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November 27, 2019

George Momberger, P.E.
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York, 12233-7013

Re: Monitoring Well Sampling Data Summary Report
Carroll Landfill, Chautauqua County, New York
Site No. 9-07-017
Work Assignment No. D007617

Dear Mr. Momberger:

Ecology and Environment Engineering, P.C. (EEEPC) is pleased to provide the New York State Department of Environmental Conservation (NYSDEC) with this Data Summary Report for Monitoring Well Sampling at Carroll Landfill (Site Number 9-07-017) in the Town of Frewsburg, Chautauqua County, New York conducted in September 2019.

If you have any questions or comments on this submittal, please contact me at 716-684-8060.

Sincerely,

James C Taravella

Jim Taravella, P.E.
Project Manager

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Monitoring Well Sampling Data Summary Report
Carroll Landfill
Town of Carroll, Chautauqua County, New York
Site No. 9-07-017

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1 Introduction

Groundwater sampling to monitor existing site groundwater conditions was conducted by Ecology and Environment Engineering, P.C. (EEEPC) on behalf of the New York State Department of Environmental Conservation (NYSDEC) at Carroll Landfill in Frewsburg, New York. The objective of this sampling was to measure the concentration of chemicals present in the groundwater following the construction of a landfill cover.

1.1 Site Location and Description

The Carroll Town Landfill is a former municipal construction and demolition debris landfill and solid waste transfer station. The landfill is located at the end of an unnamed gravel road approximately 1,400 feet north of NYS Route 62 (also known as Ivory Road) just east of the village of Frewsburg, New York. The landfill occupies approximately 28 acres of a 305-acre lot, owned by the Town of Carroll. The landfill is in a rural area surrounded by inactive farmland, wooded areas, wetlands, and private homes. Conewango Creek, a Class C stream, lies to the north and west of the site and at its closest point is approximately 1,400 feet north of the landfill.

The site is located on a northwest-facing, gently sloping hillside and is composed of two roughly rectangular landfill cells. A drainage swale separates the two disposal areas and eventually drains to the northwest into a wetland area before reaching Conewango Creek.

The Town of Carroll Public Works Garage and the Frewsburg Water District Department facility are located approximately 700 feet west of the site. The water district facility comprises a water supply well and pump station. The Public Works Garage and Water District facility are accessed via Wahlgren Road from NYS Route 62. The nearest residential properties are approximately 1,200 feet to the west and southwest, uphill from the site.

1.2 Site History

The Town of Carroll operated the site as a municipal solid waste landfill from the early 1960s to 1979. Records indicate that industrial wastes were disposed of in the landfill during the period of operation. In 1979, the landfill began operation as a waste transfer station and was limited to accepting only construction and demolition debris for disposal at the landfill (NYSDEC2009). The western landfill cell was closed in May 1980 but it is unclear when the eastern cell closed. The town reported that the site closed as a waste transfer station in 1986. In 1992, as part of the remedial investigation of the Vac Air Alloys site (Site Number 907016) in Frewsburg, it was alleged that industrial waste from Vac Air Alloys was disposed of at the landfill. Allegations included citizens' reports of having witnessed drums of waste labeled as "trichloroethene" being disposed at the landfill. Vac Air Alloys allegedly disposed of drums containing metal debris and metal turnings (NYSDEC 2009). In April 1992 NYSDEC inspected the site and found 55-gallon drums, partially buried. Subsequent sampling results indicated volatile organic compounds (VOCs) in leachate migrating from the site. This led to a listing on June 9, 1992 as a probable hazardous waste disposal site. A preliminary site assessment was completed in February 1997, which led to a Class 2 site listing in 1998 (NYSDEC 2009).

In accordance with the Record of Decision (NYSDEC 2009) for the Carroll Landfill site, contaminated groundwater will be extracted and treated for removal of contamination associated with the landfill, and an engineered soil cover will be constructed on the landfill. Between 2015 and 2017 the landfill cells were consolidated and topped with a soil cover system.

2 Scope of Work

Groundwater at existing monitoring wells at the landfill was sampled by EEEPC in September 2019. Previous sampling had occurred in October 2004, March 2005, August 2008, August 2010, November 2012 (EEEPC 2012), and September 2014.

In September 2019, groundwater samples were collected from 12 of 19 existing monitoring wells (see Figure 1). Two of the wells could not be sampled due to previous damage to the wells. Seven of wells could not be sampled due to inaccessibility. Because of the proximity of a drinking water supply well to the landfill, drinking water analytical methods were used for VOC and Target Analyte List (TAL) metals analysis. Groundwater monitoring well samples were also collected to analyze for the emerging contaminants PFAS and 1,4 Dioxane. Analytical parameters and methods are listed below.

All monitoring well sampling was performed in accordance with the approved procedures in EEEPC's November 2016 Work Plan (EEEPC 2016). A summary of the work is provided below.

3 Sampling and Analysis

3.1 Groundwater Sampling Procedures and Analyses

A total of 12 of 19 existing groundwater monitoring wells were sampled between September 3 and September 5, 2019:

- Seven shallow wells (MW-102, MW-113S, MW-114S, MW-115S, MW-116S, MW-117S, and MW-118S);
- Two intermediate wells (MW-102I, and MW-117I); and
- Three deep wells (MW-109D, MW-117D and MW-13 [Sentinel Well]).

Two wells (MW-101 and MW-103) could not be sampled because prior damage of the well casings precluded sampling these wells. Other well maintenance needs that did not affect the ability to sample the wells were recorded at the time of sampling and are summarized in Table 1.

All 12 groundwater monitoring well samples were analyzed by TestAmerica Laboratories of Amherst, New York, for the following parameters:

- VOCs in drinking water: analyzed by United States Environmental Protection Agency (EPA) Method 524.2 (gas chromatography [GC] and mass spectrometry [MS]);
- Target Analyte List metals: analyzed by EPA Methods 200.7 Rev 4.4 (inductively coupled plasma [ICP] – Atomic Emission Spectroscopy) and 200.8 (ICP-MS);
- Mercury by EPA Method 245.1 (cold vapor atomic absorption);
- PFAS by EPA Method 537 Modified (Fluorinated Alkyl Substanes); and
- 1,4-Dioxane by SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," Third Edition, November 1986 and its updates, Method 8270D SIM ID (GC/MS SIM / Isotope Dilution [ID]).

Prior to sampling, the static water level and depth of each well were measured (see Table 2). Each monitoring well was purged prior to sampling. The wells were purged with a centrifugal pump and low-flow controller at rates of approximately 0.05 to 3.8 liters per minute. Pumping continued until the well went dry or a minimum of three well volumes was purged and water quality parameters stabilized. During purging, water quality parameters including pH, temperature, conductivity, oxidation-reduction potential, and turbidity were measured using a Myron 6P multi-parameter water quality meter and LaMotte 2020 turbidity meter (see Table 3). Two of the wells were purged dry in less than three well volumes and were sampled with a bailer within 24 hours of the completion of purging after sufficient recharge of the well occurred. The remaining ten wells were purged of three well volumes and water quality parameters stabilized during purging. Well sampling logs are provided in Appendix A.

3.2 Quality Assurance/Quality Control (QA/QC) Samples

QA/QC samples, including field duplicates, trip blanks, field blanks, and additional volume for matrix spike/ matrix spike duplicate (MS/MSD) analysis were collected for groundwater samples in accordance with the standard EEEPC Quality Assurance Project Plan (QAPP) for NYSDEC projects (EEEPC 2011). Based on quality control review of the data, appropriate data qualifiers were applied and are included with the analytical results summary (see Table 4).

Duplicate samples provide insight into the homogeneity of a sample matrix and establish a degree of confidence that the sample represents site conditions. A groundwater duplicate sample was collected from monitoring well MW-112S. A review of the duplicate sample results is provided in the Data Usability Summary Report (DUSR) provided in Appendix B. Where the relative percent difference between the original and duplicate sample results exceeded data review guidelines, "J" flags were added to indicate that the results are estimated. This was true for aluminum, iron, and lead and there were no significant impacts on data usability associated with the field duplicate sample results.

A trip blank (TB090319) was collected for VOCs analysis to establish that the transport of sample vials to and from the field did not result in the contamination of the samples from external sources. The trip blank consisted of laboratory vials containing deionized water for groundwater and was transported to and from the field with sample delivery. Trip blank results are discussed in the DUSR in Appendix B. Chloromethane was detected in the trip blank and the associated sample results at similar concentration in groundwater samples MW-102I, MW-113S, MW-116S, and MW-117I were flagged "U" as not detected.

Equipment rinsate blanks (RB090319, RB090419, and RB090519) were collected for PFAS analysis to identify possible sources of cross-contamination associated with the reuse of decontaminated equipment. The rinsate blank was collected in the field and therefore may also be used to assess ambient conditions that may potentially affect the sample quality. The rinsate blank samples were not collected for 1,4-dioxane or metals analysis; therefore, cross-contamination associated with the reuse of decontaminated equipment could not be determined. No analytes were detected in the rinsate blanks and no data qualification was necessary.

3.3 Data Review

All laboratory deliverables were reviewed in accordance with appropriate method and general reporting requirements from the NYSDEC Analytical Services Protocol (ASP). The data were qualified following guidelines in EPA Region 2's data validation standard operating procedures (EPA 2016a). The data review included an evaluation of the following:

- Holding times;
- Initial and continuing calibration;
- Reporting limits;
- Laboratory blanks;
- Matrix spike/matrix spike duplicate samples;

- Laboratory control samples;
- Field duplicates;
- Sample result verification; and
- Method-specific QC samples.

A DUSR was prepared for the entire sample delivery group by EEEPC's project chemist. Deviations from acceptable QC specifications are discussed in the DUSR. Original laboratory reports are provided in Appendix C (electronic submittal only). Qualifiers were added to the data to indicate potential concerns with data usability and these qualifiers were transferred to the data summary tables. There were no major concerns resulting in significant impacts on data usability. There were minor concerns resulting in qualification of sample results in addition to those related to field QC samples discussed in Section 3.2. Some PFAS positive results were qualified as estimated and flagged with a "J" based on laboratory QC results of the isotope dilution recovery. Non-detect results associated with these issues were flagged "UJ" as non-detect with an estimated reporting limit. Several metals positive results were qualified as non-detect and flagged "U" based on laboratory blank sample result detections.

3.4 Decontamination and Investigation-derived Waste

Pumps and equipment were decontaminated using a laboratory-grade detergent wash, potable water rinse, 5% nitric acid solution rinse, and DI water rinse before sampling at each location. Investigation-derived waste (IDW) generated during this investigation included decontamination wastes, groundwater from monitoring well purging, disposable polyethylene tubing and bailers, and spent personal protective equipment (nitrile gloves). Decontamination water and groundwater generated from monitoring well purging and sampling was field-screened for organic vapors with a photoionization detector and visually inspected to determine whether the water was potentially contaminated. No organic vapors or unusual odors/colors were detected and no obvious signs of significant contamination were observed, so these waste waters were discharged to the ground surface at the landfill. All personal protective equipment and disposable polyethylene tubing and bailers were disposed of as non-regulated solid waste by the Frewsburg Water Department at its facility.

4 Results

4.1 Groundwater Flow Direction

Groundwater elevation contour maps were created for the shallow and intermediate zones using water levels measured from 12 monitoring wells at the site between September 3 and 5, 2019 (see Table 2 and Figure 2). Water levels could not be measured in two damaged wells (MW-101 and MW-103). Figure 2 represent groundwater flow conditions at the time of sampling.

The direction of shallow groundwater flow is generally to the north toward Conewango Creek (see Figure 2). There is possibly some variation in the local direction and magnitude of the shallow groundwater gradient at the east and west sides of the site, which is likely due to variation in the overburden material at the site. Shallow overburden material at the site consists of lacustrine sandy silt and silty clay to a depth of approximately 20 feet (NYSDEC 2009).

Variation in silt and clay content and horizontal layering of overburden can cause localized variation in groundwater flow. However, because the groundwater elevation in wells MW-101, MW-103, MW-109S, MW-110S, and MW-116S could not be measured, the interpretation of the gradient in the central region and in the southeast corner of the site is made with less certainty. Near the north end of the site, the groundwater flow direction appears to be towards the north/northwest.

Groundwater elevation contours were not drawn for intermediate groundwater because there are too few data to depict the gradient. However, a comparison of the groundwater elevations at intermediate wells MW-117I (1253.78 feet) and MW-102I (1253.17 feet) indicates that there is at least a component of flow to the north in this zone, from MW-117I to MW-102I.

Groundwater elevation contours were not drawn for deep groundwater because there are too few wells to depict the gradient. However, a comparison of the groundwater elevations at deep wells MW-117D (1253.58 feet) and MW-13 (1251.58 feet) indicates that there is at least a component of flow to the west-northwest in this zone, from MW-117D toward MW-13.

4.2 Analytical Results

Groundwater analytical results are summarized in Table 4. For ease of review, these tables include only analytes that were detected in at least one sample. Analytes that were not detected in any sample are included in the laboratory report in Appendix C. Analytical results for the groundwater samples were compared with NYSDEC Class GA groundwater standards and guidance values (NYSDEC 1998). Compounds exceeding NYSDEC criteria during at least one of the sampling rounds between October 2004 and September 2019 are presented on Table 5. In addition, PFAS results were also compared to the EPA's Drinking Water Health Advisories (EPA 2016b) and the 1,4-dioxane screening criteria is represented by the New York State Drinking Water Quality Countil's recommendation to the Department of Health, presented on Table 4.

Consistent with previous sampling events, both of the wells that were purged dry during the sampling event and three additional wells exhibited elevated turbidity values (i.e., above 50 NTU) that may have resulted in higher total (unfiltered) metals concentrations than low-turbidity samples.

Eighteen metals for which samples were analyzed were detected in at least one well. Iron concentrations exceeded screening criteria in a total of 10 monitoring wells, including 8 shallow wells (MW-102, MW-112S, MW-113S, MW-114S, MW-115S, MW-116S, MW-117S, and MW-118S), 1 intermediate well (MW-102I), and 1 deep well (MW-13).
Manganese concentrations exceeded screening criteria in a total of 6 monitoring wells, including 5 shallow wells (MW-113S, MW-114S, MW-115S, MW-116S, and MW-117S), and 1 intermediate well (MW-102I). Iron and manganese concentrations exceeding screening criteria were also detected during previous sampling rounds (see Table 5). Iron concentrations were found to exceed criteria in all wells existing during at least one previous sampling round, and manganese concentrations were found to exceed screening criteria during previous sampling rounds in 11 wells (see Table 5).

Lead concentrations exceeding screening criteria were detected in two shallow monitoring wells (MW-114S and MW-116S). Lead concentrations exceeding screening criteria were also detected during previous sampling rounds in seven wells (see Table 5).

Barium was detected at a concentration above the screening level criteria in one shallow well (MW-115S). Barium concentrations exceeding screening criteria were also detected during previous sampling rounds in two wells (see Table 5).

Eight of the 58 VOCs analyzed were detected in at least one well. Only one VOC, Cis-1,2-Dichloroethylene, was present at concentrations that exceeded the screening criteria (5.1 micrograms per liter [µg/L] in MW-102).

No other spatial patterns concerning VOC or metals concentrations were apparent.

5 References

Ecology and Environment Engineering, P.C. (EEEPC). 2010a. *Master Quality Assurance Project Plan for New York State Department of Environmental Conservation Projects*, Contract No. D007617. April 2011.

_____. 2010b. *Groundwater Monitoring Well Sampling Procedure Work Plan Carroll Town Landfill, Chautauqua County, New York, Site No. 7-07-017.* August 2010.

_____. 2012. *Monitoring Well Sampling Data Summary Carroll Landfill, Town of Carroll, Chautauqua County, New York, Site No. 9-07-017*. April 2011.

New York State Department of Environmental Conservation (NYSDEC). 1998. *Division of Water Technical and Operational Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations* (with updates). Albany, New York: Division of Water.

_____. 2005. *Analytical Services Protocol*. July 2005.

_____. 2009. *Record of Decision, Carroll Town Landfill Site, Town of Carroll, Chautauqua County, New York, Site Number 9-07-017.* Albany, New York: Division of Environmental Remediation. March 2009.

_____. 2010. *DER-10, Technical Guidance for Site Investigation and Remediation.* Albany, New York: Division of Environmental Remediation. May 2010.

O'Brien and Gere Engineers, Inc. 2006. *Remedial Investigation Report, Remedial Investigation/Feasibility Study - Town of Carroll Landfill, Site #9-07-017, Frewsburg, New York*. January 2006.

United States Environmental Protection Agency – Region 2 (EPA). 2012a. *ICP-AES Data Validation.* Hazardous Waste Support Section, SOP No. HW-2a. Revision 15. December 2012.

_____. 2012b. *ICP-MS Data Validation.* Hazardous Waste Support Section, SOP No. HW-2b. Revision 15. December 2012.

_____. 2012c. *Mercury and Cyanide Data Validation.* Hazardous Waste Support Section, SOP No. HW-2c,.Revision 15. December 2012.

_____. 2014. *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry.* Hazardous Waste Support Section, SOP No. HW-24. Revision 4. September 2014.

TABLES

Table 1 Monitoring Well Maintenance Needs, September 2019
Carroll Landfill, Frewsburg, New York

Well ID	Heaved/ Broken Pad	Bent Casing	Sediment Buildup In Well	Accessible	Able To Sample	Notes
MW-13	--	--	--	Yes	Yes	
MW-101	--	--	Unknown	Yes	No	Rock obstructing inner casing - must be replaced
MW-102	--	--	--	Yes	Yes	
MW-102I	--	--	--	Yes	Yes	
MW-103	--	--	--	Yes	No	Well shot up/destroyed; no inner casing left - must be replaced
MW-104	--	--	--	--	--	Decommissioned
MW-105S	--	--	--	--	--	
MW-106S	--	--	--	--	--	
MW-107I	--	--	--	--	--	
MW-107S	--	--	--	--	--	
MW-108I	--	--	--	--	--	
MW-108S	--	--	--	--	--	
MW-109D	--	--	Unknown	No	No	Inaccessible due to thick brush - must be cleared/mowed
MW-109I	--	--	Unknown	No	No	
MW-109S	--	--	Unknown	No	No	
MW-110I	--	--	Unknown	No	No	Decommissioned
MW-110S	--	--	Unknown	No	No	Inaccessible due to thick brush - must be cleared/mowed
MW-111I	--	--	Unknown	No	No	Inaccessible due to water hazard - need a bridge to access or an alternate cleared path
MW-111S	--	--	Unknown	No	No	
MW-112S	--	--	--	Yes	Yes	
MW-113S	--	--	--	Yes	Yes	
MW-114S	--	--	--	Yes	Yes	
MW-115S	--	--	--	Yes	Yes	
MW-116S	--	--	--	Yes	Yes	
MW-117D	--	--	--	Yes	Yes	
MW-117I	--	--	--	Yes	Yes	
MW-117S	--	--	--	Yes	Yes	

Table 2 Monitoring Well Specifications and Groundwater Elevations
Carroll Landfill, Frewsburg, New York

Monitoring Well ID	Ground Elevation (feet AMSL)	Top of PVC Casing Elevation (feet AMSL)	Reported Well Depth (feet BTOC)	Well Depth Measured 2010 (feet BTOC)	Well Depth Measured 2012 (feet BTOC)	Well Depth Measured 2014 (feet BTOC)	Well Depth Measured 2019 (feet BTOC)	Screen Interval (feet AMSL)	Ground Water Elevation (feet AMSL)					
									Oct-2004	Mar-2005	Aug-2010	Nov-2012	Sep-2014	Sep-2019
Shallow														
MW-101	1259.1	1261.24	17.8	NM	NM	NM	NM	1243.44 - 1253.44	1254.72	1257.26	NM	NM	NM	NM
MW-102	1254.6	1256.58	32.0	32.2	NM	32.2	32.2	1224.56 - 1234.56	1245.82	1249.63	1254.78	NM	1256.16	1253.28
MW-103	1250.8	1253.21	34.2	36.3	30.8	30.8	NM	1219.01 - 1229.01	1246.93	1250.33	1253.11	1251.71	1252.17	NM
MW-104	1252.4	1254.61	21.6	21.8	21.6	21.5	D	1233.01 - 1243.01	1249.15	1249.97	1247.46	1249.04	1249.03	D
MW-105S	1252.6	1254.97	20.0	19.9	19.8	19.3	D	1234.97 - 1244.97	1250.41	1251.17	1249.46	1249.53	1249.53	D
MW-106S	1252.7	1255.14	22.5	22.7	24.6	22.6	D	1232.64 - 1242.64	1249.54	1251.12	1249.48	1249.73	1249.90	D
MW-107S	1252.4	1254.56	22.4	22.6	22.5	22.5	D	1232.16 - 1242.16	1249.75	1249.05	1249.84	1249.58	1249.57	D
MW-108S	1255.1	1257.68	22.6	22.7	22.7	22.7	D	1235.08 - 1245.08	1251.28	1252.45	1252.30	1252.36	1253.17	D
MW-109S	1255.2	1257.52	22.9	23.1	23.0	23.1	NM	1234.62 - 1244.62	1245.84	1249.80	1254.17	1253.17	1256.10	NM
MW-110S	1249.7	1253.16	22.5	22.5	22.7	22.7	NM	1230.66 - 1240.66	1247.85	1249.98	1248.02	1249.21	1247.42	NM
MW-111S	1251.4	1253.66	21.9	19.8	18.9	18.1	NM	1231.76 - 1241.76	1248.86	1249.53	1248.52	1249.06	1249.02	NM
MW-112S	1250.6	1253.45		PTI	PTI	PTI	22.7		PTI	PTI	PTI	PTI	PTI	1250.18
MW-113S	1251.6	1254.55		PTI	PTI	PTI	22.4		PTI	PTI	PTI	PTI	PTI	1250.44
MW-114S	1252.2	1255.17		PTI	PTI	PTI	20.0		PTI	PTI	PTI	PTI	PTI	1250.08
MW-115S	1254.7	1257.85		PTI	PTI	PTI	22.8		PTI	PTI	PTI	PTI	PTI	1252.26
MW-116S	1258.2	1260.57		PTI	PTI	PTI	22.7		PTI	PTI	PTI	PTI	PTI	1253.72
MW-117S	1258.3	1260.65		PTI	PTI	PTI	22.5		PTI	PTI	PTI	PTI	PTI	1253.68
MW-118S	1251.3	1254.14		PTI	PTI	PTI	22.7		PTI	PTI	PTI	PTI	PTI	1249.92
Intermediate														
MW-102I	1254.9	1257.47	41.1	43.8	45.5	45.5	45.4	1216.37 - 1226.37	1245.74	1249.56	1254.99	1253.64	1256.38	1253.17
MW-107I	1252.5	1254.87	45.2	44.6	44.6	44.6	D	1209.67 - 1219.67	1249.17	1251.37	1249.76	1250.02	1249.22	D
MW-108I	1255.1	1257.59	47.2	47.3	47.3	47.3	D	1210.39 - 1220.39	1248.79	1251.31	1251.55	1252.23	1253.60	D
MW-109I	1254.9	1257.25	43.8	NM	NM	NM	NM	1213.45 - 1223.45	1245.91	1249.56	1254.98	NM	NM	NM
MW-110I	1249.8	1252.03	44.0	44.0	42.9	44.5	D	1208.03 - 1218.03	1246.59	1249.14	1248.09	1249.16	1248.25	D
MW-111I	1251.3	1253.71	48.1	46.3	43.0	43.0	NM	1205.61 - 1215.61	1248.11	1250.31	1248.89	1248.96	1249.28	NM
MW-117I	1258.3	1260.70		PTI	PTI	PTI	47.7		PTI	PTI	PTI	PTI	PTI	1253.78
Deep														
MW-109D	1255.0	1257.31	71.1	73.2	73.6	73.2	NM	1186.21 - 1196.21	1246.03	1249.56	1254.98	1253.61	1256.40	
MW-117D	1258.3	1261.12		PTI	PTI	PTI	75.2		PTI	PTI	PTI	PTI	PTI	1253.58
Other														
MW-13	1260.0	1262.50		71.0	70.9	70.8	72.2				1253.66	1252.18	1255.01	1251.58
Test well #12	1260.0	1262.00		NM	NM	NM	NM				1249.46	NM	1262.00	NM

Key:
AMSL - above mean sea level
BTOC - below top of casing
D - decommissioned
NM - not measured
PTI - prior to installation

Table 3 **Groundwater Sample Water Quality Measurements, September 2019**
Carroll Landfill, Frewsburg, New York

Sample ID	Sample Date	Well Depth (feet BTOC)	Initial Water Depth (feet BTOC)	pH (s.u.)	Temperature (°C)	ORP (millivolts)	Conductivity (µS/cm)	Turbidity (NTU)	Comments
MW-101	NS								Rock obstructing inner casing
MW-102I	9/3/2019	45.42	4.30	7.39	15.9	67	528.3	47.3	
MW-102S	9/3/2019	32.19	3.30	6.36	13.2	150	471.9	7.21	
MW-103	NS								Well shot up/destroyed - no inner casing left
MW-109D	NS								Inaccessible due to thick brush
MW-109I	NS								
MW-109S	NS								
MW-110S	NS								Inaccessible due to thick brush
MW-111I	NS								Inaccessible - no bridge access over creek
MW-111S	NS								
MW-112S	9/5/2019	22.70	3.27	7.91	14.1	-	337.2	15.1	
MW-113S	9/5/2019	22.35	4.11	7.16	13.4	-	731.1	39	
MW-114S	9/5/2019	19.96	5.09	7.96	17.2	-	356.2	>1000	Purged dry with pump, sampled after recharge.
MW-115S	9/5/2019	22.75	5.59	7.61	17.5	-130	657.6	92	
MW-116S	9/5/2019	22.70	6.85	7.32	11.8	-85	865.1	>1000	
MW-117D	9/4/2019	75.15	7.54	7.82	8.4	-	358.1	1.5	Purged with Typhoon pump, sampled with stainless steel bailer
MW-117I	9/4/2019	47.70	6.92	11.85	10.1	-	711.2	29.8	
MW-117S	9/4/2019	22.45	6.97	7.00	12.6	-	838.1	143.2	
MW-118S	9/4/2019	22.71	4.22	8.13	10.8	-	260.1	>1000	Purged dry, sampled with bailer after recharge on 9/5/2019.
MW-13 (Sentinel well)	9/4/2019	72.20	10.92	7.72	19.8	188	483.3	39	

Key:
°C = degrees Celsius
BTOC = below top of casing
MS/MSD = matrix spike/matrix spike duplicate
µS/cm = microSiemens per centimeter
NM = not measured
NS = not sampled
NTU = nephelometric turbidity units
PID = photo-ionization detector
ppm = parts per million
s.u. = standard units

*Decommissioned wells include MW-104, -105S, -106S, -107I, -107S, -108I, -108S, -110I

Table 4 Summary of Positive Analytical Results for Groundwater Samples
Carroll Landfill, Frewsberg, New York

Analyte	Screening Criteria [1]	Note	Location ID: MW-102 Sample Name: Sep-19 Screen Interval: 20 - 30 ft Date: 09/03/19	Location ID: MW-102I Sample Name: Sep-19 Screen Interval: 29 - 39 ft Date: 09/03/19	Location ID: MW-112S Sample Name: Sep-19 Screen Interval: 0 - 0 ft Date: 09/05/19	Location ID: MW-112S Sample Name: FD Screen Interval: 0 - 0 ft Date: 09/05/19
Metals by Method E200.7 Rev 4.4 (µg/L)						
Aluminum	N/A		**230**	**2500**	**1000 J**	**620 J**
Barium	1000		**93**	**130**	**170**	**180**
Beryllium	3	G	< 0.30 U	< 0.30 U	< 0.30 U	< 0.30 U
Calcium	N/A		**76100**	**84800**	**35600**	**36800**
Chromium, Total	50		< 1.0 U	**3.2 J**	**1.4 J**	< 1.0 U
Cobalt	N/A		< 0.63 U	**1.1 J**	< 0.63 U	< 0.63 U
Copper	200		**4.1 J**	**13**	< 1.6 U	< 1.6 U
Iron	300		**350**	**3400**	**1600 J**	**1000 J**
Magnesium	35000	G	**16000**	**19700**	**8600**	**8800**
Manganese	300		**260**	**650**	**270**	**280**
Nickel	100		< 1.3 U	**5.7 J**	< 1.3 U	< 1.3 U
Potassium	N/A		< 100 U	**2000**	**2100**	**1900**
Sodium	20000		< 320 U	**4200**	**15400**	**16000**
Vanadium	N/A		< 1.5 U	**5.1**	**2.2 J**	**1.9 J**
Zinc	2000		< 1.5 U	< 1.5 U	< 1.5 U	< 1.5 U
Metals by Method E200.8 (µg/L)						
Arsenic	25		< 0.27 U	< 0.27 U	**4.2**	**4.1**
Lead	25		**2.2**	**2.6**	**0.30 J**	**0.17 J**
Thallium	0.5	G	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U
Volatile Organics by Method E524.2 (µg/L)						
Acetone	50	G	**1.3 J**	< 1.0 U	**2.1 J**	**1.9 J**
Carbon Disulfide	60	G	< 0.15 U	< 0.15 U	< 0.15 U	< 0.15 U
Cis-1,2-Dichloroethylene	5	POC	**5.1**	**3.8**	< 0.12 U	< 0.12 U
Diethyl Ether (Ethyl Ether)	N/A		< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U
Tert-Butyl Alcohol	N/A		< 2.5 U	< 2.5 U	**2.7 J**	< 2.5 U
Toluene	5	POC	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Trichloroethylene (TCE)	5	POC	**0.89**	**1.7**	< 0.18 U	< 0.18 U
Vinyl Chloride	2		**0.49 J**	< 0.18 U	< 0.18 U	< 0.18 U
Perfluorinated Alkyl Acids by EPA Method 537 (ng/L)						
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	N/A		< 1.3 U	< 1.3 U	< 1.3 U	< 1.3 U
Perfluorobutanesulfonic acid (PFBS)	N/A		< 0.41 U	< 0.42 U	**12**	**13**
Perfluorobutanoic Acid	N/A		< 0.85 U	< 0.85 U	**5.7**	**6.3**
Perfluorodecanoic acid (PFDA)	N/A		< 0.65 U	< 0.66 U	< 0.66 U	< 0.63 U
Perfluorododecanoic acid (PFDoA)	N/A		< 0.50 U	< 0.50 U	< 0.50 U	< 0.48 U
Perfluoroheptanoic acid (PFHpA)	N/A		< 0.77 U	< 0.78 U	< 0.78 U	< 0.74 U
Perfluorohexanesulfonic acid (PFHxS)	N/A		< 0.68 U	< 0.68 U	< 0.68 U	< 0.65 U
Perfluorohexanoic acid (PFHxA)	N/A		< 0.64 U	< 0.65 U	< 0.65 U	**0.92 J**
Perfluorononanoic acid (PFNA)	N/A		< 0.23 U	< 0.23 U	< 0.23 U	< 0.22 U
Perfluorooctanesulfonic acid (PFOS)	70		< 0.52 U	< 0.52 U	**2.2**	**2.3**
Perfluorooctanoic acid (PFOA)	70		< 0.69 U	**0.71 J**	**0.88 J**	**0.96 J**
Perfluoropentanoic Acid (PFPeA)	N/A		< 0.53 U	< 0.54 U	**0.72 J**	**1.0 J**
Semi Volitile Organic Compounds by EPA Method 8270D SIM (ug/L)						
1,4-Dioxane (P-Dioxane)	1	see note 2	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U

Key:

Qualifiers

J = Estimated value

U = Not detected (method detection limit shown)

UJ = Not detected/estimated detection limit

Notes

1. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

2. The 1,4-dioxane screening criteria is represented by the New York State Drinking Water Quality Countil's recommendation to the Department of Health to adopt the maximum contaminant level of 1 part per billion (ppb).

G = Guidance value (no standard available)

N/A = Not regulated/no available criteria

POC = Principal Organic Contaminant standard of 5 µg/L applies.

Sum = Standard or guidance value applies to the sum of the analyte group.

Other

µg/L = Micrograms per liter

ng/L = Nanograms per liter

"-FD" denotes field duplicate sample

Bold values denote positive hits.

Exceeds groundwater standard.

Exceeds groundwater guidance value.

Key at end of table.

Source: Ecology and Environment Engineering, P.C. 2015

Table 4 Summary of Positive Analytical Results for Groundwater Samples
Carroll Landfill, Frewsberg, New York

Analyte	Screening Criteria [1]	Note	Location ID:	MW-113S	MW-114S	MW-115S	MW-116S
			Sample Name:	Sep-19	Sep-19	Sep-19	Sep-19
			Screen Interval:	0 - 0 ft	0 - 0 ft	0 - 0 ft	0 - 0 ft
			Date:	09/05/19	09/05/19	09/05/19	09/05/19
Metals by Method E200.7 Rev 4.4 (µg/L)							
Aluminum	N/A			**1400**	**35800**	**3500**	**49700**
Barium	1000			**580**	**420**	**1100**	**560**
Beryllium	3	G		< 0.30 U	**1.7 J**	< 0.30 U	**2.1**
Calcium	N/A			**90600**	**81900**	**80300**	**183000**
Chromium, Total	50			**1.2 J**	**45**	**4.8**	**62**
Cobalt	N/A			**0.63 J**	**31**	**1.8 J**	**34**
Copper	200			< 1.6 U	**41**	**5.0 J**	**100**
Iron	300			**5100**	**71800**	**11700**	**119000**
Magnesium	35000	G		**26200**	**31400**	**25200**	**60800**
Manganese	300			**440**	**1500**	**340**	**3800**
Nickel	100			**1.8 J**	**68**	**4.8 J**	**80**
Potassium	N/A			**2300**	**10600**	**3500**	**13200**
Sodium	20000			**20500**	**12300**	**16000**	**5600**
Vanadium	N/A			**2.1 J**	**57**	**6.3**	**78**
Zinc	2000			< 1.5 U	**150**	< 1.5 U	**270**
Metals by Method E200.8 (µg/L)							
Arsenic	25			**20.7**	**51.8**	**24.4**	**41.7**
Lead	25			**0.39 J**	**25.8**	**3.0**	**26.5**
Thallium	0.5	G		< 0.019 U	**0.32**	< 0.019 U	**0.35**
Volatile Organics by Method E524.2 (µg/L)							
Acetone	50	G		< 1.0 U	**1.9 J**	**2.1 J**	**3.0 J**
Carbon Disulfide	60	G		< 0.15 U	< 0.15 U	< 0.15 U	**0.31 J**
Cis-1,2-Dichloroethylene	5	POC		< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U
Diethyl Ether (Ethyl Ether)	N/A			**0.21 J**	< 0.12 U	**0.66**	< 0.12 U
Tert-Butyl Alcohol	N/A			< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
Toluene	5	POC		< 0.10 U	< 0.10 U	< 0.10 U	**0.11 J**
Trichloroethylene (TCE)	5	POC		< 0.18 U	< 0.18 U	< 0.18 U	< 0.18 U
Vinyl Chloride	2			< 0.18 U	< 0.18 U	< 0.18 U	< 0.18 U
Perfluorinated Alkyl Acids by EPA Method 537 (ng/L)							
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	N/A			< 1.3 U	< 1.3 U	< 1.3 U	< 1.4 U
Perfluorobutanesulfonic acid (PFBS)	N/A			< 0.47 U	**0.49 J**	**0.89 J**	< 0.44 U
Perfluorobutanoic Acid	N/A			< 0.96 U	**1.3 J**	**3.3**	< 0.91 U
Perfluorodecanoic acid (PFDA)	N/A			< 0.74 U	< 0.66 U	< 0.69 U	< 0.70 U
Perfluorododecanoic acid (PFDoA)	N/A			< 0.57 U	< 0.51 U	< 0.52 U	< 0.53 U
Perfluoroheptanoic acid (PFHpA)	N/A			< 0.88 U	< 0.78 U	**3.0**	< 0.82 U
Perfluorohexanesulfonic acid (PFHxS)	N/A			< 0.77 U	< 0.69 U	**1.1 J**	< 0.72 U
Perfluorohexanoic acid (PFHxA)	N/A			< 0.73 U	< 0.65 U	**4.2**	< 0.69 U
Perfluorononanoic acid (PFNA)	N/A			< 0.26 U	< 0.23 U	< 0.24 U	< 0.24 U
Perfluorooctanesulfonic acid (PFOS)	70			**1.9**	**4.4**	< 0.54 U	< 0.55 U
Perfluorooctanoic acid (PFOA)	70			< 0.78 U	< 0.70 U	**13**	< 0.73 U
Perfluoropentanoic Acid (PFPeA)	N/A			< 0.61 U	< 0.54 U	**4.0**	< 0.57 U
Semi Volitile Organic Compounds by EPA Method 8270D SIM (ug/L)							
1,4-Dioxane (P-Dioxane)	1	see note 2		**0.13 J**	< 0.10 U	**0.27**	< 0.10 U

Key:

Qualifiers

J = Estimated value

U = Not detected (method detection limit shown)

UJ = Not detected/estimated detection limit

Notes

1. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

2. The 1,4-dioxane screening criteria is represented by the New York State Drinking Water Quality Countil's recommendation to the Department of Health to adopt the maximum contaminant level of 1 part per billion (ppb).

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Sum = Standard or guidance value applies to the sum of the analyte group.

Other

µg/L = Micrograms per liter

ng/L = Nanograms per liter

"-FD" denotes field duplicate sample

Bold values denote positive hits.

Exceeds groundwater standard.

Exceeds groundwater guidance value.

Key at end of table.

Source: Ecology and Environment Engineering, P.C. 2015

Table 4 Summary of Positive Analytical Results for Groundwater Samples
Carroll Landfill, Frewsberg, New York

Analyte	Screening Criteria [1]	Note	Location ID: MW-117D Sample Name: Sep-19 Screen Interval: 0 - 0 ft Date: 09/04/19	MW-117I Sep-19 0 - 0 ft 09/04/19	MW-117S Sep-19 0 - 0 ft 09/04/19	MW-118S Sep-19 0 - 0 ft 09/05/19
Metals by Method E200.7 Rev 4.4 (µg/L)						
Aluminum	N/A		60 U	**360**	**4800**	**12400**
Barium	1000		**110**	**330**	**550**	**300**
Beryllium	3	G	< 0.30 U	< 0.30 U	< 0.30 U	**0.57 J**
Calcium	N/A		**49100**	**75000**	**121000**	**35300**
Chromium, Total	50		< 1.0 U	< 1.0 U	**5.1**	**13**
Cobalt	N/A		< 0.63 U	< 0.63 U	**2.5 J**	**4.9**
Copper	200		< 1.6 U	**3.2 J**	**5.8 J**	**9.2 J**
Iron	300		**100**	**220**	**11000**	**13200**
Magnesium	35000	G	**12600**	**17000**	**38900**	**10200**
Manganese	300		**270**	**8.9**	**340**	**200**
Nickel	100		< 1.3 U	< 1.3 U	**5.6 J**	**12**
Potassium	N/A		< 100 U	**2800**	**3200**	**6400**
Sodium	20000		**4600**	**3800**	**8800**	**15100**
Vanadium	N/A		< 1.5 U	**1.9 J**	**7.8**	**22**
Zinc	2000		< 1.5 U	< 1.5 U	**22**	**25**
Metals by Method E200.8 (µg/L)						
Arsenic	25		**1.7**	**1.8**	**11.5**	**18.0**
Lead	25		< 0.17 U	**1.1**	**1.8**	**3.6**
Thallium	0.5	G	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U
Volatile Organics by Method E524.2 (µg/L)						
Acetone	50	G	**1.0 J**	< 1.0 U	**1.2 J**	**3.8 J**
Carbon Disulfide	60	G	< 0.15 U	< 0.15 U	< 0.15 U	< 0.15 U
Cis-1,2-Dichloroethylene	5	POC	< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U
Diethyl Ether (Ethyl Ether)	N/A		< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U
Tert-Butyl Alcohol	N/A		< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U
Toluene	5	POC	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Trichloroethylene (TCE)	5	POC	< 0.18 U	< 0.18 U	< 0.18 U	< 0.18 U
Vinyl Chloride	2		< 0.18 U	< 0.18 U	< 0.18 U	< 0.18 U
Perfluorinated Alkyl Acids by EPA Method 537 (ng/L)						
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	N/A		**1.7 J**	< 0.12 U	< 0.12 U	< 1.4 U
Perfluorobutanesulfonic acid (PFBS)	N/A		**5.4**	< 0.40 U	**0.71 J**	< 0.45 U
Perfluorobutanoic Acid	N/A		**2.9 J**	**1.2 J**	**4.9**	< 0.91 U
Perfluorodecanoic acid (PFDA)	N/A		**0.76 J**	< 0.63 U	< 0.63 U	< 0.70 U
Perfluorododecanoic acid (PFDoA)	N/A		**0.53 J**	< 0.48 U	< 0.48 U	< 0.54 UJ
Perfluoroheptanoic acid (PFHpA)	N/A		< 0.76 U	< 0.75 U	< 0.74 U	< 0.83 U
Perfluorohexanesulfonic acid (PFHxS)	N/A		< 0.67 U	< 0.66 U	< 0.65 U	< 0.73 U
Perfluorohexanoic acid (PFHxA)	N/A		**1.1 J**	< 0.62 U	**1.1 J**	< 0.69 U
Perfluorononanoic acid (PFNA)	N/A		**0.45 J**	< 0.22 U	< 0.22 U	< 0.25 U
Perfluorooctanesulfonic acid (PFOS)	70		**1.3 J**	< 0.50 U	< 0.50 U	**1.5 J**
Perfluorooctanoic acid (PFOA)	70		**2.2**	< 0.66 U	**0.98 J**	< 0.74 U
Perfluoropentanoic Acid (PFPeA)	N/A		**1.6 J**	< 0.52 U	**0.89 J**	< 0.57 U
Semi Volitile Organic Compounds by EPA Method 8270D SIM (ug/L)						
1,4-Dioxane (P-Dioxane)	1	see note 2	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U

Key:

Qualifiers

J = Estimated value

U = Not detected (method detection limit shown)

UJ = Not detected/estimated detection limit

Notes

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Other

µg/L = Micrograms per liter

ng/L = Nanograms per liter

"-FD" denotes field duplicate sample

Bold values denote positive hits.

Exceeds groundwater standard.

Exceeds groundwater guidance value.

Key at end of table.

Source: Ecology and Environment Engineering, P.C. 2015

Table 4 Summary of Positive Analytical Results for Groundwater Samples
Carroll Landfill, Frewsberg, New York

Analyte	Screening Criteria [1]	Note	Location ID: MW-13 Sample Name: Sep-19 Screen Interval: 35 - 75 ft Date: 09/04/19
Metals by Method E200.7 Rev 4.4 (µg/L)			
Aluminum	N/A		**1400**
Barium	1000		**100**
Beryllium	3	G	< 0.30 U
Calcium	N/A		**60100**
Chromium, Total	50		**2.5 J**
Cobalt	N/A		< 0.63 U
Copper	200		**3.0 J**
Iron	300		**1700**
Magnesium	35000	G	**13000**
Manganese	300		**46**
Nickel	100		< 1.3 U
Potassium	N/A		**1700**
Sodium	20000		**12300**
Vanadium	N/A		**2.8 J**
Zinc	2000		< 1.5 U
Metals by Method E200.8 (µg/L)			
Arsenic	25		< 0.27 U
Lead	25		**1.3**
Thallium	0.5	G	< 0.019 U
Volatile Organics by Method E524.2 (µg/L)			
Acetone	50	G	**1.2 J**
Carbon Disulfide	60	G	< 0.15 U
Cis-1,2-Dichloroethylene	5	POC	< 0.12 U
Diethyl Ether (Ethyl Ether)	N/A		< 0.12 U
Tert-Butyl Alcohol	N/A		< 2.5 U
Toluene	5	POC	< 0.10 U
Trichloroethylene (TCE)	5	POC	< 0.18 U
Vinyl Chloride	2		< 0.18 U
Perfluorinated Alkyl Acids by EPA Method 537 (ng/L)			
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	N/A		< 0.12 U
Perfluorobutanesulfonic acid (PFBS)	N/A		< 0.41 U
Perfluorobutanoic Acid	N/A		< 0.83 U
Perfluorodecanoic acid (PFDA)	N/A		< 0.64 U
Perfluorododecanoic acid (PFDoA)	N/A		< 0.49 U
Perfluoroheptanoic acid (PFHpA)	N/A		< 0.76 U
Perfluorohexanesulfonic acid (PFHxS)	N/A		< 0.67 U
Perfluorohexanoic acid (PFHxA)	N/A		< 0.63 U
Perfluorononanoic acid (PFNA)	N/A		< 0.22 U
Perfluorooctanesulfonic acid (PFOS)	70		< 0.51 U
Perfluorooctanoic acid (PFOA)	70		**0.76 J**
Perfluoropentanoic Acid (PFPeA)	N/A		< 0.52 U
Semi Volitile Organic Compounds by EPA Method 8270D SIM (ug/L)			
1,4-Dioxane (P-Dioxane)	1	see note 2	< 0.10 U

Key:

Qualifiers

J = Estimated value

U = Not detected (method detection limit shown)

UJ = Not detected/estimated detection limit

Notes

1. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

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N/A = Not regulated/no available criteria

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Sum = Standard or guidance value applies to the sum of the analyte group.

Other

µg/L = Micrograms per liter

ng/L = Nanograms per liter

"-FD" denotes field duplicate sample

Bold values denote positive hits.

Exceeds groundwater standard.

Exceeds groundwater guidance value.

Key at end of table.

Source: Ecology and Environment Engineering, P.C. 2015

Table 5 Historical Groundwater Sample Analytical Exceedance Summary
Carroll Landfill, Frewsburg, New York

Analyte	Screening Criteria (1)	Well ID:	MW-101	MW-102							MW-103						
		Date:	09/03/19	10/01/04	03/08/05	08/28/08	08/17/10	11/06/12	09/09/14	09/03/19	10/12/04	03/09/05	08/18/10	08/18/10	11/08/12	09/11/14	09/03/19
			*														*
Metals (µg/L)																	
ARSENIC	25						**0.2 J**	**0.4 J**	0.078 U	0.27 U				**2.4**	**2.7**	**1.7**	
BARIUM	1000						**94**	**82**	**71**	**93**				**237**	**240**	**250**	
BERYLLIUM	3						**0.3 J**	2 U	0.30 U	0.30 U				0.2 U	2 U	0.30 U	
CHROMIUM, TOTAL	50						0.9 U	4 U	1.0 U	1.0 U				0.9 U	**1.1 J**	1.0 U	
COPPER	200						1.5 U	**1.9 J**	**1.6 J**	**4.1 J**				1.5 U	10 U	1.6 U	
IRON	300			**32.7**	**6,220**	**NA**	23 UJ	**38 J**	19 U	**350**	**1,030**	**NS**	**NA**	273 UJ	**220**	**200**	
LEAD	25						0.1 UJ	**1.2 J**	0.34 U	**2.2**				0.7 UJ	1 U	**0.17 J**	
MAGNESIUM	35000						**19000**	**13000**	**14300**	**16000**				**13000**	**16000**	**14800**	
MANGANESE	300						**152 J**	**35**	**42**	**260**				**254**	**290**	**280**	
NICKEL	100						1.3 U	10 U	1.3 U	1.3 U				**1.4 J**	10 U	1.3 U	
SODIUM	20000						**3700 J**	**2500**	**3000**	320 U				**3900**	**4600 J**	**4300**	
THALLIUM	0.5						**0.01 J**	**0.018 J**	0.012 U	0.019 U				0.008 U	0.2 U	0.0080 U	
VOCs (µg/L)																	
1,2-DICHLOROETHANE	0.6						0.14 U	0.5 U	0.14 U					0.14 UJ	0.5 U	0.28 U	
CHLOROETHANE	5			**1 J**	**1 J**	**11**	**2**	0.5 U	0.070 U					0.07 UJ	0.5 U	0.14 U	
CIS-1,2-DICHLOROETHYLENE	5			**2 J**	**1 J**	**130 D**	**24**	**0.56**	**3.2**	**5.1**				0.12 UJ	0.5 U	0.24 U	
DICHLORODIFLUOROMETHANE	5						**0.2 J**	0.5 U	0.070 U					**0.21 J**	0.5 U	0.14 U	
TRICHLOROETHYLENE (TCE)	5			10 U	10 U	**9**	**6.4**	**0.56**	**1.2**	**0.89**				0.06 UJ	0.5 U	0.12 U	
VINYL CHLORIDE	2			**2 J**	**1 J**	**30 D**	**3.5**	0.5 U	**0.34 J**	**0.49 J**	10 U	10 U	**2**	**4.9 J**	**35 J**	**24**	

Key:
D = Compound identified at secondary dilution factor.
J = Estimated value.
NA = Not applicable.
NS = Not sampled.
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UJ = Not detected/estimated reporting limit.
µg/L = Micrograms per liter.
VOCs = Volatile organic compounds.

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Note:
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2. Bold values denote positive hits.
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4. In the 2012 sample for MW-105S, the metals concentrations are generally higher in the shallow groundwater monitoring well due to

Table 5 Historical Groundwater Sample Analytical Exceedance Summary
Carroll Landfill, Frewsburg, New York

Analyte	Screening Criteria [1]	Well ID:	MW-104							MW-105S						
		Date:	10/14/04	03/10/05	08/28/08	08/18/10	11/08/12	09/11/14	09/03/19 ***	10/14/04	03/10/05	08/28/08	08/19/10	11/08/12	09/10/14	09/03/19 ***
Metals (µg/L)																
ARSENIC	25		**53.2**	**24.1**	**NA**	**31**	**93**	**55.4**		**29.2**	**22.1**	**NA**	**9.6**	**108**	**7.7**	
BARIUM	1000					**245**	**430**	**260**					**349**	**2200**	**250**	
BERYLLIUM	3					**0.2 J**	**0.72 J**	0.30 U					**0.3 J**	**9.7**	**0.30 J**	
CHROMIUM, TOTAL	50					1.5 UJ	**19**	**6.8**					**8.9**	**310**	**8.5**	
COPPER	200					1.5 U	**16**	**6.2 J**					**5.5 J**	**320**	**8.9 J**	
IRON	300		**13200**	**37300**	**NA**	2070 UJ	**29000**	**11100**		**53400**	**50100**	**NA**	**9870 J**	**495000**	**11400**	
LEAD	25					0.5 UJ	**20**	**2.5**					**3.7**	**90**	**3.0**	
MAGNESIUM	35000		**R**	**39500**	**NA**	**12000**	**24000**	**12300**					**9510**	**175000**	**12100**	
MANGANESE	300					**240**	**1100**	**320**		**NA**	**NA**	**NA**	**1410**	**13000**	**300**	
NICKEL	100					**2 J**	**25**	**8.3 J**					**10**	**570**	**12**	
SODIUM	20000		**R**	**27100**	**NA**	**18000**	**19000 J**	**15800**					**11000**	**15000 J**	**11700**	
THALLIUM	0.5					**0.01 J**	**0.25**	0.016 U					**0.09 J**	**0.93**	0.042 U	
VOCs (µg/L)																
1,2-DICHLOROETHANE	0.6					0.14 UJ	0.5 U	0.14 U					0.14 UJ	0.5 UJ	0.14 U	
CHLOROETHANE	5					0.07 UJ	0.5 U	0.070 U					0.07 UJ	0.5 UJ	0.070 U	
CIS-1,2-DICHLOROETHYLENE	5					**1.6 J**	**0.62**	**0.63**					0.12 UJ	0.5 UJ	0.12 U	
DICHLORODIFLUOROMETHANE	5					0.07 UJ	0.5 U	0.070 U					0.07 UJ	0.5 UJ	0.070 U	
TRICHLOROETHYLENE (TCE)	5					0.06 UJ	0.5 U	0.060 U					0.06 UJ	0.5 UJ	0.060 U	
VINYL CHLORIDE	2					**0.22 J**	**0.26 J**	0.059 U					0.059 UJ	0.5 UJ	0.059 U	

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2. Bold values denote positive hits.
3. Shaded cells exceed the screening value.
4. In the 2012 sample for MW-105S, the metals concentrations are generally higher in the shallow groundwater monitoring well due to

Table 5 Historical Groundwater Sample Analytical Exceedance Summary
Carroll Landfill, Frewsburg, New York

Analyte	Screening Criteria [1]	Well ID:			MW-106S				MW-107S						
		Date:	10/14/04	03/10/05	08/28/08	08/19/10	11/07/12	09/11/14	09/03/19 ***	10/12/04	03/10/05	08/28/08	08/17/10	11/07/12	09/10/14	09/03/19 ***
Metals (µg/L)																
ARSENIC	25					**2.2**	**95**	**6.0**					**7.7**	**30**	**10.5**	
BARIUM	1000					**328**	**1000**	**460**					**618**	**690**	**510**	
BERYLLIUM	3					**0.3 J**	**1.8 J**	0.30 U					**1.6 J**	**1.3 J**	**1.5 J**	
CHROMIUM, TOTAL	50					1.9 UJ	**43**	**2.8 J**					**37**	**26**	**41**	
COPPER	200					1.5 U	**72**	**3.4 J**					**47**	**44**	**44**	
IRON	300	**8440**	**NS**	**NS**		1610 UJ	**90000**	**4200**		**24900**	**679**	**NA**	**60000**	**44000**	**59300**	
LEAD	25					0.9 UJ	**72 J**	**2.8**					**24**	**41 J**	**18.9**	
MAGNESIUM	35000					**12000**	**63000**	**11100**		**R**	**37.6**	**NA**	**35000**	**52000**	**32200**	
MANGANESE	300					**228**	**4000**	**2300**		**NA**	**NA**	**NA**	**1470 J**	**2200**	**1300**	
NICKEL	100					**2.5 J**	**67**	**2.5 J**					**57**	**43**	**66**	
SODIUM	20000					**5000**	**5900**	**4700**					**7100 J**	**11000**	**6500**	
THALLIUM	0.5					**0.01 J**	**0.56**	0.0080 U					**0.2**	**0.42**	**0.15 J**	
VOCs (µg/L)																
1,2-DICHLOROETHANE	0.6					0.14 UJ	0.5 U	0.14 U		**2.0 J**	**0.6 J**	1 U	0.14 U	**0.44 J**	0.28 U	
CHLOROETHANE	5					0.07 UJ	0.5 U	0.070 U					**0.33 J**	**2.1**	0.14 U	
CIS-1,2-DICHLOROETHYLENE	5					0.12 UJ	0.5 U	0.12 U		**69.0 J**	**25.0 J**	**1**	**3**	**37**	**3.5**	
DICHLORODIFLUOROMETHANE	5					0.07 UJ	0.5 U	0.070 U		**9.0 J**	**3.0 J**	**0.8 J**	**0.46 J**	**2**	0.14 U	
TRICHLOROETHYLENE (TCE)	5					0.06 UJ	0.5 U	0.060 U					0.06 U	0.5 U	0.12 U	
VINYL CHLORIDE	2					0.059 UJ	**0.39 J**	0.059 U		**600 D**	**250**	**48 D**	**28**	**240**	**21**	

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Table 5 Historical Groundwater Sample Analytical Exceedance Summary
Carroll Landfill, Frewsburg, New York

Analyte	Screening Criteria [1]	Well ID:	MW-108S							MW-109S						
		Date:	10/14/04	03/10/05	08/28/08	08/19/10	11/06/12	09/11/14	09/03/19 ***	03/13/04	03/09/05	08/28/08	08/19/10	11/06/12	09/09/14	09/03/19 **
Metals (µg/L)																
ARSENIC	25		**12.1**	**28.2**	**NA**	**8.8**	**48**	**14.0**					**2.2**	**8.1**	**8.4**	
BARIUM	1000		**1230**	**890**	**NA**	**1380**	**1800**	**1700**					**145**	**200**	**300**	
BERYLLIUM	3					0.2 U	**1.1 J**	0.30 U					**0.2 J**	**0.61 J**	**0.68 J**	
CHROMIUM, TOTAL	50		**8.3**	**68.4**	**NA**	2.1 UJ	**33**	**5.6**					3.3 UJ	**14**	**24**	
COPPER	200					**2.8 J**	**33**	**5.8 J**					**1.8 J**	**13**	**17**	
IRON	300		**55100**	**82600**	**NA**	**18000 J**	**85000**	**23100**		**2,520**	**18400**	**NA**	**4220 J**	**18000**	**26000**	
LEAD	25					**2.7**	**24 J**	**3.7**					1.6 U	**6.2 J**	**7.1**	
MAGNESIUM	35000					**29000**	**41000**	**31100**					**13000**	**17000**	**19200**	
MANGANESE	300		**3150**	**2890**	**NA**	**721**	**2400**	**740**		**NA**	**NA**	**NA**	**375**	**2400**	**5200**	
NICKEL	100					**4.1 J**	**48**	**7.4 J**					**4.6 J**	**19**	**31**	
SODIUM	20000					**13000**	**8600**	**12200**					**3400**	**3200**	**3300**	
THALLIUM	0.5					**0.02 J**	**0.27**	0.046 U					**0.04 J**	**0.14 J**	0.18 U	
VOCs (µg/L)																
1,2-DICHLOROETHANE	0.6					0.14 UJ	0.5 U	0.14 U					0.14 UJ	0.5 U	0.14 U	
CHLOROETHANE	5					0.07 UJ	0.5 U	0.070 U					0.07 UJ	0.5 U	0.070 U	
CIS-1,2-DICHLOROETHYLENE	5					0.12 UJ	0.5 U	0.12 U					0.12 UJ	0.5 U	0.12 U	
DICHLORODIFLUOROMETHANE	5					**0.34 J**	0.5 U	0.070 U					0.07 UJ	0.5 U	0.070 U	
TRICHLOROETHYLENE (TCE)	5					0.06 UJ	0.5 U	0.060 U					0.06 UJ	0.5 U	0.060 U	
VINYL CHLORIDE	2					**0.32 J**	0.5 U	**0.32 J**					0.059 UJ	0.5 U	0.059 U	

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Carroll Landfill, Frewsburg, New York

Analyte	Screening Criteria [1]	Well ID:	MW-110S							MW-111S						
		Date:	10/13/04	03/10/05	08/28/08	08/20/10	11/08/12	09/10/14	09/03/19 **	10/13/04	03/09/05	08/28/08	08/16/10	11/07/12	09/10/14	09/03/19 **
Metals (µg/L)																
ARSENIC	25		**35.1**	**10.9**	**NA**	**8.1**	**32**	**10.5**		**30.5**	**NS**	**NA**	**5.7**	**38**	**11.0**	
BARIUM	1000					**237**	**890**	**290**					**568**	**690**	**430**	
BERYLLIUM	3					0.2 U	**4.5**	**0.33 J**					**0.6 J**	**2.3**	**1.0 J**	
CHROMIUM, TOTAL	50					3.7 UJ	**120**	**9.4**					**8.3**	**53**	**28**	
COPPER	200					1.5 U	**110**	**6.5 J**					**39 J**	**64**	**22**	
IRON	300		**74900**	**6310**	**NA**	1110 U	**176000**	**9900**		**48800**	**NS**	**NA**	**24000**	**85000**	**35800**	
LEAD	25		**26.8**	**2.1 B**	**NA**	0.4 UJ	**57**	**3.0**		**NA**	**NA**	**NA**	**29**	**37 J**	**10.4**	
MAGNESIUM	35000					**12000 J**	**71000**	**12700**		**NA**	**NA**	**NA**	**42000**	**57000**	**34100**	
MANGANESE	300					**232 J**	**4200**	**260**		**NA**	**NA**	**NA**	**1680**	**2200**	**670**	
NICKEL	100					1.3 U	**180**	**11**					**18**	**82**	**40**	
SODIUM	20000					**6000**	**6800 J**	**5800**					**11000**	**12000**	**10800**	
THALLIUM	0.5					**0.02 J**	**0.26**	0.062 U					**0.1 J**	**0.33**	**0.15 J**	
VOCs (µg/L)																
1,2-DICHLOROETHANE	0.6					0.14 UJ	0.5 U	0.14 U					0.14 U	0.5 U	0.14 U	
CHLOROETHANE	5					0.07 UJ	0.5 U	0.070 U					0.07 U	0.5 U	0.070 U	
CIS-1,2-DICHLOROETHYLENE	5					0.12 UJ	0.5 U	0.12 U					0.12 U	0.5 U	0.12 U	
DICHLORODIFLUOROMETHANE	5					0.07 UJ	0.5 U	0.070 U					0.07 U	0.5 U	0.070 U	
TRICHLOROETHYLENE (TCE)	5					0.06 UJ	0.5 U	0.060 U					0.06 U	0.5 U	0.060 U	
VINYL CHLORIDE	2					0.059 UJ	0.5 U	0.059 U					0.059 U	0.5 U	0.059 U	

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Carroll Landfill, Frewsburg, New York

Analyte	Screening Criteria [1]	Well ID: MW-112S Date: 09/05/19	MW-113S 09/05/19	MW-114S 09/05/19	MW-115S 09/05/19	MW-116S 09/05/19	MW-117S 09/04/19	MW-118S 09/04/19
Metals (µg/L)								
ARSENIC	25	**4.2**	**20.7**	**51.8**	**24.4**	**41.7**	**11.5**	**18.0**
BARIUM	1000	**180**	**580**	**420**	**1100**	**560**	**550**	**300**
BERYLLIUM	3	0.30 U	0.30 U	**1.7 J**	0.30 U	**2.1**	0.30 U	**0.57 J**
CHROMIUM, TOTAL	50	**1.4 J**	**1.2 J**	**45**	**4.8**	**62**	**5.1**	**13**
COPPER	200	1.6 U	1.6 U	**41**	**5.0 J**	**100**	**5.8 J**	**9.2 J**
IRON	300	**1600 J**	**5100**	**71800**	**11700**	**119000**	**11000**	**13200**
LEAD	25	**0.30 J**	**0.39 J**	**25.8**	**3.0**	**26.5**	**1.8**	**3.6**
MAGNESIUM	35000	**8800**	**26200**	**31400**	**25200**	**60800**	**38900**	**10200**
MANGANESE	300	**280**	**440**	**1500**	**340**	**3800**	**340**	**200**
NICKEL	100	1.3 U	**1.8 J**	**68**	**4.8 J**	**80**	**5.6 J**	**12**
SODIUM	20000	**16000**	**20500**	**12300**	**16000**	**5600**	**8800**	**15100**
THALLIUM	0.5	0.019 U	0.019 U	**0.32**	0.019 U	**0.35**	0.019 U	0.019 U
VOCs (µg/L)								
1,2-DICHLOROETHANE	0.6							
CHLOROETHANE	5							
CIS-1,2-DICHLOROETHYLENE	5	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
DICHLORODIFLUOROMETHANE	5							
TRICHLOROETHYLENE (TCE)	5	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
VINYL CHLORIDE	2	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U

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Carroll Landfill, Frewsburg, New York

Analyte	Screening Criteria [1]	Well ID:	MW-102I							MW-107I						
		Date:	10/11/04	03/09/05	08/28/08	08/17/10	11/06/12	09/09/14	09/03/19	10/12/04	03/09/05	08/28/08	08/17/10	11/07/12	09/10/14	09/03/19
																***
Metals (µg/L)																
ARSENIC	25					**0.3 J**	**0.38 J**	**0.20 J**	0.27 U				**21**	**19**	**19.1**	
BARIUM	1000					**103**	**84**	**77**	**130**				**298**	**230**	**220**	
BERYLLIUM	3					**0.4 J**	2 U	0.30 U	0.30 U				**0.5 J**	2 U	0.30 U	
CHROMIUM, TOTAL	50					0.9 U	**1.1 J**	**1.1 J**	**3.2 J**				**12**	**1.3 J**	**1.4 J**	
COPPER	200					1.5 U	10 U	1.6 U	**13**				**12**	10 U	**1.9 J**	
IRON	300		**3800**	**12200**	**NA**	277 U	**67**	**77**	**3400**	**12100**	**NS**	**NA**	**15000**	**1200**	**700**	
LEAD	25					0.4 UJ	**1.2 J**	0.27 U	**2.6**				**6.4**	**6.1 J**	**1.0**	
MAGNESIUM	35000					**18000**	**15000**	**14100**	**19700**				**14000**	**11000**	**10100**	
MANGANESE	300					**187 J**	**490**	**65**	**650**	**NA**	**NA**	**NA**	**451 J**	**220**	**200**	
NICKEL	100					1.3 U	10 U	1.3 U	**5.7 J**				**14**	**1.3 J**	1.3 U	
SODIUM	20000					**3800 J**	**3100**	**3300**	**4200**				**7700 J**	**7700**	**7000**	
THALLIUM	0.5					**0.02 J**	**0.028 J**	0.011 U	0.019 U				**0.09 J**	**0.027 J**	0.025 U	
VOCs (µg/L)																
1,2-DICHLOROETHANE	0.6					0.14 U	0.5 U	0.14 U					0.14 U	0.5 U	0.14 U	
CHLOROETHANE	5		**7.0 J**	**5.0 J**	1 U	0.07 U	0.5 U	0.070 U					0.07 U	0.5 U	0.070 U	
CIS-1,2-DICHLOROETHYLENE	5		**14**	**6.0 J**	**12**	**2.4**	0.5 U	0.12 U	**3.8**				0.12 U	0.5 U	0.12 U	
DICHLORODIFLUOROMETHANE	5					0.07 U	0.5 U	0.070 U					0.07 U	0.5 U	0.070 U	
TRICHLOROETHYLENE (TCE)	5		10 U	10 U	**20**	**3.2**	**0.37 J**	**0.41 J**	**1.7**				0.06 U	0.5 U	0.060 U	
VINYL CHLORIDE	2		**5 J**	**3 J**	**0.6 J**	0.059 U	0.5 U	0.059 U	0.18 U				0.059 U	0.5 U	0.059 U	

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Carroll Landfill, Frewsburg, New York

Analyte	Screening Criteria (1)	Well ID:			MW-108I				MW-109I	MW-110I						
		Date:	10/13/04	03/07/05	08/28/08	08/20/10	11/06/12	09/11/14	09/03/19	09/03/19	10/13/04	03/10/05	08/28/08	08/20/10	11/08/12	09/10/14	09/03/19
									***	**							***
Metals (µg/L)																	
ARSENIC	25					**4.7**	**4.8**	**5.1**			**87.8**	**23**	**NA**	**9.8**	**33**	**12.1**	
BARIUM	1000					**233**	**240**	**230**						**231**	**510**	**160**	
BERYLLIUM	3					0.2 U	2 U	0.30 U			**3.6**	**0.72**	**NA**	0.2 U	**1.8 J**	0.30 U	
CHROMIUM, TOTAL	50					0.9 U	4 U	1.0 U			**112**	**24.5**	**NA**	3 UJ	**44**	**4.4**	
COPPER	200					1.5 U	10 U	1.6 U						1.5 U	**66**	**7.1 J**	
IRON	300		**15300**	**1740**	**NA**	634 U	**590**	**140**			**191000**	**37000**	**NA**	1670 U	**69000**	**4200**	
LEAD	25					0.4 UJ	**0.18 J**	**0.12 J**			**92.4**	**15.7**	**NA**	0.7 UJ	**54**	**2.9**	
MAGNESIUM	35000					**13000 J**	**13000**	**13300**			**70900**	**26300**	**NA**	**11000 J**	**52000**	**9400**	
MANGANESE	300					**262 J**	**250**	**260**			**3720**	**880**	**NA**	**175 J**	**3000**	**310**	
NICKEL	100					1.3 U	10 U	1.3 U						**2 J**	**65**	**3.9 J**	
SODIUM	20000					**5400**	**5400**	**5000**						**5700**	**6900 J**	**5200**	
THALLIUM	0.5					**0.02 J**	**0.092 J**	0.011 U			**14**	4.5 U	**NA**	**0.02 J**	**0.27**	0.024 U	
VOCs (µg/L)																	
1,2-DICHLOROETHANE	0.6					0.14 UJ	0.5 U	0.14 U						0.14 UJ	0.5 U	0.14 U	
CHLOROETHANE	5					0.07 UJ	**0.44 J**	0.070 U						0.07 UJ	0.5 U	0.070 U	
CIS-1,2-DICHLOROETHYLENE	5					0.12 UJ	0.5 U	0.12 U						0.12 UJ	0.5 U	0.12 U	
DICHLORODIFLUOROMETHANE	5					0.07 UJ	0.5 U	0.070 U						0.07 UJ	0.5 U	0.070 U	
TRICHLOROETHYLENE (TCE)	5					0.06 UJ	0.5 U	0.060 U						0.06 UJ	0.5 U	0.060 U	
VINYL CHLORIDE	2					0.059 UJ	0.5 U	0.059 U						0.059 UJ	0.5 U	0.059 U	

Key:
D = Compound identified at secondary dilution factor.
J = Estimated value.
NA = Not applicable.
NS = Not sampled.
U = Not detected (lab reporting limit shown).
UJ = Not detected/estimated reporting limit.
µg/L = Micrograms per liter.
VOCs = Volatile organic compounds.

*Not sampled due to broken/obstructed well
**Not sampled due to inaccessibility
***Decommissioned well

Note:
1. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations,* 1998 (with updates), Class GA Groundwater Standards and Guidance Values.
2. Bold values denote positive hits.
3. Shaded cells exceed the screening value.
4. In the 2012 sample for MW-105S, the metals concentrations are generally higher in the shallow groundwater monitoring well due to

Table 5 Historical Groundwater Sample Analytical Exceedance Summary
Carroll Landfill, Frewsburg, New York

Analyte	Screening Criteria (1)	Well ID:			MW-111I				MW-117I	MW-109D						
		Date:	10/13/04	03/09/05	08/28/08	08/16/10	11/07/12	09/10/14	09/03/19 **	09/04/19	10/12/04	03/08/05	08/28/08	08/19/10	11/06/12	09/09/14	09/03/19 **
Metals (µg/L)																	
ARSENIC	25					**17**	**19**	**18.0**		**1.8**				**0.3 J**	**0.42 J**	0.078 U	
BARIUM	1000					**258**	**260 J**	**280**		**330**				**137**	**130**	**130**	
BERYLLIUM	3					0.2 U	2 U	0.30 U		0.30 U				0.2 U	2 U	0.30 U	
CHROMIUM, TOTAL	50					0.9 U	**1.6 J**	1.0 U		1.0 U				0.9 U	4 U	1.0 U	
COPPER	200					1.5 U	10 U	1.6 U		**3.2 J**				1.5 U	10 U	1.6 U	
IRON	300	**20700**	**NS**	**NA**	1060 U	**300**	**300**			**220**	**8440**	**29900**	**NA**	453 UJ	**190**	**250**	
LEAD	25					**4.5**	**8.6 J**	**40.7**		**1.1**				0.4 UJ	1 U	0.22 U	
MAGNESIUM	35000					**13000**	**13000 J**	**13100**		**17000**				**13000**	**13000**	**12800**	
MANGANESE	300					**227**	**210 J**	**210**		**8.9**				**55**	**87**	**100**	
NICKEL	100					1.3 U	10 U	1.3 U		1.3 U				1.3 U	10 U	1.3 U	
SODIUM	20000					**10000**	**11000 J**	**10100**		**3800**				**3900**	**4000**	**4100**	
THALLIUM	0.5					**0.01 J**	**0.019 J**	0.020 U		0.019 U				0.008 U	**0.012 J**	0.0098 U	
VOCs (µg/L)																	
1,2-DICHLOROETHANE	0.6					0.14 U	0.5 U	0.14 U						0.14 UJ	0.5 U	0.14 U	
CHLOROETHANE	5					0.07 U	0.5 U	0.070 U						0.07 UJ	0.5 U	0.070 U	
CIS-1,2-DICHLOROETHYLENE	5					0.12 U	0.5 U	0.12 U		0.12 U	10 U	**1 J**	**9**	**1.4 J**	0.5 U	0.12 U	
DICHLORODIFLUOROMETHANE	5					0.07 U	0.5 U	0.070 U						0.07 UJ	0.5 U	0.070 U	
TRICHLOROETHYLENE (TCE)	5					0.06 U	0.5 U	0.060 U		0.18 U				**0.73 J**	0.5 U	0.060 U	
VINYL CHLORIDE	2					0.059 U	0.5 U	0.059 U		0.18 U	**1.0 J**	**108**	**0.4 J**	0.059 UJ	0.5 U	0.059 U	

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µg/L = Micrograms per liter.
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*Not sampled due to broken/obstructed well
**Not sampled due to inaccessibility
***Decommissioned well

Note:
1. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations,* 1998 (with updates), Class GA Groundwater Standards and Guidance Values.
2. Bold values denote positive hits.
3. Shaded cells exceed the screening value.
4. In the 2012 sample for MW-105S, the metals concentrations are generally higher in the shallow groundwater monitoring well due to

Table 5 Historical Groundwater Sample Analytical Exceedance Summary
Carroll Landfill, Frewsburg, New York

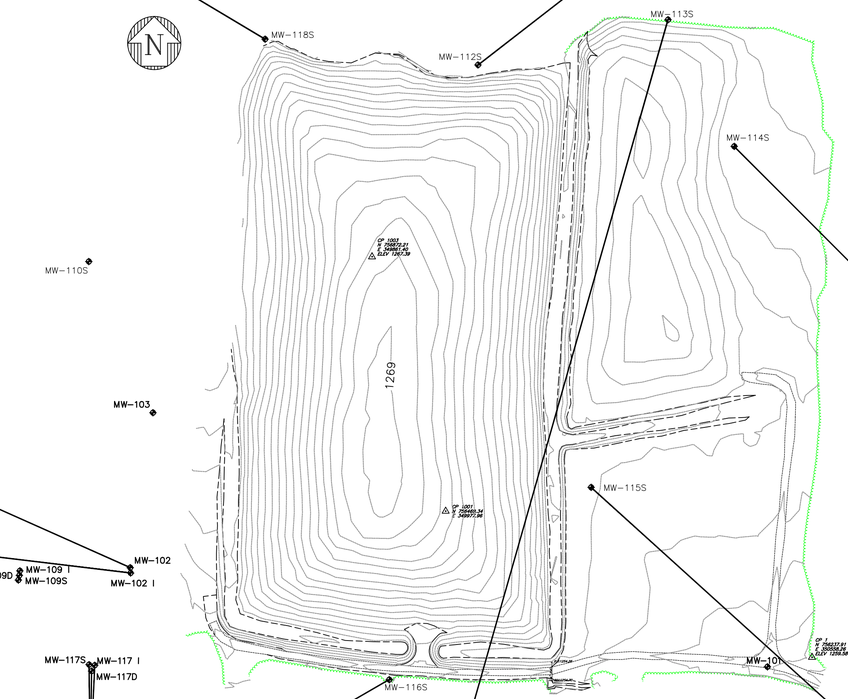
Analyte	Screening Criteria [1]	Well ID: MW-117D	MW-13							SUPPLY WELL #5
		Date: 09/04/19	09/03/04	10/14/05	08/28/08	08/19/10	11/05/12	09/11/14	09/04/19	08/16/10
Metals (µg/L)										
ARSENIC	25	**1.7**				**0.6 J**	**0.55 J**	**0.16 J**	0.27 U	**0.6 J**
BARIUM	1000	**110**				**93**	**75**	**73**	**100**	**68**
BERYLLIUM	3	0.30 U				0.2 U	2 U	0.30 U	0.30 U	0.2 U
CHROMIUM, TOTAL	50	1.0 U				1.1 UJ	**1.3 J**	1.0 U	**2.5 J**	0.9 U
COPPER	200	1.6 U				1.5 U	10 U	**1.8 J**	**3.0 J**	1.5 UJ
IRON	300	**100**	**NA**	**979**	**NA**	501 UJ	**49 J**	**310**	**1700**	21 UJ
LEAD	25	0.17 U				0.6 UJ	1 U	**0.47 J**	**1.3**	0.8 UJ
MAGNESIUM	35000	**12600**				**12000**	**9900**	**10200**	**13000**	**9270**
MANGANESE	300	**270**				16 U	3 U	7.5 U	**46**	10 U
NICKEL	100	1.3 U				**1.6 J**	10 U	1.3 U	1.3 U	1.3 U
SODIUM	20000	**4600**				**11000**	**8600**	**6800**	**12300**	**7800**
THALLIUM	0.5	0.019 U				0.008 U	**0.017 J**	0.0080 U	0.019 U	**0.01 J**
VOCs (µg/L)										
1,2-DICHLOROETHANE	0.6					0.14 UJ	0.5 U	0.14 U		0.14 U
CHLOROETHANE	5					0.07 UJ	0.5 U	0.070 U		0.07 U
CIS-1,2-DICHLOROETHYLENE	5	0.12 U				0.12 UJ	0.5 U	0.12 U	0.12 U	0.12 U
DICHLORODIFLUOROMETHANE	5					0.07 UJ	0.5 U	0.070 U		0.07 U
TRICHLOROETHYLENE (TCE)	5	0.18 U				0.06 UJ	0.5 U	0.060 U	0.18 U	0.06 U
VINYL CHLORIDE	2	0.18 U				0.059 UJ	0.5 U	0.059 U	0.18 U	0.059 U

Key:
D = Compound identified at secondary dilution factor.
J = Estimated value.
NA = Not applicable.
NS = Not sampled.
U = Not detected (lab reporting limit shown).
UJ = Not detected/estimated reporting limit.
µg/L = Micrograms per liter.
VOCs = Volatile organic compounds.

*Not sampled due to broken/obstructed well
**Not sampled due to inaccessibility
***Decommissioned well

Note:
1. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations,* 1998 (with updates), Class GA Groundwater Standards and Guidance Values.
2. Bold values denote positive hits.
3. Shaded cells exceed the screening value.
4. In the 2012 sample for MW-105S, the metals concentrations are generally higher in the shallow groundwater monitoring well due to

FIGURES



Analyte	MW-118S 9-5-19
Metals (µg/L)	
Aluminum	12400
Barium	300
Beryllium	0.57 J
Calcium	35300
Chromium, Total	13
Cobalt	4.9
Copper	9.2 J
Iron	**13200**
Magnesium	10200
Manganese	200
Nickel	12
Potassium	6400
Sodium	15100
Vanadium	22
Zinc	25
Arsenic	18.0
Lead	3.6
Volatile Organics (µg/L)	
Acetone	3.8 J
Perfluorinated Alkyl Acids (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	1.5 J

Analyte	MW-102I 9-3-19
Metals (µg/L)	
Aluminum	2500
Barium	130
Calcium	84800
Chromium, Total	3.2 J
Cobalt	1.1 J
Copper	13
Iron	**3400**
Magnesium	19700
Manganese	**650**
Nickel	5.7 J
Potassium	2000
Sodium	4200
Vanadium	5.1
Lead	2.6
Volatile Organics (µg/L)	
Cis-1,2-Dichloroethylene	3.8
Trichloroethylene (TCE)	1.7
Perfluorinated Alkyl Acids (ng/L)	
Perfluorooctanoic acid (PFOA)	0.71 J

Analyte	MW-102 9/3/19
Metals (µg/L)	
Aluminum	230
Barium	93
Calcium	76100
Copper	4.1 J
Iron	**350**
Magnesium	16000
Manganese	260
Lead	2.2
Volatile Organics (µg/L)	
Acetone	1.3 J
Cis-1,2-Dichloroethylene	**5.1**
Trichloroethylene (TCE)	0.89
Vinyl Chloride	0.49 J

Analyte	MW-112S 9-3-19	MW-112S 9-3-19 (Field Dup)
Metals (µg/L)		
Aluminum	1000 J	620 J
Barium	170	180
Calcium	35600	36800
Chromium, Total	1.4 J	< 1.0 U
Iron	**1600 J**	**1000 J**
Magnesium	8600	8800
Manganese	270	280
Potassium	2100	1900
Sodium	15400	16000
Vanadium	2.2 J	1.9 J
Arsenic	4.2	4.1
Lead	0.30 J	0.17 J
Volatile Organics (µg/L)		
Acetone	2.1 J	1.9 J
Tert-Butyl Alcohol	2.7 J	< 2.5 U
Perfluorinated Alkyl Acids (ng/L)		
Perfluorobutanesulfonic acid (PFBS)	12	13
Perfluorobutanoic Acid	5.7	6.3
Perfluorohexanoic acid (PFHxA)	< 0.65 U	0.92 J
Perfluorooctanesulfonic acid (PFOS)	2.2	2.3
Perfluorooctanoic acid (PFOA)	0.88 J	0.96 J
Perfluoropentanoic Acid (PFPeA)	0.72 J	1.0 J

Analyte	MW-114S 9-5-19
Metals (µg/L)	
Aluminum	35800
Barium	420
Beryllium	1.7 J
Calcium	81900
Chromium, Total	45
Cobalt	31
Copper	41
Iron	**71800**
Magnesium	31400
Manganese	**1500**
Nickel	68
Potassium	10600
Sodium	12300
Vanadium	57
Zinc	150
Arsenic	**51.8**
Lead	**25.8**
Thallium	0.32
Volatile Organics (µg/L)	
Acetone	1.9 J
Perfluorinated Alkyl Acids (ng/L)	
Perfluorobutanesulfonic acid (PFBS)	0.49 J
Perfluorobutanoic Acid	1.3 J
Perfluorooctanesulfonic acid (PFOS)	4.4

Analyte	MW-115S 9-5-19
Metals (µg/L)	
Aluminum	3500
Barium	**1100**
Calcium	80300
Chromium, Total	4.8
Cobalt	1.8 J
Copper	5.0 J
Iron	**11700**
Magnesium	25200
Manganese	**340**
Nickel	4.8 J
Potassium	3500
Sodium	16000
Vanadium	6.3
Arsenic	24.4
Lead	3.0
Volatile Organics (µg/L)	
Acetone	2.1 J
Diethyl Ether (Ethyl Ether)	0.66
Perfluorinated Alkyl Acids (ng/L)	
Perfluorobutanesulfonic acid (PFBS)	0.89 J
Perfluorobutanoic Acid	3.3
Perfluoroheptanoic acid (PFHpA)	3.0
Perfluorohexanesulfonic acid (PFHxS)	1.1 J
Perfluorohexanoic acid (PFHxA)	4.2
Perfluorooctanoic acid (PFOA)	13
Perfluoropentanoic Acid (PFPeA)	4.0
Semi Volitile Organic Compounds (ug/L)	
1,4-Dioxane (P-Dioxane)	0.27

Analyte	MW-13 9-4-19
Metals (µg/L)	
Aluminum	1400
Barium	100
Calcium	60100
Chromium, Total	2.5 J
Copper	3.0 J
Iron	**1700**
Magnesium	13000
Manganese	46
Potassium	1700
Sodium	12300
Vanadium	2.8 J
Lead	1.3
Volatile Organics (µg/L)	
Acetone	1.2 J
Perfluorinated Alkyl Acids (ng/L)	
Perfluorooctanoic acid (PFOA)	0.76 J

Analyte	MW-117D 9-4-19	MW-117I 9-4-19	MW-117S 9-4-19
Metals (µg/L)			
Aluminum	60 U	360	4800
Barium	110	330	550
Calcium	49100	75000	121000
Chromium, Total	< 1.0 U	< 1.0 U	5.1
Cobalt	< 0.63 U	< 0.63 U	2.5 J
Copper	< 1.6 U	3.2 J	5.8 J
Iron	100	220	**11000**
Magnesium	12600	17000	**38900**
Manganese	270	8.9	**340**
Nickel	< 1.3 U	< 1.3 U	5.6 J
Potassium	< 100 U	2800	3200
Sodium	4600	3800	8800
Vanadium	< 1.5 U	1.9 J	7.8
Zinc	< 1.5 U	< 1.5 U	22
Arsenic	1.7	1.8	11.5
Lead	< 0.17 U	1.1	1.8
Volatile Organics (µg/L)			
Acetone	1.0 J	< 1.0 U	1.2 J
Perfluorinated Alkyl Acids (ng/L)			
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	1.7 J	< 0.12 U	< 0.12 U
Perfluorobutanesulfonic acid (PFBS)	5.4	< 0.40 U	0.71 J
Perfluorobutanoic Acid	2.9 J	1.2 J	4.9
Perfluorodecanoic acid (PFDA)	0.76 J	< 0.63 U	< 0.63 U
Perfluorododecanoic acid (PFDoA)	0.53 J	< 0.48 U	< 0.48 U
Perfluoroheptanoic acid (PFHpA)	1.1 J	< 0.62 U	1.1 J
Perfluorohexanoic acid (PFHxA)	0.45 J	< 0.22 U	< 0.22 U
Perfluorononanoic acid (PFNA)	1.3 J	< 0.50 U	< 0.50 U
Perfluorooctanesulfonic acid (PFOS)	2.2	< 0.66 U	0.98 J
Perfluorooctanoic acid (PFOA)	1.6 J	< 0.52 U	0.89 J
Perfluoropentanoic Acid (PFPeA)			

Analyte	MW-116S 9-5-19
Metals (µg/L)	
Aluminum	49700
Barium	560
Beryllium	2.1
Calcium	183000
Chromium, Total	**62**
Cobalt	34
Copper	100
Iron	**119000**
Magnesium	**60800**
Manganese	**3800**
Nickel	80
Potassium	13200
Sodium	5600
Vanadium	78
Zinc	270
Arsenic	**41.7**
Lead	**26.5**
Thallium	0.35
Volatile Organics (µg/L)	
Acetone	3.0 J
Carbon Disulfide	0.31 J
Toluene	0.11 J

Analyte	MW-113S 9-3-19
Metals (µg/L)	
Aluminum	1400
Barium	580
Calcium	90600
Chromium, Total	1.2 J
Cobalt	0.63 J
Iron	**5100**
Magnesium	26200
Manganese	**440**
Nickel	1.8 J
Potassium	2300
Sodium	**20500**
Vanadium	2.1 J
Arsenic	20.7
Lead	0.39 J
Volatile Organics (µg/L)	
Diethyl Ether (Ethyl Ether)	0.21 J
Perfluorinated Alkyl Acids (ng/L)	
Perfluorooctanesulfonic acid (PFOS)	1.9
Semi Volitile Organic Compounds (ug/L)	
1,4-Dioxane (P-Dioxane)	0.13 J

LEGEND

- MW-110S ◆ EXISTING MONITORING WELL LOCATION
- △ EXISTING SURVEY CONTROL POINT
- EXISTING TREE LINE
- —1269— EXISTING TOPOGRAPHIC CONTOUR

Key:

Qualifiers

J = Estimated value

U = Not detected (method detection limit shown)

UJ = Not detected/estimated detection limit

Notes

1. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

2. The 1,4-dioxane screening criteria is represented by the New York State Drinking Water Quality Council's recommendation to the Department of Health to adopt the maximum contaminant level of 1 part per billion (ppb).

G = Guidance value (no standard available)

N/A = Not regulated/no available criteria

POC = Principal Organic Contaminant standard of 5 µg/L applies.

Sum = Standard or guidance value applies to the sum of the analyte group.

Other

µg/L = Micrograms per liter

ng/L = Nanograms per liter

Bold values denote positive hits that exceed groundwater standard/guidance value.

SCREENING CRITERIA

Analyte	Screening Criteria
Metals (µg/L)	
Aluminum	N/A
Barium	1000
Beryllium	3
Calcium	N/A
Chromium, Total	50
Cobalt	N/A
Copper	200
Iron	300
Magnesium	35000
Manganese	300
Nickel	100
Potassium	N/A
Sodium	20000
Vanadium	N/A
Zinc	2000
Arsenic	25
Lead	25
Thallium	0.5
Volatile Organics (µg/L)	
Acetone	50
Carbon Disulfide	60
Cis-1,2-Dichloroethylene	5
Cis-1,3-Dichloropropene	0.4
Cymene	5
Dibromochloromethane	50
Dibromomethane	5
Dichlorodifluoromethane	5
Dichlorofluoromethane	5
Diethyl Ether (Ethyl Ether)	N/A
Tert-Butyl Alcohol	N/A
Toluene	5
Trichloroethylene (TCE)	5
Vinyl Chloride	2
Perfluorinated Alkyl Acids (ng/L)	
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	N/A
Perfluorobutanesulfonic acid (PFBS)	N/A
Perfluorobutanoic Acid	N/A
Perfluorodecanoic acid (PFDA)	N/A
Perfluorododecanoic acid (PFDoA)	N/A
Perfluoroheptanoic acid (PFHpA)	N/A
Perfluorohexanesulfonic acid (PFHxS)	N/A
Perfluorohexanoic acid (PFHxA)	N/A
Perfluorononanoic acid (PFNA)	N/A
Perfluorooctanesulfonic acid (PFOS)	70
Perfluorooctanoic acid (PFOA)	70
Perfluoropentanoic Acid (PFPeA)	N/A
Semi Volitile Organic Compounds (ug/L)	
1,4-Dioxane (P-Dioxane)	1

NOTES

1. THE BACKGROUND SURVEY SHOWN WAS PROVIDED BY FISHER ASSOCIATES (CARROLL LANDFILL FINAL.DWG DATED NOVEMBER 2017)

FIGURE 1 EXISTING MONITORING WELL LOCATIONS
TOWN OF CARROLL LANDFILL
FREWSBURG, NEW YORK

LEGEND

MW-110S ◆	EXISTING SHALLOW MONITORING WELL LOCATION
△	EXISTING SURVEY CONTROL POINT
~~	EXISTING TREE LINE
—1269—	EXISTING TOPOGRAPHIC CONTOUR
NS	NOT SAMPLED
1253.28	GROUNDWATER ELEVATION (SEE NOTE 2)
1250 — —	GROUNDWATER CONTOUR (DASHED WHERE INFERRED)

NOTES

1. THE BACKGROUND SURVEY SHOWN WAS PROVIDED BY FISHER ASSOCIATES (CARROLL LANDFILL FINAL.DWG DATED NOVEMBER 2017)

1. GROUNDWATER ELEVATIONS COLLECTED ON 9/3/19, 9/4/19, AND 9/5/19.

ecology and environment

FIGURE 2 GROUNDWATER ELEVATION CONTOURS OF SHALLOW GROUNDWATER WELLS (SEPTEMBER 2019)
TOWN OF CARROLL LANDFILL
FREWSBURG, NEW YORK

APPENDICES

Contents:

A – Well Sampling Logs

B - Data Usability Summary Report (DUSR)

C – TestAmerica Laboratories Analytical Report J67030-1 (provided electronically)

APPENDIX A

Well Sampling Logs

ecology and environment engineering, p.c.
International Specialists in the Environment
BUFFALO CORPORATE CENTER 368 Pleasant View Drive, Lancaster, New York 14086
Tel: 716/684-8060, Fax: 716/684-0844

WELL PURGE & SAMPLE RECORD

Site Name/Location: Carroll Landfill / Frewsburg, NY Well ID: MW-102
EEEPC Project No.: 10C 3074.0033.06 Date: 9-3-2019

Initial Depth to Water: 3.30 feet TOIC Start Time: 13 30
Total Well Depth: 32.19 feet TOIC End Time: 14 30
Depth to Pump: 31.19 feet TOIC ☐ Bailer ☒ Pump
Initial Pump Rate: 0.20 (Lpm) /gpm Pump Type: BLADDER
adjusted to: ______ at ______ minutes Well Diameter: 2 inches
adjusted to: ______ at ______ minutes 1x Well Volume: 4.71 gallons x3 = 14.13 gal.

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
13 40	0.75	5.97	15.2	177	533.0	~~177~~ CP	35.7	3.40
13 50	1.50	6.11	14.6	151	480.5		34.8	3.45
14 00	2.25	6.18	13.5	145	479.2		17.3	3.45
14 10	3.00	6.24	13.6	146	476.0		11.7	3.45
14 20	3.75	6.30	13.4	149	473.0		10.19	3.40
14 30	4.50	6.36	13.2	150	471.9		7.21	3.40
Final Sample Data:		6.36	13.2	150	471.9		7.21	3.40

Sample ID: CTL-MW102-090319 Duplicate? ☐ Dupe Samp ID: ______
Sample Time: 14 30 MS/MSD? ☒

Analyses:	Methods:
☒ VOCs	☐ CLP
☐ SVOCs	☐ SW846
☐ PCBs	☐ Drink. Wtr.
☒ Metals	☒ 1,4 DIOXANE
☒ PFOAs	☐

Comments: GW is slightly murky - gray/brown ~~in bucket though clear dispensing from~~ CP ~~tube - likely sucked up some sediment~~ CP ~~at first~~ CP slight metallic odor, no sheen

Sampler(s): CHUCK PORRECA / LARRY ROEDL

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International Specialists in the Environment
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Tel: 716/684-8060, Fax: 716/684-0844

WELL PURGE & SAMPLE RECORD

Site Name/Location: Carroll Landfill
Well ID: MW112S
EEEPC Project No.: 10C3074.0033.06
Date: 9-5-19

Initial Depth to Water: 3.27 feet TOIC
Start Time: 10:20
Total Well Depth: 22.70 feet TOIC
End Time: 10:56
Depth to Pump: 21.70 feet TOIC
☐ Bailer ☒ Pump
Initial Pump Rate: 250 Lpm / gpm mls per min
Pump Type: Typhoon
adjusted to: ______ at ______ minutes
Well Diameter: 2 inches
adjusted to: ______ at ______ minutes
1x Well Volume: 3.17 gallons x 3 = 9.51 gal

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
10:20	0	7.77	12.1	—	357.1	—	160	4.55
10:25	1.25	7.87	13.1	—	350.2	—	59.3	5.45
10:30	2.50	7.88	13.2	—	346.6	—	37.4	5.60
10:35	3.75	7.88	13.1	—	341.1	—	36.3	5.68
10:40	5.00	7.91	14.2	—	342.8	—	21.6	5.61
10:45	6.25	7.91	14.2	—	337.7	—	16.8	5.61
10:50	7.50	7.91	14.2	—	336.7	—	16.0	5.61
10:55	8.75	7.91	14.1	—	337.2	—	15.1	5.61
Final Sample Data:		7.91	14.1	—	337.2	—	15.1	5.61

9-5-19 [signature]

Sample ID: CTLMW112S-090519
Duplicate? ☐
Dupe Samp ID: CTLMW112S-090519 Q
Sample Time: 10:56
MS/MSD? ☐

Analyses:	Methods:
☒ VOCs	☐ CLP
☐ SVOCs	☐ SW846
☐ PCBs	☐ Drink. Wtr.
☒ Metals	☐ ______
☒ PFOAS, 1,4 Dioxane	☐ ______

Comments: ______

Sampler(s): LK CP

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WELL PURGE & SAMPLE RECORD

Site Name/Location: Carroll Landfill
Well ID: MW 113S
EEEPC Project No.: 10C3074.0033.06
Date: 9.5.19

Initial Depth to Water: 4.11 feet TOIC
Start Time: 11:45
Total Well Depth: 22.35 feet TOIC
End Time: 12:45
Depth to Pump: 20.35 feet TOIC
☐ Bailer ☒ Pump
Initial Pump Rate: 200 Lpm / gpm mls per min
Pump Type: Typhoon
adjusted to: _____ at _____ minutes
Well Diameter: 2" inches
adjusted to: _____ at _____ minutes
1x Well Volume: _____ gallons

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
11:45	0	7.19	15.4	—	786.1	—	71000	4.0
11:50	1.0	7.18	15.0	—	788.7	—	71000	4.60
11:55	2.0	7.19	14.4	—	777.9	—	71000	5.15
12:00	3.0	7.21	14.1	—	774.8	—	71000	5.19
12:05	4.0	7.22	15.1	—	769.9	—	71000	5.25
12:10	5.0	7.20	14.1	—	738.7	—	71000	5.33
12:15	6.0	7.22	13.7	—	715.8	—	71000	5.50
12:20	7.0	7.21	13.7	—	672.4	—	71000	5.54
12:25	8.0	7.16	13.4	—	706.1	—	61	5.61
12:30	9.0	7.16	13.4	—	731.6	—	35	5.61
12:35	10.0	7.16	13.4	—	782.4	—	36	5.61
12:40	11.0	7.16	13.4	—	731.1	—	39	5.61
							395	
			Lauren Reed		9.5.19			
Final Sample Data:		7.16	13.4	—	731.1	—	39	5.61

Sample ID: CTLMW113S-090519
Duplicate? ☐
Dupe Samp ID: _____
Sample Time: 12:45
MS/MSD? ☐

Analyses: / Methods:
☒ VOCs ☐ CLP
☐ SVOCs ☐ SW846
☐ PCBs ☐ Drink. Wtr.
☒ Metals ☐ _____
☒ PFOA's ☐ _____
1,4 Dioxane

Comments: _____

Sampler(s): LN CP

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WELL PURGE & SAMPLE RECORD

Site Name/Location: Carnes Landfill
Well ID: MW1145
EEEPC Project No.: 10C3074.0033.06
Date: 9-5-19

Initial Depth to Water: 5.09 feet TOIC
Total Well Depth: 19.96 feet TOIC
Depth to Pump: 18.96 feet TOIC
Initial Pump Rate: 200 Lpm / gpm ml/min
adjusted to: _____ at _____ minutes
adjusted to: _____ at _____ minutes

Start Time: 13:20
End Time: 14:20
☐ Bailer ☒ Pump
Pump Type: Typhon
Well Diameter: 2" inches
1x Well Volume: _____ gallons

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
13:20	0	8.00	16.1	—	355.5	—	71000	5.19
13:25	1.0	7.79	15.9	—	351.2	—	71000	6.20
13:30	2.0	7.96	16.7	—	358.9	—	71000	7.15
13:35	3.0	7.77	16.1	—	359.7	—	71000	10.25
13:40	4.0	7.75	16.5	—	352.6	—	71000	12.59
13:45	5.0	7.76	16.0	—	350.1	—	71000	14
13:50	6.0	7.75	17.1	—	358.1	—	71000	16
17:55	7.0	7.96	17.2	—	356.2	—	71000	1897
	Dry							
	Line							
Final Sample Data:		7.96	17.2	—	356.2	—	>1000	Bottom

Sample ID: MW1145-09 (LTC)
Sample Time: 14:20
Duplicate? ☐
MS/MSD? ☐
Dupe Samp ID: _____

Analyses: Methods:
☒ VOCs ☐ CLP
☐ SVOCs ☐ SW846
☐ PCBs ☐ Drink. Wtr.
☒ Metals ☐ _____
☒ PFOA's, 1,4 Dioxane ☐ _____

Comments: Soft Bottom, water level keep Dropping pump Dry wait in to Recharge

Sampler(s): LN CP

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WELL PURGE & SAMPLE RECORD

Site Name/Location: CTL / Frewsburg, NY
Well ID: MW-1155
EEEPC Project No.:
Date: 9-5-2019

Initial Depth to Water: 5.59 feet TOIC
Total Well Depth: 22.75 feet TOIC
Depth to Pump: 21.75 feet TOIC
Initial Pump Rate: 0.40 (Lpm) gpm
adjusted to: 0.07 at 10 minutes
adjusted to: _____ at _____ minutes

Start Time: 1445
End Time: 1530
☐ Bailer ☒ Pump
Pump Type: BLADDER
Well Diameter: 2 inches
1x Well Volume: 2.8 gallons x 3 = 8.4 gal.

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
1450	0.75	7.77	18.5	-145	657.4		1000<	8.38
1500	1.00	7.60	18.2	-134	669.7		101	7.22
1505	1.10	7.53	18.1	-129	664.0		91	6.89
1510	1.25	7.50	18.1	-132	662.2		91	6.71
1515	1.35	7.57	18.3	-134	663.9		86	6.61
1520	1.50	7.62	18.1	-133	659.3		95	6.53
1525	1.65	7.61	17.2	-133	657.4		95	6.50
1530	1.75	7.61	17.5	-130	657.6		92	6.49
Final Sample Data:		7.61	17.5	-130	657.6		92	6.49

Sample ID: CTL-MW1155-090519
Sample Time: 1530
Duplicate? ☐
MS/MSD? ☐
Dupe Samp ID: _____

Analyses: / Methods:
☒ VOCs ☐ CLP
☐ SVOCs ☐ SW846
☐ PCBs ☐ Drink. Wtr.
☒ Metals ☐ _____
☒ PFOAs ☐ _____
1,4 DIOXANE

Comments: GW has slight gray/brown tint; no odor; no sheen
-Turbidity won't go below 50 NTU (CP)

Sampler(s): CP, LR

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WELL PURGE & SAMPLE RECORD

Site Name/Location: CTL / Frewsburg, NY
Well ID: MW-1165
EEEPC Project No.:
Date: 9-5-2019

Initial Depth to Water: 6.85 feet TOIC
Start Time: 1620
Total Well Depth: 22.70 feet TOIC
End Time: 1740
Depth to Pump: 21.70 feet TOIC
☐ Bailer ☒ Pump
Initial Pump Rate: 0.10 Lpm / gpm
Pump Type: BLADDER
adjusted to: _____ at _____ minutes
Well Diameter: 2 inches
adjusted to: _____ at _____ minutes
1x Well Volume: 2.59 gallons x 3 = 7.77 gal.

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
1635	0.10	7.32	15.3	-78	828.9		>1000	7.33
1645	0.25	7.39	13.5	-77	855.9		>1000	7.04
1655	0.50	7.40	12.8	-83	859.6		>1000	7.06
1705	0.75	7.40	12.3	-77	859.0		>1000	7.02
1715	1.00	7.36	12.0	-77	857.2		>1000	7.02
1725	1.25	7.29	11.6	-73	856.9		>1000	7.02
1730	1.35	7.32	11.5	-77	860.9		>1000	7.02
1735	1.50	7.32	11.8	-79	862.5		>1000	7.02
1740	1.60	7.32	11.8	-85	865.1		>1000	7.02
Final Sample Data:		7.32	11.8	-85	865.1		>1000	7.02

Sample ID: CTL-MW1165-090519
Duplicate? ☐
Dupe Samp ID: _____
Sample Time: 1740
MS/MSD? ☐

Analyses: / Methods:
☒ VOCs ☐ CLP
☐ SVOCs ☐ SW846
☐ PCBs ☐ Drink. Wtr.
☒ Metals ☐ _____
☒ PFOAs, 1,4 DIOXANE ☐ _____

Comments: GW is murky brown, high turbidity - never below 50, or 1000 NTU; no ~~odor~~ @ odor; no sheen

Sampler(s): LR, CP

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WELL PURGE & SAMPLE RECORD

Site Name/Location: Carroll Landfill — Well ID: MW117S
EEEPC Project No.: 10C3074.0033.06 — Date: 9.4.19

Initial Depth to Water: 6.97 feet TOIC — Start Time: 12:35
Total Well Depth: 22.45 feet TOIC — End Time: 13:48
Depth to Pump: 20.45 feet TOIC — ☐ Bailer ☑ Pump
Initial Pump Rate: 200 Lpm / gpm mis pm — Pump Type: QED
adjusted to: _____ at _____ minutes — Well Diameter: 2 inches
adjusted to: _____ at _____ minutes — 1x Well Volume: 2.5 gallons

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
12:35	200mls	7.35	10.5	—	869.7	—	>1000	6.97
12:40	1.2	7.00	11.3	—	881.4	—	>1000	6.95
12:45	2.2	6.98	11.4	—	883.1	—	>1000	6.95
12:50	3.2	6.95	11.8	—	871.7	—	283	6.95
12:55	4.2	6.94	11.7	—	862.1	—	185	6.95
13:00	5.2	6.98	11.6	—	858.1	—	174	6.95
13:05	6.2	6.98	11.5	—	850.1	—	135	6.95
13:10	7.2	7.01	11.3	—	844.4	—	152	6.95
13:15	8.2	7.01	11.4	—	840.2	—	128.1	6.95
13:20	9.2	7.01	11.0	—	841.6	—	106.2	6.95
13:25	10.2	7.09	11.7	—	837.2	—	93.9	6.95
13:30	11.2	7.00	12.6	—	838.1	—	109.7	6.95
13:35	12.2	7.00	12.5	—	840.0	—	142.2	6.95
13:40	13.2	7.00	12.5	—	837.0	—	144.2	6.95
13:45	14.2	7.00	12.6	—	838.1	—	143.2	6.95
Final Sample Data:		7.00	12.6	—	838.1	—	143.2	6.95

Sample ID: CTCMW117S-090419 — Duplicate? ☐ — Dupe Samp ID: _____
Sample Time: 13:48 — MS/MSD? ☐

Analyses: / Methods:
☒ VOCs ☐ CLP
☐ SVOCs ☐ SW846
☐ PCBs ☐ Drink. Wtr.
☒ Metals ☐ _____
☒ PFOA's, 1,4 Dioxane ☐ _____

Comments: Turbidity will not come down past ~140 NTUs Sample well

Sampler(s): CR

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WELL PURGE & SAMPLE RECORD

Site Name/Location: Cannell Land Fill
Well ID: MW1185
EEEPC Project No.: 1023074.0033.06
Date: 9-4-19

Initial Depth to Water: 4.22 feet TOIC
Start Time: 16:15
Total Well Depth: 22.71 feet TOIC
End Time: 1630
Depth to Pump: ____ feet TOIC
☒ Bailer ☐ Pump
Initial Pump Rate: 1.25 Lpm / gpm (circled)
Pump Type: ____
adjusted to: 0.4 at 5 minutes
Well Diameter: 2 inches
adjusted to: 0.6 at 10 minutes
1x Well Volume: 3.0 gallons

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
16:15	0 gallon	7.97	15.6	—	284.3	—	265	—
16:18	2 gallon	8.12	13.3	—	278.3	—	>1000	—
16:20	4 gallon	8.17	11.5	—	266.4	—	>1000	—
16:25	6 gallon	8.12	10.8	—	260.7	—	>1000	—
16:28	8.0 gallon	8.13	10.8	—	261.2	—	>1000	—
16:30	9.0 gallon	8.13	10.8	=	260.1	—	>1000	—
	Dry							
Final Sample Data:		8.13	10.8	—	260.1	—	>1000	—

Sample ID: CTL MW1185-090519
Duplicate? ☐
Dupe Samp ID: ____
Sample Time: 12:30
MS/MSD? ☐

Analyses:	Methods:
☒ VOCs	☐ CLP
☐ SVOCs	☐ SW846
☐ PCBs	☐ Drink. Wtr.
☒ Metals	☐ ____
☒ PFOA's, 1,4 Dioxane	☐ ____

Comments: ~~this well casing is shot up with a 22, and shotgun~~ 9/4/19
Bailed By Hand No Water Level Readings
Will sample on 9-5-19 so water can ~~of~~ clear for VOA's metals

Sampler(s): L Bartell

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WELL PURGE & SAMPLE RECORD

Site Name/Location: Carroll Town Landfill / Frewsburg, NY Well ID: MW-102I
EEEPC Project No.: 10C 3074.0033.006 Date: 9-3-2019

Initial Depth to Water: 4.30 feet TOIC Start Time: 1550
Total Well Depth: 45.42 feet TOIC End Time: 1700
Depth to Pump: 44.42 feet TOIC ☐ Bailer ☒ Pump
Initial Pump Rate: 0.20 (Lpm) / gpm Pump Type: BLADDER
adjusted to: _____ at _____ minutes Well Diameter: 2 inches
adjusted to: _____ at _____ minutes 1x Well Volume: 6.55 gallons x 3 = 19.65 gal.

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
1600	0.5	6.95	17.0	92	532.0		120	4.30
1610	0.75	7.20	17.4	68	534.0		108.0	4.31
1620	1.00	7.35	17.0	83	528.1		85.6	4.32
1630	1.25	7.41	16.6	77	527.1		72.4	4.33
1640	1.50	7.41	16.9	71	529.0		57.7	4.35
1650	1.75	7.39	16.0	64	528.3		56.0	4.35
1655	1.85	7.38	16.1	64	532.6		46.0	4.35
1700	2.00	7.39	15.9	67	528.3		47.3	4.35
Final Sample Data:		7.39	15.9	67	528.3		47.3	4.35

Sample ID: CTL-MW102I-090319 Duplicate? ☐ Dupe Samp ID: _____
Sample Time: 1700 MS/MSD? ☐

Analyses:	Methods:
☒ VOCs	☐ CLP
☐ SVOCs	☐ SW846
☐ PCBs	☐ Drink. Wtr.
☒ Metals	☐ _____
☒ 1,4 DIOXANE, PFOAs	_____

Comments: GW was slight gray tint, no odor, no sheen

Sampler(s): CHUCK PORRECA / LARRY ROEDL

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WELL PURGE & SAMPLE RECORD

Site Name/Location: CARROLL LANDFILL
Well ID: MW117I
EEEPC Project No.: 10C3074.0033.06
Date: 9-4-19

Initial Depth to Water: 6.92 feet TOIC
Start Time: 11:01
Total Well Depth: 47.70 feet TOIC
End Time: 12:21
Depth to Pump: 45.70 feet TOIC
☐ Bailer ☒ Pump
Initial Pump Rate: 300 Lpm / gpm mlpm
Pump Type: QED Bladder pump
adjusted to: _____ at _____ minutes
Well Diameter: 2 inches
adjusted to: _____ at _____ minutes
1x Well Volume: 6.6 gallons

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (uS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
11:01	0	11.99	12.7	—	1835	—	65.70	6.99
11:06	1.500	12.00	12.5	—	1565	—	70.1	6.99
11:11	3.0	12.07	12.3	—	1371	—	77.2	6.99
11:16	4.5	12.05	12.0	—	1232	—	89.6	6.99
11:21	6.0	12.08	11.9	—	1155	—	109.6	6.99
11:26	7.5	12.0	11.0	—	874.2	—	173	6.99
11:31	9.0	11.84	10.4	—	762.4	—	174	6.99
11:36	10.5	11.97	10.4	—	860.1	—	59.4	6.99
11:41	12.0	11.96	10.2	—	752.1	—	58.2	6.99
11:46	13.5	11.97	10.1	—	801.2	—	56.1	6.99
11:51	15.0	11.94	10.0	—	799.1	—	55.2	6.99
11:56	16.5	11.90	10.2	—	695.1	—	48.1	6.99
12:01	18.0	11.91	10.0	—	700.0	—	48.9	6.99
12:06	19.5	11.90	9.9	—	705.1	—	47.7	6.99
12:11	21.0	11.85	10.0	—	710.8	—	35.5	6.99
12:16	22.5	11.84	10.1	—	712.0	—	30.1	6.99
12:21	24.0	11.85	10.1	—	711.2	—	29.8	6.99
Final Sample Data:		11.85	10.1	—	711.2	—	29.8	6.99

for E-FIG

Sample ID: CTLMW117I-090419
Duplicate? ☐
Dupe Samp ID: _____
Sample Time: 12:21
MS/MSD? ☐

Analyses:	Methods:
☒ VOCs	☐ CLP
☐ SVOCs	☐ SW846
☐ PCBs	☐ Drink. Wtr.
☒ Metals	☐ _____
☒ PFOA's, 1,4 Dioxane	☐ _____

Comments: _____

Sampler(s): L. Rossi

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WELL PURGE & SAMPLE RECORD

Site Name/Location: CTL / Frewsburg, NY
Well ID: MW-13
EEEPC Project No.: 10C3074.0033.06
Date: 9-4-19

Initial Depth to Water: 10.92 feet TOIC
Start Time: 10 15
Total Well Depth: 72.20 feet TOIC
End Time: 12 00
Depth to Pump: 71.20 feet TOIC
☐ Bailer ☒ Pump
Initial Pump Rate: 0.03 (Lpm / gpm)
Pump Type: BLADDER
adjusted to: 0.05 at 75 minutes
Well Diameter: 2 inches
adjusted to: _____ at _____ minutes
1x Well Volume: 10 gallons x 3 = 30 gal

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
1025	0.10	7.65	18.8	187	484.4		105.5	10.83
1045	0.20	7.68	18.7	202	438.9		1000<	10.96
1103	0.30	7.79	18.1	193	440.4		1000<	10.88
1125	0.40	7.80	19.9	190	457.2		208	10.82
1140	0.45	7.76	19.7	187	466.1		106.2	10.98
1145	0.50	7.72	19.8	188	466.2		74.8	11.02
1150	0.55	7.75	19.8	188	475.9		49.5	11.05
1155	0.60	7.73	19.7	187	483.8		47.3	11.09
1200	0.65	7.72	19.8	188	483.3		39.0	11.11
Final Sample Data:		7.72	19.8	188	483.3		39	11.11

Sample ID: ~~MW13~~ CTL-MW13-090419 Duplicate? ☐ Dupe Samp ID: _____
Sample Time: 1200 MS/MSD? ☐

Analyses: Methods:
☒ VOCs ☐ CLP
☐ SVOCs ☐ SW846
☐ PCBs ☐ Drink. Wtr.
☒ Metals ☐ _____
☒ PFOAs, 1,4 DIOXANE ☐ _____

Comments: Water slightly murky - light brown/gray tint, more so @ beginning of pumping. No odor, no sheen

Sampler(s): CP, LR

ecology and environment engineering, p.c.
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Tel: 716/684-8060, Fax: 716/684-0844

WELL PURGE & SAMPLE RECORD

Site Name/Location: Carroll Land Fill
Well ID: MW 117D
EEEPC Project No.: 10c3074.0033.06
Date: 9.4.18

Initial Depth to Water: 7.54 feet TOIC
Start Time: 14:10
Total Well Depth: 75.15 feet TOIC
End Time: 14:45
Depth to Pump: 74.15 feet TOIC
☐ Bailer ☒ Pump
Initial Pump Rate: 3.8 ~~4.8~~ Lpm / gpm
Pump Type: Typhoon
adjusted to: _____ at _____ minutes
Well Diameter: 2 inches
adjusted to: _____ at _____ minutes
1x Well Volume: 11.0 gallons

Time	Purge Volume (gallons/liters)	pH (s.u.)	Temp. (°C/°F)	ORP (mV)	Conductivity (µS/cm mS/cm)	DO (mg/L)	Turbidity (NTU)	Water Level (feet)
14:10	2	9.47	10.3	—	270.8	—	21.0	7.81
14:15	19L	8.14	9.9	—	345.1	—	6.64	7.81
14:20	37.98L	7.94	9.5	—	353.5	—	2.45	7.81
14:25	56.96	7.91	9.5	—	352.6	—	1.49	7.81
14:30	75.94	7.86	9.0	—	356.1	—	1.18	7.81
14:35	94.87	7.92	8.5	—	357.2	—	1.42	7.81
14:40	113.8	7.83	8.9	—	356.2	—	1.56	7.81
14:45	132.73	7.82	8.4	—	358.1	—	1.50	7.81
Final Sample Data:		7.82	8.4	—	358.1	—	1.50	7.81

Laura Reed 9.4.18

Sample ID: CTC 117D-090418
Duplicate? ☐ Dupe Samp ID: _____
Sample Time: 14:50
MS/MSD? ☐

Analyses: / Methods:
☒ VOCs ☐ CLP
☐ SVOCs ☐ SW846
☐ PCBs ☐ Drink. Wtr.
☒ Metals ☐ _____
☒ PFOA's, 1,4 Dioxane ☐ _____

Comments: Collect Sample with Stainless Bailer

Sampler(s): LR

APPENDIX B

Data Usability Summary Report

Data Usability Summary Report	Project: Carroll Landfill
Date Completed: October 25, 2019	Completed by: Eridania Marte

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- EPA Region 2 Data Validation SOPs

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

ProjectID	Lab Work Order	Laboratory Report
10C3074.0033.06	480-158837-1	Eurofins Test America, Buffalo Eurofins Test America, Burlington

Table 1 Sample Summary Tables

Work Order	Matrix	Sample ID	Lab ID	Sample Date	QC	ID Corrections
480-158837-1	WG	CTLMW102-090319	480-158837-2	09/03/2019 14:30	MS/MSD	MW-102-SEP19
480-158837-1	WG	CTLMW102I-090319	480-158837-3	09/03/2019 12:21		MW-102I-SEP19
480-158837-1	WG	CTLMW112S-090519	480-158837-9	09/05/2019 10:56	MS/MSD	MW-112S-SEP19
480-158837-1	WG	CTLMW112S-090519Q	480-158837-10	09/05/2019 10:56		MW-112S-SEP19-FD
480-158837-1	WG	CTLMW113S-090519	480-158837-8	09/05/2019 12:45		MW-113S-SEP19
480-158837-1	WG	CTLMW114S-090519	480-158837-12	09/05/2019 14:20		MW-114S-SEP19
480-158837-1	WG	CTLMW115S-090519	480-158837-13	09/05/2019 15:30		MW-115S-SEP19
480-158837-1	WG	CTLMW116S-090519	480-158837-14	09/05/2019 17:40		MW-116S-SEP19
480-158837-1	WG	CTLMW117D-090419	480-158837-7	09/04/2019 14:50		MW-117D-SEP19
480-158837-1	WG	CTLMW117I-090419	480-158837-5	09/04/2019 12:21		MW-117I-SEP19
480-158837-1	WG	CTLMW117S-090419	480-158837-6	09/04/2019 13:48		MW-117S-SEP19
480-158837-1	WG	CTLMW118S-090519	480-158837-11	09/05/2019 12:30		MW-118S-SEP19
480-158837-1	WG	CTLMW13-090419	480-158837-4	09/04/2019 12:00		MW-13-SEP19
480-158837-1	WH	RB090319	480-158837-15	09/03/2019 11:20		
480-158837-1	WH	RB090419	480-158837-17	09/04/2019 17:00		
480-158837-1	WH	RB090519	480-158837-16	09/04/2019 17:50		
480-158837-1	WQ	TB09032019	480-158837-1	09/03/2019 11:30		

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Table 1A Sample Test Summary

Work Orders	Matrix	Test Method	Method Name	Number of Samples	Sample Type
480-158837-1	WG	E524.2	Volatile Organic Compounds by GC/MS	13	N/FD
480-158837-1	WG	8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	13	N/FD
480-158837-1	WG	200.7 Rev. 4.4	Metals (ICP)	13	N/FD
480-158837-1	WG	200.8	Metals (ICP/MS)	13	N/FD
480-158837-1	WG	245.1	Mercury (CVAA)	13	N/FD
480-158837-1	WG	E537-LL	Fluorinated Alkyl Substances	13	N/FD
480-158837-1	WQ	E524.2	Volatile Organic Compounds by GC/MS	1	TB
480-158837-1	WH	E537-LL	Fluorinated Alkyl Substances	3	RB

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes. The sample names were changed as noted in the ID Correction column in Table 1 to maintain consistency in nomenclature.
Did coolers arrive at lab between 2 and 6°C and in good condition as indicated on COC and Cooler Receipt Form?	Yes.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	Yes. 1 Field Duplicate per 12 samples 1 MS/MSD per 12 samples 3 Equipment Blank 1 Trip Blank/Cooler
Case narrative present and complete?	Yes
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provided summaries of results outside QC criteria.

- Method Blanks Results (Table 2)
- Surrogates Outside Limits (Table 3)
- IDA Recoveries Outside Limits (Table 3A)
- MS/MSD Outside Limits (Table 4)
- LCS Outside Limits (Table 5)
- Re-analysis Results (Table 6)
- Field Duplicate Results (Table 7)

Go to Tables List

Volatile Organics Compounds by GC/MS	
Description	**Notes and Qualifiers**
Any compounds present in method, trip and field blanks (see Table 2)?	Yes.

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Volatile Organics Compounds by GC/MS	
Description	**Notes and Qualifiers**
For samples, if results are <5 times the blank or < 10 times blank for common laboratory contaminants then "U" flag data. Qualification also applies to TICs.	Chloromethane was detected in trip blank sample TB09032019. The associated four sample results were qualified U as non-detect. Sample results are reported at PQLs.
Are surrogates for method blanks and LCS within limits?	Yes.
Are surrogates for samples and MS/MSD within limits? (See Table 3). If not, were all samples reanalyzed for VOCs? Semi-volatile samples should be reanalyzed if more than one base-neutral and/or more than one acid phase compound for semi-volatiles is out. Matrix effects should be established.	Yes.
Is laboratory QC frequency at least one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Are MS/MSD within QC criteria (see Table 4)? If out and LCS is compliant, then “J” flag positive data in original sample due to matrix.	No. Dichlorodifluoromethane was recovered above the acceptance criteria in MSD for sample CTLMW102-090319. The result was non-detect in the parent sample; therefore, no qualification was required.
Is LCS within QC criteria (see Table 5)? If out, and the recovery is high with no positive values, then no data qualification is required.	No. Methylene Chloride was recovered above the acceptance criteria for LCS sample 480491376/6. All the associated sample results were non-detect; therefore, no qualification was required.
Do internal standards areas and retention time meet criteria? If not was sample re-analyzed to establish matrix (see Table 6)?	Yes.
Is initial calibration for target compounds <20 %RSD or curve fit?	Yes.
Is continuing calibration for target compounds <30 %D?	Yes.
Were any samples re-analyzed or diluted (see Table 6)? For any sample re-analysis and dilutions is only one reportable result by flagged?	No.
For TICs are there any system related compounds that should not be reported?	N/A
Do field duplicate results show good precision for all compounds (see Table 7)?	No. The precision in sample pairs for tert-butyl alcohol was above the RPD requirement. Tert-Butyl Alcohol was detected in one sample not the other. The sample detection exhibited a slight elevated result from the PQL value. No qualification was made.

1,4-Dioxane by GC/MS – Method 8270D-SIM-ID	
Description	**Notes and Qualifiers**
Any compounds present in method, trip, or, field	No.

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1,4-Dioxane by GC/MS – Method 8270D-SIM-ID	
Description	**Notes and Qualifiers**
blanks (see Table 2)?	
For samples, if results are < 5 times the blank or < 10 times the blank for common laboratory contaminants, then "U" flag data. Qualification also applies to TICs.	N/A.
Are surrogates for method blanks and LCS within limits?	Yes.
Are surrogates for samples and MS/MSD within limits? (See Table 3). If not, were all samples reanalyzed for VOCs? Matrix effects should be established.	Yes.
Is Laboratory QC frequency at least one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Is MS/MSD within QC criteria (see Table 4)? If out and LCS is compliant, then "J" flag positive data in original sample due to matrix.	Yes.
Is LCS within QC criteria (see Table 5)? If out, and the recovery is high with no positive values, then no data qualification is required.	Yes.
Do internal standards areas and retention time meet criteria? If not was sample re-analyzed to establish matrix (see Table 6)?	Yes.
Is initial calibration for target compounds <20 %RSD or curve fit?	Yes.
Is %D in the continuing calibration for target compounds less than method specifications?	Yes.
Were any samples reanalyzed or diluted (see Table 6)? For any sample reanalysis or dilutions, is only one reportable result flagged?	No.
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes.

Metals by ICP – ICP/MS and Mercury by CVAA	
Description	**Notes and Qualifiers**
Are any compounds present in method and field blanks as noted on Table 2?	Yes.
For samples, if results are <5 times the blank then "U" flag data.	E200.7: Zinc was detected in method blank 4804912541A. Six sample results were less than 5x the blank detection and were qualified U as non-detect. Sample results are reported at PQLs. All other sample results were greater than 5x the blank detection. No qualification was made. Potassium was detected in several CCBs. Two sample results were less than 5x the detections of CCBs 480-492108/18 and 480-492108/25 and were qualified U as non-detect. Sample results are reported at PQLs. All other sample results were greater than 5x the blank detection. No qualification

Metals by ICP – ICP/MS and Mercury by CVAA	
Description	**Notes and Qualifiers**
	was made. Sodium was detected in several CCBs. One sample result was less than 5x the detection of CCB 480-492108/18 and was qualified U as non-detect. Sample results are reported at PQLs. All other sample results were greater than 5x the blank detection. No qualification was made. E200.8: Arsenic was detected in method blank 4804912561A. Three sample results were less than 5x the blank detection and were qualified U as non-detect. Sample results are reported at PQLs. All other sample results were greater than 5x the blank detection. No qualification was made. Thallium was detected in several ICBs and CCBs. Two sample results were less than 5x the detection of CCB 480-491521/6 and were qualified U as non-detect. Sample results are reported at PQLs. All other sample results were greater than 5x the blank detection. No qualification was made. Antimony was detected in several CCBs. Three sample results were less than 5x the detection of CCB 480-492718/24 and were qualified U as non-detect. Sample results are reported at PQLs. All other sample results were non-detect. No qualification was made.
Is laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Are MS/MSD within QC criteria (see Table 4)? QC limits are not applicable to sample results greater than 4 times spike amount. All N flagged data for MS are flagged J as estimated.	Yes. The PDS for cadmium was recovered below the acceptance limit. The associated MS/MSD recoveries were within the acceptance criteria. No qualification was made.
Were elements recovered ≤30%? If so, "R" flag associated NDs on Form 1's.	No.
Is LCS within QC criteria (see Table 5)? If out, and the recovery high with no positive values, then no data qualification is required.	Yes.
Is there one serial dilution per 20 samples? Flag all data reported with an "E" as "J".	Yes.
Spot check ICS recoveries 80-120%. Contact lab if unacceptable.	Yes.
Spot check ICV 90-110%. Contact lab if unacceptable.	Yes.
Spot check CCV 90-110% or 80-120% for Hg. Contact lab if unacceptable.	The CCVs 480-492108/24 and 480-492108/36 were recovered above the control limit for selenium. The sample results associated with

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Metals by ICP – ICP/MS and Mercury by CVAA	
Description	**Notes and Qualifiers**
	these CCVs were non-detect. No qualification was made. The CCVs 480-492108/36 and 480-492108/48 were recovered above the control limit for selenium. The sample results associated with these CCVs were non-detect. No qualification was made.
Spot check ICVL/CCVL 70-130%. Contact lab if unacceptable.	Yes.
Do field duplicate results show good precision for all compounds (see Table 7)?	No. E200.7: Aluminum, iron and lead exhibited poor precision in the field duplicate pairs. The sample results were qualified J as estimated. Chromium exhibited poor precision in the field duplicate pairs. Chromium was detected in one sample not the other. The sample detection exhibited a slight elevated result from the PQL value. No qualification was made.

F**luorinated Compounds by LC/MS/MS**	
Description	**Notes and Qualifiers**
Any compounds present in method, trip, or, field blanks (see Table 2)?	No.
For samples, if results are < 5 times the blank contaminants, then "U" flag data.	N/A
Are surrogates for method blanks and LCS within limits?	Yes.
Are surrogates for samples and MS/MSD within limits? (See Table 3).	Yes.
Are Isotope Dilution Analytes within limits? (See Table 3A).	IDA PFBA was recovered below the acceptance criteria in samples CTLMW117I-090419 and CTLMW117D-090419. The sample results were qualified J as estimated. IDA d5-NEtFOSAA was recovered above the acceptance criteria in sample CTLMW117D-090419. The associated analyte was non-detect in the sample. No qualification was made. IDA PFDoA and PFTDA were recovered below the acceptance criteria in sample CTLMW118S-090519. The sample results were qualified UJ as estimated non-detect. IDA PFTDA was recovered below the acceptance criteria in samples CTLMW114S-090519 and CTLMW116S-090519. The sample results were qualified UJ as estimated non-detect.

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Fluorinated Compounds by LC/MS/MS	
Description	**Notes and Qualifiers**
Is Laboratory QC frequency at least one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Is MS/MSD within QC criteria (see Table 4)? If out and LCS is compliant, then "J" flag positive data in original sample due to matrix.	Yes.
Is LCS within QC criteria (see Table 5)? If out, and the recovery is high with no positive values, then no data qualification is required.	Yes.
Do internal standards areas and retention time meet criteria?	Yes.
Is initial calibration for compounds by isotope dilution <35 %RSD or curve fit; and compounds quantitated by isotope dilution analytes (IDA) <50% RSD? Is the initial calibration verification within or equal to 60-140% for all natives quantitated by isotope dilution or 50-150% for natives quantitated by IDA.	Yes.
Is continuing calibration for compounds by isotope dilution equal to or within 60-140% for all natives quantitated by isotope dilution or 50-150% for natives quantitated by IDA.	Yes.
Were any samples reanalyzed or diluted (see Table 6)? For any sample reanalysis or dilutions, is only one reportable result flagged?	No.
Do field duplicate results show good precision for all compounds (see Table 7)?	No. PFHXA exhibited poor precision in the field duplicate pairs. PFHXA was detected in one sample not the other. The sample detection exhibited a slight elevated result from the PQL value. No qualification was made.

Summary of Impacts on Data Usability

E524.2:

- Chloromethane was detected in trip blank sample TB09032019. The associated four sample results were qualified U as non-detect.

E200.7:

- Zinc, potassium, and sodium were detected in several blanks. The associated sample results which were less than 5x the blank detection were qualified U as non-detect. Sample results are reported at PQLs.
- Aluminum, iron and lead exhibited poor precision in the field duplicate pairs. The sample results were qualified J as estimated.

E200.8:

- Arsenic, thallium, and antimony were detected in several blanks. The associated sample results which were less than 5x the blank detection were qualified U as non-detect. Sample results are reported at PQLs.

E537-LL:

- IDA PFBA was recovered below the acceptance criteria in samples CTLMW117I-090419 and CTLMW117D-090419. The sample results were qualified J as estimated.
- IDA PFDoA and PFTDA were recovered below the acceptance criteria in sample CTLMW118S-090519. The sample results were qualified UJ as estimated non-detect.

- IDA PFTDA was recovered below the acceptance criteria in samples CTLMW114S-090519 and CTLMW116S-090519. The sample results were qualified UJ as estimated non-detect.

Table 2 - Positive Results for Blank Samples

Method	Sample ID	Sample Type	Analyte	Result	Qualifier	Units	MDL	PQL
E200.7	4804912541A	MB	Zinc	0.00383	J	mg/l	0.0015	0.010
E200.8	4804912561A	MB	Arsenic	0.301	J	ug/l	0.27	1.0
E524.2	TB09032019	TB	Chloromethane	0.39	J	ug/l	0.17	0.50
E200.7	480-492108/18	CCB	Potassium	0.274	J	Mg/l	0.1	0.5
E200.7	480-492108/18	CCB	Sodium	0.840	J	mg/l	0.324	1
E200.7	480-492108/25	CCB	Potassium	0.170	J	mg/l	0.1	0.5
E200.7	480-492108/25	CCB	Sodium	0.403	J	mg/l	0.324	1
E200.7	480-492108/49	CCB	Potassium	0.173	J	mg/l	0.1	0.5
E200.7	480-492410/18	CCB	Potassium	0.152	J	mg/l	0.1	0.5
E200.8	480-491521/6	ICB	Thallium	0.0200	J	ug/l	0.0080	0.20
E200.8	480-492718/6	ICB	Thallium	0.0300	J	ug/l	0.0080	0.20
E200.8	480-492718/11	CCB	Thallium	0.0240	J	ug/l	0.0080	0.20
E200.8	480-492718/24	CCB	Thallium	0.0260	J	ug/l	0.0080	0.20
E200.8	480-492718/36	CCB	Thallium	0.0230	J	ug/l	0.0080	0.20
E200.8	480-492718/11	CCB	Antimony	0.357	J	ug/l	0.15	1.0
E200.8	480-492718/24	CCB	Antimony	0.357	J	ug/l	0.15	1.0
E200.8	480-492718/36	CCB	Antimony	0.412	J	ug/l	0.15	1.0

Table 2A - Samples Qualified for Method Blank Contamination

Method	Lab Blank	Matrix	Analyte	Blank Result	Sample Result	Lab Qualifier	PQL	Affected Samples	Sample Flag
E200.8	4804912561A	MB	Arsenic	0.301	0.74	BJ	1.0	CTLMW102-090319	U Flag
E200.8	4804912561A	MB	Arsenic	0.301	0.58	BJ	1.0	CTLMW102I-090319	U Flag
E200.8	4804912561A	MB	Arsenic	0.301	4.2	B	1.0	CTLMW112S-090519	None
E200.8	4804912561A	MB	Arsenic	0.301	4.1	B	1.0	CTLMW112S-090519Q	None
E200.8	4804912561A	MB	Arsenic	0.301	20.7	B	1.0	CTLMW113S-090519	None
E200.8	4804912561A	MB	Arsenic	0.301	51.8	B	1.0	CTLMW114S-090519	None
E200.8	4804912561A	MB	Arsenic	0.301	24.4	B	1.0	CTLMW115S-090519	None
E200.8	4804912561A	MB	Arsenic	0.301	41.7	B	1.0	CTLMW116S-090519	None
E200.8	4804912561A	MB	Arsenic	0.301	1.7	B	1.0	CTLMW117D-090419	None
E200.8	4804912561A	MB	Arsenic	0.301	1.8	B	1.0	CTLMW117I-090419	None

Method	Lab Blank	Matrix	Analyte	Blank Result	Sample Result	Lab Qualifier	PQL	Affected Samples	Sample Flag
E200.8	4804912561A	MB	Arsenic	0.301	11.5	B	1.0	CTLMW117S-090419	None
E200.8	4804912561A	MB	Arsenic	0.301	18.0	B	1.0	CTLMW118S-090519	None
E200.8	4804912561A	MB	Arsenic	0.301	1.0	B	1.0	CTLMW13-090419	U Flag
E200.7	4804912541A	MB	Zinc	0.00383	0.012	B	0.010	CTLMW102I-090319	U Flag
E200.7	4804912541A	MB	Zinc	0.00383	0.0017	BJ	0.010	CTLMW112S-090519	U Flag
E200.7	4804912541A	MB	Zinc	0.00383	0.0043	BJ	0.010	CTLMW113S-090519	U Flag
E200.7	4804912541A	MB	Zinc	0.00383	0.15	B	0.010	CTLMW114S-090519	None
E200.7	4804912541A	MB	Zinc	0.00383	0.014	B	0.010	CTLMW115S-090519	U Flag
E200.7	4804912541A	MB	Zinc	0.00383	0.27	B	0.010	CTLMW116S-090519	None
E200.7	4804912541A	MB	Zinc	0.00383	0.0038	BJ	0.010	CTLMW117I-090419	U Flag
E200.7	4804912541A	MB	Zinc	0.00383	0.022	B	0.010	CTLMW117S-090419	None
E200.7	4804912541A	MB	Zinc	0.00383	0.025	B	0.010	CTLMW118S-090519	None
E200.7	4804912541A	MB	Zinc	0.00383	0.0059	BJ	0.010	CTLMW13-090419	U Flag
E200.8	480-491521/6	ICB	Thallium	0.0200	0.033	J	0.20	CTLMW115S-090519	U Flag
E200.8	480-491521/6	ICB	Thallium	0.0200	0.020	J	0.20	CTLMW118S-090519	U Flag
E200.8	480-492718/24	CCB	Antimony	0.357	0.38	J	1.0	CTLMW112S-090519	U Flag
E200.8	480-492718/24	CCB	Antimony	0.357	0.48	J	1.0	CTLMW114S-090519	U Flag
E200.8	480-492718/24	CCB	Antimony	0.357	1.2		1.0	CTLMW118S-090519	U Flag
E200.7	480-492108/18	CCB	Potassium	0.274	1.2		0.50	CTLMW102-090319	U Flag
E200.7	480-492108/25	CCB	Potassium	0.170	1.2		0.50	CTLMW117D-090419	U Flag
E200.7	480-492108/18	CCB	Sodium	0.840	3.8		1.0	CTLMW102-090319	U Flag

Table 2B - Samples Qualified for Field Blank Contamination

Method	Field Blank	Matrix	Analyte	Blank Result	Sample Result	Lab Qual	PQL	Affected Samples	Sample Flag
E524.2	TB09032019	TB	Chloromethane	0.39	0.17	J	0.50	CTLMW102I-090319	U Flag
E524.2	TB09032019	TB	Chloromethane	0.39	0.19	J	0.50	CTLMW113S-090519	U Flag
E524.2	TB09032019	TB	Chloromethane	0.39	0.19	J	0.50	CTLMW116S-090519	U Flag
E524.2	TB09032019	TB	Chloromethane	0.39	0.23	J	0.50	CTLMW117I-090419	U Flag

Table 3 - Samples with Surrogates outside Control Limits
None.

Table 3A – List of Samples with Isotope Dilution Recovery outside Control Limits

Method	Sample ID	Sample Type	Analyte	Rec. %	Low Limit	High Limit	Dilution Factor	Sample Qualifier
E537-LL	CTLMW117I-090419	N	PFBA	24	25	150	1	J Flag
E537-LL	CTLMW117D-090419	N	PFBA	14	25	150	1	J Flag
E537-LL	CTLMW117D-090419	N	d5-NEtFOSAA	300	50	150	1	None: High & ND
E537-LL	CTLMW118S-090519	N	PFDoA	43	50	150	1	UJ Flag
E537-LL	CTLMW118S-090519	N	PFTDA	29	50	150	1	UJ Flag
E537-LL	CTLMW114S-090519	N	PFTDA	46	50	150	1	UJ Flag
E537-LL	CTLMW116S-090519	N	PFTDA	44	50	150	1	UJ Flag

Table 4 - MS/MSD Recoveries and RPDs Outside Control Limits

Method	Sample ID	Sample Type	Analyte	Orig. Result	Spike Amount	Rec.	Dil. Fac.	Low Limit	High Limit	Sample Qualifier
E524.2	CTLMW102-090319	MSD	Dichlorodifluoromethane	ND	4.0	131	1	70	130	None: High & ND

Table 5 - LCS Recoveries outside Control Limits

Method	Sample ID	Analyte	Rec.	Low Limit	High Limit	Sample Qualifier
E524.2	480491376/6	Methylene Chloride	195	50	150	None: High & ND

Table 6 –Samples that were Reanalyzed

None.

Table 7 – Summary of Field Duplicate Results

Method	Analyte	Unit	Matrix	PQL	CTLMW112S-090519	CTLMW112S-090519Q	RPD	RPD Rating	Sample Qual
E524.2	Acetone	ug/l	WG	1.0	2.1	1.9	10.0%	Good	None
E200.7	Aluminum	mg/l	WG	0.060	1	0.62	46.9%	Poor	J Flag
E200.8	Arsenic	ug/l	WG	0.27	4.2	4.1	2.4%	Good	None
E200.7	Barium	mg/l	WG	0.00070	0.17	0.18	5.7%	Good	None
E200.7	Calcium	mg/l	WG	0.10	35.6	36.8	3.3%	Good	None
E200.7	Chromium, Total	mg/l	WG	0.0010	0.0014	0	NC	--	None

E200.7	Iron	mg/l	WG	0.019	1.6	1	46.2%	Poor	J Flag
E200.8	Lead	ug/l	WG	0.17	0.3	0.17	55.3%	Poor	J Flag
E200.7	Magnesium	mg/l	WG	0.043	8.6	8.8	2.3%	Good	None
E200.7	Manganese	mg/l	WG	0.00040	0.27	0.28	3.6%	Good	None
E537-LL	Perfluorobutanesulfonic Acid	ng/l	WG	0.42	12	13	8.0%	Good	None
E537-LL	Perfluorobutyric Acid (PFBA)	ng/l	WG	0.85	5.7	6.3	10.0%	Good	None
E537-LL	Perfluorohexanoic Acid (PFHXA)	ng/l	WG	0.86	0	0.92	NC	--	None
E537-LL	Perfluorooctane Sulfonic Acid	ng/l	WG	0.52	2.2	2.3	4.4%	Good	None
E537-LL	Perfluorooctanoic Acid (PFOA)	ng/l	WG	0.69	0.88	0.96	8.7%	Good	None
E537-LL	Perfluoropentanoic Acid (PFPEA)	ng/l	WG	0.54	0.72	1	32.6%	Good	None
E200.7	Potassium	mg/l	WG	0.10	2.1	1.9	10.0%	Good	None
E200.7	Sodium	mg/l	WG	0.32	15.4	16	3.8%	Good	None
E524.2	Tert-Butyl Alcohol	ug/l	WG	2.5	2.7	0	NC	--	None
E200.7	Vanadium	mg/l	WG	0.0015	0.0022	0.002	14.6%	Good	None

Acronym List and Table Key:

CCB = continuing calibration blank
CCV = continuing calibration verification
COC = chain of custody
DUSR = data usability summary report
FB = field blank
FD = field duplicate
GC/MS = gas chromatography / mass spectrometry
ICS = initial calibration standard
ICV = initial calibration verification
LCS = laboratory control sample
MB = method blank
MDL = method detection limit
µg/L = micrograms per liter
MS = matrix spike
MSD = matrix spike duplicate
ng/L = nanograms per liter
N = normal (field) sample
NC = not calculated

ND	=	not detected
NYSDEC	=	New York State Department of Environmental Conservation
PQL	=	practical quantitation limit
QA	=	quality assurance
QAPP	=	quality assurance project plan
QC	=	quality control
RPD	=	relative percent difference
SDG	=	sample delivery group
TB	=	trip blank
TRG	=	target compound
%D	=	percent difference
%RSD	=	percent relative standard deviation

APPENDIX C

Laboratory Data Report (provided separately)

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-158837-1
Client Project/Site: Carroll Town Landfill Site

For:
New York State D.E.C.
625 Broadway 9th Floor
Albany, New York 12233-7258

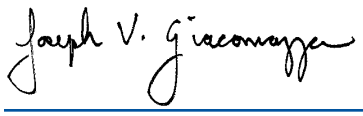
Attn: George Momberger

Authorized for release by:
9/24/2019 9:19:18 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager
(484)685-0864
orlette.johnson@testamericainc.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.



Joe Giacomazza
Project Management Assistant II
9/24/2019 9:19:18 AM

Table of Contents

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance 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.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
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.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job ID: 480-158837-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-158837-1

Comments
No additional comments.

Receipt
The samples were received on 9/6/2019 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.8º C and 3.4º C.

GC/MS VOA
Method(s) 524.2: The low level laboratory control sample (LLCS) for analytical batch 480-491376 recovered outside control limits for the following analyte: Methylene Chloride. This analyte was biased high in the LLCS and was not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: TB09032019 (480-158837-1), CTLMW102-090319 (480-158837-2), CTLMW102I-090319 (480-158837-3), CTLMW13-090419 (480-158837-4), CTLMW117I-090419 (480-158837-5), CTLMW117S-090419 (480-158837-6), CTLMW117D-090419 (480-158837-7), CTLMW113S-090519 (480-158837-8), CTLMW112S-090519 (480-158837-9), CTLMW112S-090519Q (480-158837-10), CTLMW118S-090519 (480-158837-11), CTLMW114S-090519 (480-158837-12), CTLMW115S-090519 (480-158837-13) and CTLMW116S-090519 (480-158837-14).

Method(s) 524.2: The matrix spike duplicate (MSD) recovery for analytical batch 480-491376 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. The following sample is impacted: CTLMW102-090319 (480-158837-2[MSD]).

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

GC/MS Semi VOA
Method(s) 8270D SIM ID: The 1,4-Dioxane result reported for sample CTLMW102-090319 (480-158837-2[MS]) has an E flag qualifier indicating the result is over the calibration range on the raw data. The actual amount is within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

Metals
Method(s) 200.7 Rev 4.4: The recovery of post spike, (480-158837-C-2-A PDS), associated with batch 480-492108, exhibited a result outside quality control limits for Total Calcium. However, the serial dilution (SD) of this sample was compliant, therefore no corrective action was necessary.

Method(s) 200.7 Rev 4.4: The continuing calibration verifications (CCV 480-492108/24 and 480-492108/36) recovered above the upper control limit for Total Selenium. The samples CTLMW102I-090319 (480-158837-3), CTLMW13-090419 (480-158837-4), CTLMW117I-090419 (480-158837-5), CTLMW117S-090419 (480-158837-6), CTLMW117D-090419 (480-158837-7) and CTLMW113S-090519 (480-158837-8) associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 200.7 Rev 4.4: The continuing calibration verifications (CCV 480-492108/36 and 480-492108/48) recovered above the upper control limit for Total Selenium. The samples CTLMW112S-090519 (480-158837-9), CTLMW112S-090519Q (480-158837-10), CTLMW118S-090519 (480-158837-11), CTLMW114S-090519 (480-158837-12), CTLMW115S-090519 (480-158837-13) and CTLMW116S-090519 (480-158837-14) associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

LCMS
Method(s) 537 (modified): The “I” qualifier means the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification of the analyte(s) has/have some degree of uncertainty. However, analyst judgement was used to

Job ID: 480-158837-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

positively identify the analyte(s).
CTLMW113S-090519 (480-158837-8), CTLMW112S-090519 (480-158837-9), CTLMW112S-090519Q (480-158837-10), CTLMW118S-090519 (480-158837-11) and CTLMW114S-090519 (480-158837-12)

Method(s) 537 (modified): 13C4 PFBA Isotope Dilution Analyte (IDA) recovery associated with the following samples is below the method recommended limit: CTLMW117I-090419 (480-158837-5) and CTLMW117D-090419 (480-158837-7). 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(s). All detection limits are below the lower calibration.

Method(s) 537 (modified): d5-NEtFOSAA Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: CTLMW117D-090419 (480-158837-7). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): 13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following samples is below the method recommended limit: CTLMW114S-090519 (480-158837-12) and CTLMW116S-090519 (480-158837-14). 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(s). All detection limits are below the lower calibration.

Method(s) 537 (modified): 13C2 PFDoA and 13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: CTLMW118S-090519 (480-158837-11). 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(s). All detection limits are below the lower calibration.

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

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: TB09032019 — Lab Sample ID: 480-158837-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.39	J	0.50	0.17	ug/L	1		524.2	Total/NA

Client Sample ID: CTLMW102-090319 — Lab Sample ID: 480-158837-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.3	J	5.0	1.0	ug/L	1		524.2	Total/NA
cis-1,2-Dichloroethene	5.1		0.50	0.12	ug/L	1		524.2	Total/NA
Trichloroethene	0.89		0.50	0.18	ug/L	1		524.2	Total/NA
Vinyl chloride	0.49	J	0.50	0.18	ug/L	1		524.2	Total/NA
Aluminum	0.23		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.093		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	76.1		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0041	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.35		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	16.0		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.26	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.2		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3.8		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.74	J B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	2.2		1.0	0.17	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW102I-090319 — Lab Sample ID: 480-158837-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.17	J	0.50	0.17	ug/L	1		524.2	Total/NA
cis-1,2-Dichloroethene	3.8		0.50	0.12	ug/L	1		524.2	Total/NA
Trichloroethene	1.7		0.50	0.18	ug/L	1		524.2	Total/NA
Perfluorooctanoic acid (PFOA)	0.71	J	1.7	0.69	ng/L	1		537 (modified)	Total/NA
Aluminum	2.5		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.13		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	84.8		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium, Total	0.0032	J	0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0011	J	0.0040	0.00063	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.013		0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	3.4		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	19.7		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.65	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0057	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.0		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	4.2		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.0051		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.012	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.58	J B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	2.6		1.0	0.17	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW13-090419 — Lab Sample ID: 480-158837-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.2	J	5.0	1.0	ug/L	1		524.2	Total/NA
Perfluorooctanoic acid (PFOA)	0.76	J	1.7	0.67	ng/L	1		537 (modified)	Total/NA
Aluminum	1.4		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.10		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CTLMW13-090419 (Continued)

Lab Sample ID: 480-158837-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	60.1		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium, Total	0.0025	J	0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0030	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.7		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	13.0		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.046	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.7		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	12.3		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.0028	J	0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0059	J B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	1.0	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	1.3		1.0	0.17	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW117I-090419

Lab Sample ID: 480-158837-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.23	J	0.50	0.17	ug/L	1		524.2	Total/NA
Perfluorobutanoic acid (PFBA)	1.2	J	1.6	0.82	ng/L	1		537 (modified)	Total/NA
Aluminum	0.36		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.33		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	75.0		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0032	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.22		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	17.0		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0089	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.8		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3.8		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.0019	J	0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0038	J B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	1.8	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	1.1		1.0	0.17	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW117S-090419

Lab Sample ID: 480-158837-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.2	J	5.0	1.0	ug/L	1		524.2	Total/NA
Perfluorobutanoic acid (PFBA)	4.9		1.6	0.82	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.89	J	1.6	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.1	J	1.6	0.62	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.98	J	1.6	0.66	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.71	J	1.6	0.40	ng/L	1		537 (modified)	Total/NA
Aluminum	4.8		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.55		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	121		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium, Total	0.0051		0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0025	J	0.0040	0.00063	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0058	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	11.0		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	38.9		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.34	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0056	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.2		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CTLMW117S-090419 (Continued)
Lab Sample ID: 480-158837-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	8.8		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.0078		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.022	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	11.5	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	1.8		1.0	0.17	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW117D-090419
Lab Sample ID: 480-158837-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.0	J	5.0	1.0	ug/L	1		524.2	Total/NA
Perfluorobutanoic acid (PFBA)	2.9		1.7	0.83	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.6	J	1.7	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.1	J	1.7	0.63	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.2		1.7	0.67	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.45	J	1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.76	J	1.7	0.64	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.53	J	1.7	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.4		1.7	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.3	J	1.7	0.51	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.7	J	17	1.2	ng/L	1		537 (modified)	Total/NA
Barium	0.11		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	49.1		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.10		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	12.6		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.27	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.2		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	4.6		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	1.7	B	1.0	0.27	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW113S-090519
Lab Sample ID: 480-158837-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.19	J	0.50	0.17	ug/L	1		524.2	Total/NA
Ethyl ether	0.21	J	0.50	0.12	ug/L	1		524.2	Total/NA
1,4-Dioxane	0.13	J	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.9	I	1.9	0.59	ng/L	1		537 (modified)	Total/NA
Aluminum	1.4		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.58		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	90.6		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium, Total	0.0012	J	0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.00063	J	0.0040	0.00063	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	5.1		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	26.2		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.44	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0018	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.3		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	20.5		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.0021	J	0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0043	J B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	20.7	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	0.39	J	1.0	0.17	ug/L	1		200.8	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW112S-090519 — Lab Sample ID: 480-158837-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.1	J	5.0	1.0	ug/L	1		524.2	Total/NA
t-Butanol	2.7	J	10	2.5	ug/L	1		524.2	Total/NA
Perfluorobutanoic acid (PFBA)	5.7		1.7	0.85	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.72	J	1.7	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.88	J	1.7	0.69	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	12		1.7	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2	I	1.7	0.52	ng/L	1		537 (modified)	Total/NA
Aluminum	1.0		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.17		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	35.6		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium, Total	0.0014	J	0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.6		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	8.6		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.27	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.1		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	15.4		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.0022	J	0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0017	J B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.38	J	1.0	0.35	ug/L	1		200.8	Total/NA
Arsenic	4.2	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	0.30	J	1.0	0.17	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW112S-090519Q — Lab Sample ID: 480-158837-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.9	J	5.0	1.0	ug/L	1		524.2	Total/NA
Perfluorobutanoic acid (PFBA)	6.3		1.6	0.82	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.0	J	1.6	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.92	J	1.6	0.62	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.96	J	1.6	0.66	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	13		1.6	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3	I	1.6	0.50	ng/L	1		537 (modified)	Total/NA
Aluminum	0.62		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.18		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	36.8		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.0		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	8.8		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.28	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.9		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	16.0		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.0019	J	0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	4.1	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	0.17	J	1.0	0.17	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW118S-090519 — Lab Sample ID: 480-158837-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.8	J	5.0	1.0	ug/L	1		524.2	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.5	J I	1.8	0.55	ng/L	1		537 (modified)	Total/NA
Aluminum	12.4		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.30		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Beryllium	0.00057	J	0.0020	0.00030	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample ID: CTLMW118S-090519 (Continued)

Lab Sample ID: 480-158837-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	35.3		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium, Total	0.013		0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0049		0.0040	0.00063	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0092	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	13.2		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	10.2		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.20	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.012		0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.4		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	15.1		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.022		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.025	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	1.2		1.0	0.35	ug/L	1		200.8	Total/NA
Arsenic	18.0	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	3.6		1.0	0.17	ug/L	1		200.8	Total/NA
Thallium	0.020	J	0.20	0.019	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW114S-090519

Lab Sample ID: 480-158837-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.9	J	5.0	1.0	ug/L	1		524.2	Total/NA
Perfluorobutanoic acid (PFBA)	1.3	J	1.7	0.86	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.49	J	1.7	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.4	I	1.7	0.52	ng/L	1		537 (modified)	Total/NA
Aluminum	35.8		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.42		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Beryllium	0.0017	J	0.0020	0.00030	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	81.9		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium, Total	0.045		0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.031		0.0040	0.00063	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.041		0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	71.8		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	31.4		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.5	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.068		0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	10.6		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	12.3		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.057		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.15	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.48	J	1.0	0.35	ug/L	1		200.8	Total/NA
Arsenic	51.8	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	25.8		1.0	0.17	ug/L	1		200.8	Total/NA
Thallium	0.32		0.20	0.019	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW115S-090519

Lab Sample ID: 480-158837-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.1	J	5.0	1.0	ug/L	1		524.2	Total/NA
Ethyl ether	0.66		0.50	0.12	ug/L	1		524.2	Total/NA
1,4-Dioxane	0.27		0.20	0.10	ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	3.3		1.8	0.89	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.0		1.8	0.56	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CTLMW115S-090519 (Continued)

Lab Sample ID: 480-158837-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	4.2		1.8	0.68	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.0		1.8	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	13		1.8	0.72	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.89	J	1.8	0.44	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.1	J	1.8	0.71	ng/L	1		537 (modified)	Total/NA
Aluminum	3.5		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	1.1		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	80.3		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium, Total	0.0048		0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0018	J	0.0040	0.00063	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0050	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	11.7		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	25.2		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.34	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0048	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.5		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	16.0		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.0063		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.014	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	24.4	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	3.0		1.0	0.17	ug/L	1		200.8	Total/NA
Thallium	0.033	J	0.20	0.019	ug/L	1		200.8	Total/NA

Client Sample ID: CTLMW116S-090519

Lab Sample ID: 480-158837-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.0	J	5.0	1.0	ug/L	1		524.2	Total/NA
Carbon disulfide	0.31	J	0.50	0.15	ug/L	1		524.2	Total/NA
Chloromethane	0.19	J	0.50	0.17	ug/L	1		524.2	Total/NA
Toluene	0.11	J	0.50	0.10	ug/L	1		524.2	Total/NA
Aluminum	49.7		0.20	0.060	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.56		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Beryllium	0.0021		0.0020	0.00030	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	183		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium, Total	0.062		0.0040	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.034		0.0040	0.00063	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.10		0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	119		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	60.8		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	3.8	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.080		0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	13.2		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	5.6		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.078		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.27	B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	41.7	B	1.0	0.27	ug/L	1		200.8	Total/NA
Lead	26.5		1.0	0.17	ug/L	1		200.8	Total/NA
Thallium	0.35		0.20	0.019	ug/L	1		200.8	Total/NA

Client Sample ID: RB090319

Lab Sample ID: 480-158837-15

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: RB090519 — **Lab Sample ID: 480-158837-16**

No Detections.

Client Sample ID: RB090419 — **Lab Sample ID: 480-158837-17**

No Detections.

This Detection Summary does not include radiochemical test results.

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: TB09032019
Lab Sample ID: 480-158837-1
Date Collected: 09/03/19 11:30
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 14:46	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 14:46	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 14:46	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 14:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 14:46	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 14:46	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 14:46	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 14:46	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 14:46	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 14:46	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 14:46	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 14:46	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 14:46	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 14:46	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 14:46	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 14:46	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 14:46	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 14:46	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 14:46	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 14:46	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 14:46	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 14:46	1
Acetone	5.0	U	5.0	1.0	ug/L			09/11/19 14:46	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 14:46	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 14:46	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 14:46	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 14:46	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 14:46	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 14:46	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 14:46	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 14:46	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 14:46	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 14:46	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 14:46	1
Chloromethane	**0.39**	**J**	0.50	0.17	ug/L			09/11/19 14:46	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 14:46	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 14:46	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 14:46	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 14:46	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 14:46	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 14:46	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 14:46	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: TB09032019
Date Collected: 09/03/19 11:30
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-1
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 14:46	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 14:46	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 14:46	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 14:46	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 14:46	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 14:46	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 14:46	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 14:46	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 14:46	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 14:46	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 14:46	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 14:46	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 14:46	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 14:46	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 14:46	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 14:46	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 14:46	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 14:46	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 14:46	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 14:46	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 14:46	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/11/19 14:46*	*1*
1,2-Dichlorobenzene-d4	*100*		*80 - 120*		*09/11/19 14:46*	*1*

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW102-090319
Lab Sample ID: 480-158837-2
Date Collected: 09/03/19 14:30
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 15:11	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 15:11	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 15:11	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 15:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 15:11	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 15:11	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 15:11	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 15:11	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 15:11	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 15:11	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 15:11	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 15:11	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 15:11	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 15:11	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 15:11	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 15:11	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 15:11	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 15:11	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 15:11	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 15:11	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 15:11	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 15:11	1
Acetone	**1.3**	**J**	5.0	1.0	ug/L			09/11/19 15:11	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 15:11	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 15:11	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 15:11	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 15:11	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 15:11	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 15:11	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 15:11	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 15:11	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 15:11	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 15:11	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 15:11	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 15:11	1
cis-1,2-Dichloroethene	**5.1**		0.50	0.12	ug/L			09/11/19 15:11	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 15:11	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 15:11	1
Dichlorodifluoromethane	0.50	U F1	0.50	0.15	ug/L			09/11/19 15:11	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 15:11	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 15:11	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 15:11	1

Client Sample ID: CTLMW102-090319
Date Collected: 09/03/19 14:30
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-2
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 15:11	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 15:11	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 15:11	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 15:11	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 15:11	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 15:11	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 15:11	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 15:11	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 15:11	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 15:11	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 15:11	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 15:11	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 15:11	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 15:11	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 15:11	1
Trichloroethene	**0.89**		0.50	0.18	ug/L			09/11/19 15:11	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 15:11	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 15:11	1
Vinyl chloride	**0.49**	**J**	0.50	0.18	ug/L			09/11/19 15:11	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 15:11	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 15:11	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/11/19 15:11*	*1*
1,2-Dichlorobenzene-d4	*102*		*80 - 120*		*09/11/19 15:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 18:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*		*15 - 110*	*09/10/19 15:45*	*09/13/19 18:24*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.7	U	1.7	0.85	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluoropentanoic acid (PFPeA)	1.7	U	1.7	0.53	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorohexanoic acid (PFHxA)	1.7	U	1.7	0.64	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.77	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorooctanoic acid (PFOA)	1.7	U	1.7	0.69	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.65	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.66	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.50	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	0.51	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.78	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorobutanesulfonic acid (PFBS)	1.7	U	1.7	0.41	ng/L		09/12/19 09:44	09/13/19 17:39	1

Client Sample ID: CTLMW102-090319
Date Collected: 09/03/19 14:30
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.68	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.80	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorooctanesulfonic acid (PFOS)	1.7	U	1.7	0.52	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.76	ng/L		09/12/19 09:44	09/13/19 17:39	1
Perfluorooctanesulfonamide (PFOSA)	8.5	U	8.5	8.5	ng/L		09/12/19 09:44	09/13/19 17:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17	U	17	1.4	ng/L		09/12/19 09:44	09/13/19 17:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17	U	17	1.3	ng/L		09/12/19 09:44	09/13/19 17:39	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17	U	17	4.7	ng/L		09/12/19 09:44	09/13/19 17:39	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	17	U	17	2.5	ng/L		09/12/19 09:44	09/13/19 17:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*122*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C4 PFHpA	*94*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C4 PFOA	*87*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C4 PFOS	*90*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C5 PFNA	*77*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C4 PFBA	*100*		*25 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C2 PFHxA	*98*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C2 PFDA	*81*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C2 PFUnA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C2 PFDoA	*77*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C8 FOSA	*62*		*25 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C5 PFPeA	*89*		*25 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
13C2 PFTeDA	*55*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
d3-NMeFOSAA	*67*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
d5-NEtFOSAA	*61*		*50 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
M2-6:2 FTS	*108*		*25 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*
M2-8:2 FTS	*94*		*25 - 150*	*09/12/19 09:44*	*09/13/19 17:39*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.23**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 22:18	1
Barium	**0.093**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 22:18	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 22:18	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 22:18	1
Calcium	**76.1**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:18	1
Chromium, Total	0.0040	U	0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 22:18	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 22:18	1
Copper	**0.0041**	**J**	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 22:18	1
Iron	**0.35**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 22:18	1
Magnesium	**16.0**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 22:18	1
Manganese	**0.26**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 22:18	1
Nickel	0.010	U	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 22:18	1
Potassium	**1.2**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:18	1
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/16/19 22:35	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 22:18	1
Sodium	**3.8**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 22:18	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW102-090319
Lab Sample ID: 480-158837-2
Date Collected: 09/03/19 14:30
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.0050	U	0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 22:18	1
Zinc	0.010	U	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 22:18	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 11:41	1
Arsenic	**0.74**	**J B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 13:47	1
Lead	**2.2**		1.0	0.17	ug/L		09/11/19 08:35	09/11/19 13:47	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 13:47	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 15:50	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW102I-090319
Date Collected: 09/03/19 12:21
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-3
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 15:36	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 15:36	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 15:36	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 15:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 15:36	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 15:36	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 15:36	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 15:36	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 15:36	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 15:36	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 15:36	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 15:36	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 15:36	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 15:36	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 15:36	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 15:36	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 15:36	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 15:36	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 15:36	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 15:36	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 15:36	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 15:36	1
Acetone	5.0	U	5.0	1.0	ug/L			09/11/19 15:36	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 15:36	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 15:36	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 15:36	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 15:36	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 15:36	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 15:36	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 15:36	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 15:36	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 15:36	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 15:36	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 15:36	1
Chloromethane	**0.17**	**J**	0.50	0.17	ug/L			09/11/19 15:36	1
cis-1,2-Dichloroethene	**3.8**		0.50	0.12	ug/L			09/11/19 15:36	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 15:36	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 15:36	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 15:36	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 15:36	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 15:36	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 15:36	1

Client Sample ID: CTLMW102I-090319
Date Collected: 09/03/19 12:21
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-3
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 15:36	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 15:36	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 15:36	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 15:36	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 15:36	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 15:36	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 15:36	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 15:36	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 15:36	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 15:36	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 15:36	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 15:36	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 15:36	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 15:36	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 15:36	1
Trichloroethene	**1.7**		0.50	0.18	ug/L			09/11/19 15:36	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 15:36	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 15:36	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 15:36	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 15:36	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 15:36	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*09/11/19 15:36*	*1*
1,2-Dichlorobenzene-d4	*101*		*80 - 120*		*09/11/19 15:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 18:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*		*15 - 110*	*09/10/19 15:45*	*09/13/19 18:48*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.7	U	1.7	0.85	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluoropentanoic acid (PFPeA)	1.7	U	1.7	0.54	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorohexanoic acid (PFHxA)	1.7	U	1.7	0.65	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.78	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorooctanoic acid (PFOA)	**0.71**	**J**	1.7	0.69	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.66	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.67	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.50	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	0.51	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.79	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorobutanesulfonic acid (PFBS)	1.7	U	1.7	0.42	ng/L		09/12/19 09:44	09/13/19 18:03	1

Client Sample ID: CTLMW102I-090319
Date Collected: 09/03/19 12:21
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.68	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.81	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorooctanesulfonic acid (PFOS)	1.7	U	1.7	0.52	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.77	ng/L		09/12/19 09:44	09/13/19 18:03	1
Perfluorooctanesulfonamide (PFOSA)	8.5	U	8.5	8.5	ng/L		09/12/19 09:44	09/13/19 18:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17	U	17	1.5	ng/L		09/12/19 09:44	09/13/19 18:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17	U	17	1.3	ng/L		09/12/19 09:44	09/13/19 18:03	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17	U	17	4.7	ng/L		09/12/19 09:44	09/13/19 18:03	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	17	U	17	2.5	ng/L		09/12/19 09:44	09/13/19 18:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*116*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C4 PFHpA	*94*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C4 PFOA	*94*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C4 PFOS	*92*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C5 PFNA	*81*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C4 PFBA	*79*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C2 PFHxA	*92*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C2 PFDA	*79*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C2 PFUnA	*71*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C2 PFDoA	*75*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C8 FOSA	*68*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C5 PFPeA	*78*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
13C2 PFTeDA	*57*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
d3-NMeFOSAA	*69*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
d5-NEtFOSAA	*61*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
M2-6:2 FTS	*104*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*
M2-8:2 FTS	*86*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:03*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2.5**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 22:48	1
Barium	**0.13**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 22:48	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 22:48	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 22:48	1
Calcium	**84.8**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:48	1
Chromium, Total	**0.0032**	**J**	0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 22:48	1
Cobalt	**0.0011**	**J**	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 22:48	1
Copper	**0.013**		0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 22:48	1
Iron	**3.4**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 22:48	1
Magnesium	**19.7**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 22:48	1
Manganese	**0.65**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 22:48	1
Nickel	**0.0057**	**J**	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 22:48	1
Potassium	**2.0**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:48	1
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 22:48	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 22:48	1
Sodium	**4.2**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 22:48	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW102I-090319
Date Collected: 09/03/19 12:21
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-3
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	**0.0051**		0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 22:48	1
Zinc	**0.012**	**B**	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 22:48	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 11:53	1
Arsenic	**0.58**	**J B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 13:59	1
Lead	**2.6**		1.0	0.17	ug/L		09/11/19 08:35	09/11/19 13:59	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 13:59	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 15:55	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW13-090419
Date Collected: 09/04/19 12:00
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-4
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 16:01	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 16:01	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 16:01	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:01	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 16:01	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 16:01	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 16:01	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 16:01	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 16:01	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 16:01	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 16:01	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 16:01	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 16:01	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 16:01	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 16:01	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 16:01	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 16:01	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 16:01	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 16:01	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 16:01	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 16:01	1
Acetone	**1.2**	**J**	5.0	1.0	ug/L			09/11/19 16:01	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 16:01	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 16:01	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 16:01	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 16:01	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 16:01	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 16:01	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 16:01	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 16:01	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 16:01	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 16:01	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 16:01	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:01	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 16:01	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 16:01	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:01	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 16:01	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 16:01	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 16:01	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 16:01	1

Client Sample ID: CTLMW13-090419
Date Collected: 09/04/19 12:00
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-4
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 16:01	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 16:01	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 16:01	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 16:01	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 16:01	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 16:01	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 16:01	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 16:01	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 16:01	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 16:01	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 16:01	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 16:01	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 16:01	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 16:01	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 16:01	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 16:01	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 16:01	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 16:01	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 16:01	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 16:01	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 16:01	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*09/11/19 16:01*	*1*
1,2-Dichlorobenzene-d4	*97*		*80 - 120*		*09/11/19 16:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 19:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*26*		*15 - 110*	*09/10/19 15:45*	*09/13/19 19:11*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.7	U	1.7	0.83	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluoropentanoic acid (PFPeA)	1.7	U	1.7	0.52	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorohexanoic acid (PFHxA)	1.7	U	1.7	0.63	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.76	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorooctanoic acid (PFOA)	**0.76**	**J**	1.7	0.67	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.22	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.64	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.65	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.49	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	0.50	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.77	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorobutanesulfonic acid (PFBS)	1.7	U	1.7	0.41	ng/L		09/12/19 09:44	09/13/19 18:11	1

Client Sample ID: CTLMW13-090419
Date Collected: 09/04/19 12:00
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.67	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.79	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorooctanesulfonic acid (PFOS)	1.7	U	1.7	0.51	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.75	ng/L		09/12/19 09:44	09/13/19 18:11	1
Perfluorooctanesulfonamide (PFOSA)	8.3	U	8.3	8.3	ng/L		09/12/19 09:44	09/13/19 18:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17	U	17	1.4	ng/L		09/12/19 09:44	09/13/19 18:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17	U	17	1.2	ng/L		09/12/19 09:44	09/13/19 18:11	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17	U	17	4.6	ng/L		09/12/19 09:44	09/13/19 18:11	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	17	U	17	2.4	ng/L		09/12/19 09:44	09/13/19 18:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*113*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C4 PFHpA	*90*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C4 PFOA	*83*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C4 PFOS	*87*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C5 PFNA	*71*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C4 PFBA	*106*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C2 PFHxA	*90*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C2 PFDA	*79*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C2 PFUnA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C2 PFDoA	*92*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C8 FOSA	*66*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C5 PFPeA	*81*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
13C2 PFTeDA	*60*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
d3-NMeFOSAA	*72*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
d5-NEtFOSAA	*64*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
M2-6:2 FTS	*106*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*
M2-8:2 FTS	*107*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:11*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.4**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 22:52	1
Barium	**0.10**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 22:52	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 22:52	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 22:52	1
Calcium	**60.1**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:52	1
Chromium, Total	**0.0025**	**J**	0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 22:52	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 22:52	1
Copper	**0.0030**	**J**	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 22:52	1
Iron	**1.7**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 22:52	1
Magnesium	**13.0**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 22:52	1
Manganese	**0.046**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 22:52	1
Nickel	0.010	U	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 22:52	1
Potassium	**1.7**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:52	1
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 22:52	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 22:52	1
Sodium	**12.3**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 22:52	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW13-090419
Lab Sample ID: 480-158837-4
Date Collected: 09/04/19 12:00
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	**0.0028**	**J**	0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 22:52	1
Zinc	**0.0059**	**J B**	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 22:52	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 11:55	1
Arsenic	**1.0**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:01	1
Lead	**1.3**		1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:01	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:01	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 15:56	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW117I-090419
Date Collected: 09/04/19 12:21
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-5
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 16:26	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 16:26	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 16:26	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:26	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 16:26	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 16:26	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 16:26	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 16:26	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 16:26	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 16:26	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 16:26	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 16:26	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 16:26	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 16:26	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 16:26	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 16:26	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 16:26	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 16:26	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 16:26	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 16:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 16:26	1
Acetone	5.0	U	5.0	1.0	ug/L			09/11/19 16:26	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 16:26	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 16:26	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 16:26	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 16:26	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 16:26	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 16:26	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 16:26	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 16:26	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 16:26	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 16:26	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 16:26	1
Chloromethane	**0.23**	**J**	0.50	0.17	ug/L			09/11/19 16:26	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 16:26	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 16:26	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:26	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 16:26	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 16:26	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 16:26	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 16:26	1

Client Sample ID: CTLMW117I-090419
Date Collected: 09/04/19 12:21
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-5
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 16:26	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 16:26	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 16:26	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 16:26	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 16:26	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 16:26	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 16:26	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 16:26	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 16:26	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 16:26	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 16:26	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 16:26	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 16:26	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 16:26	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 16:26	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 16:26	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 16:26	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 16:26	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 16:26	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 16:26	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 16:26	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/11/19 16:26*	*1*
1,2-Dichlorobenzene-d4	*100*		*80 - 120*		*09/11/19 16:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 19:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*25*		*15 - 110*	*09/10/19 15:45*	*09/13/19 19:35*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.2**	**J**	1.6	0.82	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluoropentanoic acid (PFPeA)	1.6	U	1.6	0.52	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorohexanoic acid (PFHxA)	1.6	U	1.6	0.62	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluoroheptanoic acid (PFHpA)	1.6	U	1.6	0.75	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorooctanoic acid (PFOA)	1.6	U	1.6	0.66	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorononanoic acid (PFNA)	1.6	U	1.6	0.22	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorodecanoic acid (PFDA)	1.6	U	1.6	0.63	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluoroundecanoic acid (PFUnA)	1.6	U	1.6	0.64	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorododecanoic acid (PFDoA)	1.6	U	1.6	0.48	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorotridecanoic acid (PFTriA)	1.6	U	1.6	0.49	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorotetradecanoic acid (PFTeA)	1.6	U	1.6	0.75	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorobutanesulfonic acid (PFBS)	1.6	U	1.6	0.40	ng/L		09/12/19 09:44	09/13/19 18:19	1

Client Sample ID: CTLMW117I-090419
Date Collected: 09/04/19 12:21
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	1.6	U	1.6	0.66	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	U	1.6	0.78	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorooctanesulfonic acid (PFOS)	1.6	U	1.6	0.50	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorodecanesulfonic acid (PFDS)	1.6	U	1.6	0.74	ng/L		09/12/19 09:44	09/13/19 18:19	1
Perfluorooctanesulfonamide (PFOSA)	8.2	U	8.2	8.2	ng/L		09/12/19 09:44	09/13/19 18:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	16	U	16	1.4	ng/L		09/12/19 09:44	09/13/19 18:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	16	U	16	1.2	ng/L		09/12/19 09:44	09/13/19 18:19	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	16	U	16	4.5	ng/L		09/12/19 09:44	09/13/19 18:19	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	16	U	16	2.4	ng/L		09/12/19 09:44	09/13/19 18:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*115*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C4 PFHpA	*103*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C4 PFOA	*99*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C4 PFOS	*93*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C5 PFNA	*89*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C4 PFBA	*24*	*	*25 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C2 PFHxA	*115*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C2 PFDA	*88*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C2 PFUnA	*75*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C2 PFDoA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C8 FOSA	*88*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C5 PFPeA	*97*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
13C2 PFTeDA	*62*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
d3-NMeFOSAA	*74*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
d5-NEtFOSAA	*66*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
M2-6:2 FTS	*107*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*
M2-8:2 FTS	*101*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:19*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.36**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 22:56	1
Barium	**0.33**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 22:56	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 22:56	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 22:56	1
Calcium	**75.0**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:56	1
Chromium, Total	0.0040	U	0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 22:56	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 22:56	1
Copper	**0.0032**	**J**	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 22:56	1
Iron	**0.22**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 22:56	1
Magnesium	**17.0**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 22:56	1
Manganese	**0.0089**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 22:56	1
Nickel	0.010	U	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 22:56	1
Potassium	**2.8**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:56	1
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 22:56	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 22:56	1
Sodium	**3.8**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 22:56	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW117I-090419
Lab Sample ID: 480-158837-5
Date Collected: 09/04/19 12:21
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	**0.0019**	**J**	0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 22:56	1
Zinc	**0.0038**	**J B**	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 22:56	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 11:58	1
Arsenic	**1.8**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:03	1
Lead	**1.1**		1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:03	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:03	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 15:58	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW117S-090419
Lab Sample ID: 480-158837-6
Date Collected: 09/04/19 13:48
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 16:51	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 16:51	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 16:51	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:51	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 16:51	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 16:51	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 16:51	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 16:51	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 16:51	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 16:51	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 16:51	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 16:51	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 16:51	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 16:51	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 16:51	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 16:51	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 16:51	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 16:51	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 16:51	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 16:51	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 16:51	1
Acetone	**1.2**	**J**	5.0	1.0	ug/L			09/11/19 16:51	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 16:51	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 16:51	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 16:51	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 16:51	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 16:51	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 16:51	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 16:51	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 16:51	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 16:51	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 16:51	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 16:51	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:51	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 16:51	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 16:51	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 16:51	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 16:51	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 16:51	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 16:51	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 16:51	1

Client Sample ID: CTLMW117S-090419
Date Collected: 09/04/19 13:48
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-6
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 16:51	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 16:51	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 16:51	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 16:51	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 16:51	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 16:51	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 16:51	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 16:51	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 16:51	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 16:51	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 16:51	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 16:51	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 16:51	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 16:51	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 16:51	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 16:51	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 16:51	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 16:51	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 16:51	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 16:51	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 16:51	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/11/19 16:51*	*1*
1,2-Dichlorobenzene-d4	*103*		*80 - 120*		*09/11/19 16:51*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 19:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*25*		*15 - 110*	*09/10/19 15:45*	*09/13/19 19:58*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.9**		1.6	0.82	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluoropentanoic acid (PFPeA)	**0.89**	**J**	1.6	0.52	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorohexanoic acid (PFHxA)	**1.1**	**J**	1.6	0.62	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluoroheptanoic acid (PFHpA)	1.6	U	1.6	0.74	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorooctanoic acid (PFOA)	**0.98**	**J**	1.6	0.66	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorononanoic acid (PFNA)	1.6	U	1.6	0.22	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorodecanoic acid (PFDA)	1.6	U	1.6	0.63	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluoroundecanoic acid (PFUnA)	1.6	U	1.6	0.64	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorododecanoic acid (PFDoA)	1.6	U	1.6	0.48	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorotridecanoic acid (PFTriA)	1.6	U	1.6	0.49	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorotetradecanoic acid (PFTeA)	1.6	U	1.6	0.75	ng/L		09/12/19 09:44	09/13/19 18:27	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW117S-090419
Date Collected: 09/04/19 13:48
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**0.71**	**J**	1.6	0.40	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorohexanesulfonic acid (PFHxS)	1.6	U	1.6	0.65	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	U	1.6	0.78	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorooctanesulfonic acid (PFOS)	1.6	U	1.6	0.50	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorodecanesulfonic acid (PFDS)	1.6	U	1.6	0.74	ng/L		09/12/19 09:44	09/13/19 18:27	1
Perfluorooctanesulfonamide (PFOSA)	8.2	U	8.2	8.2	ng/L		09/12/19 09:44	09/13/19 18:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	16	U	16	1.4	ng/L		09/12/19 09:44	09/13/19 18:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	16	U	16	1.2	ng/L		09/12/19 09:44	09/13/19 18:27	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	16	U	16	4.5	ng/L		09/12/19 09:44	09/13/19 18:27	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	16	U	16	2.4	ng/L		09/12/19 09:44	09/13/19 18:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*125*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C4 PFHpA	*93*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C4 PFOA	*96*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C4 PFOS	*96*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C5 PFNA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C4 PFBA	*79*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C2 PFHxA	*100*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C2 PFDA	*77*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C2 PFUnA	*73*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C2 PFDoA	*79*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C8 FOSA	*72*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C5 PFPeA	*83*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
13C2 PFTeDA	*66*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
d3-NMeFOSAA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
d5-NEtFOSAA	*67*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
M2-6:2 FTS	*121*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*
M2-8:2 FTS	*93*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:27*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**4.8**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 22:59	1
Barium	**0.55**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 22:59	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 22:59	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 22:59	1
Calcium	**121**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:59	1
Chromium, Total	**0.0051**		0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 22:59	1
Cobalt	**0.0025**	**J**	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 22:59	1
Copper	**0.0058**	**J**	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 22:59	1
Iron	**11.0**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 22:59	1
Magnesium	**38.9**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 22:59	1
Manganese	**0.34**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 22:59	1
Nickel	**0.0056**	**J**	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 22:59	1
Potassium	**3.2**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:59	1
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 22:59	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW117S-090419
Lab Sample ID: 480-158837-6
Date Collected: 09/04/19 13:48
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 22:59	1
Sodium	**8.8**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 22:59	1
Vanadium	**0.0078**		0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 22:59	1
Zinc	**0.022**	**B**	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 22:59	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 12:07	1
Arsenic	**11.5**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:13	1
Lead	**1.8**		1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:13	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:13	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 15:59	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW117D-090419
Lab Sample ID: 480-158837-7
Date Collected: 09/04/19 14:50
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 17:16	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 17:16	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 17:16	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 17:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 17:16	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 17:16	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 17:16	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 17:16	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 17:16	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 17:16	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 17:16	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 17:16	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 17:16	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 17:16	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 17:16	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 17:16	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 17:16	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 17:16	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 17:16	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 17:16	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 17:16	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 17:16	1
Acetone	**1.0**	**J**	5.0	1.0	ug/L			09/11/19 17:16	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 17:16	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 17:16	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 17:16	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 17:16	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 17:16	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 17:16	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 17:16	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 17:16	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 17:16	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 17:16	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 17:16	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 17:16	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 17:16	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 17:16	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 17:16	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 17:16	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 17:16	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 17:16	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 17:16	1

Client Sample ID: CTLMW117D-090419
Date Collected: 09/04/19 14:50
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-7
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 17:16	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 17:16	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 17:16	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 17:16	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 17:16	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 17:16	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 17:16	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 17:16	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 17:16	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 17:16	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 17:16	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 17:16	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 17:16	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 17:16	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 17:16	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 17:16	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 17:16	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 17:16	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 17:16	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 17:16	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 17:16	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/11/19 17:16*	*1*
1,2-Dichlorobenzene-d4	*101*		*80 - 120*		*09/11/19 17:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 20:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*09/10/19 15:45*	*09/13/19 20:22*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.9**		1.7	0.83	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluoropentanoic acid (PFPeA)	**1.6**	**J**	1.7	0.52	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorohexanoic acid (PFHxA)	**1.1**	**J**	1.7	0.63	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.76	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorooctanoic acid (PFOA)	**2.2**		1.7	0.67	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorononanoic acid (PFNA)	**0.45**	**J**	1.7	0.22	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorodecanoic acid (PFDA)	**0.76**	**J**	1.7	0.64	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.65	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorododecanoic acid (PFDoA)	**0.53**	**J**	1.7	0.49	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	0.50	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.77	ng/L		09/12/19 09:44	09/13/19 18:35	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW117D-090419
Date Collected: 09/04/19 14:50
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**5.4**		1.7	0.41	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.67	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.79	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorooctanesulfonic acid (PFOS)	**1.3**	**J**	1.7	0.51	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.75	ng/L		09/12/19 09:44	09/13/19 18:35	1
Perfluorooctanesulfonamide (PFOSA)	8.3	U	8.3	8.3	ng/L		09/12/19 09:44	09/13/19 18:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17	U	17	1.4	ng/L		09/12/19 09:44	09/13/19 18:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**1.7**	**J**	17	1.2	ng/L		09/12/19 09:44	09/13/19 18:35	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17	U	17	4.6	ng/L		09/12/19 09:44	09/13/19 18:35	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	17	U	17	2.4	ng/L		09/12/19 09:44	09/13/19 18:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*114*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C4 PFHpA	*98*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C4 PFOA	*98*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C4 PFOS	*95*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C5 PFNA	*102*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C4 PFBA	*14*	*	*25 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C2 PFHxA	*90*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C2 PFDA	*102*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C2 PFUnA	*141*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C2 PFDoA	*84*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C8 FOSA	*92*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C5 PFPeA	*47*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
13C2 PFTeDA	*59*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
d3-NMeFOSAA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
d5-NEtFOSAA	*300*	*	*50 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
M2-6:2 FTS	*123*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*
M2-8:2 FTS	*148*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:35*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		09/12/19 07:27	09/13/19 23:03	1
Barium	**0.11**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 23:03	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 23:03	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 23:03	1
Calcium	**49.1**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:03	1
Chromium, Total	0.0040	U	0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 23:03	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 23:03	1
Copper	0.010	U	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 23:03	1
Iron	**0.10**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 23:03	1
Magnesium	**12.6**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 23:03	1
Manganese	**0.27**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 23:03	1
Nickel	0.010	U	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 23:03	1
Potassium	**1.2**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:03	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW117D-090419
Lab Sample ID: 480-158837-7
Date Collected: 09/04/19 14:50
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 23:03	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 23:03	1
Sodium	**4.6**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 23:03	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 23:03	1
Zinc	0.010	U	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 23:03	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 12:09	1
Arsenic	**1.7**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:15	1
Lead	1.0	U	1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:15	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:15	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 16:00	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW113S-090519
Lab Sample ID: 480-158837-8
Date Collected: 09/05/19 12:45
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 17:40	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 17:40	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 17:40	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 17:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 17:40	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 17:40	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 17:40	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 17:40	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 17:40	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 17:40	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 17:40	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 17:40	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 17:40	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 17:40	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 17:40	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 17:40	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 17:40	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 17:40	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 17:40	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 17:40	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 17:40	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 17:40	1
Acetone	5.0	U	5.0	1.0	ug/L			09/11/19 17:40	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 17:40	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 17:40	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 17:40	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 17:40	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 17:40	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 17:40	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 17:40	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 17:40	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 17:40	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 17:40	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 17:40	1
Chloromethane	**0.19**	**J**	0.50	0.17	ug/L			09/11/19 17:40	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 17:40	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 17:40	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 17:40	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 17:40	1
Ethyl ether	**0.21**	**J**	0.50	0.12	ug/L			09/11/19 17:40	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 17:40	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 17:40	1

Client Sample ID: CTLMW113S-090519
Date Collected: 09/05/19 12:45
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-8
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 17:40	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 17:40	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 17:40	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 17:40	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 17:40	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 17:40	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 17:40	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 17:40	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 17:40	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 17:40	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 17:40	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 17:40	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 17:40	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 17:40	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 17:40	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 17:40	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 17:40	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 17:40	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 17:40	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 17:40	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 17:40	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*09/11/19 17:40*	*1*
1,2-Dichlorobenzene-d4	*100*		*80 - 120*		*09/11/19 17:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.13**	**J**	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 20:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*28*		*15 - 110*	*09/10/19 15:45*	*09/13/19 20:45*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.9	U	1.9	0.96	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluoropentanoic acid (PFPeA)	1.9	U	1.9	0.61	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorohexanoic acid (PFHxA)	1.9	U	1.9	0.73	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluoroheptanoic acid (PFHpA)	1.9	U	1.9	0.88	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorooctanoic acid (PFOA)	1.9	U	1.9	0.78	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorononanoic acid (PFNA)	1.9	U	1.9	0.26	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorodecanoic acid (PFDA)	1.9	U	1.9	0.74	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluoroundecanoic acid (PFUnA)	1.9	U	1.9	0.75	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorododecanoic acid (PFDoA)	1.9	U	1.9	0.57	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorotridecanoic acid (PFTriA)	1.9	U	1.9	0.58	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorotetradecanoic acid (PFTeA)	1.9	U	1.9	0.89	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U	1.9	0.47	ng/L		09/12/19 09:44	09/13/19 18:51	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW113S-090519
Date Collected: 09/05/19 12:45
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	1.9	U	1.9	0.77	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.9	U	1.9	0.91	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorooctanesulfonic acid (PFOS)	**1.9**	**I**	1.9	0.59	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorodecanesulfonic acid (PFDS)	1.9	U	1.9	0.87	ng/L		09/12/19 09:44	09/13/19 18:51	1
Perfluorooctanesulfonamide (PFOSA)	9.6	U	9.6	9.6	ng/L		09/12/19 09:44	09/13/19 18:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	19	U	19	1.6	ng/L		09/12/19 09:44	09/13/19 18:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	19	U	19	1.4	ng/L		09/12/19 09:44	09/13/19 18:51	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	19	U	19	5.3	ng/L		09/12/19 09:44	09/13/19 18:51	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19	U	19	2.8	ng/L		09/12/19 09:44	09/13/19 18:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*120*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C4 PFHpA	*79*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C4 PFOA	*78*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C4 PFOS	*99*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C5 PFNA	*66*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C4 PFBA	*73*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C2 PFHxA	*79*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C2 PFDA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C2 PFUnA	*78*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C2 PFDoA	*98*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C8 FOSA	*61*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C5 PFPeA	*71*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
13C2 PFTeDA	*55*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
d3-NMeFOSAA	*70*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
d5-NEtFOSAA	*63*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
M2-6:2 FTS	*112*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*
M2-8:2 FTS	*98*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:51*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.4**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 23:07	1
Barium	**0.58**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 23:07	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 23:07	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 23:07	1
Calcium	**90.6**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:07	1
Chromium, Total	**0.0012**	**J**	0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 23:07	1
Cobalt	**0.00063**	**J**	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 23:07	1
Copper	0.010	U	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 23:07	1
Iron	**5.1**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 23:07	1
Magnesium	**26.2**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 23:07	1
Manganese	**0.44**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 23:07	1
Nickel	**0.0018**	**J**	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 23:07	1
Potassium	**2.3**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:07	1
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 23:07	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 23:07	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW113S-090519
Lab Sample ID: 480-158837-8
Date Collected: 09/05/19 12:45
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	**20.5**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 23:07	1
Vanadium	**0.0021**	**J**	0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 23:07	1
Zinc	**0.0043**	**J B**	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 23:07	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 12:11	1
Arsenic	**20.7**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:17	1
Lead	**0.39**	**J**	1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:17	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:17	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 16:07	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW112S-090519
Lab Sample ID: 480-158837-9
Date Collected: 09/05/19 10:56
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 18:05	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 18:05	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 18:05	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:05	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 18:05	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 18:05	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 18:05	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 18:05	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 18:05	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 18:05	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 18:05	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 18:05	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 18:05	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 18:05	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 18:05	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 18:05	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 18:05	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 18:05	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 18:05	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 18:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 18:05	1
Acetone	**2.1**	**J**	5.0	1.0	ug/L			09/11/19 18:05	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 18:05	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 18:05	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 18:05	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 18:05	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 18:05	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 18:05	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 18:05	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 18:05	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 18:05	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 18:05	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 18:05	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:05	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 18:05	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 18:05	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:05	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 18:05	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 18:05	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 18:05	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 18:05	1

Client Sample ID: CTLMW112S-090519
Lab Sample ID: 480-158837-9

Date Collected: 09/05/19 10:56
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 18:05	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 18:05	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 18:05	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 18:05	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 18:05	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 18:05	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 18:05	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 18:05	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 18:05	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
t-Butanol	**2.7**	**J**	10	2.5	ug/L			09/11/19 18:05	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 18:05	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 18:05	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 18:05	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 18:05	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 18:05	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 18:05	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 18:05	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 18:05	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 18:05	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 18:05	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 18:05	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/11/19 18:05*	*1*
1,2-Dichlorobenzene-d4	*102*		*80 - 120*		*09/11/19 18:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 21:09	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*26*		*15 - 110*	*09/10/19 15:45*	*09/13/19 21:09*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.7**		1.7	0.85	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluoropentanoic acid (PFPeA)	**0.72**	**J**	1.7	0.54	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorohexanoic acid (PFHxA)	1.7	U	1.7	0.65	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.78	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorooctanoic acid (PFOA)	**0.88**	**J**	1.7	0.69	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.66	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.66	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.50	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	0.51	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.78	ng/L		09/12/19 09:44	09/13/19 18:59	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW112S-090519
Date Collected: 09/05/19 10:56
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**12**		1.7	0.42	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.68	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.81	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorooctanesulfonic acid (PFOS)	**2.2**	**I**	1.7	0.52	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.77	ng/L		09/12/19 09:44	09/13/19 18:59	1
Perfluorooctanesulfonamide (PFOSA)	8.5	U	8.5	8.5	ng/L		09/12/19 09:44	09/13/19 18:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17	U	17	1.4	ng/L		09/12/19 09:44	09/13/19 18:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17	U	17	1.3	ng/L		09/12/19 09:44	09/13/19 18:59	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17	U	17	4.7	ng/L		09/12/19 09:44	09/13/19 18:59	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	17	U	17	2.5	ng/L		09/12/19 09:44	09/13/19 18:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*115*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C4 PFHpA	*85*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C4 PFOA	*88*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C4 PFOS	*94*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C5 PFNA	*80*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C4 PFBA	*67*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C2 PFHxA	*88*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C2 PFDA	*86*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C2 PFUnA	*90*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C2 PFDoA	*91*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C8 FOSA	*63*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C5 PFPeA	*74*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
13C2 PFTeDA	*64*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
d3-NMeFOSAA	*72*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
d5-NEtFOSAA	*61*		*50 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
M2-6:2 FTS	*119*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*
M2-8:2 FTS	*118*		*25 - 150*	*09/12/19 09:44*	*09/13/19 18:59*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.0**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 23:22	1
Barium	**0.17**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 23:22	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 23:22	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 23:22	1
Calcium	**35.6**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:22	1
Chromium, Total	**0.0014**	**J**	0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 23:22	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 23:22	1
Copper	0.010	U	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 23:22	1
Iron	**1.6**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 23:22	1
Magnesium	**8.6**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 23:22	1
Manganese	**0.27**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 23:22	1
Nickel	0.010	U	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 23:22	1
Potassium	**2.1**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:22	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW112S-090519
Lab Sample ID: 480-158837-9
Date Collected: 09/05/19 10:56
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 23:22	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 23:22	1
Sodium	**15.4**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 23:22	1
Vanadium	**0.0022**	**J**	0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 23:22	1
Zinc	**0.0017**	**J B**	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 23:22	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.38**	**J**	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 12:14	1
Arsenic	**4.2**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:19	1
Lead	**0.30**	**J**	1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:19	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:19	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 16:08	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW112S-090519Q
Lab Sample ID: 480-158837-10
Date Collected: 09/05/19 10:56
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 18:30	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 18:30	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 18:30	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:30	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 18:30	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 18:30	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 18:30	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 18:30	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 18:30	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 18:30	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 18:30	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 18:30	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 18:30	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 18:30	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 18:30	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 18:30	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 18:30	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 18:30	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 18:30	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 18:30	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 18:30	1
Acetone	**1.9**	**J**	5.0	1.0	ug/L			09/11/19 18:30	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 18:30	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 18:30	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 18:30	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 18:30	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 18:30	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 18:30	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 18:30	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 18:30	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 18:30	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 18:30	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 18:30	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:30	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 18:30	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 18:30	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:30	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 18:30	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 18:30	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 18:30	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 18:30	1

Client Sample ID: CTLMW112S-090519Q
Date Collected: 09/05/19 10:56
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-10
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 18:30	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 18:30	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 18:30	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 18:30	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 18:30	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 18:30	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 18:30	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 18:30	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 18:30	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 18:30	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 18:30	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 18:30	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 18:30	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 18:30	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 18:30	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 18:30	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 18:30	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 18:30	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 18:30	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 18:30	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 18:30	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/11/19 18:30*	*1*
1,2-Dichlorobenzene-d4	*102*		*80 - 120*		*09/11/19 18:30*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 21:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*09/10/19 15:45*	*09/13/19 21:33*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.3**		1.6	0.82	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluoropentanoic acid (PFPeA)	**1.0**	**J**	1.6	0.51	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorohexanoic acid (PFHxA)	**0.92**	**J**	1.6	0.62	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluoroheptanoic acid (PFHpA)	1.6	U	1.6	0.74	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorooctanoic acid (PFOA)	**0.96**	**J**	1.6	0.66	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorononanoic acid (PFNA)	1.6	U	1.6	0.22	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorodecanoic acid (PFDA)	1.6	U	1.6	0.63	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluoroundecanoic acid (PFUnA)	1.6	U	1.6	0.64	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorododecanoic acid (PFDoA)	1.6	U	1.6	0.48	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorotridecanoic acid (PFTriA)	1.6	U	1.6	0.49	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorotetradecanoic acid (PFTeA)	1.6	U	1.6	0.75	ng/L		09/12/19 09:44	09/13/19 19:07	1

Client Sample ID: CTLMW112S-090519Q
Date Collected: 09/05/19 10:56
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**13**		1.6	0.40	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorohexanesulfonic acid (PFHxS)	1.6	U	1.6	0.65	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	U	1.6	0.78	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorooctanesulfonic acid (PFOS)	**2.3**	**I**	1.6	0.50	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorodecanesulfonic acid (PFDS)	1.6	U	1.6	0.73	ng/L		09/12/19 09:44	09/13/19 19:07	1
Perfluorooctanesulfonamide (PFOSA)	8.2	U	8.2	8.2	ng/L		09/12/19 09:44	09/13/19 19:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	16	U	16	1.4	ng/L		09/12/19 09:44	09/13/19 19:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	16	U	16	1.2	ng/L		09/12/19 09:44	09/13/19 19:07	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	16	U	16	4.5	ng/L		09/12/19 09:44	09/13/19 19:07	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	16	U	16	2.4	ng/L		09/12/19 09:44	09/13/19 19:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*122*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C4 PFHpA	*83*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C4 PFOA	*80*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C4 PFOS	*95*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C5 PFNA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C4 PFBA	*71*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C2 PFHxA	*81*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C2 PFDA	*84*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C2 PFUnA	*90*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C2 PFDoA	*96*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C8 FOSA	*68*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C5 PFPeA	*72*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
13C2 PFTeDA	*59*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
d3-NMeFOSAA	*70*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
d5-NEtFOSAA	*67*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
M2-6:2 FTS	*117*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*
M2-8:2 FTS	*117*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:07*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.62**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 23:26	1
Barium	**0.18**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 23:26	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 23:26	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 23:26	1
Calcium	**36.8**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:26	1
Chromium, Total	0.0040	U	0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 23:26	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 23:26	1
Copper	0.010	U	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 23:26	1
Iron	**1.0**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 23:26	1
Magnesium	**8.8**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 23:26	1
Manganese	**0.28**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 23:26	1
Nickel	0.010	U	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 23:26	1
Potassium	**1.9**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:26	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW112S-090519Q
Lab Sample ID: 480-158837-10
Date Collected: 09/05/19 10:56
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 23:26	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 23:26	1
Sodium	**16.0**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 23:26	1
Vanadium	**0.0019**	**J**	0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 23:26	1
Zinc	0.010	U	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 23:26	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 12:16	1
Arsenic	**4.1**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:22	1
Lead	**0.17**	**J**	1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:22	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:22	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 16:13	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW118S-090519
Lab Sample ID: 480-158837-11
Date Collected: 09/05/19 12:30
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 18:55	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 18:55	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 18:55	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:55	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 18:55	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 18:55	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 18:55	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 18:55	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 18:55	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 18:55	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 18:55	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 18:55	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 18:55	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 18:55	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 18:55	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 18:55	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 18:55	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 18:55	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 18:55	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 18:55	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 18:55	1
Acetone	**3.8**	**J**	5.0	1.0	ug/L			09/11/19 18:55	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 18:55	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 18:55	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 18:55	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 18:55	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 18:55	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 18:55	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 18:55	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 18:55	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 18:55	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 18:55	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 18:55	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:55	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 18:55	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 18:55	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 18:55	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 18:55	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 18:55	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 18:55	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 18:55	1

Client Sample ID: CTLMW118S-090519
Date Collected: 09/05/19 12:30
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-11
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 18:55	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 18:55	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 18:55	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 18:55	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 18:55	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 18:55	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 18:55	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 18:55	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 18:55	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 18:55	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 18:55	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 18:55	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 18:55	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 18:55	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 18:55	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 18:55	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 18:55	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 18:55	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 18:55	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 18:55	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 18:55	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*09/11/19 18:55*	*1*
1,2-Dichlorobenzene-d4	*102*		*80 - 120*		*09/11/19 18:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 21:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*		*15 - 110*	*09/10/19 15:45*	*09/13/19 21:56*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.8	U	1.8	0.91	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluoropentanoic acid (PFPeA)	1.8	U	1.8	0.57	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorohexanoic acid (PFHxA)	1.8	U	1.8	0.69	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluoroheptanoic acid (PFHpA)	1.8	U	1.8	0.83	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorooctanoic acid (PFOA)	1.8	U	1.8	0.74	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorononanoic acid (PFNA)	1.8	U	1.8	0.25	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.70	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	0.71	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.54	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	0.55	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorotetradecanoic acid (PFTeA)	1.8	U	1.8	0.84	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorobutanesulfonic acid (PFBS)	1.8	U	1.8	0.45	ng/L		09/12/19 09:44	09/13/19 19:15	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW118S-090519
Date Collected: 09/05/19 12:30
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	1.8	U	1.8	0.73	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	U	1.8	0.86	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorooctanesulfonic acid (PFOS)	**1.5**	**J I**	1.8	0.55	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.82	ng/L		09/12/19 09:44	09/13/19 19:15	1
Perfluorooctanesulfonamide (PFOSA)	9.1	U	9.1	9.1	ng/L		09/12/19 09:44	09/13/19 19:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18	U	18	1.5	ng/L		09/12/19 09:44	09/13/19 19:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18	U	18	1.4	ng/L		09/12/19 09:44	09/13/19 19:15	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	18	U	18	5.0	ng/L		09/12/19 09:44	09/13/19 19:15	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	18	U	18	2.6	ng/L		09/12/19 09:44	09/13/19 19:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*118*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C4 PFHpA	*96*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C4 PFOA	*95*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C4 PFOS	*94*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C5 PFNA	*79*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C4 PFBA	*71*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C2 PFHxA	*97*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C2 PFDA	*77*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C2 PFUnA	*65*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C2 PFDoA	*43*	*	*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C8 FOSA	*76*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C5 PFPeA	*84*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
13C2 PFTeDA	*29*	*	*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
d3-NMeFOSAA	*70*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
d5-NEtFOSAA	*58*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
M2-6:2 FTS	*106*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*
M2-8:2 FTS	*89*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:15*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12.4**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 23:30	1
Barium	**0.30**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 23:30	1
Beryllium	**0.00057**	**J**	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 23:30	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 23:30	1
Calcium	**35.3**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:30	1
Chromium, Total	**0.013**		0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 23:30	1
Cobalt	**0.0049**		0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 23:30	1
Copper	**0.0092**	**J**	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 23:30	1
Iron	**13.2**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 23:30	1
Magnesium	**10.2**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 23:30	1
Manganese	**0.20**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 23:30	1
Nickel	**0.012**		0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 23:30	1
Potassium	**6.4**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:30	1
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 23:30	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 23:30	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW118S-090519
Lab Sample ID: 480-158837-11
Date Collected: 09/05/19 12:30
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	15.1		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 23:30	1
Vanadium	0.022		0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 23:30	1
Zinc	0.025	B	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 23:30	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.2		1.0	0.35	ug/L		09/11/19 08:35	09/18/19 12:18	1
Arsenic	18.0	B	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:24	1
Lead	3.6		1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:24	1
Thallium	0.020	J	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:24	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 16:14	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW114S-090519
Lab Sample ID: 480-158837-12
Date Collected: 09/05/19 14:20
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 19:20	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 19:20	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 19:20	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 19:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 19:20	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 19:20	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 19:20	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 19:20	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 19:20	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 19:20	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 19:20	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 19:20	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 19:20	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 19:20	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 19:20	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 19:20	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 19:20	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 19:20	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 19:20	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 19:20	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 19:20	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 19:20	1
Acetone	**1.9**	**J**	5.0	1.0	ug/L			09/11/19 19:20	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 19:20	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 19:20	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 19:20	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 19:20	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 19:20	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 19:20	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 19:20	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 19:20	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 19:20	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 19:20	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 19:20	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 19:20	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 19:20	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 19:20	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 19:20	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 19:20	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 19:20	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 19:20	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 19:20	1

Client Sample ID: CTLMW114S-090519
Date Collected: 09/05/19 14:20
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-12
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 19:20	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 19:20	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 19:20	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 19:20	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 19:20	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 19:20	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 19:20	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 19:20	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 19:20	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 19:20	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 19:20	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 19:20	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 19:20	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 19:20	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 19:20	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 19:20	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 19:20	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 19:20	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 19:20	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 19:20	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 19:20	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/11/19 19:20*	*1*
1,2-Dichlorobenzene-d4	*99*		*80 - 120*		*09/11/19 19:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/19/19 01:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*27*		*15 - 110*	*09/10/19 15:45*	*09/19/19 01:21*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.3**	**J**	1.7	0.86	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluoropentanoic acid (PFPeA)	1.7	U	1.7	0.54	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorohexanoic acid (PFHxA)	1.7	U	1.7	0.65	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.78	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorooctanoic acid (PFOA)	1.7	U	1.7	0.70	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.66	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.67	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.51	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	0.52	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.79	ng/L		09/12/19 09:44	09/13/19 19:23	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW114S-090519
Date Collected: 09/05/19 14:20
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**0.49**	**J**	1.7	0.42	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.69	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.82	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorooctanesulfonic acid (PFOS)	**4.4**	**I**	1.7	0.52	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.77	ng/L		09/12/19 09:44	09/13/19 19:23	1
Perfluorooctanesulfonamide (PFOSA)	8.6	U	8.6	8.6	ng/L		09/12/19 09:44	09/13/19 19:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17	U	17	1.5	ng/L		09/12/19 09:44	09/13/19 19:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17	U	17	1.3	ng/L		09/12/19 09:44	09/13/19 19:23	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17	U	17	4.7	ng/L		09/12/19 09:44	09/13/19 19:23	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	17	U	17	2.5	ng/L		09/12/19 09:44	09/13/19 19:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*120*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C4 PFHpA	*96*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C4 PFOA	*95*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C4 PFOS	*94*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C5 PFNA	*82*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C4 PFBA	*76*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C2 PFHxA	*98*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C2 PFDA	*92*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C2 PFUnA	*80*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C2 PFDoA	*78*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C8 FOSA	*92*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C5 PFPeA	*87*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
13C2 PFTeDA	*46*	*	*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
d3-NMeFOSAA	*64*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
d5-NEtFOSAA	*56*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
M2-6:2 FTS	*108*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*
M2-8:2 FTS	*110*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:23*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**35.8**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 23:34	1
Barium	**0.42**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 23:34	1
Beryllium	**0.0017**	**J**	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 23:34	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 23:34	1
Calcium	**81.9**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:34	1
Chromium, Total	**0.045**		0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 23:34	1
Cobalt	**0.031**		0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 23:34	1
Copper	**0.041**		0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 23:34	1
Iron	**71.8**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 23:34	1
Magnesium	**31.4**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 23:34	1
Manganese	**1.5**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 23:34	1
Nickel	**0.068**		0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 23:34	1
Potassium	**10.6**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:34	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW114S-090519
Lab Sample ID: 480-158837-12
Date Collected: 09/05/19 14:20
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 23:34	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 23:34	1
Sodium	**12.3**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 23:34	1
Vanadium	**0.057**		0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 23:34	1
Zinc	**0.15**	**B**	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 23:34	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.48**	**J**	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 12:20	1
Arsenic	**51.8**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:26	1
Lead	**25.8**		1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:26	1
Thallium	**0.32**		0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:26	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 16:16	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW115S-090519
Lab Sample ID: 480-158837-13
Date Collected: 09/05/19 15:30
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 19:45	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 19:45	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 19:45	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 19:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 19:45	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 19:45	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 19:45	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 19:45	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 19:45	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 19:45	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 19:45	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 19:45	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 19:45	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 19:45	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 19:45	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 19:45	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 19:45	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 19:45	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 19:45	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 19:45	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 19:45	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 19:45	1
Acetone	**2.1**	**J**	5.0	1.0	ug/L			09/11/19 19:45	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 19:45	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 19:45	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 19:45	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 19:45	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 19:45	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 19:45	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 19:45	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 19:45	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 19:45	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 19:45	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 19:45	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 19:45	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 19:45	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 19:45	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 19:45	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 19:45	1
Ethyl ether	**0.66**		0.50	0.12	ug/L			09/11/19 19:45	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 19:45	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 19:45	1

Client Sample ID: CTLMW115S-090519
Date Collected: 09/05/19 15:30
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-13
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 19:45	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 19:45	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 19:45	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 19:45	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 19:45	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 19:45	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 19:45	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 19:45	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 19:45	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 19:45	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 19:45	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 19:45	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 19:45	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 19:45	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 19:45	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 19:45	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 19:45	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 19:45	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 19:45	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 19:45	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 19:45	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/11/19 19:45*	*1*
1,2-Dichlorobenzene-d4	*99*		*80 - 120*		*09/11/19 19:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.27**		0.20	0.10	ug/L		09/10/19 15:45	09/13/19 22:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*35*		*15 - 110*	*09/10/19 15:45*	*09/13/19 22:43*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.3**		1.8	0.89	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluoropentanoic acid (PFPeA)	**4.0**		1.8	0.56	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorohexanoic acid (PFHxA)	**4.2**		1.8	0.68	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluoroheptanoic acid (PFHpA)	**3.0**		1.8	0.81	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorooctanoic acid (PFOA)	**13**		1.8	0.72	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorononanoic acid (PFNA)	1.8	U	1.8	0.24	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.69	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	0.69	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.52	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	0.53	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorotetradecanoic acid (PFTeA)	1.8	U	1.8	0.82	ng/L		09/12/19 09:44	09/13/19 19:31	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW115S-090519
Date Collected: 09/05/19 15:30
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**0.89**	**J**	1.8	0.44	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorohexanesulfonic acid (PFHxS)	**1.1**	**J**	1.8	0.71	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	U	1.8	0.85	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorooctanesulfonic acid (PFOS)	1.8	U	1.8	0.54	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.80	ng/L		09/12/19 09:44	09/13/19 19:31	1
Perfluorooctanesulfonamide (PFOSA)	8.9	U	8.9	8.9	ng/L		09/12/19 09:44	09/13/19 19:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18	U	18	1.5	ng/L		09/12/19 09:44	09/13/19 19:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18	U	18	1.3	ng/L		09/12/19 09:44	09/13/19 19:31	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	18	U	18	4.9	ng/L		09/12/19 09:44	09/13/19 19:31	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	18	U	18	2.6	ng/L		09/12/19 09:44	09/13/19 19:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*116*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C4 PFHpA	*99*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C4 PFOA	*91*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C4 PFOS	*88*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C5 PFNA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C4 PFBA	*92*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C2 PFHxA	*95*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C2 PFDA	*80*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C2 PFUnA	*77*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C2 PFDoA	*87*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C8 FOSA	*62*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C5 PFPeA	*87*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
13C2 PFTeDA	*61*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
d3-NMeFOSAA	*71*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
d5-NEtFOSAA	*60*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
M2-6:2 FTS	*114*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*
M2-8:2 FTS	*111*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:31*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3.5**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 23:38	1
Barium	**1.1**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 23:38	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 23:38	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 23:38	1
Calcium	**80.3**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:38	1
Chromium, Total	**0.0048**		0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 23:38	1
Cobalt	**0.0018**	**J**	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 23:38	1
Copper	**0.0050**	**J**	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 23:38	1
Iron	**11.7**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 23:38	1
Magnesium	**25.2**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 23:38	1
Manganese	**0.34**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 23:38	1
Nickel	**0.0048**	**J**	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 23:38	1
Potassium	**3.5**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:38	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW115S-090519
Lab Sample ID: 480-158837-13
Date Collected: 09/05/19 15:30
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 23:38	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 23:38	1
Sodium	**16.0**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 23:38	1
Vanadium	**0.0063**		0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 23:38	1
Zinc	**0.014**	**B**	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 23:38	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 12:23	1
Arsenic	**24.4**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:28	1
Lead	**3.0**		1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:28	1
Thallium	**0.033**	**J**	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:28	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 16:20	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW116S-090519
Lab Sample ID: 480-158837-14
Date Collected: 09/05/19 17:40
Matrix: Water
Date Received: 09/06/19 09:15

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 20:10	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 20:10	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 20:10	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 20:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 20:10	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 20:10	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 20:10	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 20:10	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 20:10	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 20:10	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 20:10	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 20:10	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 20:10	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 20:10	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 20:10	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 20:10	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 20:10	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 20:10	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 20:10	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 20:10	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 20:10	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 20:10	1
Acetone	**3.0**	**J**	5.0	1.0	ug/L			09/11/19 20:10	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 20:10	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 20:10	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 20:10	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 20:10	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 20:10	1
Carbon disulfide	**0.31**	**J**	0.50	0.15	ug/L			09/11/19 20:10	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 20:10	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 20:10	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 20:10	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 20:10	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 20:10	1
Chloromethane	**0.19**	**J**	0.50	0.17	ug/L			09/11/19 20:10	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 20:10	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 20:10	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 20:10	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 20:10	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 20:10	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 20:10	1
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 20:10	1

Client Sample ID: CTLMW116S-090519
Date Collected: 09/05/19 17:40
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-14
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 20:10	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 20:10	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 20:10	1
Methylene Chloride	2.5	U *	2.5	0.99	ug/L			09/11/19 20:10	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 20:10	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 20:10	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 20:10	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 20:10	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 20:10	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 20:10	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 20:10	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 20:10	1
Toluene	**0.11**	**J**	0.50	0.10	ug/L			09/11/19 20:10	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 20:10	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 20:10	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 20:10	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 20:10	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 20:10	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 20:10	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 20:10	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 20:10	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*09/11/19 20:10*	*1*
1,2-Dichlorobenzene-d4	*102*		*80 - 120*		*09/11/19 20:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 23:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*30*		*15 - 110*	*09/10/19 15:45*	*09/13/19 23:07*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.8	U	1.8	0.91	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluoropentanoic acid (PFPeA)	1.8	U	1.8	0.57	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorohexanoic acid (PFHxA)	1.8	U	1.8	0.69	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluoroheptanoic acid (PFHpA)	1.8	U	1.8	0.82	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorooctanoic acid (PFOA)	1.8	U	1.8	0.73	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorononanoic acid (PFNA)	1.8	U	1.8	0.24	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.70	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	0.71	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.53	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	0.54	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorotetradecanoic acid (PFTeA)	1.8	U	1.8	0.83	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorobutanesulfonic acid (PFBS)	1.8	U	1.8	0.44	ng/L		09/12/19 09:44	09/13/19 19:39	1

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: CTLMW116S-090519
Date Collected: 09/05/19 17:40
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	1.8	U	1.8	0.72	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	U	1.8	0.86	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorooctanesulfonic acid (PFOS)	1.8	U	1.8	0.55	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.82	ng/L		09/12/19 09:44	09/13/19 19:39	1
Perfluorooctanesulfonamide (PFOSA)	9.1	U	9.1	9.1	ng/L		09/12/19 09:44	09/13/19 19:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18	U	18	1.5	ng/L		09/12/19 09:44	09/13/19 19:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18	U	18	1.4	ng/L		09/12/19 09:44	09/13/19 19:39	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	18	U	18	5.0	ng/L		09/12/19 09:44	09/13/19 19:39	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	18	U	18	2.6	ng/L		09/12/19 09:44	09/13/19 19:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*115*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C4 PFHpA	*86*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C4 PFOA	*85*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C4 PFOS	*93*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C5 PFNA	*74*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C4 PFBA	*74*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C2 PFHxA	*87*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C2 PFDA	*69*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C2 PFUnA	*62*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C2 PFDoA	*61*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C8 FOSA	*63*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C5 PFPeA	*76*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
13C2 PFTeDA	*44*	*	*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
d3-NMeFOSAA	*63*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
d5-NEtFOSAA	*57*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
M2-6:2 FTS	*100*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*
M2-8:2 FTS	*88*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:39*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**49.7**		0.20	0.060	mg/L		09/12/19 07:27	09/13/19 23:41	1
Barium	**0.56**		0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 23:41	1
Beryllium	**0.0021**		0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 23:41	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 23:41	1
Calcium	**183**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:41	1
Chromium, Total	**0.062**		0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 23:41	1
Cobalt	**0.034**		0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 23:41	1
Copper	**0.10**		0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 23:41	1
Iron	**119**		0.050	0.019	mg/L		09/12/19 07:27	09/13/19 23:41	1
Magnesium	**60.8**		0.20	0.043	mg/L		09/12/19 07:27	09/13/19 23:41	1
Manganese	**3.8**	**B**	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 23:41	1
Nickel	**0.080**		0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 23:41	1
Potassium	**13.2**		0.50	0.10	mg/L		09/12/19 07:27	09/13/19 23:41	1
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/13/19 23:41	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 23:41	1
Sodium	**5.6**		1.0	0.32	mg/L		09/12/19 07:27	09/13/19 23:41	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW116S-090519
Lab Sample ID: 480-158837-14
Date Collected: 09/05/19 17:40
Matrix: Water
Date Received: 09/06/19 09:15

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	**0.078**		0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 23:41	1
Zinc	**0.27**	**B**	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 23:41	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 12:25	1
Arsenic	**41.7**	**B**	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 14:31	1
Lead	**26.5**		1.0	0.17	ug/L		09/11/19 08:35	09/11/19 14:31	1
Thallium	**0.35**		0.20	0.019	ug/L		09/11/19 08:35	09/11/19 14:31	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 16:21	1

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: RB090319
Lab Sample ID: 480-158837-15
Date Collected: 09/03/19 11:20
Matrix: Water
Date Received: 09/06/19 09:15

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.6	U	1.6	0.79	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluoropentanoic acid (PFPeA)	1.6	U	1.6	0.49	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorohexanoic acid (PFHxA)	1.6	U	1.6	0.60	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluoroheptanoic acid (PFHpA)	1.6	U	1.6	0.71	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorooctanoic acid (PFOA)	1.6	U	1.6	0.64	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorononanoic acid (PFNA)	1.6	U	1.6	0.21	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorodecanoic acid (PFDA)	1.6	U	1.6	0.60	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluoroundecanoic acid (PFUnA)	1.6	U	1.6	0.61	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorododecanoic acid (PFDoA)	1.6	U	1.6	0.46	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorotridecanoic acid (PFTriA)	1.6	U	1.6	0.47	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorotetradecanoic acid (PFTeA)	1.6	U	1.6	0.72	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorobutanesulfonic acid (PFBS)	1.6	U	1.6	0.38	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorohexanesulfonic acid (PFHxS)	1.6	U	1.6	0.63	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.6	U	1.6	0.75	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorooctanesulfonic acid (PFOS)	1.6	U	1.6	0.48	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorodecanesulfonic acid (PFDS)	1.6	U	1.6	0.71	ng/L		09/12/19 09:44	09/13/19 19:47	1
Perfluorooctanesulfonamide (PFOSA)	7.9	U	7.9	7.9	ng/L		09/12/19 09:44	09/13/19 19:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	16	U	16	1.3	ng/L		09/12/19 09:44	09/13/19 19:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	16	U	16	1.2	ng/L		09/12/19 09:44	09/13/19 19:47	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	16	U	16	4.3	ng/L		09/12/19 09:44	09/13/19 19:47	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	16	U	16	2.3	ng/L		09/12/19 09:44	09/13/19 19:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*116*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C4 PFHpA	*94*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C4 PFOA	*96*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C4 PFOS	*96*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C5 PFNA	*81*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C4 PFBA	*102*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C2 PFHxA	*101*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C2 PFDA	*90*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C2 PFUnA	*74*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C2 PFDoA	*77*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C8 FOSA	*52*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C5 PFPeA	*96*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
13C2 PFTeDA	*58*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
d3-NMeFOSAA	*79*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
d5-NEtFOSAA	*66*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
M2-6:2 FTS	*105*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*
M2-8:2 FTS	*91*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:47*	*1*

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: RB090519
Lab Sample ID: 480-158837-16
Date Collected: 09/04/19 17:50
Matrix: Water
Date Received: 09/06/19 09:15

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.8	U	1.8	0.88	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluoropentanoic acid (PFPeA)	1.8	U	1.8	0.55	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorohexanoic acid (PFHxA)	1.8	U	1.8	0.67	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluoroheptanoic acid (PFHpA)	1.8	U	1.8	0.80	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorooctanoic acid (PFOA)	1.8	U	1.8	0.71	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorononanoic acid (PFNA)	1.8	U	1.8	0.24	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorodecanoic acid (PFDA)	1.8	U	1.8	0.68	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluoroundecanoic acid (PFUnA)	1.8	U	1.8	0.69	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorododecanoic acid (PFDoA)	1.8	U	1.8	0.52	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorotridecanoic acid (PFTriA)	1.8	U	1.8	0.53	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorotetradecanoic acid (PFTeA)	1.8	U	1.8	0.81	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorobutanesulfonic acid (PFBS)	1.8	U	1.8	0.43	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorohexanesulfonic acid (PFHxS)	1.8	U	1.8	0.70	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.8	U	1.8	0.84	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorooctanesulfonic acid (PFOS)	1.8	U	1.8	0.54	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorodecanesulfonic acid (PFDS)	1.8	U	1.8	0.79	ng/L		09/12/19 09:44	09/13/19 19:55	1
Perfluorooctanesulfonamide (PFOSA)	8.8	U	8.8	8.8	ng/L		09/12/19 09:44	09/13/19 19:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18	U	18	1.5	ng/L		09/12/19 09:44	09/13/19 19:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18	U	18	1.3	ng/L		09/12/19 09:44	09/13/19 19:55	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	18	U	18	4.8	ng/L		09/12/19 09:44	09/13/19 19:55	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	18	U	18	2.5	ng/L		09/12/19 09:44	09/13/19 19:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*117*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C4 PFHpA	*96*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C4 PFOA	*99*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C4 PFOS	*94*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C5 PFNA	*81*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C4 PFBA	*103*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C2 PFHxA	*99*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C2 PFDA	*81*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C2 PFUnA	*77*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C2 PFDoA	*67*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C8 FOSA	*57*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C5 PFPeA	*97*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
13C2 PFTeDA	*52*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
d3-NMeFOSAA	*78*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
d5-NEtFOSAA	*68*		*50 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
M2-6:2 FTS	*98*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*
M2-8:2 FTS	*91*		*25 - 150*	*09/12/19 09:44*	*09/13/19 19:55*	*1*

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Client Sample ID: RB090419
Date Collected: 09/04/19 17:00
Date Received: 09/06/19 09:15

Lab Sample ID: 480-158837-17
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.7	U	1.7	0.86	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluoropentanoic acid (PFPeA)	1.7	U	1.7	0.54	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorohexanoic acid (PFHxA)	1.7	U	1.7	0.66	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluoroheptanoic acid (PFHpA)	1.7	U	1.7	0.78	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorooctanoic acid (PFOA)	1.7	U	1.7	0.70	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorononanoic acid (PFNA)	1.7	U	1.7	0.23	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorodecanoic acid (PFDA)	1.7	U	1.7	0.66	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluoroundecanoic acid (PFUnA)	1.7	U	1.7	0.67	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorododecanoic acid (PFDoA)	1.7	U	1.7	0.51	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorotridecanoic acid (PFTriA)	1.7	U	1.7	0.52	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorotetradecanoic acid (PFTeA)	1.7	U	1.7	0.79	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorobutanesulfonic acid (PFBS)	1.7	U	1.7	0.42	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	1.7	0.69	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	1.7	0.82	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorooctanesulfonic acid (PFOS)	1.7	U	1.7	0.53	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorodecanesulfonic acid (PFDS)	1.7	U	1.7	0.78	ng/L		09/12/19 09:44	09/13/19 20:03	1
Perfluorooctanesulfonamide (PFOSA)	8.6	U	8.6	8.6	ng/L		09/12/19 09:44	09/13/19 20:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17	U	17	1.5	ng/L		09/12/19 09:44	09/13/19 20:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17	U	17	1.3	ng/L		09/12/19 09:44	09/13/19 20:03	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17	U	17	4.7	ng/L		09/12/19 09:44	09/13/19 20:03	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	17	U	17	2.5	ng/L		09/12/19 09:44	09/13/19 20:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*119*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C4 PFHpA	*102*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C4 PFOA	*97*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C4 PFOS	*93*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C5 PFNA	*75*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C4 PFBA	*103*		*25 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C2 PFHxA	*101*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C2 PFDA	*86*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C2 PFUnA	*71*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C2 PFDoA	*71*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C8 FOSA	*49*		*25 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C5 PFPeA	*97*		*25 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
13C2 PFTeDA	*53*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
d3-NMeFOSAA	*76*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
d5-NEtFOSAA	*69*		*50 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
M2-6:2 FTS	*105*		*25 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*
M2-8:2 FTS	*91*		*25 - 150*	*09/12/19 09:44*	*09/13/19 20:03*	*1*

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB	DCZ										
Lab Sample ID	Client Sample ID	(80-120)	(80-120)										
480-158837-1	TB09032019	100	100										
480-158837-2	CTLMW102-090319	100	102										
480-158837-2 MS	CTLMW102-090319	100	100										
480-158837-2 MSD	CTLMW102-090319	102	101										
480-158837-3	CTLMW102I-090319	101	101										
480-158837-4	CTLMW13-090419	101	97										
480-158837-5	CTLMW117I-090419	100	100										
480-158837-6	CTLMW117S-090419	100	103										
480-158837-7	CTLMW117D-090419	99	101										
480-158837-8	CTLMW113S-090519	102	100										
480-158837-9	CTLMW112S-090519	100	102										
480-158837-10	CTLMW112S-090519Q	99	102										
480-158837-11	CTLMW118S-090519	102	102										
480-158837-12	CTLMW114S-090519	99	99										
480-158837-13	CTLMW115S-090519	100	99										
480-158837-14	CTLMW116S-090519	99	102										
LCS 480-491376/4	Lab Control Sample	103	97										
LCSD 480-491376/5	Lab Control Sample Dup	102	99										
LLCS 480-491376/6	Lab Control Sample	100	99										
MB 480-491376/7	Method Blank	98	99										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DCZ = 1,2-Dichlorobenzene-d4

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

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)							
480-158837-2	CTLMW102-090319	29							
480-158837-2 MS	CTLMW102-090319	29							
480-158837-2 MSD	CTLMW102-090319	29							
480-158837-3	CTLMW102I-090319	29							
480-158837-4	CTLMW13-090419	26							
480-158837-5	CTLMW117I-090419	25							
480-158837-6	CTLMW117S-090419	25							
480-158837-7	CTLMW117D-090419	27							
480-158837-8	CTLMW113S-090519	28							
480-158837-9	CTLMW112S-090519	26							
480-158837-10	CTLMW112S-090519Q	27							
480-158837-11	CTLMW118S-090519	29							
480-158837-12	CTLMW114S-090519	27							
480-158837-13	CTLMW115S-090519	35							
480-158837-14	CTLMW116S-090519	30							
LCS 480-491258/2-A	Lab Control Sample	28							
MB 480-491258/1-A	Method Blank	28							

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)							
		PFHxS	PFHpA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(25-150)	(50-150)	(50-150)
480-158837-2	CTLMW102-090319	122	94	87	90	77	100	98	81
480-158837-2 MS	CTLMW102-090319	120	91	89	95	80	98	99	82
480-158837-2 MSD	CTLMW102-090319	129	89	88	95	78	98	94	82
480-158837-3	CTLMW102I-090319	116	94	94	92	81	79	92	79
480-158837-4	CTLMW13-090419	113	90	83	87	71	106	90	79
480-158837-5	CTLMW117I-090419	115	103	99	93	89	24 *	115	88
480-158837-6	CTLMW117S-090419	125	93	96	96	76	79	100	77
480-158837-7	CTLMW117D-090419	114	98	98	95	102	14 *	90	102
480-158837-8	CTLMW113S-090519	120	79	78	99	66	73	79	76
480-158837-9	CTLMW112S-090519	115	85	88	94	80	67	88	86
480-158837-10	CTLMW112S-090519Q	122	83	80	95	76	71	81	84
480-158837-11	CTLMW118S-090519	118	96	95	94	79	71	97	77
480-158837-12	CTLMW114S-090519	120	96	95	94	82	76	98	92
480-158837-13	CTLMW115S-090519	116	99	91	88	76	92	95	80
480-158837-14	CTLMW116S-090519	115	86	85	93	74	74	87	69
480-158837-15	RB090319	116	94	96	96	81	102	101	90
480-158837-16	RB090519	117	96	99	94	81	103	99	81
480-158837-17	RB090419	119	102	97	93	75	103	101	86
LCS 200-147232/2-A	Lab Control Sample	120	99	101	98	89	102	103	85
MB 200-147232/1-A	Method Blank	125	103	101	106	86	104	108	86

Isotope Dilution Summary

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

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	PFUnA (50-150)	PFDoA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	I-NMeFOSA (50-150)	5-NEtFOSA (50-150)	M262FTS (25-150)
480-158837-2	CTLMW102-090319	76	77	62	89	55	67	61	108
480-158837-2 MS	CTLMW102-090319	74	87	69	89	63	80	66	110
480-158837-2 MSD	CTLMW102-090319	74	79	66	93	62	80	65	112
480-158837-3	CTLMW102I-090319	71	75	68	78	57	69	61	104
480-158837-4	CTLMW13-090419	76	92	66	81	60	72	64	106
480-158837-5	CTLMW117I-090419	75	76	88	97	62	74	66	107
480-158837-6	CTLMW117S-090419	73	79	72	83	66	76	67	121
480-158837-7	CTLMW117D-090419	141	84	92	47	59	76	300 *	123
480-158837-8	CTLMW113S-090519	78	98	61	71	55	70	63	112
480-158837-9	CTLMW112S-090519	90	91	63	74	64	72	61	119
480-158837-10	CTLMW112S-090519Q	90	96	68	72	59	70	67	117
480-158837-11	CTLMW118S-090519	65	43 *	76	84	29 *	70	58	106
480-158837-12	CTLMW114S-090519	80	78	92	87	46 *	64	56	108
480-158837-13	CTLMW115S-090519	77	87	62	87	61	71	60	114
480-158837-14	CTLMW116S-090519	62	61	63	76	44 *	63	57	100
480-158837-15	RB090319	74	77	52	96	58	79	66	105
480-158837-16	RB090519	77	67	57	97	52	78	68	98
480-158837-17	RB090419	71	71	49	97	53	76	69	105
LCS 200-147232/2-A	Lab Control Sample	76	73	57	98	58	79	63	106
MB 200-147232/1-A	Method Blank	86	83	52	100	63	83	69	109

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	M282FTS (25-150)
480-158837-2	CTLMW102-090319	94
480-158837-2 MS	CTLMW102-090319	102
480-158837-2 MSD	CTLMW102-090319	101
480-158837-3	CTLMW102I-090319	86
480-158837-4	CTLMW13-090419	107
480-158837-5	CTLMW117I-090419	101
480-158837-6	CTLMW117S-090419	93
480-158837-7	CTLMW117D-090419	148
480-158837-8	CTLMW113S-090519	98
480-158837-9	CTLMW112S-090519	118
480-158837-10	CTLMW112S-090519Q	117
480-158837-11	CTLMW118S-090519	89
480-158837-12	CTLMW114S-090519	110
480-158837-13	CTLMW115S-090519	111
480-158837-14	CTLMW116S-090519	88
480-158837-15	RB090319	91
480-158837-16	RB090519	91
480-158837-17	RB090419	91
LCS 200-147232/2-A	Lab Control Sample	95
MB 200-147232/1-A	Method Blank	97

Surrogate Legend

PFHxS = 18O2 PFHxS
PFHpA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA

Isotope Dilution Summary

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3-NMeFOSAA = d3-NMeFOSAA
d5-NEtFOSAA = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-491376/7
Matrix: Water
Analysis Batch: 491376

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 12:25	1
1,1,1-Trichloroethane	0.50	U	0.50	0.21	ug/L			09/11/19 12:25	1
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.070	ug/L			09/11/19 12:25	1
1,1,2-Trichloroethane	0.50	U	0.50	0.17	ug/L			09/11/19 12:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	0.17	ug/L			09/11/19 12:25	1
1,1-Dichloroethane	0.50	U	0.50	0.18	ug/L			09/11/19 12:25	1
1,1-Dichloroethene	0.50	U	0.50	0.16	ug/L			09/11/19 12:25	1
1,1-Dichloropropene	0.50	U	0.50	0.063	ug/L			09/11/19 12:25	1
1,2,3-Trichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 12:25	1
1,2,3-Trichloropropane	0.50	U	0.50	0.12	ug/L			09/11/19 12:25	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
1,2,4-Trimethylbenzene	0.50	U	0.50	0.090	ug/L			09/11/19 12:25	1
1,2-Dichlorobenzene	0.50	U	0.50	0.16	ug/L			09/11/19 12:25	1
1,2-Dichloroethane	0.50	U	0.50	0.14	ug/L			09/11/19 12:25	1
1,2-Dichloropropane	0.50	U	0.50	0.11	ug/L			09/11/19 12:25	1
1,3,5-Trimethylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
1,3-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
1,3-Dichloropropane	0.50	U	0.50	0.15	ug/L			09/11/19 12:25	1
1,4-Dichlorobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
2,2-Dichloropropane	0.50	U	0.50	0.35	ug/L			09/11/19 12:25	1
2-Butanone (MEK)	5.0	U	5.0	1.0	ug/L			09/11/19 12:25	1
2-Chlorotoluene	0.50	U	0.50	0.12	ug/L			09/11/19 12:25	1
2-Hexanone	5.0	U	5.0	1.0	ug/L			09/11/19 12:25	1
4-Chlorotoluene	0.50	U	0.50	0.15	ug/L			09/11/19 12:25	1
4-Isopropyltoluene	0.50	U	0.50	0.063	ug/L			09/11/19 12:25	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.0	ug/L			09/11/19 12:25	1
Acetone	5.0	U	5.0	1.0	ug/L			09/11/19 12:25	1
Acrylonitrile	10	U	10	2.2	ug/L			09/11/19 12:25	1
Allyl chloride	0.50	U	0.50	0.22	ug/L			09/11/19 12:25	1
Benzene	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
Bromobenzene	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
Bromochloromethane	0.50	U	0.50	0.11	ug/L			09/11/19 12:25	1
Dichlorobromomethane	0.50	U	0.50	0.14	ug/L			09/11/19 12:25	1
Bromoform	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
Bromomethane	0.50	U	0.50	0.23	ug/L			09/11/19 12:25	1
Carbon disulfide	0.50	U	0.50	0.15	ug/L			09/11/19 12:25	1
Carbon tetrachloride	0.50	U	0.50	0.21	ug/L			09/11/19 12:25	1
Chlorobenzene	0.50	U	0.50	0.12	ug/L			09/11/19 12:25	1
Chlorodibromomethane	0.50	U	0.50	0.16	ug/L			09/11/19 12:25	1
Chloroethane	0.50	U	0.50	0.20	ug/L			09/11/19 12:25	1
Chloroform	0.50	U	0.50	0.14	ug/L			09/11/19 12:25	1
Chloromethane	0.50	U	0.50	0.17	ug/L			09/11/19 12:25	1
cis-1,2-Dichloroethene	0.50	U	0.50	0.12	ug/L			09/11/19 12:25	1
cis-1,3-Dichloropropene	0.50	U	0.50	0.080	ug/L			09/11/19 12:25	1
Dibromomethane	0.50	U	0.50	0.17	ug/L			09/11/19 12:25	1
Dichlorodifluoromethane	0.50	U	0.50	0.15	ug/L			09/11/19 12:25	1
Ethyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 12:25	1
Ethylbenzene	0.50	U	0.50	0.11	ug/L			09/11/19 12:25	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-491376/7
Matrix: Water
Analysis Batch: 491376

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.50	U	0.50	0.11	ug/L			09/11/19 12:25	1
Iodomethane	0.50	U	0.50	0.15	ug/L			09/11/19 12:25	1
Isopropylbenzene	0.50	U	0.50	0.16	ug/L			09/11/19 12:25	1
Methyl tert-butyl ether	0.50	U	0.50	0.12	ug/L			09/11/19 12:25	1
Methylene Chloride	2.5	U	2.5	0.99	ug/L			09/11/19 12:25	1
m-Xylene & p-Xylene	1.0	U	1.0	0.30	ug/L			09/11/19 12:25	1
Naphthalene	0.50	U	0.50	0.15	ug/L			09/11/19 12:25	1
n-Butylbenzene	0.50	U	0.50	0.081	ug/L			09/11/19 12:25	1
N-Propylbenzene	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
o-Xylene	0.50	U	0.50	0.12	ug/L			09/11/19 12:25	1
sec-Butylbenzene	0.50	U	0.50	0.068	ug/L			09/11/19 12:25	1
Styrene	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
t-Butanol	10	U	10	2.5	ug/L			09/11/19 12:25	1
tert-Butylbenzene	0.50	U	0.50	0.060	ug/L			09/11/19 12:25	1
Tetrachloroethene	0.50	U	0.50	0.20	ug/L			09/11/19 12:25	1
Toluene	0.50	U	0.50	0.10	ug/L			09/11/19 12:25	1
trans-1,2-Dichloroethene	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1
trans-1,3-Dichloropropene	0.50	U	0.50	0.10	ug/L			09/11/19 12:25	1
trans-1,4-Dichloro-2-butene	2.5	U	2.5	1.3	ug/L			09/11/19 12:25	1
Trichloroethene	0.50	U	0.50	0.18	ug/L			09/11/19 12:25	1
Trichlorofluoromethane	0.50	U	0.50	0.19	ug/L			09/11/19 12:25	1
Vinyl acetate	2.5	U	2.5	0.45	ug/L			09/11/19 12:25	1
Vinyl chloride	0.50	U	0.50	0.18	ug/L			09/11/19 12:25	1
Xylenes, Total	1.0	U	1.0	0.12	ug/L			09/11/19 12:25	1
Trihalomethanes, Total	2.0	U	2.0	1.0	ug/L			09/11/19 12:25	1
Dichlorofluoromethane	0.50	U	0.50	0.13	ug/L			09/11/19 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/11/19 12:25*	*1*
1,2-Dichlorobenzene-d4	*99*		*80 - 120*		*09/11/19 12:25*	*1*

Lab Sample ID: LCS 480-491376/4
Matrix: Water
Analysis Batch: 491376

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	4.00	3.76		ug/L		94	70 - 130
1,1,1-Trichloroethane	4.00	3.74		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.81		ug/L		95	70 - 130
1,1,2-Trichloroethane	4.00	3.75		ug/L		94	70 - 130
1,1-Dichloroethane	4.00	3.70		ug/L		92	70 - 130
1,1-Dichloroethene	4.00	3.49		ug/L		87	70 - 130
1,1-Dichloropropene	4.00	3.75		ug/L		94	70 - 130
1,2,3-Trichlorobenzene	4.00	3.66		ug/L		91	70 - 130
1,2,3-Trichloropropane	4.00	3.93		ug/L		98	70 - 130
1,2,4-Trichlorobenzene	4.00	3.71		ug/L		93	70 - 130
1,2,4-Trimethylbenzene	4.00	3.70		ug/L		92	70 - 130
1,2-Dichlorobenzene	4.00	3.83		ug/L		96	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-491376/4
Matrix: Water
Analysis Batch: 491376

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	4.00	3.88		ug/L		97	70 - 130
1,2-Dichloropropane	4.00	3.69		ug/L		92	70 - 130
1,3,5-Trimethylbenzene	4.00	3.70		ug/L		93	70 - 130
1,3-Dichlorobenzene	4.00	3.79		ug/L		95	70 - 130
1,3-Dichloropropane	4.00	3.89		ug/L		97	70 - 130
1,4-Dichlorobenzene	4.00	3.71		ug/L		93	70 - 130
2,2-Dichloropropane	4.00	3.79		ug/L		95	70 - 130
2-Butanone (MEK)	20.0	19.0		ug/L		95	70 - 130
2-Chlorotoluene	4.00	3.69		ug/L		92	70 - 130
2-Hexanone	20.0	20.2		ug/L		101	70 - 130
4-Chlorotoluene	4.00	3.74		ug/L		93	70 - 130
4-Isopropyltoluene	4.00	3.73		ug/L		93	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	19.8		ug/L		99	70 - 130
Acetone	20.0	18.5		ug/L		92	70 - 130
Benzene	4.00	3.78		ug/L		95	70 - 130
Bromobenzene	4.00	3.63		ug/L		91	70 - 130
Bromochloromethane	4.00	3.75		ug/L		94	70 - 130
Dichlorobromomethane	4.00	3.63		ug/L		91	70 - 130
Bromoform	4.00	3.75		ug/L		94	70 - 130
Bromomethane	4.00	3.64		ug/L		91	70 - 130
Carbon disulfide	4.00	3.87		ug/L		97	70 - 130
Carbon tetrachloride	4.00	3.67		ug/L		92	70 - 130
Chlorobenzene	4.00	3.75		ug/L		94	70 - 130
Chlorodibromomethane	4.00	3.76		ug/L		94	70 - 130
Chloroethane	4.00	3.50		ug/L		88	70 - 130
Chloroform	4.00	3.65		ug/L		91	70 - 130
Chloromethane	4.00	3.98		ug/L		100	70 - 130
cis-1,2-Dichloroethene	4.00	3.67		ug/L		92	70 - 130
cis-1,3-Dichloropropene	4.00	3.72		ug/L		93	70 - 130
Dibromomethane	4.00	3.79		ug/L		95	70 - 130
Dichlorodifluoromethane	4.00	4.46		ug/L		111	70 - 130
Ethylbenzene	4.00	3.73		ug/L		93	70 - 130
Hexachlorobutadiene	4.00	3.64		ug/L		91	70 - 130
Isopropylbenzene	4.00	3.68		ug/L		92	70 - 130
Methyl tert-butyl ether	4.00	3.82		ug/L		95	70 - 130
Methylene Chloride	4.00	3.85		ug/L		96	70 - 130
Naphthalene	4.00	3.84		ug/L		96	70 - 130
n-Butylbenzene	4.00	3.67		ug/L		92	70 - 130
N-Propylbenzene	4.00	3.74		ug/L		94	70 - 130
sec-Butylbenzene	4.00	3.69		ug/L		92	70 - 130
Styrene	4.00	3.74		ug/L		94	70 - 130
tert-Butylbenzene	4.00	3.71		ug/L		93	70 - 130
Tetrachloroethene	4.00	3.68		ug/L		92	70 - 130
Toluene	4.00	3.75		ug/L		94	70 - 130
trans-1,2-Dichloroethene	4.00	3.58		ug/L		89	70 - 130
trans-1,3-Dichloropropene	4.00	3.87		ug/L		97	70 - 130
Trichloroethene	4.00	3.76		ug/L		94	70 - 130
Trichlorofluoromethane	4.00	3.78		ug/L		95	70 - 130
Vinyl chloride	4.00	3.86		ug/L		97	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-491376/4
Matrix: Water
Analysis Batch: 491376

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, Total			8.00	7.49		ug/L		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
1,2-Dichlorobenzene-d4	*97*		*80 - 120*

Lab Sample ID: LCSD 480-491376/5
Matrix: Water
Analysis Batch: 491376

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			4.00	3.81		ug/L		95	70 - 130	1	20
1,1,1-Trichloroethane			4.00	3.58		ug/L		89	70 - 130	4	20
1,1,2,2-Tetrachloroethane			4.00	3.74		ug/L		93	70 - 130	2	20
1,1,2-Trichloroethane			4.00	3.84		ug/L		96	70 - 130	3	20
1,1-Dichloroethane			4.00	3.79		ug/L		95	70 - 130	2	20
1,1-Dichloroethene			4.00	3.68		ug/L		92	70 - 130	5	20
1,1-Dichloropropene			4.00	3.71		ug/L		93	70 - 130	1	20
1,2,3-Trichlorobenzene			4.00	3.75		ug/L		94	70 - 130	3	20
1,2,3-Trichloropropane			4.00	3.77		ug/L		94	70 - 130	4	20
1,2,4-Trichlorobenzene			4.00	3.71		ug/L		93	70 - 130	0	20
1,2,4-Trimethylbenzene			4.00	3.68		ug/L		92	70 - 130	0	20
1,2-Dichlorobenzene			4.00	3.84		ug/L		96	70 - 130	0	20
1,2-Dichloroethane			4.00	3.80		ug/L		95	70 - 130	2	20
1,2-Dichloropropane			4.00	3.81		ug/L		95	70 - 130	3	20
1,3,5-Trimethylbenzene			4.00	3.76		ug/L		94	70 - 130	2	20
1,3-Dichlorobenzene			4.00	3.77		ug/L		94	70 - 130	0	20
1,3-Dichloropropane			4.00	3.98		ug/L		100	70 - 130	2	20
1,4-Dichlorobenzene			4.00	3.74		ug/L		93	70 - 130	1	20
2,2-Dichloropropane			4.00	3.71		ug/L		93	70 - 130	2	20
2-Butanone (MEK)			20.0	18.7		ug/L		94	70 - 130	2	20
2-Chlorotoluene			4.00	3.73		ug/L		93	70 - 130	1	20
2-Hexanone			20.0	20.0		ug/L		100	70 - 130	1	20
4-Chlorotoluene			4.00	3.80		ug/L		95	70 - 130	2	20
4-Isopropyltoluene			4.00	3.73		ug/L		93	70 - 130	0	20
4-Methyl-2-pentanone (MIBK)			20.0	19.8		ug/L		99	70 - 130	0	20
Acetone			20.0	17.7		ug/L		88	70 - 130	4	20
Benzene			4.00	3.75		ug/L		94	70 - 130	1	20
Bromobenzene			4.00	3.70		ug/L		92	70 - 130	2	20
Bromochloromethane			4.00	3.75		ug/L		94	70 - 130	0	20
Dichlorobromomethane			4.00	3.75		ug/L		94	70 - 130	3	20
Bromoform			4.00	3.66		ug/L		91	70 - 130	3	20
Bromomethane			4.00	3.74		ug/L		93	70 - 130	3	20
Carbon disulfide			4.00	3.93		ug/L		98	70 - 130	1	20
Carbon tetrachloride			4.00	3.78		ug/L		95	70 - 130	3	20
Chlorobenzene			4.00	3.83		ug/L		96	70 - 130	2	20
Chlorodibromomethane			4.00	3.84		ug/L		96	70 - 130	2	20
Chloroethane			4.00	3.66		ug/L		92	70 - 130	4	20

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-491376/5
Matrix: Water
Analysis Batch: 491376

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroform			4.00	3.65		ug/L		91	70 - 130	0	20
Chloromethane			4.00	4.12		ug/L		103	70 - 130	3	20
cis-1,2-Dichloroethene			4.00	3.71		ug/L		93	70 - 130	1	20
cis-1,3-Dichloropropene			4.00	3.80		ug/L		95	70 - 130	2	20
Dibromomethane			4.00	3.86		ug/L		96	70 - 130	2	20
Dichlorodifluoromethane			4.00	4.52		ug/L		113	70 - 130	1	20
Ethylbenzene			4.00	3.85		ug/L		96	70 - 130	3	20
Hexachlorobutadiene			4.00	3.68		ug/L		92	70 - 130	1	20
Isopropylbenzene			4.00	3.76		ug/L		94	70 - 130	2	20
Methyl tert-butyl ether			4.00	3.78		ug/L		94	70 - 130	1	20
Methylene Chloride			4.00	3.96		ug/L		99	70 - 130	3	20
Naphthalene			4.00	3.78		ug/L		95	70 - 130	2	20
n-Butylbenzene			4.00	3.70		ug/L		93	70 - 130	1	20
N-Propylbenzene			4.00	3.80		ug/L		95	70 - 130	2	20
sec-Butylbenzene			4.00	3.80		ug/L		95	70 - 130	3	20
Styrene			4.00	3.84		ug/L		96	70 - 130	3	20
tert-Butylbenzene			4.00	3.78		ug/L		95	70 - 130	2	20
Tetrachloroethene			4.00	3.88		ug/L		97	70 - 130	5	20
Toluene			4.00	3.84		ug/L		96	70 - 130	2	20
trans-1,2-Dichloroethene			4.00	3.66		ug/L		91	70 - 130	2	20
trans-1,3-Dichloropropene			4.00	4.04		ug/L		101	70 - 130	4	20
Trichloroethene			4.00	3.91		ug/L		98	70 - 130	4	20
Trichlorofluoromethane			4.00	3.88		ug/L		97	70 - 130	3	20
Vinyl chloride			4.00	3.89		ug/L		97	70 - 130	1	20
Xylenes, Total			8.00	7.71		ug/L		96	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
1,2-Dichlorobenzene-d4	*99*		*80 - 120*

Lab Sample ID: LLCS 480-491376/6
Matrix: Water
Analysis Batch: 491376

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

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1,2-Tetrachloroethane			0.500	0.462	J	ug/L		92	50 - 150		
1,1,1-Trichloroethane			0.500	0.481	J	ug/L		96	50 - 150		
1,1,2,2-Tetrachloroethane			0.500	0.485	J	ug/L		97	50 - 150		
1,1,2-Trichloroethane			0.500	0.474	J	ug/L		95	50 - 150		
1,1-Dichloroethane			0.500	0.522		ug/L		104	50 - 150		
1,1-Dichloroethene			0.500	0.496	J	ug/L		99	50 - 150		
1,1-Dichloropropene			0.500	0.507		ug/L		101	50 - 150		
1,2,3-Trichlorobenzene			0.500	0.484	J	ug/L		97	50 - 150		
1,2,3-Trichloropropane			0.500	0.475	J	ug/L		95	50 - 150		
1,2,4-Trichlorobenzene			0.500	0.513		ug/L		103	50 - 150		
1,2,4-Trimethylbenzene			0.500	0.488	J	ug/L		98	50 - 150		
1,2-Dichlorobenzene			0.500	0.535		ug/L		107	50 - 150		
1,2-Dichloroethane			0.500	0.529		ug/L		106	50 - 150		

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-491376/6
Matrix: Water
Analysis Batch: 491376

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	0.500	0.474	J	ug/L		95	50 - 150
1,3,5-Trimethylbenzene	0.500	0.479	J	ug/L		96	50 - 150
1,3-Dichlorobenzene	0.500	0.500		ug/L		100	50 - 150
1,3-Dichloropropane	0.500	0.496	J	ug/L		99	50 - 150
1,4-Dichlorobenzene	0.500	0.485	J	ug/L		97	50 - 150
2,2-Dichloropropane	0.500	0.606		ug/L		121	50 - 150
2-Butanone (MEK)	2.50	2.52	J	ug/L		101	50 - 150
2-Chlorotoluene	0.500	0.491	J	ug/L		98	50 - 150
2-Hexanone	2.50	2.44	J	ug/L		98	50 - 150
4-Chlorotoluene	0.500	0.496	J	ug/L		99	50 - 150
4-Isopropyltoluene	0.500	0.476	J	ug/L		95	50 - 150
4-Methyl-2-pentanone (MIBK)	2.50	2.54	J	ug/L		102	50 - 150
Acetone	2.50	2.45	J	ug/L		98	50 - 150
Benzene	0.500	0.500		ug/L		100	50 - 150
Bromobenzene	0.500	0.497	J	ug/L		99	50 - 150
Bromochloromethane	0.500	0.512		ug/L		102	50 - 150
Dichlorobromomethane	0.500	0.449	J	ug/L		90	50 - 150
Bromoform	0.500	0.416	J	ug/L		83	50 - 150
Bromomethane	0.500	0.553		ug/L		111	50 - 150
Carbon disulfide	0.500	0.543		ug/L		109	50 - 150
Carbon tetrachloride	0.500	0.481	J	ug/L		96	50 - 150
Chlorobenzene	0.500	0.493	J	ug/L		99	50 - 150
Chlorodibromomethane	0.500	0.434	J	ug/L		87	50 - 150
Chloroethane	0.500	0.541		ug/L		108	50 - 150
Chloroform	0.500	0.561		ug/L		112	50 - 150
Chloromethane	0.500	0.487	J	ug/L		97	50 - 150
cis-1,2-Dichloroethene	0.500	0.502		ug/L		100	50 - 150
cis-1,3-Dichloropropene	0.500	0.452	J	ug/L		90	50 - 150
Dibromomethane	0.500	0.487	J	ug/L		97	50 - 150
Dichlorodifluoromethane	0.500	0.560		ug/L		112	50 - 150
Ethylbenzene	0.500	0.487	J	ug/L		97	50 - 150
Hexachlorobutadiene	0.500	0.497	J	ug/L		99	50 - 150
Isopropylbenzene	0.500	0.499	J	ug/L		100	50 - 150
Methyl tert-butyl ether	0.500	0.499	J	ug/L		100	50 - 150
Methylene Chloride	0.500	2.5	U *	ug/L		195	50 - 150
Naphthalene	0.500	0.499	J	ug/L		100	50 - 150
n-Butylbenzene	0.500	0.487	J	ug/L		97	50 - 150
N-Propylbenzene	0.500	0.499	J	ug/L		100	50 - 150
sec-Butylbenzene	0.500	0.484	J	ug/L		97	50 - 150
Styrene	0.500	0.464	J	ug/L		93	50 - 150
tert-Butylbenzene	0.500	0.499	J	ug/L		100	50 - 150
Tetrachloroethene	0.500	0.476	J	ug/L		95	50 - 150
Toluene	0.500	0.518		ug/L		104	50 - 150
trans-1,2-Dichloroethene	0.500	0.480	J	ug/L		96	50 - 150
trans-1,3-Dichloropropene	0.500	0.462	J	ug/L		92	50 - 150
Trichloroethene	0.500	0.500		ug/L		100	50 - 150
Trichlorofluoromethane	0.500	0.505		ug/L		101	50 - 150
Vinyl chloride	0.500	0.544		ug/L		109	50 - 150
Xylenes, Total	1.00	0.988	J	ug/L		99	50 - 150

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	LLCS %Recovery	LLCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
1,2-Dichlorobenzene-d4	*99*		*80 - 120*

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 491376

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.50	U	4.00	4.43		ug/L		111	70 - 130
1,1,1-Trichloroethane	0.50	U	4.00	4.58		ug/L		114	70 - 130
1,1,2,2-Tetrachloroethane	0.50	U	4.00	4.45		ug/L		111	70 - 130
1,1,2-Trichloroethane	0.50	U	4.00	4.51		ug/L		113	70 - 130
1,1-Dichloroethane	0.50	U	4.00	4.53		ug/L		113	70 - 130
1,1-Dichloroethene	0.50	U	4.00	4.48		ug/L		112	70 - 130
1,1-Dichloropropene	0.50	U	4.00	4.55		ug/L		114	70 - 130
1,2,3-Trichlorobenzene	0.50	U	4.00	4.34		ug/L		108	70 - 130
1,2,3-Trichloropropane	0.50	U	4.00	4.46		ug/L		112	70 - 130
1,2,4-Trichlorobenzene	0.50	U	4.00	4.27		ug/L		107	70 - 130
1,2,4-Trimethylbenzene	0.50	U	4.00	4.22		ug/L		106	70 - 130
1,2-Dichlorobenzene	0.50	U	4.00	4.49		ug/L		112	70 - 130
1,2-Dichloroethane	0.50	U	4.00	4.64		ug/L		116	70 - 130
1,2-Dichloropropane	0.50	U	4.00	4.51		ug/L		113	70 - 130
1,3,5-Trimethylbenzene	0.50	U	4.00	4.34		ug/L		108	70 - 130
1,3-Dichlorobenzene	0.50	U	4.00	4.44		ug/L		111	70 - 130
1,3-Dichloropropane	0.50	U	4.00	4.67		ug/L		117	70 - 130
1,4-Dichlorobenzene	0.50	U	4.00	4.35		ug/L		109	70 - 130
2,2-Dichloropropane	0.50	U	4.00	4.17		ug/L		104	70 - 130
2-Butanone (MEK)	5.0	U	20.0	21.1		ug/L		105	70 - 130
2-Chlorotoluene	0.50	U	4.00	4.34		ug/L		108	70 - 130
2-Hexanone	5.0	U	20.0	22.9		ug/L		115	70 - 130
4-Chlorotoluene	0.50	U	4.00	4.44		ug/L		111	70 - 130
4-Isopropyltoluene	0.50	U	4.00	4.27		ug/L		107	70 - 130
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	22.6		ug/L		113	70 - 130
Acetone	1.3	J	20.0	19.9		ug/L		93	70 - 130
Benzene	0.50	U	4.00	4.63		ug/L		116	70 - 130
Bromobenzene	0.50	U	4.00	4.32		ug/L		108	70 - 130
Bromochloromethane	0.50	U	4.00	4.73		ug/L		118	70 - 130
Dichlorobromomethane	0.50	U	4.00	4.17		ug/L		104	70 - 130
Bromoform	0.50	U	4.00	3.82		ug/L		96	70 - 130
Bromomethane	0.50	U	4.00	4.95		ug/L		124	70 - 130
Carbon disulfide	0.50	U	4.00	4.47		ug/L		112	70 - 130
Carbon tetrachloride	0.50	U	4.00	4.47		ug/L		112	70 - 130
Chlorobenzene	0.50	U	4.00	4.55		ug/L		114	70 - 130
Chlorodibromomethane	0.50	U	4.00	4.15		ug/L		104	70 - 130
Chloroethane	0.50	U	4.00	4.61		ug/L		115	70 - 130
Chloroform	0.50	U	4.00	4.47		ug/L		112	70 - 130
Chloromethane	0.50	U	4.00	4.90		ug/L		122	70 - 130
cis-1,2-Dichloroethene	5.1		4.00	9.49		ug/L		111	70 - 130
cis-1,3-Dichloropropene	0.50	U	4.00	4.17		ug/L		104	70 - 130
Dibromomethane	0.50	U	4.00	4.45		ug/L		111	70 - 130
Dichlorodifluoromethane	0.50	U F1	4.00	5.14		ug/L		129	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 491376

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.50	U	4.00	4.44		ug/L		111	70 - 130
Hexachlorobutadiene	0.50	U	4.00	4.10		ug/L		102	70 - 130
Isopropylbenzene	0.50	U	4.00	4.36		ug/L		109	70 - 130
Methyl tert-butyl ether	0.50	U	4.00	4.35		ug/L		109	70 - 130
Methylene Chloride	2.5	U *	4.00	4.13		ug/L		103	70 - 130
Naphthalene	0.50	U	4.00	4.32		ug/L		108	70 - 130
n-Butylbenzene	0.50	U	4.00	4.27		ug/L		107	70 - 130
N-Propylbenzene	0.50	U	4.00	4.41		ug/L		110	70 - 130
sec-Butylbenzene	0.50	U	4.00	4.30		ug/L		107	70 - 130
Styrene	0.50	U	4.00	4.36		ug/L		109	70 - 130
tert-Butylbenzene	0.50	U	4.00	4.21		ug/L		105	70 - 130
Tetrachloroethene	0.50	U	4.00	4.56		ug/L		114	70 - 130
Toluene	0.50	U	4.00	4.46		ug/L		112	70 - 130
trans-1,2-Dichloroethene	0.50	U	4.00	4.54		ug/L		113	70 - 130
trans-1,3-Dichloropropene	0.50	U	4.00	4.34		ug/L		109	70 - 130
Trichloroethene	0.89		4.00	5.45		ug/L		114	70 - 130
Trichlorofluoromethane	0.50	U	4.00	4.67		ug/L		117	70 - 130
Vinyl chloride	0.49	J	4.00	5.30		ug/L		120	70 - 130
Xylenes, Total	1.0	U	8.00	8.90		ug/L		111	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
1,2-Dichlorobenzene-d4	*100*		*80 - 120*

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 491376

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.50	U	4.00	3.92		ug/L		98	70 - 130	12	20
1,1,1-Trichloroethane	0.50	U	4.00	4.03		ug/L		101	70 - 130	13	20
1,1,2,2-Tetrachloroethane	0.50	U	4.00	4.05		ug/L		101	70 - 130	9	20
1,1,2-Trichloroethane	0.50	U	4.00	4.10		ug/L		103	70 - 130	9	20
1,1-Dichloroethane	0.50	U	4.00	4.05		ug/L		101	70 - 130	11	20
1,1-Dichloroethene	0.50	U	4.00	3.95		ug/L		99	70 - 130	13	20
1,1-Dichloropropene	0.50	U	4.00	4.11		ug/L		103	70 - 130	10	20
1,2,3-Trichlorobenzene	0.50	U	4.00	3.87		ug/L		97	70 - 130	12	20
1,2,3-Trichloropropane	0.50	U	4.00	4.01		ug/L		100	70 - 130	11	20
1,2,4-Trichlorobenzene	0.50	U	4.00	3.77		ug/L		94	70 - 130	12	20
1,2,4-Trimethylbenzene	0.50	U	4.00	3.86		ug/L		97	70 - 130	9	20
1,2-Dichlorobenzene	0.50	U	4.00	4.16		ug/L		104	70 - 130	8	20
1,2-Dichloroethane	0.50	U	4.00	4.04		ug/L		101	70 - 130	14	20
1,2-Dichloropropane	0.50	U	4.00	4.17		ug/L		104	70 - 130	8	20
1,3,5-Trimethylbenzene	0.50	U	4.00	3.94		ug/L		98	70 - 130	10	20
1,3-Dichlorobenzene	0.50	U	4.00	4.15		ug/L		104	70 - 130	7	20
1,3-Dichloropropane	0.50	U	4.00	4.28		ug/L		107	70 - 130	9	20
1,4-Dichlorobenzene	0.50	U	4.00	4.00		ug/L		100	70 - 130	9	20
2,2-Dichloropropane	0.50	U	4.00	3.64		ug/L		91	70 - 130	14	20

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 491376

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	5.0	U	20.0	18.4		ug/L		92	70 - 130	14	20
2-Chlorotoluene	0.50	U	4.00	4.05		ug/L		101	70 - 130	7	20
2-Hexanone	5.0	U	20.0	20.6		ug/L		103	70 - 130	11	20
4-Chlorotoluene	0.50	U	4.00	4.03		ug/L		101	70 - 130	10	20
4-Isopropyltoluene	0.50	U	4.00	3.87		ug/L		97	70 - 130	10	20
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	20.2		ug/L		101	70 - 130	11	20
Acetone	1.3	J	20.0	18.2		ug/L		85	70 - 130	9	20
Benzene	0.50	U	4.00	4.16		ug/L		104	70 - 130	11	20
Bromobenzene	0.50	U	4.00	3.97		ug/L		99	70 - 130	8	20
Bromochloromethane	0.50	U	4.00	4.25		ug/L		106	70 - 130	11	20
Dichlorobromomethane	0.50	U	4.00	3.77		ug/L		94	70 - 130	10	20
Bromoform	0.50	U	4.00	3.49		ug/L		87	70 - 130	9	20
Bromomethane	0.50	U	4.00	4.74		ug/L		119	70 - 130	4	20
Carbon disulfide	0.50	U	4.00	4.02		ug/L		100	70 - 130	11	20
Carbon tetrachloride	0.50	U	4.00	4.03		ug/L		101	70 - 130	10	20
Chlorobenzene	0.50	U	4.00	4.19		ug/L		105	70 - 130	8	20
Chlorodibromomethane	0.50	U	4.00	3.79		ug/L		95	70 - 130	9	20
Chloroethane	0.50	U	4.00	4.43		ug/L		111	70 - 130	4	20
Chloroform	0.50	U	4.00	4.01		ug/L		100	70 - 130	11	20
Chloromethane	0.50	U	4.00	4.85		ug/L		121	70 - 130	1	20
cis-1,2-Dichloroethene	5.1		4.00	8.95		ug/L		97	70 - 130	6	20
cis-1,3-Dichloropropene	0.50	U	4.00	3.70		ug/L		93	70 - 130	12	20
Dibromomethane	0.50	U	4.00	4.01		ug/L		100	70 - 130	10	20
Dichlorodifluoromethane	0.50	U F1	4.00	5.24	F1	ug/L		131	70 - 130	2	20
Ethylbenzene	0.50	U	4.00	4.16		ug/L		104	70 - 130	6	20
Hexachlorobutadiene	0.50	U	4.00	3.76		ug/L		94	70 - 130	9	20
Isopropylbenzene	0.50	U	4.00	4.02		ug/L		100	70 - 130	8	20
Methyl tert-butyl ether	0.50	U	4.00	3.92		ug/L		98	70 - 130	11	20
Methylene Chloride	2.5	U *	4.00	3.74		ug/L		93	70 - 130	10	20
Naphthalene	0.50	U	4.00	3.84		ug/L		96	70 - 130	12	20
n-Butylbenzene	0.50	U	4.00	3.89		ug/L		97	70 - 130	10	20
N-Propylbenzene	0.50	U	4.00	4.02		ug/L		101	70 - 130	9	20
sec-Butylbenzene	0.50	U	4.00	3.93		ug/L		98	70 - 130	9	20
Styrene	0.50	U	4.00	4.02		ug/L		101	70 - 130	8	20
tert-Butylbenzene	0.50	U	4.00	3.86		ug/L		97	70 - 130	9	20
Tetrachloroethene	0.50	U	4.00	4.14		ug/L		103	70 - 130	10	20
Toluene	0.50	U	4.00	4.10		ug/L		102	70 - 130	8	20
trans-1,2-Dichloroethene	0.50	U	4.00	3.99		ug/L		100	70 - 130	13	20
trans-1,3-Dichloropropene	0.50	U	4.00	3.83		ug/L		96	70 - 130	13	20
Trichloroethene	0.89		4.00	4.97		ug/L		102	70 - 130	9	20
Trichlorofluoromethane	0.50	U	4.00	4.53		ug/L		113	70 - 130	3	20
Vinyl chloride	0.49	J	4.00	5.17		ug/L		117	70 - 130	3	20
Xylenes, Total	1.0	U	8.00	8.18		ug/L		102	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
1,2-Dichlorobenzene-d4	*101*		*80 - 120*

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

Lab Sample ID: MB 480-491258/1-A
Matrix: Water
Analysis Batch: 491944

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491258

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.10	ug/L		09/10/19 15:45	09/13/19 16:50	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*28*		*15 - 110*	*09/10/19 15:45*	*09/13/19 16:50*	*1*

Lab Sample ID: LCS 480-491258/2-A
Matrix: Water
Analysis Batch: 491944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491258

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			1.00	1.19		ug/L		119	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*28*		*15 - 110*

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 491944

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491258

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	0.20	U	1.00	1.23	E	ug/L		123	40 - 140		

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

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 491944

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491258

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	0.20	U	1.00	1.20		ug/L		120	40 - 140	3	20

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

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-147232/1-A
Matrix: Water
Analysis Batch: 147306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.0	U	2.0	1.0	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluoropentanoic acid (PFPeA)	2.0	U	2.0	0.63	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorohexanoic acid (PFHxA)	2.0	U	2.0	0.76	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluoroheptanoic acid (PFHpA)	2.0	U	2.0	0.91	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorooctanoic acid (PFOA)	2.0	U	2.0	0.81	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorononanoic acid (PFNA)	2.0	U	2.0	0.27	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorodecanoic acid (PFDA)	2.0	U	2.0	0.77	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluoroundecanoic acid (PFUnA)	2.0	U	2.0	0.78	ng/L		09/12/19 09:44	09/13/19 16:58	1

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

Lab Sample ID: MB 200-147232/1-A
Matrix: Water
Analysis Batch: 147306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	2.0	U	2.0	0.59	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorotridecanoic acid (PFTriA)	2.0	U	2.0	0.60	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorotetradecanoic acid (PFTeA)	2.0	U	2.0	0.92	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.0	0.49	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorohexanesulfonic acid (PFHxS)	2.0	U	2.0	0.80	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.0	U	2.0	0.95	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorooctanesulfonic acid (PFOS)	2.0	U	2.0	0.61	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorodecanesulfonic acid (PFDS)	2.0	U	2.0	0.90	ng/L		09/12/19 09:44	09/13/19 16:58	1
Perfluorooctanesulfonamide (PFOSA)	10	U	10	10	ng/L		09/12/19 09:44	09/13/19 16:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20	U	20	1.7	ng/L		09/12/19 09:44	09/13/19 16:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20	U	20	1.5	ng/L		09/12/19 09:44	09/13/19 16:58	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	20	U	20	5.5	ng/L		09/12/19 09:44	09/13/19 16:58	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	20	U	20	2.9	ng/L		09/12/19 09:44	09/13/19 16:58	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*125*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C4 PFHpA	*103*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C4 PFOA	*101*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C4 PFOS	*106*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C5 PFNA	*86*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C4 PFBA	*104*		*25 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C2 PFHxA	*108*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C2 PFDA	*86*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C2 PFUnA	*86*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C2 PFDoA	*83*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C8 FOSA	*52*		*25 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C5 PFPeA	*100*		*25 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
13C2 PFTeDA	*63*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
d3-NMeFOSAA	*83*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
d5-NEtFOSAA	*69*		*50 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
M2-6:2 FTS	*109*		*25 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*
M2-8:2 FTS	*97*		*25 - 150*	*09/12/19 09:44*	*09/13/19 16:58*	*1*

Lab Sample ID: LCS 200-147232/2-A
Matrix: Water
Analysis Batch: 147306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	41.0		ng/L		103	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	42.5		ng/L		106	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	39.7		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	39.9		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	35.4		ng/L		88	70 - 130
Perfluorononanoic acid (PFNA)	40.0	37.8		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	37.2		ng/L		93	70 - 130

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

Lab Sample ID: LCS 200-147232/2-A
Matrix: Water
Analysis Batch: 147306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroundecanoic acid (PFUnA)	40.0	40.5		ng/L		101	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	38.7		ng/L		97	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	35.5		ng/L		89	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	44.2		ng/L		111	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	32.7		ng/L		93	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	32.6		ng/L		90	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.5		ng/L		104	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	36.5		ng/L		98	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	41.7		ng/L		108	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	42.9		ng/L		107	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.6		ng/L		94	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	45.4		ng/L		113	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	30.0		ng/L		79	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	30.7		ng/L		80	50 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*120*		*50 - 150*
13C4 PFHpA	*99*		*50 - 150*
13C4 PFOA	*101*		*50 - 150*
13C4 PFOS	*98*		*50 - 150*
13C5 PFNA	*89*		*50 - 150*
13C4 PFBA	*102*		*25 - 150*
13C2 PFHxA	*103*		*50 - 150*
13C2 PFDA	*85*		*50 - 150*
13C2 PFUnA	*76*		*50 - 150*
13C2 PFDoA	*73*		*50 - 150*
13C8 FOSA	*57*		*25 - 150*
13C5 PFPeA	*98*		*25 - 150*
13C2 PFTeDA	*58*		*50 - 150*
d3-NMeFOSAA	*79*		*50 - 150*
d5-NEtFOSAA	*63*		*50 - 150*
M2-6:2 FTS	*106*		*25 - 150*
M2-8:2 FTS	*95*		*25 - 150*

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

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 147306

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 147232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	1.7	U	34.1	34.7		ng/L		102	40 - 160
Perfluoropentanoic acid (PFPeA)	1.7	U	34.1	36.4		ng/L		107	40 - 160
Perfluorohexanoic acid (PFHxA)	1.7	U	34.1	32.3		ng/L		95	40 - 160
Perfluoroheptanoic acid (PFHpA)	1.7	U	34.1	36.1		ng/L		106	40 - 160
Perfluorooctanoic acid (PFOA)	1.7	U	34.1	33.1		ng/L		97	40 - 160
Perfluorononanoic acid (PFNA)	1.7	U	34.1	34.6		ng/L		102	40 - 160
Perfluorodecanoic acid (PFDA)	1.7	U	34.1	32.6		ng/L		96	40 - 160
Perfluoroundecanoic acid (PFUnA)	1.7	U	34.1	37.2		ng/L		109	40 - 160
Perfluorododecanoic acid (PFDoA)	1.7	U	34.1	29.0		ng/L		85	40 - 160
Perfluorotridecanoic acid (PFTriA)	1.7	U	34.1	31.3		ng/L		92	40 - 160
Perfluorotetradecanoic acid (PFTeA)	1.7	U	34.1	35.9		ng/L		106	40 - 160
Perfluorobutanesulfonic acid (PFBS)	1.7	U	30.1	27.8		ng/L		92	40 - 160
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	31.0	27.4		ng/L		88	40 - 160
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	32.4	33.0		ng/L		102	40 - 160
Perfluorooctanesulfonic acid (PFOS)	1.7	U	31.6	32.1		ng/L		102	40 - 160
Perfluorodecanesulfonic acid (PFDS)	1.7	U	32.8	33.7		ng/L		103	40 - 160
Perfluorooctanesulfonamide (PFOSA)	8.5	U	34.1	37.1		ng/L		109	40 - 160
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17	U	34.1	34.9		ng/L		103	40 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17	U	34.1	34.5		ng/L		101	40 - 160
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17	U	32.3	27.4		ng/L		85	40 - 160
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	17	U	32.6	25.0		ng/L		77	40 - 160

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
18O2 PFHxS	*120*		*50 - 150*
13C4 PFHpA	*91*		*50 - 150*
13C4 PFOA	*89*		*50 - 150*
13C4 PFOS	*95*		*50 - 150*
13C5 PFNA	*80*		*50 - 150*
13C4 PFBA	*98*		*25 - 150*
13C2 PFHxA	*99*		*50 - 150*
13C2 PFDA	*82*		*50 - 150*
13C2 PFUnA	*74*		*50 - 150*
13C2 PFDoA	*87*		*50 - 150*
13C8 FOSA	*69*		*25 - 150*
13C5 PFPeA	*89*		*25 - 150*
13C2 PFTeDA	*63*		*50 - 150*
d3-NMeFOSAA	*80*		*50 - 150*
d5-NEtFOSAA	*66*		*50 - 150*

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

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 147306

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 147232

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
M2-6:2 FTS	110		25 - 150
M2-8:2 FTS	102		25 - 150

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 147306

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 147232

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	1.7	U	33.6	34.4		ng/L		102	40 - 160	1	30
Perfluoropentanoic acid (PFPeA)	1.7	U	33.6	35.0		ng/L		104	40 - 160	4	30
Perfluorohexanoic acid (PFHxA)	1.7	U	33.6	33.7		ng/L		100	40 - 160	4	20
Perfluoroheptanoic acid (PFHpA)	1.7	U	33.6	34.7		ng/L		103	40 - 160	4	20
Perfluorooctanoic acid (PFOA)	1.7	U	33.6	33.0		ng/L		98	40 - 160	0	20
Perfluorononanoic acid (PFNA)	1.7	U	33.6	35.4		ng/L		105	40 - 160	2	20
Perfluorodecanoic acid (PFDA)	1.7	U	33.6	36.0		ng/L		107	40 - 160	10	20
Perfluoroundecanoic acid (PFUnA)	1.7	U	33.6	34.4		ng/L		102	40 - 160	8	20
Perfluorododecanoic acid (PFDoA)	1.7	U	33.6	30.5		ng/L		91	40 - 160	5	20
Perfluorotridecanoic acid (PFTriA)	1.7	U	33.6	30.7		ng/L		91	40 - 160	2	20
Perfluorotetradecanoic acid (PFTeA)	1.7	U	33.6	39.3		ng/L		117	40 - 160	9	20
Perfluorobutanesulfonic acid (PFBS)	1.7	U	29.7	27.1		ng/L		91	40 - 160	3	20
Perfluorohexanesulfonic acid (PFHxS)	1.7	U	30.6	25.1		ng/L		82	40 - 160	9	20
Perfluoroheptanesulfonic Acid (PFHpS)	1.7	U	32.0	34.4		ng/L		108	40 - 160	4	30
Perfluorooctanesulfonic acid (PFOS)	1.7	U	31.2	31.2		ng/L		100	40 - 160	3	20
Perfluorodecanesulfonic acid (PFDS)	1.7	U	32.4	33.0		ng/L		102	40 - 160	2	30
Perfluorooctanesulfonamide (PFOSA)	8.5	U	33.6	35.9		ng/L		107	40 - 160	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	17	U	33.6	30.5		ng/L		91	40 - 160	14	20
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	17	U	33.6	34.3		ng/L		102	40 - 160	1	20
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17	U	31.9	27.5		ng/L		86	40 - 160	1	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	17	U	32.2	26.8		ng/L		83	40 - 160	7	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
18O2 PFHxS	129		50 - 150
13C4 PFHpA	89		50 - 150
13C4 PFOA	88		50 - 150
13C4 PFOS	95		50 - 150
13C5 PFNA	78		50 - 150
13C4 PFBA	98		25 - 150
13C2 PFHxA	94		50 - 150

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

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 147306

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 147232

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C2 PFDA	82		50 - 150
13C2 PFUnA	74		50 - 150
13C2 PFDoA	79		50 - 150
13C8 FOSA	66		25 - 150
13C5 PFPeA	93		25 - 150
13C2 PFTeDA	62		50 - 150
d3-NMeFOSAA	80		50 - 150
d5-NEtFOSAA	65		50 - 150
M2-6:2 FTS	112		25 - 150
M2-8:2 FTS	101		25 - 150

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-491254/1-A
Matrix: Water
Analysis Batch: 492108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.20	U	0.20	0.060	mg/L		09/12/19 07:27	09/13/19 22:11	1
Barium	0.0020	U	0.0020	0.00070	mg/L		09/12/19 07:27	09/13/19 22:11	1
Beryllium	0.0020	U	0.0020	0.00030	mg/L		09/12/19 07:27	09/13/19 22:11	1
Cadmium	0.0020	U	0.0020	0.00050	mg/L		09/12/19 07:27	09/13/19 22:11	1
Calcium	0.50	U	0.50	0.10	mg/L		09/12/19 07:27	09/13/19 22:11	1
Chromium, Total	0.0040	U	0.0040	0.0010	mg/L		09/12/19 07:27	09/13/19 22:11	1
Cobalt	0.0040	U	0.0040	0.00063	mg/L		09/12/19 07:27	09/13/19 22:11	1
Copper	0.010	U	0.010	0.0016	mg/L		09/12/19 07:27	09/13/19 22:11	1
Iron	0.050	U	0.050	0.019	mg/L		09/12/19 07:27	09/13/19 22:11	1
Magnesium	0.20	U	0.20	0.043	mg/L		09/12/19 07:27	09/13/19 22:11	1
Manganese	0.0030	U	0.0030	0.00040	mg/L		09/12/19 07:27	09/13/19 22:11	1
Nickel	0.010	U	0.010	0.0013	mg/L		09/12/19 07:27	09/13/19 22:11	1
Silver	0.0060	U	0.0060	0.0017	mg/L		09/12/19 07:27	09/13/19 22:11	1
Vanadium	0.0050	U	0.0050	0.0015	mg/L		09/12/19 07:27	09/13/19 22:11	1
Zinc	0.00383	J	0.010	0.0015	mg/L		09/12/19 07:27	09/13/19 22:11	1

Lab Sample ID: MB 480-491254/1-A
Matrix: Water
Analysis Batch: 492158

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	0.50	U	0.50	0.10	mg/L		09/12/19 07:27	09/14/19 13:30	1
Sodium	1.0	U	1.0	0.32	mg/L		09/12/19 07:27	09/14/19 13:30	1

Lab Sample ID: MB 480-491254/1-A
Matrix: Water
Analysis Batch: 492410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.025	U	0.025	0.0087	mg/L		09/12/19 07:27	09/16/19 22:27	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-491254/2-A
Matrix: Water
Analysis Batch: 492108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	9.19		mg/L		92	85 - 115
Barium	0.200	0.204		mg/L		102	85 - 115
Beryllium	0.200	0.195		mg/L		98	85 - 115
Cadmium	0.200	0.211		mg/L		105	85 - 115
Calcium	10.0	9.23		mg/L		92	85 - 115
Chromium, Total	0.200	0.191		mg/L		95	85 - 115
Cobalt	0.200	0.184		mg/L		92	85 - 115
Copper	0.200	0.186		mg/L		93	85 - 115
Iron	10.0	9.93		mg/L		99	85 - 115
Magnesium	10.0	9.76		mg/L		98	85 - 115
Manganese	0.200	0.201		mg/L		100	85 - 115
Nickel	0.200	0.199		mg/L		100	85 - 115
Potassium	10.0	10.20		mg/L		102	85 - 115
Silver	0.0500	0.0482		mg/L		96	85 - 115
Sodium	10.0	10.37		mg/L		104	85 - 115
Vanadium	0.200	0.202		mg/L		101	85 - 115
Zinc	0.200	0.199		mg/L		100	85 - 115

Lab Sample ID: LCS 480-491254/2-A
Matrix: Water
Analysis Batch: 492410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.200	0.189		mg/L		95	85 - 115

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 492108

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491254

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.23		10.0	9.68		mg/L		94	70 - 130
Barium	0.093		0.200	0.301		mg/L		104	70 - 130
Beryllium	0.0020	U	0.200	0.197		mg/L		99	70 - 130
Cadmium	0.0020	U	0.200	0.219		mg/L		110	70 - 130
Calcium	76.1		10.0	85.30	4	mg/L		92	70 - 130
Chromium, Total	0.0040	U	0.200	0.191		mg/L		96	70 - 130
Cobalt	0.0040	U	0.200	0.188		mg/L		94	70 - 130
Copper	0.0041	J	0.200	0.192		mg/L		94	70 - 130
Iron	0.35		10.0	10.34		mg/L		100	70 - 130
Magnesium	16.0		10.0	25.93		mg/L		100	70 - 130
Manganese	0.26	B	0.200	0.464		mg/L		102	70 - 130
Nickel	0.010	U	0.200	0.202		mg/L		101	70 - 130
Potassium	1.2		10.0	11.47		mg/L		102	70 - 130
Silver	0.0060	U	0.0500	0.0491		mg/L		98	70 - 130
Sodium	3.8		10.0	13.62		mg/L		98	70 - 130
Vanadium	0.0050	U	0.200	0.205		mg/L		103	70 - 130
Zinc	0.010	U	0.200	0.197		mg/L		98	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 492410

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491254

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.025	U	0.200	0.197		mg/L		98	70 - 130

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 492108

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491254

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	0.23		10.0	10.00		mg/L		98	70 - 130	3	20
Barium	0.093		0.200	0.307		mg/L		107	70 - 130	2	20
Beryllium	0.0020	U	0.200	0.204		mg/L		102	70 - 130	3	20
Cadmium	0.0020	U	0.200	0.227		mg/L		113	70 - 130	3	20
Calcium	76.1		10.0	86.76	4	mg/L		106	70 - 130	2	20
Chromium, Total	0.0040	U	0.200	0.197		mg/L		99	70 - 130	3	20
Cobalt	0.0040	U	0.200	0.194		mg/L		97	70 - 130	3	20
Copper	0.0041	J	0.200	0.198		mg/L		97	70 - 130	3	20
Iron	0.35		10.0	10.75		mg/L		104	70 - 130	4	20
Magnesium	16.0		10.0	26.44		mg/L		105	70 - 130	2	20
Manganese	0.26	B	0.200	0.490		mg/L		116	70 - 130	6	20
Nickel	0.010	U	0.200	0.208		mg/L		104	70 - 130	3	20
Potassium	1.2		10.0	11.73		mg/L		105	70 - 130	2	20
Silver	0.0060	U	0.0500	0.0508		mg/L		102	70 - 130	3	20
Sodium	3.8		10.0	13.94		mg/L		101	70 - 130	2	20
Vanadium	0.0050	U	0.200	0.212		mg/L		106	70 - 130	3	20
Zinc	0.010	U	0.200	0.204		mg/L		102	70 - 130	4	20

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 492410

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491254

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	0.025	U	0.200	0.197		mg/L		99	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 480-491256/1-A
Matrix: Water
Analysis Batch: 491521

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491256

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.301	J	1.0	0.27	ug/L		09/11/19 08:35	09/11/19 13:43	1
Lead	1.0	U	1.0	0.17	ug/L		09/11/19 08:35	09/11/19 13:43	1
Thallium	0.20	U	0.20	0.019	ug/L		09/11/19 08:35	09/11/19 13:43	1

Lab Sample ID: MB 480-491256/1-A
Matrix: Water
Analysis Batch: 492718

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491256

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	U	1.0	0.35	ug/L		09/11/19 08:35	09/18/19 11:37	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 480-491256/2-A
Matrix: Water
Analysis Batch: 491521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491256

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	20.0	20.11		ug/L		101	85 - 115
Lead	20.0	19.20		ug/L		96	85 - 115
Thallium	20.0	19.62		ug/L		98	85 - 115

Lab Sample ID: LCS 480-491256/2-A
Matrix: Water
Analysis Batch: 492718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491256

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	22.29		ug/L		111	85 - 115

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 491521

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491256

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.74	J B	20.0	20.36		ug/L		98	70 - 130
Lead	2.2		20.0	20.96		ug/L		94	70 - 130
Thallium	0.20	U	20.0	18.67		ug/L		93	70 - 130

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 492718

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491256

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.0	U	20.0	21.69		ug/L		108	70 - 130

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 491521

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491256

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.74	J B	20.0	20.31		ug/L		98	70 - 130	0	20
Lead	2.2		20.0	21.72		ug/L		98	70 - 130	4	20
Thallium	0.20	U	20.0	18.71		ug/L		94	70 - 130	0	20

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 492718

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 491256

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.0	U	20.0	21.62		ug/L		108	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-492283/1-A
Matrix: Water
Analysis Batch: 492364

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 492283

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 15:24	1

Lab Sample ID: LCS 480-492283/2-A
Matrix: Water
Analysis Batch: 492364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492283

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00680		mg/L		102	85 - 115

Lab Sample ID: 480-158837-2 MS
Matrix: Water
Analysis Batch: 492364

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 492283

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00667	0.00703		mg/L		105	70 - 130

Lab Sample ID: 480-158837-2 MSD
Matrix: Water
Analysis Batch: 492364

Client Sample ID: CTLMW102-090319
Prep Type: Total/NA
Prep Batch: 492283

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00020	U	0.00667	0.00603		mg/L		90	70 - 130	15	20

Lab Sample ID: MB 480-492284/1-A
Matrix: Water
Analysis Batch: 492364

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 492284

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00020	U	0.00020	0.00012	mg/L		09/16/19 12:05	09/16/19 16:04	1

Lab Sample ID: LCS 480-492284/2-A
Matrix: Water
Analysis Batch: 492364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492284

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00670		mg/L		100	85 - 115

Lab Sample ID: 480-158837-9 MS
Matrix: Water
Analysis Batch: 492364

Client Sample ID: CTLMW112S-090519
Prep Type: Total/NA
Prep Batch: 492284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00020	U	0.00667	0.00707		mg/L		106	70 - 130

Lab Sample ID: 480-158837-9 MSD
Matrix: Water
Analysis Batch: 492364

Client Sample ID: CTLMW112S-090519
Prep Type: Total/NA
Prep Batch: 492284

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00020	U	0.00667	0.00690		mg/L		103	70 - 130	2	20

GC/MS VOA

Analysis Batch: 491376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-1	TB09032019	Total/NA	Water	524.2	
480-158837-2	CTLMW102-090319	Total/NA	Water	524.2	
480-158837-3	CTLMW102I-090319	Total/NA	Water	524.2	
480-158837-4	CTLMW13-090419	Total/NA	Water	524.2	
480-158837-5	CTLMW117I-090419	Total/NA	Water	524.2	
480-158837-6	CTLMW117S-090419	Total/NA	Water	524.2	
480-158837-7	CTLMW117D-090419	Total/NA	Water	524.2	
480-158837-8	CTLMW113S-090519	Total/NA	Water	524.2	
480-158837-9	CTLMW112S-090519	Total/NA	Water	524.2	
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	524.2	
480-158837-11	CTLMW118S-090519	Total/NA	Water	524.2	
480-158837-12	CTLMW114S-090519	Total/NA	Water	524.2	
480-158837-13	CTLMW115S-090519	Total/NA	Water	524.2	
480-158837-14	CTLMW116S-090519	Total/NA	Water	524.2	
MB 480-491376/7	Method Blank	Total/NA	Water	524.2	
LCS 480-491376/4	Lab Control Sample	Total/NA	Water	524.2	
LCSD 480-491376/5	Lab Control Sample Dup	Total/NA	Water	524.2	
LLCS 480-491376/6	Lab Control Sample	Total/NA	Water	524.2	
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	524.2	
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	524.2	

GC/MS Semi VOA

Prep Batch: 491258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	3510C	
480-158837-3	CTLMW102I-090319	Total/NA	Water	3510C	
480-158837-4	CTLMW13-090419	Total/NA	Water	3510C	
480-158837-5	CTLMW117I-090419	Total/NA	Water	3510C	
480-158837-6	CTLMW117S-090419	Total/NA	Water	3510C	
480-158837-7	CTLMW117D-090419	Total/NA	Water	3510C	
480-158837-8	CTLMW113S-090519	Total/NA	Water	3510C	
480-158837-9	CTLMW112S-090519	Total/NA	Water	3510C	
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	3510C	
480-158837-11	CTLMW118S-090519	Total/NA	Water	3510C	
480-158837-12	CTLMW114S-090519	Total/NA	Water	3510C	
480-158837-13	CTLMW115S-090519	Total/NA	Water	3510C	
480-158837-14	CTLMW116S-090519	Total/NA	Water	3510C	
MB 480-491258/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-491258/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	3510C	
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	3510C	

Analysis Batch: 491944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	8270D SIM ID	491258
480-158837-3	CTLMW102I-090319	Total/NA	Water	8270D SIM ID	491258
480-158837-4	CTLMW13-090419	Total/NA	Water	8270D SIM ID	491258
480-158837-5	CTLMW117I-090419	Total/NA	Water	8270D SIM ID	491258
480-158837-6	CTLMW117S-090419	Total/NA	Water	8270D SIM ID	491258
480-158837-7	CTLMW117D-090419	Total/NA	Water	8270D SIM ID	491258

GC/MS Semi VOA (Continued)

Analysis Batch: 491944 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-8	CTLMW113S-090519	Total/NA	Water	8270D SIM ID	491258
480-158837-9	CTLMW112S-090519	Total/NA	Water	8270D SIM ID	491258
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	8270D SIM ID	491258
480-158837-11	CTLMW118S-090519	Total/NA	Water	8270D SIM ID	491258
480-158837-13	CTLMW115S-090519	Total/NA	Water	8270D SIM ID	491258
480-158837-14	CTLMW116S-090519	Total/NA	Water	8270D SIM ID	491258
MB 480-491258/1-A	Method Blank	Total/NA	Water	8270D SIM ID	491258
LCS 480-491258/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	491258
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	8270D SIM ID	491258
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	8270D SIM ID	491258

Analysis Batch: 492339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-12	CTLMW114S-090519	Total/NA	Water	8270D SIM ID	491258

LCMS

Prep Batch: 147232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	3535	
480-158837-3	CTLMW102I-090319	Total/NA	Water	3535	
480-158837-4	CTLMW13-090419	Total/NA	Water	3535	
480-158837-5	CTLMW117I-090419	Total/NA	Water	3535	
480-158837-6	CTLMW117S-090419	Total/NA	Water	3535	
480-158837-7	CTLMW117D-090419	Total/NA	Water	3535	
480-158837-8	CTLMW113S-090519	Total/NA	Water	3535	
480-158837-9	CTLMW112S-090519	Total/NA	Water	3535	
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	3535	
480-158837-11	CTLMW118S-090519	Total/NA	Water	3535	
480-158837-12	CTLMW114S-090519	Total/NA	Water	3535	
480-158837-13	CTLMW115S-090519	Total/NA	Water	3535	
480-158837-14	CTLMW116S-090519	Total/NA	Water	3535	
480-158837-15	RB090319	Total/NA	Water	3535	
480-158837-16	RB090519	Total/NA	Water	3535	
480-158837-17	RB090419	Total/NA	Water	3535	
MB 200-147232/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-147232/2-A	Lab Control Sample	Total/NA	Water	3535	
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	3535	
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	3535	

Analysis Batch: 147306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	537 (modified)	147232
480-158837-3	CTLMW102I-090319	Total/NA	Water	537 (modified)	147232
480-158837-4	CTLMW13-090419	Total/NA	Water	537 (modified)	147232
480-158837-5	CTLMW117I-090419	Total/NA	Water	537 (modified)	147232
480-158837-6	CTLMW117S-090419	Total/NA	Water	537 (modified)	147232
480-158837-7	CTLMW117D-090419	Total/NA	Water	537 (modified)	147232
480-158837-8	CTLMW113S-090519	Total/NA	Water	537 (modified)	147232
480-158837-9	CTLMW112S-090519	Total/NA	Water	537 (modified)	147232
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	537 (modified)	147232

LCMS (Continued)

Analysis Batch: 147306 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-11	CTLMW118S-090519	Total/NA	Water	537 (modified)	147232
480-158837-12	CTLMW114S-090519	Total/NA	Water	537 (modified)	147232
480-158837-13	CTLMW115S-090519	Total/NA	Water	537 (modified)	147232
480-158837-14	CTLMW116S-090519	Total/NA	Water	537 (modified)	147232
480-158837-15	RB090319	Total/NA	Water	537 (modified)	147232
480-158837-16	RB090519	Total/NA	Water	537 (modified)	147232
480-158837-17	RB090419	Total/NA	Water	537 (modified)	147232
MB 200-147232/1-A	Method Blank	Total/NA	Water	537 (modified)	147232
LCS 200-147232/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	147232
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	537 (modified)	147232
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	537 (modified)	147232

Metals

Prep Batch: 491254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	200.7	
480-158837-3	CTLMW102I-090319	Total/NA	Water	200.7	
480-158837-4	CTLMW13-090419	Total/NA	Water	200.7	
480-158837-5	CTLMW117I-090419	Total/NA	Water	200.7	
480-158837-6	CTLMW117S-090419	Total/NA	Water	200.7	
480-158837-7	CTLMW117D-090419	Total/NA	Water	200.7	
480-158837-8	CTLMW113S-090519	Total/NA	Water	200.7	
480-158837-9	CTLMW112S-090519	Total/NA	Water	200.7	
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	200.7	
480-158837-11	CTLMW118S-090519	Total/NA	Water	200.7	
480-158837-12	CTLMW114S-090519	Total/NA	Water	200.7	
480-158837-13	CTLMW115S-090519	Total/NA	Water	200.7	
480-158837-14	CTLMW116S-090519	Total/NA	Water	200.7	
MB 480-491254/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-491254/2-A	Lab Control Sample	Total/NA	Water	200.7	
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	200.7	
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	200.7	

Prep Batch: 491256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	200.8	
480-158837-3	CTLMW102I-090319	Total/NA	Water	200.8	
480-158837-4	CTLMW13-090419	Total/NA	Water	200.8	
480-158837-5	CTLMW117I-090419	Total/NA	Water	200.8	
480-158837-6	CTLMW117S-090419	Total/NA	Water	200.8	
480-158837-7	CTLMW117D-090419	Total/NA	Water	200.8	
480-158837-8	CTLMW113S-090519	Total/NA	Water	200.8	
480-158837-9	CTLMW112S-090519	Total/NA	Water	200.8	
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	200.8	
480-158837-11	CTLMW118S-090519	Total/NA	Water	200.8	
480-158837-12	CTLMW114S-090519	Total/NA	Water	200.8	
480-158837-13	CTLMW115S-090519	Total/NA	Water	200.8	
480-158837-14	CTLMW116S-090519	Total/NA	Water	200.8	
MB 480-491256/1-A	Method Blank	Total/NA	Water	200.8	
LCS 480-491256/2-A	Lab Control Sample	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 491256 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	200.8	
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	200.8	

Analysis Batch: 491521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	200.8	491256
480-158837-3	CTLMW102I-090319	Total/NA	Water	200.8	491256
480-158837-4	CTLMW13-090419	Total/NA	Water	200.8	491256
480-158837-5	CTLMW117I-090419	Total/NA	Water	200.8	491256
480-158837-6	CTLMW117S-090419	Total/NA	Water	200.8	491256
480-158837-7	CTLMW117D-090419	Total/NA	Water	200.8	491256
480-158837-8	CTLMW113S-090519	Total/NA	Water	200.8	491256
480-158837-9	CTLMW112S-090519	Total/NA	Water	200.8	491256
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	200.8	491256
480-158837-11	CTLMW118S-090519	Total/NA	Water	200.8	491256
480-158837-12	CTLMW114S-090519	Total/NA	Water	200.8	491256
480-158837-13	CTLMW115S-090519	Total/NA	Water	200.8	491256
480-158837-14	CTLMW116S-090519	Total/NA	Water	200.8	491256
MB 480-491256/1-A	Method Blank	Total/NA	Water	200.8	491256
LCS 480-491256/2-A	Lab Control Sample	Total/NA	Water	200.8	491256
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	200.8	491256
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	200.8	491256

Analysis Batch: 492108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-3	CTLMW102I-090319	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-4	CTLMW13-090419	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-5	CTLMW117I-090419	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-6	CTLMW117S-090419	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-7	CTLMW117D-090419	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-8	CTLMW113S-090519	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-9	CTLMW112S-090519	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-11	CTLMW118S-090519	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-12	CTLMW114S-090519	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-13	CTLMW115S-090519	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-14	CTLMW116S-090519	Total/NA	Water	200.7 Rev 4.4	491254
MB 480-491254/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	491254
LCS 480-491254/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	200.7 Rev 4.4	491254

Analysis Batch: 492158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-491254/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	491254

Prep Batch: 492283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	245.1	
480-158837-3	CTLMW102I-090319	Total/NA	Water	245.1	

Metals (Continued)

Prep Batch: 492283 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-4	CTLMW13-090419	Total/NA	Water	245.1	
480-158837-5	CTLMW117I-090419	Total/NA	Water	245.1	
480-158837-6	CTLMW117S-090419	Total/NA	Water	245.1	
480-158837-7	CTLMW117D-090419	Total/NA	Water	245.1	
MB 480-492283/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-492283/2-A	Lab Control Sample	Total/NA	Water	245.1	
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	245.1	
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	245.1	

Prep Batch: 492284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-8	CTLMW113S-090519	Total/NA	Water	245.1	
480-158837-9	CTLMW112S-090519	Total/NA	Water	245.1	
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	245.1	
480-158837-11	CTLMW118S-090519	Total/NA	Water	245.1	
480-158837-12	CTLMW114S-090519	Total/NA	Water	245.1	
480-158837-13	CTLMW115S-090519	Total/NA	Water	245.1	
480-158837-14	CTLMW116S-090519	Total/NA	Water	245.1	
MB 480-492284/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-492284/2-A	Lab Control Sample	Total/NA	Water	245.1	
480-158837-9 MS	CTLMW112S-090519	Total/NA	Water	245.1	
480-158837-9 MSD	CTLMW112S-090519	Total/NA	Water	245.1	

Analysis Batch: 492364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	245.1	492283
480-158837-3	CTLMW102I-090319	Total/NA	Water	245.1	492283
480-158837-4	CTLMW13-090419	Total/NA	Water	245.1	492283
480-158837-5	CTLMW117I-090419	Total/NA	Water	245.1	492283
480-158837-6	CTLMW117S-090419	Total/NA	Water	245.1	492283
480-158837-7	CTLMW117D-090419	Total/NA	Water	245.1	492283
480-158837-8	CTLMW113S-090519	Total/NA	Water	245.1	492284
480-158837-9	CTLMW112S-090519	Total/NA	Water	245.1	492284
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	245.1	492284
480-158837-11	CTLMW118S-090519	Total/NA	Water	245.1	492284
480-158837-12	CTLMW114S-090519	Total/NA	Water	245.1	492284
480-158837-13	CTLMW115S-090519	Total/NA	Water	245.1	492284
480-158837-14	CTLMW116S-090519	Total/NA	Water	245.1	492284
MB 480-492283/1-A	Method Blank	Total/NA	Water	245.1	492283
MB 480-492284/1-A	Method Blank	Total/NA	Water	245.1	492284
LCS 480-492283/2-A	Lab Control Sample	Total/NA	Water	245.1	492283
LCS 480-492284/2-A	Lab Control Sample	Total/NA	Water	245.1	492284
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	245.1	492283
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	245.1	492283
480-158837-9 MS	CTLMW112S-090519	Total/NA	Water	245.1	492284
480-158837-9 MSD	CTLMW112S-090519	Total/NA	Water	245.1	492284

Analysis Batch: 492410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	200.7 Rev 4.4	491254
MB 480-491254/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	491254

Metals (Continued)

Analysis Batch: 492410 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-491254/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	200.7 Rev 4.4	491254
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	200.7 Rev 4.4	491254

Analysis Batch: 492718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158837-2	CTLMW102-090319	Total/NA	Water	200.8	491256
480-158837-3	CTLMW102I-090319	Total/NA	Water	200.8	491256
480-158837-4	CTLMW13-090419	Total/NA	Water	200.8	491256
480-158837-5	CTLMW117I-090419	Total/NA	Water	200.8	491256
480-158837-6	CTLMW117S-090419	Total/NA	Water	200.8	491256
480-158837-7	CTLMW117D-090419	Total/NA	Water	200.8	491256
480-158837-8	CTLMW113S-090519	Total/NA	Water	200.8	491256
480-158837-9	CTLMW112S-090519	Total/NA	Water	200.8	491256
480-158837-10	CTLMW112S-090519Q	Total/NA	Water	200.8	491256
480-158837-11	CTLMW118S-090519	Total/NA	Water	200.8	491256
480-158837-12	CTLMW114S-090519	Total/NA	Water	200.8	491256
480-158837-13	CTLMW115S-090519	Total/NA	Water	200.8	491256
480-158837-14	CTLMW116S-090519	Total/NA	Water	200.8	491256
MB 480-491256/1-A	Method Blank	Total/NA	Water	200.8	491256
LCS 480-491256/2-A	Lab Control Sample	Total/NA	Water	200.8	491256
480-158837-2 MS	CTLMW102-090319	Total/NA	Water	200.8	491256
480-158837-2 MSD	CTLMW102-090319	Total/NA	Water	200.8	491256

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: TB09032019
Lab Sample ID: 480-158837-1
Date Collected: 09/03/19 11:30
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 14:46	CDC	TAL BUF

Client Sample ID: CTLMW102-090319
Lab Sample ID: 480-158837-2
Date Collected: 09/03/19 14:30
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 15:11	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 18:24	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 17:39	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 22:18	LMH	TAL BUF
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492410	09/16/19 22:35	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 13:47	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 11:41	KMP	TAL BUF
Total/NA	Prep	245.1			492283	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 15:50	BMB	TAL BUF

Client Sample ID: CTLMW102I-090319
Lab Sample ID: 480-158837-3
Date Collected: 09/03/19 12:21
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 15:36	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 18:48	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 18:03	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 22:48	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 13:59	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 11:53	KMP	TAL BUF
Total/NA	Prep	245.1			492283	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 15:55	BMB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW13-090419
Lab Sample ID: 480-158837-4
Date Collected: 09/04/19 12:00
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 16:01	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 19:11	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 18:11	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 22:52	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:01	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 11:55	KMP	TAL BUF
Total/NA	Prep	245.1			492283	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 15:56	BMB	TAL BUF

Client Sample ID: CTLMW117I-090419
Lab Sample ID: 480-158837-5
Date Collected: 09/04/19 12:21
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 16:26	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 19:35	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 18:19	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 22:56	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:03	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 11:58	KMP	TAL BUF
Total/NA	Prep	245.1			492283	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 15:58	BMB	TAL BUF

Client Sample ID: CTLMW117S-090419
Lab Sample ID: 480-158837-6
Date Collected: 09/04/19 13:48
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 16:51	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 19:58	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 18:27	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 22:59	LMH	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW117S-090419
Lab Sample ID: 480-158837-6
Date Collected: 09/04/19 13:48
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:13	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 12:07	KMP	TAL BUF
Total/NA	Prep	245.1			492283	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 15:59	BMB	TAL BUF

Client Sample ID: CTLMW117D-090419
Lab Sample ID: 480-158837-7
Date Collected: 09/04/19 14:50
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 17:16	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 20:22	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 18:35	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 23:03	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:15	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 12:09	KMP	TAL BUF
Total/NA	Prep	245.1			492283	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 16:00	BMB	TAL BUF

Client Sample ID: CTLMW113S-090519
Lab Sample ID: 480-158837-8
Date Collected: 09/05/19 12:45
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 17:40	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 20:45	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 18:51	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 23:07	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:17	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 12:11	KMP	TAL BUF
Total/NA	Prep	245.1			492284	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 16:07	BMB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW112S-090519
Lab Sample ID: 480-158837-9
Date Collected: 09/05/19 10:56
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 18:05	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 21:09	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 18:59	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 23:22	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:19	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 12:14	KMP	TAL BUF
Total/NA	Prep	245.1			492284	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 16:08	BMB	TAL BUF

Client Sample ID: CTLMW112S-090519Q
Lab Sample ID: 480-158837-10
Date Collected: 09/05/19 10:56
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 18:30	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 21:33	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 19:07	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 23:26	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:22	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 12:16	KMP	TAL BUF
Total/NA	Prep	245.1			492284	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 16:13	BMB	TAL BUF

Client Sample ID: CTLMW118S-090519
Lab Sample ID: 480-158837-11
Date Collected: 09/05/19 12:30
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 18:55	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 21:56	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 19:15	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 23:30	LMH	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW118S-090519
Lab Sample ID: 480-158837-11
Date Collected: 09/05/19 12:30
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:24	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 12:18	KMP	TAL BUF
Total/NA	Prep	245.1			492284	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 16:14	BMB	TAL BUF

Client Sample ID: CTLMW114S-090519
Lab Sample ID: 480-158837-12
Date Collected: 09/05/19 14:20
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 19:20	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	492339	09/19/19 01:21	JMM	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 19:23	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 23:34	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:26	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 12:20	KMP	TAL BUF
Total/NA	Prep	245.1			492284	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 16:16	BMB	TAL BUF

Client Sample ID: CTLMW115S-090519
Lab Sample ID: 480-158837-13
Date Collected: 09/05/19 15:30
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 19:45	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 22:43	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 19:31	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 23:38	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:28	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 12:23	KMP	TAL BUF
Total/NA	Prep	245.1			492284	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 16:20	BMB	TAL BUF

Lab Chronicle

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Client Sample ID: CTLMW116S-090519
Lab Sample ID: 480-158837-14
Date Collected: 09/05/19 17:40
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	491376	09/11/19 20:10	CDC	TAL BUF
Total/NA	Prep	3510C			491258	09/10/19 15:45	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	491944	09/13/19 23:07	RJS	TAL BUF
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 19:39	BWC	TAL BUR
Total/NA	Prep	200.7			491254	09/12/19 07:27	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	492108	09/13/19 23:41	LMH	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	491521	09/11/19 14:31	KMP	TAL BUF
Total/NA	Prep	200.8			491256	09/11/19 08:35	NSW	TAL BUF
Total/NA	Analysis	200.8		1	492718	09/18/19 12:25	KMP	TAL BUF
Total/NA	Prep	245.1			492284	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	245.1		1	492364	09/16/19 16:21	BMB	TAL BUF

Client Sample ID: RB090319
Lab Sample ID: 480-158837-15
Date Collected: 09/03/19 11:20
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 19:47	BWC	TAL BUR

Client Sample ID: RB090519
Lab Sample ID: 480-158837-16
Date Collected: 09/04/19 17:50
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 19:55	BWC	TAL BUR

Client Sample ID: RB090419
Lab Sample ID: 480-158837-17
Date Collected: 09/04/19 17:00
Matrix: Water
Date Received: 09/06/19 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			147232	09/12/19 09:44	JM1	TAL BUR
Total/NA	Analysis	537 (modified)		1	147306	09/13/19 20:03	BWC	TAL BUR

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

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

Analysis Method	Prep Method	Matrix	Analyte
524.2		Water	1,1,2-Trichloro-1,2,2-trifluoroethane
524.2		Water	2-Butanone (MEK)
524.2		Water	2-Hexanone
524.2		Water	Acrylonitrile
524.2		Water	Allyl chloride
524.2		Water	Carbon disulfide
524.2		Water	Dichlorofluoromethane
524.2		Water	Ethyl ether
524.2		Water	m-Xylene & p-Xylene
524.2		Water	o-Xylene
524.2		Water	t-Butanol
524.2		Water	trans-1,4-Dichloro-2-butene
524.2		Water	Vinyl acetate

Laboratory: Eurofins TestAmerica, Burlington

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-20
ANAB	DoD	L2336	02-25-20
Connecticut	State Program	PH-0751	09-30-19 *
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-15-20
DE Haz. Subst. Cleanup Act (HSCA)	State Program	NA	02-01-20
Florida	NELAP	E87467	06-30-20
Florida	NELAP	E87467	06-01-20
Minnesota	NELAP	050-999-436	12-31-19
Minnesota	NELAP	050-999-436	12-31-19
New Hampshire	NELAP	2006	12-18-19
New Jersey	NELAP	VT972	06-30-20
New Jersey	NELAP	VT972	06-30-20
New York	NELAP	10391	04-01-20
New York	NELAP	10391	03-31-20
Pennsylvania	NELAP	68-00489	04-30-20
Pennsylvania	NELAP	68-00489	04-30-20
Rhode Island	State Program	LAO00298	12-30-19
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P330-11-00093	07-24-20
USDA	US Federal Programs	P330-17-00272	08-09-20
Vermont	State Program	VT-4000	12-31-19
Virginia	NELAP	460209	12-14-19
Virginia	NELAP	460209	12-14-19

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

Method Summary

Client: New York State D.E.C.
Job ID: 480-158837-1
Project/Site: Carroll Town Landfill Site

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
200.8	Metals (ICP/MS)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
200.8	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

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 BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: New York State D.E.C.
Project/Site: Carroll Town Landfill Site

Job ID: 480-158837-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-158837-1	TB09032019	Water	09/03/19 11:30	09/06/19 09:15	
480-158837-2	CTLMW102-090319	Water	09/03/19 14:30	09/06/19 09:15	
480-158837-3	CTLMW102I-090319	Water	09/03/19 12:21	09/06/19 09:15	
480-158837-4	CTLMW13-090419	Water	09/04/19 12:00	09/06/19 09:15	
480-158837-5	CTLMW117I-090419	Water	09/04/19 12:21	09/06/19 09:15	
480-158837-6	CTLMW117S-090419	Water	09/04/19 13:48	09/06/19 09:15	
480-158837-7	CTLMW117D-090419	Water	09/04/19 14:50	09/06/19 09:15	
480-158837-8	CTLMW113S-090519	Water	09/05/19 12:45	09/06/19 09:15	
480-158837-9	CTLMW112S-090519	Water	09/05/19 10:56	09/06/19 09:15	
480-158837-10	CTLMW112S-090519Q	Water	09/05/19 10:56	09/06/19 09:15	
480-158837-11	CTLMW118S-090519	Water	09/05/19 12:30	09/06/19 09:15	
480-158837-12	CTLMW114S-090519	Water	09/05/19 14:20	09/06/19 09:15	
480-158837-13	CTLMW115S-090519	Water	09/05/19 15:30	09/06/19 09:15	
480-158837-14	CTLMW116S-090519	Water	09/05/19 17:40	09/06/19 09:15	
480-158837-15	RB090319	Water	09/03/19 11:20	09/06/19 09:15	
480-158837-16	RB090519	Water	09/04/19 17:50	09/06/19 09:15	
480-158837-17	RB090419	Water	09/04/19 17:00	09/06/19 09:15	

Chain of Custody Record

315755

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	
Company Name:	Ecology & Environment Inc
Address:	368 Pleasant View Dr
City/State/Zip:	Lancaster NY
Phone:	716 684 8060
Fax:	
Project Name:	Carroll Landfill
Site:	Project # 1020841
P O #	Callout 137346

Project Manager: Jim Taravella
Tel/Fax:
Site Contact: L. Noell
Lab Contact:
Date: 9.3.19
Carrier: By Hand
COC No: 2 of 4 COCs

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below ______
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day
As per contract

Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOC 524.2	TAL metals 200.7, 245.1	8270D SIM 1,4-Dioxane	~~1,4-Dioxane 8270 SIM~~	SB As Pb Tl only 200.8	Mercury CVAA 245.1	Sample Specific Notes:
TB09032019	9.3.19	11:30	G	W	1	N		X						
CTLMW102-090319	9.3.19	14:26	G	GW	6	N		3	1	2		X	X	
CTLMW102-090319 MS	9.3.19	14:30	G	GW	6	N		3	1	2		X	X	
CTLMW102-090319 MSD	9.3.19	14:30	G	GW	6	N		3	1	2		X	X	
CTLMW102I-090319	9.3.19	12:21	G	GW	6	N		3	1	2		X	X	
CTLMW13-090419	9.4.19	12:00	G	GW	6	N		3	1	2		X	X	
CTLMW117I-090419	9.4.19	12:21	G	GW	6	N		3	1	2		X	X	
CTLMW117S-090419	9.4.19	13:48	G	GW	6	N		3	1	2		X	X	
CTLMW117D-090419	9.4.19	14:50	G	GW	6	N		3	1	2		X	X	
CTLMW113S-090519	9.5.19	12:45	G	GW	6	N		3	1	2		X	X	
CTLMW112S-090519	9.5.19	10:56	G	GW	6	N		3	1	2		X	X	
CTLMW112S-090519Q	9.5.19	10:56	G	GW	6	N		3	1	2		X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ______ 2 4 1 4 4

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal by Lab ☐ Archive for ______ Months

Special Instructions/QC Requirements & Comments:
ICE #1 3.4 2.8

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.:
Cooler Temp. (°C): Obs'd: ______ Corr'd: ______ Therm ID No.: ______

Relinquished by: [signature]	Company: ENE	Date/Time: 9-6-19/915	Received by: Kara Mahhardt	Company: TA	Date/Time: 9-6-19 915AM
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

480-158837 Chain of Custody

Chain of Custody Record

315757

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: J. Taravella	Site Contact: L. Roedl	Date: 9.5.19	COC No: 3 of 4 COCs
Company Name: Ecology & Environment inc	Tel/Fax:	Lab Contact:	Carrier: By Hand	Sampler: L. Roedl, Chuck P
Address: 368 Pleasant View	Analysis Turnaround Time ☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
City/State/Zip: Lancaster NY	TAT if different from Below ____			Walk-in Client:
Phone: 716 684-8060	☐ 2 weeks			Lab Sampling:
Fax:	☐ 1 week			
Project Name: Carroll Landfill	☐ 2 days			Job / SDG No.:
Site: Project # 48020841	☐ 1 day			
P O # Call out 137346				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	524.2 PPBS (crossed out)	200.7 ~~200.8~~ 245.1	8270 SIM 1,4 Dioxane only	200.8 Pb Sb As Tl only	P-dioxane 8270 SIM	VOC (8260) 524.2	TAL Metals 200.7 Rev 4.4	metals SB, AS, Pb, Tl only 200.8	mercury CVAA 245.1	Sample Specific Notes
CTLMW118S-090519	9.5.19	12:30	G	GW	6	N		X	X	X	X	X	X	X	X	X	
CTLMW114S-090519	9.5.19	14:20	G	GW	6	N		X	X	X	X	X	X	X	X	X	
CTLMW115S-090519	9.5.19	15:30	G	GW	6	N		LR 9.5.19				X	X	X	X	X	
CTLMW116S-090519	9.5.19	17:40	G	GW	6	N						X	X	X	X	X	

Lauren Roedl 9.5.19

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____ — 1 2 4 4 4

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ | Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ENE	9-6-19/915	Kara Maharad	TA	9-6-19 915AM
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record 315762

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: J Talavella	Site Contact: L. Noell	Date: 9-3-19	COC No:
Company Name: Ecology & Environment Inc	Tel/Fax:	Lab Contact:	Carrier: By Hand	1 of 4 COCs
Address: 368 Pleasant View Dr	Analysis Turnaround Time			Sampler:
City/State/Zip: Lancaster NY 14086	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 716 684-8060	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day — as per contract			Lab Sampling:
Project Name: Carroll Landfill				Job / SDG No.:
Site: Project 48020841				
PO# Callout 137346				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	PFC Ion PFAS	Sample Specific Notes:
CTLMW102-09-0319	9-3-19	14:30	G	GW	2			X	
CTLMW102-090319MS	9-3-19	14:30	G	GW	2			X	
CTLMW102-090319MSD	9-3-19	14:30	G	GW	2			X	
RB090319	9-3-19	15:20	G	W	2			X	
CTLMW102I-090319	9-3-19	1221	G	GW	2			X	
CTLMW117I-090419	9-4-19	12:21	G	GW	2			X	
CTLMW117S-090419	9-4-19	13:48	G	GW	2			X	
CTLMW117D-090419	9-4-19	14:50	G	GW	2			X	
CTLMW13-090419	9-4-19	12:00	G	GW	2			X	
RB090419	9-4-19	17:00	G	GW	2			X	
CTLMW113S-090519	9-4-19	12:45	G	GW	2			X	
CTLMW112S-090519	9-05-19	10:56	G	GW	1			X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
CJR	ENE	9-6-19/915	Kara Carlson	TA	9-6-19 915AM
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record 315756

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: J. Tarnowski	Site Contact: L. Rozell	Date: 9.5.19	COC No: 4 of 4 COCs
Company Name: Ecology Environment	Tel/Fax:	Lab Contact:	Carrier: By Hand	Sampler:
Address: 368 Pleasantview Dr	Analysis Turnaround Time			For Lab Use Only:
City/State/Zip: Lancaster NY 14086	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
Phone: 716 684-8060	TAT if different from Below ___			Lab Sampling:
Fax:	☐ 2 weeks 19 per Contract			
Project Name: Carroll Landfill	☐ 1 week			Job / SDG No.:
Site: Project 480 20841	☐ 2 days			
P O # Callout 137346	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PFAS	Sample Specific Notes:
CTLMW1125-090519 Q	9.5.19	10:56	G	GW	2			X	
CTLMW1185-090519	9.5.19	12:30	G	GW	2			X	
CTLMW1145-090519	9.5.19	14:20	G	GW	2			X	
CTLMW1155-090519	9.5.19	15:38	G	GW	2			X	
RB090519	9.5.19	17:50	G	GW	2			X	
CTLMW1165-090519	9.5.19	17:40	G	GW	2			X	

9-5-19

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ______ 1

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for ______ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ______ Corr'd: ______ Therm ID No.: ______

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ENE	9-6-19/915	Kara Mahnert	TA	9-6-19 915AM
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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

Chain of Custody Record

480-158837 Chain of Custody

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Orlette S	COC No: 480-51495.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: orlette.johnson@testamericainc.com	State of Origin: New York	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 480-158837-1
Address: 30 Community Drive, Suite 11,	Due Date Requested: 9/18/2019		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email:	WO #:		
Project Name: Carroll Town Landfill Site	Project #: 48020841		
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_IVWT (MOD) PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CTL MW102-090319 (480-158837-2)	9/3/19	14:30 Eastern		Water			X	2	
CTL MW102-090319 (480-158837-2MS)	9/3/19	14:30 Eastern	MS	Water			X	2	
CTL MW102-090319 (480-158837-2MSD)	9/3/19	14:30 Eastern	MSD	Water			X	2	
CTL MW102I-090319 (480-158837-3)	9/3/19	12:21 Eastern		Water			X	2	
CTL MW 13-090419 (480-158837-4)	9/4/19	12:00 Eastern		Water			X	2	
CTL MW 117I-090419 (480-158837-5)	9/4/19	12:21 Eastern		Water			X	2	
CTL MW 117S-090419 (480-158837-6)	9/4/19	13:48 Eastern		Water			X	2	
CTL MW 117D-090419 (480-158837-7)	9/4/19	14:50 Eastern		Water			X	2	
CTL MW 1135-090519 (480-158837-8)	9/5/19	12:45 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

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: [signature]	Date/Time: 9/6/19 1700	Company TA	Received by: [signature]
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Date/Time: 9/7/19 10:30	Company TAB	
Date/Time:	Company	
Date/Time:	Company	

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 TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-51495.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: orlette.johnson@testamericainc.com	State of Origin: New York	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-158837-1
Address: 30 Community Drive, Suite 11,	Due Date Requested: 9/18/2019			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: Carroll Town Landfill Site	Project #: 48020841			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - 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_IVWT (MOD) PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CTL MW 112S-090519 (480-158837-9)	9/5/19	10:56 Eastern		Water			X	2	
CTL MW 1125-090519Q (480-158837-10)	9/5/19	10:56 Eastern		Water			X	2	
CTL MW 1185-090519 (480-158837-11)	9/5/19	12:30 Eastern		Water			X	2	
CTL MW 1145-090519 (480-158837-12)	9/5/19	14:20 Eastern		Water			X	2	
CTL MW 1155-090519 (480-158837-13)	9/5/19	15:30 Eastern		Water			X	2	
CTL MW 1165-090519 (480-158837-14)	9/5/19	17:40 Eastern		Water			X	2	
RB 090319 (480-158837-15)	9/3/19	11:20 Eastern		Water			X	2	
RB 090519 (480-158837-16)	9/4/19	17:00 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ 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
1	Matthew Carollo	09/16/19 1700	TA		9/17/19 10:30	TAB
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: 993149	Cooler Temperature(s) °C and Other Remarks: 1.4

Ver: 01/16/2019

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 TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Orlette S	COC No: 480-51502.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: orlette.johnson@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 480-158837-1
Address: 30 Community Drive, Suite 11,	Due Date Requested: 9/18/2019		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email:	WO #:		
Project Name: Carroll Town Landfill Site	Project #: 48020841		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - 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_IWWT (MOD) PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RB 090419 (480-158837-17)	9/4/19	17:00 Eastern		Water			X	2	

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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: Unreadable	Date/Time: 9/10/19 1700	Company TA	Received by:	Date/Time: 9/11/19 10:30	Company TA Buffalo
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ~~Yes~~ ☐ No | Custody Seal No.: 493299 | Cooler Temperature(s) °C and Other Remarks: 1.4

Ver: 01/16/2019


ORIGIN ID:DKKA (716) 691-2600
CHRIS KOLB
TESTAMERICA
10 HAZELWOOD DR
AMHERST, NY 14228
UNITED STATES US
SHIP
ACTWG
CAD:
DIMS
BILL
RT 916
FZ 917
TO SAMPLE MGT.
TA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
REF: TA BURLINGTON
FedEx
Express
WED - 11 SEP 3:00P
STANDARD OVERNIGHT
TRK# 0201 4276 0720 9310
XH BTVA
05403
VT-US BTV

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-158837-1

Login Number: 158837

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

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

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-158837-1

Login Number: 158837
List Number: 2
Creator: Hall, Samuel C

List Source: Eurofins TestAmerica, Burlington
List Creation: 09/11/19 11:40 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	993299
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4ºC
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?	N/A	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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	