:12	12/16/20 10:40	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		12/09/20 15:12	12/16/20 10:40	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/16/20 10:40	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/09/20 15:12	12/16/20 10:40	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:40	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/09/20 15:12	12/16/20 10:40	1
2-Chlorophenol	ND		5.0	0.53	ug/L		12/09/20 15:12	12/16/20 10:40	1
2-Methylphenol	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:40	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/09/20 15:12	12/16/20 10:40	1
2-Nitroaniline	ND		10	0.42	ug/L		12/09/20 15:12	12/16/20 10:40	1
2-Nitrophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/16/20 10:40	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:40	1
3-Nitroaniline	ND		10	0.48	ug/L		12/09/20 15:12	12/16/20 10:40	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		12/09/20 15:12	12/16/20 10:40	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/09/20 15:12	12/16/20 10:40	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		12/09/20 15:12	12/16/20 10:40	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/09/20 15:12	12/16/20 10:40	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/09/20 15:12	12/16/20 10:40	1
Methylphenol, 3 & 4	ND		10	0.36	ug/L		12/09/20 15:12	12/16/20 10:40	1
4-Nitroaniline	ND		10	0.25	ug/L		12/09/20 15:12	12/16/20 10:40	1
4-Nitrophenol	ND		10	1.5	ug/L		12/09/20 15:12	12/16/20 10:40	1

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: GW-04

Date Collected: 12/03/20 13:10
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		12/09/20 15:12	12/16/20 10:40	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/09/20 15:12	12/16/20 10:40	1
Acetophenone	ND		5.0	0.54	ug/L		12/09/20 15:12	12/16/20 10:40	1
Anthracene	**0.90**	**J**	5.0	0.28	ug/L		12/09/20 15:12	12/16/20 10:40	1
Atrazine	ND		5.0	0.46	ug/L		12/09/20 15:12	12/16/20 10:40	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/09/20 15:12	12/16/20 10:40	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/16/20 10:40	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/16/20 10:40	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/16/20 10:40	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		12/09/20 15:12	12/16/20 10:40	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		12/09/20 15:12	12/16/20 10:40	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/09/20 15:12	12/16/20 10:40	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:40	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/09/20 15:12	12/16/20 10:40	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/09/20 15:12	12/16/20 10:40	1
Caprolactam	ND		5.0	2.2	ug/L		12/09/20 15:12	12/16/20 10:40	1
Carbazole	ND		5.0	0.30	ug/L		12/09/20 15:12	12/16/20 10:40	1
Chrysene	ND		5.0	0.33	ug/L		12/09/20 15:12	12/16/20 10:40	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/09/20 15:12	12/16/20 10:40	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/09/20 15:12	12/16/20 10:40	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/09/20 15:12	12/16/20 10:40	1
Dibenzofuran	ND		10	0.51	ug/L		12/09/20 15:12	12/16/20 10:40	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/09/20 15:12	12/16/20 10:40	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/09/20 15:12	12/16/20 10:40	1
Fluoranthene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 10:40	1
Fluorene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/16/20 10:40	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/09/20 15:12	12/16/20 10:40	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/09/20 15:12	12/16/20 10:40	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/09/20 15:12	12/16/20 10:40	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/09/20 15:12	12/16/20 10:40	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/16/20 10:40	1
Isophorone	ND		5.0	0.43	ug/L		12/09/20 15:12	12/16/20 10:40	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/09/20 15:12	12/16/20 10:40	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/09/20 15:12	12/16/20 10:40	1
Naphthalene	ND		5.0	0.76	ug/L		12/09/20 15:12	12/16/20 10:40	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/09/20 15:12	12/16/20 10:40	1
Pentachlorophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/16/20 10:40	1
Phenanthrene	ND		5.0	0.44	ug/L		12/09/20 15:12	12/16/20 10:40	1
Phenol	ND		5.0	0.39	ug/L		12/09/20 15:12	12/16/20 10:40	1
Pyrene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/16/20 10:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*84*		*46 - 120*	*12/09/20 15:12*	*12/16/20 10:40*	*1*
Phenol-d5 (Surr)	*46*		*22 - 120*	*12/09/20 15:12*	*12/16/20 10:40*	*1*
p-Terphenyl-d14 (Surr)	*61*		*60 - 148*	*12/09/20 15:12*	*12/16/20 10:40*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*41 - 120*	*12/09/20 15:12*	*12/16/20 10:40*	*1*
2-Fluorobiphenyl	*96*		*48 - 120*	*12/09/20 15:12*	*12/16/20 10:40*	*1*
2-Fluorophenol (Surr)	*66*		*35 - 120*	*12/09/20 15:12*	*12/16/20 10:40*	*1*

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: GW-04
Date Collected: 12/03/20 13:10
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-3
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.8**		4.7	2.3	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluoropentanoic acid (PFPeA)	**0.90**	**J**	1.9	0.46	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorohexanoic acid (PFHxA)	**2.5**		1.9	0.54	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluoroheptanoic acid (PFHpA)	**5.4**		1.9	0.23	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorooctanoic acid (PFOA)	**31**		1.9	0.80	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.25	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.29	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.52	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.68	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorobutanesulfonic acid (PFBS)	**1.1**	**J**	1.9	0.19	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorohexanesulfonic acid (PFHxS)	**3.7**		1.9	0.53	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.51	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30	ng/L		12/09/20 19:06	12/11/20 14:33	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.92	ng/L		12/09/20 19:06	12/11/20 14:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1	ng/L		12/09/20 19:06	12/11/20 14:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	1.2	ng/L		12/09/20 19:06	12/11/20 14:33	1
6:2 FTS	ND		4.7	2.3	ng/L		12/09/20 19:06	12/11/20 14:33	1
8:2 FTS	ND		1.9	0.43	ng/L		12/09/20 19:06	12/11/20 14:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*18*	**5*	*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C5 PFPeA	*35*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C2 PFHxA	*54*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C4 PFHpA	*67*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C4 PFOA	*75*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C5 PFNA	*84*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C2 PFDA	*90*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C2 PFUnA	*81*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C2 PFDoA	*77*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C2 PFTeDA	*77*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C3 PFBS	*75*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
18O2 PFHxS	*93*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C4 PFOS	*95*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
13C8 FOSA	*94*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
d3-NMeFOSAA	*77*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
d5-NEtFOSAA	*97*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
M2-6:2 FTS	*123*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*
M2-8:2 FTS	*137*		*25 - 150*	*12/09/20 19:06*	*12/11/20 14:33*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.54**		0.20	0.060	mg/L		12/10/20 10:00	12/11/20 20:57	1
Antimony	ND		0.020	0.0068	mg/L		12/10/20 10:00	12/11/20 20:57	1
Arsenic	**0.0092**	**J**	0.015	0.0056	mg/L		12/10/20 10:00	12/11/20 20:57	1

Client Sample ID: GW-04

Date Collected: 12/03/20 13:10
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**0.30**	**^6+**	0.0020	0.00070	mg/L		12/10/20 10:00	12/11/20 20:57	1
Beryllium	ND		0.0020	0.00030	mg/L		12/10/20 10:00	12/11/20 20:57	1
Cadmium	**0.00068**	**J**	0.0020	0.00050	mg/L		12/10/20 10:00	12/11/20 20:57	1
Calcium	**277**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 20:57	1
Chromium	ND		0.0040	0.0010	mg/L		12/10/20 10:00	12/11/20 20:57	1
Cobalt	**0.00093**	**J**	0.0040	0.00063	mg/L		12/10/20 10:00	12/11/20 20:57	1
Copper	ND		0.010	0.0016	mg/L		12/10/20 10:00	12/11/20 20:57	1
Iron	**8.5**	**B**	0.050	0.019	mg/L		12/10/20 10:00	12/11/20 20:57	1
Lead	**0.0041**	**J**	0.010	0.0030	mg/L		12/10/20 10:00	12/11/20 20:57	1
Magnesium	**164**		0.20	0.043	mg/L		12/10/20 10:00	12/11/20 20:57	1
Manganese	**7.5**	**B**	0.0030	0.00040	mg/L		12/10/20 10:00	12/11/20 20:57	1
Nickel	**0.0031**	**J**	0.010	0.0013	mg/L		12/10/20 10:00	12/11/20 20:57	1
Potassium	**11.3**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 20:57	1
Selenium	ND		0.025	0.0087	mg/L		12/10/20 10:00	12/11/20 20:57	1
Silver	ND		0.0060	0.0017	mg/L		12/10/20 10:00	12/11/20 20:57	1
Sodium	**77.6**	**B**	1.0	0.32	mg/L		12/10/20 10:00	12/11/20 20:57	1
Thallium	ND		0.020	0.010	mg/L		12/10/20 10:00	12/11/20 20:57	1
Vanadium	ND		0.0050	0.0015	mg/L		12/10/20 10:00	12/11/20 20:57	1
Zinc	**0.0048**	**J B**	0.010	0.0015	mg/L		12/10/20 10:00	12/11/20 20:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/10/20 13:19	12/10/20 18:51	1

Client Sample ID: GW-03

Date Collected: 12/04/20 11:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-4

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	ND		0.19	0.095	ug/L		12/09/20 09:01	12/11/20 14:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*25*		*15 - 110*	*12/09/20 09:01*	*12/11/20 14:02*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.5**		4.7	2.3	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.46	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorohexanoic acid (PFHxA)	**0.81**	**J**	1.9	0.55	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluoroheptanoic acid (PFHpA)	**0.66**	**J**	1.9	0.24	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorooctanoic acid (PFOA)	**1.5**	**J**	1.9	0.80	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.25	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.29	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.52	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.69	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.54	ng/L		12/09/20 19:06	12/11/20 07:11	1

Client Sample ID: GW-03
Date Collected: 12/04/20 11:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-4
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.51	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30	ng/L		12/09/20 19:06	12/11/20 07:11	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.92	ng/L		12/09/20 19:06	12/11/20 07:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1	ng/L		12/09/20 19:06	12/11/20 07:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	1.2	ng/L		12/09/20 19:06	12/11/20 07:11	1
6:2 FTS	ND		4.7	2.4	ng/L		12/09/20 19:06	12/11/20 07:11	1
8:2 FTS	ND		1.9	0.43	ng/L		12/09/20 19:06	12/11/20 07:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*29*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C5 PFPeA	*49*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C2 PFHxA	*58*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C4 PFHpA	*67*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C4 PFOA	*75*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C5 PFNA	*82*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C2 PFDA	*81*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C2 PFUnA	*71*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C2 PFDoA	*67*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C2 PFTeDA	*38*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C3 PFBS	*71*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
18O2 PFHxS	*80*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C4 PFOS	*79*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
13C8 FOSA	*79*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
d3-NMeFOSAA	*64*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
d5-NEtFOSAA	*71*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
M2-6:2 FTS	*105*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*
M2-8:2 FTS	*96*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:11*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**16.0**		0.20	0.060	mg/L		12/10/20 10:00	12/11/20 21:01	1
Antimony	ND		0.020	0.0068	mg/L		12/10/20 10:00	12/11/20 21:01	1
Arsenic	**0.027**		0.015	0.0056	mg/L		12/10/20 10:00	12/11/20 21:01	1
Barium	**0.21**	**^6+**	0.0020	0.00070	mg/L		12/10/20 10:00	12/11/20 21:01	1
Beryllium	**0.00058**	**J**	0.0020	0.00030	mg/L		12/10/20 10:00	12/11/20 21:01	1
Cadmium	**0.00071**	**J**	0.0020	0.00050	mg/L		12/10/20 10:00	12/11/20 21:01	1
Calcium	**45.1**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 21:01	1
Chromium	**0.016**		0.0040	0.0010	mg/L		12/10/20 10:00	12/11/20 21:01	1
Cobalt	**0.010**		0.0040	0.00063	mg/L		12/10/20 10:00	12/11/20 21:01	1
Copper	**0.021**		0.010	0.0016	mg/L		12/10/20 10:00	12/11/20 21:01	1
Iron	**19.2**	**B**	0.050	0.019	mg/L		12/10/20 10:00	12/11/20 21:01	1
Lead	**0.015**		0.010	0.0030	mg/L		12/10/20 10:00	12/11/20 21:01	1
Magnesium	**10.5**		0.20	0.043	mg/L		12/10/20 10:00	12/11/20 21:01	1
Manganese	**2.1**	**B**	0.0030	0.00040	mg/L		12/10/20 10:00	12/11/20 21:01	1
Nickel	**0.039**		0.010	0.0013	mg/L		12/10/20 10:00	12/11/20 21:01	1
Potassium	**3.5**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 21:01	1
Selenium	ND		0.025	0.0087	mg/L		12/10/20 10:00	12/11/20 21:01	1

Client Sample ID: GW-03

Lab Sample ID: 480-179098-4

Date Collected: 12/04/20 11:00

Matrix: Water

Date Received: 12/08/20 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		12/10/20 10:00	12/11/20 21:01	1
Sodium	**251**	**B**	1.0	0.32	mg/L		12/10/20 10:00	12/11/20 21:01	1
Thallium	ND		0.020	0.010	mg/L		12/10/20 10:00	12/11/20 21:01	1
Vanadium	**0.020**		0.0050	0.0015	mg/L		12/10/20 10:00	12/11/20 21:01	1
Zinc	**0.059**	**B**	0.010	0.0015	mg/L		12/10/20 10:00	12/11/20 21:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/10/20 13:19	12/10/20 18:55	1

Client Sample ID: GW-01

Lab Sample ID: 480-179098-5

Date Collected: 12/03/20 15:00

Matrix: Water

Date Received: 12/08/20 10:30

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	ND		0.19	0.095	ug/L		12/09/20 09:01	12/10/20 22:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*12/09/20 09:01*	*12/10/20 22:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		12/09/20 15:12	12/16/20 09:16	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/09/20 15:12	12/16/20 09:16	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/16/20 09:16	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		12/09/20 15:12	12/16/20 09:16	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		12/09/20 15:12	12/16/20 09:16	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		12/09/20 15:12	12/16/20 09:16	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/16/20 09:16	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/09/20 15:12	12/16/20 09:16	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 09:16	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/09/20 15:12	12/16/20 09:16	1
2-Chlorophenol	ND		5.0	0.53	ug/L		12/09/20 15:12	12/16/20 09:16	1
2-Methylphenol	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 09:16	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/09/20 15:12	12/16/20 09:16	1
2-Nitroaniline	ND	F2	10	0.42	ug/L		12/09/20 15:12	12/16/20 09:16	1
2-Nitrophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/16/20 09:16	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 09:16	1
3-Nitroaniline	ND		10	0.48	ug/L		12/09/20 15:12	12/16/20 09:16	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		12/09/20 15:12	12/16/20 09:16	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/09/20 15:12	12/16/20 09:16	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		12/09/20 15:12	12/16/20 09:16	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/09/20 15:12	12/16/20 09:16	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/09/20 15:12	12/16/20 09:16	1
Methylphenol, 3 & 4	ND		10	0.36	ug/L		12/09/20 15:12	12/16/20 09:16	1
4-Nitroaniline	ND		10	0.25	ug/L		12/09/20 15:12	12/16/20 09:16	1
4-Nitrophenol	ND		10	1.5	ug/L		12/09/20 15:12	12/16/20 09:16	1
Acenaphthene	ND		5.0	0.41	ug/L		12/09/20 15:12	12/16/20 09:16	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/09/20 15:12	12/16/20 09:16	1
Acetophenone	ND		5.0	0.54	ug/L		12/09/20 15:12	12/16/20 09:16	1

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: GW-01
Date Collected: 12/03/20 15:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		5.0	0.28	ug/L		12/09/20 15:12	12/16/20 09:16	1
Atrazine	ND		5.0	0.46	ug/L		12/09/20 15:12	12/16/20 09:16	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/09/20 15:12	12/16/20 09:16	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/16/20 09:16	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/16/20 09:16	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/16/20 09:16	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		12/09/20 15:12	12/16/20 09:16	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		12/09/20 15:12	12/16/20 09:16	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/09/20 15:12	12/16/20 09:16	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 09:16	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/09/20 15:12	12/16/20 09:16	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/09/20 15:12	12/16/20 09:16	1
Caprolactam	ND		5.0	2.2	ug/L		12/09/20 15:12	12/16/20 09:16	1
Carbazole	ND		5.0	0.30	ug/L		12/09/20 15:12	12/16/20 09:16	1
Chrysene	ND		5.0	0.33	ug/L		12/09/20 15:12	12/16/20 09:16	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/09/20 15:12	12/16/20 09:16	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/09/20 15:12	12/16/20 09:16	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/09/20 15:12	12/16/20 09:16	1
Dibenzofuran	ND		10	0.51	ug/L		12/09/20 15:12	12/16/20 09:16	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/09/20 15:12	12/16/20 09:16	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/09/20 15:12	12/16/20 09:16	1
Fluoranthene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/16/20 09:16	1
Fluorene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/16/20 09:16	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/09/20 15:12	12/16/20 09:16	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/09/20 15:12	12/16/20 09:16	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/09/20 15:12	12/16/20 09:16	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/09/20 15:12	12/16/20 09:16	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/16/20 09:16	1
Isophorone	ND		5.0	0.43	ug/L		12/09/20 15:12	12/16/20 09:16	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/09/20 15:12	12/16/20 09:16	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/09/20 15:12	12/16/20 09:16	1
Naphthalene	ND		5.0	0.76	ug/L		12/09/20 15:12	12/16/20 09:16	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/09/20 15:12	12/16/20 09:16	1
Pentachlorophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/16/20 09:16	1
Phenanthrene	ND		5.0	0.44	ug/L		12/09/20 15:12	12/16/20 09:16	1
Phenol	ND		5.0	0.39	ug/L		12/09/20 15:12	12/16/20 09:16	1
Pyrene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/16/20 09:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*46 - 120*	*12/09/20 15:12*	*12/16/20 09:16*	*1*
Phenol-d5 (Surr)	*48*		*22 - 120*	*12/09/20 15:12*	*12/16/20 09:16*	*1*
p-Terphenyl-d14 (Surr)	*77*		*60 - 148*	*12/09/20 15:12*	*12/16/20 09:16*	*1*
2,4,6-Tribromophenol (Surr)	*72*		*41 - 120*	*12/09/20 15:12*	*12/16/20 09:16*	*1*
2-Fluorobiphenyl	*97*		*48 - 120*	*12/09/20 15:12*	*12/16/20 09:16*	*1*
2-Fluorophenol (Surr)	*68*		*35 - 120*	*12/09/20 15:12*	*12/16/20 09:16*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND	F1	4.7	2.2	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.46	ng/L		12/09/20 19:06	12/11/20 07:20	1

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: GW-01

Date Collected: 12/03/20 15:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-5

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.54	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.23	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.80	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.25	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.29	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorododecanoic acid (PFDoA)	ND	F1	1.9	0.51	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorotetradecanoic acid (PFTeA)	ND	F1	1.9	0.68	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorobutanesulfonic acid (PFBS)	**0.35**	**J**	1.9	0.19	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.53	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.51	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30	ng/L		12/09/20 19:06	12/11/20 07:20	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.92	ng/L		12/09/20 19:06	12/11/20 07:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1	ng/L		12/09/20 19:06	12/11/20 07:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	1.2	ng/L		12/09/20 19:06	12/11/20 07:20	1
6:2 FTS	ND		4.7	2.3	ng/L		12/09/20 19:06	12/11/20 07:20	1
8:2 FTS	ND		1.9	0.43	ng/L		12/09/20 19:06	12/11/20 07:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C5 PFPeA	*121*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C2 PFHxA	*144*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C4 PFHpA	*143*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C4 PFOA	*144*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C5 PFNA	*147*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C2 PFDA	*139*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C2 PFUnA	*119*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C2 PFDoA	*113*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C2 PFTeDA	*91*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C3 PFBS	*128*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
18O2 PFHxS	*136*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C4 PFOS	*125*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
13C8 FOSA	*150*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
d3-NMeFOSAA	*121*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
d5-NEtFOSAA	*132*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
M2-6:2 FTS	*176*	**5*	*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*
M2-8:2 FTS	*149*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:20*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		12/10/20 10:00	12/11/20 21:04	1
Antimony	ND		0.020	0.0068	mg/L		12/10/20 10:00	12/11/20 21:04	1
Arsenic	**0.0063**	**J**	0.015	0.0056	mg/L		12/10/20 10:00	12/11/20 21:04	1
Barium	**0.12**	**^6+**	0.0020	0.00070	mg/L		12/10/20 10:00	12/11/20 21:04	1
Beryllium	ND		0.0020	0.00030	mg/L		12/10/20 10:00	12/11/20 21:04	1

Client Sample ID: GW-01

Date Collected: 12/03/20 15:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020	0.00050	mg/L		12/10/20 10:00	12/11/20 21:04	1
Calcium	**181**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 21:04	1
Chromium	ND		0.0040	0.0010	mg/L		12/10/20 10:00	12/11/20 21:04	1
Cobalt	ND		0.0040	0.00063	mg/L		12/10/20 10:00	12/11/20 21:04	1
Copper	ND		0.010	0.0016	mg/L		12/10/20 10:00	12/11/20 21:04	1
Iron	**9.1**	**B**	0.050	0.019	mg/L		12/10/20 10:00	12/11/20 21:04	1
Lead	ND		0.010	0.0030	mg/L		12/10/20 10:00	12/11/20 21:04	1
Magnesium	**29.0**		0.20	0.043	mg/L		12/10/20 10:00	12/11/20 21:04	1
Manganese	**2.0**	**B**	0.0030	0.00040	mg/L		12/10/20 10:00	12/11/20 21:04	1
Nickel	ND		0.010	0.0013	mg/L		12/10/20 10:00	12/11/20 21:04	1
Potassium	**1.7**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 21:04	1
Selenium	ND		0.025	0.0087	mg/L		12/10/20 10:00	12/11/20 21:04	1
Silver	ND		0.0060	0.0017	mg/L		12/10/20 10:00	12/11/20 21:04	1
Sodium	**10.9**	**B**	1.0	0.32	mg/L		12/10/20 10:00	12/11/20 21:04	1
Thallium	ND		0.020	0.010	mg/L		12/10/20 10:00	12/11/20 21:04	1
Vanadium	ND		0.0050	0.0015	mg/L		12/10/20 10:00	12/11/20 21:04	1
Zinc	**0.0050**	**J B**	0.010	0.0015	mg/L		12/10/20 10:00	12/11/20 21:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/10/20 13:19	12/10/20 18:57	1

Client Sample ID: GW-05B

Date Collected: 12/04/20 11:30
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		12/09/20 15:12	12/19/20 02:11	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/09/20 15:12	12/19/20 02:11	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/19/20 02:11	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		12/09/20 15:12	12/19/20 02:11	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		12/09/20 15:12	12/19/20 02:11	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		12/09/20 15:12	12/19/20 02:11	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/19/20 02:11	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/09/20 15:12	12/19/20 02:11	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:11	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/09/20 15:12	12/19/20 02:11	1
2-Chlorophenol	ND		5.0	0.53	ug/L		12/09/20 15:12	12/19/20 02:11	1
2-Methylphenol	ND		5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:11	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/09/20 15:12	12/19/20 02:11	1
2-Nitroaniline	ND		10	0.42	ug/L		12/09/20 15:12	12/19/20 02:11	1
2-Nitrophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/19/20 02:11	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:11	1
3-Nitroaniline	ND		10	0.48	ug/L		12/09/20 15:12	12/19/20 02:11	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		12/09/20 15:12	12/19/20 02:11	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/09/20 15:12	12/19/20 02:11	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		12/09/20 15:12	12/19/20 02:11	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/09/20 15:12	12/19/20 02:11	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/09/20 15:12	12/19/20 02:11	1

Client Sample ID: GW-05B
Date Collected: 12/04/20 11:30
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylphenol, 3 & 4	ND		10	0.36	ug/L		12/09/20 15:12	12/19/20 02:11	1
4-Nitroaniline	ND		10	0.25	ug/L		12/09/20 15:12	12/19/20 02:11	1
4-Nitrophenol	ND		10	1.5	ug/L		12/09/20 15:12	12/19/20 02:11	1
Acenaphthene	ND		5.0	0.41	ug/L		12/09/20 15:12	12/19/20 02:11	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/09/20 15:12	12/19/20 02:11	1
Acetophenone	ND		5.0	0.54	ug/L		12/09/20 15:12	12/19/20 02:11	1
Anthracene	**0.81**	**J**	5.0	0.28	ug/L		12/09/20 15:12	12/19/20 02:11	1
Atrazine	ND		5.0	0.46	ug/L		12/09/20 15:12	12/19/20 02:11	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/09/20 15:12	12/19/20 02:11	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/19/20 02:11	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/19/20 02:11	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/19/20 02:11	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		12/09/20 15:12	12/19/20 02:11	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		12/09/20 15:12	12/19/20 02:11	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/09/20 15:12	12/19/20 02:11	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:11	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/09/20 15:12	12/19/20 02:11	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/09/20 15:12	12/19/20 02:11	1
Caprolactam	ND		5.0	2.2	ug/L		12/09/20 15:12	12/19/20 02:11	1
Carbazole	ND		5.0	0.30	ug/L		12/09/20 15:12	12/19/20 02:11	1
Chrysene	ND		5.0	0.33	ug/L		12/09/20 15:12	12/19/20 02:11	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/09/20 15:12	12/19/20 02:11	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/09/20 15:12	12/19/20 02:11	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/09/20 15:12	12/19/20 02:11	1
Dibenzofuran	ND		10	0.51	ug/L		12/09/20 15:12	12/19/20 02:11	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/09/20 15:12	12/19/20 02:11	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/09/20 15:12	12/19/20 02:11	1
Fluoranthene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:11	1
Fluorene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/19/20 02:11	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/09/20 15:12	12/19/20 02:11	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/09/20 15:12	12/19/20 02:11	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/09/20 15:12	12/19/20 02:11	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/09/20 15:12	12/19/20 02:11	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/19/20 02:11	1
Isophorone	ND		5.0	0.43	ug/L		12/09/20 15:12	12/19/20 02:11	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/09/20 15:12	12/19/20 02:11	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/09/20 15:12	12/19/20 02:11	1
Naphthalene	ND		5.0	0.76	ug/L		12/09/20 15:12	12/19/20 02:11	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/09/20 15:12	12/19/20 02:11	1
Pentachlorophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/19/20 02:11	1
Phenanthrene	ND		5.0	0.44	ug/L		12/09/20 15:12	12/19/20 02:11	1
Phenol	ND		5.0	0.39	ug/L		12/09/20 15:12	12/19/20 02:11	1
Pyrene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/19/20 02:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*84*		*46 - 120*	*12/09/20 15:12*	*12/19/20 02:11*	*1*
Phenol-d5 (Surr)	*48*		*22 - 120*	*12/09/20 15:12*	*12/19/20 02:11*	*1*
p-Terphenyl-d14 (Surr)	*62*		*60 - 148*	*12/09/20 15:12*	*12/19/20 02:11*	*1*
2,4,6-Tribromophenol (Surr)	*93*		*41 - 120*	*12/09/20 15:12*	*12/19/20 02:11*	*1*
2-Fluorobiphenyl	*92*		*48 - 120*	*12/09/20 15:12*	*12/19/20 02:11*	*1*

Client Sample ID: GW-05B

Date Collected: 12/04/20 11:30
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-6

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*67*		*35 - 120*	*12/09/20 15:12*	*12/19/20 02:11*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.85**		0.20	0.060	mg/L		12/10/20 10:00	12/11/20 21:23	1
Antimony	ND		0.020	0.0068	mg/L		12/10/20 10:00	12/11/20 21:23	1
Arsenic	**0.048**		0.015	0.0056	mg/L		12/10/20 10:00	12/11/20 21:23	1
Barium	**0.47**	**^6+**	0.0020	0.00070	mg/L		12/10/20 10:00	12/11/20 21:23	1
Beryllium	ND		0.0020	0.00030	mg/L		12/10/20 10:00	12/11/20 21:23	1
Cadmium	**0.0016**	**J**	0.0020	0.00050	mg/L		12/10/20 10:00	12/11/20 21:23	1
Calcium	**190**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 21:23	1
Chromium	**0.0025**	**J**	0.0040	0.0010	mg/L		12/10/20 10:00	12/11/20 21:23	1
Cobalt	**0.00076**	**J**	0.0040	0.00063	mg/L		12/10/20 10:00	12/11/20 21:23	1
Copper	ND		0.010	0.0016	mg/L		12/10/20 10:00	12/11/20 21:23	1
Iron	**16.4**	**B**	0.050	0.019	mg/L		12/10/20 10:00	12/11/20 21:23	1
Lead	**0.0053**	**J**	0.010	0.0030	mg/L		12/10/20 10:00	12/11/20 21:23	1
Magnesium	**103**		0.20	0.043	mg/L		12/10/20 10:00	12/11/20 21:23	1
Manganese	**2.5**	**B**	0.0030	0.00040	mg/L		12/10/20 10:00	12/11/20 21:23	1
Nickel	**0.0054**	**J**	0.010	0.0013	mg/L		12/10/20 10:00	12/11/20 21:23	1
Potassium	**32.2**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 21:23	1
Selenium	ND		0.025	0.0087	mg/L		12/10/20 10:00	12/11/20 21:23	1
Silver	ND		0.0060	0.0017	mg/L		12/10/20 10:00	12/11/20 21:23	1
Sodium	**211**	**B**	1.0	0.32	mg/L		12/10/20 10:00	12/11/20 21:23	1
Thallium	ND		0.020	0.010	mg/L		12/10/20 10:00	12/11/20 21:23	1
Vanadium	ND		0.0050	0.0015	mg/L		12/10/20 10:00	12/11/20 21:23	1
Zinc	**0.0046**	**J B**	0.010	0.0015	mg/L		12/10/20 10:00	12/11/20 21:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/10/20 13:19	12/10/20 19:03	1

Client Sample ID: QA-QC

Date Collected: 12/04/20 00:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-7

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	ND		0.19	0.095	ug/L		12/09/20 09:01	12/11/20 14:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*23*		*15 - 110*	*12/09/20 09:01*	*12/11/20 14:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		12/09/20 15:12	12/19/20 02:39	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/09/20 15:12	12/19/20 02:39	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/19/20 02:39	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		12/09/20 15:12	12/19/20 02:39	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		12/09/20 15:12	12/19/20 02:39	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		12/09/20 15:12	12/19/20 02:39	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/19/20 02:39	1

Client Sample ID: QA-QC
Date Collected: 12/04/20 00:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/09/20 15:12	12/19/20 02:39	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:39	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/09/20 15:12	12/19/20 02:39	1
2-Chlorophenol	ND		5.0	0.53	ug/L		12/09/20 15:12	12/19/20 02:39	1
2-Methylphenol	ND		5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:39	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/09/20 15:12	12/19/20 02:39	1
2-Nitroaniline	ND		10	0.42	ug/L		12/09/20 15:12	12/19/20 02:39	1
2-Nitrophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/19/20 02:39	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:39	1
3-Nitroaniline	ND		10	0.48	ug/L		12/09/20 15:12	12/19/20 02:39	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		12/09/20 15:12	12/19/20 02:39	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/09/20 15:12	12/19/20 02:39	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		12/09/20 15:12	12/19/20 02:39	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/09/20 15:12	12/19/20 02:39	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/09/20 15:12	12/19/20 02:39	1
Methylphenol, 3 & 4	ND		10	0.36	ug/L		12/09/20 15:12	12/19/20 02:39	1
4-Nitroaniline	ND		10	0.25	ug/L		12/09/20 15:12	12/19/20 02:39	1
4-Nitrophenol	ND		10	1.5	ug/L		12/09/20 15:12	12/19/20 02:39	1
Acenaphthene	**2.5**	**J**	5.0	0.41	ug/L		12/09/20 15:12	12/19/20 02:39	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/09/20 15:12	12/19/20 02:39	1
Acetophenone	ND		5.0	0.54	ug/L		12/09/20 15:12	12/19/20 02:39	1
Anthracene	**0.45**	**J**	5.0	0.28	ug/L		12/09/20 15:12	12/19/20 02:39	1
Atrazine	ND		5.0	0.46	ug/L		12/09/20 15:12	12/19/20 02:39	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/09/20 15:12	12/19/20 02:39	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/19/20 02:39	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/19/20 02:39	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/19/20 02:39	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		12/09/20 15:12	12/19/20 02:39	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		12/09/20 15:12	12/19/20 02:39	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/09/20 15:12	12/19/20 02:39	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:39	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/09/20 15:12	12/19/20 02:39	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/09/20 15:12	12/19/20 02:39	1
Caprolactam	ND		5.0	2.2	ug/L		12/09/20 15:12	12/19/20 02:39	1
Carbazole	ND		5.0	0.30	ug/L		12/09/20 15:12	12/19/20 02:39	1
Chrysene	ND		5.0	0.33	ug/L		12/09/20 15:12	12/19/20 02:39	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/09/20 15:12	12/19/20 02:39	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/09/20 15:12	12/19/20 02:39	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/09/20 15:12	12/19/20 02:39	1
Dibenzofuran	ND		10	0.51	ug/L		12/09/20 15:12	12/19/20 02:39	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/09/20 15:12	12/19/20 02:39	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/09/20 15:12	12/19/20 02:39	1
Fluoranthene	**1.0**	**J**	5.0	0.40	ug/L		12/09/20 15:12	12/19/20 02:39	1
Fluorene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/19/20 02:39	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/09/20 15:12	12/19/20 02:39	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/09/20 15:12	12/19/20 02:39	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/09/20 15:12	12/19/20 02:39	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/09/20 15:12	12/19/20 02:39	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/19/20 02:39	1

Client Sample ID: QA-QC

Date Collected: 12/04/20 00:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		5.0	0.43	ug/L		12/09/20 15:12	12/19/20 02:39	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/09/20 15:12	12/19/20 02:39	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/09/20 15:12	12/19/20 02:39	1
Naphthalene	ND		5.0	0.76	ug/L		12/09/20 15:12	12/19/20 02:39	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/09/20 15:12	12/19/20 02:39	1
Pentachlorophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/19/20 02:39	1
Phenanthrene	**3.5**	**J**	5.0	0.44	ug/L		12/09/20 15:12	12/19/20 02:39	1
Phenol	ND		5.0	0.39	ug/L		12/09/20 15:12	12/19/20 02:39	1
Pyrene	**0.58**	**J**	5.0	0.34	ug/L		12/09/20 15:12	12/19/20 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*83*		*46 - 120*	*12/09/20 15:12*	*12/19/20 02:39*	*1*
Phenol-d5 (Surr)	*46*		*22 - 120*	*12/09/20 15:12*	*12/19/20 02:39*	*1*
p-Terphenyl-d14 (Surr)	*72*		*60 - 148*	*12/09/20 15:12*	*12/19/20 02:39*	*1*
2,4,6-Tribromophenol (Surr)	*76*		*41 - 120*	*12/09/20 15:12*	*12/19/20 02:39*	*1*
2-Fluorobiphenyl	*89*		*48 - 120*	*12/09/20 15:12*	*12/19/20 02:39*	*1*
2-Fluorophenol (Surr)	*61*		*35 - 120*	*12/09/20 15:12*	*12/19/20 02:39*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.9	2.3	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.48	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.56	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.24	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.83	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.26	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.30	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.1	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.53	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.3	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.71	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.55	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.52	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.31	ng/L		12/09/20 19:06	12/11/20 07:47	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.95	ng/L		12/09/20 19:06	12/11/20 07:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.9	1.2	ng/L		12/09/20 19:06	12/11/20 07:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.9	1.3	ng/L		12/09/20 19:06	12/11/20 07:47	1
6:2 FTS	ND		4.9	2.4	ng/L		12/09/20 19:06	12/11/20 07:47	1
8:2 FTS	ND		1.9	0.45	ng/L		12/09/20 19:06	12/11/20 07:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*47*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:47*	*1*
13C5 PFPeA	*55*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:47*	*1*
13C2 PFHxA	*66*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:47*	*1*
13C4 PFHpA	*67*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:47*	*1*
13C4 PFOA	*69*		*25 - 150*	*12/09/20 19:06*	*12/11/20 07:47*	*1*

Client Sample ID: QA-QC

Lab Sample ID: 480-179098-7

Date Collected: 12/04/20 00:00

Matrix: Water

Date Received: 12/08/20 10:30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	71		25 - 150	12/09/20 19:06	12/11/20 07:47	1
13C2 PFDA	64		25 - 150	12/09/20 19:06	12/11/20 07:47	1
13C2 PFUnA	52		25 - 150	12/09/20 19:06	12/11/20 07:47	1
13C2 PFDoA	44		25 - 150	12/09/20 19:06	12/11/20 07:47	1
13C2 PFTeDA	41		25 - 150	12/09/20 19:06	12/11/20 07:47	1
13C3 PFBS	68		25 - 150	12/09/20 19:06	12/11/20 07:47	1
18O2 PFHxS	73		25 - 150	12/09/20 19:06	12/11/20 07:47	1
13C4 PFOS	67		25 - 150	12/09/20 19:06	12/11/20 07:47	1
13C8 FOSA	71		25 - 150	12/09/20 19:06	12/11/20 07:47	1
d3-NMeFOSAA	57		25 - 150	12/09/20 19:06	12/11/20 07:47	1
d5-NEtFOSAA	63		25 - 150	12/09/20 19:06	12/11/20 07:47	1
M2-6:2 FTS	83		25 - 150	12/09/20 19:06	12/11/20 07:47	1
M2-8:2 FTS	69		25 - 150	12/09/20 19:06	12/11/20 07:47	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.1**		0.20	0.060	mg/L		12/10/20 10:00	12/11/20 21:27	1
Antimony	**0.021**		0.020	0.0068	mg/L		12/10/20 10:00	12/11/20 21:27	1
Arsenic	**0.040**		0.015	0.0056	mg/L		12/10/20 10:00	12/11/20 21:27	1
Barium	**0.25**	**^6+**	0.0020	0.00070	mg/L		12/10/20 10:00	12/11/20 21:27	1
Beryllium	ND		0.0020	0.00030	mg/L		12/10/20 10:00	12/11/20 21:27	1
Cadmium	**0.0014**	**J**	0.0020	0.00050	mg/L		12/10/20 10:00	12/11/20 21:27	1
Calcium	**124**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 21:27	1
Chromium	**0.0011**	**J**	0.0040	0.0010	mg/L		12/10/20 10:00	12/11/20 21:27	1
Cobalt	**0.00088**	**J**	0.0040	0.00063	mg/L		12/10/20 10:00	12/11/20 21:27	1
Copper	**0.012**		0.010	0.0016	mg/L		12/10/20 10:00	12/11/20 21:27	1
Iron	**16.4**	**B**	0.050	0.019	mg/L		12/10/20 10:00	12/11/20 21:27	1
Lead	**0.019**		0.010	0.0030	mg/L		12/10/20 10:00	12/11/20 21:27	1
Magnesium	**23.9**		0.20	0.043	mg/L		12/10/20 10:00	12/11/20 21:27	1
Manganese	**2.5**	**B**	0.0030	0.00040	mg/L		12/10/20 10:00	12/11/20 21:27	1
Nickel	**0.0020**	**J**	0.010	0.0013	mg/L		12/10/20 10:00	12/11/20 21:27	1
Potassium	**2.1**		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 21:27	1
Selenium	**0.023**	**J**	0.025	0.0087	mg/L		12/10/20 10:00	12/11/20 21:27	1
Silver	ND		0.0060	0.0017	mg/L		12/10/20 10:00	12/11/20 21:27	1
Sodium	**8.2**	**B**	1.0	0.32	mg/L		12/10/20 10:00	12/11/20 21:27	1
Thallium	ND		0.020	0.010	mg/L		12/10/20 10:00	12/11/20 21:27	1
Vanadium	**0.0024**	**J**	0.0050	0.0015	mg/L		12/10/20 10:00	12/11/20 21:27	1
Zinc	**0.031**	**B**	0.010	0.0015	mg/L		12/10/20 10:00	12/11/20 21:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/10/20 13:19	12/10/20 19:05	1

Client Sample ID: Equipment Blank

Lab Sample ID: 480-179098-8

Date Collected: 12/04/20 12:00

Matrix: Water

Date Received: 12/08/20 10:30

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6	2.2	ng/L		12/09/20 19:06	12/11/20 08:14	1

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: Equipment Blank

Date Collected: 12/04/20 12:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-8

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	ND		1.9	0.45	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorohexanoic acid (PFHxA)	ND		1.9	0.54	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.23	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorooctanoic acid (PFOA)	ND		1.9	0.79	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorononanoic acid (PFNA)	ND		1.9	0.25	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorodecanoic acid (PFDA)	ND		1.9	0.29	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorododecanoic acid (PFDoA)	ND		1.9	0.51	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.68	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.53	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.50	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30	ng/L		12/09/20 19:06	12/11/20 08:14	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.91	ng/L		12/09/20 19:06	12/11/20 08:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	1.1	ng/L		12/09/20 19:06	12/11/20 08:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	1.2	ng/L		12/09/20 19:06	12/11/20 08:14	1
6:2 FTS	ND		4.6	2.3	ng/L		12/09/20 19:06	12/11/20 08:14	1
8:2 FTS	ND		1.9	0.43	ng/L		12/09/20 19:06	12/11/20 08:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*100*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C5 PFPeA	*104*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C2 PFHxA	*99*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C4 PFHpA	*94*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C4 PFOA	*94*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C5 PFNA	*99*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C2 PFDA	*95*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C2 PFUnA	*93*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C2 PFDoA	*81*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C2 PFTeDA	*77*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C3 PFBS	*104*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
18O2 PFHxS	*104*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C4 PFOS	*99*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
13C8 FOSA	*100*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
d3-NMeFOSAA	*104*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
d5-NEtFOSAA	*119*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
M2-6:2 FTS	*99*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*
M2-8:2 FTS	*98*		*25 - 150*	*12/09/20 19:06*	*12/11/20 08:14*	*1*

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
		NBZ	PHL	TPHd14	TBP	FBP	2FP		
Lab Sample ID	Client Sample ID	(46-120)	(22-120)	(60-148)	(41-120)	(48-120)	(35-120)		
480-179098-1	GW-02	89	50	70	78	95	70		
480-179098-3	GW-04	84	46	61	84	96	66		
480-179098-5	GW-01	90	48	77	72	97	68		
480-179098-5 MS	GW-01	78	46	63	79	87	58		
480-179098-5 MSD	GW-01	89	52	69	91	100	66		
480-179098-6	GW-05B	84	48	62	93	92	67		
480-179098-7	QA-QC	83	46	72	76	89	61		
LCS 480-562572/2-A	Lab Control Sample	82	53	95	85	88	67		
MB 480-562572/1-A	Method Blank	88	49	104	77	94	66		

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

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

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		DXE							
Lab Sample ID	Client Sample ID	(15-110)							
480-179098-1	GW-02	24							
480-179098-2	GW-05	25							
480-179098-3	GW-04	24							
480-179098-4	GW-03	25							
480-179098-5	GW-01	27							
480-179098-5 MS	GW-01	25							
480-179098-5 MSD	GW-01	25							
480-179098-7	QA-QC	23							
LCS 480-562479/2-A	Lab Control Sample	29							
MB 480-562479/1-A	Method Blank	29							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	PFHxA	C4PFHA	PFOA	PFNA	PFDA	PFUnA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
480-179098-1	GW-02	58	73	86	87	91	95	91	87
480-179098-2	GW-05	15 *5	30	47	57	68	73	76	82
480-179098-3	GW-04	18 *5	35	54	67	75	84	90	81
480-179098-4	GW-03	29	49	58	67	75	82	81	71
480-179098-5	GW-01	96	121	144	143	144	147	139	119
480-179098-5 MS	GW-01	100	125	146	149	147	146	148	124
480-179098-5 MSD	GW-01	60	75	89	89	84	89	95	86
480-179098-7	QA-QC	47	55	66	67	69	71	64	52
480-179098-8	Equipment Blank	100	104	99	94	94	99	95	93
LCS 320-440511/2-A	Lab Control Sample	81	83	81	76	80	81	78	82
MB 320-440511/1-A	Method Blank	105	108	106	101	99	102	105	101

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFDoA	PFTDA	C3PFBS	PFHxS	PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
480-179098-1	GW-02	75	74	90	95	92	100	85	99
480-179098-2	GW-05	62	69	73	82	83	85	68	88
480-179098-3	GW-04	77	77	75	93	95	94	77	97
480-179098-4	GW-03	67	38	71	80	79	79	64	71
480-179098-5	GW-01	113	91	128	136	125	150	121	132
480-179098-5 MS	GW-01	95	83	130	137	127	154 *5	120	136
480-179098-5 MSD	GW-01	78	77	91	96	91	100	83	95
480-179098-7	QA-QC	44	41	68	73	67	71	57	63
480-179098-8	Equipment Blank	81	77	104	104	99	100	104	119
LCS 320-440511/2-A	Lab Control Sample	73	71	83	84	79	87	98	110
MB 320-440511/1-A	Method Blank	85	84	108	109	103	106	111	121

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS						
Lab Sample ID	Client Sample ID	(25-150)	(25-150)						
480-179098-1	GW-02	118	110						
480-179098-2	GW-05	105	117						

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)								
480-179098-3	GW-04	123	137								
480-179098-4	GW-03	105	96								
480-179098-5	GW-01	176 *5	149								
480-179098-5 MS	GW-01	175 *5	162 *5								
480-179098-5 MSD	GW-01	110	95								
480-179098-7	QA-QC	83	69								
480-179098-8	Equipment Blank	99	98								
LCS 320-440511/2-A	Lab Control Sample	81	79								
MB 320-440511/1-A	Method Blank	105	99								

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

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

Lab Sample ID: MB 480-562572/1-A
Matrix: Water
Analysis Batch: 563843

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 562572

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		12/09/20 15:12	12/18/20 21:01	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/09/20 15:12	12/18/20 21:01	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/18/20 21:01	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		12/09/20 15:12	12/18/20 21:01	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		12/09/20 15:12	12/18/20 21:01	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		12/09/20 15:12	12/18/20 21:01	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/18/20 21:01	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/09/20 15:12	12/18/20 21:01	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/18/20 21:01	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/09/20 15:12	12/18/20 21:01	1
2-Chlorophenol	ND		5.0	0.53	ug/L		12/09/20 15:12	12/18/20 21:01	1
2-Methylphenol	ND		5.0	0.40	ug/L		12/09/20 15:12	12/18/20 21:01	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/09/20 15:12	12/18/20 21:01	1
2-Nitroaniline	ND		10	0.42	ug/L		12/09/20 15:12	12/18/20 21:01	1
2-Nitrophenol	ND		5.0	0.48	ug/L		12/09/20 15:12	12/18/20 21:01	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		12/09/20 15:12	12/18/20 21:01	1
3-Nitroaniline	ND		10	0.48	ug/L		12/09/20 15:12	12/18/20 21:01	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		12/09/20 15:12	12/18/20 21:01	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/09/20 15:12	12/18/20 21:01	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		12/09/20 15:12	12/18/20 21:01	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/09/20 15:12	12/18/20 21:01	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/09/20 15:12	12/18/20 21:01	1
Methylphenol, 3 & 4	ND		10	0.36	ug/L		12/09/20 15:12	12/18/20 21:01	1
4-Nitroaniline	ND		10	0.25	ug/L		12/09/20 15:12	12/18/20 21:01	1
4-Nitrophenol	ND		10	1.5	ug/L		12/09/20 15:12	12/18/20 21:01	1
Acenaphthene	ND		5.0	0.41	ug/L		12/09/20 15:12	12/18/20 21:01	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/09/20 15:12	12/18/20 21:01	1
Acetophenone	ND		5.0	0.54	ug/L		12/09/20 15:12	12/18/20 21:01	1
Anthracene	ND		5.0	0.28	ug/L		12/09/20 15:12	12/18/20 21:01	1
Atrazine	ND		5.0	0.46	ug/L		12/09/20 15:12	12/18/20 21:01	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/09/20 15:12	12/18/20 21:01	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/18/20 21:01	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/18/20 21:01	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/18/20 21:01	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		12/09/20 15:12	12/18/20 21:01	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		12/09/20 15:12	12/18/20 21:01	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/09/20 15:12	12/18/20 21:01	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/09/20 15:12	12/18/20 21:01	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/09/20 15:12	12/18/20 21:01	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/09/20 15:12	12/18/20 21:01	1
Caprolactam	ND		5.0	2.2	ug/L		12/09/20 15:12	12/18/20 21:01	1
Carbazole	ND		5.0	0.30	ug/L		12/09/20 15:12	12/18/20 21:01	1
Chrysene	ND		5.0	0.33	ug/L		12/09/20 15:12	12/18/20 21:01	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/09/20 15:12	12/18/20 21:01	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/09/20 15:12	12/18/20 21:01	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/09/20 15:12	12/18/20 21:01	1
Dibenzofuran	ND		10	0.51	ug/L		12/09/20 15:12	12/18/20 21:01	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/09/20 15:12	12/18/20 21:01	1

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

Lab Sample ID: MB 480-562572/1-A
Matrix: Water
Analysis Batch: 563843

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 562572

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/09/20 15:12	12/18/20 21:01	1
Fluoranthene	ND		5.0	0.40	ug/L		12/09/20 15:12	12/18/20 21:01	1
Fluorene	ND		5.0	0.36	ug/L		12/09/20 15:12	12/18/20 21:01	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/09/20 15:12	12/18/20 21:01	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/09/20 15:12	12/18/20 21:01	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/09/20 15:12	12/18/20 21:01	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/09/20 15:12	12/18/20 21:01	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		12/09/20 15:12	12/18/20 21:01	1
Isophorone	ND		5.0	0.43	ug/L		12/09/20 15:12	12/18/20 21:01	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/09/20 15:12	12/18/20 21:01	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/09/20 15:12	12/18/20 21:01	1
Naphthalene	ND		5.0	0.76	ug/L		12/09/20 15:12	12/18/20 21:01	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/09/20 15:12	12/18/20 21:01	1
Pentachlorophenol	ND		10	2.2	ug/L		12/09/20 15:12	12/18/20 21:01	1
Phenanthrene	ND		5.0	0.44	ug/L		12/09/20 15:12	12/18/20 21:01	1
Phenol	ND		5.0	0.39	ug/L		12/09/20 15:12	12/18/20 21:01	1
Pyrene	ND		5.0	0.34	ug/L		12/09/20 15:12	12/18/20 21:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*46 - 120*	*12/09/20 15:12*	*12/18/20 21:01*	*1*
Phenol-d5 (Surr)	*49*		*22 - 120*	*12/09/20 15:12*	*12/18/20 21:01*	*1*
p-Terphenyl-d14 (Surr)	*104*		*60 - 148*	*12/09/20 15:12*	*12/18/20 21:01*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*41 - 120*	*12/09/20 15:12*	*12/18/20 21:01*	*1*
2-Fluorobiphenyl	*94*		*48 - 120*	*12/09/20 15:12*	*12/18/20 21:01*	*1*
2-Fluorophenol (Surr)	*66*		*35 - 120*	*12/09/20 15:12*	*12/18/20 21:01*	*1*

Lab Sample ID: LCS 480-562572/2-A
Matrix: Water
Analysis Batch: 563843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 562572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	32.0	27.8		ug/L		87	59 - 120
bis (2-chloroisopropyl) ether	32.0	24.3		ug/L		76	21 - 136
2,4,5-Trichlorophenol	32.0	28.6		ug/L		89	65 - 126
2,4,6-Trichlorophenol	32.0	32.1		ug/L		100	64 - 120
2,4-Dichlorophenol	32.0	31.3		ug/L		98	63 - 120
2,4-Dimethylphenol	32.0	27.8		ug/L		87	47 - 120
2,4-Dinitrophenol	64.0	46.4		ug/L		72	31 - 137
2,4-Dinitrotoluene	32.0	30.9		ug/L		96	69 - 120
2,6-Dinitrotoluene	32.0	28.1		ug/L		88	68 - 120
2-Chloronaphthalene	32.0	26.4		ug/L		82	58 - 120
2-Chlorophenol	32.0	26.6		ug/L		83	48 - 120
2-Methylphenol	32.0	28.0		ug/L		87	39 - 120
2-Methylnaphthalene	32.0	28.3		ug/L		89	59 - 120
2-Nitroaniline	32.0	24.5		ug/L		77	54 - 127
2-Nitrophenol	32.0	29.4		ug/L		92	52 - 125
3,3'-Dichlorobenzidine	64.0	52.7		ug/L		82	49 - 135
3-Nitroaniline	32.0	25.2		ug/L		79	51 - 120

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

Lab Sample ID: LCS 480-562572/2-A
Matrix: Water
Analysis Batch: 563843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 562572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,6-Dinitro-2-methylphenol	64.0	52.9		ug/L		83	46 - 136
4-Bromophenyl phenyl ether	32.0	28.9		ug/L		90	65 - 120
4-Chloro-3-methylphenol	32.0	29.4		ug/L		92	61 - 123
4-Chloroaniline	32.0	25.8		ug/L		80	30 - 120
4-Chlorophenyl phenyl ether	32.0	28.6		ug/L		89	62 - 120
Methylphenol, 3 & 4	32.0	27.5		ug/L		86	29 - 131
4-Nitroaniline	32.0	28.7		ug/L		90	65 - 120
4-Nitrophenol	64.0	44.6		ug/L		70	45 - 120
Acenaphthene	32.0	29.3		ug/L		91	60 - 120
Acenaphthylene	32.0	29.3		ug/L		92	63 - 120
Acetophenone	32.0	29.1		ug/L		91	45 - 120
Anthracene	32.0	29.8		ug/L		93	67 - 120
Atrazine	64.0	71.0		ug/L		111	71 - 130
Benzaldehyde	64.0	53.1		ug/L		83	10 - 140
Benzo[a]anthracene	32.0	29.9		ug/L		93	70 - 121
Benzo[a]pyrene	32.0	34.5		ug/L		108	60 - 123
Benzo[b]fluoranthene	32.0	38.3		ug/L		120	66 - 126
Benzo[g,h,i]perylene	32.0	37.5		ug/L		117	66 - 150
Benzo[k]fluoranthene	32.0	36.5		ug/L		114	65 - 124
Bis(2-chloroethoxy)methane	32.0	28.5		ug/L		89	50 - 128
Bis(2-chloroethyl)ether	32.0	25.0		ug/L		78	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	32.2		ug/L		101	63 - 139
Butyl benzyl phthalate	32.0	32.2		ug/L		101	70 - 129
Caprolactam	64.0	22.7		ug/L		35	22 - 120
Carbazole	32.0	29.9		ug/L		93	66 - 123
Chrysene	32.0	29.2		ug/L		91	69 - 120
Dibenz(a,h)anthracene	32.0	34.9		ug/L		109	65 - 135
Di-n-butyl phthalate	32.0	30.9		ug/L		97	69 - 131
Di-n-octyl phthalate	32.0	33.1		ug/L		103	63 - 140
Dibenzofuran	32.0	29.4		ug/L		92	66 - 120
Diethyl phthalate	32.0	31.0		ug/L		97	59 - 127
Dimethyl phthalate	32.0	29.7		ug/L		93	68 - 120
Fluoranthene	32.0	30.4		ug/L		95	69 - 126
Fluorene	32.0	30.5		ug/L		95	66 - 120
Hexachlorobenzene	32.0	27.8		ug/L		87	61 - 120
Hexachlorobutadiene	32.0	24.1		ug/L		75	35 - 120
Hexachlorocyclopentadiene	32.0	16.0		ug/L		50	31 - 120
Hexachloroethane	32.0	24.4		ug/L		76	43 - 120
Indeno[1,2,3-cd]pyrene	32.0	34.7		ug/L		108	69 - 146
Isophorone	32.0	29.0		ug/L		91	55 - 120
N-Nitrosodi-n-propylamine	32.0	28.0		ug/L		88	32 - 140
N-Nitrosodiphenylamine	32.0	28.7		ug/L		90	61 - 120
Naphthalene	32.0	27.4		ug/L		86	57 - 120
Nitrobenzene	32.0	26.1		ug/L		82	53 - 123
Pentachlorophenol	64.0	42.3		ug/L		66	29 - 136
Phenanthrene	32.0	30.2		ug/L		94	68 - 120
Phenol	32.0	17.3		ug/L		54	17 - 120
Pyrene	32.0	32.3		ug/L		101	70 - 125

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

Lab Sample ID: LCS 480-562572/2-A
Matrix: Water
Analysis Batch: 563843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 562572

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*82*		*46 - 120*
Phenol-d5 (Surr)	*53*		*22 - 120*
p-Terphenyl-d14 (Surr)	*95*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*85*		*41 - 120*
2-Fluorobiphenyl	*88*		*48 - 120*
2-Fluorophenol (Surr)	*67*		*35 - 120*

Lab Sample ID: 480-179098-5 MS
Matrix: Water
Analysis Batch: 563323

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562572

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	ND		32.0	26.4		ug/L		83	57 - 120
bis (2-chloroisopropyl) ether	ND		32.0	24.1		ug/L		75	28 - 121
2,4,5-Trichlorophenol	ND		32.0	28.4		ug/L		89	65 - 126
2,4,6-Trichlorophenol	ND		32.0	31.0		ug/L		97	64 - 120
2,4-Dichlorophenol	ND		32.0	29.3		ug/L		92	48 - 132
2,4-Dimethylphenol	ND		32.0	25.9		ug/L		81	39 - 130
2,4-Dinitrophenol	ND		64.0	48.5		ug/L		76	21 - 150
2,4-Dinitrotoluene	ND		32.0	30.0		ug/L		94	54 - 138
2,6-Dinitrotoluene	ND		32.0	27.8		ug/L		87	17 - 150
2-Chloronaphthalene	ND		32.0	25.1		ug/L		79	52 - 124
2-Chlorophenol	ND		32.0	25.2		ug/L		79	48 - 120
2-Methylphenol	ND		32.0	26.4		ug/L		82	46 - 120
2-Methylnaphthalene	ND		32.0	26.6		ug/L		83	34 - 140
2-Nitroaniline	ND	F2	32.0	23.6		ug/L		74	44 - 136
2-Nitrophenol	ND		32.0	27.6		ug/L		86	38 - 141
3,3'-Dichlorobenzidine	ND		64.0	48.7		ug/L		76	10 - 150
3-Nitroaniline	ND		32.0	23.9		ug/L		75	32 - 150
4,6-Dinitro-2-methylphenol	ND		64.0	54.8		ug/L		86	38 - 150
4-Bromophenyl phenyl ether	ND		32.0	26.2		ug/L		82	63 - 126
4-Chloro-3-methylphenol	ND		32.0	26.8		ug/L		84	64 - 127
4-Chloroaniline	ND		32.0	22.4		ug/L		70	16 - 124
4-Chlorophenyl phenyl ether	ND		32.0	27.5		ug/L		86	61 - 120
Methylphenol, 3 & 4	ND		32.0	26.0		ug/L		81	36 - 120
4-Nitroaniline	ND		32.0	27.6		ug/L		86	32 - 150
4-Nitrophenol	ND		64.0	38.3		ug/L		60	23 - 132
Acenaphthene	ND		32.0	28.9		ug/L		90	48 - 120
Acenaphthylene	ND		32.0	28.7		ug/L		90	63 - 120
Acetophenone	ND		32.0	28.3		ug/L		88	53 - 120
Anthracene	ND		32.0	28.0		ug/L		88	65 - 122
Atrazine	ND		64.0	67.3		ug/L		105	50 - 150
Benzaldehyde	ND		64.0	49.8		ug/L		78	10 - 150
Benzo[a]anthracene	ND		32.0	25.8		ug/L		81	43 - 124
Benzo[a]pyrene	ND		32.0	28.6		ug/L		89	23 - 125
Benzo[b]fluoranthene	ND		32.0	30.8		ug/L		96	27 - 127
Benzo[g,h,i]perylene	ND		32.0	29.3		ug/L		92	16 - 147
Benzo[k]fluoranthene	ND		32.0	29.6		ug/L		93	20 - 124

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

Lab Sample ID: 480-179098-5 MS
Matrix: Water
Analysis Batch: 563323

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562572

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethoxy)methane	ND		32.0	26.6		ug/L		83	44 - 128
Bis(2-chloroethyl)ether	ND		32.0	24.9		ug/L		78	45 - 120
Bis(2-ethylhexyl) phthalate	ND		32.0	25.0		ug/L		78	16 - 150
Butyl benzyl phthalate	ND		32.0	27.6		ug/L		86	51 - 140
Caprolactam	ND		64.0	20.3		ug/L		32	10 - 120
Carbazole	ND		32.0	29.5		ug/L		92	16 - 148
Chrysene	ND		32.0	24.4		ug/L		76	44 - 122
Dibenz(a,h)anthracene	ND		32.0	27.4		ug/L		86	16 - 139
Di-n-butyl phthalate	ND		32.0	27.4		ug/L		86	65 - 129
Di-n-octyl phthalate	ND		32.0	25.4		ug/L		79	16 - 150
Dibenzofuran	ND		32.0	28.9		ug/L		90	60 - 120
Diethyl phthalate	ND		32.0	30.1		ug/L		94	53 - 133
Dimethyl phthalate	ND		32.0	29.0		ug/L		90	59 - 123
Fluoranthene	ND		32.0	28.0		ug/L		87	63 - 129
Fluorene	ND		32.0	29.8		ug/L		93	62 - 120
Hexachlorobenzene	ND		32.0	24.6		ug/L		77	57 - 121
Hexachlorobutadiene	ND		32.0	20.3		ug/L		64	37 - 120
Hexachlorocyclopentadiene	ND		32.0	15.1		ug/L		47	21 - 120
Hexachloroethane	ND		32.0	22.6		ug/L		71	16 - 130
Indeno[1,2,3-cd]pyrene	ND		32.0	27.4		ug/L		86	16 - 140
Isophorone	ND		32.0	27.4		ug/L		86	48 - 133
N-Nitrosodi-n-propylamine	ND		32.0	26.5		ug/L		83	49 - 120
N-Nitrosodiphenylamine	ND		32.0	27.7		ug/L		87	39 - 138
Naphthalene	ND		32.0	25.4		ug/L		79	45 - 120
Nitrobenzene	ND		32.0	24.7		ug/L		77	45 - 123
Pentachlorophenol	ND		64.0	43.6		ug/L		68	23 - 149
Phenanthrene	ND		32.0	29.6		ug/L		92	65 - 122
Phenol	ND		32.0	15.3		ug/L		48	16 - 120
Pyrene	ND		32.0	28.4		ug/L		89	58 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*78*		*46 - 120*
Phenol-d5 (Surr)	*46*		*22 - 120*
p-Terphenyl-d14 (Surr)	*63*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*79*		*41 - 120*
2-Fluorobiphenyl	*87*		*48 - 120*
2-Fluorophenol (Surr)	*58*		*35 - 120*

Lab Sample ID: 480-179098-5 MSD
Matrix: Water
Analysis Batch: 563323

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562572

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biphenyl	ND		32.0	30.9		ug/L		97	57 - 120	16	20
bis (2-chloroisopropyl) ether	ND		32.0	27.4		ug/L		85	28 - 121	13	24
2,4,5-Trichlorophenol	ND		32.0	31.4		ug/L		98	65 - 126	10	18
2,4,6-Trichlorophenol	ND		32.0	36.7		ug/L		115	64 - 120	17	19
2,4-Dichlorophenol	ND		32.0	33.3		ug/L		104	48 - 132	13	19

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

Lab Sample ID: 480-179098-5 MSD
Matrix: Water
Analysis Batch: 563323

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562572

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dimethylphenol	ND		32.0	29.1		ug/L		91	39 - 130	12	42
2,4-Dinitrophenol	ND		64.0	59.0		ug/L		92	21 - 150	20	22
2,4-Dinitrotoluene	ND		32.0	34.1		ug/L		106	54 - 138	13	20
2,6-Dinitrotoluene	ND		32.0	31.4		ug/L		98	17 - 150	12	15
2-Chloronaphthalene	ND		32.0	29.5		ug/L		92	52 - 124	16	21
2-Chlorophenol	ND		32.0	28.0		ug/L		87	48 - 120	11	25
2-Methylphenol	ND		32.0	28.9		ug/L		90	46 - 120	9	27
2-Methylnaphthalene	ND		32.0	30.3		ug/L		95	34 - 140	13	21
2-Nitroaniline	ND	F2	32.0	27.9	F2	ug/L		87	44 - 136	17	15
2-Nitrophenol	ND		32.0	31.5		ug/L		98	38 - 141	13	18
3,3'-Dichlorobenzidine	ND		64.0	56.7		ug/L		89	10 - 150	15	25
3-Nitroaniline	ND		32.0	25.7		ug/L		80	32 - 150	7	19
4,6-Dinitro-2-methylphenol	ND		64.0	60.8		ug/L		95	38 - 150	10	15
4-Bromophenyl phenyl ether	ND		32.0	29.7		ug/L		93	63 - 126	13	15
4-Chloro-3-methylphenol	ND		32.0	29.9		ug/L		94	64 - 127	11	27
4-Chloroaniline	ND		32.0	25.3		ug/L		79	16 - 124	12	22
4-Chlorophenyl phenyl ether	ND		32.0	32.1		ug/L		100	61 - 120	15	16
Methylphenol, 3 & 4	ND		32.0	28.5		ug/L		89	36 - 120	9	24
4-Nitroaniline	ND		32.0	31.1		ug/L		97	32 - 150	12	24
4-Nitrophenol	ND		64.0	38.8		ug/L		61	23 - 132	2	48
Acenaphthene	ND		32.0	33.0		ug/L		103	48 - 120	13	24
Acenaphthylene	ND		32.0	32.9		ug/L		103	63 - 120	14	18
Acetophenone	ND		32.0	31.6		ug/L		99	53 - 120	11	20
Anthracene	ND		32.0	30.3		ug/L		95	65 - 122	8	15
Atrazine	ND		64.0	75.5		ug/L		118	50 - 150	11	20
Benzaldehyde	ND		64.0	57.5		ug/L		90	10 - 150	14	20
Benzo[a]anthracene	ND		32.0	29.7		ug/L		93	43 - 124	14	15
Benzo[a]pyrene	ND		32.0	31.0		ug/L		97	23 - 125	8	15
Benzo[b]fluoranthene	ND		32.0	32.9		ug/L		103	27 - 127	6	15
Benzo[g,h,i]perylene	ND		32.0	31.6		ug/L		99	16 - 147	8	15
Benzo[k]fluoranthene	ND		32.0	32.9		ug/L		103	20 - 124	10	22
Bis(2-chloroethoxy)methane	ND		32.0	31.0		ug/L		97	44 - 128	15	17
Bis(2-chloroethyl)ether	ND		32.0	28.4		ug/L		89	45 - 120	13	21
Bis(2-ethylhexyl) phthalate	ND		32.0	28.1		ug/L		88	16 - 150	12	15
Butyl benzyl phthalate	ND		32.0	32.2		ug/L		101	51 - 140	16	16
Caprolactam	ND		64.0	22.7		ug/L		35	10 - 120	11	20
Carbazole	ND		32.0	31.1		ug/L		97	16 - 148	6	20
Chrysene	ND		32.0	28.1		ug/L		88	44 - 122	14	15
Dibenz(a,h)anthracene	ND		32.0	29.9		ug/L		93	16 - 139	9	15
Di-n-butyl phthalate	ND		32.0	30.0		ug/L		94	65 - 129	9	15
Di-n-octyl phthalate	ND		32.0	29.6		ug/L		92	16 - 150	15	16
Dibenzofuran	ND		32.0	33.0		ug/L		103	60 - 120	13	15
Diethyl phthalate	ND		32.0	34.5		ug/L		108	53 - 133	14	15
Dimethyl phthalate	ND		32.0	33.0		ug/L		103	59 - 123	13	15
Fluoranthene	ND		32.0	31.4		ug/L		98	63 - 129	11	15
Fluorene	ND		32.0	34.3		ug/L		107	62 - 120	14	15
Hexachlorobenzene	ND		32.0	27.5		ug/L		86	57 - 121	11	15
Hexachlorobutadiene	ND		32.0	23.4		ug/L		73	37 - 120	14	44
Hexachlorocyclopentadiene	ND		32.0	16.9		ug/L		53	21 - 120	11	49

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

Lab Sample ID: 480-179098-5 MSD
Matrix: Water
Analysis Batch: 563323

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562572

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachloroethane	ND		32.0	25.9		ug/L		81	16 - 130	14	46
Indeno[1,2,3-cd]pyrene	ND		32.0	30.5		ug/L		95	16 - 140	11	15
Isophorone	ND		32.0	31.2		ug/L		97	48 - 133	13	17
N-Nitrosodi-n-propylamine	ND		32.0	30.3		ug/L		95	49 - 120	13	31
N-Nitrosodiphenylamine	ND		32.0	31.9		ug/L		100	39 - 138	14	15
Naphthalene	ND		32.0	29.0		ug/L		91	45 - 120	13	29
Nitrobenzene	ND		32.0	28.3		ug/L		88	45 - 123	14	24
Pentachlorophenol	ND		64.0	50.5		ug/L		79	23 - 149	15	37
Phenanthrene	ND		32.0	34.2		ug/L		107	65 - 122	14	15
Phenol	ND		32.0	17.3		ug/L		54	16 - 120	12	34
Pyrene	ND		32.0	33.6		ug/L		105	58 - 128	17	19

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*89*		*46 - 120*
Phenol-d5 (Surr)	*52*		*22 - 120*
p-Terphenyl-d14 (Surr)	*69*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*91*		*41 - 120*
2-Fluorobiphenyl	*100*		*48 - 120*
2-Fluorophenol (Surr)	*66*		*35 - 120*

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

Lab Sample ID: MB 480-562479/1-A
Matrix: Water
Analysis Batch: 562773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 562479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		12/09/20 09:01	12/10/20 21:12	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*		*15 - 110*	*12/09/20 09:01*	*12/10/20 21:12*	*1*

Lab Sample ID: LCS 480-562479/2-A
Matrix: Water
Analysis Batch: 562773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 562479

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			1.00	1.09		ug/L		109	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*29*		*15 - 110*

Lab Sample ID: 480-179098-5 MS
Matrix: Water
Analysis Batch: 562773

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562479

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	ND		0.952	1.05		ug/L		110	40 - 140		

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

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
1,4-Dioxane-d8	25		15 - 110

Lab Sample ID: 480-179098-5 MSD
Matrix: Water
Analysis Batch: 562773

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562479

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	ND		0.952	1.05		ug/L		110	40 - 140	0	20

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
1,4-Dioxane-d8	25		15 - 110

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-440511/1-A
Matrix: Water
Analysis Batch: 440834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 440511

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0	2.4	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.49	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.58	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.25	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.85	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.31	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.55	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.73	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.57	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.54	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.32	ng/L		12/09/20 19:06	12/11/20 06:25	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.98	ng/L		12/09/20 19:06	12/11/20 06:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0	1.2	ng/L		12/09/20 19:06	12/11/20 06:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	1.3	ng/L		12/09/20 19:06	12/11/20 06:25	1
6:2 FTS	ND		5.0	2.5	ng/L		12/09/20 19:06	12/11/20 06:25	1
8:2 FTS	ND		2.0	0.46	ng/L		12/09/20 19:06	12/11/20 06:25	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	105		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C5 PFPeA	108		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C2 PFHxA	106		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C4 PFHpA	101		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C4 PFOA	99		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C5 PFNA	102		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C2 PFDA	105		25 - 150	12/09/20 19:06	12/11/20 06:25	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-440511/1-A
Matrix: Water
Analysis Batch: 440834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 440511

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	101		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C2 PFDoA	85		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C2 PFTeDA	84		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C3 PFBS	108		25 - 150	12/09/20 19:06	12/11/20 06:25	1
18O2 PFHxS	109		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C4 PFOS	103		25 - 150	12/09/20 19:06	12/11/20 06:25	1
13C8 FOSA	106		25 - 150	12/09/20 19:06	12/11/20 06:25	1
d3-NMeFOSAA	111		25 - 150	12/09/20 19:06	12/11/20 06:25	1
d5-NEtFOSAA	121		25 - 150	12/09/20 19:06	12/11/20 06:25	1
M2-6:2 FTS	105		25 - 150	12/09/20 19:06	12/11/20 06:25	1
M2-8:2 FTS	99		25 - 150	12/09/20 19:06	12/11/20 06:25	1

Lab Sample ID: LCS 320-440511/2-A
Matrix: Water
Analysis Batch: 441208

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 440511

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	51.3		ng/L		128	76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	46.7		ng/L		117	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	47.7		ng/L		119	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	49.9		ng/L		125	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	46.3		ng/L		116	70 - 130
Perfluorononanoic acid (PFNA)	40.0	46.6		ng/L		116	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	51.6		ng/L		129	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	47.7		ng/L		119	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	51.3		ng/L		128	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	52.6		ng/L		131	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	51.1		ng/L		128	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	42.5		ng/L		120	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	41.5		ng/L		114	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	50.8		ng/L		133	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	47.2		ng/L		127	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	51.5	*	ng/L		134	71 - 131
Perfluorooctanesulfonamide (FOSA)	40.0	49.9		ng/L		125	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	48.1		ng/L		120	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	45.6		ng/L		114	76 - 136
6:2 FTS	37.9	45.5		ng/L		120	59 - 175
8:2 FTS	38.3	48.9		ng/L		128	75 - 135

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	81		25 - 150
13C5 PFPeA	83		25 - 150
13C2 PFHxA	81		25 - 150
13C4 PFHpA	76		25 - 150
13C4 PFOA	80		25 - 150
13C5 PFNA	81		25 - 150
13C2 PFDA	78		25 - 150
13C2 PFUnA	82		25 - 150
13C2 PFDoA	73		25 - 150
13C2 PFTeDA	71		25 - 150
13C3 PFBS	83		25 - 150
18O2 PFHxS	84		25 - 150
13C4 PFOS	79		25 - 150
13C8 FOSA	87		25 - 150
d3-NMeFOSAA	98		25 - 150
d5-NEtFOSAA	110		25 - 150
M2-6:2 FTS	81		25 - 150
M2-8:2 FTS	79		25 - 150

Lab Sample ID: 480-179098-5 MS
Matrix: Water
Analysis Batch: 440834

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 440511

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	ND	F1	37.5	49.9		ng/L		133	76 - 136
Perfluoropentanoic acid (PFPeA)	ND		37.5	43.8		ng/L		117	71 - 131
Perfluorohexanoic acid (PFHxA)	ND		37.5	44.3		ng/L		118	73 - 133
Perfluoroheptanoic acid (PFHpA)	ND		37.5	45.3		ng/L		121	72 - 132
Perfluorooctanoic acid (PFOA)	ND		37.5	45.2		ng/L		121	70 - 130
Perfluorononanoic acid (PFNA)	ND		37.5	46.3		ng/L		124	75 - 135
Perfluorodecanoic acid (PFDA)	ND		37.5	45.8		ng/L		122	76 - 136
Perfluoroundecanoic acid (PFUnA)	ND		37.5	44.0		ng/L		117	68 - 128
Perfluorododecanoic acid (PFDoA)	ND	F1	37.5	50.4	F1	ng/L		134	71 - 131
Perfluorotridecanoic acid (PFTriA)	ND		37.5	45.1		ng/L		120	71 - 131
Perfluorotetradecanoic acid (PFTeA)	ND	F1	37.5	51.0	F1	ng/L		136	70 - 130
Perfluorobutanesulfonic acid (PFBS)	0.35	J	33.2	41.1		ng/L		123	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	ND		34.1	38.9		ng/L		114	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	ND		35.7	47.0		ng/L		132	76 - 136
Perfluorooctanesulfonic acid (PFOS)	ND		34.8	44.4		ng/L		128	70 - 130
Perfluorodecanesulfonic acid (PFDS)	ND	*	36.2	39.3		ng/L		109	71 - 131
Perfluorooctanesulfonamide (FOSA)	ND		37.5	47.5		ng/L		127	73 - 133
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		37.5	46.1		ng/L		123	76 - 136
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		37.5	43.0		ng/L		115	76 - 136

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 480-179098-5 MS
Matrix: Water
Analysis Batch: 440834

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 440511

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
6:2 FTS	ND		35.6	44.0		ng/L		124	59 - 175
8:2 FTS	ND		35.9	45.8		ng/L		127	75 - 135

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFBA	*100*		*25 - 150*
13C5 PFPeA	*125*		*25 - 150*
13C2 PFHxA	*146*		*25 - 150*
13C4 PFHpA	*149*		*25 - 150*
13C4 PFOA	*147*		*25 - 150*
13C5 PFNA	*146*		*25 - 150*
13C2 PFDA	*148*		*25 - 150*
13C2 PFUnA	*124*		*25 - 150*
13C2 PFDoA	*95*		*25 - 150*
13C2 PFTeDA	*83*		*25 - 150*
13C3 PFBS	*130*		*25 - 150*
18O2 PFHxS	*137*		*25 - 150*
13C4 PFOS	*127*		*25 - 150*
13C8 FOSA	*154*	**5*	*25 - 150*
d3-NMeFOSAA	*120*		*25 - 150*
d5-NEtFOSAA	*136*		*25 - 150*
M2-6:2 FTS	*175*	**5*	*25 - 150*
M2-8:2 FTS	*162*	**5*	*25 - 150*

Lab Sample ID: 480-179098-5 MSD
Matrix: Water
Analysis Batch: 440834

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 440511

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	ND	F1	36.4	51.7	F1	ng/L		142	76 - 136	3	30
Perfluoropentanoic acid (PFPeA)	ND		36.4	41.0		ng/L		112	71 - 131	7	30
Perfluorohexanoic acid (PFHxA)	ND		36.4	42.5		ng/L		117	73 - 133	4	30
Perfluoroheptanoic acid (PFHpA)	ND		36.4	46.0		ng/L		126	72 - 132	1	30
Perfluorooctanoic acid (PFOA)	ND		36.4	46.0		ng/L		126	70 - 130	2	30
Perfluorononanoic acid (PFNA)	ND		36.4	46.4		ng/L		127	75 - 135	0	30
Perfluorodecanoic acid (PFDA)	ND		36.4	42.1		ng/L		115	76 - 136	8	30
Perfluoroundecanoic acid (PFUnA)	ND		36.4	45.7		ng/L		125	68 - 128	4	30
Perfluorododecanoic acid (PFDoA)	ND	F1	36.4	40.7		ng/L		112	71 - 131	21	30
Perfluorotridecanoic acid (PFTriA)	ND		36.4	47.1		ng/L		129	71 - 131	4	30
Perfluorotetradecanoic acid (PFTeA)	ND	F1	36.4	44.7		ng/L		123	70 - 130	13	30
Perfluorobutanesulfonic acid (PFBS)	0.35	J	32.2	40.1		ng/L		123	67 - 127	2	30
Perfluorohexanesulfonic acid (PFHxS)	ND		33.2	38.1		ng/L		115	59 - 119	2	30
Perfluoroheptanesulfonic Acid (PFHpS)	ND		34.7	46.3		ng/L		134	76 - 136	1	30
Perfluorooctanesulfonic acid (PFOS)	ND		33.8	42.8		ng/L		126	70 - 130	4	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 480-179098-5 MSD
Matrix: Water
Analysis Batch: 440834

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 440511

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorodecanesulfonic acid (PFDS)	ND	*	35.1	39.7		ng/L		113	71 - 131	1	30
Perfluorooctanesulfonamide (FOSA)	ND		36.4	45.2		ng/L		124	73 - 133	5	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		36.4	45.1		ng/L		124	76 - 136	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		36.4	40.1		ng/L		110	76 - 136	7	30
6:2 FTS	ND		34.5	42.0		ng/L		122	59 - 175	5	30
8:2 FTS	ND		34.9	45.9		ng/L		131	75 - 135	0	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFBA	*60*		*25 - 150*
13C5 PFPeA	*75*		*25 - 150*
13C2 PFHxA	*89*		*25 - 150*
13C4 PFHpA	*89*		*25 - 150*
13C4 PFOA	*84*		*25 - 150*
13C5 PFNA	*89*		*25 - 150*
13C2 PFDA	*95*		*25 - 150*
13C2 PFUnA	*86*		*25 - 150*
13C2 PFDoA	*78*		*25 - 150*
13C2 PFTeDA	*77*		*25 - 150*
13C3 PFBS	*91*		*25 - 150*
18O2 PFHxS	*96*		*25 - 150*
13C4 PFOS	*91*		*25 - 150*
13C8 FOSA	*100*		*25 - 150*
d3-NMeFOSAA	*83*		*25 - 150*
d5-NEtFOSAA	*95*		*25 - 150*
M2-6:2 FTS	*110*		*25 - 150*
M2-8:2 FTS	*95*		*25 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-562652/1-A
Matrix: Water
Analysis Batch: 563099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 562652

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		12/10/20 10:00	12/11/20 20:34	1
Antimony	ND		0.020	0.0068	mg/L		12/10/20 10:00	12/11/20 20:34	1
Arsenic	ND		0.015	0.0056	mg/L		12/10/20 10:00	12/11/20 20:34	1
Barium	ND	^6+	0.0020	0.00070	mg/L		12/10/20 10:00	12/11/20 20:34	1
Beryllium	ND		0.0020	0.00030	mg/L		12/10/20 10:00	12/11/20 20:34	1
Cadmium	ND		0.0020	0.00050	mg/L		12/10/20 10:00	12/11/20 20:34	1
Calcium	ND		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 20:34	1
Chromium	ND		0.0040	0.0010	mg/L		12/10/20 10:00	12/11/20 20:34	1
Cobalt	ND		0.0040	0.00063	mg/L		12/10/20 10:00	12/11/20 20:34	1
Copper	ND		0.010	0.0016	mg/L		12/10/20 10:00	12/11/20 20:34	1
Iron	0.0198	J	0.050	0.019	mg/L		12/10/20 10:00	12/11/20 20:34	1
Lead	ND		0.010	0.0030	mg/L		12/10/20 10:00	12/11/20 20:34	1

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

Lab Sample ID: MB 480-562652/1-A
Matrix: Water
Analysis Batch: 563099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 562652

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	ND		0.20	0.043	mg/L		12/10/20 10:00	12/11/20 20:34	1
Manganese	0.000540	J	0.0030	0.00040	mg/L		12/10/20 10:00	12/11/20 20:34	1
Nickel	ND		0.010	0.0013	mg/L		12/10/20 10:00	12/11/20 20:34	1
Potassium	ND		0.50	0.10	mg/L		12/10/20 10:00	12/11/20 20:34	1
Selenium	ND		0.025	0.0087	mg/L		12/10/20 10:00	12/11/20 20:34	1
Silver	ND		0.0060	0.0017	mg/L		12/10/20 10:00	12/11/20 20:34	1
Sodium	0.380	J	1.0	0.32	mg/L		12/10/20 10:00	12/11/20 20:34	1
Thallium	ND		0.020	0.010	mg/L		12/10/20 10:00	12/11/20 20:34	1
Vanadium	ND		0.0050	0.0015	mg/L		12/10/20 10:00	12/11/20 20:34	1
Zinc	0.00178	J	0.010	0.0015	mg/L		12/10/20 10:00	12/11/20 20:34	1

Lab Sample ID: LCS 480-562652/2-A
Matrix: Water
Analysis Batch: 563099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 562652

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.55		mg/L		106	80 - 120
Antimony	0.200	0.209		mg/L		104	80 - 120
Arsenic	0.200	0.207		mg/L		103	80 - 120
Barium	0.200	0.212	^6+	mg/L		106	80 - 120
Beryllium	0.200	0.213		mg/L		107	80 - 120
Cadmium	0.200	0.206		mg/L		103	80 - 120
Calcium	10.0	10.59		mg/L		106	80 - 120
Chromium	0.200	0.200		mg/L		100	80 - 120
Cobalt	0.200	0.195		mg/L		97	80 - 120
Copper	0.200	0.208		mg/L		104	80 - 120
Iron	10.0	10.18		mg/L		102	80 - 120
Lead	0.200	0.205		mg/L		102	80 - 120
Magnesium	10.0	10.08		mg/L		101	80 - 120
Manganese	0.200	0.205		mg/L		103	80 - 120
Nickel	0.200	0.193		mg/L		96	80 - 120
Potassium	10.0	9.94		mg/L		99	80 - 120
Selenium	0.200	0.201		mg/L		101	80 - 120
Silver	0.0500	0.0515		mg/L		103	80 - 120
Sodium	10.0	10.31		mg/L		103	80 - 120
Thallium	0.200	0.200		mg/L		100	80 - 120
Vanadium	0.200	0.198		mg/L		99	80 - 120
Zinc	0.200	0.200		mg/L		100	80 - 120

Lab Sample ID: 480-179098-5 MS
Matrix: Water
Analysis Batch: 563099

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562652

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	ND		10.0	10.38		mg/L		104	75 - 125
Antimony	ND		0.200	0.211		mg/L		105	75 - 125
Arsenic	0.0063	J	0.200	0.218		mg/L		106	75 - 125
Barium	0.12	^6+	0.200	0.339	^6+	mg/L		108	75 - 125
Beryllium	ND		0.200	0.210		mg/L		105	75 - 125

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

Lab Sample ID: 480-179098-5 MS
Matrix: Water
Analysis Batch: 563099

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562652

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		0.200	0.210		mg/L		105	75 - 125
Calcium	181		10.0	187.8	4	mg/L		64	75 - 125
Chromium	ND		0.200	0.198		mg/L		99	75 - 125
Cobalt	ND		0.200	0.199		mg/L		100	75 - 125
Copper	ND		0.200	0.210		mg/L		105	75 - 125
Iron	9.1	B	10.0	18.65		mg/L		95	75 - 125
Lead	ND		0.200	0.209		mg/L		105	75 - 125
Magnesium	29.0		10.0	39.24		mg/L		102	75 - 125
Manganese	2.0	B	0.200	2.24	4	mg/L		108	75 - 125
Nickel	ND		0.200	0.197		mg/L		99	75 - 125
Potassium	1.7		10.0	12.00		mg/L		103	75 - 125
Selenium	ND		0.200	0.207		mg/L		103	75 - 125
Silver	ND		0.0500	0.0536		mg/L		107	75 - 125
Sodium	10.9	B	10.0	21.52		mg/L		106	75 - 125
Thallium	ND		0.200	0.199		mg/L		99	75 - 125
Vanadium	ND		0.200	0.199		mg/L		100	75 - 125
Zinc	0.0050	J B	0.200	0.200		mg/L		98	75 - 125

Lab Sample ID: 480-179098-5 MSD
Matrix: Water
Analysis Batch: 563099

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562652

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	ND		10.0	10.35		mg/L		104	75 - 125	0	20
Antimony	ND		0.200	0.210		mg/L		105	75 - 125	0	20
Arsenic	0.0063	J	0.200	0.215		mg/L		104	75 - 125	1	20
Barium	0.12	^6+	0.200	0.329	^6+	mg/L		104	75 - 125	3	20
Beryllium	ND		0.200	0.210		mg/L		105	75 - 125	0	20
Cadmium	ND		0.200	0.207		mg/L		104	75 - 125	1	20
Calcium	181		10.0	185.9	4	mg/L		45	75 - 125	1	20
Chromium	ND		0.200	0.196		mg/L		98	75 - 125	1	20
Cobalt	ND		0.200	0.196		mg/L		98	75 - 125	2	20
Copper	ND		0.200	0.206		mg/L		103	75 - 125	2	20
Iron	9.1	B	10.0	18.42		mg/L		93	75 - 125	1	20
Lead	ND		0.200	0.207		mg/L		103	75 - 125	1	20
Magnesium	29.0		10.0	38.29		mg/L		93	75 - 125	2	20
Manganese	2.0	B	0.200	2.21	4	mg/L		90	75 - 125	2	20
Nickel	ND		0.200	0.194		mg/L		97	75 - 125	2	20
Potassium	1.7		10.0	11.75		mg/L		101	75 - 125	2	20
Selenium	ND		0.200	0.203		mg/L		102	75 - 125	2	20
Silver	ND		0.0500	0.0516		mg/L		103	75 - 125	4	20
Sodium	10.9	B	10.0	21.09		mg/L		102	75 - 125	2	20
Thallium	ND		0.200	0.196		mg/L		98	75 - 125	2	20
Vanadium	ND		0.200	0.196		mg/L		98	75 - 125	1	20
Zinc	0.0050	J B	0.200	0.196		mg/L		95	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-562734/1-A
Matrix: Water
Analysis Batch: 562824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 562734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/10/20 13:19	12/10/20 18:26	1

Lab Sample ID: LCS 480-562734/2-A
Matrix: Water
Analysis Batch: 562824

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 562734

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00642		mg/L		96	80 - 120		

Lab Sample ID: 480-179098-5 MS
Matrix: Water
Analysis Batch: 562824

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562734

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00667	0.00730		mg/L		109	80 - 120		

Lab Sample ID: 480-179098-5 MSD
Matrix: Water
Analysis Batch: 562824

Client Sample ID: GW-01
Prep Type: Total/NA
Prep Batch: 562734

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00685		mg/L		103	80 - 120	6	20

GC/MS Semi VOA

Prep Batch: 562479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	3510C	
480-179098-2	GW-05	Total/NA	Water	3510C	
480-179098-3	GW-04	Total/NA	Water	3510C	
480-179098-4	GW-03	Total/NA	Water	3510C	
480-179098-5	GW-01	Total/NA	Water	3510C	
480-179098-7	QA-QC	Total/NA	Water	3510C	
MB 480-562479/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-562479/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-179098-5 MS	GW-01	Total/NA	Water	3510C	
480-179098-5 MSD	GW-01	Total/NA	Water	3510C	

Prep Batch: 562572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	3510C	
480-179098-3	GW-04	Total/NA	Water	3510C	
480-179098-5	GW-01	Total/NA	Water	3510C	
480-179098-6	GW-05B	Total/NA	Water	3510C	
480-179098-7	QA-QC	Total/NA	Water	3510C	
MB 480-562572/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-562572/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-179098-5 MS	GW-01	Total/NA	Water	3510C	
480-179098-5 MSD	GW-01	Total/NA	Water	3510C	

Analysis Batch: 562773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	8270D SIM ID	562479
480-179098-5	GW-01	Total/NA	Water	8270D SIM ID	562479
MB 480-562479/1-A	Method Blank	Total/NA	Water	8270D SIM ID	562479
LCS 480-562479/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	562479
480-179098-5 MS	GW-01	Total/NA	Water	8270D SIM ID	562479
480-179098-5 MSD	GW-01	Total/NA	Water	8270D SIM ID	562479

Analysis Batch: 562914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-2	GW-05	Total/NA	Water	8270D SIM ID	562479
480-179098-3	GW-04	Total/NA	Water	8270D SIM ID	562479
480-179098-4	GW-03	Total/NA	Water	8270D SIM ID	562479
480-179098-7	QA-QC	Total/NA	Water	8270D SIM ID	562479

Analysis Batch: 563323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	8270D	562572
480-179098-3	GW-04	Total/NA	Water	8270D	562572
480-179098-5	GW-01	Total/NA	Water	8270D	562572
480-179098-5 MS	GW-01	Total/NA	Water	8270D	562572
480-179098-5 MSD	GW-01	Total/NA	Water	8270D	562572

Analysis Batch: 563843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-562572/1-A	Method Blank	Total/NA	Water	8270D	562572
LCS 480-562572/2-A	Lab Control Sample	Total/NA	Water	8270D	562572

QC Association Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

GC/MS Semi VOA

Analysis Batch: 563844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-6	GW-05B	Total/NA	Water	8270D	562572
480-179098-7	QA-QC	Total/NA	Water	8270D	562572

LCMS

Prep Batch: 440511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	3535	
480-179098-2	GW-05	Total/NA	Water	3535	
480-179098-3	GW-04	Total/NA	Water	3535	
480-179098-4	GW-03	Total/NA	Water	3535	
480-179098-5	GW-01	Total/NA	Water	3535	
480-179098-7	QA-QC	Total/NA	Water	3535	
480-179098-8	Equipment Blank	Total/NA	Water	3535	
MB 320-440511/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-440511/2-A	Lab Control Sample	Total/NA	Water	3535	
480-179098-5 MS	GW-01	Total/NA	Water	3535	
480-179098-5 MSD	GW-01	Total/NA	Water	3535	

Analysis Batch: 440834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	537 (modified)	440511
480-179098-2	GW-05	Total/NA	Water	537 (modified)	440511
480-179098-4	GW-03	Total/NA	Water	537 (modified)	440511
480-179098-5	GW-01	Total/NA	Water	537 (modified)	440511
480-179098-7	QA-QC	Total/NA	Water	537 (modified)	440511
480-179098-8	Equipment Blank	Total/NA	Water	537 (modified)	440511
MB 320-440511/1-A	Method Blank	Total/NA	Water	537 (modified)	440511
480-179098-5 MS	GW-01	Total/NA	Water	537 (modified)	440511
480-179098-5 MSD	GW-01	Total/NA	Water	537 (modified)	440511

Analysis Batch: 441208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-3	GW-04	Total/NA	Water	537 (modified)	440511
LCS 320-440511/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	440511

Metals

Prep Batch: 562652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	3010A	
480-179098-3	GW-04	Total/NA	Water	3010A	
480-179098-4	GW-03	Total/NA	Water	3010A	
480-179098-5	GW-01	Total/NA	Water	3010A	
480-179098-6	GW-05B	Total/NA	Water	3010A	
480-179098-7	QA-QC	Total/NA	Water	3010A	
MB 480-562652/1-A	Method Blank	Total/NA	Water	3010A	
LCS 480-562652/2-A	Lab Control Sample	Total/NA	Water	3010A	
480-179098-5 MS	GW-01	Total/NA	Water	3010A	
480-179098-5 MSD	GW-01	Total/NA	Water	3010A	

QC Association Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Metals

Prep Batch: 562734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	7470A	
480-179098-3	GW-04	Total/NA	Water	7470A	
480-179098-4	GW-03	Total/NA	Water	7470A	
480-179098-5	GW-01	Total/NA	Water	7470A	
480-179098-6	GW-05B	Total/NA	Water	7470A	
480-179098-7	QA-QC	Total/NA	Water	7470A	
MB 480-562734/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-562734/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-179098-5 MS	GW-01	Total/NA	Water	7470A	
480-179098-5 MSD	GW-01	Total/NA	Water	7470A	

Analysis Batch: 562824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	7470A	562734
480-179098-3	GW-04	Total/NA	Water	7470A	562734
480-179098-4	GW-03	Total/NA	Water	7470A	562734
480-179098-5	GW-01	Total/NA	Water	7470A	562734
480-179098-6	GW-05B	Total/NA	Water	7470A	562734
480-179098-7	QA-QC	Total/NA	Water	7470A	562734
MB 480-562734/1-A	Method Blank	Total/NA	Water	7470A	562734
LCS 480-562734/2-A	Lab Control Sample	Total/NA	Water	7470A	562734
480-179098-5 MS	GW-01	Total/NA	Water	7470A	562734
480-179098-5 MSD	GW-01	Total/NA	Water	7470A	562734

Analysis Batch: 563099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179098-1	GW-02	Total/NA	Water	6010C	562652
480-179098-3	GW-04	Total/NA	Water	6010C	562652
480-179098-4	GW-03	Total/NA	Water	6010C	562652
480-179098-5	GW-01	Total/NA	Water	6010C	562652
480-179098-6	GW-05B	Total/NA	Water	6010C	562652
480-179098-7	QA-QC	Total/NA	Water	6010C	562652
MB 480-562652/1-A	Method Blank	Total/NA	Water	6010C	562652
LCS 480-562652/2-A	Lab Control Sample	Total/NA	Water	6010C	562652
480-179098-5 MS	GW-01	Total/NA	Water	6010C	562652
480-179098-5 MSD	GW-01	Total/NA	Water	6010C	562652

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: GW-02
Date Collected: 12/04/20 09:20
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			562572	12/09/20 15:12	ATG	TAL BUF
Total/NA	Analysis	8270D		1	563323	12/16/20 10:12	PJQ	TAL BUF
Total/NA	Prep	3510C			562479	12/09/20 09:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	562773	12/10/20 23:11	JMM	TAL BUF
Total/NA	Prep	3535			440511	12/09/20 19:06	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	440834	12/11/20 06:43	RS1	TAL SAC
Total/NA	Prep	3010A			562652	12/10/20 10:00	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563099	12/11/20 20:42	LMH	TAL BUF
Total/NA	Prep	7470A			562734	12/10/20 13:19	BMB	TAL BUF
Total/NA	Analysis	7470A		1	562824	12/10/20 18:49	BMB	TAL BUF

Client Sample ID: GW-05
Date Collected: 12/03/20 11:40
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			562479	12/09/20 09:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	562914	12/11/20 13:16	JMM	TAL BUF
Total/NA	Prep	3535			440511	12/09/20 19:06	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	440834	12/11/20 06:52	RS1	TAL SAC

Client Sample ID: GW-04
Date Collected: 12/03/20 13:10
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			562572	12/09/20 15:12	ATG	TAL BUF
Total/NA	Analysis	8270D		1	563323	12/16/20 10:40	PJQ	TAL BUF
Total/NA	Prep	3510C			562479	12/09/20 09:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	562914	12/11/20 13:39	JMM	TAL BUF
Total/NA	Prep	3535			440511	12/09/20 19:06	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	441208	12/11/20 14:33	K1S	TAL SAC
Total/NA	Prep	3010A			562652	12/10/20 10:00	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563099	12/11/20 20:57	LMH	TAL BUF
Total/NA	Prep	7470A			562734	12/10/20 13:19	BMB	TAL BUF
Total/NA	Analysis	7470A		1	562824	12/10/20 18:51	BMB	TAL BUF

Client Sample ID: GW-03
Date Collected: 12/04/20 11:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			562479	12/09/20 09:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	562914	12/11/20 14:02	JMM	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: GW-03
Date Collected: 12/04/20 11:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			440511	12/09/20 19:06	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	440834	12/11/20 07:11	RS1	TAL SAC
Total/NA	Prep	3010A			562652	12/10/20 10:00	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563099	12/11/20 21:01	LMH	TAL BUF
Total/NA	Prep	7470A			562734	12/10/20 13:19	BMB	TAL BUF
Total/NA	Analysis	7470A		1	562824	12/10/20 18:55	BMB	TAL BUF

Client Sample ID: GW-01
Date Collected: 12/03/20 15:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			562572	12/09/20 15:12	ATG	TAL BUF
Total/NA	Analysis	8270D		1	563323	12/16/20 09:16	PJQ	TAL BUF
Total/NA	Prep	3510C			562479	12/09/20 09:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	562773	12/10/20 22:47	JMM	TAL BUF
Total/NA	Prep	3535			440511	12/09/20 19:06	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	440834	12/11/20 07:20	RS1	TAL SAC
Total/NA	Prep	3010A			562652	12/10/20 10:00	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563099	12/11/20 21:04	LMH	TAL BUF
Total/NA	Prep	7470A			562734	12/10/20 13:19	BMB	TAL BUF
Total/NA	Analysis	7470A		1	562824	12/10/20 18:57	BMB	TAL BUF

Client Sample ID: GW-05B
Date Collected: 12/04/20 11:30
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			562572	12/09/20 15:12	ATG	TAL BUF
Total/NA	Analysis	8270D		1	563844	12/19/20 02:11	PJQ	TAL BUF
Total/NA	Prep	3010A			562652	12/10/20 10:00	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563099	12/11/20 21:23	LMH	TAL BUF
Total/NA	Prep	7470A			562734	12/10/20 13:19	BMB	TAL BUF
Total/NA	Analysis	7470A		1	562824	12/10/20 19:03	BMB	TAL BUF

Client Sample ID: QA-QC
Date Collected: 12/04/20 00:00
Date Received: 12/08/20 10:30

Lab Sample ID: 480-179098-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			562572	12/09/20 15:12	ATG	TAL BUF
Total/NA	Analysis	8270D		1	563844	12/19/20 02:39	PJQ	TAL BUF
Total/NA	Prep	3510C			562479	12/09/20 09:01	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	562914	12/11/20 14:26	JMM	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Client Sample ID: QA-QC

Lab Sample ID: 480-179098-7

Date Collected: 12/04/20 00:00
Matrix: Water
Date Received: 12/08/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			440511	12/09/20 19:06	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	440834	12/11/20 07:47	RS1	TAL SAC
Total/NA	Prep	3010A			562652	12/10/20 10:00	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563099	12/11/20 21:27	LMH	TAL BUF
Total/NA	Prep	7470A			562734	12/10/20 13:19	BMB	TAL BUF
Total/NA	Analysis	7470A		1	562824	12/10/20 19:05	BMB	TAL BUF

Client Sample ID: Equipment Blank

Lab Sample ID: 480-179098-8

Date Collected: 12/04/20 12:00
Matrix: Water
Date Received: 12/08/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			440511	12/09/20 19:06	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1	440834	12/11/20 08:14	RS1	TAL SAC

Laboratory References:

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

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

Laboratory: Eurofins TestAmerica, Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	01-20-21
ANAB	Dept. of Defense ELAP	L2468	01-20-21
ANAB	Dept. of Energy	L2468.01	01-20-21
ANAB	ISO/IEC 17025	L2468	01-20-21
Arizona	State	AZ0708	08-11-21
Arkansas DEQ	State	88-0691	06-17-21
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-21
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-21
Georgia	State	4040	01-30-21
Hawaii	State	<cert No.>	01-29-21
Illinois	NELAP	200060	03-17-21
Kansas	NELAP	E-10375	10-31-20 *
Louisiana	NELAP	01944	06-30-21
Maine	State	CA00004	04-14-22
Michigan	State	9947	08-03-23
Nevada	State	CA000442021-2	07-31-21
New Hampshire	NELAP	2997	04-18-21
New Jersey	NELAP	CA005	06-30-21
New York	NELAP	11666	04-01-21
Oregon	NELAP	4040	01-29-21
Pennsylvania	NELAP	68-01272	03-31-21
Texas	NELAP	T104704399-19-13	06-01-21
US Fish & Wildlife	US Federal Programs	58448	07-31-21
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442019-01	02-28-21
Vermont	State	VT-4040	04-16-21
Virginia	NELAP	460278	03-14-21
Washington	State	C581	05-05-21
West Virginia (DW)	State	9930C	12-31-20
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
3010A	Preparation, Total Metals	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
7470A	Preparation, Mercury	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.
Project/Site: Conrail #851002

Job ID: 480-179098-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-179098-1	GW-02	Water	12/04/20 09:20	12/08/20 10:30	
480-179098-2	GW-05	Water	12/03/20 11:40	12/08/20 10:30	
480-179098-3	GW-04	Water	12/03/20 13:10	12/08/20 10:30	
480-179098-4	GW-03	Water	12/04/20 11:00	12/08/20 10:30	
480-179098-5	GW-01	Water	12/03/20 15:00	12/08/20 10:30	
480-179098-6	GW-05B	Water	12/04/20 11:30	12/08/20 10:30	
480-179098-7	QA-QC	Water	12/04/20 00:00	12/08/20 10:30	
480-179098-8	Equipment Blank	Water	12/04/20 12:00	12/08/20 10:30	

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: J. Folger	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-153346-34071.1
Client Contact: Jenelle Gaylord	Phone: 716-868-8498	E-Mail: Orlette.Johnson@Eurofinset.com	State of Origin: NY	Page: Page 1 of 1
Company: New York State D.E.C.	PWSID:			Job #:
Address: 625 Broadway Division of Environmental Remediation	Due Date Requested:			
City: Albany	TAT Requested (days):			
State, Zip: NY, 12233-7014	Compliance Project: Δ Yes Δ No			
Phone:	PO #: CallOut ID 139342			
Email: jenelle.gaylord@dec.ny.gov	WO #:			
Project Name: Conrail #851002	Project #: 48023068			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

480-179098 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 Analytes)	8270D - TCL SVOA - OLM04.2	6010C, 7470A	8270D_SIM_MS_ID - SIM List	Total Number	Special Instructions/Note:
			Preservation Code:				N	N	D	N		
GW-02	12/4/20	9:20	G	Water			X	X	X	X		
GW-05	12/3/20	11:46		Water			X			X		
GW-04	12/3/20	13:10		Water			X	X	X	X		
GW-03	12/4/20	11:00		Water			X	X	X	X		
GW-01	12/3/20	15:00		Water		Y	X	X	X	X		MS/MSD at this location
GW-05B	12/4/20	11:30		Water				X	X			
QA/QC	12/4/20	-		Water			X	X	X	X		
Equipment Blank	12/4/20	12:00		Water			X					
				Water								

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company
[signature]	12/7/20 12:00	LaBella	[signature]	12/8/20 1030	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		#1 2.8, 3.0, 2.5

Ver: 11/01/2020

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12/22/2020

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

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-60804.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Orlette.Johnson@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-179098-1
Address: 880 Riverside Parkway,	Due Date Requested: 12/21/2020			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Conrail #851002	Project #: 48023068			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_PFC PFAS, Standard List (21 Analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
GW-02 (480-179098-1)	12/4/20	09:20 Eastern		Water			X	2	
GW-05 (480-179098-2)	12/3/20	11:40 Eastern		Water			X	2	
GW-04 (480-179098-3)	12/3/20	13:10 Eastern		Water			X	2	
GW-03 (480-179098-4)	12/4/20	11:00 Eastern		Water			X	2	
GW-01 (480-179098-5)	12/3/20	15:00 Eastern		Water			X	2	
GW-01 (480-179098-5MS)	12/3/20	15:00 Eastern	MS	Water			X	2	
GW-01 (480-179098-5MSD)	12/3/20	15:00 Eastern	MSD	Water			X	2	
QA/QC (480-179098-7)	12/4/20	Eastern		Water			X	2	
Equipment Blank (480-179098-8)	12/4/20	12:00 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification
Unconfirmed

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

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Matthew Lindh	12/08/20 1700	TA		12/09/20 1010	eta sae
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 1427223 | Cooler Temperature(s) °C and Other Remarks: 0.9

Ver: 11/01/2020

eurofins | Environment Testing TestAmerica

Sacramento Sample Receiving Notes

480-179098 Field Sheet

Job: _____

Tracking # : 1888 3862 5599

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Therm. ID: L-01 Corr. Factor: (+ / -) 0 °C

Ice ✓ Wet ✓ Gel _____ Other _____

Cooler Custody Seal: 1427223

Cooler ID: _____

Temp Observed: 0.9 °C Corrected: 0.9 °C

From: Temp Blank ☐ Sample ☑

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☑	☐
Cooler Temperature is acceptable?	☑	☐	☐
Frozen samples show signs of thaw?	☐	☐	☑

Initials: MAN Date: 12/09/20

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	☑	☐	☐
Samples compromised/tampered with?	☐	☑	☐
Sample containers have legible labels?	☑	☐	☐
Sample custody seal?	☐	☐	☑
Containers are not broken or leaking?	☑	☐	☐
Sample date/times are provided?	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Samples w/o discrepancies?	☑	☐	☐
Zero headspace?*	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: [signature] Date: 12/09/20

Notes: _____

Trizma Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☑	☐	☐
Samples received within hold time?	☑	☐	☐
NCM Filed?	☐	☐	☑
Log Release checked in TALS?	☐	☐	☑

Initials: [signature] Date: 12/09/20

Login Sample Receipt Checklist

Client: New York State D.E.C. Job Number: 480-179098-1

Login Number: 179098 **List Source: Eurofins TestAmerica, Buffalo**
List Number: 1
Creator: Sabuda, Brendan D

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8 3.0 2.5 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	Limited volume / missing containers
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-179098-1

Login Number: 179098
List Number: 2
Creator: Saephan, Kae C

List Source: Eurofins TestAmerica, Sacramento
List Creation: 12/09/20 12:07 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1427223
Sample custody seals, if present, are intact.	N/A	
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	ob: 0.9c corr: 0.9c
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?	False	Received project as a subcontract.
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.	N/A	
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	

ATTACHMENT C

Data Usability Summary Report

DATA USABILITY SUMMARY REPORT

for

LABELLA ASSOCIATES, P.C.

300 State Street

Rochester, NY 14614

CONRAIL #851002
Project 2161937.052
Aqueous Samples
SDG: 480-179098
Sampled 12/03/2020 and 12/04/2020

SEMIVOLATILE ORGANICS
1,4-DIOXANE, PFAS, METALS

GW-02	(480-179098-1)
GW-05	(480-179098-2)
GW-04	(480-179098-3)
GW-03	(480-179098-4)
GW-01	(480-179098-5)
GW-05B	(480-179098-6)
QA/QC	(480-179098-7)
Equipment Blank	(480-179098-8)

DATA ASSESSMENT

An ASP Category B data package containing analytical results for seven aqueous samples and an equipment blank was received from Labella Associates, P.C. on 15Jan21. The deliverables package included formal reports, raw data, the necessary QC, and supporting information. The samples, taken from the Conrail #851002 Site, were identified by Chain of Custody documents and traceable through the work of Eurofins TestAmerica-Buffalo, the laboratory contracted for analysis. Analyses, performed according to SW-846 methods, addressed determinations of semivolatile organics, 1,4-Dioxane, PFAS, and metals. Laboratory data was evaluated according to the quality assurance / quality control requirements of the New York State Department of Environmental Conservation's Analytical Services Protocol (ASP), September 1989, Rev. 07/2005. When the required protocol was not followed, the current EPA Region II Functional Guidelines (SOP HW-35, Rev.#2, March 2013, Semivolatile Data Validation; ICP-MS Data Validation and the laboratory's modifications to Method 537, SOP No, WS-LC-0025, Rev 3.3, 12/03/2018, Per- and Polyfluorinated Substances (PFAS) in Water, Soils, Sediments and Tissue) were used as a technical reference.

The pentachlorophenol results from GW-05B and QA/QC have been qualified as estimations due to poor calibration performance.

The caprolactam, hexachlorobutadiene and hexachlorocyclopentadiene results from GW-01 and the caprolactam and hexachlorocyclopentadiene results from the remaining samples have been qualified as estimations due to unacceptable spiked sample or spiked blank (LCS) recoveries.

The PFHxS results from GW-05 and GW-04 should be interpreted as undetected because they represent laboratory artifacts.

PFAS data that has been qualified due to surrogate standard recoveries has been tabulated on page 10.

CORRECTNESS AND USABILITY

Reported data should be considered technically defensible and completely usable in its present form. Results presenting a usable estimation of the conditions at the time of sampling have been flagged "J", "U" or "UJ". Estimated data should be used with caution. A detailed discussion of the review process follows.

Two facts should be considered by all data users. No compound concentration, even if it has passed strict QC testing, can be guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error. Secondly.

DATAVAL, Inc. guarantees the quality of this data assessment. However, DATAVAL, Inc. does not warrant any interpretation or utilization of this data by a third party.

Reviewer's signature: _____ Date: 05 Mar 21

James B. Baldwin
DATAVAL Inc.

SAMPLE HISTORY

Analyte concentrations can deteriorate with time due to chemical instability, bacterial degradation, or volatility. Samples that are not properly preserved or are not analyzed within established holding times may no longer be considered representative. Holding times are calculated from the time of sample collection. Samples must remain chilled to 4±2°C between the time of collection and the time of analysis. Acid preserved VOC samples must be analyzed within 14 days, unpreserved VOC samples within 7 days. The holding time for VOC soils is 14 days. Aqueous semivolatile organics, pesticide and PCB samples must be extracted within seven days of collection. Soils must be extracted within 14 days. The extracts must then be analyzed within forty days of extraction. PFAS samples must be extracted within 14 days of collection. The extracts must then be analyzed within 28 days of extraction. The holding times for cyanide and mercury samples are 14 and 28 days, respectively. Metals samples must be analyzed within six months.

This delivery group contained seven aqueous samples and an equipment blank that were collected from the Conrail #851002 site between 03Dec20 and 04Dec20. The samples were maintained in secure cold storage until shipped to Eurofins TestAmerica, Buffalo, via FedEx, on 07Dec20. The shipment was received the following morning. At the time of receipt the sample coolers were found to be intact and properly chilled, with custody seals in place. Cooler temperatures of 2.8°C, 3.0°C and 2.5°C were recorded at that time.

A volume of every sample except GW-05B was shipped to Eurofins TestAmerica, Sacramento on 08Dec20. The FedEx shipment was received on 09Dec20. At that time the cooler of samples was found to be intact and properly chilled, with a custody seal in place. A cooler temperature of 0.9°C was recorded at the time of receipt.

SEMIVOLATILE ORGANICS

Samples from this delivery group were extracted for SVOC analysis on 09Dec20 and the extracts were analyzed on 16Dec20 and 19Dec20. The ASP holding time limitations were satisfied.

Blanks

Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling, transport and storage activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank produced acceptable chromatography and was free of targeted analyte contamination.

GC/MS Tuning
Mass spectrometer tuning and performance criteria are established to ensure that mass resolution and sensitivity are sufficient to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard of DFTPP.

An Instrument Performance Check Standard of DFTPP was analyzed prior to the initial instrument calibration and prior to each analytical sequence that contained samples from this program. An Instrument Performance Check Form is present for each DFTPP evaluation. The DFTPP tunes associated with this delivery group satisfied the program acceptance criteria.

Calibration
Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

The initial instrument calibration for SVOC was performed on 24Nov20. Standards of 0.5, 1.0, 2.0, 4.0, 8.0, 12 and 16 ng/µl were included. Each targeted analyte produced the required levels of instrument response and demonstrated an acceptable degree of linearity during this calibration.

Calibration verification standards were analyzed on 16Dec20 and 19Dec20, prior to the 12-hour periods of instrument operation that included samples from this program. When compared to the initial calibration, an unacceptable shift was observed in the instrument response of pentachlorophenol (32%) on 19Dec20. The pentachlorophenol (CL5PHEN) results from GW-05B and QA/QC have been qualified as estimations based on this performance. The remaining analytes demonstrated an acceptable level of instrument stability.

Surrogates
Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate Summary Sheets were properly prepared, based on the laboratory's statistical acceptance criteria. When compared to the ASP requirements, however, an acceptable recovery was reported for each surrogate addition to this group of samples.

Internal Standards
Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard.

Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these limits, acceptable performance was indicated by the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

GW-01 was selected for matrix spiking. The entire list of targeted analytes was added to two portions of this sample. The recoveries reported for these spikes included low results for caprolactam (32%,35%), hexachlorobutadiene (64%) and hexachlorocyclopentadiene (47%,53%). The caprolactam, hexachlorobutadiene and hexachlorocyclopentadiene results from GW-01 have been qualified as estimations based on these indications of negative bias.

A spiked blank (LCS) was also extracted and analyzed with this group of samples. The recoveries reported for this LCS sample included low results for caprolactam (35%) and hexachlorocyclopentadiene (50%). The caprolactam and hexachlorocyclopentadiene results from this group of samples have been qualified as estimations based on these indications of negative bias.

Duplicates

Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A blind duplicate sample was not included in this delivery group.

Reported Analytes

Formal reports were provided for each sample. The data package also included total ion chromatograms and raw instrument print outs. Mass spectra references were included in the raw data to confirm the identification of each analyte that was detected in this group of samples. Tentatively Identified Compounds (TIC) were not reported.

1,4-DIOXANE by SIM

Samples from this delivery group were extracted for 1,4-Dioxane analysis on 09Dec20 and the extracts were analyzed on 10Dec20 and 11Dec20. The SW-846 holding time limitations were satisfied.

Blanks
Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling, transport and storage activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

One method blank was analyzed with this group of samples. This blank produced acceptable chromatography and was free of targeted analyte contamination.

GC/MS Tuning
Mass spectrometer tuning and performance criteria are established to ensure that mass resolution and sensitivity are sufficient to accurately detect and identify targeted analytes. Verification is accomplished using a certified standard of DFTPP.

Instrument Performance Check Standards of DFTPP were analyzed prior to the initial instrument calibration and prior to each analytical sequence that contained the samples from this program. An Instrument Performance Check Form is present for each of these DFTPP evaluations. These checks produced unacceptable relative abundances for m/e=51 (25%,24% vs 30%-60%), M/e=127 (37%,35% vs (40%-60%) and m/e=257 (37%,36% vs 10%-30%). This performance had no impact on reported data because m/e=51, m/e=127 and m/e=257 were not ions that were selected for the SIM analysis of 1,4-dioxane.

Calibration
Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

The initial instrument calibration for 1,4-Dioxane was performed on 22Oct20. Standards of 0.2, 0.4, 0.6, 0.8, 1.0 and 1.2 ng/µl were included. These 1,4-Dioxane standards produced the required levels of instrument response and demonstrated an acceptable degree of linearity during this calibration.

Calibration verification standards were analyzed on 10Dec20 and 11Dec20, prior to the analysis of program samples. When compared to the initial calibration, 1,4-Dioxane demonstrated an acceptable level of instrument stability.

Surrogates
Each sample, blank and standard is spiked with surrogate compounds prior to analysis. The structures of surrogates are similar to analytes of interest, but they are not normally found in environmental samples. Surrogate recoveries are monitored to evaluate overall laboratory performance and the efficiency of laboratory technique.

Surrogate Summary Sheets were properly prepared, based on the laboratory's statistical acceptance criteria. When compared to this criteria, an acceptable recovery was reported for each surrogate addition to this group of samples.

Internal Standards
Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample. The area of internal standard peaks may not vary by more than a factor of two. When compared to the preceding calibration check, retention times may not vary by more than 30 seconds.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to these limits, acceptable performance was indicated by the internal standard additions to each program sample.

Matrix Spikes
Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

GW-01 was selected for matrix spiking. 1,4-Dioxane was added to two aliquots of this sample. The recoveries reported for these spikes demonstrated acceptable levels of measurement precision and accuracy.

A spiked blank (LCS) was also extracted and analyzed with this group of samples. The recovery reported for this LCS sample demonstrated an acceptable level of measurement accuracy.

Duplicates
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate sample was not included in this delivery group.

PFAS ORGANICS

This group of samples was extracted for PFAS analysis on 09Dec20 and the extracts were analyzed on 11Dec20. The Method 537 holding time limitations were satisfied.

Blanks
Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Method blanks are analyzed to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

Two method blanks and an equipment blank were analyzed with this group of samples. Although these blanks produced acceptable chromatography, both method blanks contained traces of PFHxS. Similar artifacts were fond in GW-05 and GW-04. PFHxS should be interpreted as undetected in this pair of samples. Detection limits equaling the reported concentrations should be assumed.

Calibrations
Requirements for instrument calibration are established to ensure that laboratory equipment is capable of producing accurate, quantitative data. Initial calibrations demonstrate a range through which measurements may be made. Continuing calibration check standards verify instrument stability.

Initial instrument calibrations for PFAS were performed on 07Dec20. Standards of 0.025, 0.050, 0.25, 1.00, 2.50, 5.0 and 10.0 ng/ml were included. Each targeted analyte demonstrated an acceptable degree of linearity during this calibration.

Calibration check standards were analyzed on 11Dec20 at 06:16, 08:05, 09:09, 13:57 and 15:38. When compared to the initial calibration, each of these checks demonstrated an acceptable level of instrument stability.

Surrogates (Isotope Dilution Analytes - IDA)
Each sample, blank and standard is spiked with IDA compounds prior to extraction and analysis. Each analyte response is then compared to an isotopically labeled version of the same compound. This technique allows for the correction of bias that might be related to the sample matrix or sample preparation activities. Each IDA must produce a specified level of response.

Surrogate Summary Sheets were properly prepared, based on the laboratory's statistical acceptance criteria. When compared to the method requirements, however, unacceptably low results were reported for the 13C4PFBA additions to every sample except the GW-01 and the equipment blank; the 13C5PFPeA additions to GW-05, GW-04, GW-03 and QA/QC; the C13C3PFBS addition to QA/QC; the 13C2PFHxA and 13C4PFHpA additions to GW-05, GW-04, GW-03 and QA/QC; the 13C4PFOA additions to GW-05 and QA/QC; the 13C4PFOS, M2-8:2FTS, 13C2PFDA, 13C2PFUnA and d5-NEtFOSAA additions to QA/QC;

the d3-NMeFOSAA additions to GW-05 and GW-03; and the 13C2 PFDoA and 13C2PFTeDA additions to GW-05, GW-03 and QA/QC. High recoveries were reported for the 13C2PFHxA, 13C4PFHpA, 1802PFHxS and M2-6:2FTS additions to QA/QC; the 13C5PFNA addition to GW-01; the M2-8:2FTS additions to GW-04 and GW-01; and the 13C2PFDA, 13C8FOSA and d5-NEtFOSAA additions to GW-01. Data that has been qualified due to this performance is tabulated below.

DATA QUALFIED DUE TO SURROGATE RECOVERIES

AFFECTED SAMPLES	AFFECTED ANALYTES
GW-02	PFBA
GW-05	PFBA PFPeA PFHxA PFHpA PFOA PFDoA PFTeA NMeFOSAA
GW-04	PFBA PFPeA PFHxA PFHpA
GW-03	PFBA PFPeA PFHxA PFHpA PFDoA PFTeA NMeFOSAA
GW-01	PFBA
QA/QC	PFPeA PFHxA PFHpA PFOA PFDA PFUnA PFDoA PFTeA PFBS PFOS NMeFOSAA NEtFOSAA 8:2FTS
Equipment Blank	

Internal Standards

Internal standards are added to each sample, blank and standard just prior to injection. Analyte concentrations are calculated relative to the response of a specific internal standard. Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during the analysis of each sample.

The laboratory correctly calculated control limits for internal standard response and retention times. When compared to this criteria, acceptable performance was demonstrated by the internal standard additions to each program sample.

Matrix Spikes

Matrix spiking refers to the addition of known analyte concentrations to a sample, prior to analysis. Analyte recoveries provide an indication of laboratory accuracy. The analysis of a duplicate spiked aliquot provides a measurement of precision.

GW-01 was selected for matrix spiking. The entire list of targeted analytes was added to two aliquots of this sample. The recoveries reported for these spikes included high results for PFDoA (134%), PFTeA (136%) and PFBA (142%). These indications of positive bias, however, warrant no concern because PFDoA, PFTeA and PFBA were not detected in GW-01.

A spiked blank (LCS) was also extracted and analyzed with this group of samples. The recoveries reported for these spikes included a high result for PFDS. This indication of positive bias warrants no concern because PFDS was not detected in this group of samples.

Duplicates
Two portions of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by the analysis of this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate sample was not included in this delivery group.

METALS

This group of samples was digested for mercury and ICP metals analysis on 10Dec20 and the digestates were analyzed for mercury on 10Dec20 and ICP metals on 11Dec20. The SW-846 holding time limitations were satisfied.

Calibrations
Calibration curves are constructed, using certified materials, to define the linear range of each analytical instrument. Beyond this range, measurements cannot be made with confidence. The calibration curves are immediately tested by analyzing an initial calibration verification standard (ICV). Continuing verifications (CCV) must bracket each group of up to ten samples. ICV and CCV recoveries must meet established criteria.

Each instrument calibration was immediately verified by the analysis of an ICV standard. Continuing calibration checks were made following each group of 10 samples. Each of these checks produced an acceptable recovery of mercury and each ICP metal.

Low level check standards (CRI) were also analyzed with this group of samples. The recovery of these standards demonstrated an acceptable level of measurement accuracy in measurements made near the laboratory's reporting limit.

Blanks
Blanks are analyzed to evaluate various sources of sample contamination. Field blanks monitor sampling activities. Preparation blanks are carried through the digestion process with each group of samples to evaluate general laboratory technique. Calibration blanks are run periodically to verify instrument integrity. Samples are considered compromised by conditions causing contamination in any blank.

An initial blank (ICB) was analyzed following the calibration in each analytical sequence. Additional blanks were analyzed after every ten samples (CCB) and at the end of each sequence. Preparation blanks were digested and analyzed with this group of samples. Each laboratory prepared blank was free of mercury and ICP metals contamination.

Interference Check Sample (ICS)
ICS standards are analyzed at the beginning of each ICP analysis sequence to verify background and inter-element correction factors. The recoveries of specified analytes are measured in the presence of interfering concentrations of aluminum, calcium, magnesium and iron.

Interference Check Standards, ICSA, were reported from the beginning of each ICP analysis sequence. These standards demonstrated a background level of barium that exceeded the laboratory's reporting limit. The presence of this artifact, however, warrants no concern because the barium concentrations found in this group of samples exceeded the range requiring data qualifications.

Laboratory Control Standard (LCS)
Laboratory control samples are prepared by adding analytes to clean sand or reagent water. Analyte concentrations are then determined without interferences caused by sample matrix effects.

One spiked blank (LCS) was digested and analyzed with this group of samples. The recoveries reported for this LCS sample demonstrated an acceptable level of measurement accuracy.

Predigestion Spikes
The recovery of spike concentrations added to samples prior to digestion and analysis demonstrates measurement bias caused by sample matrix effects. Predigestion spikes must be recovered within control limits of 75% - 125%.

GW-01 was selected for matrix spiking. Mercury and each ICP metal were added to two portions of this sample. The recoveries reported for these spikes demonstrated acceptable levels of measurement precision and accuracy.

Duplicates
Two aliquots of the same sample are processed separately through all aspects of sample preparation and analysis. The results produced by this pair of samples are compared as a measurement of precision. Poor precision may be indicative of sample non-homogeneity, method defects, or poor laboratory technique.

A field split duplicate sample was not included in this delivery group.

Serial Dilution Sample
Possible matrix effects are verified by the process of serial dilutions. Samples are diluted 1:5 to reduce matrix contributions that might bias measurements. The original sample result, and the corrected concentration of the diluted sample are compared. Sample data is qualified if the original concentrations are not recovered within 10%. Analytes with initial concentrations below 50 times IDL are not considered.

GW-01 was prepared as a serial dilution. Of the analytes present in this sample, at a concentration exceeding 50 times IDL, none differed from the initial sample by more than 10%. The program requirement was satisfied.

SUMMARY OF QUALIFIED DATA

CONRAIL #851002 SITE

SAMPLED: DECEMBER 2020

		CALIBRATE CL5PHEN	SPIKES MS1*	SPIKE LCS1*	BLANK PFHxS	SURROGATE
GW-02	(480-179098-1)			ALL 5.0UJ		SUR*
GW-05	(480-179098-2)				2.5U	SUR*
GW-04	(480-179098-3)			ALL 5.0UJ	3.7U	SUR*
GW-03	(480-179098-4)					SUR*
GW-01	(480-179098-5)		ALL 5.0UJ	ALL 5.0UJ		SUR*
GW-05B	(480-179098-6)	10UJ		ALL 5.0UJ		
QA/QC	(480-179098-7)	10UJ		ALL 5.0UJ		SUR*
Equipment Blank	(480-179098-8)					

MS1* = caprolactam, hexachlorobutadiene, hexachlorocyclopentadiene

LCS1* = caprolactam, hexachlorocyclopentadiene

SUR* = See table on Page 10

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-02 Lab Sample ID: 480-179098-1

Matrix: Water Lab File ID: W10011800.d

Analysis Method: 8270D Date Collected: 12/04/2020 09:20

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/16/2020 10:12

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563323 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		5.0	0.65
108-60-1	bis (2-chloroisopropyl) ether	ND		5.0	0.52
95-95-4	2,4,5-Trichlorophenol	ND		5.0	0.48
88-06-2	2,4,6-Trichlorophenol	ND		5.0	0.61
120-83-2	2,4-Dichlorophenol	ND		5.0	0.51
105-67-9	2,4-Dimethylphenol	ND		5.0	0.50
51-28-5	2,4-Dinitrophenol	ND		10	2.2
121-14-2	2,4-Dinitrotoluene	ND		5.0	0.45
606-20-2	2,6-Dinitrotoluene	ND		5.0	0.40
91-58-7	2-Chloronaphthalene	ND		5.0	0.46
95-57-8	2-Chlorophenol	ND		5.0	0.53
95-48-7	2-Methylphenol	ND		5.0	0.40
91-57-6	2-Methylnaphthalene	ND		5.0	0.60
88-74-4	2-Nitroaniline	ND		10	0.42
88-75-5	2-Nitrophenol	ND		5.0	0.48
91-94-1	3,3'-Dichlorobenzidine	ND		5.0	0.40
99-09-2	3-Nitroaniline	ND		10	0.48
534-52-1	4,6-Dinitro-2-methylphenol	ND		10	2.2
101-55-3	4-Bromophenyl phenyl ether	ND		5.0	0.45
59-50-7	4-Chloro-3-methylphenol	ND		5.0	0.45
106-47-8	4-Chloroaniline	ND		5.0	0.59
7005-72-3	4-Chlorophenyl phenyl ether	ND		5.0	0.35
106-44-5	Methylphenol, 3 & 4	ND		10	0.36
100-01-6	4-Nitroaniline	ND		10	0.25
100-02-7	4-Nitrophenol	ND		10	1.5
83-32-9	Acenaphthene	5.8		5.0	0.41
208-96-8	Acenaphthylene	ND		5.0	0.38
98-86-2	Acetophenone	ND		5.0	0.54
120-12-7	Anthracene	0.44	J	5.0	0.28
1912-24-9	Atrazine	ND		5.0	0.46
100-52-7	Benzaldehyde	ND		5.0	0.27
56-55-3	Benzo[a]anthracene	ND		5.0	0.36
50-32-8	Benzo[a]pyrene	ND		5.0	0.47
205-99-2	Benzo[b]fluoranthene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-02 | Lab Sample ID: 480-179098-1

Matrix: Water | Lab File ID: W10011800.d

Analysis Method: 8270D | Date Collected: 12/04/2020 09:20

Extract. Method: 3510C | Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) | Date Analyzed: 12/16/2020 10:12

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

Injection Volume: 2(uL) | Level: (low/med) Low

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

Analysis Batch No.: 563323 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		5.0	0.35
207-08-9	Benzo[k]fluoranthene	ND		5.0	0.73
111-91-1	Bis(2-chloroethoxy)methane	ND		5.0	0.35
111-44-4	Bis(2-chloroethyl)ether	ND		5.0	0.40
117-81-7	Bis(2-ethylhexyl) phthalate	ND		5.0	2.2
85-68-7	Butyl benzyl phthalate	ND		5.0	1.0
105-60-2	Caprolactam	~~ND~~ UJ		5.0	2.2
86-74-8	Carbazole	ND		5.0	0.30
218-01-9	Chrysene	ND		5.0	0.33
53-70-3	Dibenz(a,h)anthracene	ND		5.0	0.42
84-74-2	Di-n-butyl phthalate	ND		5.0	0.31
117-84-0	Di-n-octyl phthalate	ND		5.0	0.47
132-64-9	Dibenzofuran	ND		10	0.51
84-66-2	Diethyl phthalate	ND		5.0	0.22
131-11-3	Dimethyl phthalate	ND		5.0	0.36
206-44-0	Fluoranthene	0.79	J	5.0	0.40
86-73-7	Fluorene	ND		5.0	0.36
118-74-1	Hexachlorobenzene	ND		5.0	0.51
87-68-3	Hexachlorobutadiene	ND		5.0	0.68
77-47-4	Hexachlorocyclopentadiene	~~ND~~ UJ		5.0	0.59
67-72-1	Hexachloroethane	ND		5.0	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	ND		5.0	0.47
78-59-1	Isophorone	ND		5.0	0.43
621-64-7	N-Nitrosodi-n-propylamine	ND		5.0	0.54
86-30-6	N-Nitrosodiphenylamine	ND		5.0	0.51
91-20-3	Naphthalene	ND		5.0	0.76
98-95-3	Nitrobenzene	ND		5.0	0.29
87-86-5	Pentachlorophenol	ND		10	2.2
85-01-8	Phenanthrene	4.2	J	5.0	0.44
108-95-2	Phenol	ND		5.0	0.39
129-00-0	Pyrene	0.48	J	5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-02 Lab Sample ID: 480-179098-1

Matrix: Water Lab File ID: W10011800.d

Analysis Method: 8270D Date Collected: 12/04/2020 09:20

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/16/2020 10:12

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563323 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	89		46-120
4165-62-2	Phenol-d5 (Surr)	50		22-120
1718-51-0	p-Terphenyl-d14 (Surr)	70		60-148
118-79-6	2,4,6-Tribromophenol (Surr)	78		41-120
321-60-8	2-Fluorobiphenyl	95		48-120
367-12-4	2-Fluorophenol (Surr)	70		35-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-04 Lab Sample ID: 480-179098-3

Matrix: Water Lab File ID: W10011801.d

Analysis Method: 8270D Date Collected: 12/03/2020 13:10

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/16/2020 10:40

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563323 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		5.0	0.65
108-60-1	bis (2-chloroisopropyl) ether	ND		5.0	0.52
95-95-4	2,4,5-Trichlorophenol	ND		5.0	0.48
88-06-2	2,4,6-Trichlorophenol	ND		5.0	0.61
120-83-2	2,4-Dichlorophenol	ND		5.0	0.51
105-67-9	2,4-Dimethylphenol	ND		5.0	0.50
51-28-5	2,4-Dinitrophenol	ND		10	2.2
121-14-2	2,4-Dinitrotoluene	ND		5.0	0.45
606-20-2	2,6-Dinitrotoluene	ND		5.0	0.40
91-58-7	2-Chloronaphthalene	ND		5.0	0.46
95-57-8	2-Chlorophenol	ND		5.0	0.53
95-48-7	2-Methylphenol	ND		5.0	0.40
91-57-6	2-Methylnaphthalene	ND		5.0	0.60
88-74-4	2-Nitroaniline	ND		10	0.42
88-75-5	2-Nitrophenol	ND		5.0	0.48
91-94-1	3,3'-Dichlorobenzidine	ND		5.0	0.40
99-09-2	3-Nitroaniline	ND		10	0.48
534-52-1	4,6-Dinitro-2-methylphenol	ND		10	2.2
101-55-3	4-Bromophenyl phenyl ether	ND		5.0	0.45
59-50-7	4-Chloro-3-methylphenol	ND		5.0	0.45
106-47-8	4-Chloroaniline	ND		5.0	0.59
7005-72-3	4-Chlorophenyl phenyl ether	ND		5.0	0.35
106-44-5	Methylphenol, 3 & 4	ND		10	0.36
100-01-6	4-Nitroaniline	ND		10	0.25
100-02-7	4-Nitrophenol	ND		10	1.5
83-32-9	Acenaphthene	ND		5.0	0.41
208-96-8	Acenaphthylene	ND		5.0	0.38
98-86-2	Acetophenone	ND		5.0	0.54
120-12-7	Anthracene	0.90	J	5.0	0.28
1912-24-9	Atrazine	ND		5.0	0.46
100-52-7	Benzaldehyde	ND		5.0	0.27
56-55-3	Benzo[a]anthracene	ND		5.0	0.36
50-32-8	Benzo[a]pyrene	ND		5.0	0.47
205-99-2	Benzo[b]fluoranthene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-04 Lab Sample ID: 480-179098-3

Matrix: Water Lab File ID: W10011801.d

Analysis Method: 8270D Date Collected: 12/03/2020 13:10

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/16/2020 10:40

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563323 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		5.0	0.35
207-08-9	Benzo[k]fluoranthene	ND		5.0	0.73
111-91-1	Bis(2-chloroethoxy)methane	ND		5.0	0.35
111-44-4	Bis(2-chloroethyl)ether	ND		5.0	0.40
117-81-7	Bis(2-ethylhexyl) phthalate	ND		5.0	2.2
85-68-7	Butyl benzyl phthalate	ND		5.0	1.0
105-60-2	Caprolactam	~~ND~~	UJ	5.0	2.2
86-74-8	Carbazole	ND		5.0	0.30
218-01-9	Chrysene	ND		5.0	0.33
53-70-3	Dibenz(a,h)anthracene	ND		5.0	0.42
84-74-2	Di-n-butyl phthalate	ND		5.0	0.31
117-84-0	Di-n-octyl phthalate	ND		5.0	0.47
132-64-9	Dibenzofuran	ND		10	0.51
84-66-2	Diethyl phthalate	ND		5.0	0.22
131-11-3	Dimethyl phthalate	ND		5.0	0.36
206-44-0	Fluoranthene	ND		5.0	0.40
86-73-7	Fluorene	ND		5.0	0.36
118-74-1	Hexachlorobenzene	ND		5.0	0.51
87-68-3	Hexachlorobutadiene	ND		5.0	0.68
77-47-4	Hexachlorocyclopentadiene	~~ND~~	UJ	5.0	0.59
67-72-1	Hexachloroethane	ND		5.0	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	ND		5.0	0.47
78-59-1	Isophorone	ND		5.0	0.43
621-64-7	N-Nitrosodi-n-propylamine	ND		5.0	0.54
86-30-6	N-Nitrosodiphenylamine	ND		5.0	0.51
91-20-3	Naphthalene	ND		5.0	0.76
98-95-3	Nitrobenzene	ND		5.0	0.29
87-86-5	Pentachlorophenol	ND		10	2.2
85-01-8	Phenanthrene	ND		5.0	0.44
108-95-2	Phenol	ND		5.0	0.39
129-00-0	Pyrene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-04 Lab Sample ID: 480-179098-3

Matrix: Water Lab File ID: W10011801.d

Analysis Method: 8270D Date Collected: 12/03/2020 13:10

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/16/2020 10:40

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563323 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	84		46-120
4165-62-2	Phenol-d5 (Surr)	46		22-120
1718-51-0	p-Terphenyl-d14 (Surr)	61		60-148
118-79-6	2,4,6-Tribromophenol (Surr)	84		41-120
321-60-8	2-Fluorobiphenyl	96		48-120
367-12-4	2-Fluorophenol (Surr)	66		35-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-01 Lab Sample ID: 480-179098-5

Matrix: Water Lab File ID: W10011798.d

Analysis Method: 8270D Date Collected: 12/03/2020 15:00

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/16/2020 09:16

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563323 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		5.0	0.65
108-60-1	bis (2-chloroisopropyl) ether	ND		5.0	0.52
95-95-4	2,4,5-Trichlorophenol	ND		5.0	0.48
88-06-2	2,4,6-Trichlorophenol	ND		5.0	0.61
120-83-2	2,4-Dichlorophenol	ND		5.0	0.51
105-67-9	2,4-Dimethylphenol	ND		5.0	0.50
51-28-5	2,4-Dinitrophenol	ND		10	2.2
121-14-2	2,4-Dinitrotoluene	ND		5.0	0.45
606-20-2	2,6-Dinitrotoluene	ND		5.0	0.40
91-58-7	2-Chloronaphthalene	ND		5.0	0.46
95-57-8	2-Chlorophenol	ND		5.0	0.53
95-48-7	2-Methylphenol	ND		5.0	0.40
91-57-6	2-Methylnaphthalene	ND		5.0	0.60
88-74-4	2-Nitroaniline	ND	F2	10	0.42
88-75-5	2-Nitrophenol	ND		5.0	0.48
91-94-1	3,3'-Dichlorobenzidine	ND		5.0	0.40
99-09-2	3-Nitroaniline	ND		10	0.48
534-52-1	4,6-Dinitro-2-methylphenol	ND		10	2.2
101-55-3	4-Bromophenyl phenyl ether	ND		5.0	0.45
59-50-7	4-Chloro-3-methylphenol	ND		5.0	0.45
106-47-8	4-Chloroaniline	ND		5.0	0.59
7005-72-3	4-Chlorophenyl phenyl ether	ND		5.0	0.35
106-44-5	Methylphenol, 3 & 4	ND		10	0.36
100-01-6	4-Nitroaniline	ND		10	0.25
100-02-7	4-Nitrophenol	ND		10	1.5
83-32-9	Acenaphthene	ND		5.0	0.41
208-96-8	Acenaphthylene	ND		5.0	0.38
98-86-2	Acetophenone	ND		5.0	0.54
120-12-7	Anthracene	ND		5.0	0.28
1912-24-9	Atrazine	ND		5.0	0.46
100-52-7	Benzaldehyde	ND		5.0	0.27
56-55-3	Benzo[a]anthracene	ND		5.0	0.36
50-32-8	Benzo[a]pyrene	ND		5.0	0.47
205-99-2	Benzo[b]fluoranthene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-01 Lab Sample ID: 480-179098-5

Matrix: Water Lab File ID: W10011798.d

Analysis Method: 8270D Date Collected: 12/03/2020 15:00

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/16/2020 09:16

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563323 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		5.0	0.35
207-08-9	Benzo[k]fluoranthene	ND		5.0	0.73
111-91-1	Bis(2-chloroethoxy)methane	ND		5.0	0.35
111-44-4	Bis(2-chloroethyl)ether	ND		5.0	0.40
117-81-7	Bis(2-ethylhexyl) phthalate	ND		5.0	2.2
85-68-7	Butyl benzyl phthalate	ND		5.0	1.0
105-60-2	Caprolactam	~~ND~~ UJ		5.0	2.2
86-74-8	Carbazole	ND		5.0	0.30
218-01-9	Chrysene	ND		5.0	0.33
53-70-3	Dibenz(a,h)anthracene	ND		5.0	0.42
84-74-2	Di-n-butyl phthalate	ND		5.0	0.31
117-84-0	Di-n-octyl phthalate	ND		5.0	0.47
132-64-9	Dibenzofuran	ND		10	0.51
84-66-2	Diethyl phthalate	ND		5.0	0.22
131-11-3	Dimethyl phthalate	ND		5.0	0.36
206-44-0	Fluoranthene	ND		5.0	0.40
86-73-7	Fluorene	ND		5.0	0.36
118-74-1	Hexachlorobenzene	ND		5.0	0.51
87-68-3	Hexachlorobutadiene	~~ND~~ UJ		5.0	0.68
77-47-4	Hexachlorocyclopentadiene	~~ND~~ UJ		5.0	0.59
67-72-1	Hexachloroethane	ND		5.0	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	ND		5.0	0.47
78-59-1	Isophorone	ND		5.0	0.43
621-64-7	N-Nitrosodi-n-propylamine	ND		5.0	0.54
86-30-6	N-Nitrosodiphenylamine	ND		5.0	0.51
91-20-3	Naphthalene	ND		5.0	0.76
98-95-3	Nitrobenzene	ND		5.0	0.29
87-86-5	Pentachlorophenol	ND		10	2.2
85-01-8	Phenanthrene	ND		5.0	0.44
108-95-2	Phenol	ND		5.0	0.39
129-00-0	Pyrene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-01 Lab Sample ID: 480-179098-5

Matrix: Water Lab File ID: W10011798.d

Analysis Method: 8270D Date Collected: 12/03/2020 15:00

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/16/2020 09:16

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563323 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	90		46-120
4165-62-2	Phenol-d5 (Surr)	48		22-120
1718-51-0	p-Terphenyl-d14 (Surr)	77		60-148
118-79-6	2,4,6-Tribromophenol (Surr)	72		41-120
321-60-8	2-Fluorobiphenyl	97		48-120
367-12-4	2-Fluorophenol (Surr)	68		35-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-05B Lab Sample ID: 480-179098-6

Matrix: Water Lab File ID: W10011859.d

Analysis Method: 8270D Date Collected: 12/04/2020 11:30

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/19/2020 02:11

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563844 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		5.0	0.65
108-60-1	bis (2-chloroisopropyl) ether	ND		5.0	0.52
95-95-4	2,4,5-Trichlorophenol	ND		5.0	0.48
88-06-2	2,4,6-Trichlorophenol	ND		5.0	0.61
120-83-2	2,4-Dichlorophenol	ND		5.0	0.51
105-67-9	2,4-Dimethylphenol	ND		5.0	0.50
51-28-5	2,4-Dinitrophenol	ND		10	2.2
121-14-2	2,4-Dinitrotoluene	ND		5.0	0.45
606-20-2	2,6-Dinitrotoluene	ND		5.0	0.40
91-58-7	2-Chloronaphthalene	ND		5.0	0.46
95-57-8	2-Chlorophenol	ND		5.0	0.53
95-48-7	2-Methylphenol	ND		5.0	0.40
91-57-6	2-Methylnaphthalene	ND		5.0	0.60
88-74-4	2-Nitroaniline	ND		10	0.42
88-75-5	2-Nitrophenol	ND		5.0	0.48
91-94-1	3,3'-Dichlorobenzidine	ND		5.0	0.40
99-09-2	3-Nitroaniline	ND		10	0.48
534-52-1	4,6-Dinitro-2-methylphenol	ND		10	2.2
101-55-3	4-Bromophenyl phenyl ether	ND		5.0	0.45
59-50-7	4-Chloro-3-methylphenol	ND		5.0	0.45
106-47-8	4-Chloroaniline	ND		5.0	0.59
7005-72-3	4-Chlorophenyl phenyl ether	ND		5.0	0.35
106-44-5	Methylphenol, 3 & 4	ND		10	0.36
100-01-6	4-Nitroaniline	ND		10	0.25
100-02-7	4-Nitrophenol	ND		10	1.5
83-32-9	Acenaphthene	ND		5.0	0.41
208-96-8	Acenaphthylene	ND		5.0	0.38
98-86-2	Acetophenone	ND		5.0	0.54
120-12-7	Anthracene	0.81	J	5.0	0.28
1912-24-9	Atrazine	ND		5.0	0.46
100-52-7	Benzaldehyde	ND		5.0	0.27
56-55-3	Benzo[a]anthracene	ND		5.0	0.36
50-32-8	Benzo[a]pyrene	ND		5.0	0.47
205-99-2	Benzo[b]fluoranthene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1
SDG No.:
Client Sample ID: GW-05B | Lab Sample ID: 480-179098-6
Matrix: Water | Lab File ID: W10011859.d
Analysis Method: 8270D | Date Collected: 12/04/2020 11:30
Extract. Method: 3510C | Date Extracted: 12/09/2020 15:12
Sample wt/vol: 250(mL) | Date Analyzed: 12/19/2020 02:11
Con. Extract Vol.: 1(mL) | Dilution Factor: 1
Injection Volume: 2(uL) | Level: (low/med) Low
% Moisture: | GPC Cleanup:(Y/N) N
Analysis Batch No.: 563844 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		5.0	0.35
207-08-9	Benzo[k]fluoranthene	ND		5.0	0.73
111-91-1	Bis(2-chloroethoxy)methane	ND		5.0	0.35
111-44-4	Bis(2-chloroethyl)ether	ND		5.0	0.40
117-81-7	Bis(2-ethylhexyl) phthalate	ND		5.0	2.2
85-68-7	Butyl benzyl phthalate	ND		5.0	1.0
105-60-2	Caprolactam	~~ND~~	UJ	5.0	2.2
86-74-8	Carbazole	ND		5.0	0.30
218-01-9	Chrysene	ND		5.0	0.33
53-70-3	Dibenz(a,h)anthracene	ND		5.0	0.42
84-74-2	Di-n-butyl phthalate	ND		5.0	0.31
117-84-0	Di-n-octyl phthalate	ND		5.0	0.47
132-64-9	Dibenzofuran	ND		10	0.51
84-66-2	Diethyl phthalate	ND		5.0	0.22
131-11-3	Dimethyl phthalate	ND		5.0	0.36
206-44-0	Fluoranthene	ND		5.0	0.40
86-73-7	Fluorene	ND		5.0	0.36
118-74-1	Hexachlorobenzene	ND		5.0	0.51
87-68-3	Hexachlorobutadiene	ND		5.0	0.68
77-47-4	Hexachlorocyclopentadiene	~~ND~~	UJ	5.0	0.59
67-72-1	Hexachloroethane	ND		5.0	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	ND		5.0	0.47
78-59-1	Isophorone	ND		5.0	0.43
621-64-7	N-Nitrosodi-n-propylamine	ND		5.0	0.54
86-30-6	N-Nitrosodiphenylamine	ND		5.0	0.51
91-20-3	Naphthalene	ND		5.0	0.76
98-95-3	Nitrobenzene	ND		5.0	0.29
87-86-5	Pentachlorophenol	~~ND~~	UJ	10	2.2
85-01-8	Phenanthrene	ND		5.0	0.44
108-95-2	Phenol	ND		5.0	0.39
129-00-0	Pyrene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-05B Lab Sample ID: 480-179098-6

Matrix: Water Lab File ID: W10011859.d

Analysis Method: 8270D Date Collected: 12/04/2020 11:30

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/19/2020 02:11

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563844 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	84		46-120
4165-62-2	Phenol-d5 (Surr)	48		22-120
1718-51-0	p-Terphenyl-d14 (Surr)	62		60-148
118-79-6	2,4,6-Tribromophenol (Surr)	93		41-120
321-60-8	2-Fluorobiphenyl	92		48-120
367-12-4	2-Fluorophenol (Surr)	67		35-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1

SDG No.:

Client Sample ID: QA-QC | Lab Sample ID: 480-179098-7

Matrix: Water | Lab File ID: W10011860.d

Analysis Method: 8270D | Date Collected: 12/04/2020 00:00

Extract. Method: 3510C | Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) | Date Analyzed: 12/19/2020 02:39

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

Injection Volume: 2(uL) | Level: (low/med) Low

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

Analysis Batch No.: 563844 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	Biphenyl	ND		5.0	0.65
108-60-1	bis (2-chloroisopropyl) ether	ND		5.0	0.52
95-95-4	2,4,5-Trichlorophenol	ND		5.0	0.48
88-06-2	2,4,6-Trichlorophenol	ND		5.0	0.61
120-83-2	2,4-Dichlorophenol	ND		5.0	0.51
105-67-9	2,4-Dimethylphenol	ND		5.0	0.50
51-28-5	2,4-Dinitrophenol	ND		10	2.2
121-14-2	2,4-Dinitrotoluene	ND		5.0	0.45
606-20-2	2,6-Dinitrotoluene	ND		5.0	0.40
91-58-7	2-Chloronaphthalene	ND		5.0	0.46
95-57-8	2-Chlorophenol	ND		5.0	0.53
95-48-7	2-Methylphenol	ND		5.0	0.40
91-57-6	2-Methylnaphthalene	ND		5.0	0.60
88-74-4	2-Nitroaniline	ND		10	0.42
88-75-5	2-Nitrophenol	ND		5.0	0.48
91-94-1	3,3'-Dichlorobenzidine	ND		5.0	0.40
99-09-2	3-Nitroaniline	ND		10	0.48
534-52-1	4,6-Dinitro-2-methylphenol	ND		10	2.2
101-55-3	4-Bromophenyl phenyl ether	ND		5.0	0.45
59-50-7	4-Chloro-3-methylphenol	ND		5.0	0.45
106-47-8	4-Chloroaniline	ND		5.0	0.59
7005-72-3	4-Chlorophenyl phenyl ether	ND		5.0	0.35
106-44-5	Methylphenol, 3 & 4	ND		10	0.36
100-01-6	4-Nitroaniline	ND		10	0.25
100-02-7	4-Nitrophenol	ND		10	1.5
83-32-9	Acenaphthene	2.5	J	5.0	0.41
208-96-8	Acenaphthylene	ND		5.0	0.38
98-86-2	Acetophenone	ND		5.0	0.54
120-12-7	Anthracene	0.45	J	5.0	0.28
1912-24-9	Atrazine	ND		5.0	0.46
100-52-7	Benzaldehyde	ND		5.0	0.27
56-55-3	Benzo[a]anthracene	ND		5.0	0.36
50-32-8	Benzo[a]pyrene	ND		5.0	0.47
205-99-2	Benzo[b]fluoranthene	ND		5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: QA-QC Lab Sample ID: 480-179098-7

Matrix: Water Lab File ID: W10011860.d

Analysis Method: 8270D Date Collected: 12/04/2020 00:00

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/19/2020 02:39

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563844 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
191-24-2	Benzo[g,h,i]perylene	ND		5.0	0.35
207-08-9	Benzo[k]fluoranthene	ND		5.0	0.73
111-91-1	Bis(2-chloroethoxy)methane	ND		5.0	0.35
111-44-4	Bis(2-chloroethyl)ether	ND		5.0	0.40
117-81-7	Bis(2-ethylhexyl) phthalate	ND		5.0	2.2
85-68-7	Butyl benzyl phthalate	ND		5.0	1.0
105-60-2	Caprolactam	~~ND~~ UJ		5.0	2.2
86-74-8	Carbazole	ND		5.0	0.30
218-01-9	Chrysene	ND		5.0	0.33
53-70-3	Dibenz(a,h)anthracene	ND		5.0	0.42
84-74-2	Di-n-butyl phthalate	ND		5.0	0.31
117-84-0	Di-n-octyl phthalate	ND		5.0	0.47
132-64-9	Dibenzofuran	ND		10	0.51
84-66-2	Diethyl phthalate	ND		5.0	0.22
131-11-3	Dimethyl phthalate	ND		5.0	0.36
206-44-0	Fluoranthene	1.0	J	5.0	0.40
86-73-7	Fluorene	ND		5.0	0.36
118-74-1	Hexachlorobenzene	ND		5.0	0.51
87-68-3	Hexachlorobutadiene	ND		5.0	0.68
77-47-4	Hexachlorocyclopentadiene	~~ND~~ UJ		5.0	0.59
67-72-1	Hexachloroethane	ND		5.0	0.59
193-39-5	Indeno[1,2,3-cd]pyrene	ND		5.0	0.47
78-59-1	Isophorone	ND		5.0	0.43
621-64-7	N-Nitrosodi-n-propylamine	ND		5.0	0.54
86-30-6	N-Nitrosodiphenylamine	ND		5.0	0.51
91-20-3	Naphthalene	ND		5.0	0.76
98-95-3	Nitrobenzene	ND		5.0	0.29
87-86-5	Pentachlorophenol	~~ND~~ UJ		10	2.2
85-01-8	Phenanthrene	3.5	J	5.0	0.44
108-95-2	Phenol	ND		5.0	0.39
129-00-0	Pyrene	0.58	J	5.0	0.34

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: QA-QC Lab Sample ID: 480-179098-7

Matrix: Water Lab File ID: W10011860.d

Analysis Method: 8270D Date Collected: 12/04/2020 00:00

Extract. Method: 3510C Date Extracted: 12/09/2020 15:12

Sample wt/vol: 250(mL) Date Analyzed: 12/19/2020 02:39

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

Injection Volume: 2(uL) Level: (low/med) Low

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

Analysis Batch No.: 563844 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5 (Surr)	83		46-120
4165-62-2	Phenol-d5 (Surr)	46		22-120
1718-51-0	p-Terphenyl-d14 (Surr)	72		60-148
118-79-6	2,4,6-Tribromophenol (Surr)	76		41-120
321-60-8	2-Fluorobiphenyl	89		48-120
367-12-4	2-Fluorophenol (Surr)	61		35-120

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5Sil MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP	#	PHL	#	NBZ	#	FBP	#	TBP	#	TPHd14	#
GW-02	480-179098-1	70		50		89		95		78		70	
GW-04	480-179098-3	66		46		84		96		84		61	
GW-01	480-179098-5	68		48		90		97		72		77	
GW-05B	480-179098-6	67		48		84		92		93		62	
QA-QC	480-179098-7	61		46		83		89		76		72	
	MB 480-562572/1-A	66		49		88		94		77		104	
	LCS 480-562572/2-A	67		53		82		88		85		95	
GW-01 MS	480-179098-5 MS	58		46		78		87		79		63	
GW-01 MSD	480-179098-5 MSD	66		52		89		100		91		69	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	35-120
PHL = Phenol-d5 (Surr)	22-120
NBZ = Nitrobenzene-d5 (Surr)	46-120
FBP = 2-Fluorobiphenyl	48-120
TBP = 2,4,6-Tribromophenol (Surr)	41-120
TPHd14 = p-Terphenyl-d14 (Surr)	60-148

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: W10011849.d

Lab ID: LCS 480-562572/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Biphenyl	32.0	27.8	87	59-120	
bis (2-chloroisopropyl) ether	32.0	24.3	76	21-136	
2,4,5-Trichlorophenol	32.0	28.6	89	65-126	
2,4,6-Trichlorophenol	32.0	32.1	100	64-120	
2,4-Dichlorophenol	32.0	31.3	98	63-120	
2,4-Dimethylphenol	32.0	27.8	87	47-120	
2,4-Dinitrophenol	64.0	46.4	72	31-137	
2,4-Dinitrotoluene	32.0	30.9	96	69-120	
2,6-Dinitrotoluene	32.0	28.1	88	68-120	
2-Chloronaphthalene	32.0	26.4	82	58-120	
2-Chlorophenol	32.0	26.6	83	48-120	
2-Methylphenol	32.0	28.0	87	39-120	
2-Methylnaphthalene	32.0	28.3	89	59-120	
2-Nitroaniline	32.0	24.5	77	54-127	
2-Nitrophenol	32.0	29.4	92	52-125	
3,3'-Dichlorobenzidine	64.0	52.7	82	49-135	
3-Nitroaniline	32.0	25.2	79	51-120	
4,6-Dinitro-2-methylphenol	64.0	52.9	83	46-136	
4-Bromophenyl phenyl ether	32.0	28.9	90	65-120	
4-Chloro-3-methylphenol	32.0	29.4	92	61-123	
4-Chloroaniline	32.0	25.8	80	30-120	
4-Chlorophenyl phenyl ether	32.0	28.6	89	62-120	
Methylphenol, 3 & 4	32.0	27.5	86	29-131	
4-Nitroaniline	32.0	28.7	90	65-120	
4-Nitrophenol	64.0	44.6	70	45-120	
Acenaphthene	32.0	29.3	91	60-120	
Acenaphthylene	32.0	29.3	92	63-120	
Acetophenone	32.0	29.1	91	45-120	
Anthracene	32.0	29.8	93	67-120	
Atrazine	64.0	71.0	111	71-130	
Benzaldehyde	64.0	53.1	83	10-140	
Benzo[a]anthracene	32.0	29.9	93	70-121	
Benzo[a]pyrene	32.0	34.5	108	60-123	
Benzo[b]fluoranthene	32.0	38.3	120	66-126	
Benzo[g,h,i]perylene	32.0	37.5	117	66-150	
Benzo[k]fluoranthene	32.0	36.5	114	65-124	
Bis(2-chloroethoxy)methane	32.0	28.5	89	50-128	
Bis(2-chloroethyl)ether	32.0	25.0	78	44-120	
Bis(2-ethylhexyl) phthalate	32.0	32.2	101	63-139	
Butyl benzyl phthalate	32.0	32.2	101	70-129	
Caprolactam	64.0	22.7	35	22-120	
Carbazole	32.0	29.9	93	66-123	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: W10011849.d

Lab ID: LCS 480-562572/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chrysene	32.0	29.2	91	69-120	
Dibenz(a,h)anthracene	32.0	34.9	109	65-135	
Di-n-butyl phthalate	32.0	30.9	97	69-131	
Di-n-octyl phthalate	32.0	33.1	103	63-140	
Dibenzofuran	32.0	29.4	92	66-120	
Diethyl phthalate	32.0	31.0	97	59-127	
Dimethyl phthalate	32.0	29.7	93	68-120	
Fluoranthene	32.0	30.4	95	69-126	
Fluorene	32.0	30.5	95	66-120	
Hexachlorobenzene	32.0	27.8	87	61-120	
Hexachlorobutadiene	32.0	24.1	75	35-120	
Hexachlorocyclopentadiene	32.0	16.0	50	31-120	
Hexachloroethane	32.0	24.4	76	43-120	
Indeno[1,2,3-cd]pyrene	32.0	34.7	108	69-146	
Isophorone	32.0	29.0	91	55-120	
N-Nitrosodi-n-propylamine	32.0	28.0	88	32-140	
N-Nitrosodiphenylamine	32.0	28.7	90	61-120	
Naphthalene	32.0	27.4	86	57-120	
Nitrobenzene	32.0	26.1	82	63-123	
Pentachlorophenol	64.0	42.3	66	29-136	
Phenanthrene	32.0	30.2	94	68-120	
Phenol	32.0	17.3	54	17-120	
Pyrene	32.0	32.3	101	70-125	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: W10011794.d

Lab ID: 480-179098-5 MS Client ID: GW-01 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Biphenyl	32.0	ND	26.4	83	57-120	
bis (2-chloroisopropyl) ether	32.0	ND	24.1	75	28-121	
2,4,5-Trichlorophenol	32.0	ND	28.4	89	65-126	
2,4,6-Trichlorophenol	32.0	ND	31.0	97	64-120	
2,4-Dichlorophenol	32.0	ND	29.3	92	48-132	
2,4-Dimethylphenol	32.0	ND	25.9	81	39-130	
2,4-Dinitrophenol	64.0	ND	48.5	76	21-150	
2,4-Dinitrotoluene	32.0	ND	30.0	94	54-138	
2,6-Dinitrotoluene	32.0	ND	27.8	87	17-150	
2-Chloronaphthalene	32.0	ND	25.1	79	52-124	
2-Chlorophenol	32.0	ND	25.2	79	48-120	
2-Methylphenol	32.0	ND	26.4	82	46-120	
2-Methylnaphthalene	32.0	ND	26.6	83	34-140	
2-Nitroaniline	32.0	ND	23.6	74	44-136	
2-Nitrophenol	32.0	ND	27.6	86	38-141	
3,3'-Dichlorobenzidine	64.0	ND	48.7	76	10-150	
3-Nitroaniline	32.0	ND	23.9	75	32-150	
4,6-Dinitro-2-methylphenol	64.0	ND	54.8	86	38-150	
4-Bromophenyl phenyl ether	32.0	ND	26.2	82	63-126	
4-Chloro-3-methylphenol	32.0	ND	26.8	84	64-127	
4-Chloroaniline	32.0	ND	22.4	70	16-124	
4-Chlorophenyl phenyl ether	32.0	ND	27.5	86	61-120	
Methylphenol, 3 & 4	32.0	ND	26.0	81	36-120	
4-Nitroaniline	32.0	ND	27.6	86	32-150	
4-Nitrophenol	64.0	ND	38.3	60	23-132	
Acenaphthene	32.0	ND	28.9	90	48-120	
Acenaphthylene	32.0	ND	28.7	90	63-120	
Acetophenone	32.0	ND	28.3	88	53-120	
Anthracene	32.0	ND	28.0	88	65-122	
Atrazine	64.0	ND	67.3	105	50-150	
Benzaldehyde	64.0	ND	49.8	78	10-150	
Benzo[a]anthracene	32.0	ND	25.8	81	43-124	
Benzo[a]pyrene	32.0	ND	28.6	89	23-125	
Benzo[b]fluoranthene	32.0	ND	30.8	96	27-127	
Benzo[g,h,i]perylene	32.0	ND	29.3	92	16-147	
Benzo[k]fluoranthene	32.0	ND	29.6	93	20-124	
Bis(2-chloroethoxy)methane	32.0	ND	26.6	83	44-128	
Bis(2-chloroethyl)ether	32.0	ND	24.9	78	45-120	
Bis(2-ethylhexyl) phthalate	32.0	ND	25.0	78	16-150	
Butyl benzyl phthalate	32.0	ND	27.6	86	51-140	
Caprolactam	64.0	ND	20.3	32	10-120	
Carbazole	32.0	ND	29.5	92	16-148	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: W10011794.d

Lab ID: 480-179098-5 MS Client ID: GW-01 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chrysene	32.0	ND	24.4	76	44-122	
Dibenz(a,h)anthracene	32.0	ND	27.4	86	16-139	
Di-n-butyl phthalate	32.0	ND	27.4	86	65-129	
Di-n-octyl phthalate	32.0	ND	25.4	79	16-150	
Dibenzofuran	32.0	ND	28.9	90	60-120	
Diethyl phthalate	32.0	ND	30.1	94	53-133	
Dimethyl phthalate	32.0	ND	29.0	90	59-123	
Fluoranthene	32.0	ND	28.0	87	63-129	
Fluorene	32.0	ND	29.8	93	62-120	
Hexachlorobenzene	32.0	ND	24.6	77	57-121	
Hexachlorobutadiene	32.0	ND	20.3	64	37-120	
Hexachlorocyclopentadiene	32.0	ND	15.1	47	21-120	
Hexachloroethane	32.0	ND	22.6	71	16-130	
Indeno[1,2,3-cd]pyrene	32.0	ND	27.4	86	16-140	
Isophorone	32.0	ND	27.4	86	48-133	
N-Nitrosodi-n-propylamine	32.0	ND	26.5	83	49-120	
N-Nitrosodiphenylamine	32.0	ND	27.7	87	39-138	
Naphthalene	32.0	ND	25.4	79	45-120	
Nitrobenzene	32.0	ND	24.7	77	45-123	
Pentachlorophenol	64.0	ND	43.6	68	23-149	
Phenanthrene	32.0	ND	29.6	92	65-122	
Phenol	32.0	ND	15.3	48	16-120	
Pyrene	32.0	ND	28.4	89	58-128	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: W10011795.d

Lab ID: 480-179098-5 MSD Client ID: GW-01 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Biphenyl	32.0	30.9	97	16	20	57-120	
bis (2-chloroisopropyl) ether	32.0	27.4	85	13	24	28-121	
2,4,5-Trichlorophenol	32.0	31.4	98	10	18	65-126	
2,4,6-Trichlorophenol	32.0	36.7	115	17	19	64-120	
2,4-Dichlorophenol	32.0	33.3	104	13	19	48-132	
2,4-Dimethylphenol	32.0	29.1	91	12	42	39-130	
2,4-Dinitrophenol	64.0	59.0	92	20	22	21-150	
2,4-Dinitrotoluene	32.0	34.1	106	13	20	54-138	
2,6-Dinitrotoluene	32.0	31.4	98	12	15	17-150	
2-Chloronaphthalene	32.0	29.5	92	16	21	52-124	
2-Chlorophenol	32.0	28.0	87	11	25	48-120	
2-Methylphenol	32.0	28.9	90	9	27	46-120	
2-Methylnaphthalene	32.0	30.3	95	13	21	34-140	
2-Nitroaniline	32.0	27.9	87	17	15	44-136	F2
2-Nitrophenol	32.0	31.5	98	13	18	38-141	
3,3'-Dichlorobenzidine	64.0	56.7	89	15	25	10-150	
3-Nitroaniline	32.0	25.7	80	7	19	32-150	
4,6-Dinitro-2-methylphenol	64.0	60.8	95	10	15	38-150	
4-Bromophenyl phenyl ether	32.0	29.7	93	13	15	63-126	
4-Chloro-3-methylphenol	32.0	29.9	94	11	27	64-127	
4-Chloroaniline	32.0	25.3	79	12	22	16-124	
4-Chlorophenyl phenyl ether	32.0	32.1	100	15	16	61-120	
Methylphenol, 3 & 4	32.0	28.5	89	9	24	36-120	
4-Nitroaniline	32.0	31.1	97	12	24	32-150	
4-Nitrophenol	64.0	38.8	61	2	48	23-132	
Acenaphthene	32.0	33.0	103	13	24	48-120	
Acenaphthylene	32.0	32.9	103	14	18	63-120	
Acetophenone	32.0	31.6	99	11	20	53-120	
Anthracene	32.0	30.3	95	8	15	65-122	
Atrazine	64.0	75.5	118	11	20	50-150	
Benzaldehyde	64.0	57.5	90	14	20	10-150	
Benzo[a]anthracene	32.0	29.7	93	14	15	43-124	
Benzo[a]pyrene	32.0	31.0	97	8	15	23-125	
Benzo[b]fluoranthene	32.0	32.9	103	6	15	27-127	
Benzo[g,h,i]perylene	32.0	31.6	99	8	15	16-147	
Benzo[k]fluoranthene	32.0	32.9	103	10	22	20-124	
Bis(2-chloroethoxy)methane	32.0	31.0	97	15	17	44-128	
Bis(2-chloroethyl)ether	32.0	28.4	89	13	21	45-120	
Bis(2-ethylhexyl) phthalate	32.0	28.1	88	12	15	16-150	
Butyl benzyl phthalate	32.0	32.2	101	16	16	51-140	
Caprolactam	64.0	22.7	35	11	20	10-120	
Carbazole	32.0	31.1	97	6	20	16-148	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: W10011795.d

Lab ID: 480-179098-5 MSD Client ID: GW-01 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chrysene	32.0	28.1	88	14	15	44-122	
Dibenz(a,h)anthracene	32.0	29.9	93	9	15	16-139	
Di-n-butyl phthalate	32.0	30.0	94	9	15	65-129	
Di-n-octyl phthalate	32.0	29.6	92	15	16	16-150	
Dibenzofuran	32.0	33.0	103	13	15	60-120	
Diethyl phthalate	32.0	34.5	108	14	15	53-133	
Dimethyl phthalate	32.0	33.0	103	13	15	59-123	
Fluoranthene	32.0	31.4	98	11	15	63-129	
Fluorene	32.0	34.3	107	14	15	62-120	
Hexachlorobenzene	32.0	27.5	86	11	15	57-121	
Hexachlorobutadiene	32.0	23.4	73	14	44	37-120	
Hexachlorocyclopentadiene	32.0	16.9	53	11	49	21-120	
Hexachloroethane	32.0	25.9	81	14	46	16-130	
Indeno[1,2,3-cd]pyrene	32.0	30.5	95	11	15	16-140	
Isophorone	32.0	31.2	97	13	17	48-133	
N-Nitrosodi-n-propylamine	32.0	30.3	95 ✓	13	31	49-120	
N-Nitrosodiphenylamine	32.0	31.9	100	14	15	39-138	
Naphthalene	32.0	29.0	91	13	29	45-120	
Nitrobenzene	32.0	28.3	88	14	24	45-123	
Pentachlorophenol	64.0	50.5	79 ✓	15	37	23-149	
Phenanthrene	32.0	34.2	107	14	15	65-122	
Phenol	32.0	17.3	54 ✓	12	34	16-120	
Pyrene	32.0	33.6	105 ✓	17	19	58-128	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab File ID: W10011848.d Lab Sample ID: MB 480-562572/1-A

Matrix: Water Date Extracted: 12/09/2020 15:12

Instrument ID: HP5973W Date Analyzed: 12/18/2020 21:01

Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
GW-01 MS	480-179098-5 MS	W10011794.d	12/16/2020 07:24
GW-01 MSD	480-179098-5 MSD	W10011795.d	12/16/2020 07:52
GW-01	480-179098-5	W10011798.d	12/16/2020 09:16
GW-02	480-179098-1	W10011800.d	12/16/2020 10:12
GW-04	480-179098-3	W10011801.d	12/16/2020 10:40
	LCS 480-562572/2-A	W10011849.d	12/18/2020 21:29
GW-05B	480-179098-6	W10011859.d	12/19/2020 02:11
QA-QC	480-179098-7	W10011860.d	12/19/2020 02:39

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab File ID: W10011249.d DFTPP Injection Date: 11/24/2020

Instrument ID: HP5973W DFTPP Injection Time: 14:46

Analysis Batch No.: 560743

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	36.7	
68	Less than 2% of mass 69	0.1	(0.4) 1
69	Mass 69 Relative abundance	31.8	
70	Less than 2% of mass 69	0.2	(0.5) 1
127	10-80% of Base Peak	45.8	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	7.0	
275	10-60% of Base Peak	28.8	
365	Greater than 1% of mass 198	5.0	
441	present but less than 24% of mass 442	12.7	(15.9) 2
442	Greater than 50% of mass 198	80.1	
443	15-24% of mass 442	15.7	(19.5) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 480-560743/3	W10011250.d	11/24/2020	15:28
	IC 480-560743/4	W10011251.d	11/24/2020	15:56
	IC 480-560743/5	W10011252.d	11/24/2020	16:24
	IC 480-560743/6	W10011253.d	11/24/2020	16:53
	ICIS 480-560743/7	W10011254.d	11/24/2020	17:22
	IC 480-560743/8	W10011255.d	11/24/2020	17:50
	IC 480-560743/9	W10011256.d	11/24/2020	18:18
	IC 480-560743/10	W10011257.d	11/24/2020	18:47
	ICV 480-560743/11	W10011258.d	11/24/2020	19:15

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab File ID: W10011791.d DFTPP Injection Date: 12/16/2020

Instrument ID: HP5973W DFTPP Injection Time: 05:59

Analysis Batch No.: 563323

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	39.1	
68	Less than 2% of mass 69	0.2	(0.5) 1
69	Mass 69 Relative abundance	33.9	
70	Less than 2% of mass 69	0.3	(0.8) 1
127	10-80% of Base Peak	49.4	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.6	
275	10-60% of Base Peak	27.0	
365	Greater than 1% of mass 198	3.9	
441	present but less than 24% of mass 442	9.2	(16.4) 2
442	Greater than 50% of mass 198	56.0	
443	15-24% of mass 442	11.2	(20.0) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-563323/3	W10011792.d	12/16/2020	6:27
GW-01 MS	480-179098-5 MS	W10011794.d	12/16/2020	7:24
GW-01 MSD	480-179098-5 MSD	W10011795.d	12/16/2020	7:52
GW-01	480-179098-5	W10011798.d	12/16/2020	9:16
GW-02	480-179098-1	W10011800.d	12/16/2020	10:12
GW-04	480-179098-3	W10011801.d	12/16/2020	10:40

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab File ID: W10011832.d DFTPP Injection Date: 12/18/2020

Instrument ID: HP5973W DFTPP Injection Time: 13:30

Analysis Batch No.: 563843

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	39.9	
68	Less than 2% of mass 69	0.3	(0.8) 1
69	Mass 69 Relative abundance	33.3	
70	Less than 2% of mass 69	0.2	(0.5) 1
127	10-80% of Base Peak	49.0	
197	Less than 2% of mass 198	0.4	
198	Base peak	100.0	
199	5-9% of mass 198	7.2	
275	10-60% of Base Peak	28.3	
365	Greater than 1% of mass 198	3.7	
441	present but less than 24% of mass 442	9.4	(15.9) 2
442	Greater than 50% of mass 198	59.3	
443	15-24% of mass 442	12.4	(21.0) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-563843/3	W10011833.d	12/18/2020	13:58
	MB 480-562572/1-A	W10011848.d	12/18/2020	21:01
	LCS 480-562572/2-A	W10011849.d	12/18/2020	21:29

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab File ID: W10011856.d DFTPP Injection Date: 12/19/2020

Instrument ID: HP5973W DFTPP Injection Time: 00:47

Analysis Batch No.: 563844

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	37.5	✓
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	31.8	
70	Less than 2% of mass 69	0.2	(0.7) 1
127	10-80% of Base Peak	48.3	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.5	
275	10-60% of Base Peak	26.3	
365	Greater than 1% of mass 198	4.1	
441	present but less than 24% of mass 442	9.0	(15.0) 2
442	Greater than 50% of mass 198	60.2	
443	15-24% of mass 442	11.6	(19.3) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-563844/3	W10011857.d	12/19/2020	1:15
GW-05B	480-179098-6	W10011859.d	12/19/2020	2:11
QA-QC	480-179098-7	W10011860.d	12/19/2020	2:39 ✓

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: ICIS 480-560743/7 Date Analyzed: 11/24/2020 17:22

Instrument ID: HP5973W GC Column: RXI-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): W10011254.d Heated Purge: (Y/N) N

Calibration ID: 40698

	DCBd4		NPT		ANT	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	310325	6.22	1123441	7.31	582841	8.78
UPPER LIMIT	620650	6.72	2246882	7.81	1165682	9.28
LOWER LIMIT	155163	5.72	561721	6.81	291421	8.28
LAB SAMPLE ID CLIENT SAMPLE ID						
ICV 480-560743/11	248595	6.22	899662	7.31	517545	8.78
CCVIS 480-563323/3	205139	6.18	748278	7.26	424412	8.74
CCVIS 480-563843/3	207850	6.16	745287	7.25	421589	8.72
CCVIS 480-563844/3	209317	6.16	744312	7.25	444109	8.72

DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: ICIS 480-560743/7 Date Analyzed: 11/24/2020 17:22

Instrument ID: HP5973W GC Column: RXI-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): W10011254.d Heated Purge: (Y/N) N

Calibration ID: 40698

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		963909	10.02	861119	12.55	813193	14.62
UPPER LIMIT		1927818	10.52	1722238	13.05	1626386	15.12
LOWER LIMIT		481955	9.52	430560	12.05	406597	14.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 480-560743/11		879113	10.02	820339	12.56	926589	14.62
CCVIS 480-563323/3		734928	9.98	693279	12.49	630267	14.54
CCVIS 480-563843/3		731728	9.96	669700	12.46	599765	14.50
CCVIS 480-563844/3		765372	9.96	715007	12.46	632463	14.50

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: CCVIS 480-563323/3 Date Analyzed: 12/16/2020 06:27

Instrument ID: HP5973W GC Column: RXI-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): W10011792.d Heated Purge: (Y/N) N

Calibration ID: 40698

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		205139	6.18	748278	7.26	424412	8.74
UPPER LIMIT		410278	6.68	1496556	7.76	848824	9.24
LOWER LIMIT		102570	5.68	374139	6.76	212206	8.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
480-179098-5 MS	GW-01 MS	191624	6.18	704802	7.26	394235	8.74
480-179098-5 MSD	GW-01 MSD	191751	6.18	695956	7.26	383384	8.74
480-179098-5	GW-01	187003	6.18	668498	7.26	375107	8.74
480-179098-1	GW-02	179924	6.18	638381	7.26	366907	8.74
480-179098-3	GW-04	190183	6.18	685814	7.26	368349	8.74

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: CCVIS 480-563323/3 Date Analyzed: 12/16/2020 06:27

Instrument ID: HP5973W GC Column: RXI-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): W10011792.d Heated Purge: (Y/N) N

Calibration ID: 40698

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		734928	9.98	693279	12.49	630267	14.54
UPPER LIMIT		1469856	10.48	1386558	12.99	1260534	15.04
LOWER LIMIT		367464	9.48	346640	11.99	315134	14.04
LAB SAMPLE ID	CLIENT SAMPLE ID						
480-179098-5 MS	GW-01 MS	698451	9.98	644429	12.49	563417	14.54
480-179098-5 MSD	GW-01 MSD	686808	9.98	604500	12.49	555053	14.54
480-179098-5	GW-01	637942	9.98	608484	12.49	549935	14.54
480-179098-1	GW-02	617958	9.98	578730	12.49	541264	14.54
480-179098-3	GW-04	626410	9.98	550394	12.49	565086	14.54

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT
PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: CCVIS 480-563843/3 Date Analyzed: 12/18/2020 13:58

Instrument ID: HP5973W GC Column: RXI-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): W10011833.d Heated Purge: (Y/N) N

Calibration ID: 40698

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		207850	6.16	745287	7.25	421589	8.72
UPPER LIMIT		415700	6.66	1490574	7.75	843178	9.22
LOWER LIMIT		103925	5.66	372644	6.75	210795	8.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 480-562572/1-A		222590	6.16	786751	7.25	451734	8.72
LCS 480-562572/2-A		218331	6.16	780467	7.25	452739	8.72

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: CCVIS 480-563843/3 Date Analyzed: 12/18/2020 13:58

Instrument ID: HP5973W GC Column: RXI-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): W10011833.d Heated Purge: (Y/N) N

Calibration ID: 40698

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		731728	9.96	669700	12.46	599765	14.50
UPPER LIMIT		1463456	10.46	1339400	12.96	1199530	15.00
LOWER LIMIT		365864	9.46	334850	11.96	299883	14.00
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 480-562572/1-A		782667	9.96	675759	12.45	603442	14.50
LCS 480-562572/2-A		775447	9.96	706215	12.46	620327	14.50

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT
PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: CCVIS 480-563844/3 Date Analyzed: 12/19/2020 01:15

Instrument ID: HP5973W GC Column: RXI-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): W10011857.d Heated Purge: (Y/N) N

Calibration ID: 40698

		DCBd4		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		209317	6.16	744312	7.25	444109	8.72
UPPER LIMIT		418634	6.66	1488624	7.75	888218	9.22
LOWER LIMIT		104659	5.66	372156	6.75	222055	8.22
LAB SAMPLE ID	CLIENT SAMPLE ID						
480-179098-6	GW-05B	201096	6.16	728440	7.25	414431	8.72
480-179098-7	QA-QC	202025	6.16	725030	7.25	411745	8.72

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: CCVIS 480-563844/3 Date Analyzed: 12/19/2020 01:15

Instrument ID: HP5973W GC Column: RXI-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): W10011857.d Heated Purge: (Y/N) N

Calibration ID: 40698

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		765372	9.96	715007	12.46	632463	14.50
UPPER LIMIT		1530744	10.46	1430014	12.96	1264926	15.00
LOWER LIMIT		382686	9.46	357504	11.96	316232	14.00
LAB SAMPLE ID	CLIENT SAMPLE ID						
480-179098-6	GW-05B	669528	9.96	595879	12.46	614414	14.50
480-179098-7	QA-QC	724742	9.96	636175	12.46	583994	14.50

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT
PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-02 Lab Sample ID: 480-179098-1

Matrix: Water Lab File ID: U33159992.D

Analysis Method: 8270D SIM ID Date Collected: 12/04/2020 09:20

Extract. Method: 3510C Date Extracted: 12/09/2020 09:01

Sample wt/vol: 1050 (mL) Date Analyzed: 12/10/2020 23:11

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

Injection Volume: 1 (uL) Level: (low/med) Low

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

Analysis Batch No.: 562773 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	24		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-05 Lab Sample ID: 480-179098-2

Matrix: Water Lab File ID: U33160001.D

Analysis Method: 8270D SIM ID Date Collected: 12/03/2020 11:40

Extract. Method: 3510C Date Extracted: 12/09/2020 09:01

Sample wt/vol: 1050 (mL) Date Analyzed: 12/11/2020 13:16

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

Injection Volume: 1 (uL) Level: (low/med) Low

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

Analysis Batch No.: 562914 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.40		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	25		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-04 Lab Sample ID: 480-179098-3

Matrix: Water Lab File ID: U33160002.D

Analysis Method: 8270D SIM ID Date Collected: 12/03/2020 13:10

Extract. Method: 3510C Date Extracted: 12/09/2020 09:01

Sample wt/vol: 1050 (mL) Date Analyzed: 12/11/2020 13:39

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

Injection Volume: 1 (uL) Level: (low/med) Low

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

Analysis Batch No.: 562914 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	24		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-03 Lab Sample ID: 480-179098-4

Matrix: Water Lab File ID: U33160003.D

Analysis Method: 8270D SIM ID Date Collected: 12/04/2020 11:00

Extract. Method: 3510C Date Extracted: 12/09/2020 09:01

Sample wt/vol: 1050(mL) Date Analyzed: 12/11/2020 14:02

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

Injection Volume: 1(uL) Level: (low/med) Low

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

Analysis Batch No.: 562914 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	25		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-01 Lab Sample ID: 480-179098-5

Matrix: Water Lab File ID: U33159991.D

Analysis Method: 8270D SIM ID Date Collected: 12/03/2020 15:00

Extract. Method: 3510C Date Extracted: 12/09/2020 09:01

Sample wt/vol: 1050 (mL) Date Analyzed: 12/10/2020 22:47

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

Injection Volume: 1 (uL) Level: (low/med) Low

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

Analysis Batch No.: 562773 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	27		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Client Sample ID: QA-QC Lab Sample ID: 480-179098-7

Matrix: Water Lab File ID: U33160004.D

Analysis Method: 8270D SIM ID Date Collected: 12/04/2020 00:00

Extract. Method: 3510C Date Extracted: 12/09/2020 09:01

Sample wt/vol: 1050(mL) Date Analyzed: 12/11/2020 14:26

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

Injection Volume: 1(uL) Level: (low/med) Low

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

Analysis Batch No.: 562914 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	ND		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	23		15-110

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5Sil MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DXE	#
GW-02	480-179098-1	24	
GW-05	480-179098-2	25	
GW-04	480-179098-3	24	
GW-03	480-179098-4	25	
GW-01	480-179098-5	27	
QA-QC	480-179098-7	23	
	MB 480-562479/1-A	29	
	LCS 480-562479/2-A	29	
GW-01 MS	480-179098-5 MS	25	
GW-01 MSD	480-179098-5 MSD	25	

	QC LIMITS
DXE = 1,4-Dioxane-d8	15-110

Column to be used to flag recovery values

FORM II 8270D SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U33159988.D

Lab ID: LCS 480-562479/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	1.00	1.09	109	40-140	
1,4-Dioxane-d8	10.0	2.89	29	15-110	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U33159989.D

Lab ID: 480-179098-5 MS Client ID: GW-01 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	0.952	ND	1.05	110	40-140	
1,4-Dioxane-d8	9.52	2.5	2.43	25	15-110	

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: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U33159990.D

Lab ID: 480-179098-5 MSD Client ID: GW-01 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	0.952	1.05	110	0	20	40-140	
1,4-Dioxane-d8	9.52	2.38	25			15-110	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab File ID: U33159987.D Lab Sample ID: MB 480-562479/1-A

Matrix: Water Date Extracted: 12/09/2020 09:01

Instrument ID: HP5973U Date Analyzed: 12/10/2020 21:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 480-562479/2-A	U33159988.D	12/10/2020 21:35
GW-01 MS	480-179098-5 MS	U33159989.D	12/10/2020 21:59
GW-01 MSD	480-179098-5 MSD	U33159990.D	12/10/2020 22:23
GW-01	480-179098-5	U33159991.D	12/10/2020 22:47
GW-02	480-179098-1	U33159992.D	12/10/2020 23:11
GW-05	480-179098-2	U33160001.D	12/11/2020 13:16
GW-04	480-179098-3	U33160002.D	12/11/2020 13:39
GW-03	480-179098-4	U33160003.D	12/11/2020 14:02
QA-QC	480-179098-7	U33160004.D	12/11/2020 14:26

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab File ID: U33158827.D DFTPP Injection Date: 10/22/2020

Instrument ID: HP5973U DFTPP Injection Time: 18:48

Analysis Batch No.: 555321

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	43.7	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	40.1	
70	Less than 2% of mass 69	0.2	(0.5) 1
127	10-80% of Base Peak	48.1	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	7.0	
275	10-60% of Base Peak	25.7	
365	Greater than 1% of mass 198	3.3	
441	present but less than 24% of mass 442	9.3	(14.6) 2
442	Greater than 50% of mass 198	63.7	
443	15-24% of mass 442	12.6	(19.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 480-555321/3	U33158828.D	10/22/2020	19:16
	IC 480-555321/4	U33158829.D	10/22/2020	19:39
	ICIS 480-555321/5	U33158830.D	10/22/2020	20:03
	IC 480-555321/6	U33158831.D	10/22/2020	20:26
	IC 480-555321/7	U33158832.D	10/22/2020	20:50
	IC 480-555321/8	U33158833.D	10/22/2020	21:13
	ICV 480-555321/9	U33158834.D	10/22/2020	21:36

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab File ID: U33159976.D DFTPP Injection Date: 12/10/2020

Instrument ID: HP5973U DFTPP Injection Time: 16:46

Analysis Batch No.: 562773

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
51	10-80% of Base Peak	25.4		
68	Less than 2% of mass 69	0.0	(0.0)	1
69	Mass 69 Relative abundance	26.2		
70	Less than 2% of mass 69	0.0	(0.0)	1
127	10-80% of Base Peak	36.9		
197	Less than 2% of mass 198	0.0		
198	Base peak	100.0		
199	5-9% of mass 198	6.8		
275	10-60% of Base Peak	37.9		
365	Greater than 1% of mass 198	4.8		
441	present but less than 24% of mass 442	25.2	(14.7)	2
442	Greater than 50% of mass 198	171.0		
443	15-24% of mass 442	32.6	(19.0)	2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-562773/3	U33159977.D	12/10/2020	17:14
	MB 480-562479/1-A	U33159987.D	12/10/2020	21:12
	LCS 480-562479/2-A	U33159988.D	12/10/2020	21:35
GW-01 MS	480-179098-5 MS	U33159989.D	12/10/2020	21:59
GW-01 MSD	480-179098-5 MSD	U33159990.D	12/10/2020	22:23
GW-01	480-179098-5	U33159991.D	12/10/2020	22:47
GW-02	480-179098-1	U33159992.D	12/10/2020	23:11 ✓

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab File ID: U33159998.D DFTPP Injection Date: 12/11/2020

Instrument ID: HP5973U DFTPP Injection Time: 12:01

Analysis Batch No.: 562914

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
51	10-80% of Base Peak	23.8		
68	Less than 2% of mass 69	0.0	(0.0)	1
69	Mass 69 Relative abundance	24.2		
70	Less than 2% of mass 69	0.0	(0.0)	1
127	10-80% of Base Peak	34.7		
197	Less than 2% of mass 198	0.0		
198	Base peak	100.0		
199	5-9% of mass 198	7.4		
275	10-60% of Base Peak	35.6		
365	Greater than 1% of mass 198	4.2		
441	present but less than 24% of mass 442	25.2	(14.8)	2
442	Greater than 50% of mass 198	169.9		
443	15-24% of mass 442	31.5	(18.6)	2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-562914/3	U33159999.D	12/11/2020	12:29
GW-05	480-179098-2	U33160001.D	12/11/2020	13:16
GW-04	480-179098-3	U33160002.D	12/11/2020	13:39
GW-03	480-179098-4	U33160003.D	12/11/2020	14:02
QA-QC	480-179098-7	U33160004.D	12/11/2020	14:26

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: ICIS 480-555321/5 Date Analyzed: 10/22/2020 20:03

Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)

Lab File ID (Standard): U33158830.D Heated Purge: (Y/N) N

Calibration ID: 40483

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		676810	6.13				
UPPER LIMIT		1353620	6.63				
LOWER LIMIT		338405	5.63				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 480-555321/9		762603	6.13				
CCVIS 480-562773/3		435643	5.95				
CCVIS 480-562914/3		425706	5.95				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM ID

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: CCVIS 480-562773/3 Date Analyzed: 12/10/2020 17:14

Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)

Lab File ID (Standard): U33159977.D Heated Purge: (Y/N) N

Calibration ID: 40483

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		435643	5.95				
UPPER LIMIT		871286	6.45				
LOWER LIMIT		217822	5.45				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 480-562479/1-A		420887	5.95				
LCS 480-562479/2-A		396196	5.96				
480-179098-5 MS	GW-01 MS	395734	5.96				
480-179098-5 MSD	GW-01 MSD	412018	5.96				
480-179098-5	GW-01	394052	5.96				
480-179098-1	GW-02	409015	5.96				

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM ID

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Sample No.: CCVIS 480-562914/3 Date Analyzed: 12/11/2020 12:29

Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)

Lab File ID (Standard): U33159999.D Heated Purge: (Y/N) N

Calibration ID: 40483

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		425706	5.95				
UPPER LIMIT		851412	6.45				
LOWER LIMIT		212853	5.45				
LAB SAMPLE ID	CLIENT SAMPLE ID						
480-179098-2	GW-05	376331	5.96				
480-179098-3	GW-04	372005	5.96				
480-179098-4	GW-03	381095	5.96				
480-179098-7	QA-QC	398468	5.96				

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D SIM ID

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-02 Lab Sample ID: 480-179098-1

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_044.d

Analysis Method: 537 (modified) Date Collected: 12/04/2020 09:20

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 267.9(mL) Date Analyzed: 12/11/2020 06:43

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	~~ND~~ UJ		4.7	2.2
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.9	0.46
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.9	0.54
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.23
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.9	0.79
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	0.25
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	0.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.68
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.53
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.50
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.91
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	1.2
27619-97-2	6:2 FTS	ND		4.7	2.3
39108-34-4	8:2 FTS	ND		1.9	0.43

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-02 Lab Sample ID: 480-179098-1

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_044.d

Analysis Method: 537 (modified) Date Collected: 12/04/2020 09:20

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 267.9(mL) Date Analyzed: 12/11/2020 06:43

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	58		25-150
STL01893	13C5 PFPeA	73		25-150
STL00993	13C2 PFHxA	86		25-150
STL01892	13C4 PFHpA	87		25-150
STL00990	13C4 PFOA	91		25-150
STL00995	13C5 PFNA	95		25-150
STL00996	13C2 PFDA	91		25-150
STL00997	13C2 PFUnA	87		25-150
STL00998	13C2 PFDoA	75		25-150
STL02116	13C2 PFTeDA	74		25-150
STL02337	13C3 PFBS	90		25-150
STL00994	18O2 PFHxS	95		25-150
STL00991	13C4 PFOS	92		25-150
STL01056	13C8 FOSA	100		25-150
STL02118	d3-NMeFOSAA	85		25-150
STL02117	d5-NEtFOSAA	99		25-150
STL02279	M2-6:2 FTS	118		25-150
STL02280	M2-8:2 FTS	110		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-05 Lab Sample ID: 480-179098-2

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_045.d

Analysis Method: 537 (modified) Date Collected: 12/03/2020 11:40

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 252.5(mL) Date Analyzed: 12/11/2020 06:52

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	~~ND~~	UJ	5.0	2.4
2706-90-3	Perfluoropentanoic acid (PFPeA)	~~ND~~	UJ	2.0	0.49
307-24-4	Perfluorohexanoic acid (PFHxA)	2.8	J	2.0	0.57
375-85-9	Perfluoroheptanoic acid (PFHpA)	2.2	J	2.0	0.25
335-67-1	Perfluorooctanoic acid (PFOA)	12	J	2.0	0.84
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	0.27
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	0.31
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	1.1
307-55-1	Perfluorododecanoic acid (PFDoA)	~~ND~~	UJ	2.0	0.54
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		2.0	1.3
376-06-7	Perfluorotetradecanoic acid (PFTeA)	~~ND~~	UJ	2.0	0.72
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.20
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.5	U	2.0	0.56
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.19
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	17	I	2.0	0.53
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND	*	2.0	0.32
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		2.0	0.97
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	~~ND~~	U	5.0	1.2
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0	1.3
27619-97-2	6:2 FTS	ND		5.0	2.5
39108-34-4	8:2 FTS	ND		2.0	0.46

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-05 Lab Sample ID: 480-179098-2

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_045.d

Analysis Method: 537 (modified) Date Collected: 12/03/2020 11:40

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 252.5(mL) Date Analyzed: 12/11/2020 06:52

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	15	*5	25-150
STL01893	13C5 PFPeA	30		25-150
STL00993	13C2 PFHxA	47		25-150
STL01892	13C4 PFHpA	57		25-150
STL00990	13C4 PFOA	68		25-150
STL00995	13C5 PFNA	73		25-150
STL00996	13C2 PFDA	76		25-150
STL00997	13C2 PFUnA	82		25-150
STL00998	13C2 PFDoA	62		25-150
STL02116	13C2 PFTeDA	69		25-150
STL02337	13C3 PFBS	73		25-150
STL00994	18O2 PFHxS	82		25-150
STL00991	13C4 PFOS	83		25-150
STL01056	13C8 FOSA	85		25-150
STL02118	d3-NMeFOSAA	68		25-150
STL02117	d5-NEtFOSAA	88		25-150
STL02279	M2-6:2 FTS	105		25-150
STL02280	M2-8:2 FTS	117		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-04 Lab Sample ID: 480-179098-3

Matrix: Water Lab File ID: 2020.12.11_A15_PFC_A_046.d

Analysis Method: 537 (modified) Date Collected: 12/03/2020 13:10

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 266.5(mL) Date Analyzed: 12/11/2020 14:33

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 441208 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	7.8	J	4.7	2.3
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.90	J	1.9	0.46
307-24-4	Perfluorohexanoic acid (PFHxA)	2.5	J	1.9	0.54
375-85-9	Perfluoroheptanoic acid (PFHpA)	5.4	J	1.9	0.23
335-67-1	Perfluorooctanoic acid (PFOA)	31		1.9	0.80
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	0.25
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	0.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	0.52
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.68
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.1	J	1.9	0.19
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.7	U	1.9	0.53
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.51
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.92
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	1.2
27619-97-2	6:2 FTS	ND		4.7	2.3
39108-34-4	8:2 FTS	ND		1.9	0.43

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-04 Lab Sample ID: 480-179098-3

Matrix: Water Lab File ID: 2020.12.11_A15_PFC_A_046.d

Analysis Method: 537 (modified) Date Collected: 12/03/2020 13:10

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 266.5(mL) Date Analyzed: 12/11/2020 14:33

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 441208 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	18	*5	25-150
STL01893	13C5 PFPeA	35		25-150
STL00993	13C2 PFHxA	54		25-150
STL01892	13C4 PFHpA	67		25-150
STL00990	13C4 PFOA	75		25-150
STL00995	13C5 PFNA	84		25-150
STL00996	13C2 PFDA	90		25-150
STL00997	13C2 PFUnA	81		25-150
STL00998	13C2 PFDoA	77		25-150
STL02116	13C2 PFTeDA	77		25-150
STL02337	13C3 PFBS	75		25-150
STL00994	18O2 PFHxS	93		25-150
STL00991	13C4 PFOS	95		25-150
STL01056	13C8 FOSA	94		25-150
STL02118	d3-NMeFOSAA	77		25-150
STL02117	d5-NEtFOSAA	97		25-150
STL02279	M2-6:2 FTS	123		25-150
STL02280	M2-8:2 FTS	137		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-03 Lab Sample ID: 480-179098-4

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_047.d

Analysis Method: 537 (modified) Date Collected: 12/04/2020 11:00

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 265.3(mL) Date Analyzed: 12/11/2020 07:11

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	5.5	J	4.7	2.3
2706-90-3	Perfluoropentanoic acid (PFPeA)	~~ND~~	UJ	1.9	0.46
307-24-4	Perfluorohexanoic acid (PFHxA)	0.81	J	1.9	0.55
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.66	J	1.9	0.24
335-67-1	Perfluorooctanoic acid (PFOA)	1.5	J	1.9	0.80
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	0.25
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	0.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	~~ND~~	UJ	1.9	0.52
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2
376-06-7	Perfluorotetradecanoic acid (PFTeA)	~~ND~~	UJ	1.9	0.69
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.54
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.51
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.92
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	~~ND~~	UJ	4.7	1.1
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	1.2
27619-97-2	6:2 FTS	ND		4.7	2.4
39108-34-4	8:2 FTS	ND		1.9	0.43

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-03 Lab Sample ID: 480-179098-4

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_047.d

Analysis Method: 537 (modified) Date Collected: 12/04/2020 11:00

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 265.3(mL) Date Analyzed: 12/11/2020 07:11

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	29		25-150
STL01893	13C5 PFPeA	49		25-150
STL00993	13C2 PFHxA	58		25-150
STL01892	13C4 PFHpA	67		25-150
STL00990	13C4 PFOA	75		25-150
STL00995	13C5 PFNA	82		25-150
STL00996	13C2 PFDA	81		25-150
STL00997	13C2 PFUnA	71		25-150
STL00998	13C2 PFDoA	67		25-150
STL02116	13C2 PFTeDA	38		25-150
STL02337	13C3 PFBS	71		25-150
STL00994	18O2 PFHxS	80		25-150
STL00991	13C4 PFOS	79		25-150
STL01056	13C8 FOSA	79		25-150
STL02118	d3-NMeFOSAA	64		25-150
STL02117	d5-NEtFOSAA	71		25-150
STL02279	M2-6:2 FTS	105		25-150
STL02280	M2-8:2 FTS	96		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-01 Lab Sample ID: 480-179098-5

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_048.d

Analysis Method: 537 (modified) Date Collected: 12/03/2020 15:00

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 267.1(mL) Date Analyzed: 12/11/2020 07:20

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	~~ND~~	~~F1~~ UJ	4.7	2.2
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.9	0.46
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.9	0.54
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.23
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.9	0.80
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	0.25
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	0.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ND	F1	1.9	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND	F1	1.9	0.68
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.35	J	1.9	0.19
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.53
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.51
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.92
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7	1.1
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7	1.2
27619-97-2	6:2 FTS	ND		4.7	2.3
39108-34-4	8:2 FTS	ND		1.9	0.43

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: GW-01 Lab Sample ID: 480-179098-5

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_048.d

Analysis Method: 537 (modified) Date Collected: 12/03/2020 15:00

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 267.1(mL) Date Analyzed: 12/11/2020 07:20

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	96		25-150
STL01893	13C5 PFPeA	121		25-150
STL00993	13C2 PFHxA	144		25-150
STL01892	13C4 PFHpA	143		25-150
STL00990	13C4 PFOA	144		25-150
STL00995	13C5 PFNA	147		25-150
STL00996	13C2 PFDA	139		25-150
STL00997	13C2 PFUnA	119		25-150
STL00998	13C2 PFDoA	113		25-150
STL02116	13C2 PFTeDA	91		25-150
STL02337	13C3 PFBS	128		25-150
STL00994	18O2 PFHxS	136		25-150
STL00991	13C4 PFOS	125		25-150
STL01056	13C8 FOSA	150		25-150
STL02118	d3-NMeFOSAA	121		25-150
STL02117	d5-NEtFOSAA	132		25-150
STL02279	M2-6:2 FTS	176	*5	25-150
STL02280	M2-8:2 FTS	149		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: QA-QC Lab Sample ID: 480-179098-7

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_051.d

Analysis Method: 537 (modified) Date Collected: 12/04/2020 00:00

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 257.5(mL) Date Analyzed: 12/11/2020 07:47

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.9	2.3
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND	UJ	1.9	0.48
307-24-4	Perfluorohexanoic acid (PFHxA)	ND	UJ	1.9	0.56
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND	UJ	1.9	0.24
335-67-1	Perfluorooctanoic acid (PFOA)	ND	UJ	1.9	0.83
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	0.26
335-76-2	Perfluorodecanoic acid (PFDA)	ND	UJ	1.9	0.30
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND	UJ	1.9	1.1
307-55-1	Perfluorododecanoic acid (PFDoA)	ND	UJ	1.9	0.53
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.3
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND	UJ	1.9	0.71
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND	UJ	1.9	0.19
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.55
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND	UJ	1.9	0.52
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.31
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.95
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	UJ	4.9	1.2
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	UJ	4.9	1.3
27619-97-2	6:2 FTS	ND		4.9	2.4
39108-34-4	8:2 FTS	ND	UJ	1.9	0.45

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: QA-QC Lab Sample ID: 480-179098-7

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_051.d

Analysis Method: 537 (modified) Date Collected: 12/04/2020 00:00

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 257.5(mL) Date Analyzed: 12/11/2020 07:47

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	47		25-150
STL01893	13C5 PFPeA	55		25-150
STL00993	13C2 PFHxA	66		25-150
STL01892	13C4 PFHpA	67		25-150
STL00990	13C4 PFOA	69		25-150
STL00995	13C5 PFNA	71		25-150
STL00996	13C2 PFDA	64		25-150
STL00997	13C2 PFUnA	52		25-150
STL00998	13C2 PFDoA	44		25-150
STL02116	13C2 PFTeDA	41		25-150
STL02337	13C3 PFBS	68		25-150
STL00994	18O2 PFHxS	73		25-150
STL00991	13C4 PFOS	67		25-150
STL01056	13C8 FOSA	71		25-150
STL02118	d3-NMeFOSAA	57		25-150
STL02117	d5-NEtFOSAA	63		25-150
STL02279	M2-6:2 FTS	83		25-150
STL02280	M2-8:2 FTS	69		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: Equipment Blank Lab Sample ID: 480-179098-8

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_054.d

Analysis Method: 537 (modified) Date Collected: 12/04/2020 12:00

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 269.6(mL) Date Analyzed: 12/11/2020 08:14

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		4.6	2.2
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.9	0.45
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.9	0.54
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.9	0.23
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.9	0.79
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.9	0.25
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.9	0.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.9	1.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.9	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.9	1.2
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.9	0.68
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.9	0.19
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.9	0.53
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.9	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.9	0.50
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND	*	1.9	0.30
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND		1.9	0.91
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6	1.1
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6	1.2
27619-97-2	6:2 FTS	ND		4.6	2.3
39108-34-4	8:2 FTS	ND		1.9	0.43

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Client Sample ID: Equipment Blank Lab Sample ID: 480-179098-8

Matrix: Water Lab File ID: 2020.12.10_A15_PFC_B_054.d

Analysis Method: 537 (modified) Date Collected: 12/04/2020 12:00

Extraction Method: 3535 Date Extracted: 12/09/2020 19:06

Sample wt/vol: 269.6(mL) Date Analyzed: 12/11/2020 08:14

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: Gemini C18 3x50 ID: 3(mm)

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

Analysis Batch No.: 440834 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00992	13C4 PFBA	100		25-150
STL01893	13C5 PFPeA	104		25-150
STL00993	13C2 PFHxA	99		25-150
STL01892	13C4 PFHpA	94		25-150
STL00990	13C4 PFOA	94		25-150
STL00995	13C5 PFNA	99		25-150
STL00996	13C2 PFDA	95		25-150
STL00997	13C2 PFUnA	93		25-150
STL00998	13C2 PFDoA	81		25-150
STL02116	13C2 PFTeDA	77		25-150
STL02337	13C3 PFBS	104		25-150
STL00994	18O2 PFHxS	104		25-150
STL00991	13C4 PFOS	99		25-150
STL01056	13C8 FOSA	100		25-150
STL02118	d3-NMeFOSAA	104		25-150
STL02117	d5-NEtFOSAA	119		25-150
STL02279	M2-6:2 FTS	99		25-150
STL02280	M2-8:2 FTS	98		25-150

FORM II
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFBA	#	PFPeA	#	C3PFBS	#	PFHxA	#	C4PFHA	#	PFHxS	#	M262FTS	#	PFOA	#
GW-02	480-179098-1	58		73		90		86		87		95		118		91	
GW-05	480-179098-2	15	*5	30		73		47		51		82		105		68	
GW-04	480-179098-3	18	*5	35		75		54		67		93		123		75	
GW-03	480-179098-4	29		49		71		58		67		80		105		75	
GW-01	480-179098-5	96		121		128		144		143		136		176	*5	144	
QA-QC	480-179098-7	47		55		68		66		67		73		83		69	
Equipment Blank	480-179098-8	100		104		104		99		94		104		99		94	
	MB 320-440511/1-A	105		108		108		106		101		109		105		99	
	LCS 320-440511/2-A	81		83		83		81		76		84		81		80	
GW-01 MS	480-179098-5 MS	100		125		130		146		149		137		175	*5	147	
GW-01 MSD	480-179098-5 MSD	60		75		91		89		89		96		110		84	

	QC LIMITS
PFBA = 13C4 PFBA	25-150
PFPeA = 13C5 PFPeA	25-150
C3PFBS = 13C3 PFBS	25-150
PFHxA = 13C2 PFHxA	25-150
C4PFHA = 13C4 PFHpA	25-150
PFHxS = 18O2 PFHxS	25-150
M262FTS = M2-6:2 FTS	25-150
PFOA = 13C4 PFOA	25-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFOS	#	PFNA	#	M282FTS	#	PFDA	#	PFOSA	#	d3NMFOS	#	PFUnA	#	d5NEFOS	#
GW-02	480-179098-1	92		95		110		91		100		85		87		99	
GW-05	480-179098-2	83		73		117		76		85		68		82		88	
GW-04	480-179098-3	95		84		137		90		94		77		81		97	
GW-03	480-179098-4	79		82		96		81		79		64		71		71	
GW-01	480-179098-5	125		147		149		139		150		121		119		132	
QA-QC	480-179098-7	67		71		69		64		71		57		52		63	
Equipment Blank	480-179098-8	99		99		98		95		100		104		93		119	
	MB 320-440511/1-A	103		102		99		105		106		111		101		121	
	LCS 320-440511/2-A	79		81		79		78		87		98		82		110	
GW-01 MS	480-179098-5 MS	127		146		162	*5	148		154	*5	120		124		136	
GW-01 MSD	480-179098-5 MSD	91		89		95		95		100		83		86		95	

	QC LIMITS
PFOS = 13C4 PFOS	25-150
PFNA = 13C5 PFNA	25-150
M282FTS = M2-8:2 FTS	25-150
PFDA = 13C2 PFDA	25-150
PFOSA = 13C8 FOSA	25-150
d3NMFOS = d3-NMeFOSAA	25-150
PFUnA = 13C2 PFUnA	25-150
d5NEFOS = d5-NEtFOSAA	25-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Gemini C18 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFDoA	#	PFTDA	#
GW-02	480-179098-1	75		74	
GW-05	480-179098-2	62		69	
GW-04	480-179098-3	77		77	
GW-03	480-179098-4	67		38	
GW-01	480-179098-5	113		91	
QA-QC	480-179098-7	44		41	
Equipment Blank	480-179098-8	81		77	
	MB 320-440511/1-A	85		84	
	LCS 320-440511/2-A	73		71	
GW-01 MS	480-179098-5 MS	95		83	
GW-01 MSD	480-179098-5 MSD	78		77	

	QC LIMITS
PFDoA = 13C2 PFDoA	25-150
PFTDA = 13C2 PFTeDA	25-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2020.12.11_A15_PFC_A_043.d

Lab ID: LCS 320-440511/2-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	40.0	51.3	128	76-136	
Perfluoropentanoic acid (PFPeA)	40.0	46.7	117	71-131	
Perfluorohexanoic acid (PFHxA)	40.0	47.7	119	73-133	
Perfluoroheptanoic acid (PFHpA)	40.0	49.9	125	72-132	
Perfluorooctanoic acid (PFOA)	40.0	46.3	116	70-130	
Perfluorononanoic acid (PFNA)	40.0	46.6	116	75-135	
Perfluorodecanoic acid (PFDA)	40.0	51.6	129	76-136	
Perfluoroundecanoic acid (PFUnA)	40.0	47.7	119	68-128	
Perfluorododecanoic acid (PFDoA)	40.0	51.3	128	71-131	
Perfluorotridecanoic acid (PFTriA)	40.0	52.6	131	71-131	
Perfluorotetradecanoic acid (PFTeA)	40.0	51.1	128	70-130	
Perfluorobutanesulfonic acid (PFBS)	35.4	42.5	120	67-127	
Perfluorohexanesulfonic acid (PFHxS)	36.4	41.5	114	59-119	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	50.8	133	76-136	
Perfluorooctanesulfonic acid (PFOS)	37.1	47.2	127	70-130	
Perfluorodecanesulfonic acid (PFDS)	38.6	51.5	134	71-131	
Perfluorooctanesulfonamide (FOSA)	40.0	49.9	125	73-133	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	48.1	120	76-136	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	45.6	114	76-136	
6:2 FTS	37.9	45.5	120	59-175	
8:2 FTS	38.3	48.9	128	75-135	
13C4 PFBA	100	80.8	81	25-150	
13C5 PFPeA	100	83.1	83	25-150	
13C2 PFHxA	100	80.7	81	25-150	
13C4 PFHpA	100	75.9	76	25-150	
13C4 PFOA	100	79.5	80	25-150	
13C5 PFNA	100	81.1	81	25-150	
13C2 PFDA	100	77.6	78	25-150	
13C2 PFUnA	100	82.1	82	25-150	
13C2 PFDoA	100	73.2	73	25-150	
13C2 PFTeDA	100	71.2	71	25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2020.12.11_A15_PFC_A_043.d

Lab ID: LCS 320-440511/2-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
13C3 PFBS	93.0	76.7	83	25-150	
18O2 PFHxS	94.6	79.6	84	25-150	
13C4 PFOS	95.6	75.9	79	25-150	
13C8 FOSA	100	86.8	87	25-150	
d3-NMeFOSAA	100	98.2	98	25-150	
d5-NEtFOSAA	100	110	110	25-150	
M2-6:2 FTS	95.0	77.2	81	25-150	
M2-8:2 FTS	95.8	75.3	79	25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2020.12.10_A15_PFC_B_049.d

Lab ID: 480-179098-5 MS Client ID: GW-01 MS

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	37.5	ND	49.9	133	76-136	
Perfluoropentanoic acid (PFPeA)	37.5	ND	43.8	117	71-131	
Perfluorohexanoic acid (PFHxA)	37.5	ND	44.3	118	73-133	
Perfluoroheptanoic acid (PFHpA)	37.5	ND	45.3	121	72-132	
Perfluorooctanoic acid (PFOA)	37.5	ND	45.2	121	70-130	
Perfluorononanoic acid (PFNA)	37.5	ND	46.3	124	75-135	
Perfluorodecanoic acid (PFDA)	37.5	ND	45.8	122	76-136	
Perfluoroundecanoic acid (PFUnA)	37.5	ND	44.0	117	68-128	
Perfluorododecanoic acid (PFDoA)	37.5	ND	50.4	134	71-131	F1
Perfluorotridecanoic acid (PFTriA)	37.5	ND	45.1	120	71-131	
Perfluorotetradecanoic acid (PFTeA)	37.5	ND	51.0	136	70-130	F1
Perfluorobutanesulfonic acid (PFBS)	33.2	0.35 J	41.1	123	67-127	
Perfluorohexanesulfonic acid (PFHxS)	34.1	ND	38.9	114	59-119	
Perfluoroheptanesulfonic Acid (PFHpS)	35.7	ND	47.0	132	76-136	
Perfluorooctanesulfonic acid (PFOS)	34.8	ND	44.4	128	70-130	
Perfluorodecanesulfonic acid (PFDS)	36.2	ND	39.3	109	71-131	
Perfluorooctanesulfonamide (FOSA)	37.5	ND	47.5	127	73-133	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	37.5	ND	46.1	123	76-136	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	37.5	ND	43.0	115	76-136	
6:2 FTS	35.6	ND	44.0	124	59-175	
8:2 FTS	35.9	ND	45.8	127	75-135	
13C4 PFBA	93.8	90	94.1	100	25-150	
13C5 PFPeA	93.8	110	118	125	25-150	
13C2 PFHxA	93.8	140	137	146	25-150	
13C4 PFHpA	93.8	130	139	149	25-150	
13C4 PFOA	93.8	130	138	147	25-150	
13C5 PFNA	93.8	140	137	146	25-150	
13C2 PFDA	93.8	130	139	148	25-150	
13C2 PFUnA	93.8	110	117	124	25-150	
13C2 PFDoA	93.8	110	89.3	95	25-150	
13C2 PFTeDA	93.8	85	77.5	83	25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

12/24/2020

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2020.12.10_A15_PFC_B_049.d

Lab ID: 480-179098-5 MS Client ID: GW-01 MS

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC	QC LIMITS REC	#
13C3 PFBS	87.2	110	113	130	25-150	
18O2 PFHxS	88.7	120	121	137	25-150	
13C4 PFOS	89.6	110	114	127	25-150	
13C8 FOSA	93.8	140	144	154	25-150	*5
d3-NMeFOSAA	93.8	110	112	120	25-150	
d5-NEtFOSAA	93.8	120	127	136	25-150	
M2-6:2 FTS	89.1	160	156	175	25-150	*5
M2-8:2 FTS	89.8	130	146	162	25-150	*5

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2020.12.10_A15_PFC_B_050.d

Lab ID: 480-179098-5 MSD Client ID: GW-01 MSD

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	36.4	51.7	142	3	30	76-136	F1
Perfluoropentanoic acid (PFPeA)	36.4	41.0	112	7	30	71-131	
Perfluorohexanoic acid (PFHxA)	36.4	42.5	117	4	30	73-133	
Perfluoroheptanoic acid (PFHpA)	36.4	46.0	126	1	30	72-132	
Perfluorooctanoic acid (PFOA)	36.4	46.0	126	2	30	70-130	
Perfluorononanoic acid (PFNA)	36.4	46.4	127	0	30	75-135	
Perfluorodecanoic acid (PFDA)	36.4	42.1	115	8	30	76-136	
Perfluoroundecanoic acid (PFUnA)	36.4	45.7	125	4	30	68-128	
Perfluorododecanoic acid (PFDoA)	36.4	40.7	112	21	30	71-131	
Perfluorotridecanoic acid (PFTriA)	36.4	47.1	129	4	30	71-131	
Perfluorotetradecanoic acid (PFTeA)	36.4	44.7	123	13	30	70-130	
Perfluorobutanesulfonic acid (PFBS)	32.2	40.1	123	2	30	67-127	
Perfluorohexanesulfonic acid (PFHxS)	33.2	38.1	115	2	30	59-119	
Perfluoroheptanesulfonic Acid (PFHpS)	34.7	46.3	134	1	30	76-136	
Perfluorooctanesulfonic acid (PFOS)	33.8	42.8	126	4	30	70-130	
Perfluorodecanesulfonic acid (PFDS)	35.1	39.7	113	1	30	71-131	
Perfluorooctanesulfonamide (FOSA)	36.4	45.2	124	5	30	73-133	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	36.4	45.1	124	2	30	76-136	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	36.4	40.1	110	7	30	76-136	
6:2 FTS	34.5	42.0	122	5	30	59-175	
8:2 FTS	34.9	45.9	131	0	30	75-135	
13C4 PFBA	91.1	55.0	60			25-150	
13C5 PFPeA	91.1	67.9	75			25-150	
13C2 PFHxA	91.1	81.1	89			25-150	
13C4 PFHpA	91.1	81.4	89			25-150	
13C4 PFOA	91.1	76.4	84			25-150	
13C5 PFNA	91.1	81.5	89			25-150	
13C2 PFDA	91.1	86.6	95			25-150	
13C2 PFUnA	91.1	78.4	86			25-150	
13C2 PFDoA	91.1	70.9	78			25-150	
13C2 PFTeDA	91.1	70.1	77			25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2020.12.10_A15_PFC_B_050.d

Lab ID: 480-179098-5 MSD Client ID: GW-01 MSD

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
13C3 PFBS	84.7	77.0	91			25-150	
18O2 PFHxS	86.2	82.8	96			25-150	
13C4 PFOS	87.1	79.4	91			25-150	
13C8 FOSA	91.1	90.7	100			25-150	
d3-NMeFOSAA	91.1	75.3	83			25-150	
d5-NEtFOSAA	91.1	86.2	95			25-150	
M2-6:2 FTS	86.6	94.9	110			25-150	
M2-8:2 FTS	87.3	83.3	95			25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Lab File ID: 2020.12.10_A15_PFC_B_042.d Lab Sample ID: MB 320-440511/1-A

Matrix: Water Date Extracted: 12/09/2020 19:06

Instrument ID: A15 Date Analyzed: 12/11/2020 06:25

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
GW-02	480-179098-1	2020.12.10_A15_PFC_B_044.d	12/11/2020 06:43
GW-05	480-179098-2	2020.12.10_A15_PFC_B_045.d	12/11/2020 06:52
GW-03	480-179098-4	2020.12.10_A15_PFC_B_047.d	12/11/2020 07:11
GW-01	480-179098-5	2020.12.10_A15_PFC_B_048.d	12/11/2020 07:20
GW-01 MS	480-179098-5 MS	2020.12.10_A15_PFC_B_049.d	12/11/2020 07:29
GW-01 MSD	480-179098-5 MSD	2020.12.10_A15_PFC_B_050.d	12/11/2020 07:38
QA-QC	480-179098-7	2020.12.10_A15_PFC_B_051.d	12/11/2020 07:47
Equipment Blank	480-179098-8	2020.12.10_A15_PFC_B_054.d	12/11/2020 08:14
	LCS 320-440511/2-A	2020.12.11_A15_PFC_A_043.d	12/11/2020 14:06
GW-04	480-179098-3	2020.12.11_A15_PFC_A_046.d	12/11/2020 14:33

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Sample No.: STD04 320-439359/7 Date Analyzed: 12/07/2020 12:34

Instrument ID: A15 GC Column: Gemini C18 3x50 ID: 3(mm)

Lab File ID (Standard): 2020.12.07_A15_PFC_ Heated Purge: (Y/N) N

Calibration ID: 53204

		13PFOA					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		6720448	3.77				
UPPER LIMIT		10080672	3.97				
LOWER LIMIT		3360224	3.57				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICB 320-439359/11		7023983	3.77				
ICV 320-439359/12		7081825	3.76				
CCV 320-440801/3 CCVIS		5836371	3.78				
CCV 320-441055/3 CCVIS		5967388	3.75				

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 VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Sample No.: CCV 320-440801/3 Date Analyzed: 12/10/2020 22:37

Instrument ID: A15 GC Column: Gemini C18 3x50 ID: 3(mm)

Lab File ID (Standard): 2020.12.10_A15_PFC_ Heated Purge: (Y/N) N

Calibration ID: 53204

		13PFOA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		5836371	3.78				
UPPER LIMIT		8754557	3.98				
LOWER LIMIT		2918186	3.58				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-440801/1		6172694	3.76				
CCVL 320-440801/2		5408593	3.76				
CCV 320-440834/1		5930070	3.75				
MB 320-440511/1-A		4989136	3.75				
480-179098-1	GW-02	5377032	3.75				
480-179098-2	GW-05	4539278	3.75				
480-179098-4	GW-03	4294128	3.75				
480-179098-5	GW-01	3664282	3.76				
480-179098-5 MS	GW-01 MS	3593467	3.76				
480-179098-5 MSD	GW-01 MSD	5474839	3.76				
480-179098-7	QA-QC	5806050	3.75				
CCV 320-440834/13		5769965	3.76				
480-179098-8	Equipment Blank	5123685	3.76				
CCV 320-440834/20		5582244	3.75				

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 VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Sacramento Job No.: 480-179098-1

SDG No.:

Sample No.: CCV 320-441055/3 Date Analyzed: 12/11/2020 10:06

Instrument ID: A15 GC Column: Gemini C18 3x50 ID: 3(mm)

Lab File ID (Standard): 2020.12.11_A15_PFC_ Heated Purge: (Y/N) N

Calibration ID: 53204

		13PFOA					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		5967388	3.75				
UPPER LIMIT		8951082	3.95				
LOWER LIMIT		2983694	3.55				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCB 320-441055/1		5262745	3.75				
CCVL 320-441055/2		5469936	3.77				
CCV 320-441208/1		5764857	3.75				
LCS 320-440511/2-A		5602808	3.76				
480-179098-3	GW-04	4144111	3.75				
CCV 320-441208/12		5571485	3.75				

13PFOA = 13C2 PFOA
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)

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GW-02 | Lab Sample ID: 480-179098-1

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1

SDG ID.:

Matrix: Water | Date Sampled: 12/04/2020 09:20

Reporting Basis: WET | Date Received: 12/08/2020 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	1.9	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	0.013	0.020	0.0068	mg/L	J		1	6010C
7440-38-2	Arsenic	0.043	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.23	0.0020	0.00070	mg/L		^6+	1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	0.0016	0.0020	0.00050	mg/L	J		1	6010C
7440-70-2	Calcium	132	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0022	0.0040	0.0010	mg/L	J		1	6010C
7440-48-4	Cobalt	0.00081	0.0040	0.00063	mg/L	J		1	6010C
7440-50-8	Copper	0.034	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	34.4	0.050	0.019	mg/L		B	1	6010C
7439-92-1	Lead	0.051	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	27.2	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	3.9	0.0030	0.00040	mg/L		B	1	6010C
7440-02-0	Nickel	0.0023	0.010	0.0013	mg/L	J		1	6010C
7440-09-7	Potassium	1.6	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.017	0.025	0.0087	mg/L	J		1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	9.2	1.0	0.32	mg/L		B	1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	0.0032	0.0050	0.0015	mg/L	J		1	6010C
7440-66-6	Zinc	0.060	0.010	0.0015	mg/L		B	1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GW-04 | Lab Sample ID: 480-179098-3

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1

SDG ID.:

Matrix: Water | Date Sampled: 12/03/2020 13:10

Reporting Basis: WET | Date Received: 12/08/2020 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.54	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.0092	0.015	0.0056	mg/L	J		1	6010C
7440-39-3	Barium	0.30	0.0020	0.00070	mg/L		^6+	1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	0.00068	0.0020	0.00050	mg/L	J		1	6010C
7440-70-2	Calcium	277	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	0.00093	0.0040	0.00063	mg/L	J		1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	8.5	0.050	0.019	mg/L		B	1	6010C
7439-92-1	Lead	0.0041	0.010	0.0030	mg/L	J		1	6010C
7439-95-4	Magnesium	164	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	7.5	0.0030	0.00040	mg/L		B	1	6010C
7440-02-0	Nickel	0.0031	0.010	0.0013	mg/L	J		1	6010C
7440-09-7	Potassium	11.3	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	77.6	1.0	0.32	mg/L		B	1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0048	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GW-03 | Lab Sample ID: 480-179098-4

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1

SDG ID.:

Matrix: Water | Date Sampled: 12/04/2020 11:00

Reporting Basis: WET | Date Received: 12/08/2020 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	16.0	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.027	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.21	0.0020	0.00070	mg/L		^6+	1	6010C
7440-41-7	Beryllium	0.00058	0.0020	0.00030	mg/L	J		1	6010C
7440-43-9	Cadmium	0.00071	0.0020	0.00050	mg/L	J		1	6010C
7440-70-2	Calcium	45.1	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.016	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	0.010	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	0.021	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	19.2	0.050	0.019	mg/L		B	1	6010C
7439-92-1	Lead	0.015	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	10.5	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	2.1	0.0030	0.00040	mg/L		B	1	6010C
7440-02-0	Nickel	0.039	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	3.5	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	251	1.0	0.32	mg/L		B	1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	0.020	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.059	0.010	0.0015	mg/L		B	1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GW-01 | Lab Sample ID: 480-179098-5

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1

SDG ID.:

Matrix: Water | Date Sampled: 12/03/2020 15:00

Reporting Basis: WET | Date Received: 12/08/2020 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	ND	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.0063	0.015	0.0056	mg/L	J		1	6010C
7440-39-3	Barium	0.12	0.0020	0.00070	mg/L		^6+	1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	6010C
7440-70-2	Calcium	181	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	ND	0.0040	0.0010	mg/L			1	6010C
7440-48-4	Cobalt	ND	0.0040	0.00063	mg/L			1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	9.1	0.050	0.019	mg/L		B	1	6010C
7439-92-1	Lead	ND	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	29.0	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	2.0	0.0030	0.00040	mg/L		B	1	6010C
7440-02-0	Nickel	ND	0.010	0.0013	mg/L			1	6010C
7440-09-7	Potassium	1.7	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	10.9	1.0	0.32	mg/L		B	1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0050	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GW-05B
Lab Sample ID: 480-179098-6

Lab Name: Eurofins TestAmerica, Buffalo
Job No.: 480-179098-1

SDG ID.:

Matrix: Water
Date Sampled: 12/04/2020 11:30

Reporting Basis: WET
Date Received: 12/08/2020 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.85	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.048	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.47	0.0020	0.00070	mg/L		^6+	1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	0.0016	0.0020	0.00050	mg/L	J		1	6010C
7440-70-2	Calcium	190	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0025	0.0040	0.0010	mg/L	J		1	6010C
7440-48-4	Cobalt	0.00076	0.0040	0.00063	mg/L	J		1	6010C
7440-50-8	Copper	ND	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	16.4	0.050	0.019	mg/L		B	1	6010C
7439-92-1	Lead	0.0053	0.010	0.0030	mg/L	J		1	6010C
7439-95-4	Magnesium	103	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	2.5	0.0030	0.00040	mg/L		B	1	6010C
7440-02-0	Nickel	0.0054	0.010	0.0013	mg/L	J		1	6010C
7440-09-7	Potassium	32.2	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	211	1.0	0.32	mg/L		B	1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	6010C
7440-66-6	Zinc	0.0046	0.010	0.0015	mg/L	J	B	1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: QA-QC
Lab Sample ID: 480-179098-7
Lab Name: Eurofins TestAmerica, Buffalo
Job No.: 480-179098-1
SDG ID.:
Matrix: Water
Date Sampled: 12/04/2020 00:00
Reporting Basis: WET
Date Received: 12/08/2020 10:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	1.1	0.20	0.060	mg/L			1	6010C
7440-36-0	Antimony	0.021	0.020	0.0068	mg/L			1	6010C
7440-38-2	Arsenic	0.040	0.015	0.0056	mg/L			1	6010C
7440-39-3	Barium	0.25	0.0020	0.00070	mg/L		^6+	1	6010C
7440-41-7	Beryllium	ND	0.0020	0.00030	mg/L			1	6010C
7440-43-9	Cadmium	0.0014	0.0020	0.00050	mg/L	J		1	6010C
7440-70-2	Calcium	124	0.50	0.10	mg/L			1	6010C
7440-47-3	Chromium	0.0011	0.0040	0.0010	mg/L	J		1	6010C
7440-48-4	Cobalt	0.00088	0.0040	0.00063	mg/L	J		1	6010C
7440-50-8	Copper	0.012	0.010	0.0016	mg/L			1	6010C
7439-89-6	Iron	16.4	0.050	0.019	mg/L		B	1	6010C
7439-92-1	Lead	0.019	0.010	0.0030	mg/L			1	6010C
7439-95-4	Magnesium	23.9	0.20	0.043	mg/L			1	6010C
7439-96-5	Manganese	2.5	0.0030	0.00040	mg/L		B	1	6010C
7440-02-0	Nickel	0.0020	0.010	0.0013	mg/L	J		1	6010C
7440-09-7	Potassium	2.1	0.50	0.10	mg/L			1	6010C
7782-49-2	Selenium	0.023	0.025	0.0087	mg/L	J		1	6010C
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	6010C
7440-23-5	Sodium	8.2	1.0	0.32	mg/L		B	1	6010C
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	6010C
7440-62-2	Vanadium	0.0024	0.0050	0.0015	mg/L	J		1	6010C
7440-66-6	Zinc	0.031	0.010	0.0015	mg/L		B	1	6010C
7439-97-6	Mercury	ND	0.00020	0.00012	mg/L			1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

ICV Source: MEI_MSS_ICV_00058 Concentration Units: mg/L

CCV Source: MEI_MSS_STD2_00136

	ICV 480-563099/5 12/11/2020 13:59				CCV 480-563099/17 12/11/2020 20:00				CCV 480-563099/23 12/11/2020 20:45			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	37.56		37.5	100	50.57		50.0	101	50.86		50.0	102
Antimony	0.745		0.750	99	1.01		1.00	101	1.01		1.00	101
Arsenic	0.747		0.750	100	0.994		1.00	99	1.00		1.00	100
Barium	0.745		0.750	99	0.977		1.00	98	0.980		1.00	98
Beryllium	0.752		0.750	100	0.991		1.00	99	0.994		1.00	99
Cadmium	0.750		0.750	100	0.999		1.00	100	1.01		1.00	101
Calcium	37.39		37.5	100	50.49		50.0	101	50.84		50.0	102
Chromium	0.758		0.750	101	0.983		1.00	98	0.989		1.00	99
Cobalt	0.734		0.750	98	0.984		1.00	98	0.992		1.00	99
Copper	0.724		0.750	97	1.00		1.00	100	1.01		1.00	101
Iron	37.91		37.5	101	49.01		50.0	98	49.14		50.0	98
Lead	0.746		0.750	99	0.998		1.00	100	1.01		1.00	101
Magnesium	37.09		37.5	99	49.27		50.0	99	49.75		50.0	99
Manganese	0.765		0.750	102	0.981		1.00	98	0.989		1.00	99
Nickel	0.734		0.750	98	0.984		1.00	98	0.992		1.00	99
Potassium	37.74		37.5	101	48.75		50.0	97	48.97		50.0	98
Selenium	0.756		0.750	101	0.990		1.00	99	0.985		1.00	99
Silver	0.746		0.750	99	1.00		1.00	100	1.02		1.00	102
Sodium	37.71		37.5	101	49.25		50.0	99	49.48		50.0	99
Thallium	0.755		0.750	101	0.976		1.00	98	0.985		1.00	99
Vanadium	0.750		0.750	100	0.974		1.00	97	0.979		1.00	98
Zinc	0.733		0.750	98	0.986		1.00	99	0.989		1.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

ICV Source: MEI_MSS_ICV_00058 Concentration Units: mg/L

CCV Source: MEI_MSS_STD2_00136

CCV 480-563099/35
12/11/2020 21:30

Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	50.90		50.0	102								
Antimony	1.01		1.00	101								
Arsenic	0.996		1.00	100								
Barium	0.981		1.00	98								
Beryllium	0.994		1.00	99								
Cadmium	1.01		1.00	101								
Calcium	50.89		50.0	102								
Chromium	0.987		1.00	99								
Cobalt	0.993		1.00	99								
Copper	1.01		1.00	101								
Iron	49.15		50.0	98								
Lead	1.01		1.00	101								
Magnesium	49.74		50.0	99								
Manganese	0.989		1.00	99								
Nickel	0.992		1.00	99								
Potassium	48.92		50.0	98								
Selenium	0.988		1.00	99								
Silver	1.02		1.00	102								
Sodium	49.50		50.0	99								
Thallium	0.987		1.00	99								
Vanadium	0.979		1.00	98								
Zinc	0.989		1.00	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

ICV Source: MEI_10_CCVL_00352 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00352

	ICVL 480-563099/7 12/11/2020 14:06				CCVL 480-563099/19 12/11/2020 20:07				CCVL 480-563099/25 12/11/2020 20:53			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.208		0.200	104	0.232		0.200	116	0.212		0.200	106
Antimony	0.0206		0.0200	103	0.0196	J	0.0200	98	0.0190	J	0.0200	95
Arsenic	0.0137	J	0.0150	91	0.0149	J	0.0150	99	0.0139	J	0.0150	92
Barium	0.00207		0.00200	104	0.00203		0.00200	102	0.00200		0.00200	100
Beryllium	0.00204		0.00200	102	0.00207		0.00200	104	0.00208		0.00200	104
Cadmium	0.00220		0.00200	110	0.00231		0.00200	116	0.00236		0.00200	118
Calcium	0.517		0.500	103	0.532		0.500	106	0.537		0.500	107
Chromium	0.00394	J	0.00400	99	0.00396	J	0.00400	99	0.00384	J	0.00400	96
Cobalt	0.00367	J	0.00400	92	0.00372	J	0.00400	93	0.00367	J	0.00400	92
Copper	0.0102		0.0100	102	0.00944	J	0.0100	94	0.00868	J	0.0100	87
Iron	0.0512		0.0500	102	0.0494	J	0.0500	99	0.0535		0.0500	107
Lead	0.00988	J	0.0100	99	0.00990	J	0.0100	99	0.0103		0.0100	103
Magnesium	0.210		0.200	105	0.210		0.200	105	0.209		0.200	105
Manganese	0.00328		0.00300	109	0.00314		0.00300	105	0.00312		0.00300	104
Nickel	0.00946	J	0.0100	95	0.00922	J	0.0100	92	0.00914	J	0.0100	91
Potassium	0.509		0.500	102	0.441	J	0.500	88	0.418	J	0.500	84
Selenium	0.0241	J	0.0250	96	0.0230	J	0.0250	92	0.0218	J	0.0250	87
Silver	0.00589	J	0.00600	98	0.00582	J	0.00600	97	0.00559	J	0.00600	93
Sodium	0.999	J	1.01	99	1.07		1.01	106	1.03		1.01	102
Thallium	0.0203		0.0200	102	0.0190	J	0.0200	95	0.0200		0.0200	100
Vanadium	0.00472	J	0.00500	94	0.00463	J	0.00500	93	0.00470	J	0.00500	94
Zinc	0.0112		0.0100	112	0.0100		0.0100	100	0.0105		0.0100	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

ICV Source: MEI_10_CCVL_00352 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00352

CCVL 480-563099/37
12/11/2020 21:38

Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.227		0.200	113								
Antimony	0.0195	J	0.0200	97								
Arsenic	0.0147	J	0.0150	98								
Barium	0.00201		0.00200	101								
Beryllium	0.00206		0.00200	103								
Cadmium	0.00233		0.00200	117								
Calcium	0.538		0.500	108								
Chromium	0.00367	J	0.00400	92								
Cobalt	0.00367	J	0.00400	92								
Copper	0.00972	J	0.0100	97								
Iron	0.0532		0.0500	106								
Lead	0.0102		0.0100	102								
Magnesium	0.208		0.200	104								
Manganese	0.00310		0.00300	103								
Nickel	0.00929	J	0.0100	93								
Potassium	0.406	J	0.500	81								
Selenium	0.0249	J	0.0250	100								
Silver	0.00597	J	0.00600	100								
Sodium	1.03		1.01	102								
Thallium	0.0198	J	0.0200	99								
Vanadium	0.00476	J	0.00500	95								
Zinc	0.0101		0.0100	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

ICV Source: MEH_HG1_WKG_02433 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_02433

	ICV 480-562824/7 12/10/2020 17:34			ICVL 480-562824/9 12/10/2020 17:37				CCV 480-562824/34 12/10/2020 18:15			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00320		0.00300	107	0.00020	0	0.00020	100	0.00213		0.00200	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

ICV Source: MEH_HG1_WKG_02433 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_02433

	CCV 480-562824/46 12/10/2020 18:34				CCV 480-562824/58 12/10/2020 18:52				CCV 480-562824/70 12/10/2020 19:11			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00215		0.00200	108	0.00215		0.00200	108	0.00215		0.00200	108

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

ICV Source: MEH_HG1_WKG_02433 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_02433

CCVL 480-562824/84
12/10/2020 19:32

Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00020		0.00020	100								
	0		0									

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Concentration Units: mg/L

		ICB 480-563099/6 12/11/2020 14:02		CCB 480-563099/18 12/11/2020 20:03		CCB 480-563099/24 12/11/2020 20:49		CCB 480-563099/36 12/11/2020 21:34	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Aluminum	0.20	ND		ND		ND		ND	
Antimony	0.020	ND		ND		ND		ND	
Arsenic	0.015	ND		ND		ND		ND	
Barium	0.0020	ND		ND		ND		ND	
Beryllium	0.0020	ND		ND		ND		ND	
Cadmium	0.0020	ND		ND		ND		ND	
Calcium	0.50	ND		ND		ND		ND	
Chromium	0.0040	ND		ND		ND		ND	
Cobalt	0.0040	ND		ND		ND		ND	
Copper	0.010	ND		ND		ND		ND	
Iron	0.050	ND		ND		ND		ND	
Lead	0.010	ND		ND		ND		ND	
Magnesium	0.20	ND		ND		ND		ND	
Manganese	0.0030	ND		ND		ND		ND	
Nickel	0.010	ND		ND		ND		ND	
Potassium	0.50	ND		ND		ND		ND	
Selenium	0.025	ND		ND		ND		ND	
Silver	0.0060	ND		ND		ND		ND	
Sodium	1.0	ND		ND		ND		ND	
Thallium	0.020	ND		ND		ND		ND	
Vanadium	0.0050	ND		ND		ND		ND	
Zinc	0.010	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Concentration Units: mg/L

		ICB 480-562824/8 12/10/2020 17:35		CCB 480-562824/35 12/10/2020 18:17		CCB 480-562824/47 12/10/2020 18:35		CCB 480-562824/59 12/10/2020 18:54	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Concentration Units: mg/L

		CCB 480-562824/71 12/10/2020 19:12							
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND							

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 480-562652/1-A

Instrument Code: ICAP2 Batch No.: 563099

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6010C
7440-36-0	Antimony	ND			6010C
7440-38-2	Arsenic	ND			6010C
7440-39-3	Barium	ND		^6+	6010C
7440-41-7	Beryllium	ND			6010C
7440-43-9	Cadmium	ND			6010C
7440-70-2	Calcium	ND			6010C
7440-47-3	Chromium	ND			6010C
7440-48-4	Cobalt	ND			6010C
7440-50-8	Copper	ND			6010C
7439-89-6	Iron	0.0198	J		6010C
7439-92-1	Lead	ND			6010C
7439-95-4	Magnesium	ND			6010C
7439-96-5	Manganese	0.000540	J		6010C
7440-02-0	Nickel	ND			6010C
7440-09-7	Potassium	ND			6010C
7782-49-2	Selenium	ND			6010C
7440-22-4	Silver	ND			6010C
7440-23-5	Sodium	0.380	J		6010C
7440-28-0	Thallium	ND			6010C
7440-62-2	Vanadium	ND			6010C
7440-66-6	Zinc	0.00178	J		6010C

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 480-562734/1-A

Instrument Code: LEEMAN4 Batch No.: 562824

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab Sample ID: ICSA 480-563099/8 Instrument ID: ICAP2

Lab File ID: I2121120A-5.asc ICS Source: MEI_MSS_ICSA_00023

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	500	510	102
Antimony		0.0127	
Arsenic		-0.0005	
Barium		0.0070	
Beryllium		-0.0001	
Cadmium		-0.0013	
Calcium	500	474	95
Chromium		-0.0014	
Cobalt		0.0005	
Copper		0.0014	
Iron	200	189	94
Lead		0.0018	
Magnesium	500	512	102
Manganese		-0.0012	
Nickel		-0.0003	
Potassium		0.130	
Selenium		0.0117	
Silver		0.0012	
Sodium		0.0967	
Thallium		-0.0035	
Vanadium		0.0002	
Zinc		0.0035	
Boron		*-0.0021*	
Lithium		*-0.0059*	
Molybdenum		*-0.0008*	
Silicon		*-0.0138*	
Sulfur		*-0.0643*	
Tin		*0.0017*	
Titanium		*0.0029*	

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

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

SDG No.:

Lab Sample ID: ICSAB 480-563099/9 Instrument ID: ICAP2

Lab File ID: I2121120A-5.asc ICS Source: MEI_MSS_ICSAB_00021

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**500**	**508**	**102**
Antimony	**0.500**	**0.496**	**99**
Arsenic	**0.500**	**0.517**	**103**
Barium	**0.501**	**0.522**	**104**
Beryllium	**0.250**	**0.251**	**100**
Cadmium	**0.500**	**0.524**	**105**
Calcium	**500**	**480**	**96**
Chromium	**0.500**	**0.502**	**100**
Cobalt	**0.500**	**0.506**	**101**
Copper	**0.500**	**0.520**	**104**
Iron	**200**	**189**	**95**
Lead	**0.500**	**0.509**	**102**
Magnesium	**500**	**513**	**103**
Manganese	**0.501**	**0.503**	**100**
Nickel	**0.501**	**0.496**	**99**
Potassium	**5.00**	**5.33**	**107**
Selenium	**0.500**	**0.517**	**103**
Silver	**0.500**	**0.547**	**109**
Sodium	**5.00**	**5.35**	**107**
Thallium	**0.500**	**0.492**	**98**
Vanadium	**0.500**	**0.507**	**101**
Zinc	**0.501**	**0.480**	**96**
Boron	*5.00*	*4.90*	*98*
Lithium		*-0.0095*	
Molybdenum	*0.500*	*0.501*	*100*
Silicon	*5.00*	*4.79*	*96*
Strontium	*0.500*	*0.514*	*103*
Sulfur		*-0.0718*	
Tin	*0.500*	*0.502*	*100*
Titanium	*0.500*	*0.508*	*102*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: GW-01 MS | Lab ID: 480-179098-5 MS

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	10.38		ND		10.0	104	75-125		6010C
Antimony	0.211		ND		0.200	105	75-125		6010C
Arsenic	0.218		0.0063	J	0.200	106	75-125		6010C
Barium	0.339		0.12		0.200	108	75-125	^6+	6010C
Beryllium	0.210		ND		0.200	105	75-125		6010C
Cadmium	0.210		ND		0.200	105	75-125		6010C
Calcium	187.8		181		10.0	64	75-125	4	6010C
Chromium	0.198		ND		0.200	99	75-125		6010C
Cobalt	0.199		ND		0.200	100	75-125		6010C
Copper	0.210		ND		0.200	105	75-125		6010C
Iron	18.65		9.1		10.0	95	75-125		6010C
Lead	0.209		ND		0.200	105	75-125		6010C
Magnesium	39.24		29.0		10.0	102	75-125		6010C
Manganese	2.24		2.0		0.200	108	75-125	4	6010C
Nickel	0.197		ND		0.200	99	75-125		6010C
Potassium	12.00		1.7		10.0	103	75-125		6010C
Selenium	0.207		ND		0.200	103	75-125		6010C
Silver	0.0536		ND		0.0500	107	75-125		6010C
Sodium	21.52		10.9		10.0	106	75-125		6010C
Thallium	0.199		ND		0.200	99	75-125		6010C
Vanadium	0.199		ND		0.200	100	75-125		6010C
Zinc	0.200		0.0050	J	0.200	98	75-125		6010C
Mercury	0.00730		ND		0.00667	109	80-120		7470A

SSR = Spiked Sample Result

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

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: GW-01 MSD | Lab ID: 480-179098-5 MSD

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

% Solids:

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	10.35	10.0	104	75-125	0	20		6010C
Antimony	0.210	0.200	105	75-125	0	20		6010C
Arsenic	0.215	0.200	104	75-125	1	20		6010C
Barium	0.329	0.200	104	75-125	3	20	^6+	6010C
Beryllium	0.210	0.200	105	75-125	0	20		6010C
Cadmium	0.207	0.200	104	75-125	1	20		6010C
Calcium	185.9	10.0	45	75-125	1	20	4	6010C
Chromium	0.196	0.200	98	75-125	1	20		6010C
Cobalt	0.196	0.200	98	75-125	2	20		6010C
Copper	0.206	0.200	103	75-125	2	20		6010C
Iron	18.42	10.0	93	75-125	1	20		6010C
Lead	0.207	0.200	103	75-125	1	20		6010C
Magnesium	38.29	10.0	93	75-125	2	20		6010C
Manganese	2.21	0.200	90	75-125	2	20	4	6010C
Nickel	0.194	0.200	97	75-125	2	20		6010C
Potassium	11.75	10.0	101	75-125	2	20		6010C
Selenium	0.203	0.200	102	75-125	2	20		6010C
Silver	0.0516	0.0500	103	75-125	4	20		6010C
Sodium	21.09	10.0	102	75-125	2	20		6010C
Thallium	0.196	0.200	98	75-125	2	20		6010C
Vanadium	0.196	0.200	98	75-125	1	20		6010C
Zinc	0.196	0.200	95	75-125	2	20		6010C
Mercury	0.00685	0.00667	103	80-120	6	20		7470A

SDR = Sample Duplicate Result

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

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: GW-01 PDS | Lab ID: 480-179098-5 PDS

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-179098-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

Analyte	SSR C	Sample Result (SR) C		Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	10.79	ND		10.0	108	80-120		6010C
Antimony	0.214	ND		0.200	107	80-120		6010C
Arsenic	0.222	0.0063	J	0.200	108	80-120		6010C
Barium	0.326	0.12		0.200	102	80-120	^6+	6010C
Beryllium	0.217	ND		0.200	108	80-120		6010C
Cadmium	0.215	ND		0.200	108	80-120		6010C
Calcium	185.0	181		10.0	NC	80-120		6010C
Chromium	0.203	ND		0.200	101	80-120		6010C
Cobalt	0.203	ND		0.200	102	80-120		6010C
Copper	0.213	ND		0.200	107	80-120		6010C
Iron	18.92	9.1		10.0	98	80-120		6010C
Lead	0.215	ND		0.200	107	80-120		6010C
Magnesium	38.13	29.0		10.0	91	80-120		6010C
Manganese	2.15	2.0		0.200	NC	80-120		6010C
Nickel	0.201	ND		0.200	101	80-120		6010C
Potassium	11.94	1.7		10.0	103	80-120		6010C
Selenium	0.212	ND		0.200	106	80-120		6010C
Silver	0.0531	ND		0.0500	106	80-120		6010C
Sodium	20.80	10.9		10.0	99	80-120		6010C
Thallium	0.204	ND		0.200	102	80-120		6010C
Vanadium	0.203	ND		0.200	102	80-120		6010C
Zinc	0.204	0.0050	J	0.200	99	80-120		6010C

SSR = Spiked Sample Result

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

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 480-562652/2-A

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

Sample Matrix: Water LCS Source: MED_02_W2_00064

Water (mg/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Aluminum	10.0	10.55		106	80	120		6010C
Antimony	0.200	0.209		104	80	120		6010C
Arsenic	0.200	0.207		103	80	120		6010C
Barium	0.200	0.212		106	80	120	^6+	6010C
Beryllium	0.200	0.213		107	80	120		6010C
Cadmium	0.200	0.206		103	80	120		6010C
Calcium	10.0	10.59		106	80	120		6010C
Chromium	0.200	0.200		100	80	120		6010C
Cobalt	0.200	0.195		97	80	120		6010C
Copper	0.200	0.208		104	80	120		6010C
Iron	10.0	10.18		102	80	120		6010C
Lead	0.200	0.205		102	80	120		6010C
Magnesium	10.0	10.08		101	80	120		6010C
Manganese	0.200	0.205		103	80	120		6010C
Nickel	0.200	0.193		96	80	120		6010C
Potassium	10.0	9.94		99	80	120		6010C
Selenium	0.200	0.201		101	80	120		6010C
Silver	0.0500	0.0515		103	80	120		6010C
Sodium	10.0	10.31		103	80	120		6010C
Thallium	0.200	0.200		100	80	120		6010C
Vanadium	0.200	0.198		99	80	120		6010C
Zinc	0.200	0.200		100	80	120		6010C

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

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 480-562734/2-A

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-179098-1

Sample Matrix: Water LCS Source: MEH_HG1_WKG_02433

Water(mg/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Mercury	0.00667	0.00642		96	80	120		7470A

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

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-179098-5

SDG No:

Lab Name: Eurofins TestAmerica, Buffalo Job No: 480-179098-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	ND		ND		NC		6010C
Antimony	ND		ND		NC		6010C
Arsenic	0.0063	J	ND		NC		6010C
Barium	0.12		0.126		3.2	^6+	6010C
Beryllium	ND		ND		NC		6010C
Cadmium	ND		ND		NC		6010C
Calcium	181		187.4		3.3		6010C
Chromium	ND		ND		NC		6010C
Cobalt	ND		ND		NC		6010C
Copper	ND		ND		NC		6010C
Iron	9.1		9.53		4.3		6010C
Lead	ND		ND		NC		6010C
Magnesium	29.0		29.89		3.0		6010C
Manganese	2.0		2.08		2.5		6010C
Nickel	ND		ND		NC		6010C
Potassium	1.7		1.49	J	NC		6010C
Selenium	ND		ND		NC		6010C
Silver	ND		ND		NC		6010C
Sodium	10.9		11.22		3.1		6010C
Thallium	ND		ND		NC		6010C
Vanadium	ND		ND		NC		6010C
Zinc	0.0050	J	0.00925	J	NC		6010C

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

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-179098-5

SDG No:

Lab Name: Eurofins TestAmerica, Buffalo Job No: 480-179098-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Mercury	ND		ND		NC		7470A

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

FORM VIII-IN