Cortland County Soil and Water Conservation District
100 Grange Place, Room 202, Cortland, NY 13045
Phone: (607) 756-5991 Fax: (607) 756-0029
www.cortlandswcd.org

SWCD...established to promote the conservation and wise use of our county's natural resources

March 31, 2021

Joshua Cook
NYSDEC - Division of Environmental Remediation
615 Erie Blvd. West
Syracuse, NY 13204-2400

Dear Mr. Cook:

Enclosed is the 2020 Quarter 4 environmental monitoring report for Cortland County's Towslee Landfill, also known as the Old Cortland County Landfill. Please contact our office at (607) 756-5991 if you have any questions.

Sincerely,

Kathleen McGrath

Kathleen McGrath
Water Quality Specialist

cc: Toby Bonham, Cortland Co. Highway Dept.
James Gruppe, NYSDEC Region 7
Amanda Barber, SWCD/files

Environmental Monitoring Report
Towslee Landfill, Cortland County, NY

Quarter 4, 2020

Prepared for

Cortland County Highway Department

By

Cortland County Soil and Water Conservation District

March 31, 2021

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Section 1 Introduction

Towslee Landfill is approximately 36 acres in size, and is part of a larger solid waste disposal site of 540 acres owned by Cortland County in the Towns of Cortlandville and Solon. The Towslee Landfill has previously been called the Old County Landfill and the Town Line Landfill.

DEC requires environmental monitoring at the landfill. The monitoring follows the Post-Closure Monitoring and Site Maintenance Plan prepared by Barton & Loguidice, D.P.C (B&L) in October, 2002 and revised in June, 2006. Towslee Landfill is required to be monitored during Quarters 2-4 for Baseline parameters in one quarter (rotating) and Routine parameters in the other two quarters.

This report summarizes 2020 Quarter 4 (Routine) monitoring activities and annual reporting at the Towslee Landfill.

Section 2 Site History

Placement of waste at Towslee began in the 1940s by a private disposal company. In the 1960s, the site was leased to the City of Cortland for waste disposal. In 1972, Cortland County purchased the site and began landfill operations at Towslee Landfill. Towslee Landfill was open for disposal for municipal solid waste until 1987 and for construction and demolition debris until 1992.

A Remedial Investigation/Feasibility Study (RI/FS) was conducted for Cortland County by Barton and Loguidice (B&L) in response to NYSDEC Order of Consent #B7-0486-12-95, effective May 31, 1996. The Towslee Landfill was classified by NYSDEC as a Class 2 Inactive Hazardous Waste Site. The Remedial Investigation was completed in March, 1998 and the Feasibility Study was completed in July, 1998.

DEC issued a Record of Decision (ROD) in March, 1999. Remedial activities at the landfill, which included landfill capping, were substantially completed in December 2001 and the Towslee Landfill was reclassified as a Class 4 Inactive Hazardous Waste Site, assigned site number 7-12-001.

The B&L Remedial Investigation concluded in 1997 that there was mild landfill leachate contamination of groundwater in the vicinity of Wells MW-2A/B and MW-7A. In addition, low-level leachate contamination was detected in the vicinity of Well MW-1A. Groundwater contamination occurred primarily in the overburden and extended downgradient of the site about 450 feet.

Section 3 Methods

3.1 Schedule

Quarter	Analyses	Date Sampled
First Quarter:	-- Sampling not required --	
Second Quarter:	Routine	June 23-24, 2020
Third Quarter:	Baseline	September 8-10, 2020
Fourth Quarter:	Routine	December 8-9, 15, 2020

3.2 Groundwater Monitoring Locations

Thirteen wells are monitored at Towslee Landfill (Figure 1) including one each bedrock and overburden upgradient wells and seven and four bedrock and overburden downgradient wells, respectively:

	Bedrock	Overburden
Upgradient	CD-1RA	CD-1
Downgradient	Bedrock	Overburden
	MW-1B	MW-1A
	MW-2B	MW-2A
	MW-3A	MW-6A
	MW-3B	MW-7A
	MW-4A	
	MW-5A	
	MW-6B	

3.3 Sampling and Analysis:

Water quality analyses were conducted in accordance with 1998 Part 360 regulations. Cortland County Soil and Water Conservation District staff conducted methane monitoring and collected water samples and field parameter data. Eurofins TestAmerica Laboratories, Inc. (TestAmerica) performed all laboratory analyses for this quarter:

Eurofins TestAmerica Laboratories, Buffalo (NYELAP # 10026)
10 Hazelwood Drive
Amherst, NY 14228-2223

In this quarter, Routine parameters were sampled for at all locations. When turbidity exceeds 50 NTU, a sample is collected for dissolved metals analysis in addition to total metals. In addition, combustible gas was sampled at each well.

Section 4 Groundwater Monitoring Results

The UDS Level 2 laboratory analytical report, gas data and field data sheets for this quarter can be found in Appendix A. Trends can be examined for 2020 water quality data compared with previous years in tables provided in Appendix B. The full Towslee data record is available from the Cortland County SWCD upon request.

4.1 Contraventions of Groundwater Quality Standards

Groundwater monitoring well results can be found in Table 1 (field/conventional parameters) and Table 2 (metals).

Conventional and Field Parameters

pH - The pH water quality standard is contravened unless it is between 6.5 and 8.5. The pH standard was contravened at both upgradient wells CD-1 (9.84) and CD-1RA (9.31).

Turbidity - Turbidity exceeded the NYS standard of 5 NTU at both upgradient wells CD-1 (40.6 NTU) and CD-1RA (63.4 NTU) and 8 downgradient wells (exceeded range 5.52 to 97.6 NTU).

No other conventional or field parameters exceeded water quality standards at the upgradient wells.

Ammonia - The ammonia standard of 2 mg/L was exceeded at MW-2A (9.4 mg/L), consistent with past findings at this well.

Total Dissolved Solids (TDS) - The TDS standard of 500 mg/L was exceeded at MW-2B (758 mg/L). The TDS standard has been exceeded frequently at this well in past monitoring.

No other conventional or field parameters exceeded water quality standards at downgradient wells.

Metals

Iron - The NYS standard for total iron is 0.3 mg/L, and is an aesthetic standard. This standard was exceeded at both upgradient wells CD-1 (4.3 mg/L) and CD-1RA (7.1 mg/L) and 4 of the downgradient wells (exceeded range 0.55 – 15.7 mg/L). Iron frequently exceeds the standard at the Towslee Landfill. The elevated iron levels are believed to be caused at least in part by particulates in the unfiltered samples.

Manganese - The NYS standard for total manganese is 0.3 mg/L and is an aesthetic standard. The manganese standard was exceeded for total manganese at both upgradient wells CD-1 (1.4 mg/L) and CD-1RA (0.33 mg/L) and 5 downgradient wells (exceeded range 0.47 – 12.2 mg/L). The manganese standard has frequently been exceeded in past monitoring, which may be caused in part by particulates in unfiltered samples.

No other metals contravened water quality standards at upgradient wells.

Sodium - The NYS sodium guidelines for people on severely and moderately restricted sodium diets are 20 mg/L and 270 mg/L, respectively. The more restrictive diet guideline was exceeded for total sodium at 2 downgradient wells, MW-2B (44 mg/L) and MW-7A (44.8 mg/L) during this quarter. The less restrictive diet guideline was not exceeded at any wells during this quarter.

No other metals contravened water quality standards at downgradient wells.

Volatile Organic Compounds (VOCs)

Volatile organic compounds (VOCs) were not sampled for in Quarter 4.

4.2 Groundwater Quality Trends

Upgradient Wells

Monitoring of wells CD-1 and CD-1RA for field/conventional and organics parameters continues to show that these aspects of water quality upgradient of the Towslee Landfill have not changed significantly over time.

During 2020, metals exceedances at the upgradient wells occurred only for iron and manganese. These exceedances are not unusual for these wells.

Downgradient Wells

Groundwater quality downgradient of the Towslee Landfill has generally improved over time. This is especially true for parameters with elevated levels in 1997. For inorganic parameters, groundwater quality has generally either been slowly improving in recent years, or has remained stable.

Section 5 Landfill Gas Testing

Landfill gas measurements were taken at all monitoring wells. Methane was detected at 00.1% at several of the wells monitored. Because these detections are within the error range of the equipment they may not represent actual methane detections.

Section 6 Quality Control

Independent data validation was not required during this quarter. TestAmerica conducted standard internal QA/QC on the samples. Of 422 data records, 10 records (2.3%) were flagged because they did not meet laboratory QA/QC requirements.

The analytical data appear to be an adequate characterization of Towslee Landfill groundwater quality for this quarter.

Table 1. Contraventions of NYS Water Quality Standards for Field and Conventional Parameters, Towslee Landfill, Quarter 4, 2020.

		NYS Water Quality		Upgradient		Downgradient										
				OB	BR	OB	BR	OB	BR	BR	BR	BR	BR	OB	BR	OB
Parameter	Units	Standard		CD-1	CD-1RA	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-3B	MW-4A	MW-5A	MW-6A	MW-6B	MW-7A
Temperature	°C	--		6.8	7.9	6.5	9.1	5.4	6.7	9	9	8.6	8.6	7.4	8.6	7.6
ORP	mV	--		202.2	239.9	118.5	201.4	54.8	119.3	273.2	254.8	254.2	229.4	235.3	217.9	224
pH	--	6.5 - 8.5	a	**9.84**	**9.31**	**8.69**	8.12	7.13	7.56	7.83	8.18	7.73	8.34	7.61	7.55	7.2
Conductivity	µS/cm	--		197.6	215.4	267	149.4	468.2	892	115.1	271.1	670	232.5	300.1	225.1	543
Color	Units	15	a, b	3.33	2.47	3.32	2.68	4.05	4.33	3.64	6.06	5.32	5.64	5.99	4.84	5.9
Turbidity	NTU	5	a	**40.6**	**63.4**	**18.4**	1.49	**52.5**	**19.8**	**11.23**	2.65	**5.52**	**6.74**	**97.6**	**6.89**	4.01
Alkalinity as $CaCO_3$	mg/L	--		138	131	98.8	99.8	329	567	73.3	156	533	142	208	146	376
Hardness as $CaCO_3$	mg/L	--		150	161	160	88.3	279	600	69.2	166	477	143	241	131	258
Total Dissolved Solids	mg/L	500	a	201	229	245	153	385	**758**	194	226	442	183	262	170	455
Chloride	mg/L	250	a, b	<1	1.4	37.7	4.1	22.4	85.7	<1	22.7	9.9	5.7	2.3	6.7	37.6
Sulfate	mg/L	250	a, b	18.8	18.4	20.6	11.3	<5	<5	<5	13.2	<5J	21.9	<5	35.5	37
Bromide	mg/L	2	a	<0.2	<0.2	<0.2	<0.2	0.41	0.67	<0.2	<0.2	<0.4	<0.2	<0.2	<0.2	<1
NO_3	mg/L	10	a, b	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	0.072	<0.05	<0.05	<0.05	0.54	0.065	0.091
NH_3	mg/L	2	a	<0.02J	<0.02	0.049	<0.02	**9.4**	0.73	<0.02	0.022	<0.02J	<0.02	0.054	<0.02	<0.02
TKN	mg/L	--		0.28	0.31	0.23	<0.2	7.7	1.3	0.42	<0.2	0.3J	0.23	1.3	0.2	0.54
COD	mg/L	--		<10	<10	<10	<10	11.3	25.6	15.4	<10	<10	<10	24.6	<10	20.9
BOD	mg/L	--		<2	<2	<2J	<2	6.8	<2	<2	<2	<2	<2	<2	<2	<2
TOC	mg/L	--		<1	1	<1	<1	5.8	4.8	4.4	1.1	2.6	<1	7J	1.8	5.7
Total Phenolics	mg/L	0.001	a	<0.01J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01J	<0.01	<0.01	<0.01	<0.01
Cyanide	mg/L	0.2	a, b	--	--	--	--	--	--	--	--	--	--	--	--	--

a - Part 703 Water Quality Standard (Class GA waters)

b - Part 5 Drinking Water MCL

X.XX indicates contravention of standard.

J - value is estimated because sample did not meet laboratory QAQC protocols

OB - overburden well

BR - bedrock well

OR - over range of meter (>100NTU)

Table 2. Contraventions of NYS Water Quality Standards for Metals (mg/L), Towslee Landfill, Quarter 4, 2020.

Parameter	NYS Water Quality Standard		Total Metals													Dissolved Metals	
			Upgradient		Downgradient												
			OB	BR	OB	BR	OB	BR	BR	BR	BR	BR	OB	BR	OB	BR	OB
			CD-1	CD-1RA	MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-3B	MW-4A	MW-5A	MW-6A	MW-6B	MW-7A	CD-1RA	MW-6A
Aluminum	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	0.003	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	0.025	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	1	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.004	b	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Boron	1	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.005	a, b	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Calcium	--		43.2	45.2	46.6	25.3	82	179	21.8	44.3	140	38.4	77.3	37.4	75.8	41.9	70.2
Chromium	0.05	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (VI)	0.05	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	0.3	a, b	**4.3**	**7.1**	**1.5**	0.081	**6**	**1.8**	**0.55**	0.13	0.14	0.12	**15.7**	0.28	0.27	<0.05	<0.05
Lead	0.015	b	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Magnesium	--		10.3	11.6	10.5	6.1	18.1	37.4	3.6	13.4	31.3	11.5	11.6	9.1	16.7	9.5	8.6
Manganese	0.3	a, b	**1.4**	**0.33**	0.2	0.27	**12.2**	**5.3**	0.17	0.055	**0.47**	0.034	**0.59**	0.064	**0.66**	0.057	0.15
Mercury	7E-04	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--		2.1	2.5	1.3	0.51	9.7	2.7	0.93	1.1	1.7	0.94	4.5	1.1	2.4	0.87	1.8
Sodium	20	a, b	4	5.1	11.6	6.3	14.4	**44**	1.4	7.9	17.7	9.1	4	9.8	**44.8**	4.7	5
Selenium	0.01	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	0.05	a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	0.002	b	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	5	b	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

a - Part 703 Water Quality Standard (Class GA waters)
b - Part 5 Drinking Water MCL
X.XX indicates contravention of standard.
J - value is estimated because sample did not meet laboratory QAQC protocols

OB = overburden well
BR = Bedrock well

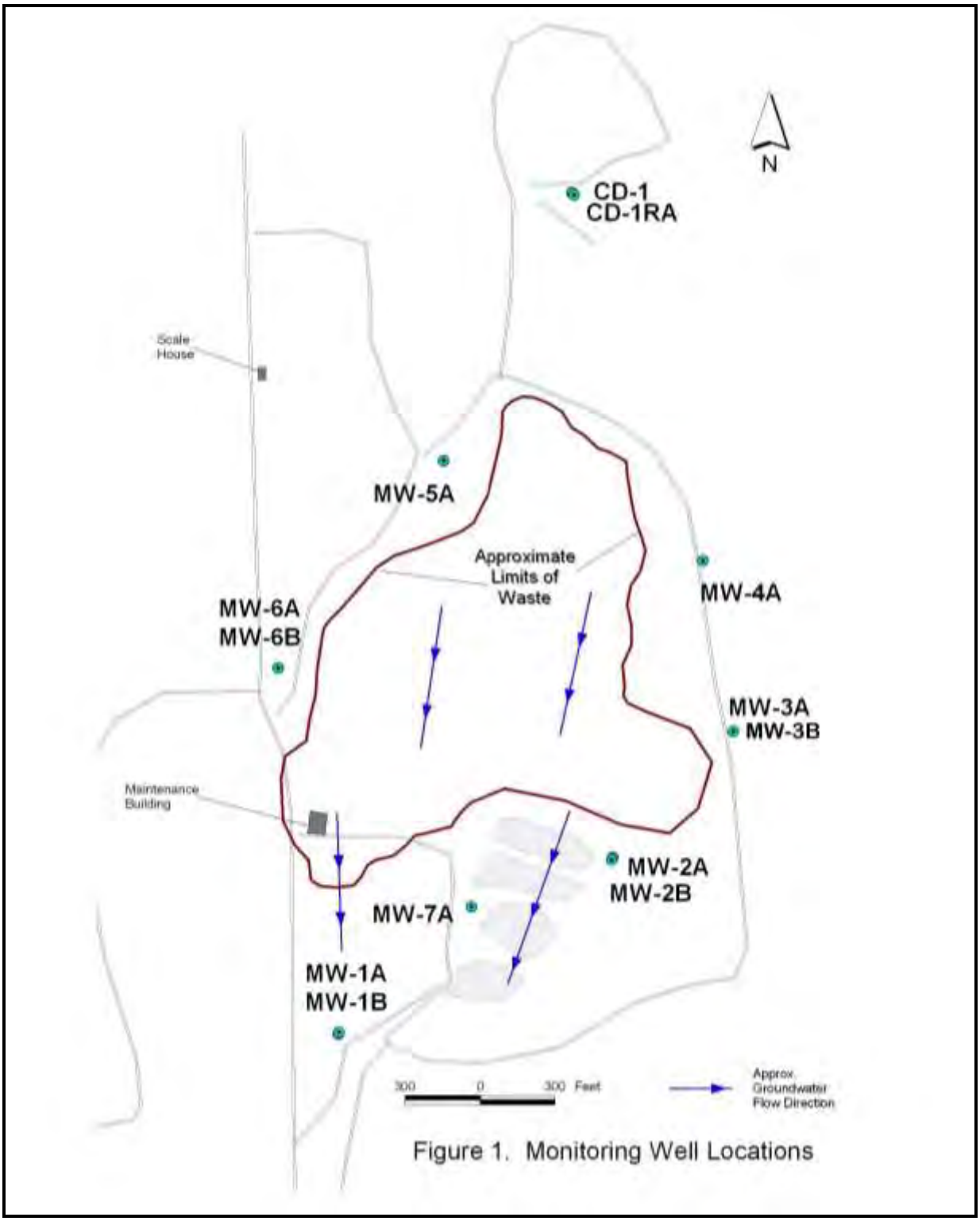

Figure 1. Monitoring Well Locations

Appendix A

Analytical Laboratory and Field Reports

Towslee Landfill

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-179134-1
Laboratory Sample Delivery Group: 480-179134
Client Project/Site: Towslee Landfill 4Q2020
Sampling Event: Towslee Landfill - Routine

For:
Cortland Cty Soil & Water Cons District
100 Grange Place
Rm 202
Cortland, New York 13045

Attn: Ms. Kathleen McGrath

Authorized for release by:
12/30/2020 1:13:47 AM

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

Table of Contents

Definitions/Glossary

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Qualifiers

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.

General Chemistry

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
^2	Calibration Blank is outside acceptance limits.
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.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Job ID: 480-179134-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-179134-1

Receipt
The samples were received on 12/9/2020 8:00 AM, 12/10/2020 8:00 AM and 12/16/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 7 coolers at receipt time were 2.8º C, 2.8º C, 3.2º C, 3.4º C, 3.4º C, 4.1º C and 4.5º C.

HPLC/IC
Method 300.0: The following samples were diluted due to the nature of the sample matrix: MW-2A (480-179194-1) and MW-2B (480-179194-2). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted due to the nature of the sample matrix: MW-4A (480-179134-6) and MW-7A (480-179134-10). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6010C: The method blank for preparation batch 480-563278 and 480-563307 contained Dissolved Iron above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples CD-1RA (480-179134-2), MW-6A (480-179134-8) and DUP (480-179134-11) were not performed.

Method 6010C: The interference check standard solution (ICSA) associated with the following samples showed results for Barium at a level greater than 2 times the limit of detection (LOD). It is believed that the solution contains trace impurities of this element / these elements and the results are not due to matrix interference. These results are consistent with those found by the manufacturer of the ICSA solution. DUP (480-179134-11)

Method 6010C: Dissolved Sodium metals results for the following samples are greater than the corresponding total metals results: MW-6A (480-179134-8) and DUP (480-179134-11). The dissolved metals and total metals results have been confirmed by the analysis of the undigested sample.

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

General Chemistry
Method 310.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-563391 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 351.2: The method blank for preparation batch 480-563040 contained Total Kjeldahl Nitrogen above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.MW-1B (480-179134-3) and MW-3B (480-179134-5)

Method 351.2: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: (480-179116-D-11-A). The reporting limits (RLs) have been adjusted proportionately.

Method 353.2: Reanalysis of the following samples were performed outside of the analytical holding time due to analyst error : MW-4A (480-179134-6), MW-4A (480-179134-6[MS]) and MW-4A (480-179134-6[MSD]).

Method 353.2: Reanalysis of the following samples were performed outside of the analytical holding time due to analyst error : MW-4A (480-179134-6), MW-4A (480-179134-6[MS]) and MW-4A (480-179134-6[MSD]).

Method 420.4: The continuing calibration blank (CCB) for analytical batch 480-563395 contained Phenolics, Total Recoverable above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Methods 420.4, 9066: The continuing calibration blank (CCB) for analytical batch 480-563702 contained Phenolics, Total Recoverable

Job ID: 480-179134-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method SM 5210B: The glucose-glutamic acid standard (LCS) recovered low outside the recovery limits specified in the method in batch 480-563551. The method holding time had expired, therefore the analysis was not repeated. The data was qualified and reported.

Method SM 5310C: The continuing calibration blank (CCB) for analytical batch 480-563900 contained Total Organic Carbon above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 9038: The Sulfate results reported for the following sample do not concur with results previously reported for this site: MW-7A (480-179134-10). Reanalysis was performed, and the result(s) confirmed.

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

Detection Summary

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: CD-1 — Lab Sample ID: 480-179134-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	43.2		0.50		mg/L	1		6010C	Total/NA
Iron	4.3		0.050		mg/L	1		6010C	Total/NA
Magnesium	10.3		0.20		mg/L	1		6010C	Total/NA
Manganese	1.4		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.1		0.50		mg/L	1		6010C	Total/NA
Sodium	4.0		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	150		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	138		20.0		mg/L	2		310.2	Total/NA
Total Kjeldahl Nitrogen	0.28		0.20		mg/L	1		351.2	Total/NA
Sulfate	18.8		5.0		mg/L	1		9038	Total/NA
Total Dissolved Solids	201		10.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: CD-1RA — Lab Sample ID: 480-179134-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	45.2		0.50		mg/L	1		6010C	Total/NA
Iron	7.1		0.050		mg/L	1		6010C	Total/NA
Magnesium	11.6		0.20		mg/L	1		6010C	Total/NA
Manganese	0.33		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.5		0.50		mg/L	1		6010C	Total/NA
Sodium	5.1		1.0		mg/L	1		6010C	Total/NA
Calcium	41.9		0.50		mg/L	1		6010C	Dissolved
Magnesium	9.5		0.20		mg/L	1		6010C	Dissolved
Manganese	0.057		0.0030		mg/L	1		6010C	Dissolved
Potassium	0.87		0.50		mg/L	1		6010C	Dissolved
Sodium	4.7		1.0		mg/L	1		6010C	Dissolved
Hardness as calcium carbonate	161		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	131		20.0		mg/L	2		310.2	Total/NA
Total Kjeldahl Nitrogen	0.31		0.20		mg/L	1		351.2	Total/NA
Sulfate	18.4		5.0		mg/L	1		9038	Total/NA
Total Dissolved Solids	229		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	1.4		1.0		mg/L	1		SM 4500 Cl- E	Total/NA
Total Organic Carbon - Duplicates	1.0		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	1.0		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 2	1.0		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: MW-1B — Lab Sample ID: 480-179134-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	25.3		0.50		mg/L	1		6010C	Total/NA
Iron	0.081		0.050		mg/L	1		6010C	Total/NA
Magnesium	6.1		0.20		mg/L	1		6010C	Total/NA
Manganese	0.27		0.0030		mg/L	1		6010C	Total/NA
Potassium	0.51		0.50		mg/L	1		6010C	Total/NA
Sodium	6.3		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	88.3		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	99.8		20.0		mg/L	2		310.2	Total/NA
Sulfate	11.3		5.0		mg/L	1		9038	Total/NA
Total Dissolved Solids	153		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	4.1		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-3A — Lab Sample ID: 480-179134-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	21.8		0.50		mg/L	1		6010C	Total/NA
Iron	0.55		0.050		mg/L	1		6010C	Total/NA
Magnesium	3.6		0.20		mg/L	1		6010C	Total/NA
Manganese	0.17		0.0030		mg/L	1		6010C	Total/NA
Potassium	0.93		0.50		mg/L	1		6010C	Total/NA
Sodium	1.4		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	69.2		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	73.3		10.0		mg/L	1		310.2	Total/NA
Total Kjeldahl Nitrogen	0.42		0.20		mg/L	1		351.2	Total/NA
Nitrate as N	0.072		0.050		mg/L	1		353.2	Total/NA
Chemical Oxygen Demand	15.4		10.0		mg/L	1		410.4	Total/NA
Total Dissolved Solids	194		10.0		mg/L	1		SM 2540C	Total/NA
Total Organic Carbon - Duplicates	4.4		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	4.6		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 2	4.3		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: MW-3B — Lab Sample ID: 480-179134-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	44.3		0.50		mg/L	1		6010C	Total/NA
Iron	0.13		0.050		mg/L	1		6010C	Total/NA
Magnesium	13.4		0.20		mg/L	1		6010C	Total/NA
Manganese	0.055		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.1		0.50		mg/L	1		6010C	Total/NA
Sodium	7.9		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	166		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	156		20.0		mg/L	2		310.2	Total/NA
Ammonia	0.022		0.020		mg/L	1		350.1	Total/NA
Sulfate	13.2		5.0		mg/L	1		9038	Total/NA
Total Dissolved Solids	226		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	22.7		1.0		mg/L	1		SM 4500 Cl- E	Total/NA
Total Organic Carbon - Duplicates	1.1		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	1.2		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 2	1.1		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: MW-4A — Lab Sample ID: 480-179134-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	140		0.50		mg/L	1		6010C	Total/NA
Iron	0.14		0.050		mg/L	1		6010C	Total/NA
Magnesium	31.3		0.20		mg/L	1		6010C	Total/NA
Manganese	0.47		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.7		0.50		mg/L	1		6010C	Total/NA
Sodium	17.7		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	477		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	533		60.0		mg/L	6		310.2	Total/NA
Total Kjeldahl Nitrogen	0.30	F1	0.20		mg/L	1		351.2	Total/NA
Total Dissolved Solids	442		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	9.9		1.0		mg/L	1		SM 4500 Cl- E	Total/NA
Total Organic Carbon - Duplicates	2.6		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	2.6		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 2	2.6		1.0		mg/L	1		SM 5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-5A — Lab Sample ID: 480-179134-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	38.4		0.50		mg/L	1		6010C	Total/NA
Iron	0.12		0.050		mg/L	1		6010C	Total/NA
Magnesium	11.5		0.20		mg/L	1		6010C	Total/NA
Manganese	0.034		0.0030		mg/L	1		6010C	Total/NA
Potassium	0.94		0.50		mg/L	1		6010C	Total/NA
Sodium	9.1		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	143		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	142		20.0		mg/L	2		310.2	Total/NA
Total Kjeldahl Nitrogen	0.23		0.20		mg/L	1		351.2	Total/NA
Sulfate	21.9		5.0		mg/L	1		9038	Total/NA
Total Dissolved Solids	183		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	5.7		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-6A — Lab Sample ID: 480-179134-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	77.3		0.50		mg/L	1		6010C	Total/NA
Iron	15.7		0.050		mg/L	1		6010C	Total/NA
Magnesium	11.6		0.20		mg/L	1		6010C	Total/NA
Manganese	0.59		0.0030		mg/L	1		6010C	Total/NA
Potassium	4.5		0.50		mg/L	1		6010C	Total/NA
Sodium	4.0		1.0		mg/L	1		6010C	Total/NA
Calcium	70.2		0.50		mg/L	1		6010C	Dissolved
Magnesium	8.6		0.20		mg/L	1		6010C	Dissolved
Manganese	0.15		0.0030		mg/L	1		6010C	Dissolved
Potassium	1.8		0.50		mg/L	1		6010C	Dissolved
Sodium	5.0		1.0		mg/L	1		6010C	Dissolved
Hardness as calcium carbonate	241		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	208		30.0		mg/L	3		310.2	Total/NA
Ammonia	0.054		0.020		mg/L	1		350.1	Total/NA
Total Kjeldahl Nitrogen	1.3		0.20		mg/L	1		351.2	Total/NA
Nitrate as N	0.54		0.050		mg/L	1		353.2	Total/NA
Chemical Oxygen Demand	24.6		10.0		mg/L	1		410.4	Total/NA
Total Dissolved Solids	262		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	2.3		1.0		mg/L	1		SM 4500 Cl- E	Total/NA
Total Organic Carbon - Duplicates	7.0	^2	1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	7.0	^2	1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 2	7.0	^2	1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: MW-6B — Lab Sample ID: 480-179134-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	37.4		0.50		mg/L	1		6010C	Total/NA
Iron	0.28		0.050		mg/L	1		6010C	Total/NA
Magnesium	9.1		0.20		mg/L	1		6010C	Total/NA
Manganese	0.064		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.1		0.50		mg/L	1		6010C	Total/NA
Sodium	9.8		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	131		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	146		20.0		mg/L	2		310.2	Total/NA
Total Kjeldahl Nitrogen	0.20		0.20		mg/L	1		351.2	Total/NA
Nitrate as N	0.065		0.050		mg/L	1		353.2	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-6B (Continued) — Lab Sample ID: 480-179134-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	35.5		5.0		mg/L	1		9038	Total/NA
Total Dissolved Solids	170		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	6.7		1.0		mg/L	1		SM 4500 Cl- E	Total/NA
Total Organic Carbon - Duplicates	1.8		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	2.0		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 2	1.6		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: MW-7A — Lab Sample ID: 480-179134-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	75.8		0.50		mg/L	1		6010C	Total/NA
Iron	0.27		0.050		mg/L	1		6010C	Total/NA
Magnesium	16.7		0.20		mg/L	1		6010C	Total/NA
Manganese	0.66		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.4		0.50		mg/L	1		6010C	Total/NA
Sodium	44.8		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	258		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	376		60.0		mg/L	6		310.2	Total/NA
Total Kjeldahl Nitrogen	0.54		0.20		mg/L	1		351.2	Total/NA
Nitrate as N	0.091		0.050		mg/L	1		353.2	Total/NA
Chemical Oxygen Demand	20.9		10.0		mg/L	1		410.4	Total/NA
Sulfate	37.0		5.0		mg/L	1		9038	Total/NA
Total Dissolved Solids	455		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	37.6		1.0		mg/L	1		SM 4500 Cl- E	Total/NA
Total Organic Carbon - Duplicates	5.7		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	5.9		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 2	5.6		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: DUP — Lab Sample ID: 480-179134-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	75.3		0.50		mg/L	1		6010C	Total/NA
Iron	14.5		0.050		mg/L	1		6010C	Total/NA
Magnesium	11.0		0.20		mg/L	1		6010C	Total/NA
Manganese	0.54		0.0030		mg/L	1		6010C	Total/NA
Potassium	4.3		0.50		mg/L	1		6010C	Total/NA
Sodium	3.9		1.0		mg/L	1		6010C	Total/NA
Calcium	70.3		0.50		mg/L	1		6010C	Dissolved
Magnesium	8.5		0.20		mg/L	1		6010C	Dissolved
Manganese	0.12		0.0030		mg/L	1		6010C	Dissolved
Potassium	1.8		0.50		mg/L	1		6010C	Dissolved
Sodium	5.0		1.0		mg/L	1		6010C	Dissolved
Hardness as calcium carbonate	233		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	222		40.0		mg/L	4		310.2	Total/NA
Ammonia	0.061		0.020		mg/L	1		350.1	Total/NA
Total Kjeldahl Nitrogen	1.3		0.20		mg/L	1		351.2	Total/NA
Nitrate as N	0.57		0.050		mg/L	1		353.2	Total/NA
Chemical Oxygen Demand	25.2		10.0		mg/L	1		410.4	Total/NA
Total Dissolved Solids	285		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	2.4		1.0		mg/L	1		SM 4500 Cl- E	Total/NA
Total Organic Carbon - Duplicates	6.3		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	6.4		1.0		mg/L	1		SM 5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP (Continued) — Lab Sample ID: 480-179134-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 2	6.2		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: MW-2A — Lab Sample ID: 480-179194-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	82.0		0.50		mg/L	1		6010C	Total/NA
Iron	6.0		0.050		mg/L	1		6010C	Total/NA
Magnesium	18.1		0.20		mg/L	1		6010C	Total/NA
Manganese	12.2		0.0030		mg/L	1		6010C	Total/NA
Potassium	9.7		0.50		mg/L	1		6010C	Total/NA
Sodium	14.4		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	279		0.50		mg/L	1		SM 2340B	Total/NA
Bromide	0.41		0.40		mg/L	2		300.0	Total/NA
Alkalinity, Total	329		40.0		mg/L	4		310.2	Total/NA
Ammonia	9.4		0.10		mg/L	5		350.1	Total/NA
Total Kjeldahl Nitrogen	7.7		0.40		mg/L	2		351.2	Total/NA
Nitrate as N	0.13		0.050		mg/L	1		353.2	Total/NA
Chemical Oxygen Demand	11.3		10.0		mg/L	1		410.4	Total/NA
Total Dissolved Solids	385		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	22.4		1.0		mg/L	1		SM 4500 Cl- E	Total/NA
Biochemical Oxygen Demand	6.8		2.0		mg/L	1		SM 5210B	Total/NA
Total Organic Carbon - Duplicates	5.8		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	5.9		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 2	5.7		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: MW-2B — Lab Sample ID: 480-179194-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	179		0.50		mg/L	1		6010C	Total/NA
Iron	1.8		0.050		mg/L	1		6010C	Total/NA
Magnesium	37.4		0.20		mg/L	1		6010C	Total/NA
Manganese	5.3		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.7		0.50		mg/L	1		6010C	Total/NA
Sodium	44.0		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	600		0.50		mg/L	1		SM 2340B	Total/NA
Bromide	0.67		0.40		mg/L	2		300.0	Total/NA
Alkalinity, Total	567		70.0		mg/L	7		310.2	Total/NA
Ammonia	0.73		0.020		mg/L	1		350.1	Total/NA
Total Kjeldahl Nitrogen	1.3		0.20		mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	25.6		10.0		mg/L	1		410.4	Total/NA
Total Dissolved Solids	758		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	85.7		2.0		mg/L	2		SM 4500 Cl- E	Total/NA
Total Organic Carbon - Duplicates	4.8		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 1	4.9		1.0		mg/L	1		SM 5310C	Total/NA
TOC Result 2	4.7		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: MW-1A — Lab Sample ID: 480-179414-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	46.6		0.50		mg/L	1		6010C	Total/NA
Iron	1.5		0.050		mg/L	1		6010C	Total/NA
Magnesium	10.5		0.20		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-1A (Continued)

Lab Sample ID: 480-179414-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.20		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.3		0.50		mg/L	1		6010C	Total/NA
Sodium	11.6		1.0		mg/L	1		6010C	Total/NA
Hardness as calcium carbonate	160		0.50		mg/L	1		SM 2340B	Total/NA
Alkalinity, Total	98.8		20.0		mg/L	2		310.2	Total/NA
Ammonia	0.049		0.020		mg/L	1		350.1	Total/NA
Total Kjeldahl Nitrogen	0.23		0.20		mg/L	1		351.2	Total/NA
Sulfate	20.6		5.0		mg/L	1		9038	Total/NA
Total Dissolved Solids	245		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	37.7		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: CD-1

Date Collected: 12/08/20 09:10
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-1

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 22:12	1
Calcium	**43.2**		0.50		mg/L		12/14/20 10:42	12/15/20 22:12	1
Iron	**4.3**		0.050		mg/L		12/14/20 10:42	12/15/20 22:12	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 22:12	1
Magnesium	**10.3**		0.20		mg/L		12/14/20 10:42	12/15/20 22:12	1
Manganese	**1.4**		0.0030		mg/L		12/14/20 10:42	12/15/20 22:12	1
Potassium	**2.1**		0.50		mg/L		12/14/20 10:42	12/15/20 22:12	1
Sodium	**4.0**		1.0		mg/L		12/14/20 10:42	12/15/20 22:12	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**150**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/16/20 00:38	1
Alkalinity, Total	**138**		20.0		mg/L			12/15/20 20:24	2
Ammonia	ND	F1	0.020		mg/L			12/10/20 08:14	1
Total Kjeldahl Nitrogen	**0.28**		0.20		mg/L		12/15/20 13:05	12/16/20 07:25	1
Nitrate as N	ND		0.050		mg/L			12/09/20 14:39	1
Chemical Oxygen Demand	ND		10.0		mg/L			12/11/20 17:10	1
Phenolics, Total Recoverable	ND	F1	0.010		mg/L			12/15/20 16:37	1
Sulfate	**18.8**		5.0		mg/L			12/15/20 22:37	1
Total Dissolved Solids	**201**		10.0		mg/L			12/10/20 16:56	1
Chloride	ND		1.0		mg/L			12/15/20 23:41	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			12/24/20 16:45	1
TOC Result 1	ND		1.0		mg/L			12/24/20 16:45	1
TOC Result 2	ND		1.0		mg/L			12/24/20 16:45	1

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: CD-1RA

Date Collected: 12/08/20 08:40
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-2

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 22:16	1
Calcium	**45.2**		0.50		mg/L		12/14/20 10:42	12/15/20 22:16	1
Iron	**7.1**		0.050		mg/L		12/14/20 10:42	12/15/20 22:16	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 22:16	1
Magnesium	**11.6**		0.20		mg/L		12/14/20 10:42	12/15/20 22:16	1
Manganese	**0.33**		0.0030		mg/L		12/14/20 10:42	12/15/20 22:16	1
Potassium	**2.5**		0.50		mg/L		12/14/20 10:42	12/15/20 22:16	1
Sodium	**5.1**		1.0		mg/L		12/14/20 10:42	12/15/20 22:16	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/16/20 09:44	12/16/20 22:14	1
Calcium	**41.9**		0.50		mg/L		12/16/20 09:44	12/16/20 22:14	1
Iron	ND		0.050		mg/L		12/16/20 09:44	12/16/20 22:14	1
Lead	ND		0.010		mg/L		12/16/20 09:44	12/16/20 22:14	1
Magnesium	**9.5**		0.20		mg/L		12/16/20 09:44	12/16/20 22:14	1
Manganese	**0.057**		0.0030		mg/L		12/16/20 09:44	12/16/20 22:14	1
Potassium	**0.87**		0.50		mg/L		12/16/20 09:44	12/16/20 22:14	1
Sodium	**4.7**		1.0		mg/L		12/16/20 09:44	12/16/20 22:14	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**161**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/16/20 00:52	1
Alkalinity, Total	**131**		20.0		mg/L			12/15/20 20:24	2
Ammonia	ND		0.020		mg/L			12/10/20 08:16	1
Total Kjeldahl Nitrogen	**0.31**		0.20		mg/L		12/15/20 13:05	12/16/20 07:25	1
Nitrate as N	ND		0.050		mg/L			12/09/20 14:41	1
Chemical Oxygen Demand	ND		10.0		mg/L			12/11/20 17:10	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 16:44	1
Sulfate	**18.4**		5.0		mg/L			12/15/20 23:00	1
Total Dissolved Solids	**229**		10.0		mg/L			12/10/20 16:56	1
Chloride	**1.4**		1.0		mg/L			12/15/20 23:41	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	**1.0**		1.0		mg/L			12/24/20 17:00	1
TOC Result 1	**1.0**		1.0		mg/L			12/24/20 17:00	1
TOC Result 2	**1.0**		1.0		mg/L			12/24/20 17:00	1

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-1B

Date Collected: 12/08/20 14:10
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-3

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 22:19	1
Calcium	**25.3**		0.50		mg/L		12/14/20 10:42	12/15/20 22:19	1
Iron	**0.081**		0.050		mg/L		12/14/20 10:42	12/15/20 22:19	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 22:19	1
Magnesium	**6.1**		0.20		mg/L		12/14/20 10:42	12/15/20 22:19	1
Manganese	**0.27**		0.0030		mg/L		12/14/20 10:42	12/15/20 22:19	1
Potassium	**0.51**		0.50		mg/L		12/14/20 10:42	12/15/20 22:19	1
Sodium	**6.3**		1.0		mg/L		12/14/20 10:42	12/15/20 22:19	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**88.3**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/16/20 01:07	1
Alkalinity, Total	**99.8**		20.0		mg/L			12/15/20 21:05	2
Ammonia	ND		0.020		mg/L			12/10/20 08:17	1
Total Kjeldahl Nitrogen	ND		0.20		mg/L		12/13/20 10:37	12/14/20 08:23	1
Nitrate as N	ND		0.050		mg/L			12/09/20 14:42	1
Chemical Oxygen Demand	ND		10.0		mg/L			12/11/20 17:10	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 16:48	1
Sulfate	**11.3**		5.0		mg/L			12/15/20 23:00	1
Total Dissolved Solids	**153**		10.0		mg/L			12/10/20 16:56	1
Chloride	**4.1**		1.0		mg/L			12/15/20 23:41	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 21:16	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			12/18/20 13:44	1
TOC Result 1	ND		1.0		mg/L			12/18/20 13:44	1
TOC Result 2	ND		1.0		mg/L			12/18/20 13:44	1

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-3A

Date Collected: 12/08/20 10:30
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-4

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 22:23	1
Calcium	**21.8**		0.50		mg/L		12/14/20 10:42	12/15/20 22:23	1
Iron	**0.55**		0.050		mg/L		12/14/20 10:42	12/15/20 22:23	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 22:23	1
Magnesium	**3.6**		0.20		mg/L		12/14/20 10:42	12/15/20 22:23	1
Manganese	**0.17**		0.0030		mg/L		12/14/20 10:42	12/15/20 22:23	1
Potassium	**0.93**		0.50		mg/L		12/14/20 10:42	12/15/20 22:23	1
Sodium	**1.4**		1.0		mg/L		12/14/20 10:42	12/15/20 22:23	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**69.2**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/16/20 02:31	1
Alkalinity, Total	**73.3**		10.0		mg/L			12/15/20 21:06	1
Ammonia	ND		0.020		mg/L			12/10/20 08:18	1
Total Kjeldahl Nitrogen	**0.42**		0.20		mg/L		12/15/20 13:05	12/16/20 07:25	1
Nitrate as N	**0.072**		0.050		mg/L			12/09/20 14:45	1
Chemical Oxygen Demand	**15.4**		10.0		mg/L			12/11/20 17:10	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 17:02	1
Sulfate	ND		5.0		mg/L			12/15/20 22:10	1
Total Dissolved Solids	**194**		10.0		mg/L			12/10/20 16:56	1
Chloride	ND		1.0		mg/L			12/15/20 23:44	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	**4.4**		1.0		mg/L			12/18/20 00:38	1
TOC Result 1	**4.6**		1.0		mg/L			12/18/20 00:38	1
TOC Result 2	**4.3**		1.0		mg/L			12/18/20 00:38	1

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-3B

Date Collected: 12/08/20 10:50
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-5

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 22:27	1
Calcium	**44.3**		0.50		mg/L		12/14/20 10:42	12/15/20 22:27	1
Iron	**0.13**		0.050		mg/L		12/14/20 10:42	12/15/20 22:27	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 22:27	1
Magnesium	**13.4**		0.20		mg/L		12/14/20 10:42	12/15/20 22:27	1
Manganese	**0.055**		0.0030		mg/L		12/14/20 10:42	12/15/20 22:27	1
Potassium	**1.1**		0.50		mg/L		12/14/20 10:42	12/15/20 22:27	1
Sodium	**7.9**		1.0		mg/L		12/14/20 10:42	12/15/20 22:27	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**166**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/16/20 02:46	1
Alkalinity, Total	**156**		20.0		mg/L			12/15/20 20:26	2
Ammonia	**0.022**		0.020		mg/L			12/10/20 08:18	1
Total Kjeldahl Nitrogen	ND		0.20		mg/L		12/13/20 10:37	12/14/20 08:32	1
Nitrate as N	ND		0.050		mg/L			12/09/20 14:47	1
Chemical Oxygen Demand	ND		10.0		mg/L			12/11/20 17:10	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 17:32	1
Sulfate	**13.2**		5.0		mg/L			12/15/20 22:11	1
Total Dissolved Solids	**226**		10.0		mg/L			12/10/20 16:56	1
Chloride	**22.7**		1.0		mg/L			12/16/20 00:24	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	**1.1**		1.0		mg/L			12/24/20 17:15	1
TOC Result 1	**1.2**		1.0		mg/L			12/24/20 17:15	1
TOC Result 2	**1.1**		1.0		mg/L			12/24/20 17:15	1

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-4A

Date Collected: 12/08/20 11:10
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-6

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 22:30	1
Calcium	**140**		0.50		mg/L		12/14/20 10:42	12/15/20 22:30	1
Iron	**0.14**		0.050		mg/L		12/14/20 10:42	12/15/20 22:30	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 22:30	1
Magnesium	**31.3**		0.20		mg/L		12/14/20 10:42	12/15/20 22:30	1
Manganese	**0.47**		0.0030		mg/L		12/14/20 10:42	12/15/20 22:30	1
Potassium	**1.7**		0.50		mg/L		12/14/20 10:42	12/15/20 22:30	1
Sodium	**17.7**		1.0		mg/L		12/14/20 10:42	12/15/20 22:30	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**477**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.40		mg/L			12/16/20 01:21	2
Alkalinity, Total	**533**		60.0		mg/L			12/15/20 20:26	6
Ammonia	ND	F1	0.020		mg/L			12/10/20 08:21	1
Total Kjeldahl Nitrogen	**0.30**	**F1**	0.20		mg/L		12/15/20 13:05	12/16/20 07:25	1
Nitrate as N	ND		0.050		mg/L			12/09/20 14:49	1
Chemical Oxygen Demand	ND		10.0		mg/L			12/09/20 19:45	1
Phenolics, Total Recoverable	ND	F1	0.010		mg/L			12/15/20 17:35	1
Sulfate	ND	F1	5.0		mg/L			12/15/20 22:11	1
Total Dissolved Solids	**442**		10.0		mg/L			12/10/20 16:56	1
Chloride	**9.9**		1.0		mg/L			12/16/20 00:24	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	**2.6**		1.0		mg/L			12/24/20 14:30	1
TOC Result 1	**2.6**		1.0		mg/L			12/24/20 14:30	1
TOC Result 2	**2.6**		1.0		mg/L			12/24/20 14:30	1

Client Sample Results

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-5A

Date Collected: 12/08/20 11:20
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-7

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 23:00	1
Calcium	**38.4**		0.50		mg/L		12/14/20 10:42	12/15/20 23:00	1
Iron	**0.12**		0.050		mg/L		12/14/20 10:42	12/15/20 23:00	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 23:00	1
Magnesium	**11.5**		0.20		mg/L		12/14/20 10:42	12/15/20 23:00	1
Manganese	**0.034**		0.0030		mg/L		12/14/20 10:42	12/15/20 23:00	1
Potassium	**0.94**		0.50		mg/L		12/14/20 10:42	12/15/20 23:00	1
Sodium	**9.1**		1.0		mg/L		12/14/20 10:42	12/15/20 23:00	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**143**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/16/20 03:00	1
Alkalinity, Total	**142**		20.0		mg/L			12/15/20 20:27	2
Ammonia	ND		0.020		mg/L			12/10/20 08:24	1
Total Kjeldahl Nitrogen	**0.23**		0.20		mg/L		12/15/20 13:05	12/16/20 07:25	1
Nitrate as N	ND		0.050		mg/L			12/09/20 14:50	1
Chemical Oxygen Demand	ND		10.0		mg/L			12/11/20 17:10	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 17:46	1
Sulfate	**21.9**		5.0		mg/L			12/15/20 22:12	1
Total Dissolved Solids	**183**		10.0		mg/L			12/10/20 16:56	1
Chloride	**5.7**		1.0		mg/L			12/16/20 00:25	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			12/18/20 14:15	1
TOC Result 1	ND		1.0		mg/L			12/18/20 14:15	1
TOC Result 2	ND		1.0		mg/L			12/18/20 14:15	1

Client Sample ID: MW-6A

Date Collected: 12/08/20 11:55
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-8

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 23:04	1
Calcium	**77.3**		0.50		mg/L		12/14/20 10:42	12/15/20 23:04	1
Iron	**15.7**		0.050		mg/L		12/14/20 10:42	12/15/20 23:04	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 23:04	1
Magnesium	**11.6**		0.20		mg/L		12/14/20 10:42	12/15/20 23:04	1
Manganese	**0.59**		0.0030		mg/L		12/14/20 10:42	12/15/20 23:04	1
Potassium	**4.5**		0.50		mg/L		12/14/20 10:42	12/15/20 23:04	1
Sodium	**4.0**		1.0		mg/L		12/14/20 10:42	12/15/20 23:04	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/16/20 09:44	12/16/20 22:17	1
Calcium	**70.2**		0.50		mg/L		12/16/20 09:44	12/16/20 22:17	1
Iron	ND		0.050		mg/L		12/16/20 09:44	12/16/20 22:17	1
Lead	ND		0.010		mg/L		12/16/20 09:44	12/16/20 22:17	1
Magnesium	**8.6**		0.20		mg/L		12/16/20 09:44	12/16/20 22:17	1
Manganese	**0.15**		0.0030		mg/L		12/16/20 09:44	12/16/20 22:17	1
Potassium	**1.8**		0.50		mg/L		12/16/20 09:44	12/16/20 22:17	1
Sodium	**5.0**		1.0		mg/L		12/16/20 09:44	12/16/20 22:17	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**241**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/16/20 03:14	1
Alkalinity, Total	**208**		30.0		mg/L			12/15/20 20:28	3
Ammonia	**0.054**		0.020		mg/L			12/10/20 08:24	1
Total Kjeldahl Nitrogen	**1.3**		0.20		mg/L		12/15/20 13:05	12/16/20 07:25	1
Nitrate as N	**0.54**		0.050		mg/L			12/09/20 14:51	1
Chemical Oxygen Demand	**24.6**		10.0		mg/L			12/09/20 18:30	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 17:50	1
Sulfate	ND		5.0		mg/L			12/15/20 22:12	1
Total Dissolved Solids	**262**		10.0		mg/L			12/10/20 16:56	1
Chloride	**2.3**		1.0		mg/L			12/16/20 00:25	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	**7.0**	**^2**	1.0		mg/L			12/18/20 14:30	1
TOC Result 1	**7.0**	**^2**	1.0		mg/L			12/18/20 14:30	1
TOC Result 2	**7.0**	**^2**	1.0		mg/L			12/18/20 14:30	1

Client Sample Results

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-6B

Date Collected: 12/08/20 12:45
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-9

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 23:07	1
Calcium	**37.4**		0.50		mg/L		12/14/20 10:42	12/15/20 23:07	1
Iron	**0.28**		0.050		mg/L		12/14/20 10:42	12/15/20 23:07	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 23:07	1
Magnesium	**9.1**		0.20		mg/L		12/14/20 10:42	12/15/20 23:07	1
Manganese	**0.064**		0.0030		mg/L		12/14/20 10:42	12/15/20 23:07	1
Potassium	**1.1**		0.50		mg/L		12/14/20 10:42	12/15/20 23:07	1
Sodium	**9.8**		1.0		mg/L		12/14/20 10:42	12/15/20 23:07	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**131**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/16/20 03:28	1
Alkalinity, Total	**146**		20.0		mg/L			12/15/20 20:31	2
Ammonia	ND		0.020		mg/L			12/10/20 08:25	1
Total Kjeldahl Nitrogen	**0.20**		0.20		mg/L		12/15/20 13:05	12/16/20 07:33	1
Nitrate as N	**0.065**		0.050		mg/L			12/09/20 14:52	1
Chemical Oxygen Demand	ND		10.0		mg/L			12/11/20 17:10	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 17:54	1
Sulfate	**35.5**		5.0		mg/L			12/15/20 22:13	1
Total Dissolved Solids	**170**		10.0		mg/L			12/10/20 16:56	1
Chloride	**6.7**		1.0		mg/L			12/16/20 00:27	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	**1.8**		1.0		mg/L			12/18/20 00:53	1
TOC Result 1	**2.0**		1.0		mg/L			12/18/20 00:53	1
TOC Result 2	**1.6**		1.0		mg/L			12/18/20 00:53	1

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-7A

Date Collected: 12/08/20 13:20
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-10

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 23:11	1
Calcium	**75.8**		0.50		mg/L		12/14/20 10:42	12/15/20 23:11	1
Iron	**0.27**		0.050		mg/L		12/14/20 10:42	12/15/20 23:11	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 23:11	1
Magnesium	**16.7**		0.20		mg/L		12/14/20 10:42	12/15/20 23:11	1
Manganese	**0.66**		0.0030		mg/L		12/14/20 10:42	12/15/20 23:11	1
Potassium	**2.4**		0.50		mg/L		12/14/20 10:42	12/15/20 23:11	1
Sodium	**44.8**		1.0		mg/L		12/14/20 10:42	12/15/20 23:11	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**258**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		1.0		mg/L			12/16/20 03:42	5
Alkalinity, Total	**376**		60.0		mg/L			12/15/20 20:31	6
Ammonia	ND		0.020		mg/L			12/10/20 08:26	1
Total Kjeldahl Nitrogen	**0.54**		0.20		mg/L		12/15/20 13:05	12/16/20 07:33	1
Nitrate as N	**0.091**		0.050		mg/L			12/09/20 14:53	1
Chemical Oxygen Demand	**20.9**		10.0		mg/L			12/09/20 18:30	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 17:57	1
Sulfate	**37.0**		5.0		mg/L			12/18/20 20:54	1
Total Dissolved Solids	**455**		10.0		mg/L			12/10/20 16:56	1
Chloride	**37.6**		1.0		mg/L			12/16/20 00:27	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	**5.7**		1.0		mg/L			12/18/20 01:08	1
TOC Result 1	**5.9**		1.0		mg/L			12/18/20 01:08	1
TOC Result 2	**5.6**		1.0		mg/L			12/18/20 01:08	1

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: DUP

Date Collected: 12/08/20 11:55
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-11

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 23:15	1
Calcium	**75.3**		0.50		mg/L		12/14/20 10:42	12/15/20 23:15	1
Iron	**14.5**		0.050		mg/L		12/14/20 10:42	12/15/20 23:15	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 23:15	1
Magnesium	**11.0**		0.20		mg/L		12/14/20 10:42	12/15/20 23:15	1
Manganese	**0.54**		0.0030		mg/L		12/14/20 10:42	12/15/20 23:15	1
Potassium	**4.3**		0.50		mg/L		12/14/20 10:42	12/15/20 23:15	1
Sodium	**3.9**		1.0		mg/L		12/14/20 10:42	12/15/20 23:15	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/16/20 09:44	12/16/20 22:21	1
Calcium	**70.3**		0.50		mg/L		12/16/20 09:44	12/16/20 22:21	1
Iron	ND		0.050		mg/L		12/16/20 09:44	12/16/20 22:21	1
Lead	ND		0.010		mg/L		12/16/20 09:44	12/16/20 22:21	1
Magnesium	**8.5**		0.20		mg/L		12/16/20 09:44	12/16/20 22:21	1
Manganese	**0.12**		0.0030		mg/L		12/16/20 09:44	12/16/20 22:21	1
Potassium	**1.8**		0.50		mg/L		12/16/20 09:44	12/16/20 22:21	1
Sodium	**5.0**		1.0		mg/L		12/16/20 09:44	12/16/20 22:21	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**233**		0.50		mg/L			12/17/20 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/16/20 03:56	1
Alkalinity, Total	**222**		40.0		mg/L			12/15/20 21:06	4
Ammonia	**0.061**		0.020		mg/L			12/10/20 08:27	1
Total Kjeldahl Nitrogen	**1.3**		0.20		mg/L		12/15/20 13:05	12/16/20 07:33	1
Nitrate as N	**0.57**		0.050		mg/L			12/09/20 14:54	1
Chemical Oxygen Demand	**25.2**		10.0		mg/L			12/09/20 18:30	1
Phenolics, Total Recoverable	ND	F1	0.010		mg/L			12/15/20 18:21	1
Sulfate	ND		5.0		mg/L			12/15/20 22:15	1
Total Dissolved Solids	**285**		10.0		mg/L			12/10/20 16:56	1
Chloride	**2.4**		1.0		mg/L			12/16/20 00:27	1
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1
Total Organic Carbon - Duplicates	**6.3**		1.0		mg/L			12/24/20 16:30	1
TOC Result 1	**6.4**		1.0		mg/L			12/24/20 16:30	1
TOC Result 2	**6.2**		1.0		mg/L			12/24/20 16:30	1

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-2A

Date Collected: 12/09/20 09:00
Date Received: 12/10/20 08:00

Lab Sample ID: 480-179194-1

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 20:02	1
Calcium	**82.0**		0.50		mg/L		12/14/20 10:42	12/15/20 20:02	1
Iron	**6.0**		0.050		mg/L		12/14/20 10:42	12/15/20 20:02	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 20:02	1
Magnesium	**18.1**		0.20		mg/L		12/14/20 10:42	12/15/20 20:02	1
Manganese	**12.2**		0.0030		mg/L		12/14/20 10:42	12/15/20 20:02	1
Potassium	**9.7**		0.50		mg/L		12/14/20 10:42	12/15/20 20:02	1
Sodium	**14.4**		1.0		mg/L		12/14/20 10:42	12/15/20 20:02	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**279**		0.50		mg/L			12/16/20 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.41**		0.40		mg/L			12/15/20 15:39	2
Alkalinity, Total	**329**		40.0		mg/L			12/15/20 20:51	4
Ammonia	**9.4**		0.10		mg/L			12/11/20 10:17	5
Total Kjeldahl Nitrogen	**7.7**		0.40		mg/L		12/14/20 10:36	12/15/20 08:18	2
Nitrate as N	**0.13**		0.050		mg/L			12/10/20 18:40	1
Chemical Oxygen Demand	**11.3**		10.0		mg/L			12/11/20 18:14	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/17/20 10:40	1
Sulfate	ND		5.0		mg/L			12/15/20 22:31	1
Total Dissolved Solids	**385**		10.0		mg/L			12/12/20 14:11	1
Chloride	**22.4**		1.0		mg/L			12/16/20 00:46	1
Biochemical Oxygen Demand	**6.8**		2.0		mg/L			12/10/20 14:37	1
Total Organic Carbon - Duplicates	**5.8**		1.0		mg/L			12/24/20 21:15	1
TOC Result 1	**5.9**		1.0		mg/L			12/24/20 21:15	1
TOC Result 2	**5.7**		1.0		mg/L			12/24/20 21:15	1

Client Sample Results

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-2B

Date Collected: 12/09/20 09:20
Date Received: 12/10/20 08:00

Lab Sample ID: 480-179194-2

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 20:05	1
Calcium	**179**		0.50		mg/L		12/14/20 10:42	12/15/20 20:05	1
Iron	**1.8**		0.050		mg/L		12/14/20 10:42	12/15/20 20:05	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 20:05	1
Magnesium	**37.4**		0.20		mg/L		12/14/20 10:42	12/15/20 20:05	1
Manganese	**5.3**		0.0030		mg/L		12/14/20 10:42	12/15/20 20:05	1
Potassium	**2.7**		0.50		mg/L		12/14/20 10:42	12/15/20 20:05	1
Sodium	**44.0**		1.0		mg/L		12/14/20 10:42	12/15/20 20:05	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**600**		0.50		mg/L			12/16/20 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.67**		0.40		mg/L			12/15/20 15:54	2
Alkalinity, Total	**567**		70.0		mg/L			12/15/20 20:52	7
Ammonia	**0.73**		0.020		mg/L			12/11/20 09:37	1
Total Kjeldahl Nitrogen	**1.3**		0.20		mg/L		12/14/20 10:36	12/15/20 07:59	1
Nitrate as N	ND		0.050		mg/L			12/10/20 18:41	1
Chemical Oxygen Demand	**25.6**		10.0		mg/L			12/11/20 18:14	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/17/20 11:18	1
Sulfate	ND		5.0		mg/L			12/15/20 22:31	1
Total Dissolved Solids	**758**		10.0		mg/L			12/12/20 14:11	1
Chloride	**85.7**		2.0		mg/L			12/16/20 00:50	2
Biochemical Oxygen Demand	ND		2.0		mg/L			12/10/20 14:37	1
Total Organic Carbon - Duplicates	**4.8**		1.0		mg/L			12/24/20 21:30	1
TOC Result 1	**4.9**		1.0		mg/L			12/24/20 21:30	1
TOC Result 2	**4.7**		1.0		mg/L			12/24/20 21:30	1

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-1A

Date Collected: 12/15/20 08:15
Date Received: 12/16/20 08:00

Lab Sample ID: 480-179414-1

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/18/20 09:57	12/21/20 18:02	1
Calcium	**46.6**		0.50		mg/L		12/18/20 09:57	12/21/20 18:02	1
Iron	**1.5**		0.050		mg/L		12/18/20 09:57	12/21/20 18:02	1
Lead	ND		0.010		mg/L		12/18/20 09:57	12/21/20 18:02	1
Magnesium	**10.5**		0.20		mg/L		12/18/20 09:57	12/21/20 18:02	1
Manganese	**0.20**		0.0030		mg/L		12/18/20 09:57	12/21/20 18:02	1
Potassium	**1.3**		0.50		mg/L		12/18/20 09:57	12/21/20 18:02	1
Sodium	**11.6**		1.0		mg/L		12/18/20 09:57	12/21/20 18:02	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	**160**		0.50		mg/L			12/27/20 09:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/18/20 16:12	1
Alkalinity, Total	**98.8**		20.0		mg/L			12/18/20 19:28	2
Ammonia	**0.049**		0.020		mg/L			12/17/20 10:42	1
Total Kjeldahl Nitrogen	**0.23**		0.20		mg/L		12/17/20 12:29	12/18/20 08:06	1
Nitrate as N	ND		0.050		mg/L			12/16/20 18:12	1
Chemical Oxygen Demand	ND		10.0		mg/L			12/21/20 20:35	1
Phenolics, Total Recoverable	ND		0.010		mg/L			12/21/20 14:46	1
Sulfate	**20.6**		5.0		mg/L			12/18/20 20:29	1
Total Dissolved Solids	**245**		10.0		mg/L			12/18/20 16:33	1
Chloride	**37.7**		1.0		mg/L			12/18/20 22:51	1
Biochemical Oxygen Demand	ND	*-	2.0		mg/L			12/16/20 10:30	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			12/24/20 20:52	1
TOC Result 1	ND		1.0		mg/L			12/24/20 20:52	1
TOC Result 2	ND		1.0		mg/L			12/24/20 20:52	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-562790/1-A
Matrix: Water
Analysis Batch: 563470

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 562790

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 22:05	1
Calcium	ND		0.50		mg/L		12/14/20 10:42	12/15/20 22:05	1
Iron	ND		0.050		mg/L		12/14/20 10:42	12/15/20 22:05	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 22:05	1
Magnesium	ND		0.20		mg/L		12/14/20 10:42	12/15/20 22:05	1
Manganese	ND		0.0030		mg/L		12/14/20 10:42	12/15/20 22:05	1
Potassium	ND		0.50		mg/L		12/14/20 10:42	12/15/20 22:05	1
Sodium	ND		1.0		mg/L		12/14/20 10:42	12/15/20 22:05	1

Lab Sample ID: LCS 480-562790/2-A
Matrix: Water
Analysis Batch: 563470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 562790

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.200	0.202		mg/L		101	80 - 120
Calcium	10.0	9.75		mg/L		97	80 - 120
Iron	10.0	9.21		mg/L		92	80 - 120
Lead	0.200	0.199		mg/L		99	80 - 120
Magnesium	10.0	10.13		mg/L		101	80 - 120
Manganese	0.200	0.208		mg/L		104	80 - 120
Potassium	10.0	10.34		mg/L		103	80 - 120
Sodium	10.0	10.14		mg/L		101	80 - 120

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 563470

Client Sample ID: MW-4A
Prep Type: Total/NA
Prep Batch: 562790

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		0.200	0.201		mg/L		101	75 - 125
Calcium	140		10.0	148.0	4	mg/L		85	75 - 125
Iron	0.14		10.0	9.08		mg/L		89	75 - 125
Lead	ND		0.200	0.198		mg/L		99	75 - 125
Magnesium	31.3		10.0	40.60		mg/L		93	75 - 125
Manganese	0.47		0.200	0.674		mg/L		103	75 - 125
Potassium	1.7		10.0	12.48		mg/L		108	75 - 125
Sodium	17.7		10.0	28.09		mg/L		104	75 - 125

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 563470

Client Sample ID: MW-4A
Prep Type: Total/NA
Prep Batch: 562790

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		0.200	0.204		mg/L		102	75 - 125	1	20
Calcium	140		10.0	151.2	4	mg/L		117	75 - 125	2	20
Iron	0.14		10.0	9.18		mg/L		90	75 - 125	1	20
Lead	ND		0.200	0.200		mg/L		100	75 - 125	1	20
Magnesium	31.3		10.0	41.02		mg/L		97	75 - 125	1	20
Manganese	0.47		0.200	0.672		mg/L		101	75 - 125	0	20
Potassium	1.7		10.0	12.64		mg/L		109	75 - 125	1	20

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

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 563470

Client Sample ID: MW-4A
Prep Type: Total/NA
Prep Batch: 562790

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	17.7		10.0	28.59		mg/L		109	75 - 125	2	20

Lab Sample ID: MB 480-562791/1-A
Matrix: Water
Analysis Batch: 563478

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 562791

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/14/20 10:42	12/15/20 18:25	1
Calcium	ND		0.50		mg/L		12/14/20 10:42	12/15/20 18:25	1
Iron	ND		0.050		mg/L		12/14/20 10:42	12/15/20 18:25	1
Lead	ND		0.010		mg/L		12/14/20 10:42	12/15/20 18:25	1
Magnesium	ND		0.20		mg/L		12/14/20 10:42	12/15/20 18:25	1
Manganese	ND		0.0030		mg/L		12/14/20 10:42	12/15/20 18:25	1
Potassium	ND		0.50		mg/L		12/14/20 10:42	12/15/20 18:25	1
Sodium	ND		1.0		mg/L		12/14/20 10:42	12/15/20 18:25	1

Lab Sample ID: LCS 480-562791/2-A
Matrix: Water
Analysis Batch: 563478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 562791

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.200	0.199		mg/L		100	80 - 120
Calcium	10.0	9.78		mg/L		98	80 - 120
Iron	10.0	9.29		mg/L		93	80 - 120
Lead	0.200	0.196		mg/L		98	80 - 120
Magnesium	10.0	9.74		mg/L		97	80 - 120
Manganese	0.200	0.199		mg/L		100	80 - 120
Potassium	10.0	9.70		mg/L		97	80 - 120
Sodium	10.0	9.91		mg/L		99	80 - 120

Lab Sample ID: MB 480-563720/1-A
Matrix: Water
Analysis Batch: 564413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563720

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/18/20 09:57	12/21/20 17:22	1
Calcium	ND		0.50		mg/L		12/18/20 09:57	12/21/20 17:22	1
Iron	ND		0.050		mg/L		12/18/20 09:57	12/21/20 17:22	1
Lead	ND		0.010		mg/L		12/18/20 09:57	12/21/20 17:22	1
Magnesium	ND		0.20		mg/L		12/18/20 09:57	12/21/20 17:22	1
Potassium	ND		0.50		mg/L		12/18/20 09:57	12/21/20 17:22	1
Sodium	ND		1.0		mg/L		12/18/20 09:57	12/21/20 17:22	1

Lab Sample ID: MB 480-563720/1-A
Matrix: Water
Analysis Batch: 564369

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563720

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0030		mg/L		12/18/20 09:57	12/22/20 16:41	1

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

Lab Sample ID: LCS 480-563720/2-A
Matrix: Water
Analysis Batch: 564413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 563720

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.200	0.200		mg/L		100	80 - 120
Calcium	10.0	10.04		mg/L		100	80 - 120
Iron	10.0	9.64		mg/L		96	80 - 120
Lead	0.200	0.197		mg/L		99	80 - 120
Magnesium	10.0	9.89		mg/L		99	80 - 120
Manganese	0.200	0.206		mg/L		103	80 - 120
Potassium	10.0	9.79		mg/L		98	80 - 120
Sodium	10.0	10.31		mg/L		103	80 - 120

Lab Sample ID: MB 480-563278/1-B
Matrix: Water
Analysis Batch: 563618

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 563307

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		12/16/20 09:44	12/16/20 21:30	1
Calcium	ND		0.50		mg/L		12/16/20 09:44	12/16/20 21:30	1
Iron	0.0882		0.050		mg/L		12/16/20 09:44	12/16/20 21:30	1
Lead	ND		0.010		mg/L		12/16/20 09:44	12/16/20 21:30	1
Magnesium	ND		0.20		mg/L		12/16/20 09:44	12/16/20 21:30	1
Manganese	ND		0.0030		mg/L		12/16/20 09:44	12/16/20 21:30	1
Potassium	ND		0.50		mg/L		12/16/20 09:44	12/16/20 21:30	1
Sodium	ND		1.0		mg/L		12/16/20 09:44	12/16/20 21:30	1

Lab Sample ID: LCS 480-563278/2-B
Matrix: Water
Analysis Batch: 563618

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 563307

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.200	0.199		mg/L		99	80 - 120
Calcium	10.0	9.57		mg/L		96	80 - 120
Iron	10.0	9.15		mg/L		91	80 - 120
Lead	0.200	0.192		mg/L		96	80 - 120
Magnesium	10.0	9.90		mg/L		99	80 - 120
Manganese	0.200	0.206		mg/L		103	80 - 120
Potassium	10.0	9.85		mg/L		98	80 - 120
Sodium	10.0	9.75		mg/L		97	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-563238/4
Matrix: Water
Analysis Batch: 563238

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/15/20 11:16	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 480-563238/3
Matrix: Water
Analysis Batch: 563238

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.08		mg/L		102	90 - 110

Lab Sample ID: 480-179194-2 MS
Matrix: Water
Analysis Batch: 563238

Client Sample ID: MW-2B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.67		10.0	10.88		mg/L		102	80 - 120

Lab Sample ID: MB 480-563289/28
Matrix: Water
Analysis Batch: 563289

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/15/20 23:56	1

Lab Sample ID: LCS 480-563289/27
Matrix: Water
Analysis Batch: 563289

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.06		mg/L		101	90 - 110

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 563289

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		10.0	10.22		mg/L		102	80 - 120

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 563289

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND		10.0	10.31		mg/L		103	80 - 120	1	15

Lab Sample ID: MB 480-563800/4
Matrix: Water
Analysis Batch: 563800

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/18/20 11:43	1

Lab Sample ID: LCS 480-563800/3
Matrix: Water
Analysis Batch: 563800

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.17		mg/L		103	90 - 110

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 480-179414-1 MS
Matrix: Water
Analysis Batch: 563800

Client Sample ID: MW-1A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND		5.00	5.22		mg/L		104	80 - 120

Method: 310.2 - Alkalinity

Lab Sample ID: MB 480-563391/13
Matrix: Water
Analysis Batch: 563391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0		mg/L			12/15/20 20:23	1

Lab Sample ID: MB 480-563391/29
Matrix: Water
Analysis Batch: 563391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0		mg/L			12/15/20 20:28	1

Lab Sample ID: MB 480-563391/52
Matrix: Water
Analysis Batch: 563391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0		mg/L			12/15/20 20:50	1

Lab Sample ID: MB 480-563391/67
Matrix: Water
Analysis Batch: 563391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0		mg/L			12/15/20 21:05	1

Lab Sample ID: LCS 480-563391/11
Matrix: Water
Analysis Batch: 563391

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	53.74		mg/L		107	90 - 110

Lab Sample ID: LCS 480-563391/27
Matrix: Water
Analysis Batch: 563391

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	47.79		mg/L		96	90 - 110

Method: 310.2 - Alkalinity (Continued)

Lab Sample ID: LCS 480-563391/50
Matrix: Water
Analysis Batch: 563391

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	49.70		mg/L		99	90 - 110

Lab Sample ID: LCS 480-563391/65
Matrix: Water
Analysis Batch: 563391

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	47.05		mg/L		94	90 - 110

Lab Sample ID: 480-179134-3 MS
Matrix: Water
Analysis Batch: 563391

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	99.8		20.0	97.90	4	mg/L		-10	60 - 140

Lab Sample ID: 480-179134-3 MSD
Matrix: Water
Analysis Batch: 563391

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity, Total	99.8		20.0	106.6	4	mg/L		34	60 - 140	9	20

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 563391

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	533		20.0	533.7	4	mg/L		5	60 - 140

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 563391

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity, Total	533		20.0	524.8	4	mg/L		-40	60 - 140	2	20

Lab Sample ID: MB 480-563913/17
Matrix: Water
Analysis Batch: 563913

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0		mg/L			12/18/20 18:26	1

Lab Sample ID: LCS 480-563913/15
Matrix: Water
Analysis Batch: 563913

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	50.35		mg/L		101	90 - 110

Method: 310.2 - Alkalinity

Lab Sample ID: 480-179414-1 MS
Matrix: Water
Analysis Batch: 563913

Client Sample ID: MW-1A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	98.8		20.0	150.2	4	mg/L		257	60 - 140

Lab Sample ID: 480-179414-1 MSD
Matrix: Water
Analysis Batch: 563913

Client Sample ID: MW-1A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity, Total	98.8		20.0	148.9	4	mg/L		250	60 - 140	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-562658/27
Matrix: Water
Analysis Batch: 562658

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			12/10/20 08:31	1

Lab Sample ID: MB 480-562658/3
Matrix: Water
Analysis Batch: 562658

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			12/10/20 08:11	1

Lab Sample ID: LCS 480-562658/28
Matrix: Water
Analysis Batch: 562658

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.01		mg/L		101	90 - 110

Lab Sample ID: LCS 480-562658/4
Matrix: Water
Analysis Batch: 562658

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.02		mg/L		102	90 - 110

Lab Sample ID: 480-179134-1 MS
Matrix: Water
Analysis Batch: 562658

Client Sample ID: CD-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	ND	F1	0.200	0.222	F1	mg/L		111	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 562658

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	ND	F1	0.200	0.161	F1	mg/L		81	90 - 110

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 562658

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	ND	F1	0.200	0.154	F1	mg/L		77	90 - 110	4	20

Lab Sample ID: MB 480-562913/3
Matrix: Water
Analysis Batch: 562913

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			12/11/20 09:23	1

Lab Sample ID: MB 480-562913/51
Matrix: Water
Analysis Batch: 562913

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			12/11/20 10:04	1

Lab Sample ID: LCS 480-562913/4
Matrix: Water
Analysis Batch: 562913

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.03		mg/L		103	90 - 110

Lab Sample ID: LCS 480-562913/52
Matrix: Water
Analysis Batch: 562913

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	0.999		mg/L		100	90 - 110

Lab Sample ID: MB 480-563648/3
Matrix: Water
Analysis Batch: 563648

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			12/17/20 10:31	1

Lab Sample ID: LCS 480-563648/4
Matrix: Water
Analysis Batch: 563648

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.02		mg/L		102	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-563040/1-A
Matrix: Water
Analysis Batch: 563094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	0.241		0.20		mg/L		12/13/20 10:37	12/14/20 10:24	1

Lab Sample ID: LCS 480-563040/2-A
Matrix: Water
Analysis Batch: 563094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 563040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.29		mg/L		92	90 - 110

Lab Sample ID: MB 480-563095/1-A
Matrix: Water
Analysis Batch: 563218

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		12/14/20 10:36	12/15/20 06:30	1

Lab Sample ID: LCS 480-563095/2-A
Matrix: Water
Analysis Batch: 563218

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 563095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.41		mg/L		97	90 - 110

Lab Sample ID: MB 480-563298/1-A
Matrix: Water
Analysis Batch: 563446

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		12/15/20 13:05	12/16/20 06:33	1

Lab Sample ID: LCS 480-563298/2-A
Matrix: Water
Analysis Batch: 563446

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 563298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.39		mg/L		96	90 - 110

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 563446

Client Sample ID: MW-4A
Prep Type: Total/NA
Prep Batch: 563298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	0.30	F1	1.00	1.29		mg/L		99	90 - 110

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 563446

Client Sample ID: MW-4A
Prep Type: Total/NA
Prep Batch: 563298

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	0.30	F1	1.00	1.43	F1	mg/L		113	90 - 110	11	20

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-563666/1-A
Matrix: Water
Analysis Batch: 563852

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 563666

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		12/17/20 12:29	12/18/20 06:30	1

Lab Sample ID: LCS 480-563666/2-A
Matrix: Water
Analysis Batch: 563852

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 563666

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.31		mg/L		93	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-562597/75
Matrix: Water
Analysis Batch: 562597

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			12/09/20 18:30	1

Lab Sample ID: LCS 480-562597/76
Matrix: Water
Analysis Batch: 562597

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	25.86		mg/L		103	90 - 110

Lab Sample ID: MB 480-562709/76
Matrix: Water
Analysis Batch: 562709

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			12/09/20 19:45	1

Lab Sample ID: LCS 480-562709/77
Matrix: Water
Analysis Batch: 562709

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.22		mg/L		105	90 - 110

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 562709

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND		50.0	53.45		mg/L		94	75 - 125

Method: 410.4 - COD (Continued)

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 562709

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		50.0	51.49		mg/L		90	75 - 125	4	20

Lab Sample ID: MB 480-563014/51
Matrix: Water
Analysis Batch: 563014

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			12/11/20 17:10	1

Lab Sample ID: LCS 480-563014/52
Matrix: Water
Analysis Batch: 563014

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	23.57		mg/L		94	90 - 110

Lab Sample ID: 480-179134-7 MS
Matrix: Water
Analysis Batch: 563014

Client Sample ID: MW-5A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND		50.0	62.97		mg/L		114	75 - 125

Lab Sample ID: 480-179134-9 MS
Matrix: Water
Analysis Batch: 563014

Client Sample ID: MW-6B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND		50.0	65.93		mg/L		118	75 - 125

Lab Sample ID: 480-179134-9 MSD
Matrix: Water
Analysis Batch: 563014

Client Sample ID: MW-6B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		50.0	66.59		mg/L		119	75 - 125	1	20

Lab Sample ID: MB 480-563017/28
Matrix: Water
Analysis Batch: 563017

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			12/11/20 18:14	1

Lab Sample ID: LCS 480-563017/29
Matrix: Water
Analysis Batch: 563017

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	24.88		mg/L		100	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-564164/28
Matrix: Water
Analysis Batch: 564164

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			12/21/20 20:17	1

Lab Sample ID: LCS 480-564164/29
Matrix: Water
Analysis Batch: 564164

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			25.0	23.24		mg/L		93	90 - 110		

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-563395/46
Matrix: Water
Analysis Batch: 563395

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 15:36	1

Lab Sample ID: MB 480-563395/76
Matrix: Water
Analysis Batch: 563395

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			12/15/20 17:26	1

Lab Sample ID: LCS 480-563395/47
Matrix: Water
Analysis Batch: 563395

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenolics, Total Recoverable			0.100	0.103		mg/L		103	90 - 110		

Lab Sample ID: LCS 480-563395/77
Matrix: Water
Analysis Batch: 563395

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenolics, Total Recoverable			0.100	0.102		mg/L		102	90 - 110		

Lab Sample ID: 480-179134-1 MS
Matrix: Water
Analysis Batch: 563395

Client Sample ID: CD-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenolics, Total Recoverable	ND	F1	0.0500	0.0586	F1	mg/L		117	90 - 110		

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: 480-179134-6 MS — **Client Sample ID: MW-4A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 563395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenolics, Total Recoverable	ND	F1	0.0500	0.0646	F1	mg/L		129	90 - 110		

Lab Sample ID: 480-179134-6 MSD — **Client Sample ID: MW-4A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 563395

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenolics, Total Recoverable	ND	F1	0.0500	0.0676	F1	mg/L		135	90 - 110	5	20

Lab Sample ID: 480-179134-11 MS — **Client Sample ID: DUP**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 563395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenolics, Total Recoverable	ND	F1	0.0500	0.0619	F1	mg/L		124	90 - 110		

Lab Sample ID: MB 480-563702/16 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 563702

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			12/17/20 09:10	1

Lab Sample ID: MB 480-563702/46 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 563702

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	0.0123		0.010		mg/L			12/17/20 11:00	1

Lab Sample ID: MB 480-563702/76 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 563702

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	0.0173		0.010		mg/L			12/17/20 12:53	1

Lab Sample ID: LCS 480-563702/17 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 563702

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenolics, Total Recoverable			0.100	0.102		mg/L		102	90 - 110		

Lab Sample ID: LCS 480-563702/47 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 563702

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Phenolics, Total Recoverable			0.100	0.106		mg/L		106	90 - 110		

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: LCS 480-563702/77
Matrix: Water
Analysis Batch: 563702

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.100	0.109		mg/L		109	90 - 110

Lab Sample ID: MB 480-564119/76
Matrix: Water
Analysis Batch: 564119

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			12/21/20 14:25	1

Lab Sample ID: LCS 480-564119/77
Matrix: Water
Analysis Batch: 564119

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.100	0.104		mg/L		104	90 - 110

Method: 9038 - Sulfate, Turbidimetric

Lab Sample ID: MB 480-563392/102
Matrix: Water
Analysis Batch: 563392

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/15/20 22:41	1

Lab Sample ID: MB 480-563392/13
Matrix: Water
Analysis Batch: 563392

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/15/20 22:08	1

Lab Sample ID: MB 480-563392/51
Matrix: Water
Analysis Batch: 563392

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/15/20 22:22	1

Lab Sample ID: MB 480-563392/84
Matrix: Water
Analysis Batch: 563392

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/15/20 22:34	1

Method: 9038 - Sulfate, Turbidimetric (Continued)

Lab Sample ID: LCS 480-563392/103
Matrix: Water
Analysis Batch: 563392

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	30.59		mg/L		102	90 - 110

Lab Sample ID: LCS 480-563392/14
Matrix: Water
Analysis Batch: 563392

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	30.67		mg/L		102	90 - 110

Lab Sample ID: LCS 480-563392/52
Matrix: Water
Analysis Batch: 563392

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	30.53		mg/L		102	90 - 110

Lab Sample ID: LCS 480-563392/85
Matrix: Water
Analysis Batch: 563392

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	30.74		mg/L		102	90 - 110

Lab Sample ID: 480-179134-3 MS
Matrix: Water
Analysis Batch: 563392

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	11.3		20.0	36.56		mg/L		126	60 - 128

Lab Sample ID: 480-179134-3 MSD
Matrix: Water
Analysis Batch: 563392

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	11.3		20.0	36.14		mg/L		124	60 - 128	1	20

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 563392

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	ND	F1	20.0	35.90	F1	mg/L		170	60 - 128

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 563392

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	ND	F1	20.0	40.43	F1	mg/L		192	60 - 128	12	20

Method: 9038 - Sulfate, Turbidimetric

Lab Sample ID: MB 480-563914/13
Matrix: Water
Analysis Batch: 563914

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/18/20 20:25	1

Lab Sample ID: MB 480-563914/68
Matrix: Water
Analysis Batch: 563914

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/18/20 20:57	1

Lab Sample ID: MB 480-563914/94
Matrix: Water
Analysis Batch: 563914

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/18/20 21:11	1

Lab Sample ID: LCS 480-563914/14
Matrix: Water
Analysis Batch: 563914

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	30.62		mg/L		102	90 - 110

Lab Sample ID: LCS 480-563914/69
Matrix: Water
Analysis Batch: 563914

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	32.34		mg/L		108	90 - 110

Lab Sample ID: LCS 480-563914/95
Matrix: Water
Analysis Batch: 563914

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	31.00		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 480-562779/1
Matrix: Water
Analysis Batch: 562779

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			12/10/20 16:56	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 480-562779/2
Matrix: Water
Analysis Batch: 562779

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	503	504.0		mg/L		100	85 - 115

Lab Sample ID: MB 480-563024/1
Matrix: Water
Analysis Batch: 563024

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			12/12/20 14:11	1

Lab Sample ID: LCS 480-563024/2
Matrix: Water
Analysis Batch: 563024

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	503	497.0		mg/L		99	85 - 115

Lab Sample ID: MB 480-563883/1
Matrix: Water
Analysis Batch: 563883

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			12/18/20 16:33	1

Lab Sample ID: LCS 480-563883/2
Matrix: Water
Analysis Batch: 563883

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	503	498.0		mg/L		99	85 - 115

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-563390/110
Matrix: Water
Analysis Batch: 563390

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/16/20 00:49	1

Lab Sample ID: MB 480-563390/17
Matrix: Water
Analysis Batch: 563390

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/15/20 18:55	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MB 480-563390/29
Matrix: Water
Analysis Batch: 563390

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/16/20 00:23	1

Lab Sample ID: MB 480-563390/41
Matrix: Water
Analysis Batch: 563390

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/16/20 00:26	1

Lab Sample ID: MB 480-563390/87
Matrix: Water
Analysis Batch: 563390

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/16/20 00:41	1

Lab Sample ID: MB 480-563390/99
Matrix: Water
Analysis Batch: 563390

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/16/20 00:45	1

Lab Sample ID: LCS 480-563390/109
Matrix: Water
Analysis Batch: 563390

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			25.0	26.92		mg/L		108	90 - 110		

Lab Sample ID: LCS 480-563390/16
Matrix: Water
Analysis Batch: 563390

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			25.0	27.18		mg/L		109	90 - 110		

Lab Sample ID: LCS 480-563390/28
Matrix: Water
Analysis Batch: 563390

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			25.0	26.99		mg/L		108	90 - 110		

Lab Sample ID: LCS 480-563390/40
Matrix: Water
Analysis Batch: 563390

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			25.0	26.95		mg/L		108	90 - 110		

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: LCS 480-563390/86
Matrix: Water
Analysis Batch: 563390

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.89		mg/L		108	90 - 110

Lab Sample ID: LCS 480-563390/98
Matrix: Water
Analysis Batch: 563390

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.63		mg/L		107	90 - 110

Lab Sample ID: 480-179134-3 MS
Matrix: Water
Analysis Batch: 563390

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.1		20.0	26.06		mg/L		110	74 - 131

Lab Sample ID: 480-179134-3 MSD
Matrix: Water
Analysis Batch: 563390

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.1		20.0	26.63		mg/L		112	74 - 131	2	20

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 563390

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.9		20.0	31.36		mg/L		108	74 - 131

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 563390

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.9		20.0	31.32		mg/L		107	74 - 131	0	20

Lab Sample ID: MB 480-563912/17
Matrix: Water
Analysis Batch: 563912

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/18/20 18:39	1

Lab Sample ID: MB 480-563912/41
Matrix: Water
Analysis Batch: 563912

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/18/20 23:01	1

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-563912/51
Matrix: Water
Analysis Batch: 563912

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/18/20 23:05	1

Lab Sample ID: LCS 480-563912/16
Matrix: Water
Analysis Batch: 563912

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	27.12		mg/L		108	90 - 110

Lab Sample ID: LCS 480-563912/40
Matrix: Water
Analysis Batch: 563912

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	27.41		mg/L		110	90 - 110

Lab Sample ID: LCS 480-563912/50
Matrix: Water
Analysis Batch: 563912

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	27.36		mg/L		109	90 - 110

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-562583/1
Matrix: Water
Analysis Batch: 562583

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 14:02	1

Lab Sample ID: LCS 480-562583/2
Matrix: Water
Analysis Batch: 562583

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	169.0		mg/L		85	85 - 115

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 562583

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	ND		198	181.3		mg/L		92	51 - 143

Method: SM 5210B - BOD, 5-Day (Continued)

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 562583

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand	ND		198	183.3		mg/L		93	51 - 143	1	20

Lab Sample ID: USB 480-562613/1
Matrix: Water
Analysis Batch: 562613

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			12/09/20 21:16	1

Lab Sample ID: LCS 480-562613/2
Matrix: Water
Analysis Batch: 562613

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	169.1		mg/L		85	85 - 115

Lab Sample ID: USB 480-562797/1
Matrix: Water
Analysis Batch: 562797

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			12/10/20 14:37	1

Lab Sample ID: LCS 480-562797/2
Matrix: Water
Analysis Batch: 562797

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	172.5		mg/L		87	85 - 115

Lab Sample ID: USB 480-563551/1
Matrix: Water
Analysis Batch: 563551

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			12/16/20 10:30	1

Lab Sample ID: LCS 480-563551/2
Matrix: Water
Analysis Batch: 563551

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	156.8	*-	mg/L		79	85 - 115

Lab Sample ID: 480-179414-1 DU
Matrix: Water
Analysis Batch: 563551

Client Sample ID: MW-1A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	ND	*-	ND	*-	mg/L		NC	20

Method: SM 5310C - TOC

Lab Sample ID: MB 480-563900/55
Matrix: Water
Analysis Batch: 563900

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		1.0		mg/L			12/18/20 09:26	1
TOC Result 1	ND		1.0		mg/L			12/18/20 09:26	1
TOC Result 2	ND		1.0		mg/L			12/18/20 09:26	1

Lab Sample ID: MB 480-563900/8
Matrix: Water
Analysis Batch: 563900

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		1.0		mg/L			12/17/20 21:23	1
TOC Result 1	ND		1.0		mg/L			12/17/20 21:23	1
TOC Result 2	ND		1.0		mg/L			12/17/20 21:23	1

Lab Sample ID: LCS 480-563900/56
Matrix: Water
Analysis Batch: 563900

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	60.0	58.18		mg/L		97	90 - 110
TOC Result 1	60.0	59.51		mg/L		99	90 - 110
TOC Result 2	60.0	56.85		mg/L		95	90 - 110

Lab Sample ID: LCS 480-563900/9
Matrix: Water
Analysis Batch: 563900

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	60.0	58.28		mg/L		97	90 - 110
TOC Result 1	60.0	59.58		mg/L		99	90 - 110
TOC Result 2	60.0	56.98		mg/L		95	90 - 110

Lab Sample ID: MB 480-564588/27
Matrix: Water
Analysis Batch: 564588

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		1.0		mg/L			12/24/20 19:30	1
TOC Result 1	ND		1.0		mg/L			12/24/20 19:30	1
TOC Result 2	ND		1.0		mg/L			12/24/20 19:30	1

Lab Sample ID: MB 480-564588/4
Matrix: Water
Analysis Batch: 564588

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		1.0		mg/L			12/24/20 13:29	1
TOC Result 1	ND		1.0		mg/L			12/24/20 13:29	1
TOC Result 2	ND		1.0		mg/L			12/24/20 13:29	1

Method: SM 5310C - TOC (Continued)

Lab Sample ID: LCS 480-564588/28
Matrix: Water
Analysis Batch: 564588

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	60.0	61.48		mg/L		102	90 - 110
TOC Result 1	60.0	61.54		mg/L		103	90 - 110
TOC Result 2	60.0	61.42		mg/L		102	90 - 110

Lab Sample ID: LCS 480-564588/5
Matrix: Water
Analysis Batch: 564588

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	60.0	61.85		mg/L		103	90 - 110
TOC Result 1	60.0	61.95		mg/L		103	90 - 110
TOC Result 2	60.0	61.75		mg/L		103	90 - 110

Lab Sample ID: 480-179134-6 MS
Matrix: Water
Analysis Batch: 564588

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	2.6		23.3	31.33		mg/L		124	54 - 131
TOC Result 1	2.6		23.3	31.85		mg/L		126	54 - 131
TOC Result 2	2.6		23.3	30.81		mg/L		121	54 - 131

Lab Sample ID: 480-179134-6 MSD
Matrix: Water
Analysis Batch: 564588

Client Sample ID: MW-4A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	2.6		23.3	30.07		mg/L		118	54 - 131	4	20
TOC Result 1	2.6		23.3	30.17		mg/L		119	54 - 131	5	20
TOC Result 2	2.6		23.3	29.97		mg/L		118	54 - 131	3	20

Lab Sample ID: MB 480-564590/17
Matrix: Water
Analysis Batch: 564590

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		1.0		mg/L			12/24/20 16:00	1
TOC Result 1	ND		1.0		mg/L			12/24/20 16:00	1
TOC Result 2	ND		1.0		mg/L			12/24/20 16:00	1

Lab Sample ID: LCS 480-564590/18
Matrix: Water
Analysis Batch: 564590

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	60.0	59.09		mg/L		98	90 - 110

Method: SM 5310C - TOC (Continued)

Lab Sample ID: LCS 480-564590/18
Matrix: Water
Analysis Batch: 564590

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	59.85		mg/L		100	90 - 110
TOC Result 2	60.0	58.33		mg/L		97	90 - 110

Metals

Prep Batch: 562790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	3005A	
480-179134-2	CD-1RA	Total/NA	Water	3005A	
480-179134-3	MW-1B	Total/NA	Water	3005A	
480-179134-4	MW-3A	Total/NA	Water	3005A	
480-179134-5	MW-3B	Total/NA	Water	3005A	
480-179134-6	MW-4A	Total/NA	Water	3005A	
480-179134-7	MW-5A	Total/NA	Water	3005A	
480-179134-8	MW-6A	Total/NA	Water	3005A	
480-179134-9	MW-6B	Total/NA	Water	3005A	
480-179134-10	MW-7A	Total/NA	Water	3005A	
480-179134-11	DUP	Total/NA	Water	3005A	
MB 480-562790/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-562790/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-179134-6 MS	MW-4A	Total/NA	Water	3005A	
480-179134-6 MSD	MW-4A	Total/NA	Water	3005A	

Prep Batch: 562791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	3005A	
480-179194-2	MW-2B	Total/NA	Water	3005A	
MB 480-562791/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-562791/2-A	Lab Control Sample	Total/NA	Water	3005A	

Filtration Batch: 563278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-2	CD-1RA	Dissolved	Water	FILTRATION	
480-179134-8	MW-6A	Dissolved	Water	FILTRATION	
480-179134-11	DUP	Dissolved	Water	FILTRATION	
MB 480-563278/1-B	Method Blank	Dissolved	Water	FILTRATION	
LCS 480-563278/2-B	Lab Control Sample	Dissolved	Water	FILTRATION	

Prep Batch: 563307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-2	CD-1RA	Dissolved	Water	3005A	563278
480-179134-8	MW-6A	Dissolved	Water	3005A	563278
480-179134-11	DUP	Dissolved	Water	3005A	563278
MB 480-563278/1-B	Method Blank	Dissolved	Water	3005A	563278
LCS 480-563278/2-B	Lab Control Sample	Dissolved	Water	3005A	563278

Analysis Batch: 563470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	6010C	562790
480-179134-2	CD-1RA	Total/NA	Water	6010C	562790
480-179134-3	MW-1B	Total/NA	Water	6010C	562790
480-179134-4	MW-3A	Total/NA	Water	6010C	562790
480-179134-5	MW-3B	Total/NA	Water	6010C	562790
480-179134-6	MW-4A	Total/NA	Water	6010C	562790
480-179134-7	MW-5A	Total/NA	Water	6010C	562790
480-179134-8	MW-6A	Total/NA	Water	6010C	562790
480-179134-9	MW-6B	Total/NA	Water	6010C	562790
480-179134-10	MW-7A	Total/NA	Water	6010C	562790

Metals (Continued)

Analysis Batch: 563470 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-11	DUP	Total/NA	Water	6010C	562790
MB 480-562790/1-A	Method Blank	Total/NA	Water	6010C	562790
LCS 480-562790/2-A	Lab Control Sample	Total/NA	Water	6010C	562790
480-179134-6 MS	MW-4A	Total/NA	Water	6010C	562790
480-179134-6 MSD	MW-4A	Total/NA	Water	6010C	562790

Analysis Batch: 563478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	6010C	562791
480-179194-2	MW-2B	Total/NA	Water	6010C	562791
MB 480-562791/1-A	Method Blank	Total/NA	Water	6010C	562791
LCS 480-562791/2-A	Lab Control Sample	Total/NA	Water	6010C	562791

Analysis Batch: 563535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	SM 2340B	
480-179194-2	MW-2B	Total/NA	Water	SM 2340B	

Analysis Batch: 563618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-2	CD-1RA	Dissolved	Water	6010C	563307
480-179134-8	MW-6A	Dissolved	Water	6010C	563307
480-179134-11	DUP	Dissolved	Water	6010C	563307
MB 480-563278/1-B	Method Blank	Dissolved	Water	6010C	563307
LCS 480-563278/2-B	Lab Control Sample	Dissolved	Water	6010C	563307

Analysis Batch: 563651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	SM 2340B	
480-179134-2	CD-1RA	Total/NA	Water	SM 2340B	
480-179134-3	MW-1B	Total/NA	Water	SM 2340B	
480-179134-4	MW-3A	Total/NA	Water	SM 2340B	
480-179134-5	MW-3B	Total/NA	Water	SM 2340B	
480-179134-6	MW-4A	Total/NA	Water	SM 2340B	
480-179134-7	MW-5A	Total/NA	Water	SM 2340B	
480-179134-8	MW-6A	Total/NA	Water	SM 2340B	
480-179134-9	MW-6B	Total/NA	Water	SM 2340B	
480-179134-10	MW-7A	Total/NA	Water	SM 2340B	
480-179134-11	DUP	Total/NA	Water	SM 2340B	

Prep Batch: 563720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	3005A	
MB 480-563720/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-563720/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 564369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-563720/1-A	Method Blank	Total/NA	Water	6010C	563720

Metals

Analysis Batch: 564413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	6010C	563720
MB 480-563720/1-A	Method Blank	Total/NA	Water	6010C	563720
LCS 480-563720/2-A	Lab Control Sample	Total/NA	Water	6010C	563720

Analysis Batch: 564543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	SM 2340B	

General Chemistry

Analysis Batch: 562583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	SM 5210B	
480-179134-2	CD-1RA	Total/NA	Water	SM 5210B	
480-179134-4	MW-3A	Total/NA	Water	SM 5210B	
480-179134-5	MW-3B	Total/NA	Water	SM 5210B	
480-179134-6	MW-4A	Total/NA	Water	SM 5210B	
480-179134-7	MW-5A	Total/NA	Water	SM 5210B	
480-179134-8	MW-6A	Total/NA	Water	SM 5210B	
480-179134-9	MW-6B	Total/NA	Water	SM 5210B	
480-179134-10	MW-7A	Total/NA	Water	SM 5210B	
480-179134-11	DUP	Total/NA	Water	SM 5210B	
USB 480-562583/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-562583/2	Lab Control Sample	Total/NA	Water	SM 5210B	
480-179134-6 MS	MW-4A	Total/NA	Water	SM 5210B	
480-179134-6 MSD	MW-4A	Total/NA	Water	SM 5210B	

Analysis Batch: 562597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-8	MW-6A	Total/NA	Water	410.4	
480-179134-10	MW-7A	Total/NA	Water	410.4	
480-179134-11	DUP	Total/NA	Water	410.4	
MB 480-562597/75	Method Blank	Total/NA	Water	410.4	
LCS 480-562597/76	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 562613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-3	MW-1B	Total/NA	Water	SM 5210B	
USB 480-562613/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-562613/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 562658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	350.1	
480-179134-2	CD-1RA	Total/NA	Water	350.1	
480-179134-3	MW-1B	Total/NA	Water	350.1	
480-179134-4	MW-3A	Total/NA	Water	350.1	
480-179134-5	MW-3B	Total/NA	Water	350.1	
480-179134-6	MW-4A	Total/NA	Water	350.1	
480-179134-7	MW-5A	Total/NA	Water	350.1	
480-179134-8	MW-6A	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 562658 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-9	MW-6B	Total/NA	Water	350.1	
480-179134-10	MW-7A	Total/NA	Water	350.1	
480-179134-11	DUP	Total/NA	Water	350.1	
MB 480-562658/27	Method Blank	Total/NA	Water	350.1	
MB 480-562658/3	Method Blank	Total/NA	Water	350.1	
LCS 480-562658/28	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-562658/4	Lab Control Sample	Total/NA	Water	350.1	
480-179134-1 MS	CD-1	Total/NA	Water	350.1	
480-179134-6 MS	MW-4A	Total/NA	Water	350.1	
480-179134-6 MSD	MW-4A	Total/NA	Water	350.1	

Analysis Batch: 562692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	353.2	
480-179134-2	CD-1RA	Total/NA	Water	353.2	
480-179134-3	MW-1B	Total/NA	Water	353.2	
480-179134-4	MW-3A	Total/NA	Water	353.2	
480-179134-5	MW-3B	Total/NA	Water	353.2	
480-179134-6	MW-4A	Total/NA	Water	353.2	
480-179134-7	MW-5A	Total/NA	Water	353.2	
480-179134-8	MW-6A	Total/NA	Water	353.2	
480-179134-9	MW-6B	Total/NA	Water	353.2	
480-179134-10	MW-7A	Total/NA	Water	353.2	
480-179134-11	DUP	Total/NA	Water	353.2	

Analysis Batch: 562709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-6	MW-4A	Total/NA	Water	410.4	
MB 480-562709/76	Method Blank	Total/NA	Water	410.4	
LCS 480-562709/77	Lab Control Sample	Total/NA	Water	410.4	
480-179134-6 MS	MW-4A	Total/NA	Water	410.4	
480-179134-6 MSD	MW-4A	Total/NA	Water	410.4	

Analysis Batch: 562779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	SM 2540C	
480-179134-2	CD-1RA	Total/NA	Water	SM 2540C	
480-179134-3	MW-1B	Total/NA	Water	SM 2540C	
480-179134-4	MW-3A	Total/NA	Water	SM 2540C	
480-179134-5	MW-3B	Total/NA	Water	SM 2540C	
480-179134-6	MW-4A	Total/NA	Water	SM 2540C	
480-179134-7	MW-5A	Total/NA	Water	SM 2540C	
480-179134-8	MW-6A	Total/NA	Water	SM 2540C	
480-179134-9	MW-6B	Total/NA	Water	SM 2540C	
480-179134-10	MW-7A	Total/NA	Water	SM 2540C	
480-179134-11	DUP	Total/NA	Water	SM 2540C	
MB 480-562779/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-562779/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 562797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	SM 5210B	
480-179194-2	MW-2B	Total/NA	Water	SM 5210B	
USB 480-562797/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-562797/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 562913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	350.1	
480-179194-2	MW-2B	Total/NA	Water	350.1	
MB 480-562913/3	Method Blank	Total/NA	Water	350.1	
MB 480-562913/51	Method Blank	Total/NA	Water	350.1	
LCS 480-562913/4	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-562913/52	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 562956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	353.2	
480-179194-2	MW-2B	Total/NA	Water	353.2	

Analysis Batch: 563014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	410.4	
480-179134-2	CD-1RA	Total/NA	Water	410.4	
480-179134-3	MW-1B	Total/NA	Water	410.4	
480-179134-4	MW-3A	Total/NA	Water	410.4	
480-179134-5	MW-3B	Total/NA	Water	410.4	
480-179134-7	MW-5A	Total/NA	Water	410.4	
480-179134-9	MW-6B	Total/NA	Water	410.4	
MB 480-563014/51	Method Blank	Total/NA	Water	410.4	
LCS 480-563014/52	Lab Control Sample	Total/NA	Water	410.4	
480-179134-7 MS	MW-5A	Total/NA	Water	410.4	
480-179134-9 MS	MW-6B	Total/NA	Water	410.4	
480-179134-9 MSD	MW-6B	Total/NA	Water	410.4	

Analysis Batch: 563017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	410.4	
480-179194-2	MW-2B	Total/NA	Water	410.4	
MB 480-563017/28	Method Blank	Total/NA	Water	410.4	
LCS 480-563017/29	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 563024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	SM 2540C	
480-179194-2	MW-2B	Total/NA	Water	SM 2540C	
MB 480-563024/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-563024/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Prep Batch: 563040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-3	MW-1B	Total/NA	Water	351.2	

General Chemistry (Continued)

Prep Batch: 563040 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-5	MW-3B	Total/NA	Water	351.2	
MB 480-563040/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-563040/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 563094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-3	MW-1B	Total/NA	Water	351.2	563040
480-179134-5	MW-3B	Total/NA	Water	351.2	563040
MB 480-563040/1-A	Method Blank	Total/NA	Water	351.2	563040
LCS 480-563040/2-A	Lab Control Sample	Total/NA	Water	351.2	563040

Prep Batch: 563095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	351.2	
480-179194-2	MW-2B	Total/NA	Water	351.2	
MB 480-563095/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-563095/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 563218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	351.2	563095
480-179194-2	MW-2B	Total/NA	Water	351.2	563095
MB 480-563095/1-A	Method Blank	Total/NA	Water	351.2	563095
LCS 480-563095/2-A	Lab Control Sample	Total/NA	Water	351.2	563095

Analysis Batch: 563238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	300.0	
480-179194-2	MW-2B	Total/NA	Water	300.0	
MB 480-563238/4	Method Blank	Total/NA	Water	300.0	
LCS 480-563238/3	Lab Control Sample	Total/NA	Water	300.0	
480-179194-2 MS	MW-2B	Total/NA	Water	300.0	

Analysis Batch: 563289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	300.0	
480-179134-2	CD-1RA	Total/NA	Water	300.0	
480-179134-3	MW-1B	Total/NA	Water	300.0	
480-179134-4	MW-3A	Total/NA	Water	300.0	
480-179134-5	MW-3B	Total/NA	Water	300.0	
480-179134-6	MW-4A	Total/NA	Water	300.0	
480-179134-7	MW-5A	Total/NA	Water	300.0	
480-179134-8	MW-6A	Total/NA	Water	300.0	
480-179134-9	MW-6B	Total/NA	Water	300.0	
480-179134-10	MW-7A	Total/NA	Water	300.0	
480-179134-11	DUP	Total/NA	Water	300.0	
MB 480-563289/28	Method Blank	Total/NA	Water	300.0	
LCS 480-563289/27	Lab Control Sample	Total/NA	Water	300.0	
480-179134-6 MS	MW-4A	Total/NA	Water	300.0	
480-179134-6 MSD	MW-4A	Total/NA	Water	300.0	

General Chemistry

Prep Batch: 563298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	351.2	
480-179134-2	CD-1RA	Total/NA	Water	351.2	
480-179134-4	MW-3A	Total/NA	Water	351.2	
480-179134-6	MW-4A	Total/NA	Water	351.2	
480-179134-7	MW-5A	Total/NA	Water	351.2	
480-179134-8	MW-6A	Total/NA	Water	351.2	
480-179134-9	MW-6B	Total/NA	Water	351.2	
480-179134-10	MW-7A	Total/NA	Water	351.2	
480-179134-11	DUP	Total/NA	Water	351.2	
MB 480-563298/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-563298/2-A	Lab Control Sample	Total/NA	Water	351.2	
480-179134-6 MS	MW-4A	Total/NA	Water	351.2	
480-179134-6 MSD	MW-4A	Total/NA	Water	351.2	

Analysis Batch: 563390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	SM 4500 Cl- E	
480-179134-2	CD-1RA	Total/NA	Water	SM 4500 Cl- E	
480-179134-3	MW-1B	Total/NA	Water	SM 4500 Cl- E	
480-179134-4	MW-3A	Total/NA	Water	SM 4500 Cl- E	
480-179134-5	MW-3B	Total/NA	Water	SM 4500 Cl- E	
480-179134-6	MW-4A	Total/NA	Water	SM 4500 Cl- E	
480-179134-7	MW-5A	Total/NA	Water	SM 4500 Cl- E	
480-179134-8	MW-6A	Total/NA	Water	SM 4500 Cl- E	
480-179134-9	MW-6B	Total/NA	Water	SM 4500 Cl- E	
480-179134-10	MW-7A	Total/NA	Water	SM 4500 Cl- E	
480-179134-11	DUP	Total/NA	Water	SM 4500 Cl- E	
480-179194-1	MW-2A	Total/NA	Water	SM 4500 Cl- E	
480-179194-2	MW-2B	Total/NA	Water	SM 4500 Cl- E	
MB 480-563390/110	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-563390/17	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-563390/29	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-563390/41	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-563390/87	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-563390/99	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 480-563390/109	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-563390/16	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-563390/28	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-563390/40	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-563390/86	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-563390/98	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
480-179134-3 MS	MW-1B	Total/NA	Water	SM 4500 Cl- E	
480-179134-3 MSD	MW-1B	Total/NA	Water	SM 4500 Cl- E	
480-179134-6 MS	MW-4A	Total/NA	Water	SM 4500 Cl- E	
480-179134-6 MSD	MW-4A	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 563391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	310.2	
480-179134-2	CD-1RA	Total/NA	Water	310.2	
480-179134-3	MW-1B	Total/NA	Water	310.2	

General Chemistry (Continued)

Analysis Batch: 563391 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-4	MW-3A	Total/NA	Water	310.2	
480-179134-5	MW-3B	Total/NA	Water	310.2	
480-179134-6	MW-4A	Total/NA	Water	310.2	
480-179134-7	MW-5A	Total/NA	Water	310.2	
480-179134-8	MW-6A	Total/NA	Water	310.2	
480-179134-9	MW-6B	Total/NA	Water	310.2	
480-179134-10	MW-7A	Total/NA	Water	310.2	
480-179134-11	DUP	Total/NA	Water	310.2	
480-179194-1	MW-2A	Total/NA	Water	310.2	
480-179194-2	MW-2B	Total/NA	Water	310.2	
MB 480-563391/13	Method Blank	Total/NA	Water	310.2	
MB 480-563391/29	Method Blank	Total/NA	Water	310.2	
MB 480-563391/52	Method Blank	Total/NA	Water	310.2	
MB 480-563391/67	Method Blank	Total/NA	Water	310.2	
LCS 480-563391/11	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-563391/27	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-563391/50	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-563391/65	Lab Control Sample	Total/NA	Water	310.2	
480-179134-3 MS	MW-1B	Total/NA	Water	310.2	
480-179134-3 MSD	MW-1B	Total/NA	Water	310.2	
480-179134-6 MS	MW-4A	Total/NA	Water	310.2	
480-179134-6 MSD	MW-4A	Total/NA	Water	310.2	

Analysis Batch: 563392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	9038	
480-179134-2	CD-1RA	Total/NA	Water	9038	
480-179134-3	MW-1B	Total/NA	Water	9038	
480-179134-4	MW-3A	Total/NA	Water	9038	
480-179134-5	MW-3B	Total/NA	Water	9038	
480-179134-6	MW-4A	Total/NA	Water	9038	
480-179134-7	MW-5A	Total/NA	Water	9038	
480-179134-8	MW-6A	Total/NA	Water	9038	
480-179134-9	MW-6B	Total/NA	Water	9038	
480-179134-11	DUP	Total/NA	Water	9038	
480-179194-1	MW-2A	Total/NA	Water	9038	
480-179194-2	MW-2B	Total/NA	Water	9038	
MB 480-563392/102	Method Blank	Total/NA	Water	9038	
MB 480-563392/13	Method Blank	Total/NA	Water	9038	
MB 480-563392/51	Method Blank	Total/NA	Water	9038	
MB 480-563392/84	Method Blank	Total/NA	Water	9038	
LCS 480-563392/103	Lab Control Sample	Total/NA	Water	9038	
LCS 480-563392/14	Lab Control Sample	Total/NA	Water	9038	
LCS 480-563392/52	Lab Control Sample	Total/NA	Water	9038	
LCS 480-563392/85	Lab Control Sample	Total/NA	Water	9038	
480-179134-3 MS	MW-1B	Total/NA	Water	9038	
480-179134-3 MSD	MW-1B	Total/NA	Water	9038	
480-179134-6 MS	MW-4A	Total/NA	Water	9038	
480-179134-6 MSD	MW-4A	Total/NA	Water	9038	

General Chemistry

Analysis Batch: 563395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	420.4	
480-179134-2	CD-1RA	Total/NA	Water	420.4	
480-179134-3	MW-1B	Total/NA	Water	420.4	
480-179134-4	MW-3A	Total/NA	Water	420.4	
480-179134-5	MW-3B	Total/NA	Water	420.4	
480-179134-6	MW-4A	Total/NA	Water	420.4	
480-179134-7	MW-5A	Total/NA	Water	420.4	
480-179134-8	MW-6A	Total/NA	Water	420.4	
480-179134-9	MW-6B	Total/NA	Water	420.4	
480-179134-10	MW-7A	Total/NA	Water	420.4	
480-179134-11	DUP	Total/NA	Water	420.4	
MB 480-563395/46	Method Blank	Total/NA	Water	420.4	
MB 480-563395/76	Method Blank	Total/NA	Water	420.4	
LCS 480-563395/47	Lab Control Sample	Total/NA	Water	420.4	
LCS 480-563395/77	Lab Control Sample	Total/NA	Water	420.4	
480-179134-1 MS	CD-1	Total/NA	Water	420.4	
480-179134-6 MS	MW-4A	Total/NA	Water	420.4	
480-179134-6 MSD	MW-4A	Total/NA	Water	420.4	
480-179134-11 MS	DUP	Total/NA	Water	420.4	

Analysis Batch: 563446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	351.2	563298
480-179134-2	CD-1RA	Total/NA	Water	351.2	563298
480-179134-4	MW-3A	Total/NA	Water	351.2	563298
480-179134-6	MW-4A	Total/NA	Water	351.2	563298
480-179134-7	MW-5A	Total/NA	Water	351.2	563298
480-179134-8	MW-6A	Total/NA	Water	351.2	563298
480-179134-9	MW-6B	Total/NA	Water	351.2	563298
480-179134-10	MW-7A	Total/NA	Water	351.2	563298
480-179134-11	DUP	Total/NA	Water	351.2	563298
MB 480-563298/1-A	Method Blank	Total/NA	Water	351.2	563298
LCS 480-563298/2-A	Lab Control Sample	Total/NA	Water	351.2	563298
480-179134-6 MS	MW-4A	Total/NA	Water	351.2	563298
480-179134-6 MSD	MW-4A	Total/NA	Water	351.2	563298

Analysis Batch: 563551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	SM 5210B	
USB 480-563551/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-563551/2	Lab Control Sample	Total/NA	Water	SM 5210B	
480-179414-1 DU	MW-1A	Total/NA	Water	SM 5210B	

Analysis Batch: 563559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	353.2	

Analysis Batch: 563648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	350.1	
MB 480-563648/3	Method Blank	Total/NA	Water	350.1	

General Chemistry (Continued)

Analysis Batch: 563648 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-563648/4	Lab Control Sample	Total/NA	Water	350.1	

Prep Batch: 563666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	351.2	
MB 480-563666/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-563666/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 563702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179194-1	MW-2A	Total/NA	Water	420.4	
480-179194-2	MW-2B	Total/NA	Water	420.4	
MB 480-563702/16	Method Blank	Total/NA	Water	420.4	
MB 480-563702/46	Method Blank	Total/NA	Water	420.4	
MB 480-563702/76	Method Blank	Total/NA	Water	420.4	
LCS 480-563702/17	Lab Control Sample	Total/NA	Water	420.4	
LCS 480-563702/47	Lab Control Sample	Total/NA	Water	420.4	
LCS 480-563702/77	Lab Control Sample	Total/NA	Water	420.4	

Analysis Batch: 563800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	300.0	
MB 480-563800/4	Method Blank	Total/NA	Water	300.0	
LCS 480-563800/3	Lab Control Sample	Total/NA	Water	300.0	
480-179414-1 MS	MW-1A	Total/NA	Water	300.0	

Analysis Batch: 563852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	351.2	563666
MB 480-563666/1-A	Method Blank	Total/NA	Water	351.2	563666
LCS 480-563666/2-A	Lab Control Sample	Total/NA	Water	351.2	563666

Analysis Batch: 563883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	SM 2540C	
MB 480-563883/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-563883/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 563900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-3	MW-1B	Total/NA	Water	SM 5310C	
480-179134-4	MW-3A	Total/NA	Water	SM 5310C	
480-179134-7	MW-5A	Total/NA	Water	SM 5310C	
480-179134-8	MW-6A	Total/NA	Water	SM 5310C	
480-179134-9	MW-6B	Total/NA	Water	SM 5310C	
480-179134-10	MW-7A	Total/NA	Water	SM 5310C	
MB 480-563900/55	Method Blank	Total/NA	Water	SM 5310C	
MB 480-563900/8	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-563900/56	Lab Control Sample	Total/NA	Water	SM 5310C	
LCS 480-563900/9	Lab Control Sample	Total/NA	Water	SM 5310C	

General Chemistry

Analysis Batch: 563912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	SM 4500 Cl- E	
MB 480-563912/17	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-563912/41	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-563912/51	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 480-563912/16	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-563912/40	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-563912/50	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 563913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	310.2	
MB 480-563913/17	Method Blank	Total/NA	Water	310.2	
LCS 480-563913/15	Lab Control Sample	Total/NA	Water	310.2	
480-179414-1 MS	MW-1A	Total/NA	Water	310.2	
480-179414-1 MSD	MW-1A	Total/NA	Water	310.2	

Analysis Batch: 563914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-10	MW-7A	Total/NA	Water	9038	
480-179414-1	MW-1A	Total/NA	Water	9038	
MB 480-563914/13	Method Blank	Total/NA	Water	9038	
MB 480-563914/68	Method Blank	Total/NA	Water	9038	
MB 480-563914/94	Method Blank	Total/NA	Water	9038	
LCS 480-563914/14	Lab Control Sample	Total/NA	Water	9038	
LCS 480-563914/69	Lab Control Sample	Total/NA	Water	9038	
LCS 480-563914/95	Lab Control Sample	Total/NA	Water	9038	

Analysis Batch: 564119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	420.4	
MB 480-564119/76	Method Blank	Total/NA	Water	420.4	
LCS 480-564119/77	Lab Control Sample	Total/NA	Water	420.4	

Analysis Batch: 564164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	410.4	
MB 480-564164/28	Method Blank	Total/NA	Water	410.4	
LCS 480-564164/29	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 564588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179134-1	CD-1	Total/NA	Water	SM 5310C	
480-179134-2	CD-1RA	Total/NA	Water	SM 5310C	
480-179134-5	MW-3B	Total/NA	Water	SM 5310C	
480-179134-6	MW-4A	Total/NA	Water	SM 5310C	
480-179134-11	DUP	Total/NA	Water	SM 5310C	
480-179194-1	MW-2A	Total/NA	Water	SM 5310C	
480-179194-2	MW-2B	Total/NA	Water	SM 5310C	
MB 480-564588/27	Method Blank	Total/NA	Water	SM 5310C	
MB 480-564588/4	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-564588/28	Lab Control Sample	Total/NA	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 564588 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-564588/5	Lab Control Sample	Total/NA	Water	SM 5310C	
480-179134-6 MS	MW-4A	Total/NA	Water	SM 5310C	
480-179134-6 MSD	MW-4A	Total/NA	Water	SM 5310C	

Analysis Batch: 564590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179414-1	MW-1A	Total/NA	Water	SM 5310C	
MB 480-564590/17	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-564590/18	Lab Control Sample	Total/NA	Water	SM 5310C	

Lab Chronicle

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: CD-1

Date Collected: 12/08/20 09:10
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 22:12	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563289	12/16/20 00:38	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	563391	12/15/20 20:24	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:14	CLT	TAL BUF
Total/NA	Prep	351.2			563298	12/15/20 13:05	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563446	12/16/20 07:25	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:39	SRA	TAL BUF
Total/NA	Analysis	410.4		1	563014	12/11/20 17:10	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 16:37	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:37	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/15/20 23:41	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	564588	12/24/20 16:45	CLA	TAL BUF

Client Sample ID: CD-1RA

Date Collected: 12/08/20 08:40
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			563278	12/15/20 12:18	ADM	TAL BUF
Dissolved	Prep	3005A			563307	12/16/20 09:44	KMP	TAL BUF
Dissolved	Analysis	6010C		1	563618	12/16/20 22:14	AMH	TAL BUF
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 22:16	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563289	12/16/20 00:52	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	563391	12/15/20 20:24	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:16	CLT	TAL BUF
Total/NA	Prep	351.2			563298	12/15/20 13:05	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563446	12/16/20 07:25	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:41	SRA	TAL BUF
Total/NA	Analysis	410.4		1	563014	12/11/20 17:10	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 16:44	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 23:00	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/15/20 23:41	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	564588	12/24/20 17:00	CLA	TAL BUF

Client Sample ID: MW-1B

Date Collected: 12/08/20 14:10
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 22:19	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563289	12/16/20 01:07	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	563391	12/15/20 21:05	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:17	CLT	TAL BUF
Total/NA	Prep	351.2			563040	12/13/20 10:37	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563094	12/14/20 08:23	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:42	SRA	TAL BUF
Total/NA	Analysis	410.4		1	563014	12/11/20 17:10	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 16:48	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 23:00	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/15/20 23:41	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562613	12/09/20 21:16	SRW	TAL BUF
Total/NA	Analysis	SM 5310C		1	563900	12/18/20 13:44	CLA	TAL BUF

Client Sample ID: MW-3A

Date Collected: 12/08/20 10:30
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 22:23	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563289	12/16/20 02:31	IMZ	TAL BUF
Total/NA	Analysis	310.2		1	563391	12/15/20 21:06	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:18	CLT	TAL BUF
Total/NA	Prep	351.2			563298	12/15/20 13:05	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563446	12/16/20 07:25	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:45	SRA	TAL BUF
Total/NA	Analysis	410.4		1	563014	12/11/20 17:10	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 17:02	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:10	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/15/20 23:44	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	563900	12/18/20 00:38	CLA	TAL BUF

Lab Chronicle

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-3B

Date Collected: 12/08/20 10:50
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 22:27	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563289	12/16/20 02:46	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	563391	12/15/20 20:26	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:18	CLT	TAL BUF
Total/NA	Prep	351.2			563040	12/13/20 10:37	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563094	12/14/20 08:32	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:47	SRA	TAL BUF
Total/NA	Analysis	410.4		1	563014	12/11/20 17:10	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 17:32	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:11	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/16/20 00:24	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	564588	12/24/20 17:15	CLA	TAL BUF

Client Sample ID: MW-4A

Date Collected: 12/08/20 11:10
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 22:30	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		2	563289	12/16/20 01:21	IMZ	TAL BUF
Total/NA	Analysis	310.2		6	563391	12/15/20 20:26	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:21	CLT	TAL BUF
Total/NA	Prep	351.2			563298	12/15/20 13:05	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563446	12/16/20 07:25	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:49	SRA	TAL BUF
Total/NA	Analysis	410.4		1	562709	12/09/20 19:45	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 17:35	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:11	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/16/20 00:24	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	564588	12/24/20 14:30	CLA	TAL BUF

Client Sample ID: MW-5A

Date Collected: 12/08/20 11:20
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 23:00	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563289	12/16/20 03:00	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	563391	12/15/20 20:27	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:24	CLT	TAL BUF
Total/NA	Prep	351.2			563298	12/15/20 13:05	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563446	12/16/20 07:25	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:50	SRA	TAL BUF
Total/NA	Analysis	410.4		1	563014	12/11/20 17:10	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 17:46	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:12	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/16/20 00:25	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	563900	12/18/20 14:15	CLA	TAL BUF

Client Sample ID: MW-6A

Date Collected: 12/08/20 11:55
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			563278	12/15/20 12:18	ADM	TAL BUF
Dissolved	Prep	3005A			563307	12/16/20 09:44	KMP	TAL BUF
Dissolved	Analysis	6010C		1	563618	12/16/20 22:17	AMH	TAL BUF
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 23:04	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563289	12/16/20 03:14	IMZ	TAL BUF
Total/NA	Analysis	310.2		3	563391	12/15/20 20:28	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:24	CLT	TAL BUF
Total/NA	Prep	351.2			563298	12/15/20 13:05	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563446	12/16/20 07:25	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:51	SRA	TAL BUF
Total/NA	Analysis	410.4		1	562597	12/09/20 18:30	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 17:50	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:12	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/16/20 00:25	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	563900	12/18/20 14:30	CLA	TAL BUF

Client Sample ID: MW-6B

Date Collected: 12/08/20 12:45
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 23:07	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563289	12/16/20 03:28	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	563391	12/15/20 20:31	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:25	CLT	TAL BUF
Total/NA	Prep	351.2			563298	12/15/20 13:05	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563446	12/16/20 07:33	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:52	SRA	TAL BUF
Total/NA	Analysis	410.4		1	563014	12/11/20 17:10	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 17:54	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:13	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/16/20 00:27	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	563900	12/18/20 00:53	CLA	TAL BUF

Client Sample ID: MW-7A

Date Collected: 12/08/20 13:20
Date Received: 12/09/20 08:00

Lab Sample ID: 480-179134-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 23:11	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		5	563289	12/16/20 03:42	IMZ	TAL BUF
Total/NA	Analysis	310.2		6	563391	12/15/20 20:31	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:26	CLT	TAL BUF
Total/NA	Prep	351.2			563298	12/15/20 13:05	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563446	12/16/20 07:33	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:53	SRA	TAL BUF
Total/NA	Analysis	410.4		1	562597	12/09/20 18:30	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 17:57	EAG	TAL BUF
Total/NA	Analysis	9038		1	563914	12/18/20 20:54	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/16/20 00:27	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	563900	12/18/20 01:08	CLA	TAL BUF

Client Sample ID: DUP

Lab Sample ID: 480-179134-11

Date Collected: 12/08/20 11:55

Matrix: Water

Date Received: 12/09/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			563278	12/15/20 12:18	ADM	TAL BUF
Dissolved	Prep	3005A			563307	12/16/20 09:44	KMP	TAL BUF
Dissolved	Analysis	6010C		1	563618	12/16/20 22:21	AMH	TAL BUF
Total/NA	Prep	3005A			562790	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563470	12/15/20 23:15	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563651	12/17/20 11:25	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563289	12/16/20 03:56	IMZ	TAL BUF
Total/NA	Analysis	310.2		4	563391	12/15/20 21:06	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562658	12/10/20 08:27	CLT	TAL BUF
Total/NA	Prep	351.2			563298	12/15/20 13:05	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563446	12/16/20 07:33	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562692	12/09/20 14:54	SRA	TAL BUF
Total/NA	Analysis	410.4		1	562597	12/09/20 18:30	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563395	12/15/20 18:21	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:15	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	562779	12/10/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/16/20 00:27	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562583	12/09/20 14:02	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	564588	12/24/20 16:30	CLA	TAL BUF

Client Sample ID: MW-2A

Lab Sample ID: 480-179194-1

Date Collected: 12/09/20 09:00

Matrix: Water

Date Received: 12/10/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562791	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563478	12/15/20 20:02	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563535	12/16/20 16:17	JJP	TAL BUF
Total/NA	Analysis	300.0		2	563238	12/15/20 15:39	IMZ	TAL BUF
Total/NA	Analysis	310.2		4	563391	12/15/20 20:51	SRW	TAL BUF
Total/NA	Analysis	350.1		5	562913	12/11/20 10:17	CLT	TAL BUF
Total/NA	Prep	351.2			563095	12/14/20 10:36	KEB	TAL BUF
Total/NA	Analysis	351.2		2	563218	12/15/20 08:18	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562956	12/10/20 18:40	KMF	TAL BUF
Total/NA	Analysis	410.4		1	563017	12/11/20 18:14	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563702	12/17/20 10:40	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:31	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	563024	12/12/20 14:11	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563390	12/16/20 00:46	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562797	12/10/20 14:37	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	564588	12/24/20 21:15	CLA	TAL BUF

Lab Chronicle

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Client Sample ID: MW-2B

Date Collected: 12/09/20 09:20
Date Received: 12/10/20 08:00

Lab Sample ID: 480-179194-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			562791	12/14/20 10:42	ADM	TAL BUF
Total/NA	Analysis	6010C		1	563478	12/15/20 20:05	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	563535	12/16/20 16:17	JJP	TAL BUF
Total/NA	Analysis	300.0		2	563238	12/15/20 15:54	IMZ	TAL BUF
Total/NA	Analysis	310.2		7	563391	12/15/20 20:52	SRW	TAL BUF
Total/NA	Analysis	350.1		1	562913	12/11/20 09:37	CLT	TAL BUF
Total/NA	Prep	351.2			563095	12/14/20 10:36	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563218	12/15/20 07:59	CLT	TAL BUF
Total/NA	Analysis	353.2		1	562956	12/10/20 18:41	KMF	TAL BUF
Total/NA	Analysis	410.4		1	563017	12/11/20 18:14	CSS	TAL BUF
Total/NA	Analysis	420.4		1	563702	12/17/20 11:18	EAG	TAL BUF
Total/NA	Analysis	9038		1	563392	12/15/20 22:31	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	563024	12/12/20 14:11	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		2	563390	12/16/20 00:50	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	562797	12/10/20 14:37	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	564588	12/24/20 21:30	CLA	TAL BUF

Client Sample ID: MW-1A

Date Collected: 12/15/20 08:15
Date Received: 12/16/20 08:00

Lab Sample ID: 480-179414-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			563720	12/18/20 09:57	ADM	TAL BUF
Total/NA	Analysis	6010C		1	564413	12/21/20 18:02	LMH	TAL BUF
Total/NA	Analysis	SM 2340B		1	564543	12/27/20 09:35	JJP	TAL BUF
Total/NA	Analysis	300.0		1	563800	12/18/20 16:12	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	563913	12/18/20 19:28	SRW	TAL BUF
Total/NA	Analysis	350.1		1	563648	12/17/20 10:42	CLT	TAL BUF
Total/NA	Prep	351.2			563666	12/17/20 12:29	KEB	TAL BUF
Total/NA	Analysis	351.2		1	563852	12/18/20 08:06	CLT	TAL BUF
Total/NA	Analysis	353.2		1	563559	12/16/20 18:12	ALT	TAL BUF
Total/NA	Analysis	410.4		1	564164	12/21/20 20:35	EAG	TAL BUF
Total/NA	Analysis	420.4		1	564119	12/21/20 14:46	DLG	TAL BUF
Total/NA	Analysis	9038		1	563914	12/18/20 20:29	SRW	TAL BUF
Total/NA	Analysis	SM 2540C		1	563883	12/18/20 16:33	CSS	TAL BUF
Total/NA	Analysis	SM 4500 Cl- E		1	563912	12/18/20 22:51	SRW	TAL BUF
Total/NA	Analysis	SM 5210B		1	563551	12/16/20 10:30	SRA	TAL BUF
Total/NA	Analysis	SM 5310C		1	564590	12/24/20 20:52	CLA	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: Cortland Cty Soil & Water Cons District
Job ID: 480-179134-1
Project/Site: Towslee Landfill 4Q2020
SDG: 480-179134

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	04-01-21

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
300.0		Water	Bromide
9038		Water	Sulfate
SM 2540C		Water	Total Dissolved Solids
SM 5310C		Water	TOC Result 1
SM 5310C		Water	TOC Result 2
SM 5310C		Water	Total Organic Carbon - Duplicates

Method Summary

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL BUF
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
410.4	COD	MCAWW	TAL BUF
420.4	Phenolics, Total Recoverable	MCAWW	TAL BUF
9038	Sulfate, Turbidimetric	SW846	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 4500 Cl- E	Chloride, Total	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF
SM 5310C	TOC	SM	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
FILTRATION	Sample Filtration	None	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Sample Summary

Client: Cortland Cty Soil & Water Cons District
Project/Site: Towslee Landfill 4Q2020

Job ID: 480-179134-1
SDG: 480-179134

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-179134-1	CD-1	Water	12/08/20 09:10	12/09/20 08:00	
480-179134-2	CD-1RA	Water	12/08/20 08:40	12/09/20 08:00	
480-179134-3	MW-1B	Water	12/08/20 14:10	12/09/20 08:00	
480-179134-4	MW-3A	Water	12/08/20 10:30	12/09/20 08:00	
480-179134-5	MW-3B	Water	12/08/20 10:50	12/09/20 08:00	
480-179134-6	MW-4A	Water	12/08/20 11:10	12/09/20 08:00	
480-179134-7	MW-5A	Water	12/08/20 11:20	12/09/20 08:00	
480-179134-8	MW-6A	Water	12/08/20 11:55	12/09/20 08:00	
480-179134-9	MW-6B	Water	12/08/20 12:45	12/09/20 08:00	
480-179134-10	MW-7A	Water	12/08/20 13:20	12/09/20 08:00	
480-179134-11	DUP	Water	12/08/20 11:55	12/09/20 08:00	
480-179194-1	MW-2A	Water	12/09/20 09:00	12/10/20 08:00	
480-179194-2	MW-2B	Water	12/09/20 09:20	12/10/20 08:00	
480-179414-1	MW-1A	Water	12/15/20 08:15	12/16/20 08:00	

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: McGrath	Lab PM: Johnson, Orlette S	Carrier Tracking No(s): Syracuse	COC No: 480-153314-17547.1
Client Contact: Ms. Kathleen McGrath	Phone:	E-Mail: Orlette.Johnson@Eurofinset.com		Page: Page 1 of 2
Company: Cortland Cty Soil & Water Cons District		Analysis Requested #225		Job #:
Address: 100 Grange Place Rm 202	Due Date Requested:			Preservation Codes:
City: Cortland	TAT Requested (days): Regular			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)
State, Zip: NY, 13045				
Phone: 607-345-4624(Tel)	PO #: Purchase Order not required			
Email: kathleen.mcgrath@cortlandswcd.org	WO #:			Other:
Project Name: Cortland Landfill/ Event Desc: Towslee Landfill - Routine	Project #: 48009337			
Site: New York	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Bromide	350.1, 351.2, 410.4	6010C, SM2340B	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, 9038, Nitrate_Calc, SM4500_Cl_E	310.2 - Alkalinity, Total	5310C - Total Organic Carbon	420.4_NP - Total Phenolics	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	N	N	N	N	A	S		
CD-1				Water													
CD-1RA				Water													
MW-1A	12/15/20	8:15AM	G	Water	N	N	X	X	X	X	X	X	X	X	X		
MW-1B				Water													
MW-2A				Water													
MW-2B				Water													
MW-3A				Water													
MW-3B				Water													
MW-4A				Water													
MW-5A				Water													
MW-6A				Water													

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Kathleen McGrath	12/15/20 2:00 PM			12/15/20 1400	ES-SYR
2		12-15-20, 19:00	Pyr	C Walker	12/16/20 0800	TAS
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 2.8

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 America

480-179134 Chain of Custody

Client Information	Sampler: McGrath	Lab PM: Johnson, Orlette S	OC No: 30-153314-17547.1
Client Contact: Ms. Kathleen McGrath	Phone:	E-Mail: Orlette.Johnson@Eu	Page: Page 1 of 2
Company: Cortland Cty Soil & Water Cons District			#:
Address: 100 Grange Place Rm 202	Due Date Requested:		
City: Cortland	TAT Requested (days): Regular		
State, Zip: NY, 13045			
Phone: 607-345-4624(Tel)	PO #: Purchase Order not required		
Email: kathleen.mcgrath@cortlandswcd.org	WO #:		
Project Name: Cortland Landfill/ Event Desc: Towslee Landfill - Routine	Project #: 48009337		
Site: New York	SSOW#:		

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Bromide	350.1, 351.2, 410.4	6010C, SM2340B	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, 9038, Nitrate_Calc, SM4500_Cl_E	310.2 - Alkalinity, Total	5310C - Total Organic Carbon	420.4_NP - Total Phenolics	Dissolved metals 6010C	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	N	N	N	N	A	S			
CD-1	12/8/20	9:10	G	Water	N	N	X	X	X	X	X	X	X	X	X			
CD-1RA	12/8/20	8:40	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
~~MW-1A~~				Water														
MW-1B	12/8/20	2:10PM	G	Water	N	N	X	X	X	X	X	X	X	X	X			
~~MW-2A~~				Water														
~~MW-2B~~				Water														
MW-3A	12/8/20	10:30	G	Water	N	N	X	X	X	X	X	X	X	X	X			
MW-3B	12/8/20	10:50	G	Water	N	N	X	X	X	X	X	X	X	X	X			
MW-4A	12/8/20	11:10	G	Water	N	N	X	X	X	X	X	X	X	X	X			
MW-5A	12/8/20	11:20	G	Water	N	N	X	X	X	X	X	X	X	X	X			
MW-6A	12/8/20	11:55	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by: Kathleen McGrath	Date/Time: 12/8/20 3:00pm	Company	Received by: RCHglish	Date/Time: 12-8-20, 1500	Company: Eye
Relinquished by: RCHglish	Date/Time: 12-8-20, 1800	Company: Eye	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 12/9/20 900	Company: TAB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 4.1 3.4 4.5 3.2 2.8

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 America

Client Information	Sampler: McGrath	Lab PM: Johnson, Orlette S	Carrier Tracking No(s): Syracuse	COC No: 480-153314-17547.2
Client Contact: Ms. Kathleen McGrath	Phone:	E-Mail: Orlette.Johnson@Eurofinset.com		Page: Page 2 of 2
Company: Cortland Cty Soil & Water Cons District		Analysis Requested #225		Job #:
Address: 100 Grange Place Rm 202	Due Date Requested:			
City: Cortland	TAT Requested (days): Normal			
State, Zip: NY, 13045				
Phone: 607-345-4624(Tel)	PO #: Purchase Order not required			
Email: kathleen.mcgrath@cortlandswcd.org	WO #:			
Project Name: Cortland Landfill/ Event Desc: Towslee Landfill - Routine	Project #: 48009337			
Site: New York	SSOW#:			

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	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)	300.0_28D - Bromide	350.1, 351.2, 410.4	6010C, SM2340B	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, 9038, Nitrate_Calc, SM4500_Cl_E	310.2 - Alkalinity, Total	5310C - Total Organic Carbon	420.4_NP - Total Phenolics	6010 C dissolved metals	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	N	S	D	N	N	N	N	A	S		X	
MW-6B	12/8/20	12:45	G	Water	N	N	X	X	X	X	X	X	X	X	X			
MW-7A	12/8/20	1:20	G	Water	N	N	X	X	X	X	X	X	X	X	X			
DUP	12/8/20	11:55	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		

RE 12-8-20

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Kal 2 McGrath	12/8/20 3:00pm		R Eiglul	12-8-20, 1500	[illegible]
R Eiglul	12-8-20, 1900	[illegible]			

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

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 America

Client Information	Sampler: McGrath	Lab PM: Johnson, Orlette S	Carrier Tracking No(s): Syracuse #225	COC No: 480-153314-17547.1
Client Contact: Ms. Kathleen McGrath	Phone:	E-Mail: Orlette.Johnson@Eurofinset.com		Page: Page 1 of 2
Company: Cortland Cty Soil & Water Cons District				Job #:
Address: 100 Grange Place Rm 202	Due Date Requested:			
City: Cortland	TAT Requested (days): Regular			
State, Zip: NY, 13045				
Phone: 607-345-4624(Tel)	PO #: Purchase Order not required			
Email: kathleen.mcgrath@cortlandswcd.org	WO #:			
Project Name: Cortland Landfill/ Event Desc: Towslee Landfill - Routine	Project #: 48009337			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
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:

480-179194 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Bromide	350.1, 351.2, 410.4	6010C, SM2340B	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, 9038, Nitrate_Calc, SM4500_Cl_E	310.2 - Alkalinity, Total	5310C - Total Organic Carbon	420.4_NP - Total Phenolics	Total Number of containe	Special Instructions/Note:
			Preservation Code:				N	S	D	N	N	N	N	A	S		
CD-1				Water													
CD-1RA				Water													
MW-1A				Water													
MW-1B				Water													
MW-2A	12/9/20	9:00	G	Water	N	N	X	X	X	X	X	X	X	X	X		
MW-2B	12/9/20	9:20	G	Water	N	N	X	X	X	X	X	X	X	X	X		
MW-3A				Water													
MW-3B				Water													
MW-4A				Water													
MW-5A				Water													
MW-6A				Water													

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by: Kathleen McGrath	Date/Time: 12/9/20 2:30pm	Company	Received by:	Date/Time: 12/9/20 1430	Company ES-SYR
Relinquished by: Received by	Date/Time: 12-9-20, 1900	Company SYR	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Cortland Cty Soil & Water Cons District

Job Number: 480-179134-1
SDG Number: 480-179134

Login Number: 179134
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

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	cortlund
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: Cortland Cty Soil & Water Cons District

Job Number: 480-179134-1
SDG Number: 480-179134

Login Number: 179194
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

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	CORTLUND
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: Cortland Cty Soil & Water Cons District

Job Number: 480-179134-1
SDG Number: 480-179134

Login Number: 179414
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

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	CORTLUND
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Cortland County Landfill Groundwater Sampling

Year/Quarter 2020/4

INSTRUMENT CALIBRATION:

Turbidity 0.0 Lot # 19450097 Exp 5/21 10.0 Lot # 20020047 Exp 7/21

pH 4.0 Lot # CC657900 Exp 1/20/22 7.0 Lot # CC657671 Exp 1/20/22 10.0 Lot # CC656950 Exp 1/13/22

Conductivity Lot # 7912120 Exp 12/21

Zobells/ORP Lot# K050-17 Exp 12/21

DO by % 90.0

Don't prepurge

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID CD-1

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 9:10

Weather Snowing 25°F

Method of Sampling: (Bailer) Grab | Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 14.28 | Purge Volume Goal (gal) 12/7/20 2.85 (3)

Depth to Water (ft.; from top of PVC) 8.44 | Actual Volume Purged (gal) 3.0

Methane reading ✓

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
9:10	70.6	6.8	@ 3.33	197.6	9.84	-202.2

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KCM Agency: Cortland Co SWCD

PREPURGE
PUMP!

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID CD1-RA

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 8:40

Weather showers 2

Method of Sampling: (Bailer) Grab Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 48.99

Depth to Water (ft.; from top of PVC) 6.35

12/1/20
Purge Volume Goal (gal) 20.88 (21)

Actual Volume Purged (gal) 21

Methane reading ✓

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
8:40	63.4	7.9	2.47	215.4	9.31	239.9

COMMENTS AND OBSERVATIONS:

Diss metals

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KEM Agency: Cortland Co SWCD

ARTESIAN – PUMP ~6 GAL

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID MW-1A

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/~~14~~15/20 8:15 AM

Weather overcast showing lightly 29°F

Method of Sampling: (Bailer) Grab Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 35.50

Depth to Water (ft.; from top of PVC) ~~3.47~~ 0 12/14/20

Purge Volume Goal (gal) ~~15.69~~ TBD 12/14/20 KEM 15.7

Actual Volume Purged (gal) 7 DRY

Methane reading_____

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
8:15	18.4	6.5	3.32	267.0	8.69	118.5

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/15/20 By: KEM Agency: Cortland Co SWCD

bailer rope frozen in 12/8/20
thawed over weekend

ARTESIAN

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee Sample Point ID MW-1B

Field Personnel KEM/TB Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 2:10 pm

Weather Sunny 28 °F

Method of Sampling: (Bailer) Grab Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 55.00 Purge Volume Goal (gal) 3 gal

Depth to Water (ft.; from top of PVC) Ø Actual Volume Purged (gal) 3 gal

Artesian

Methane reading —

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
2:10	1.49	9.1	2.68	149.4	8.12	201.4

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KEM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID MW-2A

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/9/20

Weather 28°F snowy

Method of Sampling: (Bailer) Grab | Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 12.80 | Purge Volume Goal (gal) 3.09 (12/8/20 TB)

Depth to Water (ft.; from top of PVC) 6.48 | Actual Volume Purged (gal) 3

Methane reading

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
9:00	32.5	5.4	4.05	468.2	7.13	54.8

COMMENTS AND OBSERVATIONS:

dissolved metals

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/9/20 By: KEM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID MW-2B

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/9/20 9:20 AM

Weather

Method of Sampling: (Bailer) Grab | Dedicated? (YES) NO

12/8/20 AG

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 33.50 | Purge Volume Goal (gal) 12.72 (~13)

Depth to Water (ft.; from top of PVC) 7.51 | Actual Volume Purged (gal) 11 Dry

Methane reading

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
9:20	19.8	6.7	4.33	892	7.56	119.3

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/9/20 By: KGM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID MW-3A

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 10:30AM

Weather overcast

Method of Sampling: (Bailer) Grab | Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 22.40 | Purge Volume Goal (gal) 7.5

Depth to Water (ft.; from top of PVC) 7.06 | Actual Volume Purged (gal) 5 dry

Methane reading —

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
10:30	11:23	9.0	3.64	115.1	7.83	273.2

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KEM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID MW-3B

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 10:50AM

Weather overcast 26°F

Method of Sampling: (Bailer) Grab | Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 44.40 | Purge Volume Goal (gal) 14.76 (~15)

Depth to Water (ft.; from top of PVC) 14.23 | Actual Volume Purged (gal) 8 dry

Methane reading _____

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
10:50	2.65	9.0	6.06	271.1	8.18	254.8

COMMENTS AND OBSERVATIONS: _____

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KEM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee Sample Point ID MW-4A

Field Personnel KEM/TB Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 11:10

Weather overcast

Method of Sampling: (Bailer) Grab Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 32.40 Purge Volume Goal (gal) 11.28 (11 1/3) 12/7/20 TB

Depth to Water (ft.; from top of PVC) 9.36 Actual Volume Purged (gal) 8 DRY

Methane reading

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
11:10	5.52	8.6	5.32	670	7.73	284.2

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KEM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID MW-5A

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 11:20 AM

Weather overcast

Method of Sampling: Bailer Grab | Dedicated? YES NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 32.30 | Purge Volume Goal (gal) 10.95(11) 12/7/20 TB

Depth to Water (ft.; from top of PVC) 9.93 | Actual Volume Purged (gal) 4 DRY

Methane reading —

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
11:20	6.74	8.6	5.64	232.5	8.34	229.4

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KCM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee

Sample Point ID MW-6A

Field Personnel KEM/TB

Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 11:55AM

Weather overcast

Method of Sampling: (Bailer) Grab

Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 19.16

Depth to Water (ft.; from top of PVC) 8.62

Purge Volume Goal (gal) 5.16 (5¼) 12/7/20 TB

Actual Volume Purged (gal) 5 ¼

Methane reading ✓

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
11:55	97.6	7.4	5.99	300.1	7.61	235.3

COMMENTS AND OBSERVATIONS: Diss metals

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KEM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID DUPE 6A

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 11:55 AM

Weather overcast

Method of Sampling: (Bailer) Grab | Dedicated? (YES) NO

Well Diameter 2" see 6A

Well Depth to Bottom (ft.; from top of PVC) _____ | Purge Volume Goal (gal) _____

Depth to Water (ft.; from top of PVC) _____ | Actual Volume Purged (gal) _____

Methane reading —

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
11?55	97.6	—	—	~	—	—

COMMENTS AND OBSERVATIONS: Diss mtls

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KEM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID MW-6B

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 12:45 PM

Weather overcast 28°F

Method of Sampling: (Bailer) Grab | Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 40.80 | Purge Volume Goal (gal) 14.22 (14¼) 12/7/20 TB

Depth to Water (ft.; from top of PVC) 11.76 | Actual Volume Purged (gal) 9 DRY

Methane reading ✓

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
12:45	6.89	8.6	4.84	225.1	7.55	217.9

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KEM Agency: Cortland Co SWCD

FIELD OBSERVATIONS Year 2020 Quarter 3

Landfill Towslee | Sample Point ID MW-7A

Field Personnel KEM/TB | Sample Matrix MW- Water

SAMPLING INFORMATION:

Date/Time 12/8/20 1:20

Weather overcast 28° F

Method of Sampling: (Bailer) Grab | Dedicated? (YES) NO

Well Diameter 2"

Well Depth to Bottom (ft.; from top of PVC) 22.60 | Purge Volume Goal (gal) 8.16

Depth to Water (ft.; from top of PVC) 5.91 | Actual Volume Purged (gal) 8

12/7/20 TB

Methane reading ✓

SAMPLING DATA:

Time	Turbidity (NTU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)	pH (std units)	ORP (mV)
1:20	4.01	7.6	5.90	543	7.20	224.0

COMMENTS AND OBSERVATIONS:

I certify that sampling procedures were in accordance with all applicable EPA, state and site-specific protocols.

Date: 12/8/20 By: KEM Agency: Cortland Co SWCD

Landfill	Towslee	Year, Quarter	2020, Q4
		Date	12/7/20
		Initials	KEM

Time	ID	Sample Location	%CH4
9:34/9:36	CD-1/CD-1RA	GW monitoring well	00.0/00.0
10:55/—	MW-1A/B	GW monitoring well	00.0/— No air space
10:19/10:21	MW-2A/B	GW monitoring well	00.0/00.0
10:08/10:10	MW-3A/B	GW monitoring well	00.0/00.0
10:03	MW-4A	GW monitoring well	00.0
9:24	MW-5A	GW monitoring well	00.0
9:12/9:10	MW-6A/B	GW monitoring well	00.0/00.0
10:43	MW-7A	GW monitoring well	00.0
2:13	Scale House	Basement Ambient	00.0

Weather	Overcast 24°F
Equipment	GEM2000

Appendix B

Data Trend Tables

Cortland County Towslee Landfill

CD-1

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	13.41	109.1	8.04	273	4.44	9.88		127	109.9	56	1.7	17.9	<0.4	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2015Q3	13.56	109.3	7.87	256	4.59	8.91		144	119	158	1.2	18.3	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2015Q4	7.59	305.4	7.8	264	4.15	11.5	10	148	142	146	2.9	18.6	<0.2	<0.05	<0.02	0.32	<10	<2	<1	0.02	<0.01
2016Q2	6.15	119.4	8.24	233	6.66	26.7	10	106	129	141	1.2	20.1	<0.2	0.078	<0.02	<0.2	<10	<2	<1	<0.01	<0.01
2016Q3	8.7	271.1	7.86	308	5.07	15.8		118	130	155	<1	14.2	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2016Q4	3.15	147.8	8.07	259	7.01	24.9		132	136	169	1	14.5	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2017Q2	5.9	154.3	7.56	280	4.88	7.24		125	132	149	1.9	15.6	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	0.013	
2017Q3	10.11	58.1	7.36	292		31.2	15	137	129	137	2.3	15.2	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	<0.01
2017Q4	7.81	-48.9	7.47	275	4.94	6.44		140	143	165	1.7	17.1	<0.2	0.056	<0.02	<0.2	<10	<2	<1	<0.01	
2018Q2	4.07	55.1	7.8	286	4.99	5.11		120	134	141	2	20.2	<0.2	0.06	<0.02	<0.2	22.1	2.5		<0.01	
2018Q3	9.04	69.7	8.15	298	5.72	14.8		132	128	149	<1	15.4	<0.2	<0.05	<0.02	0.48	<10	<2	<1	<0.01	
2018Q4	0.4	150.2	7.7	212	4.28	11.32	<5	127	157	221	1.4	18.5	<0.2	<0.05	<0.02	0.4	<10	<2	<1	<0.01	<0.01
2019Q2	5.12	131.8	7.98	174	4.88	3157	5	104	235	204	2.3	26.1	<0.2	<0.05	0.038	0.74	<10	<2	<1	<0.01	<0.01
2019Q3	4.98	152.4	8.16	270	5.62	24.8		132	142	151	<1	17.1	<0.2	0.064	<0.02	0.21	<10	<2	<1	<0.01	
2019Q4	0.45	136.9	8.23	144	9.51	17.8		126	140	287	<1	15.8	<0.2	0.058	<0.02	0.33	<10	<2	<1	<0.01	
2020Q2	12	117.5	8.07	208	3.4	13.4		140	150	185	2.2	22.1	<0.2	<0.05	<0.02	<0.2	<10	<2	1.1	<0.01	
2020Q3	12.7	265.3	7.66	223.1	2.78	20.3	5	147	156	152	<1	19.6	<0.2	0.056	<0.02	0.29	<10	<2	<1	<0.01	0.027
2020Q4	6.8	202.2	9.84	197.6	3.33	40.6		138	150	201	<1	18.8	<0.2	<0.05	<0.02	0.28	<10	<2	<1	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

CD-1

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	36.8					0.11	<0.01	8.9	0.14			1.4	3.8					
2015Q3							<0.002	35.5					0.13	<0.01	7.4	0.32			2.2	4.5					
2015Q4	0.37	<0.02	<0.015	0.11	<0.002	<0.02	<0.002	41.3	<0.004	<0.01	<0.004	0.023	0.4	<0.01	9.4	3.2	<0.0002	<0.01	1.1	4.2	<0.025	<0.006	<0.02	<0.005	0.017
2016Q2	0.93	<0.02	<0.015	0.084	<0.002	<0.02	<0.002	37.9	<0.004	<0.01	<0.004	<0.01	0.94	<0.01	8.3	0.59	<0.0002	<0.01	1.7	4.3	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q3							<0.002	38.7					0.76	<0.01	8.1	1.6			2.2	4.4					
2016Q4							<0.002	39.9					0.32	<0.01	8.9	0.79			0.95	3.6					
2017Q2							<0.002	38.3					0.56	<0.01	8.9	1.8			1.1	3.5					
2017Q3	0.47	<0.02	<0.015	0.093	<0.002	<0.02	<0.002	37.7	<0.004	<0.01	<0.004	<0.01	0.6	<0.01	8.5	1.4	<0.0002	<0.01	1.5	3.8	<0.025	<0.006	<0.02	<0.005	<0.01
2017Q4							<0.002	41.4					0.28	<0.01	9.5	0.43			1.1	4.4					
2018Q2							<0.002	39					0.086	<0.01	8.8	0.66			1.5	3.6					
2018Q3							<0.002	37.6					0.17	<0.01	8.3	0.24			1.4	3.9					
2018Q4	0.36	<0.02	<0.015	0.088	<0.002	<0.02	<0.002	45.4	<0.004	<0.01	<0.004	<0.01	0.34	<0.01	10.6	1	<0.0002	<0.01	1.1	4	<0.025	<0.006	<0.02	<0.005	<0.01
2019Q2	25	<0.02	<0.015	0.55	<0.002	0.023	<0.002	64.6	0.045	<0.01	0.018	0.046	37.6	0.026	18	23.5	<0.0002	0.04	6	3.9	<0.025	<0.006	<0.02	0.036	0.098
2019Q3							<0.002	41.9					2.3	<0.01	9.2	3.9			1.7	3.6					
2019Q4							<0.002	40.4					0.42	<0.01	9.6	1.1			1	4					
2020Q2							<0.002	41.7					0.25	<0.01	11.2	0.14			1.7	6.3					
2020Q3	2.6	<0.02	<0.015	0.16	<0.002	0.031	<0.002	45.6	0.004	<0.01	<0.004	<0.01	2.5	<0.01	10.3	4.9	<0.0002	<0.01	1.5	5.1	<0.025	<0.006	<0.02	<0.005	0.017
2020Q4							<0.002	43.2					4.3	<0.01	10.3	1.4			2.1	4					

J - value is estimated because sample did not meet laboratory QAQC protocol

CD-1RA

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	13.65	77.7	7.95	308	2.49	32.9		145	134	109	1.8	20.4	<0.2	<0.05	<0.02	0.24	<10	<2	<1	<0.01	
2015Q3	12.66	93.1	7.77	276	3.76	33.7		152	167	195	1.9	20.3	<0.2	<0.05	0.02	0.36	<10	<2	<1	0.023	
2015Q4	7.61	331.1	7.76	270	4.77	64.3	25	141	162	169	1.7	20.9	<0.2	<0.05	0.026	0.41	<10	<2	<1	<0.01	<0.01
2016Q2	5.98	102.9	7.83	276	3.51	27.4	10	138	150	162	1.5	22.8	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	<0.01
2016Q3	8.24	272.3	7.81	330	4.25	18.4		140	160	179	1.8	16	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2016Q4	3.07	124.8	7.91	276	3.87	102.2		132	144	166	1.8	29.5	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2017Q2	5.94	170.8	7.22	317	6.24	31.7		128	154	176	3.1	18.2	<0.2	<0.05	<0.02	0.35	<10	<2	<1	<0.01	
2017Q3	9.62	50.7	7.26	326		36.5	<5	156	151	160	1.9	18	<0.2	<0.05	<0.02	0.26	<10	<2	<1	<0.01	<0.01
2017Q4	8.2	-57.9	7.62	301	3.93	29.7		137	166	196	2.2	38.3	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2018Q2	3.87	71.9	7.86	319	5.53	56.3		150	154	72	2.8	20.8	<0.2	0.069	0.022	0.24	28	2.1		<0.01	
2018Q3	8.48	63.4	8.06	320	3.97	35.4		140	147	181	1.3	17.8	<0.2	<0.05	<0.02	1.2	<10	<2	<1	<0.01	
2018Q4	0.56	159.9	7.78	228	2.58	21.4	10	143	171	190	2.2	20.5	<0.2	<0.05	0.02	<0.2	<10	<2	<1	<0.01	<0.01
2019Q2	5.49	188.9	8.01	192	4.29	OR	<5	<10	1100	207	5	19.9	<0.2	<0.05	0.083	1.2	25.2	<2	<1	<0.01	<0.01
2019Q3	4.57	176.2	8.05	304	5.58	41.1		145	156	163	2.1	18.3	<0.2	<0.05	<0.02	0.25	<10	<2	<1	<0.01	
2019Q4	0.17	144.4	8.15	157	8.38	40		125	158	321	1.3	18.4	<0.2	0.056	0.032	0.43	<10	<2	<1	<0.01	
2020Q2	10.5	138.6	7.61	229	2.58	10.3		124	117	202	<1	16.4	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2020Q3	11.8	89.5	7.59	204.5	1.72	7.97	<5	142	131	194	1.5	16.6	<0.2	<0.05	<0.02	0.65	13	<2	<1	<0.01	<0.01
2020Q4	7.9	239.9	9.31	215.4	2.47	63.4		131	161	229	1.4	18.4	<0.2	<0.05	<0.02	0.31	<10	<2	1	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

CD-1RA

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	43.9					6.4	0.015	11.8	0.27			2.6	5.1					
2015Q3							<0.002	47.5					4.6	<0.01	11.9	0.37			1.9	5.5					
2015Q4	5.6	<0.02	<0.015	0.2	<0.002	<0.02	<0.002	45.4	0.006	<0.01	<0.004	<0.01	6.8	<0.01	11.8	0.57	<0.0002	<0.01	2.2	5.2	<0.025	<0.006	<0.02	0.008	0.019
2016Q2	0.98	<0.02	<0.015	0.16	<0.002	<0.02	<0.002	43.1	<0.004	<0.01	<0.004	<0.01	1.1	<0.01	10.3	0.11	<0.0002	<0.01	1	5	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q3							<0.002	46.1					1.2	<0.01	10.9	0.27			1.1	5.8					
2016Q4							<0.002	40.7					4.2	<0.01	10.4	0.2			1.7	4.8					
2017Q2							<0.002	43.2					3	<0.01	11.1	0.13			1.6	5.1					
2017Q3	2.2	<0.02	<0.015	0.2	<0.002	<0.02	<0.002	42.9	<0.004	<0.01	<0.004	<0.01	2.8	<0.01	10.8	0.35	<0.0002	<0.01	1.5	5.4	<0.025	<0.006	<0.02	<0.005	0.018
2017Q4							<0.002	47.2					3.3	<0.01	11.8	0.26			1.6	5.8					
2018Q2							<0.002	43					4	<0.01	11.3	0.19			2.1	4.8					
2018Q3							<0.002	41.4					3.2	<0.01	10.5	0.2			1.6	4.9					
2018Q4	2	<0.02	<0.015	0.18	<0.002	<0.02	<0.002	48.7	<0.004	<0.01	<0.004	<0.01	2	<0.01	12.1	0.12	<0.0002	<0.01	1.4	5.8	<0.025	<0.006	<0.02	<0.005	<0.01
2019Q2	92	<0.02	0.046	1.6	0.004	0.051	0.0031	322	0.12	<0.01	0.076	0.11	158	0.22	71	7	0.0003	0.19	12.7	6	<0.025	<0.006	<0.02	0.11	0.38
2019Q3							<0.002	44.3					3.4	<0.01	11.1	0.27			1.6	5.4					
2019Q4							<0.002	44.4					3.3	<0.01	11.5	0.25			1.7	5.3					
2020Q2							<0.002	34.2					0.75	<0.01	7.8	0.88			1.5	3.5					
2020Q3	0.22	<0.02	<0.015	0.15	<0.002	<0.02	<0.002	35.5	<0.004	<0.01	<0.004	<0.01	0.19	<0.01	10.2	0.35	<0.0002	<0.01	1.9	6.5	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	45.2					7.1	<0.01	11.6	0.33			2.5	5.1					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-1A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	16.85	-71.7	7.72	441	3.85	14.7		104	139	136	33.8	38	<1	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2015Q3	14.89	26.7	7.39	327	3.35	25.5		147	157	229	33.4	18.9	<0.2	<0.05	0.022	<0.2	<10	<2	<1	<0.01	
2015Q4	5.83	19	7.49	347	3.49	28.5	<5	126	154	208	36.7	20.7	<0.2	<0.05	0.038	0.5	<10	<2	<1	<0.01	<0.01
2016Q2	8.52	26	7.61	353	5.33	29.6	15	119	163	217	34.3	21.4	<0.2	<0.05	0.028	0.31	<10	<2	<1	<0.01	<0.01
2016Q3	10.31	17.7	7.03	432	5.31	29.9		130	166	216	34	14	<0.2	<0.05	0.046	<0.2	<10	<2	<1	<0.01	
2016Q4	3.59	22.1	7.58	355	4.17	35.5		123	157	222	36	15.9	<0.2	<0.05	<0.02	0.34	<10	<2	<1	<0.01	
2017Q2	7.13	38.3	7.84	442	5.25	58.2		112	166	223	35.2	17.6	<0.2	<0.05	<0.02	0.36	<10	<2	<1	<0.01	
2017Q3	12.17	-16.1	7.07	420		30.8	<5	130	161	203	36.1	17.3	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	<0.01
2017Q4	7.56	-44.6	7.42	380	4.67	31.8		128	170	220	37.7	18.7	<0.2	0.097	<0.02	<0.2	<10	<2	<1	<0.01	
2018Q2	8.31	-11.1	7.83	410	5.37	8.7		138	173	237	35.9	19.9	<0.2	<0.05	<0.02	0.51	32.1	2.4		<0.01	
2018Q3	14.44	-12.4	8.14	460	5.34	19.4		126	160	216	35	18.5	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2018Q4	0.42	-5.9	7.64	289	4.01	19.6	10	136	199	217	34.1	21.8	<0.2	0.07	0.029	<0.2	<10	<2	1.1	<0.01	<0.01
2019Q2	5.26	208.9	7.26	210	3.72	18.1	<5	96.8	112	117	3.1	<5	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	<0.01
2019Q3	9.01	43.6	8.26	414	11.37	15.1		127	162	261	36.1	20.8	<0.2	0.059	0.096	0.22	11	<2	<1	<0.01	
2019Q4																					
2020Q2	12.9	141.2	8.13	299.1	2.82	OR		130	171	236	37.4	19.3	0.21	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2020Q3	17.6	119.1	6.67	340.8	3.87	15.6	<5	149	168	253	33.9	21.1	<0.2	0.062	<0.02	0.51	21.8	<2	<1	<0.01	0.013
2020Q4	6.5	118.5	8.69	267	3.32	18.4		98.8	160	245	37.7	20.6	<0.2	<0.05	0.049	0.23	<10	<2	<1	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-1A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							0.0027	46.7					0.94	<0.01	10.8	0.34			1.3	11.8					
2015Q3							<0.002	45.6					1.9	<0.01	10.5	0.15			1.8	12.2					
2015Q4	2.4	<0.02	<0.015	0.078	<0.002	0.027	<0.002	44.6	<0.004	<0.01	<0.004	<0.01	2.2	<0.01	10.3	0.25	<0.0002	<0.01	1.7	11.7	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q2	1.7	<0.02	<0.015	0.08	<0.002	0.025	<0.002	47.5	<0.004	<0.01	<0.004	<0.01	1.8	<0.01	10.8	0.11	<0.0002	<0.01	1.5	12.5	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q3							<0.002	48.2					1.6	<0.01	11	0.2			1.5	12.8					
2016Q4							<0.002	45.1					3.3	<0.01	10.7	0.29			1.7	11.4					
2017Q2							<0.002	47.5					3.4	<0.01	11.5	0.31			2	11.8					
2017Q3	2.3	<0.02	<0.015	0.093	<0.002	0.026	<0.002	46.2	<0.004	<0.01	<0.004	<0.01	2.8	<0.01	11	0.82	<0.0002	<0.01	1.7	11.7	<0.025	<0.006	<0.02	<0.005	<0.01
2017Q4							<0.002	48.9					2.8	<0.01	11.6	0.26			1.7	13.1					
2018Q2							<0.002	49.8					1.4	<0.01	11.8	0.15			1.4	11.9					
2018Q3							<0.002	46.4					1.3	<0.01	10.7	0.3			1.6	12.5					
2018Q4	1.9	<0.02	<0.015	0.095	<0.002	0.031	<0.002	57.8	<0.004	<0.01	<0.004	<0.01	1.9	<0.01	13.3	0.41	<0.0002	<0.01	2	12.9	<0.025	<0.006	<0.02	<0.005	<0.01
2019Q2	6.9	<0.02	<0.015	0.25	<0.002	0.021	<0.002	30.8	0.0089	<0.01	<0.004	<0.01	8.8	<0.01	8.6	0.48	<0.0002	<0.01	2.1	6.9	<0.025	<0.006	<0.02	0.013	0.026
2019Q3							<0.002	47.2					0.37	<0.01	10.8	0.17			1.2	11.5					
2019Q4																									
2020Q2							<0.002	48.8					5.6	<0.01	12	0.62			2.5	12.3					
2020Q3	1.2	<0.02	<0.015	0.087	<0.002	0.025	<0.002	48.8	<0.004	<0.01	<0.004	<0.01	1.4	<0.01	11.3	0.16	<0.0002	<0.01	1.4	12.4	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	46.6					1.5	<0.01	10.5	0.2			1.3	11.6					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-1B

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	13.67	-49.7	8.03	216	3.58	3.16		95.9	75.95	23	2.4	9.1	<0.4	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2015Q3	13.92	-33.9	7.25	208	5.65	7.12		92.6	89.3	124	3.6	9.8	<0.2	0.051	<0.02	<0.2	<10	<2	<1	<0.01	
2015Q4	6.55	61.3	7.94	185	4.56	6.69	<5	89.2	84.5	102	2.8	10.3	<0.2	<0.05	<0.02	0.46	<10	<2	<1	<0.01	<0.01
2016Q2	10.07	-47.4	7.86	194	5.49	7.98	10	95	86.6	94	2.4	11.7	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	<0.01
2016Q3	11.02	84.1	7.72	228	6.46	16.9		94.6	88.4	116	2.9	6.3	<0.2	0.12	<0.02	<0.2	13.7	<2	<1	<0.01	
2016Q4	4.18	73	7.92	198	5.65	7.55		97.2	84.2	108	2.5	5.3	<0.2	<0.05	<0.02	0.21	<10	<2	<1	<0.01	
2017Q2	7.42	66.5	7.66	225	6.8	10.84		93.9	93.1	120	3.3	<5	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2017Q3	12.77	20.1	7.32	224		5.38	<5	100	86.2	90	3.5	<5	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	<0.01
2017Q4																					
2018Q2	6.31	12	7.92	225	3.84	5.12		104	95.8	114	2.8	8.5	<0.2	<0.05	<0.02	0.58	30.9	<2		0.019	
2018Q3	9.35	21.4	8.01	226	3.73	8		87.8	85.5	95	3.1	<5	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2018Q4	1.14	-28.8	7.82	209	3.78	8.6	<5	93.1	101	126	4.4	10	<0.2	<0.05	<0.02	0.2	<10	<2	1.4	<0.01	<0.01
2019Q2	5.02	200.2	7.92	228	4.82	OR	<5	88.1	175	213	34	21.2	<0.2	<0.05	0.21	2.6	91.4	<2	<1	0.011	<0.01
2019Q3	9.24	100.7	8.26	208	5.62	12		93.3	89.6	119	3.1	6	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2019Q4																					
2020Q2	14.7	135.2	8.26	165.7	2.21	6.76		89.7	93.4	104	3.5	7.9	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2020Q3	15.5	250.5	7.61	183.1	17.8	21.2	5	115	103	204	8.3	7.7	<0.2	<0.05	0.036	0.82	15	3	<1	<0.01	<0.01
2020Q4	9.1	201.4	8.12	149.4	2.68	1.49		99.8	88.3	153	4.1	11.3	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-1B

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	25					0.1	<0.01	6.6	0.6			0.56	6.1					
2015Q3							<0.002	25.9					0.37	<0.01	6	1.5			0.61	6.4					
2015Q4	<0.2	<0.02	<0.015	0.18	<0.002	<0.02	<0.002	24.5	<0.004	<0.01	<0.004	<0.01	0.18	<0.01	5.6	0.48	<0.0002	<0.01	<0.5	6	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q2	<0.2	<0.02	<0.015	0.37	<0.002	<0.02	<0.002	25.2	<0.004	<0.01	<0.004	<0.01	0.57	<0.01	5.7	8.7	<0.0002	<0.01	0.55	6.2	<0.025	<0.006	<0.02	<0.005	0.016
2016Q3							<0.002	25.6					1.6	<0.01	6	5.7			0.77	6.2					
2016Q4							<0.002	24.4					0.45	<0.01	5.7	3.3			<0.5	5.5					
2017Q2							<0.002	26.8					0.21	<0.01	6.3	2.5			0.51	6.3					
2017Q3	<0.2	<0.02	<0.015	0.2	<0.002	<0.02	0.008	24.9	<0.004	<0.01	<0.004	<0.01	0.19	<0.01	5.8	0.93	<0.0002	<0.01	<0.5	5.9	<0.025	<0.006	<0.02	<0.005	0.021
2017Q4																									
2018Q2							<0.002	27.6					0.24	<0.01	6.5	2.4			0.68	6.4					
2018Q3							<0.002	24.7					0.054	<0.01	5.8	0.33			<0.5	6.1					
2018Q4	<0.2	<0.02	<0.015	0.29	<0.002	<0.02	<0.002	29.3	<0.004	<0.01	<0.004	<0.01	0.34	<0.01	6.8	4.3	<0.0002	<0.01	0.59	6.5	<0.025	<0.006	<0.02	<0.005	0.02
2019Q2	11.5	<0.02	<0.015	0.2	<0.002	0.032	<0.002	48.3	0.014	<0.01	0.006	<0.01	14.7	<0.01	13.2	0.49	<0.0002	0.014	4.1	11.6	<0.025	<0.006	<0.02	0.017	0.031
2019Q3							<0.002	25.9					0.79	<0.01	6.1	0.59			0.78	5.8					
2019Q4																									
2020Q2							<0.002	27					0.16	<0.01	6.3	2.6			0.5	6.5					
2020Q3	1.4	<0.02	<0.015	0.34	<0.002	0.029	<0.002	29.6	<0.004	<0.01	<0.004	<0.01	1.7	<0.01	7	2.3	<0.0002	<0.01	0.78	7.5	<0.025	<0.006	<0.02	<0.005	0.029
2020Q4							<0.002	25.3					0.081	<0.01	6.1	0.27			0.51	6.3					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-2A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	16.93	-66.4	6.62	522	2.67	5.23		213	158	172	10	<5	<1	<0.05	5.3	12.3	11.8	<2	4	<0.01	
2015Q3	12.02	48.7	6.32	665	4.07	134		350	281	354	18	<5	<0.2	0.16	5.2	6.5	18.2	2.7	5.3	<0.01	
2015Q4	5.99	47.5	6.69	493	6.42	113	15	236	197	230	10.5	<5	<0.2	0.11	4.6	5.8	12.9	7.4	5.2	0.14	<0.01
2016Q2	7.46	39	6.96	493	5.52	140	20	230	214	246	13.1	<5	<0.2	0.078	4.7	6.1	17.3	5	3.7	<0.01	<0.01
2016Q3	9.63	43.4	6.57	787	4.49	140		309	286	354	20	10	<0.2	0.22	8.3	8.3	20.7	2	5.7	<0.01	
2016Q4	1.73	107.7	7.95	673	6.66	105		264	212	272	13.6	7.4	<0.2	0.064	5	6.1	10.6	6.3	5	0.016	
2017Q2	6.89	47.6	6.83	1402	5.01	45.5		222	197	251	12.8	<5	<0.2	0.05	5.5	5.6	<10	<2	3.6	<0.01	
2017Q3	12.36	4	6.05	755		830	<5	363	294	344	25	<5	<0.4	0.19	6.2	7.5	<10	17.8	7.8	<0.01	<0.01
2017Q4	6.52	-23.6	6.66	617	6.31	33.87		268	236	316	15	<5	<0.4	0.058	5.3	4.9	<10	3.4	4.2	<0.01	
2018Q2	7.14	-13.8	6.67	647	3.89	876		288	254	315	16	<5	<0.2	0.15	5.7	6.5	28.6	5.4		0.086	
2018Q3	10.53	-34.6	6.82	628	6.21	67		275	241	294	16.9	<5	<0.2	0.15	5.6	6	13.4	3.6	4.4	0.011	
2018Q4	0.41	-24	6.53	420	2.84	82.2	25	287	284	316	15.1	<5	<0.2	<0.05	4.5	4.4	13.5	3.4	4.1	<0.01	<0.01
2019Q2	6.74	12.4	6.59	454	6.3	1142	10	237	272	315	18.9	<5	<0.4	<0.05	5.1	6.1	14	5.9	4.9	0.011	<0.01
2019Q3	7.39	-26.3	6.82	683	5.54	853		370	296	354	18.6	<5	<0.4	0.2	4.9	4.9	22	10.8	5.6	<0.01	
2019Q4	-2.81	66.8	7.44	253	9.53	606		247	215	350	11.2	<5	<0.4	0.13	3.6	3.9	<10	2.3	4	0.029	
2020Q2	14.7	47.4	6.6	474.4	3.57	17.1		253	197	240	11.7	<5	<0.4	0.11	4.5	3.7	<10	<2	4.8	<0.01	
2020Q3	16.5	95.4	5.68	612	3.69	10.34	<5	347	234	206	15.3	<5	<0.2	0.38	2.6	5.7	<10	<6	4.3	<0.01	<0.01
2020Q4	5.4	54.8	7.13	468.2	4.05	52.5		329	279	385	22.4	<5	0.41	0.13	9.4	7.7	11.3	6.8	5.8	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-2A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							0.003	53.6					3.3	<0.01	11.6	6.8			8.3	10.2					
2015Q3							<0.002	81.9					16.8	<0.01	18.5	9.6			12.1	14.2					
2015Q4	9.2	<0.02	0.018	0.33	<0.002	0.18	<0.002	56.1	0.011	<0.01	0.007	<0.01	18.2	<0.01	13.8	7.5	<0.0002	0.015	8.8	9.7	<0.025	<0.006	<0.02	0.013	0.035
2016Q2	13.2	<0.02	0.018	0.4	<0.002	0.19	<0.002	60.5	0.019	<0.025	0.01	0.015	25.1	0.012	15.4	7.6	<0.0002	0.022	9.2	10.1	<0.025	<0.006	<0.02	0.016	0.051
2016Q3							<0.002	82					22.3	<0.01	19.8	11.1			12.9	15.7					
2016Q4							<0.002	60.2					18.3	<0.01	14.9	8.5			8	10.2					
2017Q2							<0.002	57.1					9.9	<0.01	13.2	7.6			8.4	9.6					
2017Q3	19.9	<0.02	0.019	0.65	<0.002	0.24	<0.002	81	0.027	<0.01	0.016	0.027	34	0.021	22.2	9.6	<0.0002	0.036	12.1	15	<0.025	<0.006	<0.02	0.029	0.098
2017Q4							<0.002	69					11	<0.01	15.4	8.8			8.1	11.4					
2018Q2							<0.002	70.1					29.7	0.017	19.1	9			10.7	10.8					
2018Q3							<0.002	70					15.5	<0.01	16	8.6			10.5	11.7					
2018Q4	11	<0.02	<0.015	0.43	<0.002	0.18	<0.002	81.2	0.015	<0.01	0.009	0.011	22.5	<0.01	19.8	9.7	<0.0002	0.018	9.6	10.2	<0.025	<0.006	<0.02	0.017	0.043
2019Q2	17	<0.02	0.022	0.54	<0.002	0.2	<0.002	77.3	0.023	<0.01	0.013	0.021	32.4	0.017	19.2	9.3	<0.0002	0.029	10.3	10.9	<0.025	<0.006	<0.02	0.024	0.076
2019Q3							<0.002	84.9					29.6	0.013	20.5	9.9			11.4	11.7					
2019Q4							<0.002	62.3					16.3	0.01	14.5	8			7.7	9.3					
2020Q2							<0.002	59.1					6.5	<0.01	12	6.9			7.7	8.5					
2020Q3	<0.2	<0.02	<0.015	0.4	<0.002	0.22	<0.002	70.4	<0.004	<0.01	<0.004	<0.01	2.2	<0.01	14	8.9	<0.0002	<0.01	9	11.3	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	82					6	<0.01	18.1	12.2			9.7	14.4					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-2A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Organics units are µg/L.

Period	Vinyl Chloride	Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes, Total	1,4-Dichlorobenzene
2015Q2													
2015Q3													
2015Q4	<1	<1	<10	<1	<1	<1	<1	<1	<1	**1.2**	<1	<2	<1
2016Q2	<1	<1	<10	<1	<1	<1	<1	<1	<1	**1.2**	<1	<2	<1
2016Q3													
2016Q4													
2017Q2													
2017Q3	<1	<1	<10	<1	<1	<1	<1	<1	<1	**1.1**	<1	<2	<1
2017Q4													
2018Q2													
2018Q3													
2018Q4	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
2019Q2	<1	<1	<10	<1	<1	<1	<1	**1.1**	**3.3**	**1.5**	<1	<2	<1
2019Q3													
2019Q4													
2020Q2													
2020Q3	<1	<1	<10	<1	<1	<1	<1	<1	<1	**2.2**	<1	<2	**1.2**
2020Q4													

X.X detected organics

MW-2B

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	14.56	-49.4	6.69	1391	4.39	5.94		650	527.5	709	107	<5	<4	<0.05	0.75	1.1	<10	<2	4.2	<0.01	
2015Q3	11.13	171.3	6.29	1139	5.08	5.01		655	624	759	96	<5	0.79	<0.05	0.66	1.3	<10	2.2	4.7	<0.01	
2015Q4	7.21	179.7	6.66	1212	4.53	34.1	10	693	650	761	121	<5	0.77	<0.05	0.64	1.8	10.4	<2	5.3	<0.01	<0.01
2016Q2	5.75	128	6.76	1231	6.61	7.42	10	666	651	763	95.4	<5	0.77	0.085	0.56	1.3	13.4	<2	4.5	<0.01	<0.01
2016Q3	8.96	294.1	6.61	1418	6.25	40.8		641	633	807	84.3	<5	0.71	<0.05	1	1.6	25.6	<3	5	<0.01	
2016Q4	2.05	240.9	7.86	1546	4.74	21.8		652	636	806	99.2	<5	0.74	<0.05	0.44	1.4	11.6	4.9	4.8	<0.01	
2017Q2	6.75	68.1	7.24	1404	7.88	7.49		602	650	757	98.5	<5	0.69	<0.05	0.55	1.1	<10	<2	3.8	<0.01	
2017Q3	11.85	29.7	5.88	1412		9.75	<5	637	618	749	99.8	<5	<1	0.13	0.42	1.6	<10	<2	5.2	<0.01	<0.01
2017Q4	6.83	-26.5	6.6	1329	4.42	7.75		644	647	798	98.5	<5	<1	<0.05	0.69	0.99	<10	<2	4.1	<0.01	
2018Q2	5.55	74.9	6.85	1393	6.63	8.43		619	655	798	95.2	<5	0.73	<0.05	0.58	1.3	53.1	2		<0.01	
2018Q3	11.71	0.6	6.99	1365	6.16	8.29		615	605	775	94.9	<5	1	<0.05	0.74	0.9	<10	2.1	3.8	<0.01	
2018Q4	0.58	7.2	6.53	899	4.78	14	10	561	682	733	88.3	<5	<1	<0.05	0.62	1	18.4	<2	3.5	0.018	<0.01
2019Q2	5.56	181.3	6.86	828	4.53	21.1	<5	598	640	720	89.3	<5	1.1	<0.05	0.53	1.1	26.5	<2	5.3	0.01	<0.01
2019Q3	7.1	-12.5	6.93	1248	4.58	16		574	622	783	90.5	<5	<1	<0.05	0.76	1.1	28.8	3.2	4.9	<0.01	
2019Q4	-1.9	3.7	7.43	638	9.32	8.96		572	607	798	96.6	<5	<1	0.05	0.63	1.2	26.7	<2	4	<0.01	
2020Q2	14.9	67.5	6.53	1220	4.33	4.79		646	601	721	89	<5	1.2	<0.05	0.58	0.99	26.3	<2	4.2	<0.01	
2020Q3	16	166.6	5.85	1050	4.28	2.29	10	696	572	141	73.6	<5	0.66	<0.05	0.46	1.7	<10	<2	3.8	<0.01	<0.01
2020Q4	6.7	119.3	7.56	892	4.33	19.8		567	600	758	85.7	<5	0.67	<0.05	0.73	1.3	25.6	<2	4.8	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-2B

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	177					0.33	<0.01	42	5.5			2.3	41.8					
2015Q3							<0.002	184					0.6	<0.01	39.8	5.2			2.4	45.5					
2015Q4	0.36	<0.02	<0.015	1.2	<0.002	0.25	<0.002	193	<0.004	<0.01	<0.004	<0.01	0.63	<0.01	40.9	5.5	<0.0002	<0.01	2.4	47.2	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q2	0.99	<0.02	<0.015	1.2	<0.002	0.21	<0.002	192	<0.004	<0.01	0.004	<0.01	1.7	<0.01	41.3	5.3	<0.0002	<0.01	2.2	44.8	<0.025	<0.006	<0.02	<0.005	0.01
2016Q3							<0.002	188					4	<0.01	39.8	6.1			3.1	45.4					
2016Q4							<0.002	187					1.2	<0.01	40.8	5.6			2.4	44.9					
2017Q2							<0.002	191					0.5	<0.01	42	5.5			2.1	43.3					
2017Q3	0.47	<0.02	<0.015	1.1	<0.002	0.2	<0.002	182	<0.004	<0.01	<0.004	<0.01	0.63	<0.01	39.8	5	<0.0002	<0.01	2.4	44.3	<0.025	<0.006	<0.02	<0.005	0.015
2017Q4							<0.002	192					0.29	<0.01	40.7	5.4			2.2	47.6					
2018Q2							<0.002	192					0.55	<0.01	42.7	5.3			2.2	43.5					
2018Q3							<0.002	178					0.31	<0.01	39	5.1			2.2	44.5					
2018Q4	0.7	<0.02	<0.015	1.2	<0.002	0.24	<0.002	200	<0.004	<0.01	<0.004	<0.01	0.66	<0.01	44.2	5.3	<0.0002	<0.01	2.5	44.9	<0.025	<0.006	<0.02	<0.005	<0.01
2019Q2	1.1	<0.02	<0.015	1.1	<0.002	0.19	<0.002	189	<0.004	<0.01	<0.004	<0.01	1.1	<0.01	40.9	5.1	<0.0002	<0.01	2.3	42.2	<0.025	<0.006	<0.02	<0.005	<0.01
2019Q3							<0.002	185					0.37	<0.01	39	5.2			2.3	42					
2019Q4							<0.002	179					0.84	<0.01	38.7	5.2			2.2	43.1					
2020Q2							<0.002	179					0.54	<0.01	37.5	5			2.1	40.6					
2020Q3	<0.2	<0.02	<0.015	1.1	<0.002	0.21	<0.002	170	<0.004	<0.01	<0.004	<0.01	0.42	<0.01	35.9	5.2	<0.0002	<0.01	2.1	39.1	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	179					1.8	<0.01	37.4	5.3			2.7	44					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-2B

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Organics units are µg/L.

Period	Vinyl Chloride	Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes, Total	1,4-Dichlorobenzene
2015Q2													
2015Q3													
2015Q4	**16**	**6.3**	<10	<1	<1	**20**	<1	<1	<1	<1	<1	<2	<1
2016Q2	**14**	**5**	<10	<1	<1	**19**	<1	<1	<1	<1	<1	<2	<1
2016Q3													
2016Q4													
2017Q2													
2017Q3	**11**	**4.4**	<10	<1	<1	**25**	<1	<1	<1	<1	<1	<2	<1
2017Q4													
2018Q2													
2018Q3													
2018Q4	**12**	**3.6**	<10	<1	<1	**33**	<1	<1	<1	<1	<1	<2	<1
2019Q2	**16**	**3.2**	<10	<1	<1	**33**	<1	<1	<1	<1	<1	<2	<1
2019Q3													
2019Q4													
2020Q2													
2020Q3	**17**	**5.2**	<10	<1	<1	**42**	<1	**1.1**	<1	**1.2**	<1	<2	<1
2020Q4													

X.X detected organics

MW-3A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	12.24	-17.4	6.38	319	5.27	3.92		154	116	96	1.4	<5	<0.4	<0.05	0.073	0.6	13.7	5.3	5.4	<0.01	
2015Q3	11.96	196	5.93	187	5.41	3.25		96.6	90.3	118	2.3	<5	<0.2	<0.05	0.46	1.1	28.4	<2	6.6	0.011	
2015Q4	7.59	174	6.09	241	6.51	20.4	40	146	120	131	1.2	<5	<0.2	<0.05	0.14	1.1	18.3	<2	5.5	<0.01	<0.01
2016Q2	7.87	202.1	6.7	374	5.1	9.03	10	181	174	216	24.8	16.7	0.21	<0.05	<0.02	0.34	<10	<2	<1	<0.01	<0.01
2016Q3	9.15	285.4	7.49	361	6.77	9.6		169	160	188	5.2	9.8	<0.2	<0.05	0.03	0.32	15.5	<2	2.1	<0.01	
2016Q4	2.78	219.8	6.79	385	6.84	12.4		57.3	58.8	88	2.5	<5	<0.2	0.086	<0.02	0.51	11.2	3	3.2	<0.01	
2017Q2	6.24	38.1	6.81	178	7.04	15.8		64.9	68.5	101	1.3	<5	0.54	<0.05	<0.02	1	11.2	3.9	9.3	<0.01	
2017Q3	10.22	44.4	6.76	436		5.01	15	184	161	173	4.8	<5	<0.2	<0.05	0.074	0.45	<10	<2	2.9	<0.01	<0.01
2017Q4	8.41	-30.4	6.77	293	4.41	13		128	133	158	1.1	<5	<0.2	0.058	<0.02	0.21	<10	<2	2.6	<0.01	
2018Q2	5.25	127.2	7.31	383	7.29	16.8		175	172	206	5.8	<5	<0.2	<0.05	<0.02	0.42	47.8	<2		<0.01	
2018Q3	8.68	55.7	7.67	383	5.27	7.76		159	155	188	5.5	<5	<0.2	<0.05	<0.02	<0.2	<10	<2	1.4	<0.01	
2018Q4	1.76	131.1	6.47	144	5.48	17.7	40	69.1	80.3	97	<1	<5	<0.2	<0.05	<0.02	0.41	12.5	<2	3.1	<0.01	<0.01
2019Q2	7.2	236.8	6.39	169	6.46	21.5	30	111	127	123	1.4	<5	<0.2	<0.05	0.088	0.73	22.6	<2	4.9	0.01	<0.01
2019Q3	5.62	155.3	7.75	407	6.37	17.2		197	184	219	5.9	<5	<0.2	<0.05	<0.02	0.29	<10	<2	1.7	<0.01	
2019Q4	0.2	163.2	7.14	170	7.91	19.2		64.2	65.2	161	<1	<5	<0.2	<0.05	0.033	0.61	15.7	<2	2.8	<0.01	
2020Q2	14.4	122.9	6.86	321.2	5.43	6.43		177	159	157	4.6	<5	<0.2	<0.05	<0.02	<0.2	<10	<2	1.7	<0.01	
2020Q3	13.7	274.4	6.34	275.7	4.66	6.68	15	207	163	523	4.4	<5	<0.2	<0.05	<0.02	0.5	10.1	<3	<1	<0.01	0.036
2020Q4	9	273.2	7.83	115.1	3.64	11.23		73.3	69.2	194	<1	<5	<0.2	0.072	<0.02	0.42	15.4	<2	4.4	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-3A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	40.9					0.3	<0.01	6.8	2.8			1.8	2.1					
2015Q3							<0.002	28.9					0.51	<0.01	4.4	2.5			1.5	1.6					
2015Q4	0.87	<0.02	0.023	0.64	<0.002	<0.02	<0.002	37.9	<0.004	<0.01	0.006	<0.01	1.2	<0.01	6.3	3.2	<0.0002	<0.01	1.6	2.1	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q2	<0.2	<0.02	<0.015	0.2	<0.002	0.033	<0.002	46.6	<0.004	<0.01	<0.004	<0.01	0.21	<0.01	13.9	0.33	<0.0002	<0.01	1	7.9	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q3							<0.002	48					0.49	<0.01	9.7	0.64			1.5	5.8					
2016Q4							<0.002	17.9					1.4	<0.01	3.4	0.098			1	1.5					
2017Q2							<0.002	22.1					1.2	<0.01	3.2	0.88			1.3	<1					
2017Q3	0.39	<0.02	<0.015	0.46	<0.002	0.026	<0.002	48.6	<0.004	<0.01	<0.004	<0.01	0.4	<0.01	9.5	0.6	<0.0002	<0.01	1.4	5.6	<0.025	<0.006	<0.02	<0.005	<0.01
2017Q4							<0.002	41.4					0.46	<0.01	7.2	0.68			0.97	3.4					
2018Q2							<0.002	51.2					1.1	<0.01	10.6	0.65			1.4	5.5					
2018Q3							<0.002	46.2					0.38	<0.01	9.5	0.34			1.2	5.6					
2018Q4	1.8	<0.02	<0.015	0.4	<0.002	<0.02	<0.002	25.7	<0.004	<0.01	<0.004	<0.01	1.3	<0.01	3.9	1.5	<0.0002	<0.01	1.4	1.4	<0.025	<0.006	<0.02	<0.005	0.014
2019Q2	2.5	<0.02	0.021	0.62	<0.002	<0.02	<0.002	39.8	<0.004	<0.01	<0.004	0.01	2.6	<0.01	6.8	1.5	<0.0002	<0.01	1.9	2.6	<0.025	<0.006	<0.02	0.0051	0.018
2019Q3							<0.002	55					0.61	<0.01	11.4	0.59			1.4	6.2					
2019Q4							<0.002	20.3					2	<0.01	3.5	1.1			1.4	1.5					
2020Q2							<0.002	47.8					0.23	<0.01	9.7	0.62			1.1	5.5					
2020Q3	<0.2	<0.02	<0.015	0.37	<0.002	<0.02	<0.002	48.9	<0.004	<0.01	<0.004	<0.01	0.09	<0.01	9.9	0.35	<0.0002	<0.01	1	5.9	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	21.8					0.55	<0.01	3.6	0.17			0.93	1.4					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-3B

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	11.85	-76.1	7.26	446	5.65	21.4		181	196.5	176	24.4	13.4	<1	0.059	<0.02	0.44	<10	<2	1.2	<0.01	
2015Q3	9.44	266.2	6.82	332	5.81	2.47		169	190	225	25.2	12.8	<0.2	<0.05	0.035	0.25	<10	<2	1	<0.01	
2015Q4	8.47	158	7.09	364	6.78	7.9	25	202	190	199	25	16.4	<0.2	<0.05	<0.02	0.42	<10	<2	1	<0.01	<0.01
2016Q2	9.26	254.4	6.24	228	8.73	11.7	50	97.9	97.9	115	1.4	<5	<0.2	<0.05	0.076	1.1	25.5	2.6	5.8	<0.01	<0.01
2016Q3	7.69	294.1	7.62	474	6.92	8.81		168	190	218	22.7	10.1	<0.2	0.069	<0.02	<0.2	14.9	<2	1.1	<0.01	
2016Q4	2.96	263	6.55	217	9.12	13.8		174	182	235	24.8	8.9	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2017Q2	5.47	84	7.04	416	6.81	5.25		166	193	236	23.9	<5	<0.2	<0.05	<0.02	0.33	<10	<2	<1	<0.01	
2017Q3	10.9	61.4	6.55	397		12.1	10	183	188	197	22.4	<5	<0.2	0.064	<0.02	0.48	<10	<2	1.5	<0.01	<0.01
2017Q4	10.08	-37.5	7.16	392	5.22	8.15		175	191	230	22.8	10.8	<0.2	0.057	<0.02	<0.2	<10	<2	<1	<0.01	
2018Q2	6.77	135.9	7.44	474	6.91	21.4		170	191	224	23.5	12.3	<0.2	<0.05	<0.02	0.29	39.8	<2		<0.01	
2018Q3	7.01	44.1	7.73	409	6.2	10.28		161	175	221	23.5	7.3	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2018Q4	2.38	103.6	7.29	302	5.69	8.71	10	152	218	214	23.5	14.5	<0.2	<0.05	<0.02	<0.2	<10	<2	1.3	<0.01	<0.01
2019Q2	6.15	200.1	7.87	250	5.2	12.1	10	149	181	183	22.2	6.7	0.21	<0.05	<0.02	0.23	<10	<2	<1	<0.01	<0.01
2019Q3	4.87	151.8	7.74	383	6.68	15.8		175	179	229	21.3	8.6	<0.2	0.087	<0.02	0.22	<10	<2	<1	<0.01	
2019Q4	-0.4	154	7.43	197	7.84	4.6		151	174	289	22.7	10.4	<0.2	0.081	<0.02	0.27	<10	<6	<1	<0.01	
2020Q2	14.2	114.9	7.28	355.4	5.32	1.02		158	173	176	21.1	11.9	0.28	<0.05	<0.02	<0.2	<10	<2	1.6	<0.01	
2020Q3	12.6	259.2	6.64	275	4.91	3.84	10	172	158	225	20.2	10.8	0.21	<0.05	<0.02	0.24	13	<2	<1	<0.01	0.02
2020Q4	9	254.8	8.18	271.1	6.06	2.65		156	166	226	22.7	13.2	<0.2	<0.05	0.022	<0.2	<10	<2	1.1	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-3B

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	64.2					1.5	<0.01	17.8	0.19			1.8	9					
2015Q3							<0.002	51.7					0.093	<0.01	14.7	0.16			1.1	8.2					
2015Q4	0.56	<0.02	<0.015	0.22	<0.002	0.046	<0.002	51.2	<0.004	<0.01	<0.004	<0.01	0.37	<0.01	15	0.17	<0.0002	<0.01	1.1	9.4	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q2	0.73	<0.02	0.028	0.59	<0.002	<0.02	<0.002	30.7	<0.004	0.011	0.004	<0.01	1	<0.01	5.2	2.6	<0.0002	<0.01	1.6	1.8	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q3							<0.002	52					0.28	<0.01	14.7	0.43			1.3	8.7					
2016Q4							<0.002	48.8					0.35	<0.01	14.5	0.13			1	7.9					
2017Q2							<0.002	51.8					0.18	<0.01	15.6	0.13			1.1	8.2					
2017Q3	0.31	<0.02	<0.015	0.22	<0.002	0.041	<0.002	50.7	<0.004	<0.01	<0.004	<0.01	0.29	<0.01	15	0.19	<0.0002	<0.01	1.2	8.3	<0.025	<0.006	<0.02	<0.005	<0.01
2017Q4							<0.002	52					0.23	<0.01	15	0.15			1.1	9					
2018Q2							<0.002	51					1.5	<0.01	15.6	0.59			1.3	8					
2018Q3							<0.002	46.8					0.87	<0.01	14.1	0.13			1.1	7.9					
2018Q4	0.33	<0.02	<0.015	0.24	<0.002	0.038	<0.002	58.3	<0.004	<0.01	<0.004	<0.01	0.42	<0.01	17.5	0.38	<0.0002	<0.01	1.2	7.9	<0.025	<0.006	<0.02	<0.005	0.015
2019Q2	0.42	<0.02	<0.015	0.2	<0.002	0.035	<0.002	48.9	<0.004	<0.01	<0.004	<0.01	0.59	<0.01	14.4	0.21	<0.0002	<0.01	1.1	7.8	<0.025	<0.006	<0.02	<0.005	0.021
2019Q3							<0.002	48.6					0.44	<0.01	13.9	0.26			1.2	7.4					
2019Q4							<0.002	46.5					0.088	<0.01	14.1	0.25			1.2	8					
2020Q2							<0.002	46.7					0.054	<0.01	13.7	0.025			1	7.8					
2020Q3	<0.2	<0.02	<0.015	0.19	<0.002	0.027	<0.002	42.9	<0.004	<0.01	<0.004	<0.01	0.076	<0.01	12.4	0.11	<0.0002	<0.01	0.86	7.2	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	44.3					0.13	<0.01	13.4	0.055			1.1	7.9					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-4A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	12.98	88.1	7.6	740	5	17		336	326.5	355	17.2	13.3	<2	<0.05	<0.02	0.81	<10	3.1	1.2	<0.01	
2015Q3	13.91	118.4	7.32	675	4.66	5.74		418	396	458	15.8	7.7	<0.2	<0.05	<0.02	0.3	<10	<2	2	<0.01	
2015Q4	7.26	344.1	7.25	713	7.01	10.8	15	451	403	465	15.4	5.8	<0.2	<0.05	<0.02	0.59	<10	<2	2.5	<0.01	<0.01
2016Q2	7.63	335.1	7.38	725	4.94	5.1	10	258	370	422	15.3	11.4	<0.2	<0.05	<0.02	0.3	<10	<2	1.8	<0.01	<0.01
2016Q3	9.08	292.9	7.15	941	7.09	11.7		497	457	525	13.3	5	<0.2	<0.05	<0.02	<0.2	10.1	<2	2.3	<0.01	
2016Q4	2.5	239	7.64	960	5.22	5.99		427	423	479	13.6	6.7	<0.2	<0.05	<0.02	0.27	<10	<2	2.2	<0.01	
2017Q2	5.24	163.3	7.29	769	6.72	7.93		400	399	427	14.6	<5	<0.2	<0.05	<0.02	0.43	<10	<2	1.6	<0.01	
2017Q3	9.84	64.8	6.44	816		9.43	<5	426	392	441	13.2	<5	<0.4	<0.05	<0.02	0.26	<10	<2	2.1	<0.01	<0.01
2017Q4	8.81	-40.7	7.13	756	5.48	12.8		465	418	442	12.6	6.9	<0.4	<0.05	<0.02	<0.2	<10	<2	1.4	<0.01	
2018Q2	3.96	94.1	7.26	826	6.51	11.8		428	421	443	15.5	7.2	<0.2	<0.05	<0.02	<0.2	17.9	<2		<0.01	
2018Q3	9.55	71.4	7.54	806	6.37	13.1		417	383	424	13.1	<5	<0.2	<0.05	<0.02	0.2	<10	<2	1.6	<0.01	
2018Q4	2.5	153.2	7.02	619	5.29	13.3	10	428	475	468	12.8	9.4	<0.2	<0.05	<0.02	0.2	<10	<2	2.1	<0.01	<0.01
2019Q2	5.71	246.4	7.35	488	6.05	34.2	<5	411	408	436	12.4	<5	<0.4	<0.05	0.047	0.56	<10	<2	1.8	<0.01	<0.01
2019Q3	5.2	168	7.51	723	6.48	17.5		441	400	428	11.3	<5	<1	0.059	<0.02	0.24	<10	<2	2.1	<0.01	
2019Q4	0.42	137.2	7.85	388	10.49	4.8		381	399	513	11.4	<5	<0.4	0.055	<0.02	0.33	<10	<2	1.3	<0.01	
2020Q2	10.5	130.3	7	604	5.4	4.43		376	354	375	12.6	6	<0.4	<0.05	<0.02	0.29	<10	<2	1.9	<0.01	
2020Q3	12.3	169.6	6.45	6.77	2.33	7.72	<5	507	444	492	10.9	<5	<0.4	<0.05	<0.02	0.58	21.2	<2	1.9	<0.01	0.011
2020Q4	8.6	254.2	7.73	670	5.32	5.52		533	477	442	9.9	<5	<0.4	<0.05	<0.02	0.3	<10	<2	2.6	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-4A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	110					0.4	<0.01	24.9	1.6			1.5	14.7					
2015Q3							<0.002	117					0.27	<0.01	25.2	1.1			1.6	14.7					
2015Q4	0.29	<0.02	<0.015	1.1	<0.002	0.09	<0.002	118	<0.004	<0.01	<0.004	<0.01	0.19	<0.01	26	0.71	<0.0002	<0.01	1.5	16.1	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q2	0.36	<0.02	<0.015	0.99	<0.002	0.066	<0.002	108	<0.004	<0.01	<0.004	<0.01	0.19	<0.01	24.2	2	<0.0002	<0.01	1.4	15.3	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q3							<0.002	135					0.13	<0.01	29	1.8			1.6	17.7					
2016Q4							<0.002	124					0.38	<0.01	27.8	0.67			1.4	16.6					
2017Q2							<0.002	117					0.15	<0.01	26.1	1.1			1.3	14.9					
2017Q3	<0.2	<0.02	<0.015	1	<0.002	0.084	<0.002	115	<0.004	<0.01	<0.004	<0.01	0.13	<0.01	25.3	1.1	<0.0002	<0.01	1.4	16.9	<0.025	<0.006	<0.02	<0.005	<0.01
2017Q4							<0.002	123					0.26	<0.01	26.8	0.47			1.5	17.6					
2018Q2							<0.002	123					0.62	<0.01	27.8	2.9			1.4	16.1					
2018Q3							<0.002	112					0.086	<0.01	24.9	0.71			1.4	15.4					
2018Q4	0.75	<0.02	<0.015	1.3	<0.002	0.085	<0.002	138	<0.004	<0.01	<0.004	<0.01	0.52	<0.01	31.4	2.5	<0.0002	<0.01	1.7	17.6	<0.025	<0.006	<0.02	<0.005	0.01
2019Q2	5.8	<0.02	<0.015	1.5	<0.002	0.072	<0.002	120	<0.004	<0.01	0.004	<0.01	3.5	<0.01	26.5	7.6	<0.0002	<0.01	2	15.7	<0.025	<0.006	<0.02	0.005	0.015
2019Q3							<0.002	118					1	<0.01	25.6	1.4			1.7	14					
2019Q4							<0.002	117					0.084	<0.01	26.1	0.32			1.4	15.9					
2020Q2							<0.002	105					0.1	<0.01	22.2	0.37			1.1	13.8					
2020Q3	0.49	<0.02	<0.015	1.2	<0.002	0.093	<0.002	130	<0.004	<0.01	<0.004	<0.01	0.26	<0.01	28.9	1.4	<0.0002	<0.01	1.7	15.8	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	140					0.14	<0.01	31.3	0.47			1.7	17.7					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-5A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	12.85	107.7	8.12	283	3.79	7.66		110	92.6	83	6	16.8	<0.4	0.054	<0.02	<0.2	<10	<2	<1	<0.01	
2015Q3	14.92	100.1	7.91	235	3.77	5.08		117	113	155	6.3	14.7	<0.2	0.091	<0.02	<0.2	<10	<2	<1	<0.01	
2015Q4	7.32	233.3	7.71	248	7.18	8.8	20	132	114	147	6.7	17	<0.2	0.051	<0.02	0.46	<10	<2	<1	0.015	<0.01
2016Q2	6.14	117	7.94	251	6.26	4.94	10	113	118	133	5.5	17.5	<0.2	0.086	0.067	0.32	<10	<2	<1	<0.01	<0.01
2016Q3	9.09	231.6	7.2	256	5.39	23.2		125	124	156	6.5	10.1	<0.2	0.18	<0.02	0.22	<10	<2	<1	<0.01	
2016Q4	2.8	286.7	7.3	316	6.78	4.18		124	119	167	7.3	9.8	<0.2	0.085	<0.02	0.29	<10	<2	<1	<0.01	
2017Q2	5.19	-4.8	7.93	272	5.28	8.3		108	116	158	6.3	11.2	<0.2	0.18	<0.02	0.26	<10	<2	<1	<0.01	
2017Q3	10.81	43.1	7.28	296		17.2	10	132	116	139	7.6	6.7	<0.2	0.1	<0.02	0.37	<10	2.4	1.2	0.01	<0.01
2017Q4	9.08	-47.9	7.11	280	6.25	16.5		130	132	157	6.1	13.3	<0.2	0.1	<0.02	<0.2	<10	<2	<1	<0.01	
2018Q2	4.91	27	8.09	300	5.69	13.5		118	126	115	6.9	13.3	<0.2	0.11	<0.02	0.73	30.9	3.1		<0.01	
2018Q3	9.47	72.1	8.2	308	5.32	9.74		124	119	154	6.3	9.3	<0.2	0.19	<0.02	0.21	<10	<2	<1	0.011	
2018Q4	1.4	165.8	7.78	224	3.67	2.84	10	132	146	159	6.1	16	<0.2	<0.05	<0.02	<0.2	<10	<3	1.1	<0.01	<0.01
2019Q2	5.77	244.5	8.27	187	4.95	28.5	10	113	123	144	5.2	8.8	<0.2	0.13	<0.02	0.34	15.1	<2	<1	<0.01	<0.01
2019Q3	5.21	184.1	7.85	302	6.52	23.2		146	135	170	9.4	11.7	<0.2	0.062	<0.02	<0.2	<10	<2	<1	<0.01	
2019Q4	0.33	169.1	7.81	156	9.9	8.4		130	133	303	5.4	12	<0.2	0.079	<0.02	0.2	<10	<2	<1	<0.01	
2020Q2	10.5	138	7.79	257.4	6.07	16		143	136	137	5.9	15.8	<0.2	<0.05	<0.02	0.53	<10	<2	<1	<0.01	
2020Q3	15	159.6	7.01	242.5	6.3	8.49	<5	149	137	236	5.6	13.4	<0.2	0.14	<0.02	0.7	14	<2	<1	<0.01	0.011
2020Q4	8.6	229.4	8.34	232.5	5.64	6.74		142	143	183	5.7	21.9	<0.2	<0.05	<0.02	0.23	<10	<2	<1	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-5A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	29.7					0.16	<0.01	9.1	0.093			1.1	10.7					
2015Q3							<0.002	31.1					0.16	<0.01	8.6	0.031			1.1	11.2					
2015Q4	0.69	<0.02	<0.015	0.41	<0.002	0.023	<0.002	30.5	<0.004	<0.01	<0.004	<0.01	0.41	<0.01	9.3	0.046	<0.0002	<0.01	1	11.6	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q2	1.1	<0.02	<0.015	0.44	<0.002	0.029	<0.002	32.1	<0.004	<0.01	<0.004	<0.01	0.56	<0.01	9.2	0.15	<0.0002	<0.01	1.2	13.4	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q3							0.0025	33.7					0.69	<0.01	9.6	0.12			1.3	12.4					
2016Q4							0.002	31.8					0.36	<0.01	9.6	0.066			0.96	11.6					
2017Q2							<0.002	31.9					0.29	<0.01	8.9	0.076			1.2	12.4					
2017Q3	0.25	<0.02	<0.015	0.44	<0.002	0.022	<0.002	31.9	<0.004	<0.01	<0.004	<0.01	0.24	<0.01	8.9	0.07	<0.0002	<0.01	1.1	10.7	<0.025	<0.006	<0.02	<0.005	<0.01
2017Q4							<0.002	35.9					0.62	<0.01	10.4	0.089			1.1	12.6					
2018Q2							<0.002	34.5					0.57	<0.01	9.8	0.14			1.3	10.2					
2018Q3							<0.002	32.1					0.13	<0.01	9.4	0.077			1	10.1					
2018Q4	0.68	<0.02	<0.015	0.5	<0.002	0.021	<0.002	39.1	<0.004	<0.01	<0.004	<0.01	0.39	<0.01	11.8	0.087	<0.0002	<0.01	0.99	9.4	<0.025	<0.006	<0.02	<0.005	0.012
2019Q2	0.25	<0.02	<0.015	0.5	<0.002	<0.02	<0.002	33.5	<0.004	<0.01	<0.004	<0.01	0.17	<0.01	9.5	0.12	<0.0002	<0.01	0.95	9.5	<0.025	<0.006	<0.02	<0.005	<0.01
2019Q3							<0.002	36.7					0.26	<0.01	10.5	0.14			1	10.3					
2019Q4							<0.002	35.6					0.65	<0.01	10.8	0.12			0.95	9.4					
2020Q2							<0.002	37.1					0.12	<0.01	10.4	0.093			0.85	8.7					
2020Q3	0.42	<0.02	<0.015	0.64	<0.002	0.02	<0.002	37.2	<0.004	<0.01	<0.004	<0.01	0.3	<0.01	10.8	0.1	<0.0002	<0.01	1	9.1	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	38.4					0.12	<0.01	11.5	0.034			0.94	9.1					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-6A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	11.46	119.1	7.22	427	4.4	12.1		166	153.5	154	14.7	9.2	<1	0.054	0.044	0.99	10	<2	1.3	<0.01	
2015Q3																					
2015Q4	7.15	298	6.7	371	6.87	102.3	10	215	184	273	11.2	8.4	<0.2	<0.05	0.27	2	12.3	<2	3.4	<0.01	<0.01
2016Q2	5.87	140.2	7.05	428	7.18	777	20	137	238	259	40.2	14.2	<0.2	<0.05	0.078	3.9	33.4	<2	2.1	<0.01	<0.01
2016Q3	7.6	228.1	7.07	509	5.61	777		147	188	1000	38.3	14.9	<0.2	<0.05	0.31	8.4	24.4	3	4.3	<0.01	
2016Q4	2.87	316	7.62	449	7.76	192		189	183	708	8.3	15	<0.2	0.24	0.092	0.96	<10	<2	3.2	<0.01	
2017Q2	4.47	14.3	7.76	400		82.8		167	189	218	5.8	<5	<0.2	0.088	0.19	0.68	<10	<2	2.3	<0.01	
2017Q3	10.74	63.6	5.72	472		66	<5	173	166	225	33.4	5.5	<0.2	0.14	0.099	0.72	<10	<2	2.3	<0.01	<0.01
2017Q4	8.43	-33.7	6.69	421	4.73	109		199	191	279	12.8	<5	<0.2	0.3	0.1	0.65	<10	<2	2.5	<0.01	
2018Q2	3.14	70.7	6.79	513	4.78	819		151	211	243	47.1	<5	<0.2	0.064	0.11	1.4	35.4	7.3		<0.01	
2018Q3	7.36	85.9	6.96	591	7.64	2326		166	257	352	59	<5	<0.2	0.37	0.076	1.7	<10	<2	2.1	<0.01	
2018Q4	1.94	209	6.63	330	4.31		25	219	285	298	2.9	<5	<0.2	0.41	0.27	1	<10	<2	3.3	<0.01	<0.01
2019Q2	6.16	362.3	6.78	276	4.41	OR	10	<10	188	231	15.1	<5	<0.2	0.61	0.22	3.9	51.3	<3	4	<0.01	<0.01
2019Q3	4.15	243.6	7.51	633	3.75	77		177	239	352	91.1	<5	<0.2	0.12	0.26	1.9	43.5	<2	3.5	<0.01	
2019Q4	0.27	181.4	7.01	237	13.06	77		181	244	296	2.9	<5	<0.2	0.52	0.027	1.2	<10	<2	3.6	0.011	
2020Q2	13.9	93.3	6.89	462.6	2.38	OR		185	268	347	70.8	<5	<0.2	<0.05	0.22	3.1	18.4	<2	3	<0.01	
2020Q3	12.6	45.1	6.02	418.5	1.84	OR	<5	211	249	359	55.5	<5	<0.2	<0.05	2	6.6	45.5	43.75	5.8	<0.01	<0.01
2020Q4	7.4	235.3	7.61	300.1	5.99	97.6		208	241	262	2.3	<5	<0.2	0.54	0.054	1.3	24.6	<2	7	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-6A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	53.3					0.91	<0.01	10	0.7			2.4	14.8					
2015Q3																									
2015Q4	7.4	<0.02	<0.015	0.3	<0.002	0.045	<0.002	55.8	0.009	<0.02	0.006	<0.01	9.2	<0.01	11	0.96	<0.0002	0.01	4	14.4	<0.025	<0.006	<0.02	0.01	0.02
2016Q2	46.1	<0.02	0.066	1.3	0.002	0.039	<0.002	61.4	0.062	<0.25	0.062	0.088	70.4	0.027	20.7	3.5	<0.0002	0.078	9.5	19.3	<0.025	<0.006	<0.02	0.056	0.15
2016Q3							<0.002	58.7					4.2	<0.01	10.1	2.9			2.9	19.9					
2016Q4							<0.002	55.8					6.3	<0.01	10.5	1.4			3.4	14.8					
2017Q2							<0.002	57.9					10	<0.01	10.8	3.1			4.4	12.3					
2017Q3	8.9	<0.02	0.018	0.39	<0.002	0.031	<0.002	49.5	0.012	<0.01	0.012	0.016	13.8	<0.01	10.3	2.9	<0.0002	0.015	4.1	20.8	<0.025	<0.006	<0.02	0.013	0.033
2017Q4							<0.002	55.5					21.3	0.013	12.8	3.3			5.6	22.4					
2018Q2							<0.002	57.8					32.7	<0.01	16.2	4.4			5.8	20.6					
2018Q3							<0.002	63					88.1	0.035	24.3	6.6			12.2	25.6					
2018Q4	40.3	<0.02	0.028	0.73	<0.002	0.038	<0.002	75.5	0.061	<0.01	0.043	0.051	64.8	0.021	23.5	2	<0.0002	0.069	11.2	12	<0.025	<0.006	<0.02	0.055	0.13
2019Q2	1.4	<0.02	<0.015	0.23	<0.002	0.025	<0.002	59.5	<0.004	<0.01	0.005	<0.01	1.8	<0.01	9.5	2.8	<0.0002	<0.01	3.2	10.5	<0.025	<0.006	<0.02	<0.005	<0.01
2019Q3							<0.002	62					77.5	0.019	20.5	9.3			9.7	34.4					
2019Q4							<0.002	72					37.9	0.012	15.5	3.2			6.8	3.9					
2020Q2							<0.002	76.1					53.9	0.023	19.1	12.9			8.2	24.4					
2020Q3	38.5	<0.02	0.075	1.2	<0.002	0.042	<0.002	65.9	0.057	<0.01	0.12	0.064	70.9	0.029	20.5	16.5	<0.0002	0.091	9	24.3	<0.025	<0.006	<0.02	0.056	0.13
2020Q4							<0.002	77.3					15.7	<0.01	11.6	0.59			4.5	4					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-6B

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	11.84	123.6	7.07	386	5.47	8.42		160	126	154	24.8	20.8	<1	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2015Q3	12.35	90.4	6.74	352	6	5.67		155	161	235	28	20	<0.2	<0.05	<0.02	0.37	<10	<2	1	<0.01	
2015Q4	7.44	394.3	6.55	297	7.11	10.26	25	151	136	180	12.5	32	<0.2	0.059	<0.02	0.48	<10	<2	1.1	<0.01	<0.01
2016Q2	5.56	100.2	7.92	359	6.92	6.24	10	151	151	195	20.3	16.1	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	<0.01
2016Q3	7.02	315.7	7.38	338	4.34	32.2		147	132	175	3.5	6.7	<0.2	0.37	0.055	0.35	11.3	3.6	1.1	<0.01	
2016Q4	3.42	305.4	7.91	401	6.45	29.2		153	139	215	6.9	15.9	<0.2	<0.05	<0.02	<0.2	<10	<2	<1	<0.01	
2017Q2	4.32	129.9	7.97	480		4.71		137	177	249	45.7	17.7	<0.2	0.055	<0.02	0.26	<10	<2	<1	<0.01	
2017Q3	8.5	46.3	6.69	418		37	10	176	155	188	25.2	<5	<0.2	<0.05	<0.02	0.31	<10	<2	1.2	<0.01	<0.01
2017Q4	10.22	-29.5	6.97	337	5.92	19.7		172	159	196	11.3	10.6	<0.2	0.062	0.032	<0.2	<10	<2	<1	<0.01	
2018Q2	4.28	200.9	7.27	406	7.97	8.78		157	154	180	21.3	11.8	<0.2	<0.05	<0.02	<0.2	<10	<2		<0.01	
2018Q3	7.01	98.7	7.15	475	9.4	13.5		150	156	244	42.2	<5	<0.2	<0.05	<0.02	0.23	<10	<2	2.8	<0.01	
2018Q4	2.13	191.7	6.98	273	5.26	16.2	10	136	159	202	16.1	23.5	<0.2	0.091	<0.02	0.28	<10	<2	1.3	<0.01	<0.01
2019Q2	5.23	294	6.98	250	4.25	12	10	154	191	213	35.9	19.6	<0.2	<0.05	0.063	0.36	21.1	<2	<1	<0.01	<0.01
2019Q3	3.24	175.4	7.21	422	4.08	6		158	157	231	34.7	5.2	<0.2	0.054	0.044	0.28	11.8	<2	1	<0.01	
2019Q4	0.03	205.7	7.27	177	10.5	12.7		133	142	334	12.6	16.1	<0.2	0.14	<0.02	0.76	<10	<2	<1	<0.01	
2020Q2	11.9	141.3	6.98	469.2	5.18	11.29		157	175	257	67.6	10.9	<0.2	<0.05	<0.02	0.44	16.5	<2	1.8	<0.01	
2020Q3	11.8	113	6.13	342.6	5.78	4.77	<5	169	168	313	44.5	18.4	<0.2	<0.05	<0.02	0.41	22.8	<2	<1	<0.01	<0.01
2020Q4	8.6	217.9	7.55	225.1	4.84	6.89		146	131	170	6.7	35.5	<0.2	0.065	<0.02	0.2	<10	<2	1.8	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-6B

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	41.3					0.58	<0.01	11.1	0.19			1.2	15.6					
2015Q3							<0.002	45.2					0.32	<0.01	11.6	0.11			1.2	18.6					
2015Q4	1.6	<0.02	<0.015	0.31	<0.002	0.026	<0.002	37.9	<0.004	<0.01	<0.004	<0.01	0.75	<0.01	10.1	0.12	<0.0002	<0.01	1.1	12.2	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q2	0.47	<0.02	<0.015	0.34	<0.002	0.022	<0.002	42.1	<0.004	<0.01	<0.004	<0.01	0.26	<0.01	11.1	0.021	<0.0002	<0.01	0.92	16.7	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q3							0.007	35.5					2.4	<0.01	10.4	0.33			1.8	11					
2016Q4							0.004	38.3					0.76	<0.01	10.6	0.47			1	11					
2017Q2							<0.002	50.1					0.38	<0.01	12.5	0.12			1.2	22.7					
2017Q3	0.53	<0.02	<0.015	0.38	<0.002	0.028	<0.002	43.3	<0.004	<0.01	<0.004	<0.01	0.61	<0.01	11.5	0.2	<0.0002	<0.01	1.2	19.4	<0.025	<0.006	<0.02	<0.005	<0.01
2017Q4							<0.002	44					0.63	<0.01	11.9	0.15			1.1	16.1					
2018Q2							<0.002	42.1					0.3	<0.01	11.8	0.18			1.1	14.6					
2018Q3							<0.002	43.8					0.68	<0.01	11.5	0.14			1.2	22.3					
2018Q4	1.1	<0.02	<0.015	0.34	<0.002	0.023	<0.002	44.2	<0.004	<0.01	<0.004	<0.01	0.81	<0.01	11.9	0.11	<0.0002	<0.01	1.2	14.7	<0.025	<0.006	<0.02	<0.005	<0.01
2019Q2	17.3	<0.02	<0.015	0.99	<0.002	0.035	<0.002	49.9	0.018	<0.01	0.018	0.018	19.1	0.016	16.1	2	<0.0002	0.019	3.6	20.4	<0.025	<0.006	<0.02	0.015	0.059
2019Q3							<0.002	43.8					0.59	<0.01	11.5	0.35			1.2	20.4					
2019Q4							<0.002	39.5					1	<0.01	10.6	0.16			1.1	12.4					
2020Q2							<0.002	50.2					0.46	<0.01	11.9	0.18			1.2	30.2					
2020Q3	0.36	<0.02	<0.015	0.45	<0.002	0.021	<0.002	47.9	<0.004	<0.01	<0.004	<0.01	0.22	<0.01	11.7	0.28	<0.0002	<0.01	1.1	27.4	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	37.4					0.28	<0.01	9.1	0.064			1.1	9.8					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-7A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Temperature (°C)	EH/ORP (mV)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Color (Color Units)	Alkalinity, Total (mg/L)	Hardness (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Bromide (mg/L)	Nitrate as N (mg/L)	Ammonia (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Chemical Oxygen Demand (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Organic Carbon (mg/L)	Phenolics, Total Recoverable (mg/L)	Cyanide, Total (mg/L)
2015Q2	12.14	31.3	6.96	1055	7.6	22.5		403	332.5	550	64.9	25.7	<2	<0.05	<0.02	0.41	15.3	<2	3.5	<0.01	
2015Q3	13.75	70.7	6.76	866	6.23	17.3		460	375	585	56.8	17.7	0.25	<0.05	0.031	0.39	17.9	<2	3.9	<0.01	
2015Q4	7.36	197	6.72	941	6.01	26	25	537	429	657	70.4	28.2	0.32	<0.05	0.058	0.75	<10	<2	4.9	<0.01	<0.01
2016Q2	7	76.7	7.15	867	9.05	25.5	15	460	330	571	46.5	33	0.3	0.087	<0.02	0.5	13.4	<2	3.8	<0.01	<0.01
2016Q3	10.13	210.6	6.87	1042	6.71	42.7		488	396	565	53.4	25.8	<0.2	<0.05	0.021	0.53	19.5	<2	5	<0.01	
2016Q4	3.72	96.2	7.62	859	9.72	79.9		411	308	487	36.9	12.5	<0.2	<0.05	<0.02	0.59	10.6	<2	6.7	<0.01	
2017Q2	6.3	88.2	6.46	694		52		357	311	402	14.6	<5	<0.2	0.051	0.11	0.87	<10	<2	6.8	<0.01	
2017Q3	11.12	38.8	6.08	984		9.33	5	505	361	537	38.2	<5	<0.4	0.062	0.1	0.74	<10	<2	7.7	<0.01	<0.01
2017Q4	7.21	-28	6.87	885	6.3	18		490	392	553	32.3	<5	<0.4	<0.05	0.19	0.55	<10	<2	7.6	<0.01	
2018Q2	6.45	105.3	6.8	969	6.5	6.02		478	390	544	39.3	<5	0.2	<0.05	0.076	0.94	26.2	<2		<0.01	
2018Q3	11.01	53.6	6.97	990	7.42	28.3		494	362	572	45	<5	0.25	0.11	0.051	0.47	<10	<2	4.8	<0.01	
2018Q4	0.34	50.1	6.83	454	6.99	13.4	20	305	305	369	11.2	<5	<0.4	0.086	0.2	0.59	17.4	<2	5.9	<0.01	<0.01
2019Q2	5.46	241	6.96	472	9.37	21.3	25	389	333	571	28.8	<5	<1	<0.05	0.091	0.57	27.6	<2	6.1	0.01	<0.01
2019Q3	7.12	98.6	8.74	904	7.51	23.6		435	350	551	40.3	<5	<1	0.1	0.07	0.52	23.5	<2	6.1	<0.01	
2019Q4	-1.27	139.1	7.55	238	11.11	18.2		230	201	305	8.1	<5	<1	0.22	0.055	0.5	12.5	<2		0.012	
2020Q2	12.2	160.8	7.12	667	7.76	26.4		462	378	528	34.5	<5	<1	<0.05	0.022	0.58	15.9	<2	4.85	<0.01	
2020Q3	14.8	145.8	5.96	771	6.03	4.97	<5	508	394	552	43.3	<5	<1	0.098	<0.02	0.77	30.9	<2	3.5	<0.01	0.011
2020Q4	7.6	224	7.2	543	5.9	4.01		376	258	455	37.6	37	<1	0.091	<0.02	0.54	20.9	<2	5.7	<0.01	

J - value is estimated because sample did not meet laboratory QAQC protocol

OR - over range of instrument (100 NTU)

MW-7A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Metals units are mg/L.

Period	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, hexavalent	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
2015Q2							<0.002	109					1.8	<0.01	28.7	1.7			1.9	79.3					
2015Q3							<0.002	107					0.92	<0.01	26.4	0.91			1.5	70.9					
2015Q4	2.1	<0.02	<0.015	0.41	<0.002	0.33	<0.002	121	<0.004	<0.01	<0.004	<0.01	1.5	<0.01	31.1	1.6	<0.0002	0.012	1.8	80.2	<0.025	<0.006	<0.02	<0.005	<0.01
2016Q2	2.7	<0.02	<0.015	0.33	<0.002	0.27	<0.002	93.6	<0.004	<0.01	<0.004	<0.01	2.3	<0.01	23.5	1.3	<0.0002	0.01	1.6	90.8	<0.025	<0.006	<0.02	<0.005	0.011
2016Q3							<0.002	114					4.2	<0.01	27.2	2			2.3	79.5					
2016Q4							<0.002	88.5					5.3	<0.01	21.1	1.2			2.3	52.5					
2017Q2							<0.002	94.5					5.8	<0.01	18.4	6.2			3.6	30.9					
2017Q3	0.77	<0.02	<0.015	0.32	<0.002	0.23	<0.002	106	<0.004	<0.01	<0.004	<0.01	0.8	<0.01	23.4	3.4	<0.0002	<0.01	2.3	59.1	<0.025	<0.006	<0.02	<0.005	0.014
2017Q4							<0.002	117					1.4	<0.01	24.2	7.2			2.4	57.9					
2018Q2							<0.002	112					1.4	<0.01	26.4	6.4			2.1	57.6					
2018Q3							<0.002	104					2.6	<0.01	25	2			2.4	64.9					
2018Q4	0.77	<0.02	<0.015	0.23	<0.002	0.13	<0.002	91.3	<0.004	<0.01	<0.004	<0.01	1.2	<0.01	18.8	5.2	<0.0002	<0.01	3.2	25.5	<0.025	<0.006	<0.02	<0.005	0.014
2019Q2	1.3	<0.02	<0.015	0.34	<0.002	0.22	<0.002	98.2	<0.004	<0.01	<0.004	<0.01	1.9	<0.01	21.3	4.8	<0.0002	<0.01	2.2	43	<0.025	<0.006	<0.02	<0.005	0.011
2019Q3							<0.002	102					3.1	<0.01	23.4	2.9			2.4	64.6					
2019Q4							<0.002	61.5					0.7	<0.01	11.4	1.4			2.4	20.4					
2020Q2							<0.002	112					2.2	<0.01	24	3.6			2.2	52.2					
2020Q3	0.33	<0.02	<0.015	0.36	<0.002	0.26	<0.002	115	<0.004	<0.01	<0.004	<0.01	0.38	<0.01	25.6	1.3	<0.0002	<0.01	1.7	60.9	<0.025	<0.006	<0.02	<0.005	<0.01
2020Q4							<0.002	75.8					0.27	<0.01	16.7	0.66			2.4	44.8					

J - value is estimated because sample did not meet laboratory QAQC protocol

MW-7A

Trends in water quality at the Cortland County Towslee landfill, 2015-2020. Organics units are µg/L.

Period	Vinyl Chloride	Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes, Total	1,4-Dichlorobenzene
2015Q2													
2015Q3													
2015Q4	**1.9**	<1	<10	<1	<1	**3.9**	**3.9**	<1	<1	<1	<1	<2	<1
2016Q2	**1.4**	<1	<10	<1	<1	**2.9**	**2.4**	<1	<1	<1	<1	<2	<1
2016Q3													
2016Q4													
2017Q2													
2017Q3	**1.1**	<1	<10	<1	<1	**2.2**	**1.9**	<1	<1	<1	<1	<2	<1
2017Q4													
2018Q2													
2018Q3													
2018Q4	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1
2019Q2	**1.9**	<1	<10	<1	<1	**1.9**	**1.9**	<1	<1	<1	<1	<2	<1
2019Q3													
2019Q4													
2020Q2													
2020Q3	**1.7**	<1	<10	<1	<1	**3.6**	**3.4**	<1	<1	<1	<1	<2	<1
2020Q4													

X.X detected organics