NEW YORK STATE | Department of Environmental Conservation

ACTIVE CONSTRUCTION AND DEMOLITION (C&D) DEBRIS LANDFILL ANNUAL/QUARTERLY REPORT

Submit the Annual Report no later than March 1, 2024

A. X This annual report is for the year of operation from January 01, 2023 to December 31, 2023

B. Quarterly Report for: ___Quarter 1 ___Quarter 2 ___Quarter 3 ___Quarter 4

SECTION 1 – FACILITY INFORMATION

FACILITY INFORMATION			
FACILITY NAME: Dunn Mine and C&D Landfill			
FACILITY LOCATION ADDRESS: 209 Partition St Ext	FACILITY CITY: Rensselaer	STATE: NY	ZIP CODE: 12144
FACILITY TOWN: Rensselaer	FACILITY COUNTY: Rensselaer	FACILITY PHONE NUMBER: (518) 650-6106	
FACILITY NYS PLANNING UNIT: (A list of NYS Planning Units can be found at the end of this report).		NYSDEC REGION #: 4	

360 PERMIT #:	DATE ISSUED:	DATE EXPIRES:	NYS DEC ACTIVITY CODE OR REGISTRATION NUMBER:
4-3899-00006/00006	9/9/2016	7/19/2022	

FACILITY CONTACT:	☐ public ■ private	CONTACT PHONE NUMBER:	CONTACT FAX NUMBER:
Corey Judd		(518)431-9439	(518) 650-6109
CONTACT EMAIL ADDRESS:			

OWNER INFORMATION			
OWNER NAME: SA Dunn & Company LLC	OWNER PHONE NUMBER: (518) 650-6106	OWNER FAX NUMBER: (518) 650-6109	
OWNER ADDRESS: 209 Partition St. Ext.	OWNER CITY: Rensselaer	STATE: NY	ZIP CODE: 12144
OWNER CONTACT: Corey Judd	OWNER CONTACT EMAIL ADDRESS: Corey.Judd@wasteconnections.com		

OPERATOR INFORMATION	
OPERATOR NAME: ■ *same as owner*	☐ public ■ private

PREFERENCES
Preferred address to receive correspondence: ■ *Facility location address* ☐ *Owner address* ☐ *Other (provide):*
Preferred email address: ■ *Facility Contact* ☐ *Owner Contact* ☐ *Other (provide):*
Preferred individual to receive correspondence: ■ *Facility Contact* ☐ *Owner Contact* ☐ *Other (provide):*

Did you operate in 2023? ■ Yes; Complete this form.

☐ No; Complete and submit Sections 1 and 20. If you no longer plan to operate and wish to relinquish your permit/registration associated with this solid waste management activity, also complete the "Inactive Solid Waste Management Facility or Activity Notification Form" located at: https://extapps.dec.ny.gov/docs/materials_minerals_pdf/inactiveswmf.pdf

SECTION 2 - SITE LIFE

1. Landfill Capacity Utilized Last Year (reporting year).

   a. What is the estimated landfill capacity that was utilized during the reporting year?
   363,600 Cubic Yards of Airspace

   Please do not report units as pounds per cubic yard.

   b. What is the estimated in-situ waste density for the reporting year?
   .51 Tons/Cubic Yard

2. Remaining Constructed Capacity

   a. What is the remaining capacity of the landfill that is already constructed?
   852,400 Cubic Yards of Airspace

   b. What is the estimated remaining life of the constructed capacity?
   2 Years 4 Months
   at 350,000 Tons/Year.*

   *Please note that this tonnage rate must include all materials placed in the landfill, i.e., waste, soil, cover, alternative daily covers, etc.

   c. The tonnage rate reported under 2.b. is based on (select one):
   X The amount of materials placed in the landfill in the reporting year
   _____ Estimated future disposal
   _____ Permit limit
   Other (explain): _____

3. Permitted Capacity Still to be Constructed

   a. What is the remaining but not yet constructed landfill capacity that is authorized by a Part 360 permit?
   5,719,660 Cubic Yards of Airspace

   b. What is the projected life of capacity reported in 3a.?
   8 Years 8 Months
   at 400,000 Tons/Year.*

   *Please note that this tonnage rate must include all materials disposed in the landfill, i.e., waste, and soil and alternative daily covers.

   c. The tonnage rate reported under 3.b. is based on (select one):
   _____ The amount of materials placed in the landfill in the reporting year
   X Estimated future disposal
   _____ Permit limit
   Other (explain): _____

4. Capacity Proposed in a Part 360 Permit Application

What is the capacity of any expansion proposed in a Part 360 permit application that has been submitted to the Department but not authorized by a permit as of the end of the reporting period?

N/A _____ Cubic Yards of Airspace

5. Estimated Potential Future Capacity Not Permitted or in an Application (optional)

What is the estimated capacity of any potential future expansion at the facility that is not yet authorized by a permit or proposed in a Part 360 permit application that has been submitted to the Department?

N/A _____ Cubic Yards of Airspace

SECTION 3 - PRIMARY LEACHATE

Name of off-site leachate treatment facility(s) utilized: Albany County POTW

Does the landfill have a constructed liner and a leachate collection system? X Yes ____ No

Enter the quantity of primary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding **Acreage, by Cell**:
(Note: For double-lined landfills this should not include the volume of leachate collected from secondary leachate collection and removal systems.

For **each cell**, please report the **acreage** and the **primary leachate** amount.

	PRIMARY LEACHATE COLLECTED (GALLONS)						PRIMARY LEACHATE TREATED OFF SITE (GALLONS)					
	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres
January	Attachment 1											
February												
March												
April												
May												
June												
July												
August												
September												
October												
November												
December												
ANNUAL												

	PRIMARY LEACHATE RECIRCULATED (GALLONS)						PRIMARY LEACHATE TREATED ON SITE (GALLONS)					
	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres
January												
February												
March												
April												
May												
June												
July												
August												
September												
October												
November												
December												
ANNUAL												

Submit (attached to this form) a copy of the maintenance logs which document compliance with the Operation and Maintenance Manual's schedule for the routine annual flushing and inspection of the primary leachate collection and removal system. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

Attachment 2

Submit (attached to this form) a tabulated compilation of the semi-annual primary leachate quality data collected throughout the year including a summary comparing this year's data with the previous year's data and a summary discussion of results. This list should identify sample location(s) and method of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

Attachment 3

SECTION 4 - SECONDARY LEACHATE

Does landfill have a double liner system with a secondary leachate collection and removal system? _____Yes ___X___No

Submit (attached to this form) a tabulated compilation of the semi-annual secondary leachate quality data collected throughout the year including a summary comparing this year's data with all previous years' data and a summary discussion of results. This list should identify sample location(s) and methods of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

Please report total cost for the year, not cost/gal.

Leachate Cost: (including transportation if appropriate) during the calendar year for leachate treatment: $_____

Total quantity treated: _____ gal

Enter the quantity of secondary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding **Acreage, by Cell:**

For **each cell**, please report the **acreage** and the **secondary leachate** amount.

	SECONDARY LEACHATE COLLECTED (GALLONS)						SECONDARY LEACHATE TREATED OFF SITE (GALLONS)					
	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres
January												
February												
March												
April												
May												
June												
July												
August												
September												
October												
November												
December												
ANNUAL												

	SECONDARY LEACHATE RECIRCULATED (GALLONS)						SECONDARY LEACHATE TREATED ON SITE (GALLONS)					
	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres	Cell 1 ___Acres	Cell 2 ___Acres	Cell 3 ___Acres	Cell 4 ___Acres	Cell 5 ___Acres	Cell 6 ___Acres
January												
February												
March												
April												
May												
June												
July												
August												
September												
October												
November												
December												
ANNUAL												

SECTION 5 – ALTERNATIVE OPERATING COVER MATERIALS & WASTES USED IN LANDFILL CONSTRUCTION

For each type of waste material that the Department has approved for use as alternative operating cover (AOC) or as part of an equivalent design in landfill construction, provide the annual weight in tons, use (i.e., operating cover, intermediate cover, gas collection, leachate collection, etc.), and source of material. (If material is from a solid waste facility also provide facility name, address, NYS Planning Unit, County/ Province, and State/Country.) **Refer to the list of NYS Planning Units that can be found at the end of this report.**

Type of Solid Waste	Weight (tons/year)	Use	NYS Planning Unit (See Attached List of NYS Planning Units)	County or Province	State or Country	Source (Facility and Address)
Aggregate/Concrete	N/A					
Processed C&D	N/A					
Contaminated Soil	N/A					
Other (specify)	N/A					
Total AOC	N/A					
Total Waste Materials Used						

Percent Alternative Operating Cover (AOC) Calculation

AOC Calculations: Total Tons AOC/Total Tons Waste Disposed x 100 = None

Please note the calculation **is**: Tons AOC (from table above)/Tons Solid Waste (from table in Section 6) x 100 and **Not**: Tons AOC / (Tons Solid Waste + AOC) x 100

SECTION 6 – CONSTRUCTION & DEMOLITION (CD) DEBRIS DISPOSED

Provide the tonnages of CD debris disposed. Exclude AOC and construction amounts reported in Section 4. DO NOT REPORT IN CUBIC YARDS!

Specify the methods used to measure the quantities disposed and the percentages measured by each method:

100 % Scale Weight _____% Estimated

_____% Truck Count _____% Other (Specify: _____)

Construction & Demolition (CD) Debris	Weight (tons)
January	18967.66
February	14139.12
March	15664.95
April	12960.83
May	16498.36
June	15350.51
July	16371.80
August	18351.94
September	16559.71
October	15630.80
November	12540.52
December	13088.63
Total Disposed For Year	186124.83
Daily Average (Tons)	772.30

Has the landfill received pulverized C&D debris? X Yes _____ No

If yes, what is the percentage of waste received that is pulverized C&D debris? 5 %

Tipping Fee

Tipping Fee: Varies $/ton

SECTION 7 – SERVICE AREA OF C&D DEBRIS RECEIVED

Please identify where the waste is coming from. The total tons received reported below should equal the total tons received in Section 5 (Construction & Demolition (CD) Debris Disposed). DO NOT REPORT IN CUBIC YARDS!

- If the waste ***WAS*** received from another solid waste management facility, please write in the name *and* address of the facility along with the appropriate state, county and planning unit/municipality.
- If the waste ***WAS NOT*** received from another solid waste management facility, please write in "***Direct Haul***" along with the appropriate state, county and planning unit/municipality where the waste was generated.

Specify transport method and percentages of total waste transported by each:

100 % Road _____% Rail _____% Water _____% Other (specify:_____)

Explain which waste types and service areas below are included in these transport methods _____

_____

SERVICE AREA OF C&D DEBRIS RECEIVED					
TYPE OF SOLID WASTE	**SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR "Direct Haul"**	**SERVICE AREA STATE OR COUNTRY**	**SERVICE AREA COUNTY OR PROVINCE**	**SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)**	**TONS RECEIVED**
Construction & Demolition Debris (mixed)	Attachment 4				
Other (specify)					
				TOTAL RECEIVED (tons):	

SECTION 8 – UNAUTHORIZED SOLID WASTE

Has unauthorized solid waste been received at the facility during the reporting period?

☐ Yes ☒ No If yes, give information below for each incident (attach additional sheets if necessary):

Date Received	Type Received	Date Disposed	Disposal Method & Location
Attachment 5			

SECTION 9 - LANDFILL GAS

Does the landfill have a landfill gas collection & control system?
Yes x No ____ If Yes: Active X Passive ___

Number of gas wells: 10

Total landfill footprint acreage 41

Total landfill acreage from which gas is collected 40

Landfill sections from which gas is collected Phase 1-10C (exc 7B)

Landfill acreage from which gas is collected for energy recovery 0

Measured Methane Generation Rate*, k N/A

Measured Potential Methane Generation Capacity*, L_o N/A m^3/Mg

NMOC Concentration* N/A ppmv as hexane

Does the landfill require a Title V Permit? Yes _____ No X

Name of Landfill Gas Recovery (gas to energy or other use) Facility: N/A

* Note: If Concentration NMOC, Lo and k are not known or included, default values will be used to calculate the NMOCs emissions from the Landfill.

Flare

Open and Enclosed Flares located at the Landfill and the Landfill Gas Recovery Facility:

Number of Flares: 1

Type of Flare: Opened Flare 1 Enclosed Flare _____

Please report units in cubic feet

Quantity of Gas Collected and Flared Annually 195 Million _____ cubic feet
Flare Hours of Operation per Year 8700 hours _____ hours/year
Methane Percentage in Landfill Gas before flaring 27 _____ %
Methane Destruction efficiency 99 _____ %

Candlestick Flares:

Number of Candlestick Flares N/A
Estimate of Gas Flared Candlestick Flare _____ cubic feet

Gas To Energy

Number of Internal Combustion Engines: 0

Please report units in cubic feet

Quantity of Gas collected for Internal Combustion Engine Annually _____ cubic feet
Methane Destruction efficiency _____ %
Methane Percentage in Landfill Gas before combustion _____ %
Utility Company Receiving Electricity _____

Gas Processed for Use (Other than gas to electricity)

Quantity of Gas Collected for Processing N/A _____ cubic feet
Methane Percentage in Landfill Gas before processing _____ %
On-site or Off-site User of Gas _____

Landfill Gas Recovery Facility/Landfill Data

Facility Contact N/A _____ Phone # (_____)_____-_____

Contact e-mail address _____ Fax # (_____)_____-_____

Operation and maintenance cost for calendar year: $_____

Does the LGRF experience shut downs: _____Yes _____No

If yes, indicate reasons for shut downs. List required submissions that have been attached to this form or the reasons for not attaching a required piece of information:

_____

_____

_____

_____

Year landfill opened: 2015 Anticipated landfill closure date: 2032

Results of Condensate Sampling

Submit (attached to this form) condensate quality monitoring results accomplished in accordance with condensate sampling. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

N/A

Landfill Gas Utilized For Energy Recovery

Provide the following information for the landfill gas recovered for energy. **DO NOT INCLUDE THE GAS FLARED!**

	Landfill Gas Collected for Energy Recovery (Cubic Feet)	Steam* Generated (Cubic Feet)	Total Electricity* Generated for onsite and offsite use (K.W.H.)	Total Gas Processed for use other than electricity generation (Cubic Feet)	Condensate Generated (Gallons)	Facility Operation (Hours)
January	N/A					
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
ANNUAL TOTAL						

* Provide where applicable.

Normal Weekdays of Operation N/A Normal Hours of Operation N/A

Electricity Generated and used/marketed offsite _____ KWH
Electricity Generated and used onsite _____ KWH
Gas Processed and used/marketed offsite _____ cubic feet
Gas Processed and used onsite _____ cubic feet

Describe the collection, storage, treatment and disposal techniques used in managing the condensate:

SECTION 10 - COST ESTIMATES AND FINANCIAL ASSURANCE DOCUMENTS

Are there required cost estimates and financial assurance documents for closure and post-closure care?

☒ Yes ☐ No If yes, attach additional sheets reflecting annual adjustments for inflation and any changes to the Closure Plan?

SECTION 11 – PROBLEMS

Were any problems encountered during the reporting period (e.g., specific occurrences which have led to changes in facility procedures)?

☐ Yes ☒ No If yes, attach additional sheets identifying each problem and the methods for resolution of the problem.

SECTION 12 – CHANGES

Were there any changes from approved reports, plans, specifications, and permit conditions?

☐ Yes ☒ No If yes, attach additional sheets identifying changes with a justification for each change.

SECTION 13 – LANDFILL OPERATOR TRAINING

Name of trained landfill operator: Corey Judd

Name and location of training course: Niagra Falls, NY - NYSASWM

Date completed: 3/15/2022

SECTION 14 - ANALYTICAL RESULTS

Submit (attached to this form) tables showing the sample collection date, the analytical results [including all peaks even if below the Method Detection Limits (MDL)], designation of upgradient wells and location number for each environmental monitoring point sampled, applicable water quality standards, and groundwater protection standards if established, MDL's, and Chemical Abstracts Service (CAS) numbers on all parameters. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Attachment 7

SECTION 15 - COMPARING DATA

Submit (attached to this form) tables or graphical representations comparing current water quality with existing water quality and with upgradient water quality. These comparisons may include Piper diagrams, Stiff diagrams, tables, or other analyses. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Attachment 7

SECTION 16 - DISCUSSION OF RESULTS

Submit (attached to this form) a summary of any contraventions of State water quality standards, significant increases in concentrations above existing water quality, any exceedances of groundwater protection standards, and discussion of results, and any proposed modifications to the sampling and analysis schedule necessary to meet the Existing, Operational and Contingency water quality monitoring requirements. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Attachment 7

SECTION 17 - DATA QUALITY ASSESSMENT

Submit (attached to this form) any required data quality assessment reports. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Attachment 7

SECTION 18 - SUMMARIES OF MONITORING DATA

Submit (attached to this form) a summary of the water quality information presented in Sections 13 and 14 for the year of operation for which the Annual Report is made, noting any changes in water quality which have occurred throughout the year. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

Attachment 7

SECTION 19 - SURFACE IMPOUNDMENTS

Does this landfill have a surface impoundment?

☐ Yes ☒ No If yes, repeat Sections 12 through 15 above for Quarterly Reports and Section 16 above for Annual report. Attach additional submissions required by this section.

SECTION 20 - PERMIT/CONSENT ORDER REPORTING REQUIREMENTS

Are there any additional permit/consent order reporting requirements not covered by the previous sections of this form?

☐ Yes ■ No If yes, attach additional sheets identifying the reporting requirements with their respective responses.

SECTION 21 - SIGNATURE AND DATE BY OWNER OR OPERATOR

Owner or Operator must sign, date and submit one completed form to the appropriate Regional Office (See attachment for Regional Office addresses, email addresses and Materials Management Contacts).

The Owner or Operator must also submit one copy by email, fax or mail to:

New York State Department of Environmental Conservation
Division of Materials Management
Bureau of Solid Waste Management
625 Broadway
Albany, New York 12233-7260
Fax 518-402-9041
Email address: SWMFannualreport@dec.ny.gov

I certify, under penalty of law, that the data and other information identified in this report have been prepared under my direction and supervision in compliance with a system designed to ensure that qualified personnel properly and accurately gather and evaluate this information. I am aware that any false statement I make in such report is punishable pursuant to section 71-2703(2) of the Environmental Conservation Law and section 210.45 of the Penal Law.

Signature	2/29/24 Date
Corey Judd Name (Print or Type)	District Manager Title (Print or Type)
corey.judd@wasteconnections.com Email (Print or Type)	
209 Partition Street Etxt. Address	Rensselaer City
New York, 12144 State and Zip	(518) 431-9439 Phone Number

ATTACHMENTS: X YES ____ NO

Attachment 1

Attachment 1
Summary of Primary Leachate Quantities
Dunn Mine and C&D Facility (#4-3899-00006/00006)
Rensselaer, New York

	Primary Leachate Collected						Primary Leachate Treated (Offsite)					
	Cell 1	Cell 2	Cell 3	Cell 6	Cell 7	Total	Cell 1	Cell 2	Cell 3	Cell 6	Cell 7	Total
	7.9	7.4	4.7	8	4.5							
January	50,268	88,536	227,838	433,916	203,064	1,003,621	49,771	86,800	230,139	429,619	199,082	995,411
February	29,193	51,418	132,318	251,998	117,930	582,857	28,904	50,409	133,654	249,503	115,618	578,089
March	38,350	67,545	173,819	331,038	154,919	765,671	37,970	66,220	175,575	327,760	151,881	759,407
April	32,475	57,197	147,191	280,325	131,187	648,376	32,154	56,076	148,678	277,550	128,614	643,072
May	39,262	69,151	177,952	338,908	158,602	783,875	38,873	67,795	179,749	335,553	155,492	777,462
June	58,751	103,476	266,286	507,140	237,331	1,172,985	58,169	101,448	268,976	502,119	232,678	1,163,389
July	56,873	100,169	257,775	490,931	229,746	1,135,495	56,310	98,205	260,379	486,071	225,241	1,126,206
August	54,161	95,392	245,482	467,520	218,790	1,081,346	53,625	93,522	247,962	462,891	214,500	1,072,500
September	56,566	99,627	256,380	488,273	228,502	1,129,348	56,005	97,674	258,969	483,439	224,022	1,120,109
October	44,257	77,949	200,593	382,028	178,781	883,607	43,819	76,420	202,619	378,245	175,276	876,379
November	34,628	60,989	156,948	298,906	139,882	691,353	34,285	59,793	158,533	295,947	137,139	685,697
December	67,251	118,447	304,811	580,511	271,667	1,342,687	66,585	116,125	307,890	574,763	266,341	1,331,703
2023 totals	562,036	989,895	2,547,392	4,851,494	2,270,402	11,221,219	556,471	970,486	2,573,123	4,803,459	2,225,885	11,129,424

Notes:
1 Individual cell leachate collected quantities are based on flow meters except as noted.
2 Leachate treated individual cell quantities are estimated based on the total hauled, prorated by relative amount collected.
3 No leachate was/is recirculated or treated on site.

Attachment 2

Precision Industrial Maintenance, LLC
Jetting Log

Job # 23-01069 Site:Dunn LF Date: 8/1/23 -8/7/2023

Customer:Waste Connections PIM Techs:Bob Johnson Kyle Lanphere

Location Cell/Street	Line Segment MH to MH		Pipe Diameter	Pipe Type	Total Length Linear Footage	Total Linear Footage Cleaned	Number of Passes	Water Used total Gallons	Total Leachate Vac
# 2 Riser	Sideriser	Sump	18"	HDPE		190	3	500	2200
Pump station # 2	PS-2	East slope	8"	HDPE		800	2	1500	
Pump station # 1	Sideriser	Sump	18"	HDPE		150	3	500	2200
Pump station # 1	PS-2	East slope	8"	HDPE		700	2	1500	
Pump station # 3	Sideriser	Sump	18"	HDPE		220	3	1500	4000+
Pump station # 3	PS-3	East Slope	8"	HDPE		800	2	1500	
Pump station # 4	Sideriser	Sump	18"	HDPE		240	3	500	4,000+
Pump station # 4	PS-4	East Slope	8"	HDPE		670	2	1500	
Pump station # 5	Sideriser	Sump	18"	HDPE		260	3	600	4,000+
Pump station # 5	PS-5	East Slope	8"	HDPE		650	2	1500	
Gas pipe 1				HDPE		700		1200	
Gas pipe 1				HDPE		700		1200	
Gas pipe 1				HDPE		700		1200	

Attachment 3

Attachment 3

Leachate Sampling - 2023 Detection Summary

Dunn Mine & C&D Facility, Rensselaer, NY

Sample Type / Location	Composite / Sumps 1-3		Grab / Sump 4		Grab / Sump 5	
Sample Date	6/22/2023	12/19/2023	6/22/2023	12/19/2023	6/22/2023	12/19/2023
Analyte	Result	Result	Result	Result	Result	Result
Acetone	0.18	<0.1	*	*	0.14	<0.04
Methylene Chloride	*	*	*	*	0.01	0.01
Toluene	0.01	<0.01	*	*	*	*
1,4-Dioxane	0.096	0.071	0.031	0.0023	0.045	0.03
beta-BHC	*	*	*	*	<0.00005	0.00008
3 & 4 - Methylphenol	*	*	*	*	0.022	<0.01
3 - Methylphenol	*	*	*	*	0.022	<0.01
4 - Methylphenol	*	*	*	*	0.022	<0.01
Methoxychlor	*	*	0.000089	<0.0005	*	*
Phenol	*	*	*	*	0.005	<0.0052
PFHpA (ng/l)	280	360	58	15	47	43
PFOA (ng/l)	300	570	170	20	47	80
PFNA (ng/l)	16	29	9.2	2.5	2.1	4.6
PFBS (ng/l)	120	160	46	4.4	26	20
PFHxS (ng/l)	120	130	38	4.1	18	24
PFOS (ng/l)	39	60	22	5.6	2.3	15
6:2 FTS (ng/l)	110	140	53	4.3	22	27
PFBA (ng/l)	800	940	170	32	210	100
PFPeA (ng/l)	1400	1400	180	100	420	160
PFHxA (ng/l)	1400	1400	270	85	360	220
Aluminum	*	*	<0.2	8.5	4.3	0.64
Barium	0.47	0.31	0.36	0.22	0.27	0.18
Boron	12.8	11.3	4.9	0.51	2.7	3.5
Calcium	312	231	342	204	387	364
Chromium	0.02	0.022	0.011	0.016	0.0071	0.0095
Cobalt	*	*	<0.004	0.013	0.0085	0.005
Copper	<0.01	0.02	<0.01	0.053	0.017	<0.01
Iron	1.7	1.7	10.9	10.9	11.7	25.6
Lead	<0.01	<0.01	<0.01	0.017	0.015	<0.01
Magnesium	165	95.5	132	30.7	128	91.7
Manganese	3.8	2	8.4	2.5	12.2	5.4
Nickel	0.033	0.019	0.033	0.018	0.037	0.027
Potassium	54.1	50.5	18.2	13.1	9.9	12.6
Sodium	438	308	135	90.8	151	91
Vanadium	0.0099	0.0085	<0.005	0.014	0.0078	<0.005
Zinc	0.041	0.078	0.01	0.067	0.23	0.029
Turbidity (NTU)	500	110	120	250	300	130
Bromide	4.5	<2.0	*	*	*	*
Ammonia	71.5	86	9.2	0.48	0.7	7.4
Total Kjeldahl Nitrogen	74.2	88.9	12.5	1.9	3.8	9.4
Nitrate	*	*	<0.05	0.24	*	*
Chemical Oxygen Demand	507	391	64.4	<10	130	108
Chromium, hexavalent	*	*	*	*	<0.01	0.013
Cyanide, Total	0.019	0.014	0.01	ND	0.011	<0.01
Sulfate	277	357	133	444	368	498
Total Organic Carbon	146	139	54	4.5	49.3	38.6
Phenolics, Total Recoverable	0.022	0.028	*	*	0.034	<0.01
Chloride	586	339	184	28.1	186	133
Color (color units)	15	40	10	150	10	15
Alkalinity, Total	1690	20	1380	304	1170	20
Total Dissolved Solids	2760	2190	1810	1140	2360	1740
Sulfide	13.2	3.2	<0.67	<0.67	2.8	<0.67
Biological Oxygen Demand	65.7	36.7	19.9	3.8	31.2	10.9

Notes:

1. Units are mg/l, unless otherwise noted.
2. NYSDEC Part 360 Expanded Parameters analyzed. Only detected analytes are listed.
3. "*" indicates the analyte was not detected in either sample during the calendar year.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Corey Judd
Waste Connections, Inc.
209 Partition Street Extension
Rensselaer, New York 12144

Generated 8/18/2023 12:36:58 PM

JOB DESCRIPTION

Dunn Landfill - Expanded
Expanded

JOB NUMBER

480-210194-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

my EOL

Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
8/18/2023 12:36:58 PM

Authorized for release by
Joshua Velez, Project Management Assistant I
Joshua.Velez@et.eurofinsus.com
Designee for
Ryan VanDette, Project Manager II
Ryan.VanDette@et.eurofinsus.com
(716)504-9830

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 10
Client Sample Results 13
Surrogate Summary 37
Isotope Dilution Summary 39
QC Sample Results 40
QC Association Summary 68
Lab Chronicle 75
Certification Summary 78
Method Summary 79
Sample Summary 80
Detection Limit Exceptions Summary 81
Chain of Custody 82
Receipt Checklists 86

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
S1-	Surrogate recovery exceeds control limits, low biased.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Dioxin

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
b	Result Detected in the Unseeded Control blank (USB).
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 480-210194-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-210194-1

Comments
No additional comments.

Receipt
The samples were received on 6/23/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.3º C, 2.5º C and 2.8º C.

Receipt Exceptions
The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): PH 1 2 3 (480-210194-1), PH 4 (480-210194-2) and PH 5 (480-210194-3). Sample date listed as 6/21 on coc but listed as 6/22 on sample container labels. date of 6/22 was used for sample login per pm clarification.

Methods 8290, 8290A: One or more containers for the following sample was received broken or: PH 5 (480-210194-3). 2 of 2 containers received broken.

GC/MS VOA
Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: PH 1 2 3 (480-210194-1), PH 4 (480-210194-2) and PH 5 (480-210194-3). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: PH 1 2 3 (480-210194-1).

Method 8260C: The continuing calibration verification (CCV) associated with batch 674328 recovered above the upper control limit for Carbon tetrachloride, Propionitrile, and Isobutyl alcohol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: PH 1 2 3 (480-210194-1), PH 4 (480-210194-2) and PH 5 (480-210194-3).

Method 8260C: The laboratory control sample (LCS) for analytical batch 480-674328 recovered outside control limits for the following analytes: Isobutyl alcohol. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The results reported for the following sample do not concur with results previously reported for this site: PH 1 2 3 (480-210194-1). 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.

GC/MS Semi VOA
Method 8270D SIM ID: The following sample was diluted to bring the concentration of target analytes within the calibration range: PH 1 2 3 (480-210194-1). Elevated reporting limits (RLs) are provided.

Method 8270D SIM ID: The 1,4-Dioxane result reported for samples PH 4 (480-210194-2) and PH 5 (480-210194-3) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-674285 and analytical batch 480-674437 recovered outside control limits for multiple analytes.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-675057 recovered outside acceptance criteria, low biased, for 4-Nitrophenol, Kepone and Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Job ID: 480-210194-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

Method 8270D: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 480-675057 was outside criteria for the following analyte(s): Kepone. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: PH 1 2 3 (480-210194-1), PH 4 (480-210194-2) and PH 5 (480-210194-3). These results have been reported and qualified.

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

HPLC/IC
Method 300.0: The following samples were diluted due to the abundance of non-target analytes: PH 1 2 3 (480-210194-1), PH 4 (480-210194-2) and PH 5 (480-210194-3). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA
Method 8081B: The following sample was diluted due to the nature of the sample matrix: PH 1 2 3 (480-210194-1). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8081B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-674822 and analytical batch 480-674848 recovered outside control limits for several analytes.

Method 8151A: Surrogate recovery for the following samples were outside control limits: PH 1 2 3 (480-210194-1), PH 4 (480-210194-2) and PH 5 (480-210194-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Dioxin
Method 8290A: One or more Isotope Dilution Analyte (IDA) recoveries associated with the following sample is below the method recommended limit: PH 1 2 3 (480-210194-1). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 8290A: One or more Isotope Dilution Analyte (IDA) recoveries associated with the following sample is below the method recommended limit: PH 1 2 3 (480-210194-1). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 8290A: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. PH 5 (480-210194-3). This was done at the request of the PM for this job.

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

Metals
Methods 245.1, 7470A: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples(s): PH 1 2 3 (480-210194-1). This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample(s) was prepared and analyzed at a 1/2 dilution, which maintained the purple color during digestion.

Method 6010C: The low level continuing calibration verification (CCVL) for analytical batch 480-675176 recovered above the upper control limit for (total Boron). The samples associated with this CCVL contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples PH 1 2 3 (480-210194-1), PH 4 (480-210194-2) and PH 5 (480-210194-3) was not performed.

Job ID: 480-210194-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

Method 6010C: The Total Barium, Potassium, Sodium, and Vanadium results reported for the following sample do not concur with results previously reported for this site: PH 1 2 3 (480-210194-1). 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.

General Chemistry
Method SM 2120B: The following samples were filtered prior to analysis, therefore the analytical results are being report as "True Color": PH 1 2 3 (480-210194-1), PH 4 (480-210194-2), PH 5 (480-210194-3) and (480-210194-X-1 DU)

Method 9060A: The results reported for the following sample do not concur with results previously reported for this site: PH 5 (480-210194-3). Sample was run in duplicate, both results are outside of history and confirm each other.

Method SM 5210B: Reanalysis of the following sample was performed outside of the analytical holding time due to overdepletion on previous analysis : PH 1 2 3 (480-210194-1).

Method SM 5210B: The results increased with increasing dilutions for the following samples: PH 1 2 3 (480-210194-1) and (480-210194-A-1 DU). This indicates a potentially toxic substance is being diluted out. The concentration may be biased low.

Method SM 2540C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: PH 1 2 3 (480-210194-1), PH 4 (480-210194-2), PH 5 (480-210194-3) and (480-210194-F-1 DU). The reporting limits (RLs) have been adjusted proportionately.

Method SM 2540C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: PH 1 2 3 (480-210194-1), PH 4 (480-210194-2) and PH 5 (480-210194-3). The reporting limits (RLs) have been adjusted proportionately.

Method SM 2540C: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to over residue limit on original analysis set. : PH 1 2 3 (480-210194-1) and PH 4 (480-210194-2).

Method SM 5210B: The residual D.O. in sample PH 1 2 3 (480-210194-1) was < 1.0 mg/L in all dilutions tested; they were over depleted. Results were reported, but they may be biased low.

Method 351.2: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: PH 1 2 3 (480-210194-1). The reporting limits (RLs) have been adjusted proportionately.

Method SM 2540C: Reanalysis of the following sample was performed outside of the analytical holding time due to lab error.: PH 5 (480-210194-3).

Method SM 2540C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: PH 5 (480-210194-3). The reporting limits (RLs) have been adjusted proportionately.

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

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-674285.

Method 3510C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: PH 1 2 3 (480-210194-1). The reporting limits (RLs) have been adjusted proportionately.

Method 3510C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: PH 1 2 3 (480-210194-1). The reporting limits (RLs) have been adjusted proportionately.

Method 8151A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-674891.

Job ID: 480-210194-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

Method 8151A: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: PH 1 2 3 (480-210194-1), PH 4 (480-210194-2) and PH 5 (480-210194-3). The reporting limits (RLs) have been adjusted proportionately.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-674957.

Methods 8290, HRMS-Sepf: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: PH 1 2 3 (480-210194-1) and PH 4 (480-210194-2). The reporting limits (RLs) have been adjusted proportionately.

Methods 8290, HRMS-Sepf: The following samples required a Gel-Permeation clean up, via EPA method 3640A, to reduce matrix interference: PH 1 2 3 (480-210194-1) and PH 4 (480-210194-2).

Method 8290: The following sample(s) was re-prepared outside of preparation holding time due to loss of sample in initial prep. Reprepped per client request outside of hold time. PH 5 (480-210194-3)

Method 8290: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: PH 5 (480-210194-3). The reporting limits (RLs) have been adjusted proportionately.

Methods 8290, HRMS-Sepf: The following sample required a Gel-Permeation clean up, via EPA method 3640A, to reduce matrix interference: PH 5 (480-210194-3).

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

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 1 2 3 — Lab Sample ID: 480-210194-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	180		100		ug/L	10		8260C	Total/NA
Toluene	10		10		ug/L	10		8260C	Total/NA
1,4-Dioxane	96		10		ug/L	10		8270D SIM ID	Total/NA
Barium	0.47		0.0020		mg/L	1		6010C	Total/NA
Boron	12.8	^+	0.020		mg/L	1		6010C	Total/NA
Calcium	312		0.50		mg/L	1		6010C	Total/NA
Chromium	0.020		0.0040		mg/L	1		6010C	Total/NA
Iron	1.7		0.050		mg/L	1		6010C	Total/NA
Magnesium	165		0.20		mg/L	1		6010C	Total/NA
Manganese	3.8		0.0030		mg/L	1		6010C	Total/NA
Nickel	0.033		0.010		mg/L	1		6010C	Total/NA
Potassium	54.1		0.50		mg/L	1		6010C	Total/NA
Sodium	438		1.0		mg/L	1		6010C	Total/NA
Vanadium	0.0099		0.0050		mg/L	1		6010C	Total/NA
Zinc	0.041		0.010		mg/L	1		6010C	Total/NA
Turbidity	500		20		NTU	20		180.1	Total/NA
Bromide	4.5		2.0		mg/L	10		300.0	Total/NA
Ammonia	71.5		1.0		mg/L as N	50		350.1	Total/NA
Total Kjeldahl Nitrogen	74.2		5.0		mg/L as N	1		351.2	Total/NA
Chemical Oxygen Demand	507		50.0		mg/L	5		410.4	Total/NA
Phenolics, Total Recoverable	0.022		0.010		mg/L	1		420.4	Total/NA
Cyanide, Total	0.019		0.010		mg/L	1		9012B	Total/NA
Sulfate	277		260		mg/L	52		9038	Total/NA
Total Organic Carbon	146		4.0		mg/L	4		9060A	Total/NA
Chloride	586		34.0		mg/L	34		9251	Total/NA
Color	15.0		0.0100		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	1690		5.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	NC		20.0		mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids	2760	H	20.0		mg/L	1		SM 2540C	Total/NA
Sulfide	13.2		0.67		mg/L	1		SM 4500 S2 F	Total/NA
Biochemical Oxygen Demand	>38.1		12.0		mg/L	1		SM 5210B	Total/NA
Biochemical Oxygen Demand	65.7	H b	6.0		mg/L	1		SM 5210B	Total/NA

Client Sample ID: PH 4 — Lab Sample ID: 480-210194-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	31	E	0.21		ug/L	1		8270D SIM ID	Total/NA
Methoxychlor	0.089	*1	0.050		ug/L	1		8081B	Total/NA
Barium	0.36		0.0020		mg/L	1		6010C	Total/NA
Boron	4.9	^+	0.020		mg/L	1		6010C	Total/NA
Calcium	342		0.50		mg/L	1		6010C	Total/NA
Chromium	0.011		0.0040		mg/L	1		6010C	Total/NA
Iron	10.9		0.050		mg/L	1		6010C	Total/NA
Magnesium	132		0.20		mg/L	1		6010C	Total/NA
Manganese	8.4		0.0030		mg/L	1		6010C	Total/NA
Nickel	0.033		0.010		mg/L	1		6010C	Total/NA
Potassium	18.2		0.50		mg/L	1		6010C	Total/NA
Sodium	135		1.0		mg/L	1		6010C	Total/NA
Zinc	0.010		0.010		mg/L	1		6010C	Total/NA
Turbidity	120		10		NTU	10		180.1	Total/NA
Ammonia	9.2		0.10		mg/L as N	5		350.1	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 4 (Continued) — Lab Sample ID: 480-210194-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Kjeldahl Nitrogen	12.5		1.0		mg/L as N	5		351.2	Total/NA
Chemical Oxygen Demand	64.4		20.0		mg/L	2		410.4	Total/NA
Cyanide, Total	0.010		0.010		mg/L	1		9012B	Total/NA
Sulfate	133		110		mg/L	22		9038	Total/NA
Total Organic Carbon	54.0		1.0		mg/L	1		9060A	Total/NA
Chloride	184		5.0		mg/L	5		9251	Total/NA
Color	10.0		0.0100		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	1380		5.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1810		20.0		mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids	1730	H	20.0		mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	19.9	b	12.0		mg/L	1		SM 5210B	Total/NA

Client Sample ID: PH 5 — Lab Sample ID: 480-210194-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	140		100		ug/L	10		8260C	Total/NA
Methylene Chloride	10		10		ug/L	10		8260C	Total/NA
1,4-Dioxane	45	E	0.20		ug/L	1		8270D SIM ID	Total/NA
3 & 4 Methylphenol	22		10		ug/L	1		8270D	Total/NA
3-Methylphenol	22		10		ug/L	1		8270D	Total/NA
4-Methylphenol	22		10		ug/L	1		8270D	Total/NA
Phenol	5.0		5.0		ug/L	1		8270D	Total/NA
Aluminum	4.3		0.20		mg/L	1		6010C	Total/NA
Barium	0.27		0.0020		mg/L	1		6010C	Total/NA
Boron	2.7	^+	0.020		mg/L	1		6010C	Total/NA
Calcium	387		0.50		mg/L	1		6010C	Total/NA
Chromium	0.0071		0.0040		mg/L	1		6010C	Total/NA
Cobalt	0.0085		0.0040		mg/L	1		6010C	Total/NA
Copper	0.017		0.010		mg/L	1		6010C	Total/NA
Iron	11.7		0.050		mg/L	1		6010C	Total/NA
Lead	0.015		0.010		mg/L	1		6010C	Total/NA
Magnesium	128		0.20		mg/L	1		6010C	Total/NA
Manganese	12.2		0.0030		mg/L	1		6010C	Total/NA
Nickel	0.037		0.010		mg/L	1		6010C	Total/NA
Potassium	9.9		0.50		mg/L	1		6010C	Total/NA
Sodium	151		1.0		mg/L	1		6010C	Total/NA
Vanadium	0.0078		0.0050		mg/L	1		6010C	Total/NA
Zinc	0.23		0.010		mg/L	1		6010C	Total/NA
Turbidity	300		10		NTU	10		180.1	Total/NA
Ammonia	0.70		0.020		mg/L as N	1		350.1	Total/NA
Total Kjeldahl Nitrogen	3.8		0.20		mg/L as N	1		351.2	Total/NA
Chemical Oxygen Demand	130		20.0		mg/L	2		410.4	Total/NA
Phenolics, Total Recoverable	0.034		0.010		mg/L	1		420.4	Total/NA
Cyanide, Total	0.011		0.010		mg/L	1		9012B	Total/NA
Sulfate	368		320		mg/L	64		9038	Total/NA
Total Organic Carbon	49.3		1.0		mg/L	1		9060A	Total/NA
Chloride	186		5.0		mg/L	5		9251	Total/NA
Color	10.0		0.0100		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	1170		5.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	NC		20.0		mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids	2360	H	40.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 5 (Continued)

Lab Sample ID: 480-210194-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfide	2.8		0.67		mg/L	1		SM 4500 S2 F	Total/NA
Biochemical Oxygen Demand	31.2	b	12.0		mg/L	1		SM 5210B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 1 2 3

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-1

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10		ug/L			06/25/23 08:10	10
1,1,1-Trichloroethane	ND		10		ug/L			06/25/23 08:10	10
1,1,2,2-Tetrachloroethane	ND		10		ug/L			06/25/23 08:10	10
1,1,2-Trichloroethane	ND		10		ug/L			06/25/23 08:10	10
1,1-Dichloroethane	ND		10		ug/L			06/25/23 08:10	10
1,1-Dichloroethene	ND		10		ug/L			06/25/23 08:10	10
1,1-Dichloropropene	ND		10		ug/L			06/25/23 08:10	10
1,2,3-Trichloropropane	ND		10		ug/L			06/25/23 08:10	10
1,2,4-Trichlorobenzene	ND		10		ug/L			06/25/23 08:10	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/25/23 08:10	10
1,2-Dichlorobenzene	ND		10		ug/L			06/25/23 08:10	10
1,2-Dichloroethane	ND		10		ug/L			06/25/23 08:10	10
1,2-Dichloropropane	ND		10		ug/L			06/25/23 08:10	10
1,3-Dichloropropane	ND		10		ug/L			06/25/23 08:10	10
1,4-Dichlorobenzene	ND		10		ug/L			06/25/23 08:10	10
2,2-Dichloropropane	ND		10		ug/L			06/25/23 08:10	10
2-Butanone (MEK)	ND		100		ug/L			06/25/23 08:10	10
2-Hexanone	ND		50		ug/L			06/25/23 08:10	10
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			06/25/23 08:10	10
Acetone	**180**		100		ug/L			06/25/23 08:10	10
Acetonitrile	ND		150		ug/L			06/25/23 08:10	10
Acrolein	ND		200		ug/L			06/25/23 08:10	10
Acrylonitrile	ND		50		ug/L			06/25/23 08:10	10
Allyl chloride	ND		10		ug/L			06/25/23 08:10	10
Benzene	ND		10		ug/L			06/25/23 08:10	10
Chlorobromomethane	ND		10		ug/L			06/25/23 08:10	10
Bromodichloromethane	ND		10		ug/L			06/25/23 08:10	10
Bromoform	ND		10		ug/L			06/25/23 08:10	10
Bromomethane	ND		10		ug/L			06/25/23 08:10	10
Carbon disulfide	ND		10		ug/L			06/25/23 08:10	10
Carbon tetrachloride	ND		10		ug/L			06/25/23 08:10	10
Chlorobenzene	ND		10		ug/L			06/25/23 08:10	10
Chlorodibromomethane	ND		10		ug/L			06/25/23 08:10	10
Chloroethane	ND		10		ug/L			06/25/23 08:10	10
Chloroform	ND		10		ug/L			06/25/23 08:10	10
Chloromethane	ND		10		ug/L			06/25/23 08:10	10
cis-1,2-Dichloroethene	ND		10		ug/L			06/25/23 08:10	10
cis-1,3-Dichloropropene	ND		10		ug/L			06/25/23 08:10	10
Chloroprene	ND		10		ug/L			06/25/23 08:10	10
Dibromomethane	ND		10		ug/L			06/25/23 08:10	10
Dichlorodifluoromethane	ND		10		ug/L			06/25/23 08:10	10
Ethyl methacrylate	ND		10		ug/L			06/25/23 08:10	10
Ethylbenzene	ND		10		ug/L			06/25/23 08:10	10
1,2-Dibromoethane	ND		10		ug/L			06/25/23 08:10	10
Hexachlorobutadiene	ND		20		ug/L			06/25/23 08:10	10
Iodomethane	ND		10		ug/L			06/25/23 08:10	10
Isobutyl alcohol	ND	*+	250		ug/L			06/25/23 08:10	10
Methacrylonitrile	ND		50		ug/L			06/25/23 08:10	10
Methyl methacrylate	ND		10		ug/L			06/25/23 08:10	10

Client Sample ID: PH 1 2 3

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-1
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		10		ug/L			06/25/23 08:10	10
Naphthalene	ND		10		ug/L			06/25/23 08:10	10
Pentachloroethane	ND		10		ug/L			06/25/23 08:10	10
Propionitrile	ND		100		ug/L			06/25/23 08:10	10
Styrene	ND		10		ug/L			06/25/23 08:10	10
Tetrachloroethene	ND		10		ug/L			06/25/23 08:10	10
Toluene	**10**		10		ug/L			06/25/23 08:10	10
trans-1,2-Dichloroethene	ND		10		ug/L			06/25/23 08:10	10
trans-1,3-Dichloropropene	ND		10		ug/L			06/25/23 08:10	10
trans-1,4-Dichloro-2-butene	ND		10		ug/L			06/25/23 08:10	10
Trichloroethene	ND		10		ug/L			06/25/23 08:10	10
Trichlorofluoromethane	ND		10		ug/L			06/25/23 08:10	10
Vinyl acetate	ND		50		ug/L			06/25/23 08:10	10
Vinyl chloride	ND		10		ug/L			06/25/23 08:10	10
Xylenes, Total	ND		20		ug/L			06/25/23 08:10	10
o-Xylene	ND		10		ug/L			06/25/23 08:10	10
m,p-Xylene	ND		20		ug/L			06/25/23 08:10	10
1,2-Dichloroethene, Total	ND		20		ug/L			06/25/23 08:10	10
1,3-Dichlorobenzene	ND		10		ug/L			06/25/23 08:10	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*06/25/23 08:10*	*10*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*06/25/23 08:10*	*10*
Toluene-d8 (Surr)	*100*		*80 - 120*		*06/25/23 08:10*	*10*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*06/25/23 08:10*	*10*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**96**		10		ug/L		06/23/23 15:03	06/28/23 00:36	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*37*		*15 - 110*	*06/23/23 15:03*	*06/28/23 00:36*	*10*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
1,2,4-Trichlorobenzene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
1,2-Dichlorobenzene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
1,3,5-Trinitrobenzene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
1,3-Dichlorobenzene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
1,3-Dinitrobenzene	ND		24		ug/L		06/29/23 15:08	06/30/23 19:36	1
1,4-Naphthoquinone	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
1,4-Dichlorobenzene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
1-Naphthylamine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
2,3,4,6-Tetrachlorophenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2,4,5-Trichlorophenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2,4,6-Trichlorophenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2,4-Dichlorophenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2,4-Dimethylphenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2,4-Dinitrophenol	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
2,4-Dinitrotoluene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1

Client Sample ID: PH 1 2 3

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-1

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dichlorophenol	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
2,6-Dinitrotoluene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2-Acetylaminofluorene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
2-Chloronaphthalene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2-Chlorophenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2-Methylnaphthalene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2-Methylphenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2-Naphthylamine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
2-Nitroaniline	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
2-Nitrophenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
2-Toluidine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
3 & 4 Methylphenol	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
3-Methylphenol	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
4-Methylphenol	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
3,3'-Dichlorobenzidine	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
3,3'-Dimethylbenzidine	ND		48		ug/L		06/29/23 15:08	06/30/23 19:36	1
3-Methylcholanthrene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
3-Nitroaniline	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
4,6-Dinitro-2-methylphenol	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
4-Aminobiphenyl	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
4-Bromophenyl phenyl ether	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
4-Chloro-3-methylphenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
4-Chloroaniline	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
4-Chlorophenyl phenyl ether	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
4-Nitroaniline	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
4-Nitrophenol	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
7,12-Dimethylbenz(a)anthracene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Acenaphthene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Acenaphthylene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Acetophenone	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Anthracene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Benzo[a]anthracene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Benzo[a]pyrene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Benzo[b]fluoranthene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Benzo[g,h,i]perylene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Benzo[k]fluoranthene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Benzyl alcohol	ND		24		ug/L		06/29/23 15:08	06/30/23 19:36	1
Bis(2-chloroethoxy)methane	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Bis(2-chloroethyl)ether	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Bis(2-ethylhexyl) phthalate	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
bis (2-chloroisopropyl) ether	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Butyl benzyl phthalate	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Chrysene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Diallate	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Dibenz(a,h)anthracene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Dibenzofuran	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Diethyl phthalate	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Dimethoate	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Dimethyl phthalate	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1

Client Sample ID: PH 1 2 3

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-1

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Di-n-octyl phthalate	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Dinoseb	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Diphenylamine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Disulfoton	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Ethyl methanesulfonate	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Famphur	ND		48		ug/L		06/29/23 15:08	06/30/23 19:36	1
Fluoranthene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Fluorene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Hexachlorobenzene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Hexachlorobutadiene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Hexachlorocyclopentadiene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Hexachloroethane	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Hexachloropropene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Indeno[1,2,3-cd]pyrene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Isodrin	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Isophorone	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Isosafrole	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Kepone	ND		60		ug/L		06/29/23 15:08	06/30/23 19:36	1
Methapyrilene	ND		60		ug/L		06/29/23 15:08	06/30/23 19:36	1
Methyl methanesulfonate	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Safrole	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Thionazin	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Naphthalene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Nitrobenzene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
N-Nitro-o-toluidine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
N-Nitrosodiethylamine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
N-Nitrosodimethylamine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
N-Nitrosodi-n-butylamine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
N-Nitrosodi-n-propylamine	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
N-Nitrosodiphenylamine	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
N-Nitrosomethylethylamine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
N-Nitrosopiperidine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
N-Nitrosopyrrolidine	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
o,o',o''-Triethylphosphorothioate	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Parathion ethyl	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Parathion methyl	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
p-Dimethylamino azobenzene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Pentachlorobenzene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Pentachloronitrobenzene	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Pentachlorophenol	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Phenacetin	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
Phenanthrene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Phenol	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Phorate	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1
p-Phenylene diamine	ND		950		ug/L		06/29/23 15:08	06/30/23 19:36	1
Pyrene	ND		6.0		ug/L		06/29/23 15:08	06/30/23 19:36	1
Pronamide	ND		12		ug/L		06/29/23 15:08	06/30/23 19:36	1

Client Sample ID: PH 1 2 3

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-1

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		ug/L			1746-01-6	06/29/23 15:08	06/30/23 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	79		48 - 120	06/29/23 15:08	06/30/23 19:36	1
2-Fluorophenol (Surr)	67		35 - 120	06/29/23 15:08	06/30/23 19:36	1
2,4,6-Tribromophenol (Surr)	93		41 - 120	06/29/23 15:08	06/30/23 19:36	1
Nitrobenzene-d5 (Surr)	75		46 - 120	06/29/23 15:08	06/30/23 19:36	1
Phenol-d5 (Surr)	55		22 - 120	06/29/23 15:08	06/30/23 19:36	1
p-Terphenyl-d14 (Surr)	52	S1-	60 - 148	06/29/23 15:08	06/30/23 19:36	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
4,4'-DDE	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
4,4'-DDT	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Aldrin	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
alpha-BHC	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
beta-BHC	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Chlordane (technical)	ND		10		ug/L		06/28/23 16:04	06/29/23 12:08	20
delta-BHC	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Dieldrin	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Endosulfan I	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Endosulfan II	ND		1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Endosulfan sulfate	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Endrin	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Endrin aldehyde	ND		1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
gamma-BHC (Lindane)	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Heptachlor	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Methoxychlor	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20
Toxaphene	ND		10		ug/L		06/28/23 16:04	06/29/23 12:08	20
Heptachlor epoxide	ND	*1	1.0		ug/L		06/28/23 16:04	06/29/23 12:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	20 - 120	06/28/23 16:04	06/29/23 12:08	20
DCB Decachlorobiphenyl	0	S1-	20 - 120	06/28/23 16:04	06/29/23 12:08	20
Tetrachloro-m-xylene	0	S1-	44 - 120	06/28/23 16:04	06/29/23 12:08	20
Tetrachloro-m-xylene	0	S1-	44 - 120	06/28/23 16:04	06/29/23 12:08	20

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.52		ug/L		06/26/23 06:59	06/26/23 15:01	1
PCB-1221	ND		0.52		ug/L		06/26/23 06:59	06/26/23 15:01	1
PCB-1232	ND		0.52		ug/L		06/26/23 06:59	06/26/23 15:01	1
PCB-1242	ND		0.52		ug/L		06/26/23 06:59	06/26/23 15:01	1
PCB-1248	ND		0.52		ug/L		06/26/23 06:59	06/26/23 15:01	1
PCB-1254	ND		0.52		ug/L		06/26/23 06:59	06/26/23 15:01	1
PCB-1260	ND		0.52		ug/L		06/26/23 06:59	06/26/23 15:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	52		39 - 121	06/26/23 06:59	06/26/23 15:01	1
Tetrachloro-m-xylene	53		39 - 121	06/26/23 06:59	06/26/23 15:01	1

Client Sample ID: PH 1 2 3

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-1

Matrix: Water

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*29*		*19 - 120*	*06/26/23 06:59*	*06/26/23 15:01*	*1*
DCB Decachlorobiphenyl	*31*		*19 - 120*	*06/26/23 06:59*	*06/26/23 15:01*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:02	1
2,4-D	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:02	1
Dinoseb	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:02	1
Silvex (2,4,5-TP)	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*22*	*S1-*	*48 - 132*	*06/29/23 09:47*	*06/30/23 16:02*	*1*
2,4-Dichlorophenylacetic acid	*17*	*S1-*	*48 - 132*	*06/29/23 09:47*	*06/30/23 16:02*	*1*

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		100		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,7,8-PeCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,4,7,8-HxCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,6,7,8-HxCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,7,8,9-HxCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,4,6,7,8-HpCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
OCDD	ND		1000		pg/L		06/28/23 15:54	07/18/23 04:43	1
2,3,7,8-TCDF	ND		100		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,7,8-PeCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
2,3,4,7,8-PeCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,4,7,8-HxCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,6,7,8-HxCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
2,3,4,6,7,8-HxCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,7,8,9-HxCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,4,6,7,8-HpCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
1,2,3,4,7,8,9-HpCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 04:43	1
OCDF	ND		1000		pg/L		06/28/23 15:54	07/18/23 04:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*59*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,7,8-PeCDD	*70*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,4,7,8-HxCDD	*77*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,6,7,8-HxCDD	*79*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*77*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-OCDD	*66*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-2,3,7,8-TCDF	*55*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,7,8-PeCDF	*57*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-2,3,4,7,8-PeCDF	*60*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,4,7,8-HxCDF	*77*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,6,7,8-HxCDF	*69*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-2,3,4,6,7,8-HxCDF	*70*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,7,8,9-HxCDF	*61*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*65*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*53*		*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*

Client Sample ID: PH 1 2 3

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-1

Matrix: Water

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-OCDF	*22*	**5-*	*40 - 135*	*06/28/23 15:54*	*07/18/23 04:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20		mg/L		06/26/23 08:02	07/02/23 01:59	1
Antimony	ND		0.020		mg/L		06/26/23 08:02	07/02/23 01:59	1
Arsenic	ND		0.015		mg/L		06/26/23 08:02	07/02/23 01:59	1
Barium	**0.47**		0.0020		mg/L		06/26/23 08:02	07/02/23 01:59	1
Beryllium	ND		0.0020		mg/L		06/26/23 08:02	07/02/23 01:59	1
Boron	**12.8**	**^+**	0.020		mg/L		06/26/23 08:02	07/02/23 01:59	1
Cadmium	ND		0.0020		mg/L		06/26/23 08:02	07/02/23 01:59	1
Calcium	**312**		0.50		mg/L		06/26/23 08:02	07/02/23 01:59	1
Chromium	**0.020**		0.0040		mg/L		06/26/23 08:02	07/02/23 01:59	1
Cobalt	ND		0.0040		mg/L		06/26/23 08:02	07/02/23 01:59	1
Copper	ND		0.010		mg/L		06/26/23 08:02	07/02/23 01:59	1
Iron	**1.7**		0.050		mg/L		06/26/23 08:02	07/02/23 01:59	1
Lead	ND		0.010		mg/L		06/26/23 08:02	07/02/23 01:59	1
Magnesium	**165**		0.20		mg/L		06/26/23 08:02	07/02/23 01:59	1
Manganese	**3.8**		0.0030		mg/L		06/26/23 08:02	07/02/23 01:59	1
Nickel	**0.033**		0.010		mg/L		06/26/23 08:02	07/02/23 01:59	1
Potassium	**54.1**		0.50		mg/L		06/26/23 08:02	07/02/23 01:59	1
Selenium	ND		0.025		mg/L		06/26/23 08:02	07/02/23 01:59	1
Silver	ND		0.0060		mg/L		06/26/23 08:02	07/02/23 01:59	1
Sodium	**438**		1.0		mg/L		06/26/23 08:02	07/02/23 01:59	1
Thallium	ND		0.020		mg/L		06/26/23 08:02	07/02/23 01:59	1
Tin	ND		0.010		mg/L		06/26/23 08:02	07/02/23 01:59	1
Vanadium	**0.0099**		0.0050		mg/L		06/26/23 08:02	07/02/23 01:59	1
Zinc	**0.041**		0.010		mg/L		06/26/23 08:02	07/02/23 01:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040		mg/L		06/26/23 11:40	06/26/23 16:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	**4.5**		2.0		mg/L			06/27/23 04:34	10
Ammonia (EPA 350.1)	**71.5**		1.0		mg/L as N			06/28/23 08:31	50
Total Kjeldahl Nitrogen (EPA 351.2	**74.2**		5.0		mg/L as N		07/12/23 09:00	07/13/23 07:26	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		06/23/23 14:24	1
Chemical Oxygen Demand (EPA 410.4)	**507**		50.0		mg/L			07/05/23 20:55	5
Phenolics, Total Recoverable (EPA 420.4)	**0.022**		0.010		mg/L			06/27/23 13:26	1
Chromium, hexavalent (SW846 7196A)	ND		0.10		mg/L			06/23/23 10:57	10
Cyanide, Total (SW846 9012B)	**0.019**		0.010		mg/L			06/27/23 13:27	1
Sulfate (SW846 9038)	**277**		260		mg/L			06/29/23 14:14	52
Total Organic Carbon (SW846 9060A)	**146**		4.0		mg/L			06/28/23 23:48	4
Chloride (SW846 9251)	**586**		34.0		mg/L			06/26/23 14:41	34
Alkalinity, Total (SM 2320B)	**1690**		5.0		mg/L			06/28/23 15:05	1

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 1 2 3

Lab Sample ID: 480-210194-1

Date Collected: 06/22/23 14:45

Matrix: Water

Date Received: 06/23/23 09:30

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	NC		20.0		mg/L			06/28/23 13:44	1
Total Dissolved Solids (SM 2540C)	2760	H	20.0		mg/L			07/06/23 15:23	1
Sulfide (SM 4500 S2 F)	13.2		0.67		mg/L			06/27/23 11:00	1
Biochemical Oxygen Demand (SM 5210B)	>38.1		12.0		mg/L			06/23/23 14:01	1
Biochemical Oxygen Demand (SM 5210B)	65.7	H b	6.0		mg/L			06/28/23 15:24	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity (EPA 180.1)	500		20		NTU			06/23/23 14:15	20
Color (SM 2120B)	15.0		0.0100		Color Units			06/23/23 14:30	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 4

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10		ug/L			06/25/23 08:33	10
1,1,1-Trichloroethane	ND		10		ug/L			06/25/23 08:33	10
1,1,2,2-Tetrachloroethane	ND		10		ug/L			06/25/23 08:33	10
1,1,2-Trichloroethane	ND		10		ug/L			06/25/23 08:33	10
1,1-Dichloroethane	ND		10		ug/L			06/25/23 08:33	10
1,1-Dichloroethene	ND		10		ug/L			06/25/23 08:33	10
1,1-Dichloropropene	ND		10		ug/L			06/25/23 08:33	10
1,2,3-Trichloropropane	ND		10		ug/L			06/25/23 08:33	10
1,2,4-Trichlorobenzene	ND		10		ug/L			06/25/23 08:33	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/25/23 08:33	10
1,2-Dichlorobenzene	ND		10		ug/L			06/25/23 08:33	10
1,2-Dichloroethane	ND		10		ug/L			06/25/23 08:33	10
1,2-Dichloropropane	ND		10		ug/L			06/25/23 08:33	10
1,3-Dichloropropane	ND		10		ug/L			06/25/23 08:33	10
1,4-Dichlorobenzene	ND		10		ug/L			06/25/23 08:33	10
2,2-Dichloropropane	ND		10		ug/L			06/25/23 08:33	10
2-Butanone (MEK)	ND		100		ug/L			06/25/23 08:33	10
2-Hexanone	ND		50		ug/L			06/25/23 08:33	10
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			06/25/23 08:33	10
Acetone	ND		100		ug/L			06/25/23 08:33	10
Acetonitrile	ND		150		ug/L			06/25/23 08:33	10
Acrolein	ND		200		ug/L			06/25/23 08:33	10
Acrylonitrile	ND		50		ug/L			06/25/23 08:33	10
Allyl chloride	ND		10		ug/L			06/25/23 08:33	10
Benzene	ND		10		ug/L			06/25/23 08:33	10
Chlorobromomethane	ND		10		ug/L			06/25/23 08:33	10
Bromodichloromethane	ND		10		ug/L			06/25/23 08:33	10
Bromoform	ND		10		ug/L			06/25/23 08:33	10
Bromomethane	ND		10		ug/L			06/25/23 08:33	10
Carbon disulfide	ND		10		ug/L			06/25/23 08:33	10
Carbon tetrachloride	ND		10		ug/L			06/25/23 08:33	10
Chlorobenzene	ND		10		ug/L			06/25/23 08:33	10
Chlorodibromomethane	ND		10		ug/L			06/25/23 08:33	10
Chloroethane	ND		10		ug/L			06/25/23 08:33	10
Chloroform	ND		10		ug/L			06/25/23 08:33	10
Chloromethane	ND		10		ug/L			06/25/23 08:33	10
cis-1,2-Dichloroethene	ND		10		ug/L			06/25/23 08:33	10
cis-1,3-Dichloropropene	ND		10		ug/L			06/25/23 08:33	10
Chloroprene	ND		10		ug/L			06/25/23 08:33	10
Dibromomethane	ND		10		ug/L			06/25/23 08:33	10
Dichlorodifluoromethane	ND		10		ug/L			06/25/23 08:33	10
Ethyl methacrylate	ND		10		ug/L			06/25/23 08:33	10
Ethylbenzene	ND		10		ug/L			06/25/23 08:33	10
1,2-Dibromoethane	ND		10		ug/L			06/25/23 08:33	10
Hexachlorobutadiene	ND		20		ug/L			06/25/23 08:33	10
Iodomethane	ND		10		ug/L			06/25/23 08:33	10
Isobutyl alcohol	ND	*+	250		ug/L			06/25/23 08:33	10
Methacrylonitrile	ND		50		ug/L			06/25/23 08:33	10
Methyl methacrylate	ND		10		ug/L			06/25/23 08:33	10

Client Sample ID: PH 4

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		10		ug/L			06/25/23 08:33	10
Naphthalene	ND		10		ug/L			06/25/23 08:33	10
Pentachloroethane	ND		10		ug/L			06/25/23 08:33	10
Propionitrile	ND		100		ug/L			06/25/23 08:33	10
Styrene	ND		10		ug/L			06/25/23 08:33	10
Tetrachloroethene	ND		10		ug/L			06/25/23 08:33	10
Toluene	ND		10		ug/L			06/25/23 08:33	10
trans-1,2-Dichloroethene	ND		10		ug/L			06/25/23 08:33	10
trans-1,3-Dichloropropene	ND		10		ug/L			06/25/23 08:33	10
trans-1,4-Dichloro-2-butene	ND		10		ug/L			06/25/23 08:33	10
Trichloroethene	ND		10		ug/L			06/25/23 08:33	10
Trichlorofluoromethane	ND		10		ug/L			06/25/23 08:33	10
Vinyl acetate	ND		50		ug/L			06/25/23 08:33	10
Vinyl chloride	ND		10		ug/L			06/25/23 08:33	10
Xylenes, Total	ND		20		ug/L			06/25/23 08:33	10
o-Xylene	ND		10		ug/L			06/25/23 08:33	10
m,p-Xylene	ND		20		ug/L			06/25/23 08:33	10
1,2-Dichloroethene, Total	ND		20		ug/L			06/25/23 08:33	10
1,3-Dichlorobenzene	ND		10		ug/L			06/25/23 08:33	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*06/25/23 08:33*	*10*
4-Bromofluorobenzene (Surr)	*114*		*73 - 120*		*06/25/23 08:33*	*10*
Toluene-d8 (Surr)	*108*		*80 - 120*		*06/25/23 08:33*	*10*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*06/25/23 08:33*	*10*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**31**	**E**	0.21		ug/L		06/23/23 15:03	06/28/23 00:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*36*		*15 - 110*	*06/23/23 15:03*	*06/28/23 00:57*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
1,2,4-Trichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
1,2-Dichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
1,3,5-Trinitrobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
1,3-Dichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
1,3-Dinitrobenzene	ND		20		ug/L		06/29/23 15:08	06/30/23 20:03	1
1,4-Naphthoquinone	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
1,4-Dichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
1-Naphthylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
2,3,4,6-Tetrachlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2,4,5-Trichlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2,4,6-Trichlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2,4-Dichlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2,4-Dimethylphenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2,4-Dinitrophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
2,4-Dinitrotoluene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 4

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-2

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dichlorophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
2,6-Dinitrotoluene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2-Acetylaminofluorene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
2-Chloronaphthalene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2-Chlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2-Methylnaphthalene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2-Methylphenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2-Naphthylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
2-Nitroaniline	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
2-Nitrophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
2-Toluidine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
3 & 4 Methylphenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
3-Methylphenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
4-Methylphenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
3,3'-Dichlorobenzidine	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
3,3'-Dimethylbenzidine	ND		40		ug/L		06/29/23 15:08	06/30/23 20:03	1
3-Methylcholanthrene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
3-Nitroaniline	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
4-Aminobiphenyl	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
4-Bromophenyl phenyl ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
4-Chloro-3-methylphenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
4-Chloroaniline	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
4-Chlorophenyl phenyl ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
4-Nitroaniline	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
4-Nitrophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Acenaphthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Acenaphthylene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Acetophenone	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Anthracene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Benzo[a]anthracene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Benzo[a]pyrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Benzo[b]fluoranthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Benzo[g,h,i]perylene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Benzo[k]fluoranthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Benzyl alcohol	ND		20		ug/L		06/29/23 15:08	06/30/23 20:03	1
Bis(2-chloroethoxy)methane	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Bis(2-chloroethyl)ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Bis(2-ethylhexyl) phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
bis (2-chloroisopropyl) ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Butyl benzyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Chrysene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Diallate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Dibenz(a,h)anthracene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Dibenzofuran	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Diethyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Dimethoate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Dimethyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1

Client Sample ID: PH 4

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-2

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Di-n-octyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Dinoseb	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Diphenylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Disulfoton	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Ethyl methanesulfonate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Famphur	ND		40		ug/L		06/29/23 15:08	06/30/23 20:03	1
Fluoranthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Fluorene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Hexachlorobenzene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Hexachlorobutadiene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Hexachlorocyclopentadiene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Hexachloroethane	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Hexachloropropene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Isodrin	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Isophorone	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Isosafrole	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Kepone	ND		50		ug/L		06/29/23 15:08	06/30/23 20:03	1
Methapyrilene	ND		50		ug/L		06/29/23 15:08	06/30/23 20:03	1
Methyl methanesulfonate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Safrole	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Thionazin	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Naphthalene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Nitrobenzene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
N-Nitro-o-toluidine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
N-Nitrosodiethylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
N-Nitrosodimethylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
N-Nitrosodi-n-propylamine	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
N-Nitrosodiphenylamine	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
N-Nitrosomethylethylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
N-Nitrosopiperidine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
N-Nitrosopyrrolidine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Parathion ethyl	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Parathion methyl	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
p-Dimethylamino azobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Pentachlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Pentachloronitrobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Pentachlorophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Phenacetin	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
Phenanthrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Phenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Phorate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1
p-Phenylene diamine	ND		800		ug/L		06/29/23 15:08	06/30/23 20:03	1
Pyrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:03	1
Pronamide	ND		10		ug/L		06/29/23 15:08	06/30/23 20:03	1

Client Sample ID: PH 4

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-2

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		ug/L		12.74	1746-01-6	06/29/23 15:08	06/30/23 20:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		48 - 120	06/29/23 15:08	06/30/23 20:03	1
2-Fluorophenol (Surr)	53		35 - 120	06/29/23 15:08	06/30/23 20:03	1
2,4,6-Tribromophenol (Surr)	94		41 - 120	06/29/23 15:08	06/30/23 20:03	1
Nitrobenzene-d5 (Surr)	66		46 - 120	06/29/23 15:08	06/30/23 20:03	1
Phenol-d5 (Surr)	41		22 - 120	06/29/23 15:08	06/30/23 20:03	1
p-Terphenyl-d14 (Surr)	52	S1-	60 - 148	06/29/23 15:08	06/30/23 20:03	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
4,4'-DDE	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
4,4'-DDT	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Aldrin	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
alpha-BHC	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
beta-BHC	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Chlordane (technical)	ND		0.50		ug/L		06/28/23 16:04	06/29/23 10:50	1
delta-BHC	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Dieldrin	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Endosulfan I	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Endosulfan II	ND		0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Endosulfan sulfate	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Endrin	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Endrin aldehyde	ND		0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
gamma-BHC (Lindane)	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Heptachlor	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Methoxychlor	**0.089**	***1**	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1
Toxaphene	ND		0.50		ug/L		06/28/23 16:04	06/29/23 10:50	1
Heptachlor epoxide	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 10:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		20 - 120	06/28/23 16:04	06/29/23 10:50	1
DCB Decachlorobiphenyl	71		20 - 120	06/28/23 16:04	06/29/23 10:50	1
Tetrachloro-m-xylene	87		44 - 120	06/28/23 16:04	06/29/23 10:50	1
Tetrachloro-m-xylene	130	S1+	44 - 120	06/28/23 16:04	06/29/23 10:50	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:17	1
PCB-1221	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:17	1
PCB-1232	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:17	1
PCB-1242	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:17	1
PCB-1248	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:17	1
PCB-1254	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:17	1
PCB-1260	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		39 - 121	06/26/23 06:59	06/26/23 15:17	1
Tetrachloro-m-xylene	75		39 - 121	06/26/23 06:59	06/26/23 15:17	1

Client Sample ID: PH 4

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-2

Matrix: Water

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*19 - 120*	*06/26/23 06:59*	*06/26/23 15:17*	*1*
DCB Decachlorobiphenyl	*64*		*19 - 120*	*06/26/23 06:59*	*06/26/23 15:17*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:21	1
2,4-D	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:21	1
Dinoseb	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:21	1
Silvex (2,4,5-TP)	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*30*	*S1-*	*48 - 132*	*06/29/23 09:47*	*06/30/23 16:21*	*1*
2,4-Dichlorophenylacetic acid	*28*	*S1-*	*48 - 132*	*06/29/23 09:47*	*06/30/23 16:21*	*1*

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		100		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,7,8-PeCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,4,7,8-HxCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,6,7,8-HxCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,7,8,9-HxCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,4,6,7,8-HpCDD	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
OCDD	ND		1000		pg/L		06/28/23 15:54	07/18/23 05:43	1
2,3,7,8-TCDF	ND		100		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,7,8-PeCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
2,3,4,7,8-PeCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,4,7,8-HxCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,6,7,8-HxCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
2,3,4,6,7,8-HxCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,7,8,9-HxCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,4,6,7,8-HpCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
1,2,3,4,7,8,9-HpCDF	ND		500		pg/L		06/28/23 15:54	07/18/23 05:43	1
OCDF	ND		1000		pg/L		06/28/23 15:54	07/18/23 05:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*65*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,7,8-PeCDD	*67*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,4,7,8-HxCDD	*78*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,6,7,8-HxCDD	*80*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*82*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-OCDD	*78*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-2,3,7,8-TCDF	*54*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,7,8-PeCDF	*60*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-2,3,4,7,8-PeCDF	*61*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,4,7,8-HxCDF	*84*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,6,7,8-HxCDF	*72*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-2,3,4,6,7,8-HxCDF	*73*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,7,8,9-HxCDF	*76*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*76*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*73*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*

Client Sample ID: PH 4

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-2

Matrix: Water

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-OCDF	*60*		*40 - 135*	*06/28/23 15:54*	*07/18/23 05:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20		mg/L		06/26/23 08:02	07/02/23 02:15	1
Antimony	ND		0.020		mg/L		06/26/23 08:02	07/02/23 02:15	1
Arsenic	ND		0.015		mg/L		06/26/23 08:02	07/02/23 02:15	1
Barium	**0.36**		0.0020		mg/L		06/26/23 08:02	07/02/23 02:15	1
Beryllium	ND		0.0020		mg/L		06/26/23 08:02	07/02/23 02:15	1
Boron	**4.9**	**^+**	0.020		mg/L		06/26/23 08:02	07/02/23 02:15	1
Cadmium	ND		0.0020		mg/L		06/26/23 08:02	07/02/23 02:15	1
Calcium	**342**		0.50		mg/L		06/26/23 08:02	07/02/23 02:15	1
Chromium	**0.011**		0.0040		mg/L		06/26/23 08:02	07/02/23 02:15	1
Cobalt	ND		0.0040		mg/L		06/26/23 08:02	07/02/23 02:15	1
Copper	ND		0.010		mg/L		06/26/23 08:02	07/02/23 02:15	1
Iron	**10.9**		0.050		mg/L		06/26/23 08:02	07/02/23 02:15	1
Lead	ND		0.010		mg/L		06/26/23 08:02	07/02/23 02:15	1
Magnesium	**132**		0.20		mg/L		06/26/23 08:02	07/02/23 02:15	1
Manganese	**8.4**		0.0030		mg/L		06/26/23 08:02	07/02/23 02:15	1
Nickel	**0.033**		0.010		mg/L		06/26/23 08:02	07/02/23 02:15	1
Potassium	**18.2**		0.50		mg/L		06/26/23 08:02	07/02/23 02:15	1
Selenium	ND		0.025		mg/L		06/26/23 08:02	07/02/23 02:15	1
Silver	ND		0.0060		mg/L		06/26/23 08:02	07/02/23 02:15	1
Sodium	**135**		1.0		mg/L		06/26/23 08:02	07/02/23 02:15	1
Thallium	ND		0.020		mg/L		06/26/23 08:02	07/02/23 02:15	1
Tin	ND		0.010		mg/L		06/26/23 08:02	07/02/23 02:15	1
Vanadium	ND		0.0050		mg/L		06/26/23 08:02	07/02/23 02:15	1
Zinc	**0.010**		0.010		mg/L		06/26/23 08:02	07/02/23 02:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		06/26/23 11:40	06/26/23 16:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		2.0		mg/L			06/27/23 04:53	10
Ammonia (EPA 350.1)	**9.2**		0.10		mg/L as N			06/28/23 08:32	5
Total Kjeldahl Nitrogen (EPA 351.2	**12.5**		1.0		mg/L as N		07/12/23 09:00	07/13/23 08:21	5
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		06/23/23 14:28	1
Chemical Oxygen Demand (EPA 410.4)	**64.4**		20.0		mg/L			07/04/23 15:39	2
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			06/27/23 14:11	1
Chromium, hexavalent (SW846 7196A)	ND		0.010		mg/L			06/23/23 10:57	1
Cyanide, Total (SW846 9012B)	**0.010**		0.010		mg/L			06/27/23 13:30	1
Sulfate (SW846 9038)	**133**		110		mg/L			06/29/23 14:15	22
Total Organic Carbon (SW846 9060A)	**54.0**		1.0		mg/L			06/27/23 17:37	1
Chloride (SW846 9251)	**184**		5.0		mg/L			06/26/23 13:31	5
Alkalinity, Total (SM 2320B)	**1380**		5.0		mg/L			06/28/23 15:20	1

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 4

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-2

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1810		20.0		mg/L			06/28/23 13:44	1
Total Dissolved Solids (SM 2540C)	1730	H	20.0		mg/L			07/06/23 15:23	1
Sulfide (SM 4500 S2 F)	ND		0.67		mg/L			06/27/23 11:00	1
Biochemical Oxygen Demand (SM 5210B)	19.9	b	12.0		mg/L			06/23/23 14:01	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity (EPA 180.1)	120		10		NTU			06/23/23 14:15	10
Color (SM 2120B)	10.0		0.0100		Color Units			06/23/23 14:30	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 5

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10		ug/L			06/25/23 08:57	10
1,1,1-Trichloroethane	ND		10		ug/L			06/25/23 08:57	10
1,1,2,2-Tetrachloroethane	ND		10		ug/L			06/25/23 08:57	10
1,1,2-Trichloroethane	ND		10		ug/L			06/25/23 08:57	10
1,1-Dichloroethane	ND		10		ug/L			06/25/23 08:57	10
1,1-Dichloroethene	ND		10		ug/L			06/25/23 08:57	10
1,1-Dichloropropene	ND		10		ug/L			06/25/23 08:57	10
1,2,3-Trichloropropane	ND		10		ug/L			06/25/23 08:57	10
1,2,4-Trichlorobenzene	ND		10		ug/L			06/25/23 08:57	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/25/23 08:57	10
1,2-Dichlorobenzene	ND		10		ug/L			06/25/23 08:57	10
1,2-Dichloroethane	ND		10		ug/L			06/25/23 08:57	10
1,2-Dichloropropane	ND		10		ug/L			06/25/23 08:57	10
1,3-Dichloropropane	ND		10		ug/L			06/25/23 08:57	10
1,4-Dichlorobenzene	ND		10		ug/L			06/25/23 08:57	10
2,2-Dichloropropane	ND		10		ug/L			06/25/23 08:57	10
2-Butanone (MEK)	ND		100		ug/L			06/25/23 08:57	10
2-Hexanone	ND		50		ug/L			06/25/23 08:57	10
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			06/25/23 08:57	10
Acetone	**140**		100		ug/L			06/25/23 08:57	10
Acetonitrile	ND		150		ug/L			06/25/23 08:57	10
Acrolein	ND		200		ug/L			06/25/23 08:57	10
Acrylonitrile	ND		50		ug/L			06/25/23 08:57	10
Allyl chloride	ND		10		ug/L			06/25/23 08:57	10
Benzene	ND		10		ug/L			06/25/23 08:57	10
Chlorobromomethane	ND		10		ug/L			06/25/23 08:57	10
Bromodichloromethane	ND		10		ug/L			06/25/23 08:57	10
Bromoform	ND		10		ug/L			06/25/23 08:57	10
Bromomethane	ND		10		ug/L			06/25/23 08:57	10
Carbon disulfide	ND		10		ug/L			06/25/23 08:57	10
Carbon tetrachloride	ND		10		ug/L			06/25/23 08:57	10
Chlorobenzene	ND		10		ug/L			06/25/23 08:57	10
Chlorodibromomethane	ND		10		ug/L			06/25/23 08:57	10
Chloroethane	ND		10		ug/L			06/25/23 08:57	10
Chloroform	ND		10		ug/L			06/25/23 08:57	10
Chloromethane	ND		10		ug/L			06/25/23 08:57	10
cis-1,2-Dichloroethene	ND		10		ug/L			06/25/23 08:57	10
cis-1,3-Dichloropropene	ND		10		ug/L			06/25/23 08:57	10
Chloroprene	ND		10		ug/L			06/25/23 08:57	10
Dibromomethane	ND		10		ug/L			06/25/23 08:57	10
Dichlorodifluoromethane	ND		10		ug/L			06/25/23 08:57	10
Ethyl methacrylate	ND		10		ug/L			06/25/23 08:57	10
Ethylbenzene	ND		10		ug/L			06/25/23 08:57	10
1,2-Dibromoethane	ND		10		ug/L			06/25/23 08:57	10
Hexachlorobutadiene	ND		20		ug/L			06/25/23 08:57	10
Iodomethane	ND		10		ug/L			06/25/23 08:57	10
Isobutyl alcohol	ND	*+	250		ug/L			06/25/23 08:57	10
Methacrylonitrile	ND		50		ug/L			06/25/23 08:57	10
Methyl methacrylate	ND		10		ug/L			06/25/23 08:57	10

Client Sample ID: PH 5

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**10**		10		ug/L			06/25/23 08:57	10
Naphthalene	ND		10		ug/L			06/25/23 08:57	10
Pentachloroethane	ND		10		ug/L			06/25/23 08:57	10
Propionitrile	ND		100		ug/L			06/25/23 08:57	10
Styrene	ND		10		ug/L			06/25/23 08:57	10
Tetrachloroethene	ND		10		ug/L			06/25/23 08:57	10
Toluene	ND		10		ug/L			06/25/23 08:57	10
trans-1,2-Dichloroethene	ND		10		ug/L			06/25/23 08:57	10
trans-1,3-Dichloropropene	ND		10		ug/L			06/25/23 08:57	10
trans-1,4-Dichloro-2-butene	ND		10		ug/L			06/25/23 08:57	10
Trichloroethene	ND		10		ug/L			06/25/23 08:57	10
Trichlorofluoromethane	ND		10		ug/L			06/25/23 08:57	10
Vinyl acetate	ND		50		ug/L			06/25/23 08:57	10
Vinyl chloride	ND		10		ug/L			06/25/23 08:57	10
Xylenes, Total	ND		20		ug/L			06/25/23 08:57	10
o-Xylene	ND		10		ug/L			06/25/23 08:57	10
m,p-Xylene	ND		20		ug/L			06/25/23 08:57	10
1,2-Dichloroethene, Total	ND		20		ug/L			06/25/23 08:57	10
1,3-Dichlorobenzene	ND		10		ug/L			06/25/23 08:57	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*06/25/23 08:57*	*10*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*		*06/25/23 08:57*	*10*
Toluene-d8 (Surr)	*101*		*80 - 120*		*06/25/23 08:57*	*10*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*06/25/23 08:57*	*10*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**45**	**E**	0.20		ug/L		06/23/23 15:03	06/28/23 01:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*35*		*15 - 110*	*06/23/23 15:03*	*06/28/23 01:18*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
1,2,4-Trichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
1,2-Dichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
1,3,5-Trinitrobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
1,3-Dichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
1,3-Dinitrobenzene	ND		20		ug/L		06/29/23 15:08	06/30/23 20:30	1
1,4-Naphthoquinone	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
1,4-Dichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
1-Naphthylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
2,3,4,6-Tetrachlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2,4,5-Trichlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2,4,6-Trichlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2,4-Dichlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2,4-Dimethylphenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2,4-Dinitrophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
2,4-Dinitrotoluene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1

Client Sample ID: PH 5

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-3

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dichlorophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
2,6-Dinitrotoluene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2-Acetylaminofluorene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
2-Chloronaphthalene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2-Chlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2-Methylnaphthalene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2-Methylphenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2-Naphthylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
2-Nitroaniline	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
2-Nitrophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
2-Toluidine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
3 & 4 Methylphenol	**22**		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
3-Methylphenol	**22**		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
4-Methylphenol	**22**		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
3,3'-Dichlorobenzidine	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
3,3'-Dimethylbenzidine	ND		40		ug/L		06/29/23 15:08	06/30/23 20:30	1
3-Methylcholanthrene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
3-Nitroaniline	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
4-Aminobiphenyl	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
4-Bromophenyl phenyl ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
4-Chloro-3-methylphenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
4-Chloroaniline	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
4-Chlorophenyl phenyl ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
4-Nitroaniline	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
4-Nitrophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Acenaphthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Acenaphthylene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Acetophenone	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Anthracene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Benzo[a]anthracene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Benzo[a]pyrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Benzo[b]fluoranthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Benzo[g,h,i]perylene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Benzo[k]fluoranthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Benzyl alcohol	ND		20		ug/L		06/29/23 15:08	06/30/23 20:30	1
Bis(2-chloroethoxy)methane	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Bis(2-chloroethyl)ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Bis(2-ethylhexyl) phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
bis (2-chloroisopropyl) ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Butyl benzyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Chrysene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Diallate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Dibenz(a,h)anthracene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Dibenzofuran	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Diethyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Dimethoate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Dimethyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1

Client Sample ID: PH 5

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-3

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Di-n-octyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Dinoseb	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Diphenylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Disulfoton	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Ethyl methanesulfonate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Famphur	ND		40		ug/L		06/29/23 15:08	06/30/23 20:30	1
Fluoranthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Fluorene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Hexachlorobenzene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Hexachlorobutadiene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Hexachlorocyclopentadiene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Hexachloroethane	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Hexachloropropene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Isodrin	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Isophorone	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Isosafrole	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Kepone	ND		50		ug/L		06/29/23 15:08	06/30/23 20:30	1
Methapyrilene	ND		50		ug/L		06/29/23 15:08	06/30/23 20:30	1
Methyl methanesulfonate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Safrole	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Thionazin	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Naphthalene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Nitrobenzene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
N-Nitro-o-toluidine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
N-Nitrosodiethylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
N-Nitrosodimethylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
N-Nitrosodi-n-propylamine	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
N-Nitrosodiphenylamine	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
N-Nitrosomethylethylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
N-Nitrosopiperidine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
N-Nitrosopyrrolidine	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Parathion ethyl	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Parathion methyl	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
p-Dimethylamino azobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Pentachlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Pentachloronitrobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Pentachlorophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Phenacetin	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
Phenanthrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Phenol	**5.0**		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Phorate	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1
p-Phenylene diamine	ND		800		ug/L		06/29/23 15:08	06/30/23 20:30	1
Pyrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 20:30	1
Pronamide	ND		10		ug/L		06/29/23 15:08	06/30/23 20:30	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 5

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-3

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		ug/L			1746-01-6	06/29/23 15:08	06/30/23 20:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		48 - 120	06/29/23 15:08	06/30/23 20:30	1
2-Fluorophenol (Surr)	61		35 - 120	06/29/23 15:08	06/30/23 20:30	1
2,4,6-Tribromophenol (Surr)	86		41 - 120	06/29/23 15:08	06/30/23 20:30	1
Nitrobenzene-d5 (Surr)	69		46 - 120	06/29/23 15:08	06/30/23 20:30	1
Phenol-d5 (Surr)	45		22 - 120	06/29/23 15:08	06/30/23 20:30	1
p-Terphenyl-d14 (Surr)	54	S1-	60 - 148	06/29/23 15:08	06/30/23 20:30	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
4,4'-DDE	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
4,4'-DDT	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Aldrin	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
alpha-BHC	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
beta-BHC	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Chlordane (technical)	ND		0.50		ug/L		06/28/23 16:04	06/29/23 11:09	1
delta-BHC	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Dieldrin	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Endosulfan I	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Endosulfan II	ND		0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Endosulfan sulfate	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Endrin	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Endrin aldehyde	ND		0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
gamma-BHC (Lindane)	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Heptachlor	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Methoxychlor	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1
Toxaphene	ND		0.50		ug/L		06/28/23 16:04	06/29/23 11:09	1
Heptachlor epoxide	ND	*1	0.050		ug/L		06/28/23 16:04	06/29/23 11:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	53		20 - 120	06/28/23 16:04	06/29/23 11:09	1
DCB Decachlorobiphenyl	49		20 - 120	06/28/23 16:04	06/29/23 11:09	1
Tetrachloro-m-xylene	119		44 - 120	06/28/23 16:04	06/29/23 11:09	1
Tetrachloro-m-xylene	78		44 - 120	06/28/23 16:04	06/29/23 11:09	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:34	1
PCB-1221	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:34	1
PCB-1232	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:34	1
PCB-1242	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:34	1
PCB-1248	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:34	1
PCB-1254	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:34	1
PCB-1260	ND		0.50		ug/L		06/26/23 06:59	06/26/23 15:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		39 - 121	06/26/23 06:59	06/26/23 15:34	1
Tetrachloro-m-xylene	67		39 - 121	06/26/23 06:59	06/26/23 15:34	1

Client Sample ID: PH 5

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-3

Matrix: Water

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*39*		*19 - 120*	*06/26/23 06:59*	*06/26/23 15:34*	*1*
DCB Decachlorobiphenyl	*40*		*19 - 120*	*06/26/23 06:59*	*06/26/23 15:34*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:39	1
2,4-D	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:39	1
Dinoseb	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:39	1
Silvex (2,4,5-TP)	ND		5.0		ug/L		06/29/23 09:47	06/30/23 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*23*	*S1-*	*48 - 132*	*06/29/23 09:47*	*06/30/23 16:39*	*1*
2,4-Dichlorophenylacetic acid	*26*	*S1-*	*48 - 132*	*06/29/23 09:47*	*06/30/23 16:39*	*1*

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND	H	97		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,7,8-PeCDD	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,4,7,8-HxCDD	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,6,7,8-HxCDD	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,7,8,9-HxCDD	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,4,6,7,8-HpCDD	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
OCDD	ND	H	970		pg/L		08/04/23 10:28	08/14/23 17:28	1
2,3,7,8-TCDF	ND	H	97		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,7,8-PeCDF	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
2,3,4,7,8-PeCDF	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,4,7,8-HxCDF	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,6,7,8-HxCDF	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
2,3,4,6,7,8-HxCDF	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,7,8,9-HxCDF	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,4,6,7,8-HpCDF	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
1,2,3,4,7,8,9-HpCDF	ND	H	480		pg/L		08/04/23 10:28	08/14/23 17:28	1
OCDF	ND	H	970		pg/L		08/04/23 10:28	08/14/23 17:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*55*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,7,8-PeCDD	*55*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,4,7,8-HxCDD	*61*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,6,7,8-HxCDD	*74*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*70*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-OCDD	*74*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-2,3,7,8-TCDF	*50*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,7,8-PeCDF	*56*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-2,3,4,7,8-PeCDF	*56*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,4,7,8-HxCDF	*62*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,6,7,8-HxCDF	*63*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-2,3,4,6,7,8-HxCDF	*64*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,7,8,9-HxCDF	*62*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*69*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*58*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*

Client Sample ID: PH 5

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-3

Matrix: Water

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-OCDF	*61*		*40 - 135*	*08/04/23 10:28*	*08/14/23 17:28*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**4.3**		0.20		mg/L		06/26/23 08:02	07/02/23 02:20	1
Antimony	ND		0.020		mg/L		06/26/23 08:02	07/02/23 02:20	1
Arsenic	ND		0.015		mg/L		06/26/23 08:02	07/02/23 02:20	1
Barium	**0.27**		0.0020		mg/L		06/26/23 08:02	07/02/23 02:20	1
Beryllium	ND		0.0020		mg/L		06/26/23 08:02	07/02/23 02:20	1
Boron	**2.7**	**^+**	0.020		mg/L		06/26/23 08:02	07/02/23 02:20	1
Cadmium	ND		0.0020		mg/L		06/26/23 08:02	07/02/23 02:20	1
Calcium	**387**		0.50		mg/L		06/26/23 08:02	07/02/23 02:20	1
Chromium	**0.0071**		0.0040		mg/L		06/26/23 08:02	07/02/23 02:20	1
Cobalt	**0.0085**		0.0040		mg/L		06/26/23 08:02	07/02/23 02:20	1
Copper	**0.017**		0.010		mg/L		06/26/23 08:02	07/02/23 02:20	1
Iron	**11.7**		0.050		mg/L		06/26/23 08:02	07/02/23 02:20	1
Lead	**0.015**		0.010		mg/L		06/26/23 08:02	07/02/23 02:20	1
Magnesium	**128**		0.20		mg/L		06/26/23 08:02	07/02/23 02:20	1
Manganese	**12.2**		0.0030		mg/L		06/26/23 08:02	07/02/23 02:20	1
Nickel	**0.037**		0.010		mg/L		06/26/23 08:02	07/02/23 02:20	1
Potassium	**9.9**		0.50		mg/L		06/26/23 08:02	07/02/23 02:20	1
Selenium	ND		0.025		mg/L		06/26/23 08:02	07/02/23 02:20	1
Silver	ND		0.0060		mg/L		06/26/23 08:02	07/02/23 02:20	1
Sodium	**151**		1.0		mg/L		06/26/23 08:02	07/02/23 02:20	1
Thallium	ND		0.020		mg/L		06/26/23 08:02	07/02/23 02:20	1
Tin	ND		0.010		mg/L		06/26/23 08:02	07/02/23 02:20	1
Vanadium	**0.0078**		0.0050		mg/L		06/26/23 08:02	07/02/23 02:20	1
Zinc	**0.23**		0.010		mg/L		06/26/23 08:02	07/02/23 02:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		06/26/23 11:40	06/26/23 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		2.0		mg/L			06/27/23 05:13	10
Ammonia (EPA 350.1)	**0.70**		0.020		mg/L as N			06/28/23 08:33	1
Total Kjeldahl Nitrogen (EPA 351.2	**3.8**		0.20		mg/L as N		07/12/23 09:00	07/13/23 07:35	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		06/23/23 14:30	1
Chemical Oxygen Demand (EPA 410.4)	**130**		20.0		mg/L			07/04/23 15:42	2
Phenolics, Total Recoverable (EPA 420.4)	**0.034**		0.010		mg/L			06/27/23 14:21	1
Chromium, hexavalent (SW846 7196A)	ND		0.010		mg/L			06/23/23 10:57	1
Cyanide, Total (SW846 9012B)	**0.011**		0.010		mg/L			06/27/23 13:32	1
Sulfate (SW846 9038)	**368**		320		mg/L			06/29/23 14:17	64
Total Organic Carbon (SW846 9060A)	**49.3**		1.0		mg/L			06/27/23 18:36	1
Chloride (SW846 9251)	**186**		5.0		mg/L			06/26/23 13:31	5
Alkalinity, Total (SM 2320B)	**1170**		5.0		mg/L			06/28/23 16:21	1

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 5

Lab Sample ID: 480-210194-3

Date Collected: 06/22/23 14:45
Matrix: Water
Date Received: 06/23/23 09:30

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	NC		20.0		mg/L			06/28/23 13:44	1
Total Dissolved Solids (SM 2540C)	2360	H	40.0		mg/L			07/12/23 10:42	1
Sulfide (SM 4500 S2 F)	2.8		0.67		mg/L			06/27/23 11:00	1
Biochemical Oxygen Demand (SM 5210B)	31.2	b	12.0		mg/L			06/23/23 14:01	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity (EPA 180.1)	300		10		NTU			06/23/23 14:15	10
Color (SM 2120B)	10.0		0.0100		Color Units			06/23/23 14:30	1

Surrogate Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-210194-1	PH 1 2 3	99	107	100	103
480-210194-2	PH 4	101	114	108	102
480-210194-3	PH 5	100	109	101	101
LCS 480-674328/6	Lab Control Sample	107	101	92	110
MB 480-674328/8	Method Blank	102	103	91	104

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(48-120)	(35-120)	(41-120)	(46-120)	(22-120)	(60-148)
480-210194-1	PH 1 2 3	79	67	93	75	55	52 S1-
480-210194-2	PH 4	76	53	94	66	41	52 S1-
480-210194-3	PH 5	76	61	86	69	45	54 S1-
LCS 480-674957/2-A	Lab Control Sample	77	57	83	75	46	86
LCSD 480-674957/3-A	Lab Control Sample Dup	90	68	91	87	54	92
MB 480-674957/1-A	Method Blank	76	54	52	70	39	88

Surrogate Legend

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

Method: 8081B - Organochlorine Pesticides (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(20-120)	(44-120)	(44-120)
480-210194-1	PH 1 2 3	0 S1-	0 S1-	0 S1-	0 S1-
480-210194-2	PH 4	70	71	87	130 S1+
480-210194-3	PH 5	53	49	119	78
LCS 480-674822/2-A	Lab Control Sample	71	66	96	90
LCSD 480-674822/3-A	Lab Control Sample Dup	52	46	66	64
MB 480-674822/1-A	Method Blank	79	74	93	89

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(39-121)	(39-121)	(19-120)	(19-120)
480-210194-1	PH 1 2 3	52	53	29	31
480-210194-2	PH 4	69	75	59	64
480-210194-3	PH 5	67	67	39	40
LCS 480-674406/2-A	Lab Control Sample	83	80	50	55
MB 480-674406/1-A	Method Blank	112	76	67	66

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1	DCPAA2
Lab Sample ID	Client Sample ID	(48-132)	(48-132)
480-210194-1	PH 1 2 3	22 S1-	17 S1-
480-210194-2	PH 4	30 S1-	28 S1-
480-210194-3	PH 5	23 S1-	26 S1-
LCS 480-674891/2-A	Lab Control Sample	63	59
LCSD 480-674891/3-A	Lab Control Sample Dup	60	54
MB 480-674891/1-A	Method Blank	63	52

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

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

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

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DXE (15-110)
480-210194-1	PH 1 2 3	37
480-210194-2	PH 4	36
480-210194-3	PH 5	35
LCS 480-674292/2-A	Lab Control Sample	35
MB 480-674292/1-A	Method Blank	37

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (40-135)	PeCDD (40-135)	HxCDD (40-135)	HxDD (40-135)	HpCDD (40-135)	OCDD (40-135)	TCDF (40-135)	PeCDF (40-135)
480-210194-1	PH 1 2 3	59	70	77	79	77	66	55	57
480-210194-2	PH 4	65	67	78	80	82	78	54	60
480-210194-3	PH 5	55	55	61	74	70	74	50	56
LCS 140-74889/13-B	Lab Control Sample	68	75	74	76	74	75	62	66
LCS 140-76149/9-A	Lab Control Sample	55	50	61	72	71	66	48	52
MB 140-74889/14-B	Method Blank	72	79	77	83	70	72	67	74
MB 140-76149/10-A	Method Blank	59	54	58	71	67	67	53	56

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PeCF (40-135)	HxCDF (40-135)	HxDF (40-135)	13CHxCF (40-135)	HxCF (40-135)	HpCDF (40-135)	HpCDF2 (40-135)	OCDF (40-135)
480-210194-1	PH 1 2 3	60	77	69	70	61	65	53	22 *5-
480-210194-2	PH 4	61	84	72	73	76	76	73	60
480-210194-3	PH 5	56	62	63	64	62	69	58	61
LCS 140-74889/13-B	Lab Control Sample	66	76	66	66	70	71	67	62
LCS 140-76149/9-A	Lab Control Sample	52	62	62	64	60	69	59	53
MB 140-74889/14-B	Method Blank	74	79	72	72	74	72	67	59
MB 140-76149/10-A	Method Blank	54	64	60	64	60	69	55	53

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
PeCDD = 13C-1,2,3,7,8-PeCDD
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxDD = 13C-1,2,3,6,7,8-HxCDD
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
OCDD = 13C-OCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDF = 13C-1,2,3,7,8-PeCDF
PeCF = 13C-2,3,4,7,8-PeCDF
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDF = 13C-1,2,3,6,7,8-HxCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDF = 13C-OCDF

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

Lab Sample ID: MB 480-674328/8
Matrix: Water
Analysis Batch: 674328

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/25/23 02:21	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/25/23 02:21	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/25/23 02:21	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/25/23 02:21	1
1,1-Dichloroethane	ND		1.0		ug/L			06/25/23 02:21	1
1,1-Dichloroethene	ND		1.0		ug/L			06/25/23 02:21	1
1,1-Dichloropropene	ND		1.0		ug/L			06/25/23 02:21	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/25/23 02:21	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/25/23 02:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			06/25/23 02:21	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/25/23 02:21	1
1,2-Dichloroethane	ND		1.0		ug/L			06/25/23 02:21	1
1,2-Dichloropropane	ND		1.0		ug/L			06/25/23 02:21	1
1,3-Dichloropropane	ND		1.0		ug/L			06/25/23 02:21	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/25/23 02:21	1
2,2-Dichloropropane	ND		1.0		ug/L			06/25/23 02:21	1
2-Butanone (MEK)	ND		10		ug/L			06/25/23 02:21	1
2-Hexanone	ND		5.0		ug/L			06/25/23 02:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			06/25/23 02:21	1
Acetone	ND		10		ug/L			06/25/23 02:21	1
Acetonitrile	ND		15		ug/L			06/25/23 02:21	1
Acrolein	ND		20		ug/L			06/25/23 02:21	1
Acrylonitrile	ND		5.0		ug/L			06/25/23 02:21	1
Allyl chloride	ND		1.0		ug/L			06/25/23 02:21	1
Benzene	ND		1.0		ug/L			06/25/23 02:21	1
Chlorobromomethane	ND		1.0		ug/L			06/25/23 02:21	1
Bromodichloromethane	ND		1.0		ug/L			06/25/23 02:21	1
Bromoform	ND		1.0		ug/L			06/25/23 02:21	1
Bromomethane	ND		1.0		ug/L			06/25/23 02:21	1
Carbon disulfide	ND		1.0		ug/L			06/25/23 02:21	1
Carbon tetrachloride	ND		1.0		ug/L			06/25/23 02:21	1
Chlorobenzene	ND		1.0		ug/L			06/25/23 02:21	1
Chlorodibromomethane	ND		1.0		ug/L			06/25/23 02:21	1
Chloroethane	ND		1.0		ug/L			06/25/23 02:21	1
Chloroform	ND		1.0		ug/L			06/25/23 02:21	1
Chloromethane	ND		1.0		ug/L			06/25/23 02:21	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/25/23 02:21	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/25/23 02:21	1
Chloroprene	ND		1.0		ug/L			06/25/23 02:21	1
Dibromomethane	ND		1.0		ug/L			06/25/23 02:21	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/25/23 02:21	1
Ethyl methacrylate	ND		1.0		ug/L			06/25/23 02:21	1
Ethylbenzene	ND		1.0		ug/L			06/25/23 02:21	1
1,2-Dibromoethane	ND		1.0		ug/L			06/25/23 02:21	1
Hexachlorobutadiene	ND		2.0		ug/L			06/25/23 02:21	1
Iodomethane	ND		1.0		ug/L			06/25/23 02:21	1
Isobutyl alcohol	ND		25		ug/L			06/25/23 02:21	1
Methacrylonitrile	ND		5.0		ug/L			06/25/23 02:21	1

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

Lab Sample ID: MB 480-674328/8
Matrix: Water
Analysis Batch: 674328

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methacrylate	ND		1.0		ug/L			06/25/23 02:21	1
Methylene Chloride	ND		1.0		ug/L			06/25/23 02:21	1
Naphthalene	ND		1.0		ug/L			06/25/23 02:21	1
Pentachloroethane	ND		1.0		ug/L			06/25/23 02:21	1
Propionitrile	ND		10		ug/L			06/25/23 02:21	1
Styrene	ND		1.0		ug/L			06/25/23 02:21	1
Tetrachloroethene	ND		1.0		ug/L			06/25/23 02:21	1
Toluene	ND		1.0		ug/L			06/25/23 02:21	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/25/23 02:21	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/25/23 02:21	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			06/25/23 02:21	1
Trichloroethene	ND		1.0		ug/L			06/25/23 02:21	1
Trichlorofluoromethane	ND		1.0		ug/L			06/25/23 02:21	1
Vinyl acetate	ND		5.0		ug/L			06/25/23 02:21	1
Vinyl chloride	ND		1.0		ug/L			06/25/23 02:21	1
Xylenes, Total	ND		2.0		ug/L			06/25/23 02:21	1
o-Xylene	ND		1.0		ug/L			06/25/23 02:21	1
m,p-Xylene	ND		2.0		ug/L			06/25/23 02:21	1
1,2-Dichloroethene, Total	ND		2.0		ug/L			06/25/23 02:21	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/25/23 02:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*06/25/23 02:21*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*06/25/23 02:21*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*06/25/23 02:21*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*06/25/23 02:21*	*1*

Lab Sample ID: LCS 480-674328/6
Matrix: Water
Analysis Batch: 674328

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	26.7		ug/L		107	80 - 120
1,1,1-Trichloroethane	25.0	30.3		ug/L		121	73 - 126
1,1,2,2-Tetrachloroethane	25.0	27.5		ug/L		110	76 - 120
1,1,2-Trichloroethane	25.0	24.6		ug/L		98	76 - 122
1,1-Dichloroethane	25.0	26.4		ug/L		106	77 - 120
1,1-Dichloroethene	25.0	27.8		ug/L		111	66 - 127
1,1-Dichloropropene	25.0	27.6		ug/L		110	72 - 122
1,2,3-Trichloropropane	25.0	27.5		ug/L		110	68 - 122
1,2,4-Trichlorobenzene	25.0	27.1		ug/L		109	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	28.4		ug/L		113	56 - 134
1,2-Dichlorobenzene	25.0	26.1		ug/L		104	80 - 124
1,2-Dichloroethane	25.0	25.7		ug/L		103	75 - 120
1,2-Dichloropropane	25.0	25.9		ug/L		104	76 - 120
1,3-Dichloropropane	25.0	25.1		ug/L		100	75 - 120
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	80 - 120
2,2-Dichloropropane	25.0	27.4		ug/L		110	63 - 136

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

Lab Sample ID: LCS 480-674328/6
Matrix: Water
Analysis Batch: 674328

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	125	146		ug/L		117	57 - 140
2-Hexanone	125	142		ug/L		114	65 - 127
4-Methyl-2-pentanone (MIBK)	125	112		ug/L		89	71 - 125
Acetone	125	139		ug/L		111	56 - 142
Acrolein	125	121		ug/L		97	52 - 143
Acrylonitrile	250	274		ug/L		110	63 - 125
Allyl chloride	25.0	25.5		ug/L		102	60 - 140
Benzene	25.0	27.3		ug/L		109	71 - 124
Chlorobromomethane	25.0	26.6		ug/L		106	72 - 130
Bromodichloromethane	25.0	27.2		ug/L		109	80 - 122
Bromoform	25.0	25.2		ug/L		101	61 - 132
Bromomethane	25.0	22.8		ug/L		91	55 - 144
Carbon disulfide	25.0	25.0		ug/L		100	59 - 134
Carbon tetrachloride	25.0	31.0		ug/L		124	72 - 134
Chlorobenzene	25.0	25.4		ug/L		101	80 - 120
Chlorodibromomethane	25.0	25.2		ug/L		101	75 - 125
Chloroethane	25.0	21.6		ug/L		86	69 - 136
Chloroform	25.0	26.5		ug/L		106	73 - 127
Chloromethane	25.0	21.0		ug/L		84	68 - 124
cis-1,2-Dichloroethene	25.0	27.0		ug/L		108	74 - 124
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	74 - 124
Dibromomethane	25.0	27.6		ug/L		111	76 - 127
Dichlorodifluoromethane	25.0	21.3		ug/L		85	59 - 135
Ethyl methacrylate	25.0	27.7		ug/L		111	74 - 120
Ethylbenzene	25.0	25.9		ug/L		104	77 - 123
1,2-Dibromoethane	25.0	27.0		ug/L		108	77 - 120
Hexachlorobutadiene	25.0	27.2		ug/L		109	68 - 131
Iodomethane	25.0	25.6		ug/L		103	78 - 123
Isobutyl alcohol	625	1020	*+	ug/L		162	51 - 150
Methylene Chloride	25.0	26.2		ug/L		105	75 - 124
Naphthalene	25.0	28.7		ug/L		115	66 - 125
Styrene	25.0	25.7		ug/L		103	80 - 120
Tetrachloroethene	25.0	27.5		ug/L		110	74 - 122
Toluene	25.0	24.0		ug/L		96	80 - 122
trans-1,2-Dichloroethene	25.0	27.7		ug/L		111	73 - 127
trans-1,3-Dichloropropene	25.0	24.8		ug/L		99	80 - 120
trans-1,4-Dichloro-2-butene	25.0	24.0		ug/L		96	41 - 131
Trichloroethene	25.0	27.8		ug/L		111	74 - 123
Trichlorofluoromethane	25.0	23.9		ug/L		95	62 - 150
Vinyl acetate	50.0	54.0		ug/L		108	50 - 144
Vinyl chloride	25.0	22.0		ug/L		88	65 - 133
o-Xylene	25.0	25.7		ug/L		103	76 - 122
m,p-Xylene	25.0	27.2		ug/L		109	76 - 122
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	77 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*

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

Lab Sample ID: LCS 480-674328/6
Matrix: Water
Analysis Batch: 674328

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	92		80 - 120
Dibromofluoromethane (Surr)	110		75 - 123

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

Lab Sample ID: MB 480-674957/1-A
Matrix: Water
Analysis Batch: 675057

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
1,2,4-Trichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
1,2-Dichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
1,3,5-Trinitrobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
1,3-Dichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
1,3-Dinitrobenzene	ND		20		ug/L		06/29/23 15:08	06/30/23 18:14	1
1,4-Naphthoquinone	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
1,4-Dichlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
1-Naphthylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
2,3,4,6-Tetrachlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2,4,5-Trichlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2,4,6-Trichlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2,4-Dichlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2,4-Dimethylphenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2,4-Dinitrophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
2,4-Dinitrotoluene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2,6-Dichlorophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
2,6-Dinitrotoluene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2-Acetylaminofluorene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
2-Chloronaphthalene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2-Chlorophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2-Methylnaphthalene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2-Methylphenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2-Naphthylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
2-Nitroaniline	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
2-Nitrophenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
2-Toluidine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
3 & 4 Methylphenol	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
3-Methylphenol	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
4-Methylphenol	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
3,3'-Dichlorobenzidine	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
3,3'-Dimethylbenzidine	ND		40		ug/L		06/29/23 15:08	06/30/23 18:14	1
3-Methylcholanthrene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
3-Nitroaniline	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
4-Aminobiphenyl	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
4-Bromophenyl phenyl ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
4-Chloro-3-methylphenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
4-Chloroaniline	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1

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

Lab Sample ID: MB 480-674957/1-A
Matrix: Water
Analysis Batch: 675057

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
4-Nitroaniline	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
4-Nitrophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Acenaphthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Acenaphthylene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Acetophenone	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Anthracene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Benzo[a]anthracene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Benzo[a]pyrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Benzo[b]fluoranthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Benzo[g,h,i]perylene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Benzo[k]fluoranthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Benzyl alcohol	ND		20		ug/L		06/29/23 15:08	06/30/23 18:14	1
Bis(2-chloroethoxy)methane	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Bis(2-chloroethyl)ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Bis(2-ethylhexyl) phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
bis (2-chloroisopropyl) ether	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Butyl benzyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Chrysene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Diallate	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Dibenz(a,h)anthracene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Dibenzofuran	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Diethyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Dimethoate	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Dimethyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Di-n-butyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Di-n-octyl phthalate	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Dinoseb	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Diphenylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Disulfoton	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Ethyl methanesulfonate	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Famphur	ND		40		ug/L		06/29/23 15:08	06/30/23 18:14	1
Fluoranthene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Fluorene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Hexachlorobenzene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Hexachlorobutadiene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Hexachlorocyclopentadiene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Hexachloroethane	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Hexachloropropene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Isodrin	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Isophorone	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Isosafrole	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Kepone	ND		50		ug/L		06/29/23 15:08	06/30/23 18:14	1
Methapyrilene	ND		50		ug/L		06/29/23 15:08	06/30/23 18:14	1
Methyl methanesulfonate	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Safrole	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Thionazin	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1

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

Lab Sample ID: MB 480-674957/1-A
Matrix: Water
Analysis Batch: 675057

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Nitrobenzene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
N-Nitro-o-toluidine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
N-Nitrosodiethylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
N-Nitrosodimethylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
N-Nitrosodi-n-propylamine	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
N-Nitrosodiphenylamine	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
N-Nitrosomethylethylamine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
N-Nitrosopiperidine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
N-Nitrosopyrrolidine	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Parathion ethyl	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Parathion methyl	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
p-Dimethylamino azobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Pentachlorobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Pentachloronitrobenzene	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Pentachlorophenol	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Phenacetin	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
Phenanthrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Phenol	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Phorate	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1
p-Phenylene diamine	ND		800		ug/L		06/29/23 15:08	06/30/23 18:14	1
Pyrene	ND		5.0		ug/L		06/29/23 15:08	06/30/23 18:14	1
Pronamide	ND		10		ug/L		06/29/23 15:08	06/30/23 18:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*48 - 120*	*06/29/23 15:08*	*06/30/23 18:14*	*1*
2-Fluorophenol (Surr)	*54*		*35 - 120*	*06/29/23 15:08*	*06/30/23 18:14*	*1*
2,4,6-Tribromophenol (Surr)	*52*		*41 - 120*	*06/29/23 15:08*	*06/30/23 18:14*	*1*
Nitrobenzene-d5 (Surr)	*70*		*46 - 120*	*06/29/23 15:08*	*06/30/23 18:14*	*1*
Phenol-d5 (Surr)	*39*		*22 - 120*	*06/29/23 15:08*	*06/30/23 18:14*	*1*
p-Terphenyl-d14 (Surr)	*88*		*60 - 148*	*06/29/23 15:08*	*06/30/23 18:14*	*1*

Lab Sample ID: LCS 480-674957/2-A
Matrix: Water
Analysis Batch: 675057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4,5-Tetrachlorobenzene	32.0	23.2		ug/L		72	53 - 120
1,2,4-Trichlorobenzene	32.0	23.8		ug/L		74	40 - 120
1,2-Dichlorobenzene	32.0	23.6		ug/L		74	45 - 120
1,3-Dichlorobenzene	32.0	23.0		ug/L		72	40 - 120
1,3-Dinitrobenzene	32.0	34.0		ug/L		106	68 - 131
1,4-Dichlorobenzene	32.0	23.3		ug/L		73	42 - 120
2,3,4,6-Tetrachlorophenol	32.0	30.2		ug/L		94	63 - 120
2,4,5-Trichlorophenol	32.0	30.5		ug/L		95	65 - 126
2,4,6-Trichlorophenol	32.0	28.5		ug/L		89	64 - 120

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

Lab Sample ID: LCS 480-674957/2-A
Matrix: Water
Analysis Batch: 675057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dichlorophenol	32.0	28.6		ug/L		89	63 - 120
2,4-Dimethylphenol	32.0	23.0		ug/L		72	47 - 120
2,4-Dinitrophenol	64.0	60.3		ug/L		94	31 - 137
2,4-Dinitrotoluene	32.0	32.3		ug/L		101	69 - 120
2,6-Dichlorophenol	32.0	28.8		ug/L		90	62 - 120
2,6-Dinitrotoluene	32.0	30.4		ug/L		95	68 - 120
2-Chloronaphthalene	32.0	26.1		ug/L		82	58 - 120
2-Chlorophenol	32.0	26.8		ug/L		84	48 - 120
2-Methylnaphthalene	32.0	28.5		ug/L		89	59 - 120
2-Methylphenol	32.0	25.0		ug/L		78	39 - 120
2-Nitroaniline	32.0	30.1		ug/L		94	54 - 127
2-Nitrophenol	32.0	30.2		ug/L		95	52 - 125
3-Methylphenol	32.0	24.7		ug/L		77	39 - 120
4-Methylphenol	32.0	24.7		ug/L		77	29 - 131
3,3'-Dichlorobenzidine	64.0	58.1		ug/L		91	49 - 135
3-Nitroaniline	32.0	26.0		ug/L		81	51 - 120
4,6-Dinitro-2-methylphenol	64.0	71.9		ug/L		112	46 - 136
4-Bromophenyl phenyl ether	32.0	29.1		ug/L		91	65 - 120
4-Chloro-3-methylphenol	32.0	29.7		ug/L		93	61 - 123
4-Chloroaniline	32.0	22.2		ug/L		69	30 - 120
4-Chlorophenyl phenyl ether	32.0	27.5		ug/L		86	62 - 120
4-Nitroaniline	32.0	29.5		ug/L		92	65 - 120
4-Nitrophenol	64.0	38.5		ug/L		60	45 - 120
Acenaphthene	32.0	28.6		ug/L		89	60 - 120
Acenaphthylene	32.0	29.5		ug/L		92	63 - 120
Acetophenone	32.0	28.6		ug/L		89	45 - 120
Anthracene	32.0	30.7		ug/L		96	67 - 120
Benzo[a]anthracene	32.0	30.6		ug/L		96	70 - 121
Benzo[a]pyrene	32.0	31.2		ug/L		97	60 - 123
Benzo[b]fluoranthene	32.0	32.4		ug/L		101	66 - 126
Benzo[g,h,i]perylene	32.0	29.1		ug/L		91	66 - 150
Benzo[k]fluoranthene	32.0	33.4		ug/L		104	65 - 124
Benzyl alcohol	32.0	24.6		ug/L		77	41 - 126
Bis(2-chloroethoxy)methane	32.0	28.5		ug/L		89	50 - 128
Bis(2-chloroethyl)ether	32.0	29.6		ug/L		92	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	30.2		ug/L		94	63 - 139
bis (2-chloroisopropyl) ether	32.0	28.7		ug/L		90	21 - 136
Butyl benzyl phthalate	32.0	30.9		ug/L		96	70 - 129
Chrysene	32.0	30.6		ug/L		96	69 - 120
Dibenz(a,h)anthracene	32.0	30.0		ug/L		94	65 - 135
Dibenzofuran	32.0	28.1		ug/L		88	66 - 120
Diethyl phthalate	32.0	31.8		ug/L		99	59 - 127
Dimethyl phthalate	32.0	30.9		ug/L		96	68 - 120
Di-n-butyl phthalate	32.0	31.1		ug/L		97	69 - 131
Di-n-octyl phthalate	32.0	30.1		ug/L		94	63 - 140
Diphenylamine	27.4	25.5		ug/L		93	61 - 120
Fluoranthene	32.0	32.4		ug/L		101	69 - 126
Fluorene	32.0	29.6		ug/L		93	66 - 120
Hexachlorobenzene	32.0	30.1		ug/L		94	61 - 120

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

Lab Sample ID: LCS 480-674957/2-A
Matrix: Water
Analysis Batch: 675057

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobutadiene	32.0	20.3		ug/L		63	35 - 120
Hexachlorocyclopentadiene	32.0	10.6		ug/L		33	31 - 120
Hexachloroethane	32.0	21.3		ug/L		66	33 - 120
Indeno[1,2,3-cd]pyrene	32.0	29.7		ug/L		93	69 - 146
Isophorone	32.0	29.9		ug/L		93	55 - 120
Naphthalene	32.0	25.8		ug/L		81	57 - 120
Nitrobenzene	32.0	27.7		ug/L		87	53 - 123
N-Nitrosodimethylamine	32.0	20.6		ug/L		64	10 - 120
N-Nitrosodi-n-propylamine	32.0	27.9		ug/L		87	32 - 140
N-Nitrosodiphenylamine	32.0	29.8		ug/L		93	61 - 120
Pentachlorophenol	64.0	51.5		ug/L		80	29 - 136
Phenanthrene	32.0	30.2		ug/L		94	68 - 120
Phenol	32.0	16.9		ug/L		53	17 - 120
Pyrene	32.0	31.6		ug/L		99	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*48 - 120*
2-Fluorophenol (Surr)	*57*		*35 - 120*
2,4,6-Tribromophenol (Surr)	*83*		*41 - 120*
Nitrobenzene-d5 (Surr)	*75*		*46 - 120*
Phenol-d5 (Surr)	*46*		*22 - 120*
p-Terphenyl-d14 (Surr)	*86*		*60 - 148*

Lab Sample ID: LCSD 480-674957/3-A
Matrix: Water
Analysis Batch: 675057

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 674957

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4,5-Tetrachlorobenzene	32.0	27.3		ug/L		85	53 - 120	16	30
1,2,4-Trichlorobenzene	32.0	27.5		ug/L		86	40 - 120	14	30
1,2-Dichlorobenzene	32.0	28.2		ug/L		88	45 - 120	17	29
1,3-Dichlorobenzene	32.0	27.8		ug/L		87	40 - 120	19	37
1,3-Dinitrobenzene	32.0	37.8		ug/L		118	68 - 131	11	18
1,4-Dichlorobenzene	32.0	27.7		ug/L		87	42 - 120	17	36
2,3,4,6-Tetrachlorophenol	32.0	34.5		ug/L		108	63 - 120	13	30
2,4,5-Trichlorophenol	32.0	34.6		ug/L		108	65 - 126	12	18
2,4,6-Trichlorophenol	32.0	33.2		ug/L		104	64 - 120	15	19
2,4-Dichlorophenol	32.0	32.7		ug/L		102	63 - 120	13	19
2,4-Dimethylphenol	32.0	25.9		ug/L		81	47 - 120	12	42
2,4-Dinitrophenol	64.0	68.4		ug/L		107	31 - 137	13	22
2,4-Dinitrotoluene	32.0	35.5		ug/L		111	69 - 120	10	20
2,6-Dichlorophenol	32.0	32.6		ug/L		102	62 - 120	12	30
2,6-Dinitrotoluene	32.0	35.3		ug/L		110	68 - 120	15	15
2-Chloronaphthalene	32.0	30.0		ug/L		94	58 - 120	14	21
2-Chlorophenol	32.0	31.7		ug/L		99	48 - 120	17	25
2-Methylnaphthalene	32.0	32.2		ug/L		101	59 - 120	12	21
2-Methylphenol	32.0	29.2		ug/L		91	39 - 120	15	27
2-Nitroaniline	32.0	33.9		ug/L		106	54 - 127	12	15

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

Lab Sample ID: LCSD 480-674957/3-A
Matrix: Water
Analysis Batch: 675057

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 674957

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitrophenol	32.0	35.1		ug/L		110	52 - 125	15	18
3-Methylphenol	32.0	29.4		ug/L		92	39 - 120	17	30
4-Methylphenol	32.0	29.4		ug/L		92	29 - 131	17	24
3,3'-Dichlorobenzidine	64.0	58.4		ug/L		91	49 - 135	1	25
3-Nitroaniline	32.0	26.5		ug/L		83	51 - 120	2	19
4,6-Dinitro-2-methylphenol	64.0	78.1		ug/L		122	46 - 136	8	15
4-Bromophenyl phenyl ether	32.0	32.9		ug/L		103	65 - 120	12	15
4-Chloro-3-methylphenol	32.0	33.4		ug/L		104	61 - 123	12	27
4-Chloroaniline	32.0	22.2		ug/L		69	30 - 120	0	22
4-Chlorophenyl phenyl ether	32.0	31.5		ug/L		99	62 - 120	14	16
4-Nitroaniline	32.0	33.1		ug/L		104	65 - 120	11	24
4-Nitrophenol	64.0	47.4		ug/L		74	45 - 120	21	48
Acenaphthene	32.0	31.6		ug/L		99	60 - 120	10	24
Acenaphthylene	32.0	33.5		ug/L		105	63 - 120	13	18
Acetophenone	32.0	33.4		ug/L		105	45 - 120	16	20
Anthracene	32.0	32.9		ug/L		103	67 - 120	7	15
Benzo[a]anthracene	32.0	33.7		ug/L		105	70 - 121	10	15
Benzo[a]pyrene	32.0	33.3		ug/L		104	60 - 123	7	15
Benzo[b]fluoranthene	32.0	35.6		ug/L		111	66 - 126	9	15
Benzo[g,h,i]perylene	32.0	31.5		ug/L		98	66 - 150	8	15
Benzo[k]fluoranthene	32.0	35.3		ug/L		110	65 - 124	6	22
Benzyl alcohol	32.0	29.6		ug/L		92	41 - 126	18	34
Bis(2-chloroethoxy)methane	32.0	32.8		ug/L		103	50 - 128	14	17
Bis(2-chloroethyl)ether	32.0	36.0		ug/L		112	44 - 120	20	21
Bis(2-ethylhexyl) phthalate	32.0	33.1		ug/L		103	63 - 139	9	15
bis (2-chloroisopropyl) ether	32.0	34.6		ug/L		108	21 - 136	18	24
Butyl benzyl phthalate	32.0	33.5		ug/L		105	70 - 129	8	16
Chrysene	32.0	32.8		ug/L		102	69 - 120	7	15
Dibenz(a,h)anthracene	32.0	32.5		ug/L		101	65 - 135	8	15
Dibenzofuran	32.0	31.8		ug/L		99	66 - 120	12	15
Diethyl phthalate	32.0	35.6		ug/L		111	59 - 127	11	15
Dimethyl phthalate	32.0	34.4		ug/L		107	68 - 120	11	15
Di-n-butyl phthalate	32.0	33.9		ug/L		106	69 - 131	9	15
Di-n-octyl phthalate	32.0	33.1		ug/L		103	63 - 140	10	16
Diphenylamine	27.4	28.2		ug/L		103	61 - 120	10	30
Fluoranthene	32.0	35.1		ug/L		110	69 - 126	8	15
Fluorene	32.0	33.6		ug/L		105	66 - 120	13	15
Hexachlorobenzene	32.0	33.6		ug/L		105	61 - 120	11	15
Hexachlorobutadiene	32.0	23.8		ug/L		74	35 - 120	16	44
Hexachlorocyclopentadiene	32.0	13.3		ug/L		41	31 - 120	23	49
Hexachloroethane	32.0	25.4		ug/L		79	33 - 120	18	46
Indeno[1,2,3-cd]pyrene	32.0	32.7		ug/L		102	69 - 146	10	15
Isophorone	32.0	32.9		ug/L		103	55 - 120	10	17
Naphthalene	32.0	29.5		ug/L		92	57 - 120	13	29
Nitrobenzene	32.0	32.3		ug/L		101	53 - 123	15	24
N-Nitrosodimethylamine	32.0	24.8		ug/L		77	10 - 120	18	30
N-Nitrosodi-n-propylamine	32.0	33.1		ug/L		103	32 - 140	17	31
N-Nitrosodiphenylamine	32.0	33.0		ug/L		103	61 - 120	10	15
Pentachlorophenol	64.0	56.8		ug/L		89	29 - 136	10	37

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

Lab Sample ID: LCSD 480-674957/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675057 — **Prep Batch: 674957**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	32.0	32.6		ug/L		102	68 - 120	8	15
Phenol	32.0	20.5		ug/L		64	17 - 120	19	34
Pyrene	32.0	33.7		ug/L		105	70 - 125	6	19

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*48 - 120*
2-Fluorophenol (Surr)	*68*		*35 - 120*
2,4,6-Tribromophenol (Surr)	*91*		*41 - 120*
Nitrobenzene-d5 (Surr)	*87*		*46 - 120*
Phenol-d5 (Surr)	*54*		*22 - 120*
p-Terphenyl-d14 (Surr)	*92*		*60 - 148*

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

Lab Sample ID: MB 480-674292/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674439 — **Prep Batch: 674292**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		06/23/23 15:03	06/27/23 17:08	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*37*		*15 - 110*	*06/23/23 15:03*	*06/27/23 17:08*	*1*

Lab Sample ID: LCS 480-674292/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674439 — **Prep Batch: 674292**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.26		ug/L		113	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*35*		*15 - 110*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-674822/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674848 — **Prep Batch: 674822**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
4,4'-DDE	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
4,4'-DDT	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Aldrin	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
alpha-BHC	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
beta-BHC	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Chlordane (technical)	ND		0.50		ug/L		06/28/23 16:04	06/29/23 09:32	1
delta-BHC	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-674822/1-A
Matrix: Water
Analysis Batch: 674848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674822

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Endosulfan I	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Endosulfan II	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Endosulfan sulfate	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Endrin	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Endrin aldehyde	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
gamma-BHC (Lindane)	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Heptachlor	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Methoxychlor	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1
Toxaphene	ND		0.50		ug/L		06/28/23 16:04	06/29/23 09:32	1
Heptachlor epoxide	ND		0.050		ug/L		06/28/23 16:04	06/29/23 09:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*79*		*20 - 120*	*06/28/23 16:04*	*06/29/23 09:32*	*1*
DCB Decachlorobiphenyl	*74*		*20 - 120*	*06/28/23 16:04*	*06/29/23 09:32*	*1*
Tetrachloro-m-xylene	*93*		*44 - 120*	*06/28/23 16:04*	*06/29/23 09:32*	*1*
Tetrachloro-m-xylene	*89*		*44 - 120*	*06/28/23 16:04*	*06/29/23 09:32*	*1*

Lab Sample ID: LCS 480-674822/2-A
Matrix: Water
Analysis Batch: 674848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.400	0.450		ug/L		113	64 - 129
4,4'-DDE	0.400	0.405		ug/L		101	50 - 120
4,4'-DDT	0.400	0.413		ug/L		103	59 - 120
Aldrin	0.400	0.385		ug/L		96	40 - 125
alpha-BHC	0.400	0.370		ug/L		93	52 - 125
beta-BHC	0.400	0.402		ug/L		101	51 - 120
delta-BHC	0.400	0.424		ug/L		106	51 - 120
Dieldrin	0.400	0.442		ug/L		110	66 - 128
Endosulfan I	0.400	0.447		ug/L		112	57 - 120
Endosulfan II	0.400	0.449		ug/L		112	66 - 131
Endosulfan sulfate	0.400	0.452		ug/L		113	66 - 136
Endrin	0.400	0.458		ug/L		115	65 - 135
Endrin aldehyde	0.400	0.371		ug/L		93	61 - 134
gamma-BHC (Lindane)	0.400	0.406		ug/L		102	56 - 120
Heptachlor	0.400	0.388		ug/L		97	58 - 120
Methoxychlor	0.400	0.411		ug/L		103	50 - 150
Heptachlor epoxide	0.400	0.451		ug/L		113	65 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*71*		*20 - 120*
DCB Decachlorobiphenyl	*66*		*20 - 120*
Tetrachloro-m-xylene	*96*		*44 - 120*
Tetrachloro-m-xylene	*90*		*44 - 120*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 480-674822/3-A
Matrix: Water
Analysis Batch: 674848

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 674822

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	0.400	0.324	*1	ug/L		81	64 - 129	33	23
4,4'-DDE	0.400	0.279	*1	ug/L		70	50 - 120	37	22
4,4'-DDT	0.400	0.294	*1	ug/L		73	59 - 120	34	24
Aldrin	0.400	0.281	*1	ug/L		70	40 - 125	31	25
alpha-BHC	0.400	0.272	*1	ug/L		68	52 - 125	30	24
beta-BHC	0.400	0.294	*1	ug/L		73	51 - 120	31	24
delta-BHC	0.400	0.311	*1	ug/L		78	51 - 120	31	24
Dieldrin	0.400	0.308	*1	ug/L		77	66 - 128	36	24
Endosulfan I	0.400	0.327	*1	ug/L		82	57 - 120	31	30
Endosulfan II	0.400	0.326		ug/L		82	66 - 131	32	40
Endosulfan sulfate	0.400	0.332	*1	ug/L		83	66 - 136	31	24
Endrin	0.400	0.336	*1	ug/L		84	65 - 135	31	24
Endrin aldehyde	0.400	0.281		ug/L		70	61 - 134	28	28
gamma-BHC (Lindane)	0.400	0.301	*1	ug/L		75	56 - 120	30	24
Heptachlor	0.400	0.283	*1	ug/L		71	58 - 120	31	25
Methoxychlor	0.400	0.301	*1	ug/L		75	50 - 150	31	26
Heptachlor epoxide	0.400	0.330	*1	ug/L		83	65 - 125	31	23

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*52*		*20 - 120*
DCB Decachlorobiphenyl	*46*		*20 - 120*
Tetrachloro-m-xylene	*66*		*44 - 120*
Tetrachloro-m-xylene	*64*		*44 - 120*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-674406/1-A
Matrix: Water
Analysis Batch: 674413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		06/26/23 06:59	06/26/23 11:22	1
PCB-1221	ND		0.50		ug/L		06/26/23 06:59	06/26/23 11:22	1
PCB-1232	ND		0.50		ug/L		06/26/23 06:59	06/26/23 11:22	1
PCB-1242	ND		0.50		ug/L		06/26/23 06:59	06/26/23 11:22	1
PCB-1248	ND		0.50		ug/L		06/26/23 06:59	06/26/23 11:22	1
PCB-1254	ND		0.50		ug/L		06/26/23 06:59	06/26/23 11:22	1
PCB-1260	ND		0.50		ug/L		06/26/23 06:59	06/26/23 11:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*112*		*39 - 121*	*06/26/23 06:59*	*06/26/23 11:22*	*1*
Tetrachloro-m-xylene	*76*		*39 - 121*	*06/26/23 06:59*	*06/26/23 11:22*	*1*
DCB Decachlorobiphenyl	*67*		*19 - 120*	*06/26/23 06:59*	*06/26/23 11:22*	*1*
DCB Decachlorobiphenyl	*66*		*19 - 120*	*06/26/23 06:59*	*06/26/23 11:22*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 480-674406/2-A
Matrix: Water
Analysis Batch: 674413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	4.00	4.12		ug/L		103	62 - 130
PCB-1260	4.00	3.49		ug/L		87	56 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*83*		*39 - 121*
Tetrachloro-m-xylene	*80*		*39 - 121*
DCB Decachlorobiphenyl	*50*		*19 - 120*
DCB Decachlorobiphenyl	*55*		*19 - 120*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-674891/1-A
Matrix: Water
Analysis Batch: 675027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674891

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.50		ug/L		06/29/23 09:47	06/30/23 15:07	1
2,4-D	ND		0.50		ug/L		06/29/23 09:47	06/30/23 15:07	1
Dinoseb	ND		0.50		ug/L		06/29/23 09:47	06/30/23 15:07	1
Silvex (2,4,5-TP)	ND		0.50		ug/L		06/29/23 09:47	06/30/23 15:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*63*		*48 - 132*	*06/29/23 09:47*	*06/30/23 15:07*	*1*
2,4-Dichlorophenylacetic acid	*52*		*48 - 132*	*06/29/23 09:47*	*06/30/23 15:07*	*1*

Lab Sample ID: LCS 480-674891/2-A
Matrix: Water
Analysis Batch: 675027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674891

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-T	2.00	1.13		ug/L		57	41 - 150
2,4-D	2.00	2.05		ug/L		102	36 - 150
Dinoseb	2.00	1.23		ug/L		61	21 - 120
Silvex (2,4,5-TP)	2.00	1.14		ug/L		57	49 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*63*		*48 - 132*
2,4-Dichlorophenylacetic acid	*59*		*48 - 132*

Lab Sample ID: LCSD 480-674891/3-A
Matrix: Water
Analysis Batch: 675027

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 674891

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-T	2.00	1.20		ug/L		60	41 - 150	6	50
2,4-D	2.00	1.93		ug/L		97	36 - 150	6	50
Dinoseb	2.00	1.11		ug/L		55	21 - 120	10	50
Silvex (2,4,5-TP)	2.00	1.22		ug/L		61	49 - 150	6	50

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	60		48 - 132
2,4-Dichlorophenylacetic acid	54		48 - 132

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 140-74889/14-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 75428 — **Prep Batch: 74889**

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,7,8-PeCDD	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,4,7,8-HxCDD	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,6,7,8-HxCDD	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,7,8,9-HxCDD	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,4,6,7,8-HpCDD	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
OCDD	ND		100		pg/L		06/28/23 15:54	07/17/23 14:18	1
2,3,7,8-TCDF	ND		10		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,7,8-PeCDF	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
2,3,4,7,8-PeCDF	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,4,7,8-HxCDF	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,6,7,8-HxCDF	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
2,3,4,6,7,8-HxCDF	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,7,8,9-HxCDF	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,4,6,7,8-HpCDF	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
1,2,3,4,7,8,9-HpCDF	ND		50		pg/L		06/28/23 15:54	07/17/23 14:18	1
OCDF	ND		100		pg/L		06/28/23 15:54	07/17/23 14:18	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	72		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,7,8-PeCDD	79		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,4,7,8-HxCDD	77		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,6,7,8-HxCDD	83		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,4,6,7,8-HpCDD	70		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-OCDD	72		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-2,3,7,8-TCDF	67		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,7,8-PeCDF	74		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-2,3,4,7,8-PeCDF	74		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,4,7,8-HxCDF	79		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,6,7,8-HxCDF	72		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-2,3,4,6,7,8-HxCDF	72		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,7,8,9-HxCDF	74		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,4,6,7,8-HpCDF	72		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-1,2,3,4,7,8,9-HpCDF	67		40 - 135	06/28/23 15:54	07/17/23 14:18	1
13C-OCDF	59		40 - 135	06/28/23 15:54	07/17/23 14:18	1

Lab Sample ID: LCS 140-74889/13-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 75428 — **Prep Batch: 74889**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,3,7,8-TCDD	200	177		pg/L		89	77 - 127

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 140-74889/13-B
Matrix: Water
Analysis Batch: 75428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3,7,8-PeCDD	1000	946		pg/L		95	78 - 128
1,2,3,4,7,8-HxCDD	1000	978		pg/L		98	73 - 123
1,2,3,6,7,8-HxCDD	1000	905		pg/L		90	72 - 127
1,2,3,7,8,9-HxCDD	1000	978		pg/L		98	76 - 126
1,2,3,4,6,7,8-HpCDD	1000	938		pg/L		94	73 - 123
OCDD	2000	1840		pg/L		92	75 - 125
2,3,7,8-TCDF	200	196		pg/L		98	74 - 124
1,2,3,7,8-PeCDF	1000	960		pg/L		96	74 - 124
2,3,4,7,8-PeCDF	1000	990		pg/L		99	74 - 124
1,2,3,4,7,8-HxCDF	1000	900		pg/L		90	75 - 125
1,2,3,6,7,8-HxCDF	1000	994		pg/L		99	75 - 125
2,3,4,6,7,8-HxCDF	1000	993		pg/L		99	76 - 126
1,2,3,7,8,9-HxCDF	1000	968		pg/L		97	76 - 126
1,2,3,4,6,7,8-HpCDF	1000	940		pg/L		94	71 - 121
1,2,3,4,7,8,9-HpCDF	1000	964		pg/L		96	73 - 123
OCDF	2000	1910		pg/L		96	68 - 132

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*68*		*40 - 135*
13C-1,2,3,7,8-PeCDD	*75*		*40 - 135*
13C-1,2,3,4,7,8-HxCDD	*74*		*40 - 135*
13C-1,2,3,6,7,8-HxCDD	*76*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDD	*74*		*40 - 135*
13C-OCDD	*75*		*40 - 135*
13C-2,3,7,8-TCDF	*62*		*40 - 135*
13C-1,2,3,7,8-PeCDF	*66*		*40 - 135*
13C-2,3,4,7,8-PeCDF	*66*		*40 - 135*
13C-1,2,3,4,7,8-HxCDF	*76*		*40 - 135*
13C-1,2,3,6,7,8-HxCDF	*66*		*40 - 135*
13C-2,3,4,6,7,8-HxCDF	*66*		*40 - 135*
13C-1,2,3,7,8,9-HxCDF	*70*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDF	*71*		*40 - 135*
13C-1,2,3,4,7,8,9-HpCDF	*67*		*40 - 135*
13C-OCDF	*62*		*40 - 135*

Lab Sample ID: MB 140-76149/10-A
Matrix: Water
Analysis Batch: 76464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 76149

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,7,8-PeCDD	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,4,7,8-HxCDD	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,6,7,8-HxCDD	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,7,8,9-HxCDD	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,4,6,7,8-HpCDD	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
OCDD	ND		100		pg/L		08/04/23 10:28	08/14/23 15:14	1
2,3,7,8-TCDF	ND		10		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,7,8-PeCDF	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-76149/10-A
Matrix: Water
Analysis Batch: 76464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 76149

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,7,8-PeCDF	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,4,7,8-HxCDF	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,6,7,8-HxCDF	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
2,3,4,6,7,8-HxCDF	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,7,8,9-HxCDF	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,4,6,7,8-HpCDF	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
1,2,3,4,7,8,9-HpCDF	ND		50		pg/L		08/04/23 10:28	08/14/23 15:14	1
OCDF	ND		100		pg/L		08/04/23 10:28	08/14/23 15:14	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*59*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,7,8-PeCDD	*54*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,4,7,8-HxCDD	*58*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,6,7,8-HxCDD	*71*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*67*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-OCDD	*67*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-2,3,7,8-TCDF	*53*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,7,8-PeCDF	*56*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-2,3,4,7,8-PeCDF	*54*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,4,7,8-HxCDF	*64*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,6,7,8-HxCDF	*60*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-2,3,4,6,7,8-HxCDF	*64*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,7,8,9-HxCDF	*60*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*69*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*55*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*
13C-OCDF	*53*		*40 - 135*	*08/04/23 10:28*	*08/14/23 15:14*	*1*

Lab Sample ID: LCS 140-76149/9-A
Matrix: Water
Analysis Batch: 76464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 76149

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,3,7,8-TCDD	200	179		pg/L		90	77 - 127
1,2,3,7,8-PeCDD	1000	965		pg/L		97	78 - 128
1,2,3,4,7,8-HxCDD	1000	934		pg/L		93	73 - 123
1,2,3,6,7,8-HxCDD	1000	858		pg/L		86	72 - 127
1,2,3,7,8,9-HxCDD	1000	1000		pg/L		100	76 - 126
1,2,3,4,6,7,8-HpCDD	1000	927		pg/L		93	73 - 123
OCDD	2000	2090		pg/L		105	75 - 125
2,3,7,8-TCDF	200	171		pg/L		85	74 - 124
1,2,3,7,8-PeCDF	1000	999		pg/L		100	74 - 124
2,3,4,7,8-PeCDF	1000	1050		pg/L		105	74 - 124
1,2,3,4,7,8-HxCDF	1000	814		pg/L		81	75 - 125
1,2,3,6,7,8-HxCDF	1000	862		pg/L		86	75 - 125
2,3,4,6,7,8-HxCDF	1000	904		pg/L		90	76 - 126
1,2,3,7,8,9-HxCDF	1000	878		pg/L		88	76 - 126
1,2,3,4,6,7,8-HpCDF	1000	846		pg/L		85	71 - 121
1,2,3,4,7,8,9-HpCDF	1000	900		pg/L		90	73 - 123
OCDF	2000	1760		pg/L		88	68 - 132

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	55		40 - 135
13C-1,2,3,7,8-PeCDD	50		40 - 135
13C-1,2,3,4,7,8-HxCDD	61		40 - 135
13C-1,2,3,6,7,8-HxCDD	72		40 - 135
13C-1,2,3,4,6,7,8-HpCDD	71		40 - 135
13C-OCDD	66		40 - 135
13C-2,3,7,8-TCDF	48		40 - 135
13C-1,2,3,7,8-PeCDF	52		40 - 135
13C-2,3,4,7,8-PeCDF	52		40 - 135
13C-1,2,3,4,7,8-HxCDF	62		40 - 135
13C-1,2,3,6,7,8-HxCDF	62		40 - 135
13C-2,3,4,6,7,8-HxCDF	64		40 - 135
13C-1,2,3,7,8,9-HxCDF	60		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	69		40 - 135
13C-1,2,3,4,7,8,9-HpCDF	59		40 - 135
13C-OCDF	53		40 - 135

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-674303/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675176 — **Prep Batch: 674303**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20		mg/L		06/26/23 08:02	07/02/23 00:27	1
Antimony	ND		0.020		mg/L		06/26/23 08:02	07/02/23 00:27	1
Arsenic	ND		0.015		mg/L		06/26/23 08:02	07/02/23 00:27	1
Barium	ND		0.0020		mg/L		06/26/23 08:02	07/02/23 00:27	1
Beryllium	ND		0.0020		mg/L		06/26/23 08:02	07/02/23 00:27	1
Boron	ND		0.020		mg/L		06/26/23 08:02	07/02/23 00:27	1
Cadmium	ND		0.0020		mg/L		06/26/23 08:02	07/02/23 00:27	1
Calcium	ND		0.50		mg/L		06/26/23 08:02	07/02/23 00:27	1
Chromium	ND		0.0040		mg/L		06/26/23 08:02	07/02/23 00:27	1
Cobalt	ND		0.0040		mg/L		06/26/23 08:02	07/02/23 00:27	1
Copper	ND		0.010		mg/L		06/26/23 08:02	07/02/23 00:27	1
Iron	ND		0.050		mg/L		06/26/23 08:02	07/02/23 00:27	1
Lead	ND		0.010		mg/L		06/26/23 08:02	07/02/23 00:27	1
Magnesium	ND		0.20		mg/L		06/26/23 08:02	07/02/23 00:27	1
Manganese	ND		0.0030		mg/L		06/26/23 08:02	07/02/23 00:27	1
Nickel	ND		0.010		mg/L		06/26/23 08:02	07/02/23 00:27	1
Potassium	ND		0.50		mg/L		06/26/23 08:02	07/02/23 00:27	1
Selenium	ND		0.025		mg/L		06/26/23 08:02	07/02/23 00:27	1
Silver	ND		0.0060		mg/L		06/26/23 08:02	07/02/23 00:27	1
Sodium	ND		1.0		mg/L		06/26/23 08:02	07/02/23 00:27	1
Thallium	ND		0.020		mg/L		06/26/23 08:02	07/02/23 00:27	1
Tin	ND		0.010		mg/L		06/26/23 08:02	07/02/23 00:27	1
Vanadium	ND		0.0050		mg/L		06/26/23 08:02	07/02/23 00:27	1
Zinc	ND		0.010		mg/L		06/26/23 08:02	07/02/23 00:27	1

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

Lab Sample ID: LCS 480-674303/2-A
Matrix: Water
Analysis Batch: 675176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674303

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10.0	10.61		mg/L		106	80 - 120
Antimony	0.200	0.226		mg/L		113	80 - 120
Arsenic	0.200	0.204		mg/L		102	80 - 120
Barium	0.200	0.215		mg/L		108	80 - 120
Beryllium	0.200	0.224		mg/L		112	80 - 120
Boron	0.201	0.199		mg/L		99	80 - 120
Cadmium	0.200	0.211		mg/L		105	80 - 120
Calcium	10.0	10.55		mg/L		105	80 - 120
Chromium	0.201	0.202		mg/L		101	80 - 120
Cobalt	0.200	0.201		mg/L		101	80 - 120
Copper	0.200	0.205		mg/L		102	80 - 120
Iron	10.0	10.33		mg/L		103	80 - 120
Lead	0.200	0.203		mg/L		101	80 - 120
Magnesium	10.0	10.0		mg/L		100	80 - 120
Manganese	0.200	0.199		mg/L		99	80 - 120
Nickel	0.200	0.199		mg/L		99	80 - 120
Potassium	10.0	10.70		mg/L		107	80 - 120
Selenium	0.200	0.201		mg/L		100	80 - 120
Silver	0.0500	0.0507		mg/L		101	80 - 120
Sodium	10.0	10.62		mg/L		106	80 - 120
Thallium	0.200	0.211		mg/L		105	80 - 120
Tin	0.200	0.194		mg/L		97	80 - 120
Vanadium	0.200	0.211		mg/L		106	80 - 120
Zinc	0.200	0.199		mg/L		100	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-674463/1-A
Matrix: Water
Analysis Batch: 674547

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674463

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		06/26/23 11:40	06/26/23 15:56	1

Lab Sample ID: LCS 480-674463/2-A
Matrix: Water
Analysis Batch: 674547

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674463

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00642		mg/L		96	80 - 120

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 480-674296/5
Matrix: Water
Analysis Batch: 674296

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		1.0		NTU			06/23/23 14:15	1

Method: 180.1 - Turbidity, Nephelometric (Continued)

Lab Sample ID: LCS 480-674296/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674296

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Turbidity	10.4	10		NTU		96	90 - 110

Lab Sample ID: 480-210194-1 DU — **Client Sample ID: PH 1 2 3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674296

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Turbidity	500		450		NTU		0.8	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-674498/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674498

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			06/26/23 23:59	1

Lab Sample ID: LCS 480-674498/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674498

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	5.06		mg/L		101	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-674735/51 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674735

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L as N			06/28/23 07:58	1

Lab Sample ID: MB 480-674735/75 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674735

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L as N			06/28/23 08:24	1

Lab Sample ID: LCS 480-674735/52 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674735

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

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 480-674735/76 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674735

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

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-676066/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676229 — **Prep Batch: 676066**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L as N		07/12/23 09:00	07/13/23 07:16	1

Lab Sample ID: LCS 480-676066/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676229 — **Prep Batch: 676066**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.63		mg/L as N		105	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-675360/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675360

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			07/04/23 16:28	1

Lab Sample ID: MB 480-675360/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675360

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			07/04/23 15:14	1

Lab Sample ID: LCS 480-675360/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675360

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	26.12		mg/L		104	90 - 110

Lab Sample ID: LCS 480-675360/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675360

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	24.15		mg/L		97	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: MB 480-675455/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675455

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			07/05/23 20:28	1

Lab Sample ID: LCS 480-675455/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675455

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	25.10		mg/L		100	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-674673/16 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			06/27/23 13:19	1

Lab Sample ID: LCS 480-674673/17 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674673

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

Lab Sample ID: 480-210194-1 MS — **Client Sample ID: PH 1 2 3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674673

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.022		0.100	0.122		mg/L		100	90 - 110

Lab Sample ID: 480-210194-2 MS — **Client Sample ID: PH 4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674673

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	ND		0.100	0.108		mg/L		101	90 - 110

Lab Sample ID: 480-210194-1 DU — **Client Sample ID: PH 1 2 3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674673

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phenolics, Total Recoverable	0.022		0.0213		mg/L		3	20

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: 480-210194-2 DU — **Client Sample ID: PH 4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674673

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phenolics, Total Recoverable	ND		ND		mg/L		NC	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-674270/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010		mg/L			06/23/23 10:57	1

Lab Sample ID: LCS 480-674270/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.0500	0.0480		mg/L		96	85 - 115

Lab Sample ID: 480-210194-1 MS — **Client Sample ID: PH 1 2 3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674270

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND		0.500	0.443		mg/L		89	85 - 115

Lab Sample ID: 480-210194-1 DU — **Client Sample ID: PH 1 2 3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674270

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	ND		ND		mg/L		NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-674670/49 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L			06/27/23 11:25	1

Lab Sample ID: MB 480-674670/77 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L			06/27/23 12:40	1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: HLCS 480-674670/22 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674670

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.393		mg/L		98	90 - 110

Lab Sample ID: LCS 480-674670/50 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.242		mg/L		97	90 - 110

Lab Sample ID: LCS 480-674670/78 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.237		mg/L		95	90 - 110

Method: 9038 - Sulfate, Turbidimetric

Lab Sample ID: MB 480-674980/81 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674980

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			06/29/23 13:40	1

Lab Sample ID: MB 480-674980/90 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674980

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			06/29/23 14:13	1

Lab Sample ID: LCS 480-674980/89 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674980

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	30.0	29.93		mg/L		100	90 - 110

Lab Sample ID: 480-210194-2 MS — **Client Sample ID: PH 4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674980

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	133		20.0	147.7	4	mg/L		71	60 - 128

Method: 9038 - Sulfate, Turbidimetric (Continued)

Lab Sample ID: 480-210194-2 MSD — **Client Sample ID: PH 4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674980

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	133		20.0	144.4	4	mg/L		54	60 - 128	2	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-674738/52 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674738

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			06/27/23 16:39	1

Lab Sample ID: LCS 480-674738/53 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674738

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	59.39		mg/L		99	90 - 110

Lab Sample ID: 480-210194-2 MS — **Client Sample ID: PH 4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674738

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	54.0		23.3	78.13		mg/L		104	54 - 131

Lab Sample ID: 480-210194-3 DU — **Client Sample ID: PH 5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674738

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	49.3		50.88		mg/L		3	20

Lab Sample ID: MB 480-674853/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			06/28/23 16:07	1

Lab Sample ID: LCS 480-674853/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	54.94		mg/L		92	90 - 110

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Method: 9251 - Chloride

Lab Sample ID: MB 480-674504/100
Matrix: Water
Analysis Batch: 674504

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			06/26/23 13:13	1

Lab Sample ID: MB 480-674504/112
Matrix: Water
Analysis Batch: 674504

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			06/26/23 13:24	1

Lab Sample ID: MB 480-674504/124
Matrix: Water
Analysis Batch: 674504

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			06/26/23 14:40	1

Lab Sample ID: LCS 480-674504/111
Matrix: Water
Analysis Batch: 674504

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	26.48		mg/L		106	90 - 110

Lab Sample ID: LCS 480-674504/123
Matrix: Water
Analysis Batch: 674504

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	26.43		mg/L		106	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 480-674319/3
Matrix: Water
Analysis Batch: 674319

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	ND		0.0100		Color Units			06/23/23 14:30	1

Lab Sample ID: LCS 480-674319/4
Matrix: Water
Analysis Batch: 674319

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Color	30.0	30.00		Color Units		100	90 - 110

Method: SM 2120B - Color, Colorimetric (Continued)

Lab Sample ID: 480-210194-1 DU — **Client Sample ID: PH 1 2 3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674319

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	15.0		15.00		Color Units		0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-674921/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674921

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			06/28/23 15:36	1

Lab Sample ID: MB 480-674921/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674921

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			06/28/23 12:22	1

Lab Sample ID: LCS 480-674921/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	97.92		mg/L		98	90 - 110

Lab Sample ID: LCS 480-674921/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	99.52		mg/L		100	90 - 110

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

Lab Sample ID: MB 480-674791/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674791

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	NC		10.0		mg/L			06/28/23 13:44	1

Lab Sample ID: LCS 480-674791/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674791

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	524	NC		mg/L		NaN	85 - 115

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

Lab Sample ID: 480-210194-1 DU — **Client Sample ID: PH 1 2 3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674791

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	NC		NC		mg/L		NC	10

Lab Sample ID: MB 480-675508/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675508

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			07/06/23 15:23	1

Lab Sample ID: LCS 480-675508/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 675508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	524	504.0		mg/L		96	85 - 115

Lab Sample ID: MB 480-676046/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676046

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			07/12/23 10:42	1

Lab Sample ID: LCS 480-676046/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676046

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	525	488.0		mg/L		93	85 - 115

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-674765/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674765

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.67		mg/L			06/27/23 11:00	1

Lab Sample ID: LCS 480-674765/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 674765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	5.80	5.60		mg/L		97	90 - 110

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-674302/1
Matrix: Water
Analysis Batch: 674302

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			06/23/23 14:01	1

Lab Sample ID: LCS 480-674302/2
Matrix: Water
Analysis Batch: 674302

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	192.5		mg/L		97	85 - 115

Lab Sample ID: USB 480-674829/1
Matrix: Water
Analysis Batch: 674829

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			06/28/23 15:24	1

Lab Sample ID: LCS 480-674829/2
Matrix: Water
Analysis Batch: 674829

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	197	206.3		mg/L		105	85 - 115

Lab Sample ID: 480-210194-1 DU
Matrix: Water
Analysis Batch: 674829

Client Sample ID: PH 1 2 3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	65.7	H b	53.70		mg/L		20	20

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

GC/MS VOA

Analysis Batch: 674328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	8260C	
480-210194-2	PH 4	Total/NA	Water	8260C	
480-210194-3	PH 5	Total/NA	Water	8260C	
MB 480-674328/8	Method Blank	Total/NA	Water	8260C	
LCS 480-674328/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 674292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	3510C	
480-210194-2	PH 4	Total/NA	Water	3510C	
480-210194-3	PH 5	Total/NA	Water	3510C	
MB 480-674292/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-674292/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 674439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	8270D SIM ID	674292
480-210194-2	PH 4	Total/NA	Water	8270D SIM ID	674292
480-210194-3	PH 5	Total/NA	Water	8270D SIM ID	674292
MB 480-674292/1-A	Method Blank	Total/NA	Water	8270D SIM ID	674292
LCS 480-674292/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	674292

Prep Batch: 674957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	3510C	
480-210194-2	PH 4	Total/NA	Water	3510C	
480-210194-3	PH 5	Total/NA	Water	3510C	
MB 480-674957/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-674957/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-674957/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 675057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	8270D	674957
480-210194-2	PH 4	Total/NA	Water	8270D	674957
480-210194-3	PH 5	Total/NA	Water	8270D	674957
MB 480-674957/1-A	Method Blank	Total/NA	Water	8270D	674957
LCS 480-674957/2-A	Lab Control Sample	Total/NA	Water	8270D	674957
LCSD 480-674957/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	674957

GC Semi VOA

Prep Batch: 674406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	3510C	
480-210194-2	PH 4	Total/NA	Water	3510C	
480-210194-3	PH 5	Total/NA	Water	3510C	
MB 480-674406/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-674406/2-A	Lab Control Sample	Total/NA	Water	3510C	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

GC Semi VOA

Analysis Batch: 674413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	8082A	674406
480-210194-2	PH 4	Total/NA	Water	8082A	674406
480-210194-3	PH 5	Total/NA	Water	8082A	674406
MB 480-674406/1-A	Method Blank	Total/NA	Water	8082A	674406
LCS 480-674406/2-A	Lab Control Sample	Total/NA	Water	8082A	674406

Prep Batch: 674822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	3510C	
480-210194-2	PH 4	Total/NA	Water	3510C	
480-210194-3	PH 5	Total/NA	Water	3510C	
MB 480-674822/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-674822/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-674822/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 674848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	8081B	674822
480-210194-2	PH 4	Total/NA	Water	8081B	674822
480-210194-3	PH 5	Total/NA	Water	8081B	674822
MB 480-674822/1-A	Method Blank	Total/NA	Water	8081B	674822
LCS 480-674822/2-A	Lab Control Sample	Total/NA	Water	8081B	674822
LCSD 480-674822/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	674822

Prep Batch: 674891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	8151A	
480-210194-2	PH 4	Total/NA	Water	8151A	
480-210194-3	PH 5	Total/NA	Water	8151A	
MB 480-674891/1-A	Method Blank	Total/NA	Water	8151A	
LCS 480-674891/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 480-674891/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 675027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	8151A	674891
480-210194-2	PH 4	Total/NA	Water	8151A	674891
480-210194-3	PH 5	Total/NA	Water	8151A	674891
MB 480-674891/1-A	Method Blank	Total/NA	Water	8151A	674891
LCS 480-674891/2-A	Lab Control Sample	Total/NA	Water	8151A	674891
LCSD 480-674891/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	674891

Specialty Organics

Prep Batch: 74889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	8290	
480-210194-2	PH 4	Total/NA	Water	8290	
MB 140-74889/14-B	Method Blank	Total/NA	Water	8290	
LCS 140-74889/13-B	Lab Control Sample	Total/NA	Water	8290	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Specialty Organics

Analysis Batch: 75428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 140-74889/14-B	Method Blank	Total/NA	Water	8290A	74889
LCS 140-74889/13-B	Lab Control Sample	Total/NA	Water	8290A	74889

Analysis Batch: 75441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	8290A	74889
480-210194-2	PH 4	Total/NA	Water	8290A	74889

Prep Batch: 76149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-3	PH 5	Total/NA	Water	8290	
MB 140-76149/10-A	Method Blank	Total/NA	Water	8290	
LCS 140-76149/9-A	Lab Control Sample	Total/NA	Water	8290	

Analysis Batch: 76464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-3	PH 5	Total/NA	Water	8290A	76149
MB 140-76149/10-A	Method Blank	Total/NA	Water	8290A	76149
LCS 140-76149/9-A	Lab Control Sample	Total/NA	Water	8290A	76149

Metals

Prep Batch: 674303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	3005A	
480-210194-2	PH 4	Total/NA	Water	3005A	
480-210194-3	PH 5	Total/NA	Water	3005A	
MB 480-674303/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-674303/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 674463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	7470A	
480-210194-2	PH 4	Total/NA	Water	7470A	
480-210194-3	PH 5	Total/NA	Water	7470A	
MB 480-674463/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-674463/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 674547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	7470A	674463
480-210194-2	PH 4	Total/NA	Water	7470A	674463
480-210194-3	PH 5	Total/NA	Water	7470A	674463
MB 480-674463/1-A	Method Blank	Total/NA	Water	7470A	674463
LCS 480-674463/2-A	Lab Control Sample	Total/NA	Water	7470A	674463

Analysis Batch: 675176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	6010C	674303
480-210194-2	PH 4	Total/NA	Water	6010C	674303
480-210194-3	PH 5	Total/NA	Water	6010C	674303

Metals (Continued)

Analysis Batch: 675176 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-674303/1-A	Method Blank	Total/NA	Water	6010C	674303
LCS 480-674303/2-A	Lab Control Sample	Total/NA	Water	6010C	674303

General Chemistry

Analysis Batch: 674270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	7196A	
480-210194-2	PH 4	Total/NA	Water	7196A	
480-210194-3	PH 5	Total/NA	Water	7196A	
MB 480-674270/3	Method Blank	Total/NA	Water	7196A	
LCS 480-674270/4	Lab Control Sample	Total/NA	Water	7196A	
480-210194-1 MS	PH 1 2 3	Total/NA	Water	7196A	
480-210194-1 DU	PH 1 2 3	Total/NA	Water	7196A	

Analysis Batch: 674296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	180.1	
480-210194-2	PH 4	Total/NA	Water	180.1	
480-210194-3	PH 5	Total/NA	Water	180.1	
MB 480-674296/5	Method Blank	Total/NA	Water	180.1	
LCS 480-674296/4	Lab Control Sample	Total/NA	Water	180.1	
480-210194-1 DU	PH 1 2 3	Total/NA	Water	180.1	

Analysis Batch: 674302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	SM 5210B	
480-210194-2	PH 4	Total/NA	Water	SM 5210B	
480-210194-3	PH 5	Total/NA	Water	SM 5210B	
USB 480-674302/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-674302/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 674312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	353.2	
480-210194-2	PH 4	Total/NA	Water	353.2	
480-210194-3	PH 5	Total/NA	Water	353.2	

Analysis Batch: 674319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	SM 2120B	
480-210194-2	PH 4	Total/NA	Water	SM 2120B	
480-210194-3	PH 5	Total/NA	Water	SM 2120B	
MB 480-674319/3	Method Blank	Total/NA	Water	SM 2120B	
LCS 480-674319/4	Lab Control Sample	Total/NA	Water	SM 2120B	
480-210194-1 DU	PH 1 2 3	Total/NA	Water	SM 2120B	

Analysis Batch: 674498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	300.0	
480-210194-2	PH 4	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 674498 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-3	PH 5	Total/NA	Water	300.0	
MB 480-674498/28	Method Blank	Total/NA	Water	300.0	
LCS 480-674498/29	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 674504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	9251	
480-210194-2	PH 4	Total/NA	Water	9251	
480-210194-3	PH 5	Total/NA	Water	9251	
MB 480-674504/100	Method Blank	Total/NA	Water	9251	
MB 480-674504/112	Method Blank	Total/NA	Water	9251	
MB 480-674504/124	Method Blank	Total/NA	Water	9251	
LCS 480-674504/111	Lab Control Sample	Total/NA	Water	9251	
LCS 480-674504/123	Lab Control Sample	Total/NA	Water	9251	

Analysis Batch: 674670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	9012B	
480-210194-2	PH 4	Total/NA	Water	9012B	
480-210194-3	PH 5	Total/NA	Water	9012B	
MB 480-674670/49	Method Blank	Total/NA	Water	9012B	
MB 480-674670/77	Method Blank	Total/NA	Water	9012B	
HLCS 480-674670/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-674670/50	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-674670/78	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 674673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	420.4	
480-210194-2	PH 4	Total/NA	Water	420.4	
480-210194-3	PH 5	Total/NA	Water	420.4	
MB 480-674673/16	Method Blank	Total/NA	Water	420.4	
LCS 480-674673/17	Lab Control Sample	Total/NA	Water	420.4	
480-210194-1 MS	PH 1 2 3	Total/NA	Water	420.4	
480-210194-2 MS	PH 4	Total/NA	Water	420.4	
480-210194-1 DU	PH 1 2 3	Total/NA	Water	420.4	
480-210194-2 DU	PH 4	Total/NA	Water	420.4	

Analysis Batch: 674735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	350.1	
480-210194-2	PH 4	Total/NA	Water	350.1	
480-210194-3	PH 5	Total/NA	Water	350.1	
MB 480-674735/51	Method Blank	Total/NA	Water	350.1	
MB 480-674735/75	Method Blank	Total/NA	Water	350.1	
LCS 480-674735/52	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-674735/76	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 674738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-2	PH 4	Total/NA	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 674738 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-3	PH 5	Total/NA	Water	9060A	
MB 480-674738/52	Method Blank	Total/NA	Water	9060A	
LCS 480-674738/53	Lab Control Sample	Total/NA	Water	9060A	
480-210194-2 MS	PH 4	Total/NA	Water	9060A	
480-210194-3 DU	PH 5	Total/NA	Water	9060A	

Analysis Batch: 674765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	SM 4500 S2 F	
480-210194-2	PH 4	Total/NA	Water	SM 4500 S2 F	
480-210194-3	PH 5	Total/NA	Water	SM 4500 S2 F	
MB 480-674765/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-674765/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	

Analysis Batch: 674791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	SM 2540C	
480-210194-2	PH 4	Total/NA	Water	SM 2540C	
480-210194-3	PH 5	Total/NA	Water	SM 2540C	
MB 480-674791/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-674791/2	Lab Control Sample	Total/NA	Water	SM 2540C	
480-210194-1 DU	PH 1 2 3	Total/NA	Water	SM 2540C	

Analysis Batch: 674829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	SM 5210B	
USB 480-674829/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-674829/2	Lab Control Sample	Total/NA	Water	SM 5210B	
480-210194-1 DU	PH 1 2 3	Total/NA	Water	SM 5210B	

Analysis Batch: 674853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	9060A	
MB 480-674853/4	Method Blank	Total/NA	Water	9060A	
LCS 480-674853/5	Lab Control Sample	Total/NA	Water	9060A	

Analysis Batch: 674921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	SM 2320B	
480-210194-2	PH 4	Total/NA	Water	SM 2320B	
480-210194-3	PH 5	Total/NA	Water	SM 2320B	
MB 480-674921/28	Method Blank	Total/NA	Water	SM 2320B	
MB 480-674921/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-674921/29	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 480-674921/5	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 674980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	9038	
480-210194-2	PH 4	Total/NA	Water	9038	
480-210194-3	PH 5	Total/NA	Water	9038	

General Chemistry (Continued)

Analysis Batch: 674980 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-674980/81	Method Blank	Total/NA	Water	9038	
MB 480-674980/90	Method Blank	Total/NA	Water	9038	
LCS 480-674980/89	Lab Control Sample	Total/NA	Water	9038	
480-210194-2 MS	PH 4	Total/NA	Water	9038	
480-210194-2 MSD	PH 4	Total/NA	Water	9038	

Analysis Batch: 675360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-2	PH 4	Total/NA	Water	410.4	
480-210194-3	PH 5	Total/NA	Water	410.4	
MB 480-675360/28	Method Blank	Total/NA	Water	410.4	
MB 480-675360/4	Method Blank	Total/NA	Water	410.4	
LCS 480-675360/29	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-675360/5	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 675455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	410.4	
MB 480-675455/4	Method Blank	Total/NA	Water	410.4	
LCS 480-675455/5	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 675508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	SM 2540C	
480-210194-2	PH 4	Total/NA	Water	SM 2540C	
MB 480-675508/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-675508/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 676046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-3	PH 5	Total/NA	Water	SM 2540C	
MB 480-676046/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-676046/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Prep Batch: 676066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	351.2	
480-210194-2	PH 4	Total/NA	Water	351.2	
480-210194-3	PH 5	Total/NA	Water	351.2	
MB 480-676066/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-676066/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 676229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210194-1	PH 1 2 3	Total/NA	Water	351.2	676066
480-210194-2	PH 4	Total/NA	Water	351.2	676066
480-210194-3	PH 5	Total/NA	Water	351.2	676066
MB 480-676066/1-A	Method Blank	Total/NA	Water	351.2	676066
LCS 480-676066/2-A	Lab Control Sample	Total/NA	Water	351.2	676066

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 1 2 3

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	674328	ATG	EET BUF	06/25/23 08:10
Total/NA	Prep	3510C			674957	LSC	EET BUF	06/29/23 15:08
Total/NA	Analysis	8270D		1	675057	JMM	EET BUF	06/30/23 19:36
Total/NA	Prep	3510C			674292	LSC	EET BUF	06/23/23 15:03
Total/NA	Analysis	8270D SIM ID		10	674439	EMD	EET BUF	06/28/23 00:36
Total/NA	Prep	3510C			674822	SJM	EET BUF	06/28/23 16:04
Total/NA	Analysis	8081B		20	674848	JLS	EET BUF	06/29/23 12:08
Total/NA	Prep	3510C			674406	SMP	EET BUF	06/26/23 06:59
Total/NA	Analysis	8082A		1	674413	NC	EET BUF	06/26/23 15:01
Total/NA	Prep	8151A			674891	JMP	EET BUF	06/29/23 09:47
Total/NA	Analysis	8151A		1	675027	MAN	EET BUF	06/30/23 16:02
Total/NA	Prep	8290			74889	DAC	EET KNX	06/28/23 15:54
Total/NA	Analysis	8290A		1	75441	LKM	EET KNX	07/18/23 04:43
Total/NA	Prep	3005A			674303	VAK	EET BUF	06/26/23 08:02
Total/NA	Analysis	6010C		1	675176	BMB	EET BUF	07/02/23 01:59
Total/NA	Prep	7470A			674463	NVK	EET BUF	06/26/23 11:40
Total/NA	Analysis	7470A		1	674547	NVK	EET BUF	06/26/23 16:18
Total/NA	Analysis	180.1		20	674296	CG	EET BUF	06/23/23 14:15
Total/NA	Analysis	300.0		10	674498	RJS	EET BUF	06/27/23 04:34
Total/NA	Analysis	350.1		50	674735	CLT	EET BUF	06/28/23 08:31
Total/NA	Prep	351.2			676066	GW	EET BUF	07/12/23 09:00
Total/NA	Analysis	351.2		1	676229	CLT	EET BUF	07/13/23 07:26
Total/NA	Analysis	353.2		1	674312	KB	EET BUF	06/23/23 14:24
Total/NA	Analysis	410.4		5	675455	EAG	EET BUF	07/05/23 20:55
Total/NA	Analysis	420.4		1	674673	GW	EET BUF	06/27/23 13:26
Total/NA	Analysis	7196A		10	674270	GW	EET BUF	06/23/23 10:57
Total/NA	Analysis	9012B		1	674670	CLT	EET BUF	06/27/23 13:27
Total/NA	Analysis	9038		52	674980	CG	EET BUF	06/29/23 14:14
Total/NA	Analysis	9060A		4	674853	AF	EET BUF	06/28/23 23:48
Total/NA	Analysis	9251		34	674504	CG	EET BUF	06/26/23 14:41
Total/NA	Analysis	SM 2120B		1	674319	SAK	EET BUF	06/23/23 14:30
Total/NA	Analysis	SM 2320B		1	674921	KB	EET BUF	06/28/23 15:05
Total/NA	Analysis	SM 2540C		1	674791	SAK	EET BUF	06/28/23 13:44
Total/NA	Analysis	SM 2540C		1	675508	SAK	EET BUF	07/06/23 15:23
Total/NA	Analysis	SM 4500 S2 F		1	674765	AM	EET BUF	06/27/23 11:00
Total/NA	Analysis	SM 5210B		1	674829	CG	EET BUF	06/28/23 15:24
Total/NA	Analysis	SM 5210B		1	674302	CG	EET BUF	06/23/23 14:01

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 4

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	674328	ATG	EET BUF	06/25/23 08:33
Total/NA	Prep	3510C			674957	LSC	EET BUF	06/29/23 15:08
Total/NA	Analysis	8270D		1	675057	JMM	EET BUF	06/30/23 20:03
Total/NA	Prep	3510C			674292	LSC	EET BUF	06/23/23 15:03
Total/NA	Analysis	8270D SIM ID		1	674439	EMD	EET BUF	06/28/23 00:57
Total/NA	Prep	3510C			674822	SJM	EET BUF	06/28/23 16:04
Total/NA	Analysis	8081B		1	674848	JLS	EET BUF	06/29/23 10:50
Total/NA	Prep	3510C			674406	SMP	EET BUF	06/26/23 06:59
Total/NA	Analysis	8082A		1	674413	NC	EET BUF	06/26/23 15:17
Total/NA	Prep	8151A			674891	JMP	EET BUF	06/29/23 09:47
Total/NA	Analysis	8151A		1	675027	MAN	EET BUF	06/30/23 16:21
Total/NA	Prep	8290			74889	DAC	EET KNX	06/28/23 15:54
Total/NA	Analysis	8290A		1	75441	LKM	EET KNX	07/18/23 05:43
Total/NA	Prep	3005A			674303	VAK	EET BUF	06/26/23 08:02
Total/NA	Analysis	6010C		1	675176	BMB	EET BUF	07/02/23 02:15
Total/NA	Prep	7470A			674463	NVK	EET BUF	06/26/23 11:40
Total/NA	Analysis	7470A		1	674547	NVK	EET BUF	06/26/23 16:22
Total/NA	Analysis	180.1		10	674296	CG	EET BUF	06/23/23 14:15
Total/NA	Analysis	300.0		10	674498	RJS	EET BUF	06/27/23 04:53
Total/NA	Analysis	350.1		5	674735	CLT	EET BUF	06/28/23 08:32
Total/NA	Prep	351.2			676066	GW	EET BUF	07/12/23 09:00
Total/NA	Analysis	351.2		5	676229	CLT	EET BUF	07/13/23 08:21
Total/NA	Analysis	353.2		1	674312	KB	EET BUF	06/23/23 14:28
Total/NA	Analysis	410.4		2	675360	EAG	EET BUF	07/04/23 15:39
Total/NA	Analysis	420.4		1	674673	GW	EET BUF	06/27/23 14:11
Total/NA	Analysis	7196A		1	674270	GW	EET BUF	06/23/23 10:57
Total/NA	Analysis	9012B		1	674670	CLT	EET BUF	06/27/23 13:30
Total/NA	Analysis	9038		22	674980	CG	EET BUF	06/29/23 14:15
Total/NA	Analysis	9060A		1	674738	AF	EET BUF	06/27/23 17:37
Total/NA	Analysis	9251		5	674504	CG	EET BUF	06/26/23 13:31
Total/NA	Analysis	SM 2120B		1	674319	SAK	EET BUF	06/23/23 14:30
Total/NA	Analysis	SM 2320B		1	674921	KB	EET BUF	06/28/23 15:20
Total/NA	Analysis	SM 2540C		1	674791	SAK	EET BUF	06/28/23 13:44
Total/NA	Analysis	SM 2540C		1	675508	SAK	EET BUF	07/06/23 15:23
Total/NA	Analysis	SM 4500 S2 F		1	674765	AM	EET BUF	06/27/23 11:00
Total/NA	Analysis	SM 5210B		1	674302	CG	EET BUF	06/23/23 14:01

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Client Sample ID: PH 5

Date Collected: 06/22/23 14:45
Date Received: 06/23/23 09:30

Lab Sample ID: 480-210194-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	674328	ATG	EET BUF	06/25/23 08:57
Total/NA	Prep	3510C			674957	LSC	EET BUF	06/29/23 15:08
Total/NA	Analysis	8270D		1	675057	JMM	EET BUF	06/30/23 20:30
Total/NA	Prep	3510C			674292	LSC	EET BUF	06/23/23 15:03
Total/NA	Analysis	8270D SIM ID		1	674439	EMD	EET BUF	06/28/23 01:18
Total/NA	Prep	3510C			674822	SJM	EET BUF	06/28/23 16:04
Total/NA	Analysis	8081B		1	674848	JLS	EET BUF	06/29/23 11:09
Total/NA	Prep	3510C			674406	SMP	EET BUF	06/26/23 06:59
Total/NA	Analysis	8082A		1	674413	NC	EET BUF	06/26/23 15:34
Total/NA	Prep	8151A			674891	JMP	EET BUF	06/29/23 09:47
Total/NA	Analysis	8151A		1	675027	MAN	EET BUF	06/30/23 16:39
Total/NA	Prep	8290			76149	DAC	EET KNX	08/04/23 10:28
Total/NA	Analysis	8290A		1	76464	MSD	EET KNX	08/14/23 17:28
Total/NA	Prep	3005A			674303	VAK	EET BUF	06/26/23 08:02
Total/NA	Analysis	6010C		1	675176	BMB	EET BUF	07/02/23 02:20
Total/NA	Prep	7470A			674463	NVK	EET BUF	06/26/23 11:40
Total/NA	Analysis	7470A		1	674547	NVK	EET BUF	06/26/23 16:24
Total/NA	Analysis	180.1		10	674296	CG	EET BUF	06/23/23 14:15
Total/NA	Analysis	300.0		10	674498	RJS	EET BUF	06/27/23 05:13
Total/NA	Analysis	350.1		1	674735	CLT	EET BUF	06/28/23 08:33
Total/NA	Prep	351.2			676066	GW	EET BUF	07/12/23 09:00
Total/NA	Analysis	351.2		1	676229	CLT	EET BUF	07/13/23 07:35
Total/NA	Analysis	353.2		1	674312	KB	EET BUF	06/23/23 14:30
Total/NA	Analysis	410.4		2	675360	EAG	EET BUF	07/04/23 15:42
Total/NA	Analysis	420.4		1	674673	GW	EET BUF	06/27/23 14:21
Total/NA	Analysis	7196A		1	674270	GW	EET BUF	06/23/23 10:57
Total/NA	Analysis	9012B		1	674670	CLT	EET BUF	06/27/23 13:32
Total/NA	Analysis	9038		64	674980	CG	EET BUF	06/29/23 14:17
Total/NA	Analysis	9060A		1	674738	AF	EET BUF	06/27/23 18:36
Total/NA	Analysis	9251		5	674504	CG	EET BUF	06/26/23 13:31
Total/NA	Analysis	SM 2120B		1	674319	SAK	EET BUF	06/23/23 14:30
Total/NA	Analysis	SM 2320B		1	674921	KB	EET BUF	06/28/23 16:21
Total/NA	Analysis	SM 2540C		1	674791	SAK	EET BUF	06/28/23 13:44
Total/NA	Analysis	SM 2540C		1	676046	SAK	EET BUF	07/12/23 10:42
Total/NA	Analysis	SM 4500 S2 F		1	674765	AM	EET BUF	06/27/23 11:00
Total/NA	Analysis	SM 5210B		1	674302	CG	EET BUF	06/23/23 14:01

Laboratory References:

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

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2-Dichloroethene, Total
8260C		Water	Pentachloroethane
8270D	3510C	Water	3 & 4 Methylphenol
8270D	3510C	Water	Dinoseb
9038		Water	Sulfate
9251		Water	Chloride

Laboratory: Eurofins Knoxville

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

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-25
ANAB	Dept. of Energy	L2311.01	02-13-25
ANAB	ISO/IEC 17025	L2311	02-13-25
Arkansas DEQ	State	88-0688	06-16-24
Colorado	State	TN00009	02-29-24
Connecticut	State	PH-0223	09-30-23
Florida	NELAP	E87177	06-30-24
Georgia (DW)	State	906	07-27-25
Hawaii	State	NA	07-27-24
Kansas	NELAP	E-10349	10-31-23
Kentucky (DW)	State	90101	12-31-23
Louisiana (All)	NELAP	83979	06-30-24
Louisiana (DW)	State	LA019	12-31-23
Maryland	State	277	03-31-24
Michigan	State	9933	07-27-25
Nevada	State	TN00009	07-31-24
New Hampshire	NELAP	2999	01-17-24
New Jersey	NELAP	TN001	07-01-24
New York	NELAP	10781	03-31-24
North Carolina (DW)	State	21705	07-31-24
North Carolina (WW/SW)	State	64	12-31-23
Oklahoma	State	9415	08-31-23
Oregon	NELAP	TNI0189	01-01-24
Pennsylvania	NELAP	68-00576	12-01-23
Tennessee	State	02014	07-27-25
Texas	NELAP	T104704380-22-17	08-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	525-22-279-18762	10-06-25
Utah	NELAP	TN00009	07-31-24
Virginia	NELAP	460176	09-14-23
Washington	State	C593	01-19-24
West Virginia (DW)	State	9955C	12-31-23
West Virginia DEP	State	345	04-30-24
Wisconsin	State	998044300	08-14-23

Method Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
8151A	Herbicides (GC)	SW846	EET BUF
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	EET KNX
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
180.1	Turbidity, Nephelometric	EPA	EET BUF
300.0	Anions, Ion Chromatography	EPA	EET BUF
350.1	Nitrogen, Ammonia	EPA	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
353.2	Nitrate	EPA	EET BUF
410.4	COD	EPA	EET BUF
420.4	Phenolics, Total Recoverable	EPA	EET BUF
7196A	Chromium, Hexavalent	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
9038	Sulfate, Turbidimetric	SW846	EET BUF
9060A	Organic Carbon, Total (TOC)	SW846	EET BUF
9251	Chloride	SW846	EET BUF
SM 2120B	Color, Colorimetric	SM	EET BUF
SM 2320B	Alkalinity	SM	EET BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET BUF
SM 4500 S2 F	Sulfide, Total	SM	EET BUF
SM 5210B	BOD, 5-Day	SM	EET BUF
3005A	Preparation, Total Metals	SW846	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF
8151A	Extraction (Herbicides)	SW846	EET BUF
8290	Separatory Funnel (Liquid-Liquid) Extraction of Dioxins and Furans	SW846	EET KNX

Protocol References:

EPA = US Environmental Protection Agency
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:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Expanded

Job ID: 480-210194-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-210194-1	PH 1 2 3	Water	06/22/23 14:45	06/23/23 09:30
480-210194-2	PH 4	Water	06/22/23 14:45	06/23/23 09:30
480-210194-3	PH 5	Water	06/22/23 14:45	06/23/23 09:30

Quantitation Limit Exceptions Summary

Client: Waste Connections, Inc.
Job ID: 480-210194-1
Project/Site: Dunn Landfill - Expanded

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Analyte	Matrix	Prep Type	Unit	Client RL	Lab PQL
SM 2120B	Color	Water	Total/NA	Color Units	0.0100	5
SM 4500 S2 F	Sulfide	Water	Total/NA	mg/L	0.67	1.0

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

Chain of Custody Record

Albany #224

eurofins Environment Testing

Client Information	Sampler: Cory Judd	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-183673-36251.1
Client Contact: Curt Taylor	Phone: 518-431-9437	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Waste Connections, Inc.	PWSID:			Job #:
Address: Capitol Region Landfill 1319 Loudon Road	Due Date Requested:			
City: Cohoes	TAT Requested (days):			
State, Zip: NY, 12205	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: CurtT@WasteConnections.com	WO #: 209-4203148			
Project Name: Dunn Landfill/ Event Desc: Expanded	Project #: 48010065			
Site: New York	SSOW#:			

480-210194 Chain of Custody

Analysis Requested

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)	8082A - NY Part 360 Expanded - Aroclors	8081B - NY Part 360 Expanded Posticides	8270D - NY Part 360 Expanded Semivolatiles	300.0_28D - Bromide	350.1, 351.2, 410.4	6010C, 7470A	8260C - NY Part 360 Expanded Volatiles	9060A - Total Organic Carbon	8151A - SAP 6.1 Expanded Herbicides	5210B - Biochemical Oxygen Demand	2540C_Calcd - TDS	FieldSampling - (MOD) pH,Cond,Temp,ORP,GWElv,DTW,WD,T	9012B - Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	S	D	A	A	N	N	N	N	B		
PH 1,2,3	6/21/23	1445	G	Water			2	2	2	1	1	1	3	2	2	1	1		1		
PH 4	6/21/23	1445	G	Water			2	2	2	1	1	1	3	2	2	1	1		1		
PH 5	6/21/23	~~1600~~	G	Water			2	2	2	1	1	1	3	2	2	1	1		1		
TRIP BLANK		1445		Water									3								

H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

TAC
6-22-23

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
Cory Judd	6/22/23 5:00pm	WCI	Tim Knollinger	6-22-23 1700	EETN
Tim Knollinger	6-22-23 1830	EETN	Cwallace	6/23/23 0930	TAB
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 2.8, 2.5, 2.3

Ver: 06/08/2021

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: Cory Judd	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-183673-36251.2
Client Contact: Curt Taylor	Phone: 518-431-9439	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Waste Connections, Inc.	PWSID:			Job #:

Address: Capitol Region Landfill 1319 Loudon Road	Due Date Requested:
City: Cohoes	TAT Requested (days):
State, Zip: NY, 12205	Compliance Project: Δ Yes Δ No
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required
Email: CurtT@WasteConnections.com	WO #: 209-4203148
Project Name: Dunn Landfill/ Event Desc: Expanded	Project #: 48010065
Site: New York	SSOW#:

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	180.1, 2120B, 353.2, 353.2_Nitrite, 9038, 9251, Nitrate_Calc	7196A - Cr (VI)	2320B - TALK	8280B - TCDD Only	SM4500_S2_F - Sulfide	420.4_NP - Phenolics	PFC_IDA - (MOD) PFAS, Standard List (21 analytes)	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code				N	N	N	N	CB	S	N	N		
PH 123	6/21/23	1445	G	Water			3	1	1	2	1	1	2	2		
PH 4	6/21/23	1445	G	Water			3	1	1	2	1	1	2	2		
PH 5	6/21/23	1445	G	Water			3	1	1	2	1	1	2	2		
TRIP BLANK				Water												

TDK
6-22-23

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
Cory Judd	6/22/23 5:00pm	WCI	[signature]	6-22-23 1700	EETN
[signature]	6-22-23 1830	EETN	[signature]	6/23/23 0930	TAB
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		

Ver: 06/08/2021

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

Chain of Custody Record

480-210194 Chain of Custody

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: VanDette, Ryan T	COC No: 480-81319 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Ryan.VanDette@et.eurofinsus com; State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 480-210194-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 7/10/2023		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email:	WO #:		
Project Name: Dunn Landfill - Expanded	Project #: 48010065		
Site: Dunn Landfill	SSOW#:		

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT (MOD) PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
PH 1 2 3 (480-210194-1)	6/22/23	14.45 Eastern		Water			X	2	
PH 4 (480-210194-2)	6/22/23	14.45 Eastern		Water			X	2	
PH 5 (480-210194-3)	6/22/23	14 45 Eastern		Water			X	2	

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

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time.	Method of Shipment:		
Relinquished by: [signature]	Date/Time 6/23/23 1700	Company TA	Received by: [signature]	Date/Time: 6/24/23 940	Company ETA Bur
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time.	Company	Received by:	Date/Time	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 06/08/2021

Part # 159469-434 MTW EXP 01/24

eurofins | Environment Testing
TestAmerica

ORIGIN ID:DKKA (716) 691-2600
BUFFALO LAB
EUROFINS BUFFALO
10 HAZELWOOD DRIVE

AMHERST, NY 14228
UNITED STATES US

SHIP DATE: 23JUN23
ACTWGT: 32.45 LB
CAD: 846654/CAFE3708
DIMS: 26x15x14 IN

BILL SENDER

583C2/29AB/FE2D

TO SAMPLE MGT.
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 923-1026
REF: TA SOUTH BURLINGTON

FedEx Express

J23102211020 1uv

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 0201 6159 4591 0152

XO BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-210194-1
SDG Number:

Login Number: 210194
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins 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)..	False	
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	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Corey Judd
Waste Connections, Inc.
209 Partition Street Extension
Rensselaer, New York 12144

Generated 1/25/2024 2:08:47 PM

JOB DESCRIPTION

Dunn Landfill - Leachate Expanded
Expanded

JOB NUMBER

480-215885-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

my EOL

Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
1/25/2024 2:08:47 PM

Authorized for release by
Judy Stone, Senior Project Manager
Judy.Stone@et.eurofinsus.com
Designee for
Ryan VanDette, Project Manager II
Ryan.VanDette@et.eurofinsus.com
(716)504-9830

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 9
Client Sample Results 12
Surrogate Summary 41
Isotope Dilution Summary 43
QC Sample Results 45
QC Association Summary 76
Lab Chronicle 84
Certification Summary 88
Method Summary 89
Sample Summary 90
Detection Limit Exceptions Summary 91
Chain of Custody 92
Receipt Checklists 98

Definitions/Glossary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

LCMS

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*5-	Isotope dilution analyte is outside acceptance limits, low biased.

Dioxin

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
I	Value is EMPC (estimated maximum possible concentration).

General Chemistry

Qualifier	Qualifier Description
b	Result Detected in the Unseeded Control blank (USB).
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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 Narrative
480-215885-1

Receipt
The samples were received on 12/20/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.1º C, 2.4º C and 2.6º C.

GC/MS VOA
Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: PH 123 (480-215885-1), PH 4 (480-215885-2) and PH 5 (480-215885-3). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method 8270D: The compound 2,3,7,8-TCDD was searched for as a Tentatively Identified Compound (TIC) and not found at an RL of 10 ug/l.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-696165 recovered above the upper control limit for Hexachloropropene and Pentachloronitrobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: PH 123 (480-215885-1), PH 4 (480-215885-2) and PH 5 (480-215885-3).

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-696165 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol, bis (2-chloroisopropyl) ether and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The laboratory control sample (LCS) and duplicate (LCSD) for preparation batch 480-696068 and analytical batch 480-696165 recovered outside control limits for the following analyte: 3,3'-Dimethylbenzidine, Famphur, Kepone, Methapyrilene and p-Phenylene diamine. These compounds are not part of the routine spike mix; therefor, re-extraction was not performed. The results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-696068 and analytical batch 480-696165 recovered outside control limits for the following analytes: 3,3'-Dimethylbenzidine, Famphur, Kepone and Methapyrilene.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: PH 5 (480-215885-3). These results have been reported and qualified.

Method 8270D SIM ID: The following sample was diluted to bring the concentration of target analytes within the calibration range: PH 123 (480-215885-1). Elevated reporting limits (RLs) are provided.

Method 8270D SIM ID: The breakdown of 4,4'-DDT in the tuning evaluation exceeded 20%. Breakdown is not a criteria of the method but rather an internal check performed by the laboratory to evaluate the peak shape of 1,4-Dioxane and 1,4-Dioxane-d8. No adverse performance was observed and QC recoveries were in control. The data have been reported.

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

HPLC/IC
Method 300.0: The following samples were diluted due to the abundance of non-target analytes: PH 123 (480-215885-1), PH 4 (480-215885-2) and PH 5 (480-215885-3). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA
Method 8081B: The following sample was diluted due to the nature of the sample matrix: PH 123 (480-215885-1). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method 8151A: The following samples were diluted due to the nature of the sample matrix: PH 4 (480-215885-2) and PH 5 (480-215885-3). Elevated reporting limits (RLs) are provided.

Method 8151A: The following sample was diluted due to the nature of the sample matrix: PH 123 (480-215885-1). As such, surrogate recovery is below the calibration range, estimated, and not representative. 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.

Dioxin
Method 8290A: One or more Isotope Dilution Analyte (IDA) recoveries associated with the following samples are below the method recommended limit: PH 123 (480-215885-1) and (MB 140-81864/13-A). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 8290A: One or more ion abundance ratios are outside criteria for the Isotope Dilution Analytes (IDA) associated with the following sample: PH 123 (480-215885-1).

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

Metals
Method 7470A: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples: PH 123 (480-215885-1). This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample was prepared and analyzed at a 1/2 dilution, which maintained the purple color during digestion.

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

LCMS
Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 200-199107.

Method 537 (modified): Results for sample PH 123 (480-215885-1) were reported from the analysis of a diluted extract due to high concentration of the target analytes in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): The following sample was diluted due to the abundance of non-target analytes: PH 123 (480-215885-1). A more concentrated analysis was not possible.

Method 537 (modified): The laboratory control sample duplicate (LCSD) for preparation batch 200-199107 and analytical batch 200-199143 recovered outside control limits for the following analytes: 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2). This analyte was biased high in the LCSD, but is passing in the LCS; therefore, the data have been reported.

Method 537 (modified): 13C4 PFBA and 13C2 PFTeDA Isotope Dilution Analyte (IDA) recoveries associated with the following sample are below the method recommended limit: PH 123 (480-215885-1). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 537 (modified): 13C4 PFBA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: PH 5 (480-215885-3). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

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

General Chemistry
Method 7196A: The following samples were received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: PH 123 (480-215885-1), PH 4 (480-215885-2) and PH 5 (480-215885-3).

Method SM 2120B: The following samples were filtered prior to analysis, therefore the analytical results are being report as "True Color": PH 123 (480-215885-1) and PH 5 (480-215885-3).

Method SM 2540C: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: PH 123 (480-215885-1), PH 4 (480-215885-2) and PH 5 (480-215885-3). The reporting limits (RLs) have been adjusted proportionately.

Job ID: 480-215885-1 (Continued) Eurofins Buffalo

Method SM 5210B: Reanalysis of the following sample was performed outside of the analytical holding time due to over-dilution in previous analysis : PH 4 (480-215885-2).

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

Organic Prep
Method 8290: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: PH 4 (480-215885-2) and PH 5 (480-215885-3). The reporting limits (RLs) have been adjusted proportionately.

Methods 8290, HRMS-Sepf, HRMS-Sox, Split: The following samples required a Gel-Permeation clean up, via EPA method 3640A, to reduce matrix interference: PH 123 (480-215885-1), PH 4 (480-215885-2) and PH 5 (480-215885-3).

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-696067.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-696068.

Method 3510C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: PH 123 (480-215885-1). The reporting limits (RLs) have been adjusted proportionately.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-696118.

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

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 123 — Lab Sample ID: 480-215885-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	71		2.0		ug/L	10		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	940		43		ng/L	10		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1400		17		ng/L	10		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1400		17		ng/L	10		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	360		17		ng/L	10		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	570		17		ng/L	10		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	29		17		ng/L	10		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	160		17		ng/L	10		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	130		17		ng/L	10		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	60		17		ng/L	10		537 (modified)	Total/NA
6:2 FTS	140		43		ng/L	10		537 (modified)	Total/NA
Barium	0.31		0.0020		mg/L	1		6010C	Total/NA
Boron	11.3		0.020		mg/L	1		6010C	Total/NA
Calcium	231		0.50		mg/L	1		6010C	Total/NA
Chromium	0.022		0.0040		mg/L	1		6010C	Total/NA
Copper	0.020		0.010		mg/L	1		6010C	Total/NA
Iron	1.7		0.050		mg/L	1		6010C	Total/NA
Magnesium	95.5		0.20		mg/L	1		6010C	Total/NA
Manganese	2.0		0.0030		mg/L	1		6010C	Total/NA
Nickel	0.019		0.010		mg/L	1		6010C	Total/NA
Potassium	50.5		0.50		mg/L	1		6010C	Total/NA
Sodium	308		1.0		mg/L	1		6010C	Total/NA
Vanadium	0.0085		0.0050		mg/L	1		6010C	Total/NA
Zinc	0.078		0.010		mg/L	1		6010C	Total/NA
Turbidity	110		10		NTU	10		180.1	Total/NA
Ammonia	86.0		1.0		mg/L as N	50		350.1	Total/NA
Total Kjeldahl Nitrogen	88.9		8.0		mg/L as N	40		351.2	Total/NA
Chemical Oxygen Demand	391		50.0		mg/L	5		410.4	Total/NA
Phenolics, Total Recoverable	0.028		0.010		mg/L	1		420.4	Total/NA
Cyanide, Total	0.014		0.010		mg/L	1		9012B	Total/NA
Sulfate	357		100		mg/L	20		9038	Total/NA
Total Organic Carbon	139		4.0		mg/L	4		9060A	Total/NA
Chloride	339		25.0		mg/L	25		9251	Total/NA
Color	40.0		0.0100		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	20.0		5.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	2190		20.0		mg/L	1		SM 2540C	Total/NA
Sulfide	3.2		0.67		mg/L	1		SM 4500 S2 F	Total/NA
Biochemical Oxygen Demand	36.7	b	24.0		mg/L	1		SM 5210B	Total/NA

Client Sample ID: PH 4 — Lab Sample ID: 480-215885-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.3		0.20		ug/L	1		8270D SIM ID	Total/NA
Perfluorobutanoic acid (PFBA)	32		4.2		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	100		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	85		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	15		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	20		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.5		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.4		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.1		1.7		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 4 (Continued) — Lab Sample ID: 480-215885-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	5.6		1.7		ng/L	1		537 (modified)	Total/NA
6:2 FTS	4.3		4.2		ng/L	1		537 (modified)	Total/NA
Aluminum	8.5		0.20		mg/L	1		6010C	Total/NA
Barium	0.22		0.0020		mg/L	1		6010C	Total/NA
Boron	0.51		0.020		mg/L	1		6010C	Total/NA
Calcium	204		0.50		mg/L	1		6010C	Total/NA
Chromium	0.016		0.0040		mg/L	1		6010C	Total/NA
Cobalt	0.013		0.0040		mg/L	1		6010C	Total/NA
Copper	0.053		0.010		mg/L	1		6010C	Total/NA
Iron	10.9		0.050		mg/L	1		6010C	Total/NA
Lead	0.017		0.010		mg/L	1		6010C	Total/NA
Magnesium	30.7		0.20		mg/L	1		6010C	Total/NA
Manganese	2.5		0.0030		mg/L	1		6010C	Total/NA
Nickel	0.018		0.010		mg/L	1		6010C	Total/NA
Potassium	13.1		0.50		mg/L	1		6010C	Total/NA
Sodium	90.8		1.0		mg/L	1		6010C	Total/NA
Vanadium	0.014		0.0050		mg/L	1		6010C	Total/NA
Zinc	0.067		0.010		mg/L	1		6010C	Total/NA
Turbidity	250		10		NTU	10		180.1	Total/NA
Ammonia	0.48		0.020		mg/L as N	1		350.1	Total/NA
Total Kjeldahl Nitrogen	1.9		0.20		mg/L as N	1		351.2	Total/NA
Nitrate	0.24		0.050		mg/L	1		353.2	Total/NA
Sulfate	444		100		mg/L	20		9038	Total/NA
Total Organic Carbon	4.5		1.0		mg/L	1		9060A	Total/NA
Chloride	28.1		1.0		mg/L	1		9251	Total/NA
Color	150		0.0500		Color Units	5		SM 2120B	Total/NA
Alkalinity, Total	304		5.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1140		20.0		mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	3.8	H	2.0		mg/L	1		SM 5210B	Total/NA

Client Sample ID: PH 5 — Lab Sample ID: 480-215885-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	10		4.0		ug/L	4		8260C	Total/NA
1,4-Dioxane	30		0.20		ug/L	1		8270D SIM ID	Total/NA
beta-BHC	0.080		0.050		ug/L	1		8081B	Total/NA
Perfluorobutanoic acid (PFBA)	100		4.3		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	160		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	220		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	43		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	80		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	4.6		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	20		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	24		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	15		1.7		ng/L	1		537 (modified)	Total/NA
6:2 FTS	27		4.3		ng/L	1		537 (modified)	Total/NA
Aluminum	0.64		0.20		mg/L	1		6010C	Total/NA
Barium	0.18		0.0020		mg/L	1		6010C	Total/NA
Boron	3.5		0.020		mg/L	1		6010C	Total/NA
Calcium	364		0.50		mg/L	1		6010C	Total/NA
Chromium	0.0095		0.0040		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 5 (Continued) — Lab Sample ID: 480-215885-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0050		0.0040		mg/L	1		6010C	Total/NA
Iron	25.6		0.050		mg/L	1		6010C	Total/NA
Magnesium	91.7		0.20		mg/L	1		6010C	Total/NA
Manganese	5.4		0.0030		mg/L	1		6010C	Total/NA
Nickel	0.027		0.010		mg/L	1		6010C	Total/NA
Potassium	12.6		0.50		mg/L	1		6010C	Total/NA
Sodium	91.0		1.0		mg/L	1		6010C	Total/NA
Zinc	0.029		0.010		mg/L	1		6010C	Total/NA
Turbidity	130		10		NTU	10		180.1	Total/NA
Ammonia	7.4		0.20		mg/L as N	10		350.1	Total/NA
Total Kjeldahl Nitrogen	9.4		2.0		mg/L as N	10		351.2	Total/NA
Chemical Oxygen Demand	108		20.0		mg/L	2		410.4	Total/NA
Chromium, hexavalent	0.013	H	0.010		mg/L	1		7196A	Total/NA
Sulfate	498		100		mg/L	20		9038	Total/NA
Total Organic Carbon	38.6		1.0		mg/L	1		9060A	Total/NA
Chloride	133		5.0		mg/L	5		9251	Total/NA
Color	15.0		0.0100		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	20.0		5.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1740		20.0		mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	10.9	b	6.0		mg/L	1		SM 5210B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-215885-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10		ug/L			12/20/23 14:33	10
1,1,1-Trichloroethane	ND		10		ug/L			12/20/23 14:33	10
1,1,2,2-Tetrachloroethane	ND		10		ug/L			12/20/23 14:33	10
1,1,2-Trichloroethane	ND		10		ug/L			12/20/23 14:33	10
1,1-Dichloroethane	ND		10		ug/L			12/20/23 14:33	10
1,1-Dichloroethene	ND		10		ug/L			12/20/23 14:33	10
1,1-Dichloropropene	ND		10		ug/L			12/20/23 14:33	10
1,2,3-Trichloropropane	ND		10		ug/L			12/20/23 14:33	10
1,2,4-Trichlorobenzene	ND		10		ug/L			12/20/23 14:33	10
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			12/20/23 14:33	10
1,2-Dichlorobenzene	ND		10		ug/L			12/20/23 14:33	10
1,2-Dichloroethane	ND		10		ug/L			12/20/23 14:33	10
1,2-Dichloropropane	ND		10		ug/L			12/20/23 14:33	10
1,3-Dichloropropane	ND		10		ug/L			12/20/23 14:33	10
1,4-Dichlorobenzene	ND		10		ug/L			12/20/23 14:33	10
2,2-Dichloropropane	ND		10		ug/L			12/20/23 14:33	10
2-Butanone (MEK)	ND		100		ug/L			12/20/23 14:33	10
2-Hexanone	ND		50		ug/L			12/20/23 14:33	10
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			12/20/23 14:33	10
Acetone	ND		100		ug/L			12/20/23 14:33	10
Acetonitrile	ND		150		ug/L			12/20/23 14:33	10
Acrolein	ND		200		ug/L			12/20/23 14:33	10
Acrylonitrile	ND		50		ug/L			12/20/23 14:33	10
Allyl chloride	ND		10		ug/L			12/20/23 14:33	10
Benzene	ND		10		ug/L			12/20/23 14:33	10
Chlorobromomethane	ND		10		ug/L			12/20/23 14:33	10
Bromodichloromethane	ND		10		ug/L			12/20/23 14:33	10
Bromoform	ND		10		ug/L			12/20/23 14:33	10
Bromomethane	ND		10		ug/L			12/20/23 14:33	10
Carbon disulfide	ND		10		ug/L			12/20/23 14:33	10
Carbon tetrachloride	ND		10		ug/L			12/20/23 14:33	10
Chlorobenzene	ND		10		ug/L			12/20/23 14:33	10
Chlorodibromomethane	ND		10		ug/L			12/20/23 14:33	10
Chloroethane	ND		10		ug/L			12/20/23 14:33	10
Chloroform	ND		10		ug/L			12/20/23 14:33	10
Chloromethane	ND		10		ug/L			12/20/23 14:33	10
cis-1,2-Dichloroethene	ND		10		ug/L			12/20/23 14:33	10
cis-1,3-Dichloropropene	ND		10		ug/L			12/20/23 14:33	10
Chloroprene	ND		10		ug/L			12/20/23 14:33	10
Dibromomethane	ND		10		ug/L			12/20/23 14:33	10
Dichlorodifluoromethane	ND		10		ug/L			12/20/23 14:33	10
Ethyl methacrylate	ND		10		ug/L			12/20/23 14:33	10
Ethylbenzene	ND		10		ug/L			12/20/23 14:33	10
1,2-Dibromoethane	ND		10		ug/L			12/20/23 14:33	10
Hexachlorobutadiene	ND		20		ug/L			12/20/23 14:33	10
Iodomethane	ND		10		ug/L			12/20/23 14:33	10
Isobutyl alcohol	ND		250		ug/L			12/20/23 14:33	10
Methacrylonitrile	ND		50		ug/L			12/20/23 14:33	10
Methyl methacrylate	ND		10		ug/L			12/20/23 14:33	10

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		10		ug/L			12/20/23 14:33	10
Naphthalene	ND		10		ug/L			12/20/23 14:33	10
Pentachloroethane	ND		10		ug/L			12/20/23 14:33	10
Propionitrile	ND		100		ug/L			12/20/23 14:33	10
Styrene	ND		10		ug/L			12/20/23 14:33	10
Tetrachloroethene	ND		10		ug/L			12/20/23 14:33	10
Toluene	ND		10		ug/L			12/20/23 14:33	10
trans-1,2-Dichloroethene	ND		10		ug/L			12/20/23 14:33	10
trans-1,3-Dichloropropene	ND		10		ug/L			12/20/23 14:33	10
trans-1,4-Dichloro-2-butene	ND		10		ug/L			12/20/23 14:33	10
Trichloroethene	ND		10		ug/L			12/20/23 14:33	10
Trichlorofluoromethane	ND		10		ug/L			12/20/23 14:33	10
Vinyl acetate	ND		50		ug/L			12/20/23 14:33	10
Vinyl chloride	ND		10		ug/L			12/20/23 14:33	10
Xylenes, Total	ND		20		ug/L			12/20/23 14:33	10
o-Xylene	ND		10		ug/L			12/20/23 14:33	10
m,p-Xylene	ND		20		ug/L			12/20/23 14:33	10
1,2-Dichloroethene, Total	ND		20		ug/L			12/20/23 14:33	10
1,3-Dichlorobenzene	ND		10		ug/L			12/20/23 14:33	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*12/20/23 14:33*	*10*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*12/20/23 14:33*	*10*
Toluene-d8 (Surr)	*100*		*80 - 120*		*12/20/23 14:33*	*10*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*12/20/23 14:33*	*10*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**71**		2.0		ug/L		12/21/23 07:09	12/22/23 23:08	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*38*		*15 - 110*	*12/21/23 07:09*	*12/22/23 23:08*	*10*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
1,2,4-Trichlorobenzene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
1,2-Dichlorobenzene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
1,3,5-Trinitrobenzene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
1,3-Dichlorobenzene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
1,3-Dinitrobenzene	ND		100		ug/L		12/20/23 14:19	12/22/23 00:50	1
1,4-Naphthoquinone	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
1,4-Dichlorobenzene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
1-Naphthylamine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
2,3,4,6-Tetrachlorophenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2,4,5-Trichlorophenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2,4,6-Trichlorophenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2,4-Dichlorophenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2,4-Dimethylphenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2,4-Dinitrophenol	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
2,4-Dinitrotoluene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dichlorophenol	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
2,6-Dinitrotoluene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2-Acetylaminofluorene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
2-Chloronaphthalene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2-Chlorophenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2-Methylnaphthalene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2-Methylphenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2-Naphthylamine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
2-Nitroaniline	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
2-Nitrophenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
2-Toluidine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
3 & 4 Methylphenol	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
3-Methylphenol	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
4-Methylphenol	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
3,3'-Dichlorobenzidine	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
3,3'-Dimethylbenzidine	ND	*- *1	200		ug/L		12/20/23 14:19	12/22/23 00:50	1
3-Methylcholanthrene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
3-Nitroaniline	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
4-Aminobiphenyl	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
4-Bromophenyl phenyl ether	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
4-Chloro-3-methylphenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
4-Chloroaniline	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
4-Chlorophenyl phenyl ether	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
4-Nitroaniline	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
4-Nitrophenol	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
7,12-Dimethylbenz(a)anthracene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Acenaphthene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Acenaphthylene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Acetophenone	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Anthracene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Benzo[a]anthracene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Benzo[a]pyrene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Benzo[b]fluoranthene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Benzo[g,h,i]perylene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Benzo[k]fluoranthene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Benzyl alcohol	ND		100		ug/L		12/20/23 14:19	12/22/23 00:50	1
Bis(2-chloroethoxy)methane	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Bis(2-chloroethyl)ether	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Bis(2-ethylhexyl) phthalate	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
bis (2-chloroisopropyl) ether	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Butyl benzyl phthalate	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Chrysene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Diallate	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Dibenz(a,h)anthracene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Dibenzofuran	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Diethyl phthalate	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Dimethoate	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Dimethyl phthalate	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Di-n-octyl phthalate	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Dinoseb	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Diphenylamine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Disulfoton	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Ethyl methanesulfonate	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Famphur	ND	*- *1	200		ug/L		12/20/23 14:19	12/22/23 00:50	1
Fluoranthene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Fluorene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Hexachlorobenzene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Hexachlorobutadiene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Hexachlorocyclopentadiene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Hexachloroethane	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Hexachloropropene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Indeno[1,2,3-cd]pyrene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Isodrin	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Isophorone	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Isosafrole	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Kepone	ND	*- *1	250		ug/L		12/20/23 14:19	12/22/23 00:50	1
Methapyrilene	ND	*- *1	250		ug/L		12/20/23 14:19	12/22/23 00:50	1
Methyl methanesulfonate	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Safrole	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Thionazin	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Naphthalene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Nitrobenzene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
N-Nitro-o-toluidine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
N-Nitrosodiethylamine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
N-Nitrosodimethylamine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
N-Nitrosodi-n-butylamine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
N-Nitrosodi-n-propylamine	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
N-Nitrosodiphenylamine	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
N-Nitrosomethylethylamine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
N-Nitrosopiperidine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
N-Nitrosopyrrolidine	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
o,o',o''-Triethylphosphorothioate	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Parathion ethyl	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Parathion methyl	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
p-Dimethylamino azobenzene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Pentachlorobenzene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Pentachloronitrobenzene	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Pentachlorophenol	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Phenacetin	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
Phenanthrene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Phenol	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Phorate	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1
p-Phenylene diamine	ND	*-	4000		ug/L		12/20/23 14:19	12/22/23 00:50	1
Pyrene	ND		25		ug/L		12/20/23 14:19	12/22/23 00:50	1
Pronamide	ND		50		ug/L		12/20/23 14:19	12/22/23 00:50	1

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		ug/L			1746-01-6	12/20/23 14:19	12/22/23 00:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		48 - 120	12/20/23 14:19	12/22/23 00:50	1
2-Fluorophenol (Surr)	50		35 - 120	12/20/23 14:19	12/22/23 00:50	1
2,4,6-Tribromophenol (Surr)	91		41 - 120	12/20/23 14:19	12/22/23 00:50	1
Nitrobenzene-d5 (Surr)	65		46 - 120	12/20/23 14:19	12/22/23 00:50	1
Phenol-d5 (Surr)	37		22 - 120	12/20/23 14:19	12/22/23 00:50	1
p-Terphenyl-d14 (Surr)	63		60 - 148	12/20/23 14:19	12/22/23 00:50	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
4,4'-DDE	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
4,4'-DDT	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Aldrin	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
alpha-BHC	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
beta-BHC	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Chlordane (technical)	ND		25		ug/L		12/21/23 08:49	12/22/23 13:05	50
delta-BHC	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Dieldrin	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Endosulfan I	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Endosulfan II	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Endosulfan sulfate	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Endrin	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Endrin aldehyde	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
gamma-BHC (Lindane)	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Heptachlor	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Methoxychlor	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50
Toxaphene	ND		25		ug/L		12/21/23 08:49	12/22/23 13:05	50
Heptachlor epoxide	ND		2.5		ug/L		12/21/23 08:49	12/22/23 13:05	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	S1-	20 - 120	12/21/23 08:49	12/22/23 13:05	50
DCB Decachlorobiphenyl	0	S1-	20 - 120	12/21/23 08:49	12/22/23 13:05	50
Tetrachloro-m-xylene	0	S1-	44 - 120	12/21/23 08:49	12/22/23 13:05	50
Tetrachloro-m-xylene	0	S1-	44 - 120	12/21/23 08:49	12/22/23 13:05	50

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		12/20/23 14:11	12/21/23 15:55	1
PCB-1221	ND		0.50		ug/L		12/20/23 14:11	12/21/23 15:55	1
PCB-1232	ND		0.50		ug/L		12/20/23 14:11	12/21/23 15:55	1
PCB-1242	ND		0.50		ug/L		12/20/23 14:11	12/21/23 15:55	1
PCB-1248	ND		0.50		ug/L		12/20/23 14:11	12/21/23 15:55	1
PCB-1254	ND		0.50		ug/L		12/20/23 14:11	12/21/23 15:55	1
PCB-1260	ND		0.50		ug/L		12/20/23 14:11	12/21/23 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		39 - 121	12/20/23 14:11	12/21/23 15:55	1
Tetrachloro-m-xylene	59		39 - 121	12/20/23 14:11	12/21/23 15:55	1

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*26*		*19 - 120*	*12/20/23 14:11*	*12/21/23 15:55*	*1*
DCB Decachlorobiphenyl	*30*		*19 - 120*	*12/20/23 14:11*	*12/21/23 15:55*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		11		ug/L		12/21/23 09:02	12/27/23 14:42	20
2,4-D	ND		11		ug/L		12/21/23 09:02	12/27/23 14:42	20
Dinoseb	ND		11		ug/L		12/21/23 09:02	12/27/23 14:42	20
Silvex (2,4,5-TP)	ND		11		ug/L		12/21/23 09:02	12/27/23 14:42	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*0*	*S1-*	*21 - 143*	*12/21/23 09:02*	*12/27/23 14:42*	*20*
2,4-Dichlorophenylacetic acid	*0*	*S1-*	*21 - 143*	*12/21/23 09:02*	*12/27/23 14:42*	*20*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**940**		43		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluoropentanoic acid (PFPeA)	**1400**		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorohexanoic acid (PFHxA)	**1400**		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluoroheptanoic acid (PFHpA)	**360**		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorooctanoic acid (PFOA)	**570**		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorononanoic acid (PFNA)	**29**		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorodecanoic acid (PFDA)	ND		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluoroundecanoic acid (PFUnA)	ND		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorododecanoic acid (PFDoA)	ND		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorotridecanoic acid (PFTriA)	ND		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorotetradecanoic acid (PFTeA)	ND		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorobutanesulfonic acid (PFBS)	**160**		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorohexanesulfonic acid (PFHxS)	**130**		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluoroheptanesulfonic acid (PFHpS)	ND		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorooctanesulfonic acid (PFOS)	**60**		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorodecanesulfonic acid (PFDS)	ND		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
Perfluorooctanesulfonamide (FOSA)	ND		17		ng/L		12/27/23 07:47	12/27/23 19:32	10
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		43		ng/L		12/27/23 07:47	12/27/23 19:32	10
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		43		ng/L		12/27/23 07:47	12/27/23 19:32	10
6:2 FTS	**140**		43		ng/L		12/27/23 07:47	12/27/23 19:32	10
8:2 FTS	ND	*+	17		ng/L		12/27/23 07:47	12/27/23 19:32	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*83*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:32*	*10*
13C4 PFHpA	*90*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:32*	*10*
13C4 PFOA	*98*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:32*	*10*
13C4 PFOS	*86*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:32*	*10*
13C5 PFNA	*110*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:32*	*10*
13C4 PFBA	*19*	**5-*	*50 - 150*	*12/27/23 07:47*	*12/27/23 19:32*	*10*
13C2 PFHxA	*80*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:32*	*10*

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	104		50 - 150	12/27/23 07:47	12/27/23 19:32	10
13C2 PFUnA	101		50 - 150	12/27/23 07:47	12/27/23 19:32	10
13C2 PFDoA	98		50 - 150	12/27/23 07:47	12/27/23 19:32	10
13C8 FOSA	75		50 - 150	12/27/23 07:47	12/27/23 19:32	10
13C5 PFPeA	63		50 - 150	12/27/23 07:47	12/27/23 19:32	10
13C2 PFTeDA	38	*5-	50 - 150	12/27/23 07:47	12/27/23 19:32	10
d3-NMeFOSAA	114		50 - 150	12/27/23 07:47	12/27/23 19:32	10
d5-NEtFOSAA	117		50 - 150	12/27/23 07:47	12/27/23 19:32	10
M2-6:2 FTS	137		50 - 150	12/27/23 07:47	12/27/23 19:32	10
M2-8:2 FTS	113		50 - 150	12/27/23 07:47	12/27/23 19:32	10
13C3 PFBS	85		50 - 150	12/27/23 07:47	12/27/23 19:32	10

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		11		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,7,8-PeCDD	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,4,7,8-HxCDD	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,6,7,8-HxCDD	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,7,8,9-HxCDD	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,4,6,7,8-HpCDD	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
OCDD	ND		110		pg/L		12/29/23 09:18	01/22/24 16:37	1
2,3,7,8-TCDF	ND		11		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,7,8-PeCDF	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
2,3,4,7,8-PeCDF	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,4,7,8-HxCDF	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,6,7,8-HxCDF	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
2,3,4,6,7,8-HxCDF	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,7,8,9-HxCDF	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,4,6,7,8-HpCDF	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
1,2,3,4,7,8,9-HpCDF	ND		53		pg/L		12/29/23 09:18	01/22/24 16:37	1
OCDF	ND		110		pg/L		12/29/23 09:18	01/22/24 16:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	34	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,7,8-PeCDD	39	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,4,7,8-HxCDD	28	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,6,7,8-HxCDD	31	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,4,6,7,8-HpCDD	28	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-OCDD	30	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-2,3,7,8-TCDF	26	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,7,8-PeCDF	34	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-2,3,4,7,8-PeCDF	31	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,4,7,8-HxCDF	33	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,6,7,8-HxCDF	31	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-2,3,4,6,7,8-HxCDF	25	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,7,8,9-HxCDF	31	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,4,6,7,8-HpCDF	25	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-1,2,3,4,7,8,9-HpCDF	22	I *5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1
13C-OCDF	23	*5-	40 - 135	12/29/23 09:18	01/22/24 16:37	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20		mg/L		12/21/23 08:10	12/21/23 20:13	1
Antimony	ND		0.020		mg/L		12/21/23 08:10	12/21/23 20:13	1
Arsenic	ND		0.015		mg/L		12/21/23 08:10	12/21/23 20:13	1
Barium	**0.31**		0.0020		mg/L		12/21/23 08:10	12/21/23 20:13	1
Beryllium	ND		0.0020		mg/L		12/21/23 08:10	01/03/24 11:36	1
Boron	**11.3**		0.020		mg/L		12/21/23 08:10	12/21/23 20:13	1
Cadmium	ND		0.0020		mg/L		12/21/23 08:10	12/21/23 20:13	1
Calcium	**231**		0.50		mg/L		12/21/23 08:10	12/21/23 20:13	1
Chromium	**0.022**		0.0040		mg/L		12/21/23 08:10	01/03/24 11:36	1
Cobalt	ND		0.0040		mg/L		12/21/23 08:10	12/21/23 20:13	1
Copper	**0.020**		0.010		mg/L		12/21/23 08:10	12/21/23 20:13	1
Iron	**1.7**		0.050		mg/L		12/21/23 08:10	12/21/23 20:13	1
Lead	ND		0.010		mg/L		12/21/23 08:10	12/21/23 20:13	1
Magnesium	**95.5**		0.20		mg/L		12/21/23 08:10	12/21/23 20:13	1
Manganese	**2.0**		0.0030		mg/L		12/21/23 08:10	12/21/23 20:13	1
Nickel	**0.019**		0.010		mg/L		12/21/23 08:10	12/21/23 20:13	1
Potassium	**50.5**		0.50		mg/L		12/21/23 08:10	12/21/23 20:13	1
Selenium	ND		0.025		mg/L		12/21/23 08:10	12/21/23 20:13	1
Silver	ND		0.0060		mg/L		12/21/23 08:10	01/03/24 11:36	1
Sodium	**308**		1.0		mg/L		12/21/23 08:10	12/21/23 20:13	1
Thallium	ND		0.020		mg/L		12/21/23 08:10	12/21/23 20:13	1
Tin	ND		0.010		mg/L		12/21/23 08:10	12/21/23 20:13	1
Vanadium	**0.0085**		0.0050		mg/L		12/21/23 08:10	12/21/23 20:13	1
Zinc	**0.078**		0.010		mg/L		12/21/23 08:10	12/21/23 20:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040		mg/L		12/21/23 11:23	12/21/23 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		2.0		mg/L			12/21/23 14:17	10
Ammonia (EPA 350.1)	**86.0**		1.0		mg/L as N			12/28/23 14:41	50
Total Kjeldahl Nitrogen (EPA 351.2	**88.9**		8.0		mg/L as N		12/20/23 16:02	12/21/23 14:32	40
Nitrate (EPA 353.2)	ND		0.050		mg/L			12/20/23 15:24	1
Chemical Oxygen Demand (EPA 410.4)	**391**		50.0		mg/L			12/21/23 11:09	5
Phenolics, Total Recoverable (EPA 420.4)	**0.028**		0.010		mg/L			12/21/23 17:48	1
Chromium, hexavalent (SW846 7196A)	ND	H	0.010		mg/L			12/20/23 10:56	1
Cyanide, Total (SW846 9012B)	**0.014**		0.010		mg/L			12/27/23 19:02	1
Sulfate (SW846 9038)	**357**		100		mg/L			12/22/23 14:47	20
Total Organic Carbon (SW846 9060A)	**139**		4.0		mg/L			12/29/23 04:45	4
Chloride (SW846 9251)	**339**		25.0		mg/L			12/22/23 11:58	25
Alkalinity, Total (SM 2320B)	**20.0**		5.0		mg/L			12/21/23 16:31	1
Total Dissolved Solids (SM 2540C)	**2190**		20.0		mg/L			12/21/23 10:24	1
Sulfide (SM 4500 S2 F)	**3.2**		0.67		mg/L			12/22/23 12:00	1
Biochemical Oxygen Demand (SM 5210B)	**36.7**	**b**	24.0		mg/L			12/21/23 09:20	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity (EPA 180.1)	110		10		NTU			12/20/23 11:29	10
Color (SM 2120B)	40.0		0.0100		Color Units			12/20/23 16:42	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 4

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/20/23 14:55	2
1,1,1-Trichloroethane	ND		2.0		ug/L			12/20/23 14:55	2
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			12/20/23 14:55	2
1,1,2-Trichloroethane	ND		2.0		ug/L			12/20/23 14:55	2
1,1-Dichloroethane	ND		2.0		ug/L			12/20/23 14:55	2
1,1-Dichloroethene	ND		2.0		ug/L			12/20/23 14:55	2
1,1-Dichloropropene	ND		2.0		ug/L			12/20/23 14:55	2
1,2,3-Trichloropropane	ND		2.0		ug/L			12/20/23 14:55	2
1,2,4-Trichlorobenzene	ND		2.0		ug/L			12/20/23 14:55	2
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/20/23 14:55	2
1,2-Dichlorobenzene	ND		2.0		ug/L			12/20/23 14:55	2
1,2-Dichloroethane	ND		2.0		ug/L			12/20/23 14:55	2
1,2-Dichloropropane	ND		2.0		ug/L			12/20/23 14:55	2
1,3-Dichloropropane	ND		2.0		ug/L			12/20/23 14:55	2
1,4-Dichlorobenzene	ND		2.0		ug/L			12/20/23 14:55	2
2,2-Dichloropropane	ND		2.0		ug/L			12/20/23 14:55	2
2-Butanone (MEK)	ND		20		ug/L			12/20/23 14:55	2
2-Hexanone	ND		10		ug/L			12/20/23 14:55	2
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			12/20/23 14:55	2
Acetone	ND		20		ug/L			12/20/23 14:55	2
Acetonitrile	ND		30		ug/L			12/20/23 14:55	2
Acrolein	ND		40		ug/L			12/20/23 14:55	2
Acrylonitrile	ND		10		ug/L			12/20/23 14:55	2
Allyl chloride	ND		2.0		ug/L			12/20/23 14:55	2
Benzene	ND		2.0		ug/L			12/20/23 14:55	2
Chlorobromomethane	ND		2.0		ug/L			12/20/23 14:55	2
Bromodichloromethane	ND		2.0		ug/L			12/20/23 14:55	2
Bromoform	ND		2.0		ug/L			12/20/23 14:55	2
Bromomethane	ND		2.0		ug/L			12/20/23 14:55	2
Carbon disulfide	ND		2.0		ug/L			12/20/23 14:55	2
Carbon tetrachloride	ND		2.0		ug/L			12/20/23 14:55	2
Chlorobenzene	ND		2.0		ug/L			12/20/23 14:55	2
Chlorodibromomethane	ND		2.0		ug/L			12/20/23 14:55	2
Chloroethane	ND		2.0		ug/L			12/20/23 14:55	2
Chloroform	ND		2.0		ug/L			12/20/23 14:55	2
Chloromethane	ND		2.0		ug/L			12/20/23 14:55	2
cis-1,2-Dichloroethene	ND		2.0		ug/L			12/20/23 14:55	2
cis-1,3-Dichloropropene	ND		2.0		ug/L			12/20/23 14:55	2
Chloroprene	ND		2.0		ug/L			12/20/23 14:55	2
Dibromomethane	ND		2.0		ug/L			12/20/23 14:55	2
Dichlorodifluoromethane	ND		2.0		ug/L			12/20/23 14:55	2
Ethyl methacrylate	ND		2.0		ug/L			12/20/23 14:55	2
Ethylbenzene	ND		2.0		ug/L			12/20/23 14:55	2
1,2-Dibromoethane	ND		2.0		ug/L			12/20/23 14:55	2
Hexachlorobutadiene	ND		4.0		ug/L			12/20/23 14:55	2
Iodomethane	ND		2.0		ug/L			12/20/23 14:55	2
Isobutyl alcohol	ND		50		ug/L			12/20/23 14:55	2
Methacrylonitrile	ND		10		ug/L			12/20/23 14:55	2
Methyl methacrylate	ND		2.0		ug/L			12/20/23 14:55	2

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 4

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0		ug/L			12/20/23 14:55	2
Naphthalene	ND		2.0		ug/L			12/20/23 14:55	2
Pentachloroethane	ND		2.0		ug/L			12/20/23 14:55	2
Propionitrile	ND		20		ug/L			12/20/23 14:55	2
Styrene	ND		2.0		ug/L			12/20/23 14:55	2
Tetrachloroethene	ND		2.0		ug/L			12/20/23 14:55	2
Toluene	ND		2.0		ug/L			12/20/23 14:55	2
trans-1,2-Dichloroethene	ND		2.0		ug/L			12/20/23 14:55	2
trans-1,3-Dichloropropene	ND		2.0		ug/L			12/20/23 14:55	2
trans-1,4-Dichloro-2-butene	ND		2.0		ug/L			12/20/23 14:55	2
Trichloroethene	ND		2.0		ug/L			12/20/23 14:55	2
Trichlorofluoromethane	ND		2.0		ug/L			12/20/23 14:55	2
Vinyl acetate	ND		10		ug/L			12/20/23 14:55	2
Vinyl chloride	ND		2.0		ug/L			12/20/23 14:55	2
Xylenes, Total	ND		4.0		ug/L			12/20/23 14:55	2
o-Xylene	ND		2.0		ug/L			12/20/23 14:55	2
m,p-Xylene	ND		4.0		ug/L			12/20/23 14:55	2
1,2-Dichloroethene, Total	ND		4.0		ug/L			12/20/23 14:55	2
1,3-Dichlorobenzene	ND		2.0		ug/L			12/20/23 14:55	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*12/20/23 14:55*	*2*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*12/20/23 14:55*	*2*
Toluene-d8 (Surr)	*100*		*80 - 120*		*12/20/23 14:55*	*2*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*12/20/23 14:55*	*2*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**2.3**		0.20		ug/L		12/21/23 07:09	12/22/23 23:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*39*		*15 - 110*	*12/21/23 07:09*	*12/22/23 23:30*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
1,2,4-Trichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
1,2-Dichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
1,3,5-Trinitrobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
1,3-Dichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
1,3-Dinitrobenzene	ND		21		ug/L		12/20/23 14:19	12/22/23 01:17	1
1,4-Naphthoquinone	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
1,4-Dichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
1-Naphthylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
2,3,4,6-Tetrachlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2,4,5-Trichlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2,4,6-Trichlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2,4-Dichlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2,4-Dimethylphenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2,4-Dinitrophenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
2,4-Dinitrotoluene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1

Client Sample ID: PH 4

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-2

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dichlorophenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
2,6-Dinitrotoluene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2-Acetylaminofluorene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
2-Chloronaphthalene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2-Chlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2-Methylnaphthalene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2-Methylphenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2-Naphthylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
2-Nitroaniline	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
2-Nitrophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
2-Toluidine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
3 & 4 Methylphenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
3-Methylphenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
4-Methylphenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
3,3'-Dichlorobenzidine	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
3,3'-Dimethylbenzidine	ND	*- *1	42		ug/L		12/20/23 14:19	12/22/23 01:17	1
3-Methylcholanthrene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
3-Nitroaniline	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
4-Aminobiphenyl	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
4-Bromophenyl phenyl ether	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
4-Chloro-3-methylphenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
4-Chloroaniline	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
4-Chlorophenyl phenyl ether	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
4-Nitroaniline	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
4-Nitrophenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Acenaphthene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Acenaphthylene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Acetophenone	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Anthracene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Benzo[a]anthracene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Benzo[a]pyrene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Benzo[b]fluoranthene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Benzo[g,h,i]perylene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Benzo[k]fluoranthene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Benzyl alcohol	ND		21		ug/L		12/20/23 14:19	12/22/23 01:17	1
Bis(2-chloroethoxy)methane	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Bis(2-chloroethyl)ether	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Bis(2-ethylhexyl) phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
bis (2-chloroisopropyl) ether	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Butyl benzyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Chrysene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Diallate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Dibenz(a,h)anthracene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Dibenzofuran	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Diethyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Dimethoate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Dimethyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1

Client Sample ID: PH 4

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-2

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Di-n-octyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Dinoseb	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Diphenylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Disulfoton	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Ethyl methanesulfonate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Famphur	ND	*- *1	42		ug/L		12/20/23 14:19	12/22/23 01:17	1
Fluoranthene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Fluorene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Hexachlorobenzene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Hexachlorobutadiene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Hexachlorocyclopentadiene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Hexachloroethane	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Hexachloropropene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Indeno[1,2,3-cd]pyrene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Isodrin	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Isophorone	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Isosafrole	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Kepone	ND	*- *1	52		ug/L		12/20/23 14:19	12/22/23 01:17	1
Methapyrilene	ND	*- *1	52		ug/L		12/20/23 14:19	12/22/23 01:17	1
Methyl methanesulfonate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Safrole	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Thionazin	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Naphthalene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Nitrobenzene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
N-Nitro-o-toluidine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
N-Nitrosodiethylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
N-Nitrosodimethylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
N-Nitrosodi-n-propylamine	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
N-Nitrosodiphenylamine	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
N-Nitrosomethylethylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
N-Nitrosopiperidine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
N-Nitrosopyrrolidine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Parathion ethyl	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Parathion methyl	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
p-Dimethylamino azobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Pentachlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Pentachloronitrobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Pentachlorophenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Phenacetin	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
Phenanthrene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Phenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Phorate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1
p-Phenylene diamine	ND	*-	830		ug/L		12/20/23 14:19	12/22/23 01:17	1
Pyrene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:17	1
Pronamide	ND		10		ug/L		12/20/23 14:19	12/22/23 01:17	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 4

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-2

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		ug/L			1746-01-6	12/20/23 14:19	12/22/23 01:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		48 - 120	12/20/23 14:19	12/22/23 01:17	1
2-Fluorophenol (Surr)	49		35 - 120	12/20/23 14:19	12/22/23 01:17	1
2,4,6-Tribromophenol (Surr)	95		41 - 120	12/20/23 14:19	12/22/23 01:17	1
Nitrobenzene-d5 (Surr)	68		46 - 120	12/20/23 14:19	12/22/23 01:17	1
Phenol-d5 (Surr)	36		22 - 120	12/20/23 14:19	12/22/23 01:17	1
p-Terphenyl-d14 (Surr)	76		60 - 148	12/20/23 14:19	12/22/23 01:17	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
4,4'-DDE	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
4,4'-DDT	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Aldrin	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
alpha-BHC	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
beta-BHC	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Chlordane (technical)	ND		0.50		ug/L		12/21/23 08:49	12/21/23 16:47	1
delta-BHC	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Dieldrin	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Endosulfan I	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Endosulfan II	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Endosulfan sulfate	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Endrin	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Endrin aldehyde	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
gamma-BHC (Lindane)	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Heptachlor	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Methoxychlor	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1
Toxaphene	ND		0.50		ug/L		12/21/23 08:49	12/21/23 16:47	1
Heptachlor epoxide	ND		0.050		ug/L		12/21/23 08:49	12/21/23 16:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	31		20 - 120	12/21/23 08:49	12/21/23 16:47	1
DCB Decachlorobiphenyl	30		20 - 120	12/21/23 08:49	12/21/23 16:47	1
Tetrachloro-m-xylene	58		44 - 120	12/21/23 08:49	12/21/23 16:47	1
Tetrachloro-m-xylene	82		44 - 120	12/21/23 08:49	12/21/23 16:47	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:13	1
PCB-1221	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:13	1
PCB-1232	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:13	1
PCB-1242	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:13	1
PCB-1248	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:13	1
PCB-1254	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:13	1
PCB-1260	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		39 - 121	12/20/23 14:11	12/21/23 16:13	1
Tetrachloro-m-xylene	72		39 - 121	12/20/23 14:11	12/21/23 16:13	1

Client Sample ID: PH 4

Lab Sample ID: 480-215885-2

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Matrix: Water

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*34*		*19 - 120*	*12/20/23 14:11*	*12/21/23 16:13*	*1*
DCB Decachlorobiphenyl	*39*		*19 - 120*	*12/20/23 14:11*	*12/21/23 16:13*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		2.7		ug/L		12/21/23 09:02	12/27/23 15:00	5
2,4-D	ND		2.7		ug/L		12/21/23 09:02	12/27/23 15:00	5
Dinoseb	ND		2.7		ug/L		12/21/23 09:02	12/27/23 15:00	5
Silvex (2,4,5-TP)	ND		2.7		ug/L		12/21/23 09:02	12/27/23 15:00	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*102*		*21 - 143*	*12/21/23 09:02*	*12/27/23 15:00*	*5*
2,4-Dichlorophenylacetic acid	*107*		*21 - 143*	*12/21/23 09:02*	*12/27/23 15:00*	*5*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**32**		4.2		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluoropentanoic acid (PFPeA)	**100**		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorohexanoic acid (PFHxA)	**85**		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluoroheptanoic acid (PFHpA)	**15**		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorooctanoic acid (PFOA)	**20**		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorononanoic acid (PFNA)	**2.5**		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorobutanesulfonic acid (PFBS)	**4.4**		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorohexanesulfonic acid (PFHxS)	**4.1**		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorooctanesulfonic acid (PFOS)	**5.6**		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2		ng/L		12/27/23 07:47	12/27/23 19:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2		ng/L		12/27/23 07:47	12/27/23 19:40	1
6:2 FTS	**4.3**		4.2		ng/L		12/27/23 07:47	12/27/23 19:40	1
8:2 FTS	ND	*+	1.7		ng/L		12/27/23 07:47	12/27/23 19:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*76*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C4 PFHpA	*96*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C4 PFOA	*99*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C4 PFOS	*74*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C5 PFNA	*93*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C4 PFBA	*58*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C2 PFHxA	*87*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*

Client Sample ID: PH 4

Lab Sample ID: 480-215885-2

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Matrix: Water

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*85*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C2 PFUnA	*84*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C2 PFDoA	*88*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C8 FOSA	*69*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C5 PFPeA	*72*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C2 PFTeDA	*72*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
d3-NMeFOSAA	*74*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
d5-NEtFOSAA	*82*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
M2-6:2 FTS	*86*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
M2-8:2 FTS	*69*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*
13C3 PFBS	*71*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:40*	*1*

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		100		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,7,8-PeCDD	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,4,7,8-HxCDD	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,6,7,8-HxCDD	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,7,8,9-HxCDD	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,4,6,7,8-HpCDD	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
OCDD	ND		1000		pg/L		12/29/23 09:18	01/22/24 17:37	1
2,3,7,8-TCDF	ND		100		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,7,8-PeCDF	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
2,3,4,7,8-PeCDF	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,4,7,8-HxCDF	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,6,7,8-HxCDF	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
2,3,4,6,7,8-HxCDF	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,7,8,9-HxCDF	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,4,6,7,8-HpCDF	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
1,2,3,4,7,8,9-HpCDF	ND		500		pg/L		12/29/23 09:18	01/22/24 17:37	1
OCDF	ND		1000		pg/L		12/29/23 09:18	01/22/24 17:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*62*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,7,8-PeCDD	*93*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,4,7,8-HxCDD	*54*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,6,7,8-HxCDD	*61*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*60*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-OCDD	*67*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-2,3,7,8-TCDF	*48*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,7,8-PeCDF	*78*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-2,3,4,7,8-PeCDF	*74*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,4,7,8-HxCDF	*53*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,6,7,8-HxCDF	*50*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-2,3,4,6,7,8-HxCDF	*53*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,7,8,9-HxCDF	*47*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*55*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*45*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*
13C-OCDF	*51*		*40 - 135*	*12/29/23 09:18*	*01/22/24 17:37*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 4

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-2

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**8.5**		0.20		mg/L		12/21/23 08:10	12/21/23 20:17	1
Antimony	ND		0.020		mg/L		12/21/23 08:10	12/21/23 20:17	1
Arsenic	ND		0.015		mg/L		12/21/23 08:10	12/21/23 20:17	1
Barium	**0.22**		0.0020		mg/L		12/21/23 08:10	12/21/23 20:17	1
Beryllium	ND		0.0020		mg/L		12/21/23 08:10	01/03/24 11:40	1
Boron	**0.51**		0.020		mg/L		12/21/23 08:10	12/21/23 20:17	1
Cadmium	ND		0.0020		mg/L		12/21/23 08:10	12/21/23 20:17	1
Calcium	**204**		0.50		mg/L		12/21/23 08:10	12/21/23 20:17	1
Chromium	**0.016**		0.0040		mg/L		12/21/23 08:10	01/03/24 11:40	1
Cobalt	**0.013**		0.0040		mg/L		12/21/23 08:10	12/21/23 20:17	1
Copper	**0.053**		0.010		mg/L		12/21/23 08:10	12/21/23 20:17	1
Iron	**10.9**		0.050		mg/L		12/21/23 08:10	12/21/23 20:17	1
Lead	**0.017**		0.010		mg/L		12/21/23 08:10	12/21/23 20:17	1
Magnesium	**30.7**		0.20		mg/L		12/21/23 08:10	12/21/23 20:17	1
Manganese	**2.5**		0.0030		mg/L		12/21/23 08:10	12/21/23 20:17	1
Nickel	**0.018**		0.010		mg/L		12/21/23 08:10	12/21/23 20:17	1
Potassium	**13.1**		0.50		mg/L		12/21/23 08:10	12/21/23 20:17	1
Selenium	ND		0.025		mg/L		12/21/23 08:10	12/21/23 20:17	1
Silver	ND		0.0060		mg/L		12/21/23 08:10	01/03/24 11:40	1
Sodium	**90.8**		1.0		mg/L		12/21/23 08:10	12/21/23 20:17	1
Thallium	ND		0.020		mg/L		12/21/23 08:10	12/21/23 20:17	1
Tin	ND		0.010		mg/L		12/21/23 08:10	12/21/23 20:17	1
Vanadium	**0.014**		0.0050		mg/L		12/21/23 08:10	12/21/23 20:17	1
Zinc	**0.067**		0.010		mg/L		12/21/23 08:10	12/21/23 20:17	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/21/23 11:23	12/21/23 15:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		2.0		mg/L			12/21/23 14:35	10
Ammonia (EPA 350.1)	**0.48**		0.020		mg/L as N			12/28/23 14:08	1
Total Kjeldahl Nitrogen (EPA 351.2	**1.9**		0.20		mg/L as N		12/20/23 16:02	12/21/23 13:46	1
Nitrate (EPA 353.2)	**0.24**		0.050		mg/L			12/20/23 16:38	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			12/21/23 11:09	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			12/21/23 17:52	1
Chromium, hexavalent (SW846 7196A)	ND	H	0.010		mg/L			12/20/23 10:56	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			12/27/23 18:57	1
Sulfate (SW846 9038)	**444**		100		mg/L			12/22/23 14:48	20
Total Organic Carbon (SW846 9060A)	**4.5**		1.0		mg/L			12/29/23 02:51	1
Chloride (SW846 9251)	**28.1**		1.0		mg/L			12/22/23 11:16	1
Alkalinity, Total (SM 2320B)	**304**		5.0		mg/L			12/21/23 16:38	1
Total Dissolved Solids (SM 2540C)	**1140**		20.0		mg/L			12/21/23 10:24	1
Sulfide (SM 4500 S2 F)	ND		0.67		mg/L			12/22/23 12:00	1
Biochemical Oxygen Demand (SM 5210B)	ND		6.0		mg/L			12/21/23 09:20	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 4

Lab Sample ID: 480-215885-2

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand (SM 5210B)	3.8	H	2.0		mg/L			12/28/23 10:31	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity (EPA 180.1)	250		10		NTU			12/20/23 11:29	10
Color (SM 2120B)	150		0.0500		Color Units			12/20/23 16:42	5

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 5

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.0		ug/L			12/20/23 15:17	4
1,1,1-Trichloroethane	ND		4.0		ug/L			12/20/23 15:17	4
1,1,2,2-Tetrachloroethane	ND		4.0		ug/L			12/20/23 15:17	4
1,1,2-Trichloroethane	ND		4.0		ug/L			12/20/23 15:17	4
1,1-Dichloroethane	ND		4.0		ug/L			12/20/23 15:17	4
1,1-Dichloroethene	ND		4.0		ug/L			12/20/23 15:17	4
1,1-Dichloropropene	ND		4.0		ug/L			12/20/23 15:17	4
1,2,3-Trichloropropane	ND		4.0		ug/L			12/20/23 15:17	4
1,2,4-Trichlorobenzene	ND		4.0		ug/L			12/20/23 15:17	4
1,2-Dibromo-3-Chloropropane	ND		4.0		ug/L			12/20/23 15:17	4
1,2-Dichlorobenzene	ND		4.0		ug/L			12/20/23 15:17	4
1,2-Dichloroethane	ND		4.0		ug/L			12/20/23 15:17	4
1,2-Dichloropropane	ND		4.0		ug/L			12/20/23 15:17	4
1,3-Dichloropropane	ND		4.0		ug/L			12/20/23 15:17	4
1,4-Dichlorobenzene	ND		4.0		ug/L			12/20/23 15:17	4
2,2-Dichloropropane	ND		4.0		ug/L			12/20/23 15:17	4
2-Butanone (MEK)	ND		40		ug/L			12/20/23 15:17	4
2-Hexanone	ND		20		ug/L			12/20/23 15:17	4
4-Methyl-2-pentanone (MIBK)	ND		20		ug/L			12/20/23 15:17	4
Acetone	ND		40		ug/L			12/20/23 15:17	4
Acetonitrile	ND		60		ug/L			12/20/23 15:17	4
Acrolein	ND		80		ug/L			12/20/23 15:17	4
Acrylonitrile	ND		20		ug/L			12/20/23 15:17	4
Allyl chloride	ND		4.0		ug/L			12/20/23 15:17	4
Benzene	ND		4.0		ug/L			12/20/23 15:17	4
Chlorobromomethane	ND		4.0		ug/L			12/20/23 15:17	4
Bromodichloromethane	ND		4.0		ug/L			12/20/23 15:17	4
Bromoform	ND		4.0		ug/L			12/20/23 15:17	4
Bromomethane	ND		4.0		ug/L			12/20/23 15:17	4
Carbon disulfide	ND		4.0		ug/L			12/20/23 15:17	4
Carbon tetrachloride	ND		4.0		ug/L			12/20/23 15:17	4
Chlorobenzene	ND		4.0		ug/L			12/20/23 15:17	4
Chlorodibromomethane	ND		4.0		ug/L			12/20/23 15:17	4
Chloroethane	ND		4.0		ug/L			12/20/23 15:17	4
Chloroform	ND		4.0		ug/L			12/20/23 15:17	4
Chloromethane	ND		4.0		ug/L			12/20/23 15:17	4
cis-1,2-Dichloroethene	ND		4.0		ug/L			12/20/23 15:17	4
cis-1,3-Dichloropropene	ND		4.0		ug/L			12/20/23 15:17	4
Chloroprene	ND		4.0		ug/L			12/20/23 15:17	4
Dibromomethane	ND		4.0		ug/L			12/20/23 15:17	4
Dichlorodifluoromethane	ND		4.0		ug/L			12/20/23 15:17	4
Ethyl methacrylate	ND		4.0		ug/L			12/20/23 15:17	4
Ethylbenzene	ND		4.0		ug/L			12/20/23 15:17	4
1,2-Dibromoethane	ND		4.0		ug/L			12/20/23 15:17	4
Hexachlorobutadiene	ND		8.0		ug/L			12/20/23 15:17	4
Iodomethane	ND		4.0		ug/L			12/20/23 15:17	4
Isobutyl alcohol	ND		100		ug/L			12/20/23 15:17	4
Methacrylonitrile	ND		20		ug/L			12/20/23 15:17	4
Methyl methacrylate	ND		4.0		ug/L			12/20/23 15:17	4

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 5

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**10**		4.0		ug/L			12/20/23 15:17	4
Naphthalene	ND		4.0		ug/L			12/20/23 15:17	4
Pentachloroethane	ND		4.0		ug/L			12/20/23 15:17	4
Propionitrile	ND		40		ug/L			12/20/23 15:17	4
Styrene	ND		4.0		ug/L			12/20/23 15:17	4
Tetrachloroethene	ND		4.0		ug/L			12/20/23 15:17	4
Toluene	ND		4.0		ug/L			12/20/23 15:17	4
trans-1,2-Dichloroethene	ND		4.0		ug/L			12/20/23 15:17	4
trans-1,3-Dichloropropene	ND		4.0		ug/L			12/20/23 15:17	4
trans-1,4-Dichloro-2-butene	ND		4.0		ug/L			12/20/23 15:17	4
Trichloroethene	ND		4.0		ug/L			12/20/23 15:17	4
Trichlorofluoromethane	ND		4.0		ug/L			12/20/23 15:17	4
Vinyl acetate	ND		20		ug/L			12/20/23 15:17	4
Vinyl chloride	ND		4.0		ug/L			12/20/23 15:17	4
Xylenes, Total	ND		8.0		ug/L			12/20/23 15:17	4
o-Xylene	ND		4.0		ug/L			12/20/23 15:17	4
m,p-Xylene	ND		8.0		ug/L			12/20/23 15:17	4
1,2-Dichloroethene, Total	ND		8.0		ug/L			12/20/23 15:17	4
1,3-Dichlorobenzene	ND		4.0		ug/L			12/20/23 15:17	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*12/20/23 15:17*	*4*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*12/20/23 15:17*	*4*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/20/23 15:17*	*4*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*12/20/23 15:17*	*4*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**30**		0.20		ug/L		12/21/23 07:09	12/22/23 23:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*15 - 110*	*12/21/23 07:09*	*12/22/23 23:52*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
1,2,4-Trichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
1,2-Dichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
1,3,5-Trinitrobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
1,3-Dichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
1,3-Dinitrobenzene	ND		21		ug/L		12/20/23 14:19	12/22/23 01:45	1
1,4-Naphthoquinone	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
1,4-Dichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
1-Naphthylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
2,3,4,6-Tetrachlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2,4,5-Trichlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2,4,6-Trichlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2,4-Dichlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2,4-Dimethylphenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2,4-Dinitrophenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
2,4-Dinitrotoluene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1

Client Sample ID: PH 5

Lab Sample ID: 480-215885-3

Date Collected: 12/19/23 10:00

Matrix: Water

Date Received: 12/20/23 10:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dichlorophenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
2,6-Dinitrotoluene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2-Acetylaminofluorene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
2-Chloronaphthalene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2-Chlorophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2-Methylnaphthalene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2-Methylphenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2-Naphthylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
2-Nitroaniline	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
2-Nitrophenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
2-Toluidine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
3 & 4 Methylphenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
3-Methylphenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
4-Methylphenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
3,3'-Dichlorobenzidine	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
3,3'-Dimethylbenzidine	ND	*- *1	42		ug/L		12/20/23 14:19	12/22/23 01:45	1
3-Methylcholanthrene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
3-Nitroaniline	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
4-Aminobiphenyl	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
4-Bromophenyl phenyl ether	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
4-Chloro-3-methylphenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
4-Chloroaniline	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
4-Chlorophenyl phenyl ether	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
4-Nitroaniline	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
4-Nitrophenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Acenaphthene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Acenaphthylene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Acetophenone	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Anthracene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Benzo[a]anthracene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Benzo[a]pyrene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Benzo[b]fluoranthene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Benzo[g,h,i]perylene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Benzo[k]fluoranthene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Benzyl alcohol	ND		21		ug/L		12/20/23 14:19	12/22/23 01:45	1
Bis(2-chloroethoxy)methane	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Bis(2-chloroethyl)ether	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Bis(2-ethylhexyl) phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
bis (2-chloroisopropyl) ether	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Butyl benzyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Chrysene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Diallate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Dibenz(a,h)anthracene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Dibenzofuran	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Diethyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Dimethoate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Dimethyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1

Client Sample ID: PH 5

Lab Sample ID: 480-215885-3

Date Collected: 12/19/23 10:00

Matrix: Water

Date Received: 12/20/23 10:00

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Di-n-octyl phthalate	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Dinoseb	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Diphenylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Disulfoton	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Ethyl methanesulfonate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Famphur	ND	*- *1	42		ug/L		12/20/23 14:19	12/22/23 01:45	1
Fluoranthene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Fluorene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Hexachlorobenzene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Hexachlorobutadiene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Hexachlorocyclopentadiene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Hexachloroethane	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Hexachloropropene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Indeno[1,2,3-cd]pyrene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Isodrin	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Isophorone	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Isosafrole	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Kepone	ND	*- *1	52		ug/L		12/20/23 14:19	12/22/23 01:45	1
Methapyrilene	ND	*- *1	52		ug/L		12/20/23 14:19	12/22/23 01:45	1
Methyl methanesulfonate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Safrole	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Thionazin	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Naphthalene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Nitrobenzene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
N-Nitro-o-toluidine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
N-Nitrosodiethylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
N-Nitrosodimethylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
N-Nitrosodi-n-propylamine	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
N-Nitrosodiphenylamine	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
N-Nitrosomethylethylamine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
N-Nitrosopiperidine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
N-Nitrosopyrrolidine	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Parathion ethyl	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Parathion methyl	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
p-Dimethylamino azobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Pentachlorobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Pentachloronitrobenzene	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Pentachlorophenol	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Phenacetin	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
Phenanthrene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Phenol	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Phorate	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1
p-Phenylene diamine	ND	*-	830		ug/L		12/20/23 14:19	12/22/23 01:45	1
Pyrene	ND		5.2		ug/L		12/20/23 14:19	12/22/23 01:45	1
Pronamide	ND		10		ug/L		12/20/23 14:19	12/22/23 01:45	1

Client Sample ID: PH 5

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-3

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		ug/L			1746-01-6	12/20/23 14:19	12/22/23 01:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	99		48 - 120	12/20/23 14:19	12/22/23 01:45	1
2-Fluorophenol (Surr)	66		35 - 120	12/20/23 14:19	12/22/23 01:45	1
2,4,6-Tribromophenol (Surr)	125	S1+	41 - 120	12/20/23 14:19	12/22/23 01:45	1
Nitrobenzene-d5 (Surr)	91		46 - 120	12/20/23 14:19	12/22/23 01:45	1
Phenol-d5 (Surr)	49		22 - 120	12/20/23 14:19	12/22/23 01:45	1
p-Terphenyl-d14 (Surr)	56	S1-	60 - 148	12/20/23 14:19	12/22/23 01:45	1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
4,4'-DDE	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
4,4'-DDT	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Aldrin	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
alpha-BHC	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
beta-BHC	**0.080**		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Chlordane (technical)	ND		0.50		ug/L		12/21/23 08:49	12/22/23 10:09	1
delta-BHC	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Dieldrin	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Endosulfan I	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Endosulfan II	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Endosulfan sulfate	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Endrin	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Endrin aldehyde	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
gamma-BHC (Lindane)	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Heptachlor	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Methoxychlor	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1
Toxaphene	ND		0.50		ug/L		12/21/23 08:49	12/22/23 10:09	1
Heptachlor epoxide	ND		0.050		ug/L		12/21/23 08:49	12/22/23 10:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	75		20 - 120	12/21/23 08:49	12/22/23 10:09	1
DCB Decachlorobiphenyl	42		20 - 120	12/21/23 08:49	12/22/23 10:09	1
Tetrachloro-m-xylene	65		44 - 120	12/21/23 08:49	12/22/23 10:09	1
Tetrachloro-m-xylene	131	S1+	44 - 120	12/21/23 08:49	12/22/23 10:09	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:30	1
PCB-1221	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:30	1
PCB-1232	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:30	1
PCB-1242	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:30	1
PCB-1248	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:30	1
PCB-1254	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:30	1
PCB-1260	ND		0.50		ug/L		12/20/23 14:11	12/21/23 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		39 - 121	12/20/23 14:11	12/21/23 16:30	1
Tetrachloro-m-xylene	56		39 - 121	12/20/23 14:11	12/21/23 16:30	1

Client Sample ID: PH 5

Lab Sample ID: 480-215885-3

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Matrix: Water

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*33*		*19 - 120*	*12/20/23 14:11*	*12/21/23 16:30*	*1*
DCB Decachlorobiphenyl	*37*		*19 - 120*	*12/20/23 14:11*	*12/21/23 16:30*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		4.8		ug/L		12/21/23 09:02	12/27/23 15:19	10
2,4-D	ND		4.8		ug/L		12/21/23 09:02	12/27/23 15:19	10
Dinoseb	ND		4.8		ug/L		12/21/23 09:02	12/27/23 15:19	10
Silvex (2,4,5-TP)	ND		4.8		ug/L		12/21/23 09:02	12/27/23 15:19	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*119*		*21 - 143*	*12/21/23 09:02*	*12/27/23 15:19*	*10*
2,4-Dichlorophenylacetic acid	*91*		*21 - 143*	*12/21/23 09:02*	*12/27/23 15:19*	*10*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**100**		4.3		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluoropentanoic acid (PFPeA)	**160**		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorohexanoic acid (PFHxA)	**220**		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluoroheptanoic acid (PFHpA)	**43**		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorooctanoic acid (PFOA)	**80**		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorononanoic acid (PFNA)	**4.6**		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorobutanesulfonic acid (PFBS)	**20**		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorohexanesulfonic acid (PFHxS)	**24**		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorooctanesulfonic acid (PFOS)	**15**		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3		ng/L		12/27/23 07:47	12/27/23 19:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3		ng/L		12/27/23 07:47	12/27/23 19:48	1
6:2 FTS	**27**		4.3		ng/L		12/27/23 07:47	12/27/23 19:48	1
8:2 FTS	ND	*+	1.7		ng/L		12/27/23 07:47	12/27/23 19:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*89*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:48*	*1*
13C4 PFHpA	*81*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:48*	*1*
13C4 PFOA	*101*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:48*	*1*
13C4 PFOS	*99*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:48*	*1*
13C5 PFNA	*111*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:48*	*1*
13C4 PFBA	*30*	*5-	*50 - 150*	*12/27/23 07:47*	*12/27/23 19:48*	*1*
13C2 PFHxA	*80*		*50 - 150*	*12/27/23 07:47*	*12/27/23 19:48*	*1*

Client Sample ID: PH 5

Lab Sample ID: 480-215885-3

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDA	113		50 - 150	12/27/23 07:47	12/27/23 19:48	1
13C2 PFUnA	114		50 - 150	12/27/23 07:47	12/27/23 19:48	1
13C2 PFDoA	124		50 - 150	12/27/23 07:47	12/27/23 19:48	1
13C8 FOSA	80		50 - 150	12/27/23 07:47	12/27/23 19:48	1
13C5 PFPeA	55		50 - 150	12/27/23 07:47	12/27/23 19:48	1
13C2 PFTeDA	99		50 - 150	12/27/23 07:47	12/27/23 19:48	1
d3-NMeFOSAA	119		50 - 150	12/27/23 07:47	12/27/23 19:48	1
d5-NEtFOSAA	123		50 - 150	12/27/23 07:47	12/27/23 19:48	1
M2-6:2 FTS	148		50 - 150	12/27/23 07:47	12/27/23 19:48	1
M2-8:2 FTS	126		50 - 150	12/27/23 07:47	12/27/23 19:48	1
13C3 PFBS	89		50 - 150	12/27/23 07:47	12/27/23 19:48	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		100		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,7,8-PeCDD	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,4,7,8-HxCDD	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,6,7,8-HxCDD	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,7,8,9-HxCDD	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,4,6,7,8-HpCDD	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
OCDD	ND		1000		pg/L		12/29/23 09:18	01/23/24 08:18	1
2,3,7,8-TCDF	ND		100		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,7,8-PeCDF	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
2,3,4,7,8-PeCDF	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,4,7,8-HxCDF	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,6,7,8-HxCDF	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
2,3,4,6,7,8-HxCDF	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,7,8,9-HxCDF	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,4,6,7,8-HpCDF	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
1,2,3,4,7,8,9-HpCDF	ND		500		pg/L		12/29/23 09:18	01/23/24 08:18	1
OCDF	ND		1000		pg/L		12/29/23 09:18	01/23/24 08:18	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	54		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,7,8-PeCDD	51		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,4,7,8-HxCDD	59		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,6,7,8-HxCDD	65		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,4,6,7,8-HpCDD	65		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-OCDD	66		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-2,3,7,8-TCDF	56		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,7,8-PeCDF	54		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-2,3,4,7,8-PeCDF	54		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,4,7,8-HxCDF	68		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,6,7,8-HxCDF	63		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-2,3,4,6,7,8-HxCDF	65		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,7,8,9-HxCDF	65		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,4,6,7,8-HpCDF	68		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-1,2,3,4,7,8,9-HpCDF	64		40 - 135	12/29/23 09:18	01/23/24 08:18	1
13C-OCDF	61		40 - 135	12/29/23 09:18	01/23/24 08:18	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 5

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-3

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.64**		0.20		mg/L		12/21/23 08:10	12/21/23 20:20	1
Antimony	ND		0.020		mg/L		12/21/23 08:10	12/21/23 20:20	1
Arsenic	ND		0.015		mg/L		12/21/23 08:10	12/21/23 20:20	1
Barium	**0.18**		0.0020		mg/L		12/21/23 08:10	12/21/23 20:20	1
Beryllium	ND		0.0020		mg/L		12/21/23 08:10	01/03/24 11:43	1
Boron	**3.5**		0.020		mg/L		12/21/23 08:10	12/21/23 20:20	1
Cadmium	ND		0.0020		mg/L		12/21/23 08:10	12/21/23 20:20	1
Calcium	**364**		0.50		mg/L		12/21/23 08:10	12/21/23 20:20	1
Chromium	**0.0095**		0.0040		mg/L		12/21/23 08:10	01/03/24 11:43	1
Cobalt	**0.0050**		0.0040		mg/L		12/21/23 08:10	12/21/23 20:20	1
Copper	ND		0.010		mg/L		12/21/23 08:10	12/21/23 20:20	1
Iron	**25.6**		0.050		mg/L		12/21/23 08:10	12/21/23 20:20	1
Lead	ND		0.010		mg/L		12/21/23 08:10	12/21/23 20:20	1
Magnesium	**91.7**		0.20		mg/L		12/21/23 08:10	12/21/23 20:20	1
Manganese	**5.4**		0.0030		mg/L		12/21/23 08:10	12/21/23 20:20	1
Nickel	**0.027**		0.010		mg/L		12/21/23 08:10	12/21/23 20:20	1
Potassium	**12.6**		0.50		mg/L		12/21/23 08:10	12/21/23 20:20	1
Selenium	ND		0.025		mg/L		12/21/23 08:10	12/21/23 20:20	1
Silver	ND		0.0060		mg/L		12/21/23 08:10	01/03/24 11:43	1
Sodium	**91.0**		1.0		mg/L		12/21/23 08:10	12/21/23 20:20	1
Thallium	ND		0.020		mg/L		12/21/23 08:10	12/21/23 20:20	1
Tin	ND		0.010		mg/L		12/21/23 08:10	12/21/23 20:20	1
Vanadium	ND		0.0050		mg/L		12/21/23 08:10	12/21/23 20:20	1
Zinc	**0.029**		0.010		mg/L		12/21/23 08:10	12/21/23 20:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/21/23 11:23	12/21/23 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		2.0		mg/L			12/21/23 20:03	10
Ammonia (EPA 350.1)	**7.4**		0.20		mg/L as N			12/28/23 14:42	10
Total Kjeldahl Nitrogen (EPA 351.2	**9.4**		2.0		mg/L as N		12/21/23 13:49	12/27/23 13:52	10
Nitrate (EPA 353.2)	ND		0.050		mg/L			12/20/23 15:28	1
Chemical Oxygen Demand (EPA 410.4)	**108**		20.0		mg/L			12/21/23 11:09	2
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			12/21/23 17:56	1
Chromium, hexavalent (SW846 7196A)	**0.013**	**H**	0.010		mg/L			12/20/23 10:56	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			12/27/23 19:05	1
Sulfate (SW846 9038)	**498**		100		mg/L			12/22/23 14:50	20
Total Organic Carbon (SW846 9060A)	**38.6**		1.0		mg/L			12/29/23 03:48	1
Chloride (SW846 9251)	**133**		5.0		mg/L			12/22/23 11:31	5
Alkalinity, Total (SM 2320B)	**20.0**		5.0		mg/L			12/21/23 16:48	1
Total Dissolved Solids (SM 2540C)	**1740**		20.0		mg/L			12/21/23 10:24	1
Sulfide (SM 4500 S2 F)	ND		0.67		mg/L			12/22/23 12:00	1
Biochemical Oxygen Demand (SM 5210B)	**10.9**	**b**	6.0		mg/L			12/21/23 09:20	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 5

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-3

Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity (EPA 180.1)	130		10		NTU			12/20/23 11:29	10
Color (SM 2120B)	15.0		0.0100		Color Units			12/20/23 16:42	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-215885-4

Date Collected: 12/19/23 00:00
Date Received: 12/20/23 10:00

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/20/23 15:39	1
1,1,1-Trichloroethane	ND		1.0		ug/L			12/20/23 15:39	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/20/23 15:39	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/20/23 15:39	1
1,1-Dichloroethane	ND		1.0		ug/L			12/20/23 15:39	1
1,1-Dichloroethene	ND		1.0		ug/L			12/20/23 15:39	1
1,1-Dichloropropene	ND		1.0		ug/L			12/20/23 15:39	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/20/23 15:39	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/20/23 15:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/20/23 15:39	1
1,2-Dichlorobenzene	ND		1.0		ug/L			12/20/23 15:39	1
1,2-Dichloroethane	ND		1.0		ug/L			12/20/23 15:39	1
1,2-Dichloropropane	ND		1.0		ug/L			12/20/23 15:39	1
1,3-Dichloropropane	ND		1.0		ug/L			12/20/23 15:39	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/20/23 15:39	1
2,2-Dichloropropane	ND		1.0		ug/L			12/20/23 15:39	1
2-Butanone (MEK)	ND		10		ug/L			12/20/23 15:39	1
2-Hexanone	ND		5.0		ug/L			12/20/23 15:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			12/20/23 15:39	1
Acetone	ND		10		ug/L			12/20/23 15:39	1
Acetonitrile	ND		15		ug/L			12/20/23 15:39	1
Acrolein	ND		20		ug/L			12/20/23 15:39	1
Acrylonitrile	ND		5.0		ug/L			12/20/23 15:39	1
Allyl chloride	ND		1.0		ug/L			12/20/23 15:39	1
Benzene	ND		1.0		ug/L			12/20/23 15:39	1
Chlorobromomethane	ND		1.0		ug/L			12/20/23 15:39	1
Bromodichloromethane	ND		1.0		ug/L			12/20/23 15:39	1
Bromoform	ND		1.0		ug/L			12/20/23 15:39	1
Bromomethane	ND		1.0		ug/L			12/20/23 15:39	1
Carbon disulfide	ND		1.0		ug/L			12/20/23 15:39	1
Carbon tetrachloride	ND		1.0		ug/L			12/20/23 15:39	1
Chlorobenzene	ND		1.0		ug/L			12/20/23 15:39	1
Chlorodibromomethane	ND		1.0		ug/L			12/20/23 15:39	1
Chloroethane	ND		1.0		ug/L			12/20/23 15:39	1
Chloroform	ND		1.0		ug/L			12/20/23 15:39	1
Chloromethane	ND		1.0		ug/L			12/20/23 15:39	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/20/23 15:39	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/20/23 15:39	1
Chloroprene	ND		1.0		ug/L			12/20/23 15:39	1
Dibromomethane	ND		1.0		ug/L			12/20/23 15:39	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/20/23 15:39	1
Ethyl methacrylate	ND		1.0		ug/L			12/20/23 15:39	1
Ethylbenzene	ND		1.0		ug/L			12/20/23 15:39	1
1,2-Dibromoethane	ND		1.0		ug/L			12/20/23 15:39	1
Hexachlorobutadiene	ND		2.0		ug/L			12/20/23 15:39	1
Iodomethane	ND		1.0		ug/L			12/20/23 15:39	1
Isobutyl alcohol	ND		25		ug/L			12/20/23 15:39	1
Methacrylonitrile	ND		5.0		ug/L			12/20/23 15:39	1
Methyl methacrylate	ND		1.0		ug/L			12/20/23 15:39	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-215885-4

Date Collected: 12/19/23 00:00
Date Received: 12/20/23 10:00

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0		ug/L			12/20/23 15:39	1
Naphthalene	ND		1.0		ug/L			12/20/23 15:39	1
Pentachloroethane	ND		1.0		ug/L			12/20/23 15:39	1
Propionitrile	ND		10		ug/L			12/20/23 15:39	1
Styrene	ND		1.0		ug/L			12/20/23 15:39	1
Tetrachloroethene	ND		1.0		ug/L			12/20/23 15:39	1
Toluene	ND		1.0		ug/L			12/20/23 15:39	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/20/23 15:39	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/20/23 15:39	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			12/20/23 15:39	1
Trichloroethene	ND		1.0		ug/L			12/20/23 15:39	1
Trichlorofluoromethane	ND		1.0		ug/L			12/20/23 15:39	1
Vinyl acetate	ND		5.0		ug/L			12/20/23 15:39	1
Vinyl chloride	ND		1.0		ug/L			12/20/23 15:39	1
Xylenes, Total	ND		2.0		ug/L			12/20/23 15:39	1
o-Xylene	ND		1.0		ug/L			12/20/23 15:39	1
m,p-Xylene	ND		2.0		ug/L			12/20/23 15:39	1
1,2-Dichloroethene, Total	ND		2.0		ug/L			12/20/23 15:39	1
1,3-Dichlorobenzene	ND		1.0		ug/L			12/20/23 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*12/20/23 15:39*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*12/20/23 15:39*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/20/23 15:39*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*12/20/23 15:39*	*1*

Surrogate Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-215885-1	PH 123	99	105	100	104
480-215885-2	PH 4	101	102	100	103
480-215885-3	PH 5	100	105	99	100
480-215885-4	TRIP BLANK	101	104	99	103
LCS 480-696009/6	Lab Control Sample	97	105	98	100
MB 480-696009/8	Method Blank	100	104	102	103

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPHd14
Lab Sample ID	Client Sample ID	(48-120)	(35-120)	(41-120)	(46-120)	(22-120)	(60-148)
480-215885-1	PH 123	76	50	91	65	37	63
480-215885-2	PH 4	78	49	95	68	36	76
480-215885-3	PH 5	99	66	125 S1+	91	49	56 S1-
LCS 480-696068/2-A	Lab Control Sample	94	65	106	90	52	99
LCSD 480-696068/3-A	Lab Control Sample Dup	103	73	114	98	58	108
MB 480-696068/1-A	Method Blank	96	65	79	87	48	106

Surrogate Legend

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

Method: 8081B - Organochlorine Pesticides (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(20-120)	(44-120)	(44-120)
480-215885-1	PH 123	0 S1-	0 S1-	0 S1-	0 S1-
480-215885-2	PH 4	31	30	58	82
480-215885-3	PH 5	75	42	65	131 S1+
LCS 480-696141/2-A	Lab Control Sample	48	48	68	74
MB 480-696141/1-A	Method Blank	55	55	72	74

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: Waste Connections, Inc.
Job ID: 480-215885-1
Project/Site: Dunn Landfill - Leachate Expanded

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCBP1	DCBP2
Lab Sample ID	Client Sample ID	(39-121)	(39-121)	(19-120)	(19-120)
480-215885-1	PH 123	65	59	26	30
480-215885-2	PH 4	77	72	34	39
480-215885-3	PH 5	63	56	33	37
LCS 480-696067/2-A	Lab Control Sample	94	84	44	55
LCSD 480-696067/3-A	Lab Control Sample Dup	91	81	45	53
MB 480-696067/1-A	Method Blank	93	88	53	60

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPAA1	DCPAA2
Lab Sample ID	Client Sample ID	(21-143)	(21-143)
480-215885-1	PH 123	0 S1-	0 S1-
480-215885-2	PH 4	102	107
480-215885-3	PH 5	119	91
LCS 480-696143/2-A	Lab Control Sample	89	77
LCSD 480-696143/3-A	Lab Control Sample Dup	92	85
MB 480-696143/1-A	Method Blank	97	84

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Isotope Dilution Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

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

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

		Percent Isotope Dilution Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DXE (15-110)
480-215885-1	PH 123	38
480-215885-2	PH 4	39
480-215885-3	PH 5	40
LCS 480-696118/2-A	Lab Control Sample	37
LCSD 480-696118/3-A	Lab Control Sample Dup	47
MB 480-696118/1-A	Method Blank	40

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (50-150)	PFHxA (50-150)	PFDA (50-150)
480-215885-1	PH 123	83	90	98	86	110	19 *5-	80	104
480-215885-2	PH 4	76	96	99	74	93	58	87	85
480-215885-3	PH 5	89	81	101	99	111	30 *5-	80	113
LCS 200-199107/2-A	Lab Control Sample	82	92	100	82	102	84	91	92
LCSD 200-199107/3-A	Lab Control Sample Dup	80	95	104	82	100	85	93	95
MB 200-199107/1-A	Method Blank	87	103	107	92	108	92	94	107

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (50-150)	PFPeA (50-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (50-150)
480-215885-1	PH 123	101	98	75	63	38 *5-	114	117	137
480-215885-2	PH 4	84	88	69	72	72	74	82	86
480-215885-3	PH 5	114	124	80	55	99	119	123	148
LCS 200-199107/2-A	Lab Control Sample	88	91	69	80	76	84	86	78
LCSD 200-199107/3-A	Lab Control Sample Dup	91	86	73	83	84	82	82	74
MB 200-199107/1-A	Method Blank	100	89	77	87	87	94	93	86

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M282FTS (50-150)	C3PFBS (50-150)
480-215885-1	PH 123	113	85
480-215885-2	PH 4	69	71
480-215885-3	PH 5	126	89
LCS 200-199107/2-A	Lab Control Sample	69	80
LCSD 200-199107/3-A	Lab Control Sample Dup	70	82
MB 200-199107/1-A	Method Blank	79	85

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA

Isotope Dilution Summary

Client: Waste Connections, Inc. Job ID: 480-215885-1
Project/Site: Dunn Landfill - Leachate Expanded

PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (40-135)	PeCDD (40-135)	HxCDD (40-135)	HxDD (40-135)	HpCDD (40-135)	OCDD (40-135)	TCDF (40-135)	PeCDF (40-135)
480-215885-1	PH 123	34 *5-	39 *5-	28 *5-	31 *5-	28 *5-	30 *5-	26 *5-	34 *5-
480-215885-2	PH 4	62	93	54	61	60	67	48	78
480-215885-3	PH 5	54	51	59	65	65	66	56	54
LCS 140-81864/12-A	Lab Control Sample	48	44	54	59	59	61	44	46
MB 140-81864/13-A	Method Blank	49	53	52	63	54	57	38 *5-	48

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PeCF (40-135)	HxCDF (40-135)	HxDF (40-135)	13CHxCF (40-135)	HxCF (40-135)	HpCDF (40-135)	HpCDF2 (40-135)	OCDF (40-135)
480-215885-1	PH 123	31 *5-	33 *5-	31 *5-	25 *5-	31 *5-	25 *5-	22 I *5-	23 *5-
480-215885-2	PH 4	74	53	50	53	47	55	45	51
480-215885-3	PH 5	54	68	63	65	65	68	64	61
LCS 140-81864/12-A	Lab Control Sample	45	57	53	55	54	59	56	55
MB 140-81864/13-A	Method Blank	45	52	48	48	51	51	46	47

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
PeCDD = 13C-1,2,3,7,8-PeCDD
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxDD = 13C-1,2,3,6,7,8-HxCDD
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
OCDD = 13C-OCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDF = 13C-1,2,3,7,8-PeCDF
PeCF = 13C-2,3,4,7,8-PeCDF
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDF = 13C-1,2,3,6,7,8-HxCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDF = 13C-OCDF

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

Lab Sample ID: MB 480-696009/8 **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/20/23 12:44	1
1,1,1-Trichloroethane	ND		1.0		ug/L			12/20/23 12:44	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/20/23 12:44	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/20/23 12:44	1
1,1-Dichloroethane	ND		1.0		ug/L			12/20/23 12:44	1
1,1-Dichloroethene	ND		1.0		ug/L			12/20/23 12:44	1
1,1-Dichloropropene	ND		1.0		ug/L			12/20/23 12:44	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/20/23 12:44	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/20/23 12:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/20/23 12:44	1
1,2-Dichlorobenzene	ND		1.0		ug/L			12/20/23 12:44	1
1,2-Dichloroethane	ND		1.0		ug/L			12/20/23 12:44	1
1,2-Dichloropropane	ND		1.0		ug/L			12/20/23 12:44	1
1,3-Dichloropropane	ND		1.0		ug/L			12/20/23 12:44	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/20/23 12:44	1
2,2-Dichloropropane	ND		1.0		ug/L			12/20/23 12:44	1
2-Butanone (MEK)	ND		10		ug/L			12/20/23 12:44	1
2-Hexanone	ND		5.0		ug/L			12/20/23 12:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			12/20/23 12:44	1
Acetone	ND		10		ug/L			12/20/23 12:44	1
Acetonitrile	ND		15		ug/L			12/20/23 12:44	1
Acrolein	ND		20		ug/L			12/20/23 12:44	1
Acrylonitrile	ND		5.0		ug/L			12/20/23 12:44	1
Allyl chloride	ND		1.0		ug/L			12/20/23 12:44	1
Benzene	ND		1.0		ug/L			12/20/23 12:44	1
Chlorobromomethane	ND		1.0		ug/L			12/20/23 12:44	1
Bromodichloromethane	ND		1.0		ug/L			12/20/23 12:44	1
Bromoform	ND		1.0		ug/L			12/20/23 12:44	1
Bromomethane	ND		1.0		ug/L			12/20/23 12:44	1
Carbon disulfide	ND		1.0		ug/L			12/20/23 12:44	1
Carbon tetrachloride	ND		1.0		ug/L			12/20/23 12:44	1
Chlorobenzene	ND		1.0		ug/L			12/20/23 12:44	1
Chlorodibromomethane	ND		1.0		ug/L			12/20/23 12:44	1
Chloroethane	ND		1.0		ug/L			12/20/23 12:44	1
Chloroform	ND		1.0		ug/L			12/20/23 12:44	1
Chloromethane	ND		1.0		ug/L			12/20/23 12:44	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/20/23 12:44	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/20/23 12:44	1
Chloroprene	ND		1.0		ug/L			12/20/23 12:44	1
Dibromomethane	ND		1.0		ug/L			12/20/23 12:44	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/20/23 12:44	1
Ethyl methacrylate	ND		1.0		ug/L			12/20/23 12:44	1
Ethylbenzene	ND		1.0		ug/L			12/20/23 12:44	1
1,2-Dibromoethane	ND		1.0		ug/L			12/20/23 12:44	1
Hexachlorobutadiene	ND		2.0		ug/L			12/20/23 12:44	1
Iodomethane	ND		1.0		ug/L			12/20/23 12:44	1
Isobutyl alcohol	ND		25		ug/L			12/20/23 12:44	1
Methacrylonitrile	ND		5.0		ug/L			12/20/23 12:44	1

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

Lab Sample ID: MB 480-696009/8
Matrix: Water
Analysis Batch: 696009

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methacrylate	ND		1.0		ug/L			12/20/23 12:44	1
Methylene Chloride	ND		1.0		ug/L			12/20/23 12:44	1
Naphthalene	ND		1.0		ug/L			12/20/23 12:44	1
Pentachloroethane	ND		1.0		ug/L			12/20/23 12:44	1
Propionitrile	ND		10		ug/L			12/20/23 12:44	1
Styrene	ND		1.0		ug/L			12/20/23 12:44	1
Tetrachloroethene	ND		1.0		ug/L			12/20/23 12:44	1
Toluene	ND		1.0		ug/L			12/20/23 12:44	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/20/23 12:44	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/20/23 12:44	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			12/20/23 12:44	1
Trichloroethene	ND		1.0		ug/L			12/20/23 12:44	1
Trichlorofluoromethane	ND		1.0		ug/L			12/20/23 12:44	1
Vinyl acetate	ND		5.0		ug/L			12/20/23 12:44	1
Vinyl chloride	ND		1.0		ug/L			12/20/23 12:44	1
Xylenes, Total	ND		2.0		ug/L			12/20/23 12:44	1
o-Xylene	ND		1.0		ug/L			12/20/23 12:44	1
m,p-Xylene	ND		2.0		ug/L			12/20/23 12:44	1
1,2-Dichloroethene, Total	ND		2.0		ug/L			12/20/23 12:44	1
1,3-Dichlorobenzene	ND		1.0		ug/L			12/20/23 12:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*12/20/23 12:44*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*12/20/23 12:44*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*12/20/23 12:44*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*12/20/23 12:44*	*1*

Lab Sample ID: LCS 480-696009/6
Matrix: Water
Analysis Batch: 696009

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	26.1		ug/L		104	80 - 120
1,1,1-Trichloroethane	25.0	23.4		ug/L		94	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.0		ug/L		96	76 - 120
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	76 - 122
1,1-Dichloroethane	25.0	23.0		ug/L		92	77 - 120
1,1-Dichloroethene	25.0	21.3		ug/L		85	66 - 127
1,1-Dichloropropene	25.0	23.8		ug/L		95	72 - 122
1,2,3-Trichloropropane	25.0	25.6		ug/L		102	68 - 122
1,2,4-Trichlorobenzene	25.0	24.3		ug/L		97	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	25.5		ug/L		102	56 - 134
1,2-Dichlorobenzene	25.0	23.7		ug/L		95	80 - 124
1,2-Dichloroethane	25.0	23.5		ug/L		94	75 - 120
1,2-Dichloropropane	25.0	23.8		ug/L		95	76 - 120
1,3-Dichloropropane	25.0	24.5		ug/L		98	75 - 120
1,4-Dichlorobenzene	25.0	24.1		ug/L		96	80 - 120
2,2-Dichloropropane	25.0	23.1		ug/L		92	63 - 136

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

Lab Sample ID: LCS 480-696009/6
Matrix: Water
Analysis Batch: 696009

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	125	118		ug/L		94	57 - 140
2-Hexanone	125	123		ug/L		99	65 - 127
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		97	71 - 125
Acetone	125	128		ug/L		103	56 - 142
Acrolein	125	91.5		ug/L		73	52 - 143
Acrylonitrile	250	234		ug/L		94	63 - 125
Allyl chloride	25.0	22.3		ug/L		89	60 - 140
Benzene	25.0	23.6		ug/L		94	71 - 124
Chlorobromomethane	25.0	24.7		ug/L		99	72 - 130
Bromodichloromethane	25.0	24.8		ug/L		99	80 - 122
Bromoform	25.0	28.4		ug/L		114	61 - 132
Bromomethane	25.0	20.4		ug/L		81	55 - 144
Carbon disulfide	25.0	21.8		ug/L		87	59 - 134
Carbon tetrachloride	25.0	24.6		ug/L		99	72 - 134
Chlorobenzene	25.0	24.2		ug/L		97	80 - 120
Chlorodibromomethane	25.0	26.3		ug/L		105	75 - 125
Chloroethane	25.0	24.6		ug/L		98	69 - 136
Chloroform	25.0	23.0		ug/L		92	73 - 127
Chloromethane	25.0	18.1		ug/L		72	68 - 124
cis-1,2-Dichloroethene	25.0	24.6		ug/L		98	74 - 124
cis-1,3-Dichloropropene	25.0	26.2		ug/L		105	74 - 124
Dibromomethane	25.0	25.1		ug/L		100	76 - 127
Dichlorodifluoromethane	25.0	23.5		ug/L		94	59 - 135
Ethyl methacrylate	25.0	27.5		ug/L		110	74 - 120
Ethylbenzene	25.0	24.8		ug/L		99	77 - 123
1,2-Dibromoethane	25.0	25.5		ug/L		102	77 - 120
Hexachlorobutadiene	25.0	24.8		ug/L		99	68 - 131
Iodomethane	25.0	22.8		ug/L		91	78 - 123
Isobutyl alcohol	625	654		ug/L		105	51 - 150
Methylene Chloride	25.0	22.5		ug/L		90	75 - 124
Naphthalene	25.0	24.7		ug/L		99	66 - 125
Styrene	25.0	26.0		ug/L		104	80 - 120
Tetrachloroethene	25.0	24.5		ug/L		98	74 - 122
Toluene	25.0	23.8		ug/L		95	80 - 122
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	73 - 127
trans-1,3-Dichloropropene	25.0	27.4		ug/L		110	80 - 120
trans-1,4-Dichloro-2-butene	25.0	22.5		ug/L		90	41 - 131
Trichloroethene	25.0	24.5		ug/L		98	74 - 123
Trichlorofluoromethane	25.0	23.4		ug/L		94	62 - 150
Vinyl acetate	50.0	47.6		ug/L		95	50 - 144
Vinyl chloride	25.0	25.8		ug/L		103	65 - 133
o-Xylene	25.0	25.1		ug/L		100	76 - 122
m,p-Xylene	25.0	25.7		ug/L		103	76 - 122
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	77 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*

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

Lab Sample ID: LCS 480-696009/6
Matrix: Water
Analysis Batch: 696009

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	100		75 - 123

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

Lab Sample ID: MB 480-696068/1-A
Matrix: Water
Analysis Batch: 696165

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 696068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
1,2,4-Trichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
1,2-Dichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
1,3,5-Trinitrobenzene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
1,3-Dichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
1,3-Dinitrobenzene	ND		20		ug/L		12/20/23 14:19	12/21/23 22:31	1
1,4-Naphthoquinone	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
1,4-Dichlorobenzene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
1-Naphthylamine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
2,3,4,6-Tetrachlorophenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2,4,5-Trichlorophenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2,4,6-Trichlorophenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2,4-Dichlorophenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2,4-Dimethylphenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2,4-Dinitrophenol	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
2,4-Dinitrotoluene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2,6-Dichlorophenol	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
2,6-Dinitrotoluene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2-Acetylaminofluorene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
2-Chloronaphthalene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2-Chlorophenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2-Methylnaphthalene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2-Methylphenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2-Naphthylamine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
2-Nitroaniline	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
2-Nitrophenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
2-Toluidine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
3 & 4 Methylphenol	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
3-Methylphenol	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
4-Methylphenol	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
3,3'-Dichlorobenzidine	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
3,3'-Dimethylbenzidine	ND		40		ug/L		12/20/23 14:19	12/21/23 22:31	1
3-Methylcholanthrene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
3-Nitroaniline	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
4-Aminobiphenyl	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
4-Bromophenyl phenyl ether	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
4-Chloro-3-methylphenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
4-Chloroaniline	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1

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

Lab Sample ID: MB 480-696068/1-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696165 **Prep Batch: 696068**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
4-Nitroaniline	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
4-Nitrophenol	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Acenaphthene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Acenaphthylene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Acetophenone	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Anthracene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Benzo[a]anthracene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Benzo[a]pyrene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Benzo[b]fluoranthene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Benzo[g,h,i]perylene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Benzo[k]fluoranthene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Benzyl alcohol	ND		20		ug/L		12/20/23 14:19	12/21/23 22:31	1
Bis(2-chloroethoxy)methane	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Bis(2-chloroethyl)ether	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Bis(2-ethylhexyl) phthalate	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
bis (2-chloroisopropyl) ether	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Butyl benzyl phthalate	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Chrysene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Diallate	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Dibenz(a,h)anthracene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Dibenzofuran	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Diethyl phthalate	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Dimethoate	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Dimethyl phthalate	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Di-n-butyl phthalate	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Di-n-octyl phthalate	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Dinoseb	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Diphenylamine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Disulfoton	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Ethyl methanesulfonate	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Famphur	ND		40		ug/L		12/20/23 14:19	12/21/23 22:31	1
Fluoranthene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Fluorene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Hexachlorobenzene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Hexachlorobutadiene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Hexachlorocyclopentadiene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Hexachloroethane	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Hexachloropropene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Isodrin	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Isophorone	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Isosafrole	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Kepone	ND		50		ug/L		12/20/23 14:19	12/21/23 22:31	1
Methapyrilene	ND		50		ug/L		12/20/23 14:19	12/21/23 22:31	1
Methyl methanesulfonate	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Safrole	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Thionazin	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1

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

Lab Sample ID: MB 480-696068/1-A
Matrix: Water
Analysis Batch: 696165

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 696068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Nitrobenzene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
N-Nitro-o-toluidine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
N-Nitrosodiethylamine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
N-Nitrosodimethylamine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
N-Nitrosodi-n-propylamine	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
N-Nitrosodiphenylamine	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
N-Nitrosomethylethylamine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
N-Nitrosopiperidine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
N-Nitrosopyrrolidine	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Parathion ethyl	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Parathion methyl	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
p-Dimethylamino azobenzene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Pentachlorobenzene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Pentachloronitrobenzene	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Pentachlorophenol	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Phenacetin	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
Phenanthrene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Phenol	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Phorate	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1
p-Phenylene diamine	ND		800		ug/L		12/20/23 14:19	12/21/23 22:31	1
Pyrene	ND		5.0		ug/L		12/20/23 14:19	12/21/23 22:31	1
Pronamide	ND		10		ug/L		12/20/23 14:19	12/21/23 22:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*48 - 120*	*12/20/23 14:19*	*12/21/23 22:31*	*1*
2-Fluorophenol (Surr)	*65*		*35 - 120*	*12/20/23 14:19*	*12/21/23 22:31*	*1*
2,4,6-Tribromophenol (Surr)	*79*		*41 - 120*	*12/20/23 14:19*	*12/21/23 22:31*	*1*
Nitrobenzene-d5 (Surr)	*87*		*46 - 120*	*12/20/23 14:19*	*12/21/23 22:31*	*1*
Phenol-d5 (Surr)	*48*		*22 - 120*	*12/20/23 14:19*	*12/21/23 22:31*	*1*
p-Terphenyl-d14 (Surr)	*106*		*60 - 148*	*12/20/23 14:19*	*12/21/23 22:31*	*1*

Lab Sample ID: LCS 480-696068/2-A
Matrix: Water
Analysis Batch: 696165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 696068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4,5-Tetrachlorobenzene	32.0	26.2		ug/L		82	53 - 120
1,2,4-Trichlorobenzene	32.0	24.5		ug/L		77	40 - 120
1,2-Dichlorobenzene	32.0	23.8		ug/L		74	45 - 120
1,3-Dichlorobenzene	32.0	23.3		ug/L		73	40 - 120
1,3-Dinitrobenzene	32.0	33.2		ug/L		104	68 - 131
1,4-Dichlorobenzene	32.0	23.9		ug/L		75	42 - 120
2,3,4,6-Tetrachlorophenol	32.0	30.1		ug/L		94	63 - 120
2,4,5-Trichlorophenol	32.0	28.5		ug/L		89	65 - 126
2,4,6-Trichlorophenol	32.0	29.7		ug/L		93	64 - 120

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

Lab Sample ID: LCS 480-696068/2-A
Matrix: Water
Analysis Batch: 696165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 696068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dichlorophenol	32.0	30.1		ug/L		94	63 - 120
2,4-Dimethylphenol	32.0	23.8		ug/L		74	47 - 120
2,4-Dinitrophenol	64.0	57.9		ug/L		91	31 - 137
2,4-Dinitrotoluene	32.0	33.2		ug/L		104	69 - 120
2,6-Dichlorophenol	32.0	29.5		ug/L		92	62 - 120
2,6-Dinitrotoluene	32.0	32.0		ug/L		100	68 - 120
2-Chloronaphthalene	32.0	31.7		ug/L		99	58 - 120
2-Chlorophenol	32.0	26.6		ug/L		83	48 - 120
2-Methylnaphthalene	32.0	26.6		ug/L		83	59 - 120
2-Methylphenol	32.0	23.8		ug/L		74	39 - 120
2-Nitroaniline	32.0	30.1		ug/L		94	54 - 127
2-Nitrophenol	32.0	28.9		ug/L		90	52 - 125
3-Methylphenol	32.0	24.6		ug/L		77	39 - 120
4-Methylphenol	32.0	24.6		ug/L		77	29 - 131
3,3'-Dichlorobenzidine	64.0	61.6		ug/L		96	49 - 135
3-Nitroaniline	32.0	25.7		ug/L		80	51 - 120
4,6-Dinitro-2-methylphenol	64.0	65.6		ug/L		102	46 - 136
4-Bromophenyl phenyl ether	32.0	30.8		ug/L		96	65 - 120
4-Chloro-3-methylphenol	32.0	30.1		ug/L		94	61 - 123
4-Chloroaniline	32.0	24.1		ug/L		75	30 - 120
4-Chlorophenyl phenyl ether	32.0	30.3		ug/L		95	62 - 120
4-Nitroaniline	32.0	31.8		ug/L		99	65 - 120
4-Nitrophenol	64.0	60.1		ug/L		94	45 - 120
Acenaphthene	32.0	29.9		ug/L		93	60 - 120
Acenaphthylene	32.0	27.8		ug/L		87	63 - 120
Acetophenone	32.0	28.7		ug/L		90	45 - 120
Anthracene	32.0	28.9		ug/L		90	67 - 120
Benzo[a]anthracene	32.0	30.3		ug/L		95	70 - 121
Benzo[a]pyrene	32.0	31.3		ug/L		98	60 - 123
Benzo[b]fluoranthene	32.0	32.9		ug/L		103	66 - 126
Benzo[g,h,i]perylene	32.0	29.7		ug/L		93	66 - 150
Benzo[k]fluoranthene	32.0	30.4		ug/L		95	65 - 124
Benzyl alcohol	32.0	23.7		ug/L		74	41 - 126
Bis(2-chloroethoxy)methane	32.0	26.1		ug/L		82	50 - 128
Bis(2-chloroethyl)ether	32.0	24.6		ug/L		77	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	31.0		ug/L		97	63 - 139
bis (2-chloroisopropyl) ether	32.0	21.0		ug/L		66	21 - 136
Butyl benzyl phthalate	32.0	32.7		ug/L		102	70 - 129
Chrysene	32.0	30.7		ug/L		96	69 - 120
Dibenz(a,h)anthracene	32.0	30.7		ug/L		96	65 - 135
Dibenzofuran	32.0	29.4		ug/L		92	66 - 120
Diethyl phthalate	32.0	35.7		ug/L		111	59 - 127
Dimethyl phthalate	32.0	32.8		ug/L		103	68 - 120
Di-n-butyl phthalate	32.0	32.9		ug/L		103	69 - 131
Di-n-octyl phthalate	32.0	30.8		ug/L		96	63 - 140
Diphenylamine	27.4	25.8		ug/L		94	61 - 120
Fluoranthene	32.0	31.5		ug/L		98	69 - 126
Fluorene	32.0	30.9		ug/L		97	66 - 120
Hexachlorobenzene	32.0	34.0		ug/L		106	61 - 120

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

Lab Sample ID: LCS 480-696068/2-A
Matrix: Water
Analysis Batch: 696165

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 696068

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobutadiene	32.0	24.9		ug/L		78	35 - 120
Hexachlorocyclopentadiene	32.0	11.4		ug/L		35	31 - 120
Hexachloroethane	32.0	23.0		ug/L		72	33 - 120
Indeno[1,2,3-cd]pyrene	32.0	33.7		ug/L		105	69 - 146
Isophorone	32.0	27.5		ug/L		86	55 - 120
Naphthalene	32.0	26.1		ug/L		82	57 - 120
Nitrobenzene	32.0	28.2		ug/L		88	53 - 123
N-Nitrosodimethylamine	32.0	24.5		ug/L		77	10 - 120
N-Nitrosodi-n-propylamine	32.0	28.7		ug/L		90	32 - 140
N-Nitrosodiphenylamine	32.0	30.1		ug/L		94	61 - 120
Pentachlorophenol	64.0	54.4		ug/L		85	10 - 136
Phenanthrene	32.0	30.6		ug/L		96	68 - 120
Phenol	32.0	17.6		ug/L		55	17 - 120
Pyrene	32.0	30.8		ug/L		96	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*94*		*48 - 120*
2-Fluorophenol (Surr)	*65*		*35 - 120*
2,4,6-Tribromophenol (Surr)	*106*		*41 - 120*
Nitrobenzene-d5 (Surr)	*90*		*46 - 120*
Phenol-d5 (Surr)	*52*		*22 - 120*
p-Terphenyl-d14 (Surr)	*99*		*60 - 148*

Lab Sample ID: LCSD 480-696068/3-A
Matrix: Water
Analysis Batch: 696165

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 696068

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4,5-Tetrachlorobenzene	32.0	26.9		ug/L		84	53 - 120	2	30
1,2,4-Trichlorobenzene	32.0	25.0		ug/L		78	40 - 120	2	30
1,2-Dichlorobenzene	32.0	26.4		ug/L		83	45 - 120	10	29
1,3-Dichlorobenzene	32.0	25.4		ug/L		79	40 - 120	9	37
1,3-Dinitrobenzene	32.0	34.5		ug/L		108	68 - 131	4	18
1,4-Dichlorobenzene	32.0	25.7		ug/L		80	42 - 120	7	36
2,3,4,6-Tetrachlorophenol	32.0	33.1		ug/L		103	63 - 120	10	30
2,4,5-Trichlorophenol	32.0	32.9		ug/L		103	65 - 126	14	18
2,4,6-Trichlorophenol	32.0	33.8		ug/L		106	64 - 120	13	19
2,4-Dichlorophenol	32.0	31.8		ug/L		99	63 - 120	5	19
2,4-Dimethylphenol	32.0	25.3		ug/L		79	47 - 120	6	42
2,4-Dinitrophenol	64.0	67.9		ug/L		106	31 - 137	16	22
2,4-Dinitrotoluene	32.0	35.5		ug/L		111	69 - 120	7	20
2,6-Dichlorophenol	32.0	31.7		ug/L		99	62 - 120	7	30
2,6-Dinitrotoluene	32.0	35.1		ug/L		110	68 - 120	9	15
2-Chloronaphthalene	32.0	35.2		ug/L		110	58 - 120	10	21
2-Chlorophenol	32.0	29.6		ug/L		93	48 - 120	11	25
2-Methylnaphthalene	32.0	27.9		ug/L		87	59 - 120	5	21
2-Methylphenol	32.0	25.4		ug/L		79	39 - 120	6	27
2-Nitroaniline	32.0	32.3		ug/L		101	54 - 127	7	15

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

Lab Sample ID: LCSD 480-696068/3-A
Matrix: Water
Analysis Batch: 696165

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 696068

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitrophenol	32.0	31.3		ug/L		98	52 - 125	8	18
3-Methylphenol	32.0	26.9		ug/L		84	39 - 120	9	30
4-Methylphenol	32.0	26.9		ug/L		84	29 - 131	9	24
3,3'-Dichlorobenzidine	64.0	66.9		ug/L		105	49 - 135	8	25
3-Nitroaniline	32.0	28.0		ug/L		88	51 - 120	9	19
4,6-Dinitro-2-methylphenol	64.0	72.9		ug/L		114	46 - 136	11	15
4-Bromophenyl phenyl ether	32.0	33.7		ug/L		105	65 - 120	9	15
4-Chloro-3-methylphenol	32.0	32.9		ug/L		103	61 - 123	9	27
4-Chloroaniline	32.0	26.8		ug/L		84	30 - 120	10	22
4-Chlorophenyl phenyl ether	32.0	32.3		ug/L		101	62 - 120	6	16
4-Nitroaniline	32.0	33.3		ug/L		104	65 - 120	5	24
4-Nitrophenol	64.0	67.9		ug/L		106	45 - 120	12	48
Acenaphthene	32.0	31.8		ug/L		99	60 - 120	6	24
Acenaphthylene	32.0	29.9		ug/L		93	63 - 120	7	18
Acetophenone	32.0	32.0		ug/L		100	45 - 120	11	20
Anthracene	32.0	30.9		ug/L		97	67 - 120	7	15
Benzo[a]anthracene	32.0	33.0		ug/L		103	70 - 121	8	15
Benzo[a]pyrene	32.0	34.2		ug/L		107	60 - 123	9	15
Benzo[b]fluoranthene	32.0	35.5		ug/L		111	66 - 126	8	15
Benzo[g,h,i]perylene	32.0	32.0		ug/L		100	66 - 150	7	15
Benzo[k]fluoranthene	32.0	33.2		ug/L		104	65 - 124	9	22
Benzyl alcohol	32.0	26.3		ug/L		82	41 - 126	10	34
Bis(2-chloroethoxy)methane	32.0	28.8		ug/L		90	50 - 128	10	17
Bis(2-chloroethyl)ether	32.0	27.9		ug/L		87	44 - 120	13	21
Bis(2-ethylhexyl) phthalate	32.0	34.2		ug/L		107	63 - 139	10	15
bis (2-chloroisopropyl) ether	32.0	23.9		ug/L		75	21 - 136	13	24
Butyl benzyl phthalate	32.0	34.8		ug/L		109	70 - 129	6	16
Chrysene	32.0	33.4		ug/L		105	69 - 120	9	15
Dibenz(a,h)anthracene	32.0	33.6		ug/L		105	65 - 135	9	15
Dibenzofuran	32.0	31.6		ug/L		99	66 - 120	7	15
Diethyl phthalate	32.0	39.0		ug/L		122	59 - 127	9	15
Dimethyl phthalate	32.0	36.4		ug/L		114	68 - 120	10	15
Di-n-butyl phthalate	32.0	35.1		ug/L		110	69 - 131	6	15
Di-n-octyl phthalate	32.0	34.1		ug/L		107	63 - 140	10	16
Diphenylamine	27.4	27.0		ug/L		99	61 - 120	5	30
Fluoranthene	32.0	33.3		ug/L		104	69 - 126	6	15
Fluorene	32.0	33.3		ug/L		104	66 - 120	7	15
Hexachlorobenzene	32.0	36.6		ug/L		114	61 - 120	7	15
Hexachlorobutadiene	32.0	23.2		ug/L		73	35 - 120	7	44
Hexachlorocyclopentadiene	32.0	11.2		ug/L		35	31 - 120	1	49
Hexachloroethane	32.0	23.8		ug/L		74	33 - 120	3	46
Indeno[1,2,3-cd]pyrene	32.0	36.9		ug/L		115	69 - 146	9	15
Isophorone	32.0	29.6		ug/L		93	55 - 120	7	17
Naphthalene	32.0	28.2		ug/L		88	57 - 120	8	29
Nitrobenzene	32.0	30.0		ug/L		94	53 - 123	6	24
N-Nitrosodimethylamine	32.0	27.2		ug/L		85	10 - 120	10	30
N-Nitrosodi-n-propylamine	32.0	32.6		ug/L		102	32 - 140	13	31
N-Nitrosodiphenylamine	32.0	31.6		ug/L		99	61 - 120	5	15
Pentachlorophenol	64.0	61.1		ug/L		95	10 - 136	12	37

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

Lab Sample ID: LCSD 480-696068/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696165 **Prep Batch: 696068**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenanthrene	32.0	32.4		ug/L		101	68 - 120	6	15
Phenol	32.0	19.6		ug/L		61	17 - 120	10	34
Pyrene	32.0	34.4		ug/L		107	70 - 125	11	19

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*103*		*48 - 120*
2-Fluorophenol (Surr)	*73*		*35 - 120*
2,4,6-Tribromophenol (Surr)	*114*		*41 - 120*
Nitrobenzene-d5 (Surr)	*98*		*46 - 120*
Phenol-d5 (Surr)	*58*		*22 - 120*
p-Terphenyl-d14 (Surr)	*108*		*60 - 148*

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

Lab Sample ID: MB 480-696118/1-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696313 **Prep Batch: 696118**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		12/21/23 07:09	12/22/23 20:56	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*15 - 110*	*12/21/23 07:09*	*12/22/23 20:56*	*1*

Lab Sample ID: LCS 480-696118/2-A **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696313 **Prep Batch: 696118**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.27		ug/L		114	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*37*		*15 - 110*

Lab Sample ID: LCSD 480-696118/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696313 **Prep Batch: 696118**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	2.00	2.29		ug/L		115	40 - 140	1	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*47*		*15 - 110*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-696141/1-A
Matrix: Water
Analysis Batch: 696191

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 696141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
4,4'-DDE	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
4,4'-DDT	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Aldrin	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
alpha-BHC	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
beta-BHC	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Chlordane (technical)	ND		0.50		ug/L		12/21/23 08:49	12/21/23 14:30	1
delta-BHC	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Dieldrin	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Endosulfan I	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Endosulfan II	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Endosulfan sulfate	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Endrin	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Endrin aldehyde	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
gamma-BHC (Lindane)	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Heptachlor	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Methoxychlor	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1
Toxaphene	ND		0.50		ug/L		12/21/23 08:49	12/21/23 14:30	1
Heptachlor epoxide	ND		0.050		ug/L		12/21/23 08:49	12/21/23 14:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*		*20 - 120*	*12/21/23 08:49*	*12/21/23 14:30*	*1*
DCB Decachlorobiphenyl	*55*		*20 - 120*	*12/21/23 08:49*	*12/21/23 14:30*	*1*
Tetrachloro-m-xylene	*72*		*44 - 120*	*12/21/23 08:49*	*12/21/23 14:30*	*1*
Tetrachloro-m-xylene	*74*		*44 - 120*	*12/21/23 08:49*	*12/21/23 14:30*	*1*

Lab Sample ID: LCS 480-696141/2-A
Matrix: Water
Analysis Batch: 696191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 696141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	0.400	0.373		ug/L		93	64 - 129
4,4'-DDE	0.400	0.322		ug/L		81	50 - 120
4,4'-DDT	0.400	0.386		ug/L		97	59 - 120
Aldrin	0.400	0.283		ug/L		71	40 - 125
alpha-BHC	0.400	0.266		ug/L		67	52 - 125
beta-BHC	0.400	0.365		ug/L		91	51 - 120
delta-BHC	0.400	0.329		ug/L		82	51 - 120
Dieldrin	0.400	0.363		ug/L		91	66 - 128
Endosulfan I	0.400	0.345		ug/L		86	57 - 120
Endosulfan II	0.400	0.428		ug/L		107	66 - 131
Endosulfan sulfate	0.400	0.424		ug/L		106	66 - 136
Endrin	0.400	0.383		ug/L		96	65 - 135
Endrin aldehyde	0.400	0.307		ug/L		77	61 - 134
gamma-BHC (Lindane)	0.400	0.303		ug/L		76	56 - 120
Heptachlor	0.400	0.315		ug/L		79	58 - 120
Methoxychlor	0.400	0.368		ug/L		92	50 - 150
Heptachlor epoxide	0.400	0.374		ug/L		94	65 - 125

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 480-696141/2-A
Matrix: Water
Analysis Batch: 696191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 696141

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	48		20 - 120
DCB Decachlorobiphenyl	48		20 - 120
Tetrachloro-m-xylene	68		44 - 120
Tetrachloro-m-xylene	74		44 - 120

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-696067/1-A
Matrix: Water
Analysis Batch: 696188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 696067

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		12/20/23 14:11	12/21/23 14:28	1
PCB-1221	ND		0.50		ug/L		12/20/23 14:11	12/21/23 14:28	1
PCB-1232	ND		0.50		ug/L		12/20/23 14:11	12/21/23 14:28	1
PCB-1242	ND		0.50		ug/L		12/20/23 14:11	12/21/23 14:28	1
PCB-1248	ND		0.50		ug/L		12/20/23 14:11	12/21/23 14:28	1
PCB-1254	ND		0.50		ug/L		12/20/23 14:11	12/21/23 14:28	1
PCB-1260	ND		0.50		ug/L		12/20/23 14:11	12/21/23 14:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		39 - 121	12/20/23 14:11	12/21/23 14:28	1
Tetrachloro-m-xylene	88		39 - 121	12/20/23 14:11	12/21/23 14:28	1
DCB Decachlorobiphenyl	53		19 - 120	12/20/23 14:11	12/21/23 14:28	1
DCB Decachlorobiphenyl	60		19 - 120	12/20/23 14:11	12/21/23 14:28	1

Lab Sample ID: LCS 480-696067/2-A
Matrix: Water
Analysis Batch: 696188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 696067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	4.00	3.77		ug/L		94	62 - 130
PCB-1260	4.00	3.63		ug/L		91	56 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	94		39 - 121
Tetrachloro-m-xylene	84		39 - 121
DCB Decachlorobiphenyl	44		19 - 120
DCB Decachlorobiphenyl	55		19 - 120

Lab Sample ID: LCSD 480-696067/3-A
Matrix: Water
Analysis Batch: 696188

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 696067

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	4.00	3.75		ug/L		94	62 - 130	1	50
PCB-1260	4.00	3.64		ug/L		91	56 - 123	0	50

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 480-696067/3-A
Matrix: Water
Analysis Batch: 696188

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 696067

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*91*		*39 - 121*
Tetrachloro-m-xylene	*81*		*39 - 121*
DCB Decachlorobiphenyl	*45*		*19 - 120*
DCB Decachlorobiphenyl	*53*		*19 - 120*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-696143/1-A
Matrix: Water
Analysis Batch: 696436

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 696143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.50		ug/L		12/21/23 09:02	12/27/23 09:14	1
2,4-D	ND		0.50		ug/L		12/21/23 09:02	12/27/23 09:14	1
Dinoseb	ND		0.50		ug/L		12/21/23 09:02	12/27/23 09:14	1
Silvex (2,4,5-TP)	ND		0.50		ug/L		12/21/23 09:02	12/27/23 09:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*97*		*21 - 143*	*12/21/23 09:02*	*12/27/23 09:14*	*1*
2,4-Dichlorophenylacetic acid	*84*		*21 - 143*	*12/21/23 09:02*	*12/27/23 09:14*	*1*

Lab Sample ID: LCS 480-696143/2-A
Matrix: Water
Analysis Batch: 696436

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 696143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-T	2.00	1.50		ug/L		75	41 - 150
2,4-D	2.00	1.63		ug/L		81	36 - 150
Dinoseb	2.00	1.07		ug/L		54	21 - 120
Silvex (2,4,5-TP)	2.00	1.48		ug/L		74	49 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*89*		*21 - 143*
2,4-Dichlorophenylacetic acid	*77*		*21 - 143*

Lab Sample ID: LCSD 480-696143/3-A
Matrix: Water
Analysis Batch: 696436

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 696143

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,5-T	2.00	1.68		ug/L		84	41 - 150	11	50
2,4-D	2.00	1.83		ug/L		92	36 - 150	12	50
Dinoseb	2.00	1.52		ug/L		76	21 - 120	34	50
Silvex (2,4,5-TP)	2.00	1.66		ug/L		83	49 - 150	12	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*92*		*21 - 143*
2,4-Dichlorophenylacetic acid	*85*		*21 - 143*

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-199107/1-A
Matrix: Water
Analysis Batch: 199143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 199107

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
6:2 FTS	ND		5.0		ng/L		12/27/23 07:47	12/27/23 18:34	1
8:2 FTS	ND		2.0		ng/L		12/27/23 07:47	12/27/23 18:34	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*87*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C4 PFHpA	*103*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C4 PFOA	*107*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C4 PFOS	*92*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C5 PFNA	*108*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C4 PFBA	*92*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C2 PFHxA	*94*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C2 PFDA	*107*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C2 PFUnA	*100*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C2 PFDoA	*89*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C8 FOSA	*77*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C5 PFPeA	*87*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C2 PFTeDA	*87*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
d3-NMeFOSAA	*94*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
d5-NEtFOSAA	*93*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
M2-6:2 FTS	*86*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
M2-8:2 FTS	*79*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*
13C3 PFBS	*85*		*50 - 150*	*12/27/23 07:47*	*12/27/23 18:34*	*1*

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

Lab Sample ID: LCS 200-199107/2-A
Matrix: Water
Analysis Batch: 199143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 199107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	40.0	42.1		ng/L		105	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	46.2		ng/L		116	70 - 130
Perfluorohexanoic acid (PFHxA)	40.0	42.9		ng/L		107	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	46.0		ng/L		115	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	43.7		ng/L		109	70 - 130
Perfluorononanoic acid (PFNA)	40.0	43.1		ng/L		108	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	45.8		ng/L		115	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	45.6		ng/L		114	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	37.9		ng/L		95	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	36.1		ng/L		90	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	39.7		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.5	40.1		ng/L		113	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.6	38.5		ng/L		105	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	38.1	40.7		ng/L		107	70 - 130
Perfluorooctanesulfonic acid (PFOS)	37.1	38.1		ng/L		103	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	34.2		ng/L		89	70 - 130
Perfluorooctanesulfonamide (FOSA)	40.0	45.4		ng/L		113	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	42.7		ng/L		107	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	39.3		ng/L		98	70 - 130
6:2 FTS	38.0	43.5		ng/L		114	60 - 140
8:2 FTS	38.4	48.9		ng/L		127	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*82*		*50 - 150*
13C4 PFHpA	*92*		*50 - 150*
13C4 PFOA	*100*		*50 - 150*
13C4 PFOS	*82*		*50 - 150*
13C5 PFNA	*102*		*50 - 150*
13C4 PFBA	*84*		*50 - 150*
13C2 PFHxA	*91*		*50 - 150*
13C2 PFDA	*92*		*50 - 150*
13C2 PFUnA	*88*		*50 - 150*
13C2 PFDoA	*91*		*50 - 150*
13C8 FOSA	*69*		*50 - 150*
13C5 PFPeA	*80*		*50 - 150*
13C2 PFTeDA	*76*		*50 - 150*
d3-NMeFOSAA	*84*		*50 - 150*
d5-NEtFOSAA	*86*		*50 - 150*
M2-6:2 FTS	*78*		*50 - 150*

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

Lab Sample ID: LCS 200-199107/2-A
Matrix: Water
Analysis Batch: 199143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 199107

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
M2-8:2 FTS	*69*		*50 - 150*
13C3 PFBS	*80*		*50 - 150*

Lab Sample ID: LCSD 200-199107/3-A
Matrix: Water
Analysis Batch: 199143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 199107

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	41.6		ng/L		104	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	40.0	46.2		ng/L		115	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	40.0	43.0		ng/L		107	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	40.0	43.8		ng/L		110	70 - 130	5	30
Perfluorooctanoic acid (PFOA)	40.0	41.8		ng/L		104	70 - 130	5	30
Perfluorononanoic acid (PFNA)	40.0	46.3		ng/L		116	70 - 130	7	30
Perfluorodecanoic acid (PFDA)	40.0	48.4		ng/L		121	70 - 130	6	30
Perfluoroundecanoic acid (PFUnA)	40.0	43.7		ng/L		109	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	40.0	45.9		ng/L		115	70 - 130	19	30
Perfluorotridecanoic acid (PFTriA)	40.0	43.6		ng/L		109	70 - 130	19	30
Perfluorotetradecanoic acid (PFTeA)	40.0	39.7		ng/L		99	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	35.5	39.5		ng/L		111	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	36.6	39.7		ng/L		109	70 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	38.1	41.2		ng/L		108	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	37.1	40.5		ng/L		109	70 - 130	6	30
Perfluorodecanesulfonic acid (PFDS)	38.6	36.6		ng/L		95	70 - 130	7	30
Perfluorooctanesulfonamide (FOSA)	40.0	46.4		ng/L		116	70 - 130	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	43.8		ng/L		110	70 - 130	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	42.3		ng/L		106	70 - 130	7	30
6:2 FTS	38.0	46.8		ng/L		123	60 - 140	7	30
8:2 FTS	38.4	51.7	*+	ng/L		135	70 - 130	6	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
18O2 PFHxS	*80*		*50 - 150*
13C4 PFHpA	*95*		*50 - 150*
13C4 PFOA	*104*		*50 - 150*
13C4 PFOS	*82*		*50 - 150*
13C5 PFNA	*100*		*50 - 150*
13C4 PFBA	*85*		*50 - 150*
13C2 PFHxA	*93*		*50 - 150*
13C2 PFDA	*95*		*50 - 150*
13C2 PFUnA	*91*		*50 - 150*

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

Lab Sample ID: LCSD 200-199107/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 199143 **Prep Batch: 199107**

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C2 PFDoA	86		50 - 150
13C8 FOSA	73		50 - 150
13C5 PFPeA	83		50 - 150
13C2 PFTeDA	84		50 - 150
d3-NMeFOSAA	82		50 - 150
d5-NEtFOSAA	82		50 - 150
M2-6:2 FTS	74		50 - 150
M2-8:2 FTS	70		50 - 150
13C3 PFBS	82		50 - 150

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 140-81864/13-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 82509 **Prep Batch: 81864**

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,7,8-PeCDD	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,4,7,8-HxCDD	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,6,7,8-HxCDD	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,7,8,9-HxCDD	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,4,6,7,8-HpCDD	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
OCDD	ND		100		pg/L		12/29/23 09:18	01/22/24 15:37	1
2,3,7,8-TCDF	ND		10		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,7,8-PeCDF	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
2,3,4,7,8-PeCDF	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,4,7,8-HxCDF	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,6,7,8-HxCDF	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
2,3,4,6,7,8-HxCDF	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,7,8,9-HxCDF	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,4,6,7,8-HpCDF	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
1,2,3,4,7,8,9-HpCDF	ND		50		pg/L		12/29/23 09:18	01/22/24 15:37	1
OCDF	ND		100		pg/L		12/29/23 09:18	01/22/24 15:37	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	49		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-1,2,3,7,8-PeCDD	53		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-1,2,3,4,7,8-HxCDD	52		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-1,2,3,6,7,8-HxCDD	63		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-1,2,3,4,6,7,8-HpCDD	54		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-OCDD	57		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-2,3,7,8-TCDF	38	*5-	40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-1,2,3,7,8-PeCDF	48		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-2,3,4,7,8-PeCDF	45		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-1,2,3,4,7,8-HxCDF	52		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-1,2,3,6,7,8-HxCDF	48		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-2,3,4,6,7,8-HxCDF	48		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-1,2,3,7,8,9-HxCDF	51		40 - 135	12/29/23 09:18	01/22/24 15:37	1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-81864/13-A
Matrix: Water
Analysis Batch: 82509

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81864

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDF	51		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-1,2,3,4,7,8,9-HpCDF	46		40 - 135	12/29/23 09:18	01/22/24 15:37	1
13C-OCDF	47		40 - 135	12/29/23 09:18	01/22/24 15:37	1

Lab Sample ID: LCS 140-81864/12-A
Matrix: Water
Analysis Batch: 82509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81864

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,3,7,8-TCDD	200	175		pg/L		87	77 - 127
1,2,3,7,8-PeCDD	1000	995		pg/L		100	78 - 128
1,2,3,4,7,8-HxCDD	1000	957		pg/L		96	73 - 123
1,2,3,6,7,8-HxCDD	1000	867		pg/L		87	72 - 127
1,2,3,7,8,9-HxCDD	1000	1010		pg/L		101	76 - 126
1,2,3,4,6,7,8-HpCDD	1000	940		pg/L		94	73 - 123
OCDD	2000	1830		pg/L		91	75 - 125
2,3,7,8-TCDF	200	175		pg/L		87	74 - 124
1,2,3,7,8-PeCDF	1000	939		pg/L		94	74 - 124
2,3,4,7,8-PeCDF	1000	975		pg/L		97	74 - 124
1,2,3,4,7,8-HxCDF	1000	830		pg/L		83	75 - 125
1,2,3,6,7,8-HxCDF	1000	894		pg/L		89	75 - 125
2,3,4,6,7,8-HxCDF	1000	924		pg/L		92	76 - 126
1,2,3,7,8,9-HxCDF	1000	892		pg/L		89	76 - 126
1,2,3,4,6,7,8-HpCDF	1000	871		pg/L		87	71 - 121
1,2,3,4,7,8,9-HpCDF	1000	900		pg/L		90	73 - 123
OCDF	2000	1790		pg/L		90	68 - 132

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	48		40 - 135
13C-1,2,3,7,8-PeCDD	44		40 - 135
13C-1,2,3,4,7,8-HxCDD	54		40 - 135
13C-1,2,3,6,7,8-HxCDD	59		40 - 135
13C-1,2,3,4,6,7,8-HpCDD	59		40 - 135
13C-OCDD	61		40 - 135
13C-2,3,7,8-TCDF	44		40 - 135
13C-1,2,3,7,8-PeCDF	46		40 - 135
13C-2,3,4,7,8-PeCDF	45		40 - 135
13C-1,2,3,4,7,8-HxCDF	57		40 - 135
13C-1,2,3,6,7,8-HxCDF	53		40 - 135
13C-2,3,4,6,7,8-HxCDF	55		40 - 135
13C-1,2,3,7,8,9-HxCDF	54		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	59		40 - 135
13C-1,2,3,4,7,8,9-HpCDF	56		40 - 135
13C-OCDF	55		40 - 135

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-696078/1-A
Matrix: Water
Analysis Batch: 696321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 696078

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20		mg/L		12/21/23 08:10	12/21/23 19:32	1
Antimony	ND		0.020		mg/L		12/21/23 08:10	12/21/23 19:32	1
Arsenic	ND		0.015		mg/L		12/21/23 08:10	12/21/23 19:32	1
Barium	ND		0.0020		mg/L		12/21/23 08:10	12/21/23 19:32	1
Boron	ND		0.020		mg/L		12/21/23 08:10	12/21/23 19:32	1
Cadmium	ND		0.0020		mg/L		12/21/23 08:10	12/21/23 19:32	1
Calcium	ND		0.50		mg/L		12/21/23 08:10	12/21/23 19:32	1
Cobalt	ND		0.0040		mg/L		12/21/23 08:10	12/21/23 19:32	1
Copper	ND		0.010		mg/L		12/21/23 08:10	12/21/23 19:32	1
Iron	ND		0.050		mg/L		12/21/23 08:10	12/21/23 19:32	1
Lead	ND		0.010		mg/L		12/21/23 08:10	12/21/23 19:32	1
Magnesium	ND		0.20		mg/L		12/21/23 08:10	12/21/23 19:32	1
Manganese	ND		0.0030		mg/L		12/21/23 08:10	12/21/23 19:32	1
Nickel	ND		0.010		mg/L		12/21/23 08:10	12/21/23 19:32	1
Potassium	ND		0.50		mg/L		12/21/23 08:10	12/21/23 19:32	1
Selenium	ND		0.025		mg/L		12/21/23 08:10	12/21/23 19:32	1
Sodium	ND		1.0		mg/L		12/21/23 08:10	12/21/23 19:32	1
Thallium	ND		0.020		mg/L		12/21/23 08:10	12/21/23 19:32	1
Tin	ND		0.010		mg/L		12/21/23 08:10	12/21/23 19:32	1
Vanadium	ND		0.0050		mg/L		12/21/23 08:10	12/21/23 19:32	1
Zinc	ND		0.010		mg/L		12/21/23 08:10	12/21/23 19:32	1

Lab Sample ID: MB 480-696078/1-A
Matrix: Water
Analysis Batch: 696979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 696078

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020		mg/L		12/21/23 08:10	01/03/24 11:29	1
Chromium	ND		0.0040		mg/L		12/21/23 08:10	01/03/24 11:29	1
Silver	ND		0.0060		mg/L		12/21/23 08:10	01/03/24 11:29	1

Lab Sample ID: LCS 480-696078/2-A
Matrix: Water
Analysis Batch: 696321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 696078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10.0	8.64		mg/L		86	80 - 120
Antimony	0.200	0.211		mg/L		105	80 - 120
Arsenic	0.200	0.203		mg/L		102	80 - 120
Barium	0.200	0.182		mg/L		91	80 - 120
Boron	0.200	0.211		mg/L		106	80 - 120
Cadmium	0.200	0.204		mg/L		102	80 - 120
Calcium	10.0	10.42		mg/L		104	80 - 120
Cobalt	0.200	0.198		mg/L		99	80 - 120
Copper	0.200	0.186		mg/L		93	80 - 120
Iron	10.0	9.60		mg/L		96	80 - 120
Lead	0.200	0.195		mg/L		97	80 - 120
Magnesium	10.0	9.03		mg/L		90	80 - 120
Manganese	0.200	0.200		mg/L		100	80 - 120

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

Lab Sample ID: LCS 480-696078/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696321 — **Prep Batch: 696078**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	0.200	0.192		mg/L		96	80 - 120
Potassium	10.0	9.48		mg/L		95	80 - 120
Selenium	0.200	0.193		mg/L		96	80 - 120
Sodium	10.0	10.87		mg/L		109	80 - 120
Thallium	0.200	0.204		mg/L		102	80 - 120
Tin	0.200	0.191		mg/L		95	80 - 120
Vanadium	0.200	0.207		mg/L		104	80 - 120
Zinc	0.200	0.193		mg/L		96	80 - 120

Lab Sample ID: LCS 480-696078/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696979 — **Prep Batch: 696078**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.200	0.198		mg/L		99	80 - 120
Chromium	0.200	0.188		mg/L		94	80 - 120
Silver	0.0500	0.0485		mg/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-696157/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696236 — **Prep Batch: 696157**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/21/23 11:23	12/21/23 15:01	1

Lab Sample ID: LCS 480-696157/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696236 — **Prep Batch: 696157**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00672		mg/L		100	80 - 120

Lab Sample ID: 480-215885-3 MS — **Client Sample ID: PH 5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696236 — **Prep Batch: 696157**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00669	0.00663		mg/L		99	80 - 120

Lab Sample ID: 480-215885-3 MSD — **Client Sample ID: PH 5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696236 — **Prep Batch: 696157**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00669	0.00675		mg/L		101	80 - 120	2	20

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 480-696046/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696046

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		1.0		NTU			12/20/23 11:29	1

Lab Sample ID: LCS 480-696046/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696046

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Turbidity	10.4	9.9		NTU		95	90 - 110

Lab Sample ID: 480-215885-1 DU — **Client Sample ID: PH 123**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696046

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Turbidity	110		100		NTU		7	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-696194/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696194

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/21/23 13:41	1

Lab Sample ID: LCS 480-696194/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.79		mg/L		96	90 - 110

Lab Sample ID: MB 480-696200/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/21/23 15:31	1

Lab Sample ID: LCS 480-696200/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	5.04		mg/L		101	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-696678/27
Matrix: Water
Analysis Batch: 696678

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 as N			12/28/23 14:25	1

Lab Sample ID: MB 480-696678/3
Matrix: Water
Analysis Batch: 696678

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 as N			12/28/23 13:59	1

Lab Sample ID: MB 480-696678/75
Matrix: Water
Analysis Batch: 696678

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 as N			12/28/23 15:18	1

Lab Sample ID: LCS 480-696678/28
Matrix: Water
Analysis Batch: 696678

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	0.992		mg/L as N		99	90 - 110

Lab Sample ID: LCS 480-696678/4
Matrix: Water
Analysis Batch: 696678

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	0.987		mg/L as N		99	90 - 110

Lab Sample ID: LCS 480-696678/76
Matrix: Water
Analysis Batch: 696678

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	0.994		mg/L as N		99	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-696113/1-A
Matrix: Water
Analysis Batch: 696230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 696113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L as N		12/20/23 16:02	12/21/23 11:53	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 480-696113/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696230 — **Prep Batch: 696113**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.52		mg/L as N		101	90 - 110

Lab Sample ID: MB 480-696251/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696551 — **Prep Batch: 696251**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L as N		12/21/23 13:49	12/27/23 14:37	1

Lab Sample ID: LCS 480-696251/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696551 — **Prep Batch: 696251**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.45		mg/L as N		98	90 - 110

Lab Sample ID: 480-215885-3 DU — **Client Sample ID: PH 5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696551 — **Prep Batch: 696251**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	9.4		10.56		mg/L as N		12	20

Method: 410.4 - COD

Lab Sample ID: MB 480-696187/27 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			12/21/23 11:09	1

Lab Sample ID: MB 480-696187/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			12/21/23 11:09	1

Lab Sample ID: LCS 480-696187/28 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	27.46		mg/L		110	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 480-696187/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	23.74		mg/L		95	90 - 110

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-696254/17 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			12/21/23 16:39	1

Lab Sample ID: MB 480-696254/47 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			12/21/23 18:29	1

Lab Sample ID: LCS 480-696254/18 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.100	0.100		mg/L		100	90 - 110

Lab Sample ID: LCS 480-696254/48 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696254

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

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-696045/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696045

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010		mg/L			12/20/23 10:56	1

Lab Sample ID: LCS 480-696045/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696045

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.0500	0.0571		mg/L		114	85 - 115

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 480-215885-2 MS **Client Sample ID: PH 4**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696045

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND	H	0.0500	0.0508		mg/L		86	85 - 115

Lab Sample ID: 480-215885-1 DU **Client Sample ID: PH 123**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696045

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	ND	H	ND		mg/L		NC	20

Lab Sample ID: 480-215885-3 DU **Client Sample ID: PH 5**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696045

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	0.013	H	0.0155		mg/L		18	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-696558/21 **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696558

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L			12/27/23 17:42	1

Lab Sample ID: MB 480-696558/46 **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696558

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L			12/27/23 18:50	1

Lab Sample ID: HLCS 480-696558/22 **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696558

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.403		mg/L		101	90 - 110

Lab Sample ID: LCS 480-696558/23 **Client Sample ID: Lab Control Sample**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 696558

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.251		mg/L		100	90 - 110

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 480-696558/47 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696558

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.249		mg/L		100	90 - 110

Lab Sample ID: 480-215885-2 MS — **Client Sample ID: PH 4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696558

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND		0.100	0.0972		mg/L		91	90 - 110

Method: 9038 - Sulfate, Turbidimetric

Lab Sample ID: MB 480-696376/125 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/22/23 14:35	1

Lab Sample ID: MB 480-696376/133 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/22/23 14:42	1

Lab Sample ID: MB 480-696376/140 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/22/23 14:45	1

Lab Sample ID: MB 480-696376/148 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/22/23 14:49	1

Lab Sample ID: LCS 480-696376/132 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	30.0	29.35		mg/L		98	90 - 110

Method: 9038 - Sulfate, Turbidimetric (Continued)

Lab Sample ID: LCS 480-696376/139 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	30.0	29.02		mg/L		97	90 - 110

Lab Sample ID: LCS 480-696376/147 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	30.0	29.07		mg/L		97	90 - 110

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-696820/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			12/29/23 01:53	1

Lab Sample ID: LCS 480-696820/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	58.23		mg/L		97	90 - 110

Lab Sample ID: 480-215885-2 MS — **Client Sample ID: PH 4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696820

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	4.5		23.3	27.91		mg/L		101	54 - 131

Lab Sample ID: 480-215885-3 DU — **Client Sample ID: PH 5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696820

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	38.6		38.93		mg/L		0.8	20

Method: 9251 - Chloride

Lab Sample ID: MB 480-696375/13 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696375

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			12/22/23 10:51	1

Method: 9251 - Chloride (Continued)

Lab Sample ID: MB 480-696375/30
Matrix: Water
Analysis Batch: 696375

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			12/22/23 11:00	1

Lab Sample ID: MB 480-696375/41
Matrix: Water
Analysis Batch: 696375

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			12/22/23 11:03	1

Lab Sample ID: MB 480-696375/52
Matrix: Water
Analysis Batch: 696375

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			12/22/23 11:12	1

Lab Sample ID: MB 480-696375/61
Matrix: Water
Analysis Batch: 696375

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			12/22/23 11:23	1

Lab Sample ID: MB 480-696375/84
Matrix: Water
Analysis Batch: 696375

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			12/22/23 11:45	1

Lab Sample ID: LCS 480-696375/29
Matrix: Water
Analysis Batch: 696375

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	27.03		mg/L		108	90 - 110

Lab Sample ID: LCS 480-696375/40
Matrix: Water
Analysis Batch: 696375

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	26.65		mg/L		107	90 - 110

Lab Sample ID: LCS 480-696375/51
Matrix: Water
Analysis Batch: 696375

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	26.37		mg/L		105	90 - 110

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Method: 9251 - Chloride

Lab Sample ID: LCS 480-696375/60
Matrix: Water
Analysis Batch: 696375

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	27.47		mg/L		110	90 - 110

Lab Sample ID: LCS 480-696375/83
Matrix: Water
Analysis Batch: 696375

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	24.96		mg/L		100	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 480-696101/3
Matrix: Water
Analysis Batch: 696101

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	ND		0.0100		Color Units			12/20/23 16:42	1

Lab Sample ID: LCS 480-696101/4
Matrix: Water
Analysis Batch: 696101

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Color	30.0	30.00		Color Units		100	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-696286/4
Matrix: Water
Analysis Batch: 696286

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		5.0		mg/L			12/21/23 14:18	1

Lab Sample ID: LCS 480-696286/5
Matrix: Water
Analysis Batch: 696286

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	94.80		mg/L		95	90 - 110

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

Lab Sample ID: MB 480-696171/1
Matrix: Water
Analysis Batch: 696171

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			12/21/23 10:24	1

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

Lab Sample ID: LCS 480-696171/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696171

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	501	470.0		mg/L		94	85 - 115

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-696394/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696394

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.67		mg/L			12/22/23 12:00	1

Lab Sample ID: LCS 480-696394/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696394

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	8.60	8.40		mg/L		98	90 - 110

Lab Sample ID: 480-215885-1 DU — **Client Sample ID: PH 123**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696394

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	3.2		3.20		mg/L		0	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-696204/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696204

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			12/21/23 09:20	1

Lab Sample ID: LCS 480-696204/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	179.3		mg/L		90	85 - 115

Lab Sample ID: USB 480-696659/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 696659

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			12/28/23 10:31	1

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

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

Lab Sample ID: LCS 480-696659/2
Matrix: Water
Analysis Batch: 696659

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	197	180.5		mg/L		92	85 - 115

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

GC/MS VOA

Analysis Batch: 696009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	8260C	
480-215885-2	PH 4	Total/NA	Water	8260C	
480-215885-3	PH 5	Total/NA	Water	8260C	
480-215885-4	TRIP BLANK	Total/NA	Water	8260C	
MB 480-696009/8	Method Blank	Total/NA	Water	8260C	
LCS 480-696009/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 696068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	3510C	
480-215885-2	PH 4	Total/NA	Water	3510C	
480-215885-3	PH 5	Total/NA	Water	3510C	
MB 480-696068/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-696068/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-696068/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 696118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	3510C	
480-215885-2	PH 4	Total/NA	Water	3510C	
480-215885-3	PH 5	Total/NA	Water	3510C	
MB 480-696118/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-696118/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-696118/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 696165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	8270D	696068
480-215885-2	PH 4	Total/NA	Water	8270D	696068
480-215885-3	PH 5	Total/NA	Water	8270D	696068
MB 480-696068/1-A	Method Blank	Total/NA	Water	8270D	696068
LCS 480-696068/2-A	Lab Control Sample	Total/NA	Water	8270D	696068
LCSD 480-696068/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	696068

Analysis Batch: 696313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	8270D SIM ID	696118
480-215885-2	PH 4	Total/NA	Water	8270D SIM ID	696118
480-215885-3	PH 5	Total/NA	Water	8270D SIM ID	696118
MB 480-696118/1-A	Method Blank	Total/NA	Water	8270D SIM ID	696118
LCS 480-696118/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	696118
LCSD 480-696118/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	696118

GC Semi VOA

Prep Batch: 696067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	3510C	
480-215885-2	PH 4	Total/NA	Water	3510C	
480-215885-3	PH 5	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 696067 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-696067/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-696067/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-696067/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 696141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	3510C	
480-215885-2	PH 4	Total/NA	Water	3510C	
480-215885-3	PH 5	Total/NA	Water	3510C	
MB 480-696141/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-696141/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 696143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	8151A	
480-215885-2	PH 4	Total/NA	Water	8151A	
480-215885-3	PH 5	Total/NA	Water	8151A	
MB 480-696143/1-A	Method Blank	Total/NA	Water	8151A	
LCS 480-696143/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 480-696143/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 696188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	8082A	696067
480-215885-2	PH 4	Total/NA	Water	8082A	696067
480-215885-3	PH 5	Total/NA	Water	8082A	696067
MB 480-696067/1-A	Method Blank	Total/NA	Water	8082A	696067
LCS 480-696067/2-A	Lab Control Sample	Total/NA	Water	8082A	696067
LCSD 480-696067/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	696067

Analysis Batch: 696191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-2	PH 4	Total/NA	Water	8081B	696141
MB 480-696141/1-A	Method Blank	Total/NA	Water	8081B	696141
LCS 480-696141/2-A	Lab Control Sample	Total/NA	Water	8081B	696141

Analysis Batch: 696271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	8081B	696141
480-215885-3	PH 5	Total/NA	Water	8081B	696141

Analysis Batch: 696436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	8151A	696143
480-215885-2	PH 4	Total/NA	Water	8151A	696143
480-215885-3	PH 5	Total/NA	Water	8151A	696143
MB 480-696143/1-A	Method Blank	Total/NA	Water	8151A	696143
LCS 480-696143/2-A	Lab Control Sample	Total/NA	Water	8151A	696143
LCSD 480-696143/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	696143

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

LCMS

Prep Batch: 199107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	3535	
480-215885-2	PH 4	Total/NA	Water	3535	
480-215885-3	PH 5	Total/NA	Water	3535	
MB 200-199107/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-199107/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 200-199107/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 199143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	537 (modified)	199107
480-215885-2	PH 4	Total/NA	Water	537 (modified)	199107
480-215885-3	PH 5	Total/NA	Water	537 (modified)	199107
MB 200-199107/1-A	Method Blank	Total/NA	Water	537 (modified)	199107
LCS 200-199107/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	199107
LCSD 200-199107/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	199107

Specialty Organics

Prep Batch: 81864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	8290	
480-215885-2	PH 4	Total/NA	Water	8290	
480-215885-3	PH 5	Total/NA	Water	8290	
MB 140-81864/13-A	Method Blank	Total/NA	Water	8290	
LCS 140-81864/12-A	Lab Control Sample	Total/NA	Water	8290	

Analysis Batch: 82509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	8290A	81864
480-215885-2	PH 4	Total/NA	Water	8290A	81864
MB 140-81864/13-A	Method Blank	Total/NA	Water	8290A	81864
LCS 140-81864/12-A	Lab Control Sample	Total/NA	Water	8290A	81864

Analysis Batch: 82533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-3	PH 5	Total/NA	Water	8290A	81864

Metals

Prep Batch: 696078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	3005A	
480-215885-2	PH 4	Total/NA	Water	3005A	
480-215885-3	PH 5	Total/NA	Water	3005A	
MB 480-696078/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-696078/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 696157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	7470A	
480-215885-2	PH 4	Total/NA	Water	7470A	
480-215885-3	PH 5	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 696157 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-696157/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-696157/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-215885-3 MS	PH 5	Total/NA	Water	7470A	
480-215885-3 MSD	PH 5	Total/NA	Water	7470A	

Analysis Batch: 696236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	7470A	696157
480-215885-2	PH 4	Total/NA	Water	7470A	696157
480-215885-3	PH 5	Total/NA	Water	7470A	696157
MB 480-696157/1-A	Method Blank	Total/NA	Water	7470A	696157
LCS 480-696157/2-A	Lab Control Sample	Total/NA	Water	7470A	696157
480-215885-3 MS	PH 5	Total/NA	Water	7470A	696157
480-215885-3 MSD	PH 5	Total/NA	Water	7470A	696157

Analysis Batch: 696321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	6010C	696078
480-215885-2	PH 4	Total/NA	Water	6010C	696078
480-215885-3	PH 5	Total/NA	Water	6010C	696078
MB 480-696078/1-A	Method Blank	Total/NA	Water	6010C	696078
LCS 480-696078/2-A	Lab Control Sample	Total/NA	Water	6010C	696078

Analysis Batch: 696979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	6010C	696078
480-215885-2	PH 4	Total/NA	Water	6010C	696078
480-215885-3	PH 5	Total/NA	Water	6010C	696078
MB 480-696078/1-A	Method Blank	Total/NA	Water	6010C	696078
LCS 480-696078/2-A	Lab Control Sample	Total/NA	Water	6010C	696078

General Chemistry

Analysis Batch: 696045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	7196A	
480-215885-2	PH 4	Total/NA	Water	7196A	
480-215885-3	PH 5	Total/NA	Water	7196A	
MB 480-696045/3	Method Blank	Total/NA	Water	7196A	
LCS 480-696045/4	Lab Control Sample	Total/NA	Water	7196A	
480-215885-2 MS	PH 4	Total/NA	Water	7196A	
480-215885-1 DU	PH 123	Total/NA	Water	7196A	
480-215885-3 DU	PH 5	Total/NA	Water	7196A	

Analysis Batch: 696046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	180.1	
480-215885-2	PH 4	Total/NA	Water	180.1	
480-215885-3	PH 5	Total/NA	Water	180.1	
MB 480-696046/5	Method Blank	Total/NA	Water	180.1	
LCS 480-696046/4	Lab Control Sample	Total/NA	Water	180.1	

General Chemistry (Continued)

Analysis Batch: 696046 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1 DU	PH 123	Total/NA	Water	180.1	

Analysis Batch: 696101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	SM 2120B	
480-215885-2	PH 4	Total/NA	Water	SM 2120B	
480-215885-3	PH 5	Total/NA	Water	SM 2120B	
MB 480-696101/3	Method Blank	Total/NA	Water	SM 2120B	
LCS 480-696101/4	Lab Control Sample	Total/NA	Water	SM 2120B	

Analysis Batch: 696109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	353.2	
480-215885-2	PH 4	Total/NA	Water	353.2	
480-215885-3	PH 5	Total/NA	Water	353.2	

Prep Batch: 696113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	351.2	
480-215885-2	PH 4	Total/NA	Water	351.2	
MB 480-696113/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-696113/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 696171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	SM 2540C	
480-215885-2	PH 4	Total/NA	Water	SM 2540C	
480-215885-3	PH 5	Total/NA	Water	SM 2540C	
MB 480-696171/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-696171/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 696187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	410.4	
480-215885-2	PH 4	Total/NA	Water	410.4	
480-215885-3	PH 5	Total/NA	Water	410.4	
MB 480-696187/27	Method Blank	Total/NA	Water	410.4	
MB 480-696187/3	Method Blank	Total/NA	Water	410.4	
LCS 480-696187/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-696187/4	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 696194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	300.0	
480-215885-2	PH 4	Total/NA	Water	300.0	
MB 480-696194/4	Method Blank	Total/NA	Water	300.0	
LCS 480-696194/5	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 696200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-3	PH 5	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 696200 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-696200/4	Method Blank	Total/NA	Water	300.0	
LCS 480-696200/5	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 696204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	SM 5210B	
480-215885-2	PH 4	Total/NA	Water	SM 5210B	
480-215885-3	PH 5	Total/NA	Water	SM 5210B	
USB 480-696204/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-696204/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 696230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	351.2	696113
480-215885-2	PH 4	Total/NA	Water	351.2	696113
MB 480-696113/1-A	Method Blank	Total/NA	Water	351.2	696113
LCS 480-696113/2-A	Lab Control Sample	Total/NA	Water	351.2	696113

Prep Batch: 696251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-3	PH 5	Total/NA	Water	351.2	
MB 480-696251/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-696251/2-A	Lab Control Sample	Total/NA	Water	351.2	
480-215885-3 DU	PH 5	Total/NA	Water	351.2	

Analysis Batch: 696254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	420.4	
480-215885-2	PH 4	Total/NA	Water	420.4	
480-215885-3	PH 5	Total/NA	Water	420.4	
MB 480-696254/17	Method Blank	Total/NA	Water	420.4	
MB 480-696254/47	Method Blank	Total/NA	Water	420.4	
LCS 480-696254/18	Lab Control Sample	Total/NA	Water	420.4	
LCS 480-696254/48	Lab Control Sample	Total/NA	Water	420.4	

Analysis Batch: 696286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	SM 2320B	
480-215885-2	PH 4	Total/NA	Water	SM 2320B	
480-215885-3	PH 5	Total/NA	Water	SM 2320B	
MB 480-696286/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-696286/5	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 696375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	9251	
480-215885-2	PH 4	Total/NA	Water	9251	
480-215885-3	PH 5	Total/NA	Water	9251	
MB 480-696375/13	Method Blank	Total/NA	Water	9251	
MB 480-696375/30	Method Blank	Total/NA	Water	9251	
MB 480-696375/41	Method Blank	Total/NA	Water	9251	

General Chemistry (Continued)

Analysis Batch: 696375 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-696375/52	Method Blank	Total/NA	Water	9251	
MB 480-696375/61	Method Blank	Total/NA	Water	9251	
MB 480-696375/84	Method Blank	Total/NA	Water	9251	
LCS 480-696375/29	Lab Control Sample	Total/NA	Water	9251	
LCS 480-696375/40	Lab Control Sample	Total/NA	Water	9251	
LCS 480-696375/51	Lab Control Sample	Total/NA	Water	9251	
LCS 480-696375/60	Lab Control Sample	Total/NA	Water	9251	
LCS 480-696375/83	Lab Control Sample	Total/NA	Water	9251	

Analysis Batch: 696376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	9038	
480-215885-2	PH 4	Total/NA	Water	9038	
480-215885-3	PH 5	Total/NA	Water	9038	
MB 480-696376/125	Method Blank	Total/NA	Water	9038	
MB 480-696376/133	Method Blank	Total/NA	Water	9038	
MB 480-696376/140	Method Blank	Total/NA	Water	9038	
MB 480-696376/148	Method Blank	Total/NA	Water	9038	
LCS 480-696376/132	Lab Control Sample	Total/NA	Water	9038	
LCS 480-696376/139	Lab Control Sample	Total/NA	Water	9038	
LCS 480-696376/147	Lab Control Sample	Total/NA	Water	9038	

Analysis Batch: 696394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	SM 4500 S2 F	
480-215885-2	PH 4	Total/NA	Water	SM 4500 S2 F	
480-215885-3	PH 5	Total/NA	Water	SM 4500 S2 F	
MB 480-696394/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-696394/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
480-215885-1 DU	PH 123	Total/NA	Water	SM 4500 S2 F	

Analysis Batch: 696551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-3	PH 5	Total/NA	Water	351.2	696251
MB 480-696251/1-A	Method Blank	Total/NA	Water	351.2	696251
LCS 480-696251/2-A	Lab Control Sample	Total/NA	Water	351.2	696251
480-215885-3 DU	PH 5	Total/NA	Water	351.2	696251

Analysis Batch: 696558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	9012B	
480-215885-2	PH 4	Total/NA	Water	9012B	
480-215885-3	PH 5	Total/NA	Water	9012B	
MB 480-696558/21	Method Blank	Total/NA	Water	9012B	
MB 480-696558/46	Method Blank	Total/NA	Water	9012B	
HLCS 480-696558/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-696558/23	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-696558/47	Lab Control Sample	Total/NA	Water	9012B	
480-215885-2 MS	PH 4	Total/NA	Water	9012B	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

General Chemistry

Analysis Batch: 696659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-2	PH 4	Total/NA	Water	SM 5210B	
USB 480-696659/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-696659/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 696678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	350.1	
480-215885-2	PH 4	Total/NA	Water	350.1	
480-215885-3	PH 5	Total/NA	Water	350.1	
MB 480-696678/27	Method Blank	Total/NA	Water	350.1	
MB 480-696678/3	Method Blank	Total/NA	Water	350.1	
MB 480-696678/75	Method Blank	Total/NA	Water	350.1	
LCS 480-696678/28	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-696678/4	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-696678/76	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 696820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-215885-1	PH 123	Total/NA	Water	9060A	
480-215885-2	PH 4	Total/NA	Water	9060A	
480-215885-3	PH 5	Total/NA	Water	9060A	
MB 480-696820/28	Method Blank	Total/NA	Water	9060A	
LCS 480-696820/29	Lab Control Sample	Total/NA	Water	9060A	
480-215885-2 MS	PH 4	Total/NA	Water	9060A	
480-215885-3 DU	PH 5	Total/NA	Water	9060A	

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 123

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	696009	AXK	EET BUF	12/20/23 14:33
Total/NA	Prep	3510C			696068	LSC	EET BUF	12/20/23 14:19
Total/NA	Analysis	8270D		1	696165	JMM	EET BUF	12/22/23 00:50
Total/NA	Prep	3510C			696118	SMP	EET BUF	12/21/23 07:09
Total/NA	Analysis	8270D SIM ID		10	696313	JMM	EET BUF	12/22/23 23:08
Total/NA	Prep	3510C			696141	JMP	EET BUF	12/21/23 08:49
Total/NA	Analysis	8081B		50	696271	JLS	EET BUF	12/22/23 13:05
Total/NA	Prep	3510C			696067	LSC	EET BUF	12/20/23 14:11
Total/NA	Analysis	8082A		1	696188	NC	EET BUF	12/21/23 15:55
Total/NA	Prep	8151A			696143	JMP	EET BUF	12/21/23 09:02
Total/NA	Analysis	8151A		20	696436	MAN	EET BUF	12/27/23 14:42
Total/NA	Prep	3535			199107	HD	EET BUR	12/27/23 07:47
Total/NA	Analysis	537 (modified)		10	199143	BWC	EET BUR	12/27/23 19:32
Total/NA	Prep	8290			81864	CMS	EET KNX	12/29/23 09:18
Total/NA	Analysis	8290A		1	82509	JMN	EET KNX	01/22/24 16:37
Total/NA	Prep	3005A			696078	MP	EET BUF	12/21/23 08:10
Total/NA	Analysis	6010C		1	696321	BMB	EET BUF	12/21/23 20:13
Total/NA	Prep	3005A			696078	MP	EET BUF	12/21/23 08:10
Total/NA	Analysis	6010C		1	696979	BMB	EET BUF	01/03/24 11:36
Total/NA	Prep	7470A			696157	NVK	EET BUF	12/21/23 11:23
Total/NA	Analysis	7470A		1	696236	NVK	EET BUF	12/21/23 15:04
Total/NA	Analysis	180.1		10	696046	KM	EET BUF	12/20/23 11:29
Total/NA	Analysis	300.0		10	696194	AF	EET BUF	12/21/23 14:17
Total/NA	Analysis	350.1		50	696678	IMZ	EET BUF	12/28/23 14:41
Total/NA	Prep	351.2			696113	GW	EET BUF	12/20/23 16:02
Total/NA	Analysis	351.2		40	696230	IMZ	EET BUF	12/21/23 14:32
Total/NA	Analysis	353.2		1	696109	KB	EET BUF	12/20/23 15:24
Total/NA	Analysis	410.4		5	696187	DLG	EET BUF	12/21/23 11:09
Total/NA	Analysis	420.4		1	696254	GW	EET BUF	12/21/23 17:48
Total/NA	Analysis	7196A		1	696045	KM	EET BUF	12/20/23 10:56
Total/NA	Analysis	9012B		1	696558	GW	EET BUF	12/27/23 19:02
Total/NA	Analysis	9038		20	696376	CG	EET BUF	12/22/23 14:47
Total/NA	Analysis	9060A		4	696820	AF	EET BUF	12/29/23 04:45
Total/NA	Analysis	9251		25	696375	CG	EET BUF	12/22/23 11:58
Total/NA	Analysis	SM 2120B		1	696101	AB	EET BUF	12/20/23 16:42
Total/NA	Analysis	SM 2320B		1	696286	DLG	EET BUF	12/21/23 16:31
Total/NA	Analysis	SM 2540C		1	696171	KO	EET BUF	12/21/23 10:24
Total/NA	Analysis	SM 4500 S2 F		1	696394	AM	EET BUF	12/22/23 12:00
Total/NA	Analysis	SM 5210B		1	696204	DSC	EET BUF	12/21/23 09:20

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 4

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		2	696009	AXK	EET BUF	12/20/23 14:55
Total/NA	Prep	3510C			696068	LSC	EET BUF	12/20/23 14:19
Total/NA	Analysis	8270D		1	696165	JMM	EET BUF	12/22/23 01:17
Total/NA	Prep	3510C			696118	SMP	EET BUF	12/21/23 07:09
Total/NA	Analysis	8270D SIM ID		1	696313	JMM	EET BUF	12/22/23 23:30
Total/NA	Prep	3510C			696141	JMP	EET BUF	12/21/23 08:49
Total/NA	Analysis	8081B		1	696191	JLS	EET BUF	12/21/23 16:47
Total/NA	Prep	3510C			696067	LSC	EET BUF	12/20/23 14:11
Total/NA	Analysis	8082A		1	696188	NC	EET BUF	12/21/23 16:13
Total/NA	Prep	8151A			696143	JMP	EET BUF	12/21/23 09:02
Total/NA	Analysis	8151A		5	696436	MAN	EET BUF	12/27/23 15:00
Total/NA	Prep	3535			199107	HD	EET BUR	12/27/23 07:47
Total/NA	Analysis	537 (modified)		1	199143	BWC	EET BUR	12/27/23 19:40
Total/NA	Prep	8290			81864	CMS	EET KNX	12/29/23 09:18
Total/NA	Analysis	8290A		1	82509	JMN	EET KNX	01/22/24 17:37
Total/NA	Prep	3005A			696078	MP	EET BUF	12/21/23 08:10
Total/NA	Analysis	6010C		1	696321	BMB	EET BUF	12/21/23 20:17
Total/NA	Prep	3005A			696078	MP	EET BUF	12/21/23 08:10
Total/NA	Analysis	6010C		1	696979	BMB	EET BUF	01/03/24 11:40
Total/NA	Prep	7470A			696157	NVK	EET BUF	12/21/23 11:23
Total/NA	Analysis	7470A		1	696236	NVK	EET BUF	12/21/23 15:05
Total/NA	Analysis	180.1		10	696046	KM	EET BUF	12/20/23 11:29
Total/NA	Analysis	300.0		10	696194	AF	EET BUF	12/21/23 14:35
Total/NA	Analysis	350.1		1	696678	IMZ	EET BUF	12/28/23 14:08
Total/NA	Prep	351.2			696113	GW	EET BUF	12/20/23 16:02
Total/NA	Analysis	351.2		1	696230	IMZ	EET BUF	12/21/23 13:46
Total/NA	Analysis	353.2		1	696109	KB	EET BUF	12/20/23 16:38
Total/NA	Analysis	410.4		1	696187	DLG	EET BUF	12/21/23 11:09
Total/NA	Analysis	420.4		1	696254	GW	EET BUF	12/21/23 17:52
Total/NA	Analysis	7196A		1	696045	KM	EET BUF	12/20/23 10:56
Total/NA	Analysis	9012B		1	696558	GW	EET BUF	12/27/23 18:57
Total/NA	Analysis	9038		20	696376	CG	EET BUF	12/22/23 14:48
Total/NA	Analysis	9060A		1	696820	AF	EET BUF	12/29/23 02:51
Total/NA	Analysis	9251		1	696375	CG	EET BUF	12/22/23 11:16
Total/NA	Analysis	SM 2120B		5	696101	AB	EET BUF	12/20/23 16:42
Total/NA	Analysis	SM 2320B		1	696286	DLG	EET BUF	12/21/23 16:38
Total/NA	Analysis	SM 2540C		1	696171	KO	EET BUF	12/21/23 10:24
Total/NA	Analysis	SM 4500 S2 F		1	696394	AM	EET BUF	12/22/23 12:00
Total/NA	Analysis	SM 5210B		1	696659	CG	EET BUF	12/28/23 10:31
Total/NA	Analysis	SM 5210B		1	696204	DSC	EET BUF	12/21/23 09:20

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: PH 5

Date Collected: 12/19/23 10:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	696009	AXK	EET BUF	12/20/23 15:17
Total/NA	Prep	3510C			696068	LSC	EET BUF	12/20/23 14:19
Total/NA	Analysis	8270D		1	696165	JMM	EET BUF	12/22/23 01:45
Total/NA	Prep	3510C			696118	SMP	EET BUF	12/21/23 07:09
Total/NA	Analysis	8270D SIM ID		1	696313	JMM	EET BUF	12/22/23 23:52
Total/NA	Prep	3510C			696141	JMP	EET BUF	12/21/23 08:49
Total/NA	Analysis	8081B		1	696271	JLS	EET BUF	12/22/23 10:09
Total/NA	Prep	3510C			696067	LSC	EET BUF	12/20/23 14:11
Total/NA	Analysis	8082A		1	696188	NC	EET BUF	12/21/23 16:30
Total/NA	Prep	8151A			696143	JMP	EET BUF	12/21/23 09:02
Total/NA	Analysis	8151A		10	696436	MAN	EET BUF	12/27/23 15:19
Total/NA	Prep	3535			199107	HD	EET BUR	12/27/23 07:47
Total/NA	Analysis	537 (modified)		1	199143	BWC	EET BUR	12/27/23 19:48
Total/NA	Prep	8290			81864	CMS	EET KNX	12/29/23 09:18
Total/NA	Analysis	8290A		1	82533	LKM	EET KNX	01/23/24 08:18
Total/NA	Prep	3005A			696078	MP	EET BUF	12/21/23 08:10
Total/NA	Analysis	6010C		1	696321	BMB	EET BUF	12/21/23 20:20
Total/NA	Prep	3005A			696078	MP	EET BUF	12/21/23 08:10
Total/NA	Analysis	6010C		1	696979	BMB	EET BUF	01/03/24 11:43
Total/NA	Prep	7470A			696157	NVK	EET BUF	12/21/23 11:23
Total/NA	Analysis	7470A		1	696236	NVK	EET BUF	12/21/23 15:07
Total/NA	Analysis	180.1		10	696046	KM	EET BUF	12/20/23 11:29
Total/NA	Analysis	300.0		10	696200	AF	EET BUF	12/21/23 20:03
Total/NA	Analysis	350.1		10	696678	IMZ	EET BUF	12/28/23 14:42
Total/NA	Prep	351.2			696251	GW	EET BUF	12/21/23 13:49
Total/NA	Analysis	351.2		10	696551	IMZ	EET BUF	12/27/23 13:52
Total/NA	Analysis	353.2		1	696109	KB	EET BUF	12/20/23 15:28
Total/NA	Analysis	410.4		2	696187	DLG	EET BUF	12/21/23 11:09
Total/NA	Analysis	420.4		1	696254	GW	EET BUF	12/21/23 17:56
Total/NA	Analysis	7196A		1	696045	KM	EET BUF	12/20/23 10:56
Total/NA	Analysis	9012B		1	696558	GW	EET BUF	12/27/23 19:05
Total/NA	Analysis	9038		20	696376	CG	EET BUF	12/22/23 14:50
Total/NA	Analysis	9060A		1	696820	AF	EET BUF	12/29/23 03:48
Total/NA	Analysis	9251		5	696375	CG	EET BUF	12/22/23 11:31
Total/NA	Analysis	SM 2120B		1	696101	AB	EET BUF	12/20/23 16:42
Total/NA	Analysis	SM 2320B		1	696286	DLG	EET BUF	12/21/23 16:48
Total/NA	Analysis	SM 2540C		1	696171	KO	EET BUF	12/21/23 10:24
Total/NA	Analysis	SM 4500 S2 F		1	696394	AM	EET BUF	12/22/23 12:00
Total/NA	Analysis	SM 5210B		1	696204	DSC	EET BUF	12/21/23 09:20

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Client Sample ID: TRIP BLANK

Date Collected: 12/19/23 00:00
Date Received: 12/20/23 10:00

Lab Sample ID: 480-215885-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	696009	AXK	EET BUF	12/20/23 15:39

Laboratory References:

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

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2-Dichloroethene, Total
8260C		Water	Pentachloroethane
8270D	3510C	Water	3 & 4 Methylphenol
8270D	3510C	Water	Dinoseb
9038		Water	Sulfate
9251		Water	Chloride

Laboratory: Eurofins Burlington

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	03-31-24

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
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (FOSA)

Laboratory: Eurofins Knoxville

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10781	03-31-24

Method Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
8081B	Organochlorine Pesticides (GC)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET BUF
8151A	Herbicides (GC)	SW846	EET BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	EET BUR
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	EET KNX
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
180.1	Turbidity, Nephelometric	EPA	EET BUF
300.0	Anions, Ion Chromatography	EPA	EET BUF
350.1	Nitrogen, Ammonia	EPA	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
353.2	Nitrate	EPA	EET BUF
410.4	COD	EPA	EET BUF
420.4	Phenolics, Total Recoverable	EPA	EET BUF
7196A	Chromium, Hexavalent	SW846	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
9038	Sulfate, Turbidimetric	SW846	EET BUF
9060A	Organic Carbon, Total (TOC)	SW846	EET BUF
9251	Chloride	SW846	EET BUF
SM 2120B	Color, Colorimetric	SM	EET BUF
SM 2320B	Alkalinity	SM	EET BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET BUF
SM 4500 S2 F	Sulfide, Total	SM	EET BUF
SM 5210B	BOD, 5-Day	SM	EET BUF
3005A	Preparation, Total Metals	SW846	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3535	Solid-Phase Extraction (SPE)	SW846	EET BUR
5030C	Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF
8151A	Extraction (Herbicides)	SW846	EET BUF
8290	Separatory Funnel (Liquid-Liquid) Extraction of Dioxins and Furans	SW846	EET KNX

Protocol References:

EPA = US Environmental Protection Agency
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:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Leachate Expanded

Job ID: 480-215885-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-215885-1	PH 123	Water	12/19/23 10:00	12/20/23 10:00
480-215885-2	PH 4	Water	12/19/23 10:00	12/20/23 10:00
480-215885-3	PH 5	Water	12/19/23 10:00	12/20/23 10:00
480-215885-4	TRIP BLANK	Water	12/19/23 00:00	12/20/23 10:00

Quantitation Limit Exceptions Summary

Client: Waste Connections, Inc. Job ID: 480-215885-1
Project/Site: Dunn Landfill - Leachate Expanded

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Analyte	Matrix	Prep Type	Unit	Client RL	Lab PQL
SM 2120B	Color	Water	Total/NA	Color Units	0.0100	5
SM 4500 S2 F	Sulfide	Water	Total/NA	mg/L	0.67	1.0

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

Chain of Custody Record

Albany #224

eurofins Environment Testing

Client Information	Sampler: Cory Field	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-190514-36251.1
Client Contact: Curt Taylor	Phone: 518-431-9439	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin	Page: Page 1 of 2
Company: Waste Connections, Inc.	PWSID:			Job #:
Address: Capitol Region Landfill 1319 Loudon Road	Due Date Requested:			
City: Cohoes	TAT Requested (days):			
State, Zip: NY, 12205	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: CurtT@WasteConnections.com	WO #: 209-4203148			
Project Name: Dunn Landfill/ Event Desc: Expanded	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	8082A - NY Part 360 Expanded - Aroclors	8081B - NY Part 360 Expanded Pesticides	8270D - NY Part 360 Expanded Semivolatiles	300.0_28D - Bromide	6010C, 7470A	8260C - NY Part 360 Expanded Volatiles	8151A - SAP 6.1 Expanded Herbicides	5210B - Biochemical Oxygen Demand	2540C_Calcd - TDS	FieldSampling - (MOD) pH,Cond,Temp,ORP,GWElv,DTW,WD,TURB	180.1, 2120B, 353.2, 353.2_Nitrite, 9038, 9251, Nitrate_Calc	7196A - Cr (VI)	2320B - TALK	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	D	A	N	N	N	N	N	N	N		
PH 123	12/19/23	10:00	G	Water			2	2	2	1	1	3	2	1	1		3	1	1		
PH 4	12/19/23	10:00	G	Water			2	2	2	1	1	3	2	1	1		3	1	1		
PH 5	12/19/23	10:00	G	Water			2	2	2	1	1	3	2	1	1		3	1	1		
TRIP BLANK				Water																	

KD
12-19-2023

480-215885 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	12/19/23 12:05 pm	WCI	[signature]	12-19-2023 12:05	Eurofins
[signature]	12-19-2023 15:00	Eurofins	[signature]	12/20/23 1000	TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 2.1, 2.4, 2.6

Ver: 06/08/2021

1/25/2024

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: Cory Judd	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-190514-36251.2
Client Contact: Curt Taylor	Phone: 518-431-9439	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Waste Connections, Inc.	PWSID:			Job #:
Address: Capitol Region Landfill 1319 Loudon Road	Due Date Requested:			
City: Cohoes	TAT Requested (days):			
State, Zip: NY, 12205	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: CurtT@WasteConnections.com	WO #: 209-4203148			
Project Name: Dunn Landfill/ Event Desc: Expanded	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	SM4500_S2_F - Sulfide	PFC_IDA - (MOD) PFAS, Standard List (21 analytes)	350.1, 351.2, 410.4	9060A - TOC	8270D_SIM_MS_ID - 1,4-Dioxane	9012B_NP - Cyanide	8290A - Dioxins/Furans	420.4_NP - Phenolics	Total Number of containers	Special Instructions/Note:
			Preservation Code:				CB	N	S	S	N	B	N	S		
PH 123	12/19/23	10:00	G	Water			1	2	1	3	2	1	2	2		
PH 4	12/19/23	10:00	G	Water			1	2	1	3	2	1	2	2		
PH 5	12/19/23	10:00	G	Water			1	2	1	3	2	1	2	2		
TRIP BLANK				Water												

KD
12-19-2023

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	12/19/23 12:05 pm	VCI	[signature]	12-19-2023 12:05	Eurofins
Kevin Dul	12-19-2023 15:00	Eurofins	[signature]	12/20/23 1000	TAB
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: 06/08/2021

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

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-84649.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-215885-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 1/8/2024			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Dunn Landfill - Leachate Expanded	Project #: 48010065			
Site: Dunn Landfill	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, Y - Trizma, Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8290A/8290_P_Sep Dioxins/Furans	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
PH 123 (480-215885-1)	12/19/23	10:00 Eastern		Water			X	2	
PH 4 (480-215885-2)	12/19/23	10:00 Eastern		Water			X	2	
PH 5 (480-215885-3)	12/19/23	10:00 Eastern		Water			X	2	

Custody Seal Intact
Received at RT 0.1 / CT 0.5°C
CAR 12-22-23
Fedex PO# 7117931458 14

480-215885 Chain of Custody

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

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 12/21/23 1700	Company: TAB	Received by: [signature]	Date/Time: 12-22-23 0945	Company: ETA Knx
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

Loc: 480
215885

EUROFINS KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	/			☐ **Containers, Broken**
2. Were ambient air containers received intact?			/	☐ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : SC 76 Correction factor: +0.4oc	/			☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	/			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	/			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	/			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	/			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?			/	☐ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	/			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	/			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	/			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	/			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			/	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:____			/	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			/	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 48010065 PM Instructions:

Sample Receiving Associate: Ann Pleumen Date: 12-22-23

QA026R33.doc, 11/10/23

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

Chain of Custody Record

480-215885 Chain of Custody

640 1

Client Information (Sub Contract Lab)	Sampler	Lab PM: VanDette, Ryan T		
Client Contact: Shipping/Receiving	Phone	E-Mail: Ryan VanDette@et eurofinsus com	New York	Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-215885-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 1/8/2024			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: Dunn Landfill - Leachate Expanded	Project #: 48010065			
Site: Dunn Landfill	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_\VWT (MOD) PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
PH 123 (480-215885-1)	12/19/23	10 00 Eastern		Water			X	2	
PH 4 (480-215885-2)	12/19/23	10 00 Eastern		Water			X	2	
PH 5 (480-215885-3)	12/19/23	10 00 Eastern		Water			X	2	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	12/21/23 1600	TAS	[signature]	12/22/23 1120	ETA BUN
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

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

Ver 06 08/2021

SAMPLE CONTROL
EUROFINS ENVIRONMENT TESTING
10 HAZELWOOD DRIVE

AMHERST, NY 142282223
UNITED STATES US

ACTWGT: 39.70 LB
CAD: 0759273/CAFE3755
DIMS: 26x15x14 IN

BILL SENDER

Part # 159469-434 MTW EXP 10/24

TO SAMPLE RECEIPT
EUROFINS BURLINGTON
530 COMMUNITY DR
STE 11
SOUTH BURLINGTON VT 054036650
(802) 660-1990
REF: TA SOUTH BURLINGTON

FedEx Express

E

J233023051201uv

FRI - 22 DEC 12:00P
PRIORITY OVERNIGHT

TRK# 0201 7117 9314 5825

NX BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-215885-1
SDG Number:

Login Number: 215885
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins 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	
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: Waste Connections, Inc.

Job Number: 480-215885-1
SDG Number:

Login Number: 215885
List Number: 3
Creator: Muniz, Luca

List Source: Eurofins Burlington
List Creation: 12/22/23 03:46 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1963014
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Attachment 4

Service Area of C&D Debris Received					
Types Of Solid Waste	**Solid Waste Management Facility from Which it was Received**	**Service Area State or Country**	**Service Area County or Province**	**Service Area NYS Planning Unit**	**Tons Received**
C&D	**E. L. Harvey Trasnfer Station** 68 Hopkinton Road Westborough, MA	Massachusetts			6992.48
C&D	**Colonie Landfill** 4 Arrowhead Ln, Cohoes, NY 12047	New York	Albany	Albany	54.90
C&D	**K&W Materials & Recycling** 138 Palmer Avenue West Springfield, MA 01089	Massachusetts	Hampden		20615.29
C&D	**Deep River Transfer Station** 400 Commercail Drive Deep River, CT 06417	Connecticut			1102.11
C&D	**JL Seaman** 3 Merritt Street Norwalk, CT 06851	Connecticut	Fairfield		15102.65
C&D	**Oak Bluffs** 16 Pennsylvania Ave Oak Bluffs, MA 02557	Massachusetts			3305.89
C&D	**ReEnergy Roxbury** 101 Gerard Street Roxbury, MA 02119	Massachusetts	Suffolk		42110.03
C&D	**Queen City Recycle Center Inc** 19 Cliff St New Rochelle NY, 10801	New York	Westchester	Westchester County	13375.39
C&D	**James G Grant CO** 28 Wolcott St. Readville, MA 02137	Massachusetts			35296.51
C&D	**North Smithfield Transfer Station** 14 Canal Street North Smithfield, MA 02824	Massachusetts			2584.93
C&D	**New Bedford Transfer Station** 1245 Shawmut Ave. New Bedford, MA 02746	Massachusetts			3133.51
C&D	Direct Haul	Albany, NY			546.62
C&D	Direct Haul	Asland, MA			9834.68
C&D	Direct Haul	Amsterdam, NY			323.88
C&D	Direct Haul	Abington, MA			83.38
C&D	Direct Haul	Balston Spa, NY			165.49
C&D	Direct Haul	Bennington, VT			173.03
C&D	Direct Haul	Boiceville,NY			354.35
C&D	Direct Haul	Boston, MA			333.78
C&D	Direct Haul	Brockton, MA			615.44
C&D	Direct Haul	Chelsford, MA			8.67
C&D	Direct Haul	Chelsea, MA			5412.41
C&D	Direct Haul	Chester, VT			64.96
C&D	Direct Haul	Schenectady, NY			4010.73
C&D	Direct Haul	Chicopee, MA			386.68
C&D	Direct Haul	Clifton Park, NY			71.78
C&D	Direct Haul	Coeymans, NY			818.08
C&D	Direct Haul	Colonie, NY			4111.84
C&D	Direct Haul	Halfmoon. NY			360.00
C&D	Direct Haul	Rensselaer, NY			345.58
C&D	Direct Haul	Highmount, NY			146.54
C&D	Direct Haul	Knox, NY			100.44
C&D	Direct Haul	Latham, NY			204.53
C&D	Direct Haul	Malden, MA			132.77
C&D	Direct Haul	Menands, NY			763.86
C&D	Direct Haul	Needham, MA			747.57
C&D	Direct Haul	New Hampshire, NY			32.79
C&D	Direct Haul	Niskayuna, NY			38.69
C&D	Direct Haul	North Andover, MA			640.12
C&D	Direct Haul	North Branch, NY			26.74
C&D	Direct Haul	Northhampton, MA			88.06

C&D	Direct Haul	Norwich, CT			23.23
C&D	Direct Haul	Oakeluffs, MA			634.35
C&D	Direct Haul	Poughkeepsie, NY			290.02
C&D	Direct Haul	Rhode Island, NY			26.99
C&D	Direct Haul	Rotterdam, NY			106.75
C&D	Direct Haul	Salem, NH			350.03
C&D	Direct Haul	Saratoga, NY			395.33
C&D	Direct Haul	Saratoga Springs, NY			250.30
C&D	Direct Haul	Southwick, MA			29.87
C&D	Direct Haul	Springfield, MA			231.84
C&D	Direct Haul	Springfield, VT			119.68
C&D	Direct Haul	Tannersville, NY			134.15
C&D	Direct Haul	Troy, NY			6783.62
C&D	Direct Haul	Walpole, MA			27.89
C&D	Direct Haul	Walpole, NH			767.38
C&D	Direct Haul	Waterford, NY			104.35
C&D	Direct Haul	Watervliet, NY			16.47
C&D	Direct Haul	Wellesley, MA			740.32
C&D	Direct Haul	Westboro, MA			475.08

Attachment 5

Attachment 5

Outbound Material Disposal 2023

Date Received	Type Received	Date Disposed	Disposal Method & Location	Column1	Column2
	Tires	5/16/2023	20 yd Roll Off - Ben Weitsman of Albany		
	Tires	7/14/2023	20 yd Roll Off - Ben Weitsman of Albany		
	MSW	1/12/2023	40 yd RollOff - County Waste Troy		
	MSW	9/13/2023	40 yd RollOff - County Waste Troy		

Attachment 6

S.A. Dunn & Company, LLC
209 Partition St. Ext.
Rensselaer, NY 12144
Phone: (518) 650-6106

March 6, 2020

Victoria Schmitt, PE
New York State Department of Environmental Conservation
1130 North Westcott Road
Schenectady, NY 12306

RE: Amendment to Standby Trust Agreement and Bond Rider

Enclosed, please find the above-referenced documents comprising the updated financial assurance for the solid waste operations of S.A. Dunn & Company, LLC that increase the amount of the bond to $5,088,034.56. There are three (3) original copies of the Amendment to the Standby Trust Agreement and one (1) original copy of the Bond Rider.

Please execute and return two (2) of the Amendment to the Standby Trust Agreement copies for our records.

Sincerely,

S.A. Dunn & Company, LLC

Curt Taylor
Region Engineer

cc: Jon Whitcomb (email only)
Brian Maglienti (email only)
Joel Falbo (email only)

Amendment to Schedule A and B of Standby Trust Agreement
entered into on June 20, 2014 by and between
S.A. Dunn & Company, LLC, Settlor
U.S. Bank National Association, Trustee

Schedule A (amended February 20, 2020)
Identification of Facility(s) and Cost Estimates

Name and Address of Facility: S.A. Dunn & Company, LLC
209 Partition Street Ext.
Rensselaer, New York 12144

NYS DEC Identification Number(s): 4-3899-00006/00001

Cost estimate(s):

Closure	$4,219,809.61
Post-Closure Care	$ 868,224.95
Corrective Measures	$0.00
Total	$5,088,034.56

Schedule B (amended February 20, 2020)
Identification of Property

The fund is established initially as consisting of the following:

Amount: $5,088,034.56

Type of property: Surety Bond Number SUR0041322.

This agreement will be funded by the following:

Surety Bond #SUR0041322

Issue by Argonaut Insurance Company on June 1, 2017 in accordance with the terms of the Surety Bond

Original Surety Bond Number 865589 issued by Evergreen National Indemnity Company in the total amount of $3,756,000.00 is hereby substituted, effective June 1, 2017, with Surety Bond Number SUR0041322 issued by Argonaut Insurance Company in the initial total amount of $3,756,000. The total amount of Surety Bond Number SUR0041322 was amended to $5,088,034.56 as of February 7, 2020. Except as amended hereby, all provisions of the Standby Trust Agreement entered into on June 20, 2014 by and between S.A. Dunn & Company, LLC, "Settlor" and U.S. Bank National Association, "Trustee" shall remain in full force and effect.

Executed by (Settlor):

S.A. Dunn & Company, LLC

By: (Signature)
Name: WORTHING JACKMAN
Title: PRESIDENT & CEO
Date: FEB 25, 2020

Witness: (signature)
Name: HANSAL KUMAR PATEL
Title: DIRECTOR OF CORPORATE FINANCE

Executed by (Trustee):

U.S. Bank National Association

By: (Signature)
Name: Ismael Diaz
Title: Vice President
Date: February 20, 2020

Witness: (signature)
Name: Ilse Vlach
Title: Vice President

Approved and Accepted by:

New York State Department of Environmental Conservation

By: (Signature)
Name:
Title:
Date:

RIDER

To be attached to and form a part of Bond No. SUR0041322

Effective: June 1, 2017

Bond Amount: $3,756,000.00

Executed by: S.A. Dunn & Company, LLC, as Principal

and by: Argonaut Insurance Company, as Surety

in favor of: New York State Department of Environmental Conservation, as Obligee

In consideration of the mutual agreements herein contained, the Principal and the Surety hereby consent to Revise the Bond Amount as Follows:

Increase Closure Amount From: $3,591,000.00 To: $4,219,809.61

Increase Post Closure Amount From: $165,000.00 To: $868,224.95

For a total new bond amount of: $5,088,034.56

Nothing herein contained shall vary, alter or extend any provision or condition of this bond except as herein expressly stated.

This rider is effective: February 7, 2020

Signed and Sealed: February 7, 2020

Principal: S.A. Dunn & Company, LLC

By: Scott L. Schreiber, Vice President Principal

Surety: Argonaut Insurance Company

By: Dawn L. Morgan
Dawn L. Morgan, Attorney-In-Fact

Argonaut Insurance Company
Deliveries Only: 225 W. Washington, 24th Floor
Chicago, IL 60606
United States Postal Service: P.O. Box 469011, San Antonio, TX 78246

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the Argonaut Insurance Company, a Corporation duly organized and existing under the laws of the State of Illinois and having its principal office in the County of Cook, Illinois does hereby nominate, constitute and appoint:

Stephen T. Kazmer Elaine Marcus, James I. Moore, Dawn L. Morgan, Diane M. Rubright, Jennifer J. McComb, Amy Wickett

Their true and lawful agent(s) and attorney(s)-in-fact, each in their separate capacity if more than one is named above, to make, execute, seal and deliver for and on its behalf as surety, and as its act and deed any and all bonds, contracts, agreements of indemnity and other undertakings in suretyship provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

$85,000,000.00

This Power of Attorney is granted and is signed and sealed under and by the authority of the following Resolution adopted by the Board of Directors of Argonaut Insurance Company;

"RESOLVED, That the President, Senior Vice President, Vice President, Assistant Vice President, Secretary, Treasurer and each of them hereby is authorized to execute powers of attorney, and such authority can be executed by use of facsimile signature, which may be attested or acknowledged by any officer or attorney, of the Company, qualifying the attorney or attorneys named in the given power of attorney, to execute in behalf of, and acknowledge as the act and deed of the Argonaut Insurance Company, all bond undertakings and contracts of suretyship, and to affix the corporate seal thereto."

IN WITNESS WHEREOF, Argonaut Insurance Company has caused its official seal to be hereunto affixed and these presents to be signed by its duly authorized officer on the 8th day of May, 2017

Argonaut Insurance Company

by: _____

Joshua C. Betz, Senior Vice President

STATE OF TEXAS
COUNTY OF HARRIS SS:

On this 8th day of May, 2017 A.D., before me, a Notary Public of the State of Texas, in and for the County of Harris, duly commissioned and qualified, came THE ABOVE OFFICER OF THE COMPANY, to me personally known to be the individual and officer described in, and who executed the preceding instrument, and he acknowledged the execution of same, and being by me duly sworn, deposed and said that he is the officer of the said Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and the said Corporate Seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority and direction of the said corporation, and that Resolution adopted by the Board of Directors of said Company, referred to in the preceding instrument is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand, and affixed my Official Seal at the County of Harris, the day and year first above written.

Kathleen M. Muelo

(Notary Public)

I, the undersigned Officer of the Argonaut Insurance Company, Illinois Corporation, do hereby certify that the original POWER OF ATTORNEY of which the foregoing is a full, true and correct copy is still in full force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand, and affixed the Seal of said Company, on the 7th day of February 2020

James Bluzard, Vice President-Surety

THIS DOCUMENT IS NOT VALID UNLESS THE WORDS ARGO POWER OF ATTORNEY ARE IN BLUE. IF YOU HAVE QUESTIONS ON AUTHENTICITY OF THIS DOCUMENT CALL (210) 321 - 8400.

State of Illinois}
} ss.
County of Dupage }

On February 7, 2020, before me, Tariese M. Pisciotto, a Notary Public in and for said Dawn L. Morgan known to me to be Attorney-in-Fact of Argonaut Insurance Company the corporation described in and that executed the within and foregoing instrument, and known to me to be the person who executed the said instrument in behalf of the said corporation, and he duly acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year stated in this certificate above.

My Commission Expires June 26, 2022

OFFICIAL SEAL
TARIESE M PISCIOTTO
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:06/26/22

Tariese M. Pisciotto, Notary Public

Commission No. 560807

Attachment 7

May 8, 2023

Mr. Brian Maglienti
New York State Department of Environmental Conservation
Region 4, Division of Materials Management
1130 North Westcott Road
Schenectady, NY 12306-2014

Re: Environmental Monitoring Program
First Quarter 2023
S.A. Dunn Sand and Gravel

Dear Mr. Maglienti:

Cornerstone Engineering and Geology, PLLC (Cornerstone) completed the first quarter 2023 groundwater and surface water monitoring event at the above referenced facility on February 27 and March 1, 2023. The sampling was completed in accordance with the monitoring program presented in the Environmental Monitoring Plan (EMP) and Site Analysis Plan (SAP), titled Environmental Monitoring Plan, Dunn Mine and C&D Facility, October 2021 prepared by Civil & Environmental Engineering, PLLC. The facility began accepting waste during the last week in January 2015. Samples collected during this quarter were analyzed for the Part 360 Routine Parameters. In addition, this sampling event also included the collection of a second round of samples for analysis of Part 363 Expanded Parameters consisting of 1,4-dioxane, vanadium, radionuclides, and per- and polyfluoroalkyl substances (PFAS).

First Quarter 2023 Groundwater and Surface Water Sampling

Groundwater and surface water samples were obtained on February 27 and March 1, 2023 from seven monitoring wells and two surface water locations as illustrated on the attached figures. Five monitoring wells (MW-6S, MW-7S, MW-8S, MW-10S, and MW-12S) represent locations down gradient of the current and future C&D waste cells. MW-9SR and MW-11S represent upgradient locations. Surface water locations SW-1 and SW-2 represent downstream and upstream locations, respectively, within Quackenderry Creek.

Samples collected during this quarter were analyzed for the Part 363 Routine Parameters plus the Expanded Parameters 1,4-dioxane, vanadium, radionuclides, and PFAS. The next annual baseline event will be completed during the second quarter of 2023.

Prior to sampling, groundwater levels were measured at each monitoring well location and the volume of groundwater contained in the wells was calculated based upon the measured depth. With the exception of samples collected for PFAS analysis, groundwater purging and sampling was conducted using a two-inch diameter submersible pump (decontaminated between sampling locations) and dedicated Teflon lined tubing. The submersible pump was placed near the top of the water column and the well was purged at a rate that maintained the water level above the top of the pump. Each well was purged of three well volumes of water, after which the pump rate was reduced to approximately 1 liter/minute and the water was pumped through a flow-through cell for measurement of field parameters (see Table 1) using a Horiba U22 multi-parameter meter calibrated in accordance with the manufacturer's instructions at the beginning of the day. Following recording of

Cornerstone Engineering and Geology, PLLC
100 Crystal Run Road, Suite 101, Middletown, NY 10941
Tel 877.294.9070 Fax 877.845.1456 tetratech.com

the field parameter measurements, samples were collected directly into glass and/or plastic ware provided by Eurofins Laboratories of Amherst, NY. The submersible pump was then removed from the well and samples for analysis of PFAS compounds were collected with a disposable bailer dedicated to each well. The collected samples were then placed in a cooler, on ice, for subsequent delivery to the laboratory.

Surface water samples were collected as grab samples directly into the sample bottles provided by Eurofins. Field parameters were recorded by placing the Horiba U22 multi-parameter meter directly into the creek water and are reported in Table 1.

The collected groundwater and surface water samples were transported by courier, under chain-of-custody, to Eurofins Laboratories in Amherst, New York for analysis of the Part 360 Routine Parameters.

Analytical Results

The groundwater and surface water samples were analyzed by the NYSDOH, ELAP certified (No. 10026) laboratory, Eurofins Laboratories of Amherst, New York for the Part 363 Routine Parameters plus selected Expanded parameters as referenced above. The laboratory report is attached for reference and the analytical results are summarized in Tables 2 through 4.

The following parameters are noted as exceeding their respective groundwater or surface water quality criteria (also summarized in Tables 2 and 3) during this sampling event and are noted in Tables 2 and 3 with bold text.

Total Dissolved Solids (TDS) – MW-6S, MW-7S, MW-8S, MW-9SR*, MW-10S, MW-11S*, MW-12S, SW-1, SW-2*

Chloride – SW-1 and SW-2*

Magnesium – MW-6S, MW-7S, MW-8S, MW-9SR*, MW-10S, MW-11S*, MW-12S, SW-1

Manganese – MW-12S

Iron – MW-7S, MW-8S, MW-9SR*, MW-10S, MW-12S

Sodium – MW-6S, MW-8S, MW-9SR, MW-11S*

Sulfate – MW-9SR*, MW-11S*

Phenolics – MW-9SR*, MW-12S

*Represents upgradient or upstream monitoring point

The inorganic parameters noted above as exceeding applicable groundwater or surface water quality criteria are consistent with those reported as part of prior sampling events and are representative of naturally occurring conditions.

Comparison of the analytical results to the EWQ-SVs (i.e. mean plus three standard deviations), indicate concentrations for the following sampling locations and parameters are above the EWQ-SVs:

MW-6S – Hardness and calcium at concentrations of 630 mg/l and 149 mg/l as compared to 624 mg/l and 148 mg/l, respectively.

MW-7S – Hardness at a concentration of 570 mg/l as compared to 515 mg/l.

MW-8S – Sodium at a concentration of 30.6 mg/l as compared to 30.0 mg/l.

MW-9SR* – Phenolics at a detectable concentration of 0.051 mg/l as compared to 0.003 mg/l.

MW-11S* – Hardness at a concentration of 1850 mg/l as compared to 1445 mg/l.

MW-12S – Manganese and phenolics at concentrations of 0.31 mg/l and 0.018 as compared to 0.26 mg/l and 0.016 mg/l, respectively.

During this reporting period, the following locations exceeded the groundwater quality standard and the EWQV (average concentration) for the following parameters:

MW-6S – Sodium, Magnesium and TDS

MW-7S – Iron, Magnesium and TDS

MW-8S – Iron, Magnesium, Sodium and TDS

MW-9SR* – Iron, Magnesium, Sodium, Sulfate, TDS and Phenolics

MW-10S – Iron, Magnesium and TDS

MW-11S* - Magnesium, Sodium, Sulfate and TDS

MW-12S – Iron, Magnesium, Manganese, TDS and phenolics

During this reporting period, the following locations exceeded both the groundwater quality standard and the EWQ-SV for the following parameters:

MW-8S – Sodium

MW-9SR* Phenolics

MW-12S – Manganese and phenolics

*Represents upgradient or upstream monitoring point

With the exception of manganese, each of the parameters identified above exceeds the groundwater quality standard in at least one, if not both, upgradient well locations (see discussion above). Additionally, the results reported above are generally consistent with historical data and collectively do not indicate any cause for concern. Phenolics are rarely detected and were also reported in the field blank, suggesting that the reported concentrations may not be representative. Moreover, since phenolics are rarely detected, any detectable concentration is identified as exceeding both the average EWQV and the EWQV-SV.

With respect to additionally analyzed Expanded Parameters (Table 4), single digit concentrations of four PFAS compounds were detected in the upstream surface water (SW-2) and one of the same PFAS compounds was detected in the downstream sample (SW-1). No PFAS compounds were detected in groundwater samples and 1,4-dioxane was not detected in any of the samples. As also shown in Table 4, detectable radionuclides were detected at concentrations of less than 1 pCi/L and below groundwater and surface water standards at MW-9SR (upgradient well) and downstream surface water location SW-1. However, radionuclides (Radium-228) were also detected in the field blank indicating that these data may not be representative. Finally, uranium was detected in all samples ranging from 1.1 ug/l at SW-2 to 7.5 ug/l in upgradient well MW-11S.

In summary, the collective data provide no evidence of groundwater/surface water impacts associated with the facility and are representative of natural water quality or upstream influences.

QA/QC

A field blank (FB-01) was collected during the first quarter 2023 sampling event by pouring laboratory grade water over the two-inch submersible pump after it was decontaminated between monitoring wells. With the exception of manganese, phenolics, TDS, and Radium-228 the results were below reporting limits for all constituents. The detected concentrations of phenolics and Radium-228 suggest that the sporadic detection of these compounds in the samples may not be representative.

The laboratory case narrative indicates that nitrates and BOD were analyzed outside of holding times for SW-1 and SW-2 due to delays in the Fedex shipping. The outside of holding time results are comparable to historic results and are therefore deemed acceptable.

The chain of custody record, field methods and sample labeling were observed to be consistent and in accordance with established procedures. With the exception of the QC issues noted in the laboratory report job narrative, and for which sample results were re-analyzed and/or qualified accordingly, review of the raw data, spike recoveries and related analytical QC indicated acceptable results and provides no basis for qualification (beyond that already provided by the lab) or rejection of the data. The data is deemed usable for the intended purpose.

Summary

A limited number of parameters are routinely reported at concentrations above applicable groundwater or surface water quality criteria and the results are generally consistent over the historical record. During the first quarter 2023 sampling event, and consistent with prior results, TDS, magnesium, sodium, sulfate, and iron exceeded groundwater quality criteria at one or both of the upgradient well locations and chloride exceeded the surface water standard in the upstream and downstream surface water sample. Of note is that the sodium concentrations in both the up and downstream surface water samples represent the highest concentrations to date and sodium concentrations in groundwater are also near or above historical highs, although not at the same magnitude as the surface water samples. Chloride and TDS concentrations in both the up and downstream surface water samples are also near or above historical highs, all of which suggest impacts likely associated with road salting.

Finally, there were no detectable concentrations of PFAS compounds or 1,4-dioxane in groundwater, confirming the previously collected data for emerging contaminants. The surface water results indicate an upstream source of four PFAS compounds at low single digit concentrations that are unrelated to the Site.

Collectively, the data provide no evidence of groundwater/surface water impacts attributable to the facility and are representative of natural water quality or off-Site influences.

Samples collected during the next sampling event, second quarter 2023, will be analyzed for the Part 363 Baseline Parameters.

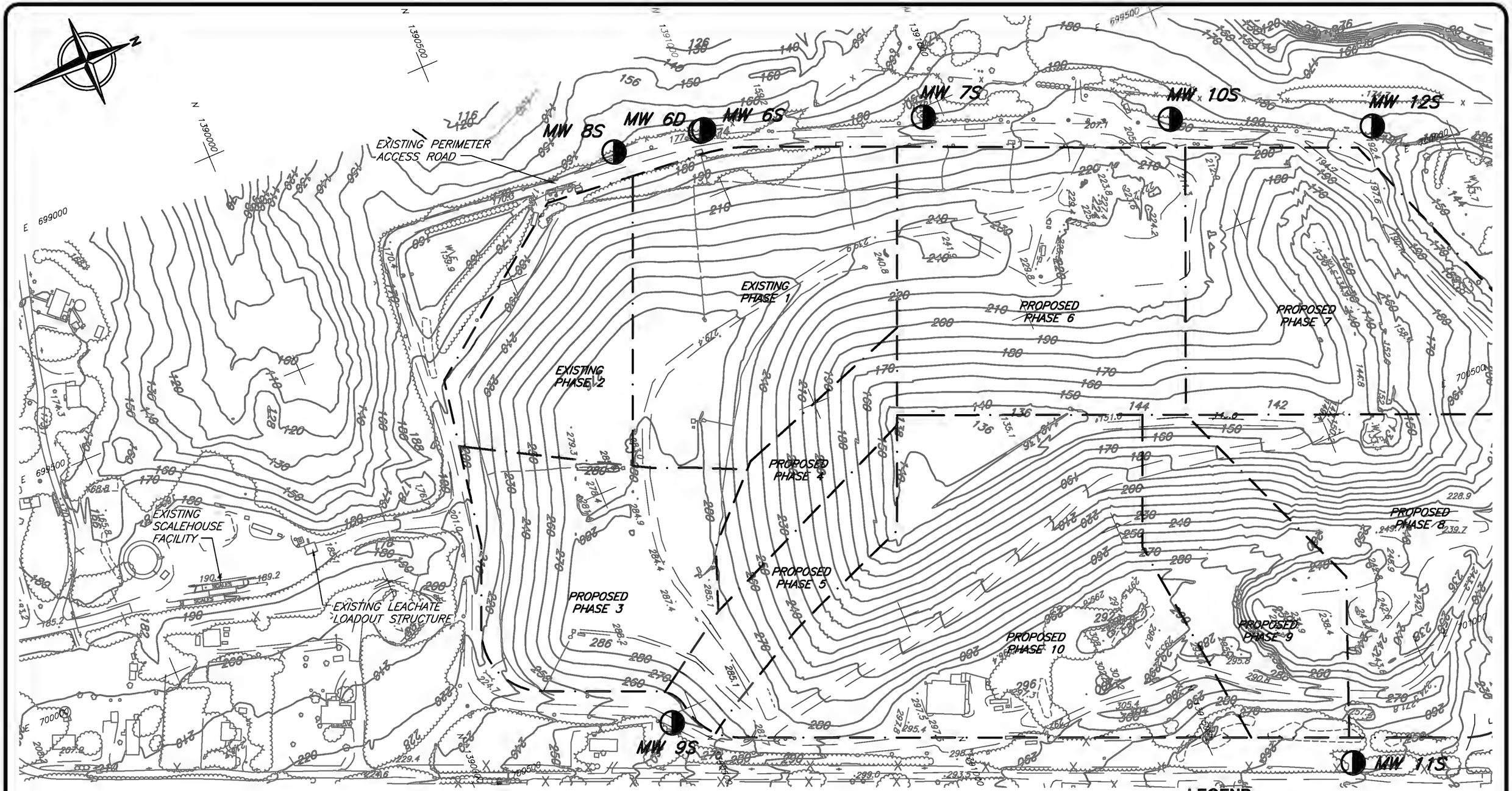
Please do not hesitate to contact us with any questions you may have.

Sincerely,

CORNERSTONE ENGINEERING AND GEOLOGY, PLLC

Timothy R. Roeper, P.G.
Client Manager - Hydrogeology

cc: Ross McCredy – (NYSDEC) – Via Email
Lana Brown - Via Email
Curt Taylor - Via Email
Corey Judd – Hard Copy



NOTES:

1. EXISTING SITE FEATURES AND TOPOGRAPHY WERE DEVELOPED USING PHOTOGRAMMATIC METHODS PERFORMED BY SOUTHERN RESOURCE MAPPING CORPORATION OF NORTH PORT, ALABAMA, FROM AERIAL PHOTOGRAPHY DATED NOVEMBER 4, 2020. CORNERSTONE ENGINEERING GROUP, LLC HAS NOT RESURVEYED TO VERIFY ACCURACY OF THE SAME.

0 200 400

SCALE IN FEET

LEGEND:

MW 6D EXISTING MONITORING WELL

cornerstone
A TETRA TECH COMPANY

PREPARED BY:
CORNERSTONE ENVIRONMENTAL GROUP, LLC

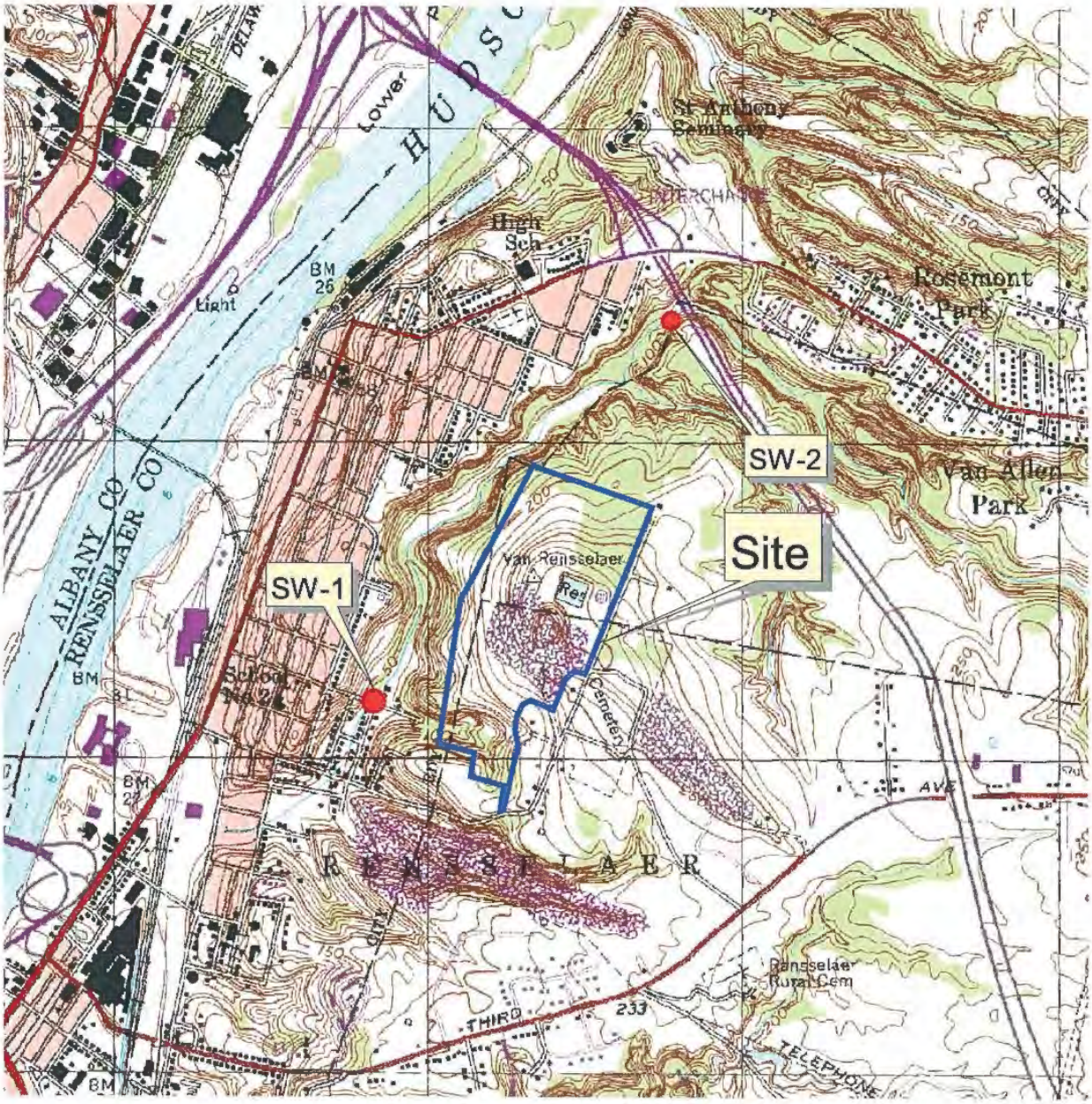
This drawing represents intellectual property of Cornerstone Environmental Group, LLC. Any modification to the original by other than Cornerstone Environmental Group, LLC personnel violates its original purpose and as such is rendered void. Cornerstone Environmental Group, LLC will not be held liable for any changes made to this document without express written consent of the originator.

DUNN C&D LANDFILL

MONITORING WELL LOCATION PLAN

FIGURE NO. 1

PROJECT NO. 190023



Source:
USGS Topographic Map
Troy South, NY Quadrangle
Figure 5 – C.T. Male Associates

cornerstone environmental

PREPARED BY:
CORNERSTONE ENVIRONMENTAL GROUP, LLC

S.A. Dunn Sand And Gravel

Surface Water Sampling Locations

FIGURE NO.
2

PROJECT NO.

TABLE 1
FIELD PARAMETERS
FEBRUARY 2023 - ROUTINE SAMPLING EVENT

			Groundwater/Surface Water Monitoring					
Well	**Ref. Elev.**	**DTW (ft)**	**Temp.(C°)**	**Cond.**	**pH**	**DO**	**Turb.**	**ORP**
MW-6S	179.15	130.89	13.03	0.906	7.38	4.41	35.5	177
MW-7S	190.95	142.95	13.41	0.699	7.35	2.3	40.3	141
MW-8S*	173.1	122.62	13.31	0.886	7.31	5.83	48.5	159
MW-9SR	271.51	193.18	13.87	0.782	7.28	4.33	39.3	140
MW-10S	204.53	154.88	13.03	0.805	7.36	0.37	44.4	125
MW-11S	253.5	175.44	12.73	1.660	7.12	5.81	1.8	183
MW-12S	187.47	137.50	13.44	0.796	7.37	0.06	41.0	61
SW-1		**	3.86	1.760	7.67	12.5	3.2	124
SW-2		**	3.54	1.770	8.21	12.72	5.6	166

DTW- Depth to Water from Top of PVC Casing

Note: MW-8S surface casing was damaged and repaired in December 2014. Elevation above references new top of PVC elevation.

Reference elevations for MW-6S and MW-7S from C.T. Male Associates, Figure EM1a, May 2011.

TABLE 2
SUMMARY OF METALS RESULTS
FEBRUARY 2023 - ROUTINE SAMPLING EVENT

		Groundwater Monitoring														Surface Water Monitoring				
Sample ID	**GW Standard [1]**	**MW-6S-03012023**		**MW-7S-02272023**		**MW-8S-03012023**		**MW-9SR-02272023**		**MW-10S-02272023**		**MW-11S-02272023**		**MW-12S-02272023**		**SW Standard [1]**	**SW-01-03012023**		**SW-02-03012023**	
Lab Sample Number		**480-206602-2**		**480-206498-6**		**480-206602-1**		**480-206498-3**		**480-206498-5**		**480-206498-2**		**480-206498-4**			**480-206632-1**		**480-206632-2**	
Sampling Date		**03/01/2023 08:15:00**		**02/27/2023 15:25:00**		**03/01/2023 09:20:00**		**02/27/2023 10:05:00**		**02/27/2023 13:50:00**		**02/27/2023 08:25:00**		**02/27/2023 12:05:00**			**03/01/2023 10:35:00**		**03/01/2023 11:45:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor																				
Units	**mg/L**	**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**	**mg/L**		**mg/L**	
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
Metals		**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**		**Result**	**Q**	**Result**	**Q**
Cadmium	0.005	ND	U *+	ND	U	ND	U *+	ND	U	ND	U	ND	U	ND	U	0.005	ND	U *+	ND	U *+
Calcium	--	149		117		147		151		135		195		147		--	117		108	
Iron	0.3	0.29		**2.3**		**1.5**		**6.6**		**0.99**		0.063		**4.3**		0.3	0.19		0.13	
Lead	0.025	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.05	ND	U	ND	U
Magnesium	35	**62.9**		**48.1**		**68.0**		**63.6**		**56.3**		**149**		**51.9**		35	**36.6**		32.5	
Manganese	0.3	0.015		0.074		0.060		0.27		0.065		0.033		**0.31**		0.3	0.10		0.066	
Potassium	--	2.0		2.7		2.5		3.0		2.0		3.1		1.4		--	3.0		2.6	
Sodium	20	**32.2**		8.9		**30.6**		**21.2**		16.5		**45.3**		13.1		--	284		286	

^ Instrument related QC is outside acceptance limits.
U : Indicates the analyte was analyzed for but not detected.

MW-9SR and MW-11S - Upgradient Monitoring Well Locations
SW-2 - Upstream Monitoring Location
[1] 6NYCRR Part 703 Surface and Groundwater Quality Standards and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values
Values in **BOLD** exceed applicable groundwater or surface water criteria

TABLE 3
SUMMARY OF LEACHATE INDICATOR RESULTS
FEBRUARY 2023 - ROUTINE SAMPLING EVENT

		Groundwater Monitoring														Surface Water Monitoring				
Sample ID	**GW Standard [1]**	**MW-6S-03012023**		**MW-7S-02272023**		**MW-8S-03012023**		**MW-9SR-02272023**		**MW-10S-02272023**		**MW-11S-02272023**		**MW-12S-02272023**		**SW Standard [1]**	**SW-01-03012023**		**SW-02-03012023**	
Lab Sample Number		**480-206602-2**		**480-206498-6**		**480-206602-1**		**480-206498-3**		**480-206498-5**		**480-206498-2**		**480-206498-4**			**480-206632-1**		**480-206632-2**	
Sampling Date		**03/01/2023 08:15:00**		**02/27/2023 15:25:00**		**03/01/2023 09:20:00**		**02/27/2023 10:05:00**		**02/27/2023 13:50:00**		**02/27/2023 08:25:00**		**02/27/2023 12:05:00**			**03/01/2023 10:35:00**		**03/01/2023 11:45:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor																				
Units																				
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
Wet Chemistry		**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**	**Result**	**Q**		**Result**	**Q**	**Result**	**Q**
Alkalinity, Total - mg/L	--	323		303		310		281		316		396	F1	343		--	221		190	
Ammonia - mg/L	2	ND	U	ND	U F1	ND	U	ND	U F1	ND	U	ND	U F1	ND	U F1	2	ND	U	ND	U
Biochemical Oxygen Demand - mg/L	--	ND	U *-	ND	U	ND	U *-	ND	U	ND	U	ND	U	ND	U	--	ND	U *-	ND	U *-
Bromide - mg/L	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Chemical Oxygen Demand - mg/L	--	14.0		ND	U F1	ND	U	ND	U	ND	U	15.7		ND	U	--	28.0	F1	28.4	
Chloride - mg/L	250	74.7		22.8		41.3		33.8		23.9		70.6		23.4		250	**480**	F1	**487**	
Nitrate as N - mg/L	10	ND	U H	0.44		ND	U H	0.55		ND	U	0.28		ND	U	10	0.56	H H3	0.76	H
Phenolics, Total Recoverable - mg/L	0.001	ND	U	ND	U	ND	U	**0.051**		ND	U	ND	U	**0.018**		0.001	ND	U	ND	U
Total Dissolved Solids - mg/L	500	**661**		**525**		**678**		**723**		**713**		**1420**		**681**		500	**1090**		**1070**	
Total Hardness	--	630		570		596		700		532		1850		730		--	416		420	
Total Kjeldahl Nitrogen - mg/L	--	0.23		0.33		ND	U	ND	U	0.27		ND	U	0.26		--	ND	U F1	0.51	F1
Total Organic Carbon - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	1.1		ND	U	--	2.1		2.2	
Sulfate - mg/L	250	208		153		239		**301**		240		**706**		220		250	104		96.2	

* : LCS or LCSD is outside acceptance limits.
+ - High biased
F1 : MS and/or MSD Recovery is outside acceptance limits.
U : Indicates the analyte was analyzed for but not detected.
B : Compound was found in the blank and sample.
H : Sample was prepped or analyzed beyond the specified holding time

MW-9SR and MW-11S - Upgradient Monitoring Well Locations
SW-2 - Upstream Monitoring Location
[1] 6NYCRR Part 703 Surface and Groundwater Quality Standards and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values
Values in **BOLD** exceed applicable groundwater or surface water criteria

TABLE 4
SUMMARY OF ADDITIONAL PARAMETERS[1]
FEBRUARY 2023

		Groundwater Monitoring														Surface Water Monitoring			
Sample ID	**GW Standard**	**MW-6S-03012023**		**MW-7S-02272023**		**MW-8S-03012023**		**MW-9SR-02272023**		**MW-10S-02272023**		**MW-11S-02272023**		**MW-12S-02272023**		**SW Standard**	**SW-01-03012023**		**SW-02-03012023**	
Lab Sample Number		**480-206602-2**		**480-206498-6**		**480-206602-1**		**480-206498-3**		**480-206498-5**		**480-206498-2**		**480-206498-4**			**480-206632-1**		**480-206632-2**	
Sampling Date		**03/01/2023 08:15:00**		**02/27/2023 15:25:00**		**03/01/2023 09:20:00**		**02/27/2023 10:05:00**		**02/27/2023 13:50:00**		**02/27/2023 08:25:00**		**02/27/2023 12:05:00**			**03/01/2023 10:35:00**		**03/01/2023 11:45:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor		**1**		**1**		**1**		**1**		**1**		**1**		**1**			**1**		**1**	
Units	**ng/L**	**ng/L**		**ng/L**		**ng/L**		**ng/L**		**ng/L**		**ng/L**		**ng/L**			**ng/L**		**ng/L**	
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
LCMS - Water - EPA 537 (modified)		**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**		**Result**	**Qual**	**Result**	**Qual**
Perfluorobutanoic acid (PFBA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluoropentanoic acid (PFPeA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		2.0		1.9	
Perfluorohexanoic acid (PFHxA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	2.0	
Perfluoroheptanoic acid (PFHpA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluorooctanoic acid (PFOA)	10	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	1.8	
Perfluorononanoic acid (PFNA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluorodecanoic acid (PFDA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluoroundecanoic acid (PFUnA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluorododecanoic acid (PFDoA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluorotridecanoic acid (PFTriA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluorotetradecanoic acid (PFTeA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluorobutanesulfonic acid (PFBS)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	1.8	
Perfluorohexanesulfonic acid (PFHxS)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluoroheptanesulfonic acid (PFHpS)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluorooctanesulfonic acid (PFOS)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	1.9	
Perfluorodecanesulfonic acid (PFDS)	10	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Perfluorooctanesulfonamide (FOSA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
6:2 FTS		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
8:2 FTS		ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Units		pCi/L		pCi/L		pCi/L		pCi/L		pCi/L		pCi/L		pCi/L			pCi/L		pCi/L	
Rad - Water - EPA 903.0/904.0		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		Result	Qual	Result	Qual
Radium-226	3	0.0815	U	0.119	U	0.0321	U	0.315		0.0379	U	0.0444	U	0.0476	U	3	0.144	U	0.0654	U
Radium-228	3	0.251	U	0.409	U	0.838	U G	0.956	U G	0.434	U	-0.0804	U	0.223	U	3	0.960		0.186	U
Units		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L			ug/L		ug/L	
Semivolatiles - Water - SW846 8270D SIM ID		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		Result	Qual	Result	Qual
1,4-Dioxane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U		ND	U	ND	U
Units		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L			ug/L		ug/L	
Metals		Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		Result	Qual	Result	Qual
Uranium		4.4		4.7		5.1		2.5		2.7		7.5		2.6			1.4		1.1	

1 - In accordance with the EMP, this represents the second round of Expanded Parameters consisting of PFAS, Radium 226, Radium 228, Total Uranium and 1,4-Dioxane.
U : Result is less than the sample detection limit.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Corey Judd
Waste Connections, Inc.
209 Partition Street Extension
Rensselaer, New York 12144

Generated 4/4/2023 3:55:32 PM

JOB DESCRIPTION

Dunn Landfill - Routine
SDG NUMBER 206498
Routine

JOB NUMBER

480-206498-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

my EOL

Eurofins Buffalo

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Buffalo and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Buffalo Project Manager or designee who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
4/4/2023 3:55:32 PM

Authorized for release by
Joshua Velez, Project Management Assistant I
Joshua.Velez@et.eurofinsus.com
Designee for
Ryan VanDette, Project Manager II
Ryan.VanDette@et.eurofinsus.com
(716)504-9830

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 9
Client Sample Results 13
Isotope Dilution Summary 34
Tracer Carrier Summary 37
QC Sample Results 38
QC Association Summary 71
Lab Chronicle 84
Certification Summary 92
Method Summary 94
Sample Summary 95
Chain of Custody 96
Receipt Checklists 107

Definitions/Glossary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

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: 480-206498-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-206498-1

Comments
No additional comments.

Receipt
The samples were received on 2/28/2023 9:00 AM, 3/2/2023 9:50 AM and 3/3/2023 11:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 7 coolers at receipt time were 1.8º C, 2.0º C, 2.1º C, 2.2º C, 2.2º C, 2.8º C and 4.0º C.

Receipt Exceptions
Lab did not receive page 2 of COC.

Sample points SW-01 and SW-02 listed on COC set. However, no volume for these sample points were received by the lab. Assumed delayed coolers in Fedex network. Only what was received was processed/logged. MW-8S-03012023 (480-206602-1) and MW-6S-03012023 (480-206602-2)

Fedex network delay received by lab 3/3. SW-01-03012023 (480-206632-1) and SW-02-03012023 (480-206632-2)

The following samples were received outside of holding time: SW-01-03012023 (480-206632-1) and SW-02-03012023 (480-206632-2). Unpreserved nitrates and BOD.

Samples MW-8S and MW-6S were received on time, 3/2/ and processed under seperate job. SW-01-03012023 (480-206632-1) and SW-02-03012023 (480-206632-2)

GC/MS Semi VOA
Method 8270D SIM ID: The breakdown of 4,4'-DDT in the tuning evaluation exceeded 20%. Breakdown is not a criteria of the method but rather an internal check performed by the laboratory to evaluate the peak shape of 1,4-Dioxane and 1,4-Dioxane-d8. No adverse performance was observed and QC recoveries were in control. The data have been reported.

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

HPLC/IC
Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-11S-02272023 (480-206498-2), MW-9SR-02272023 (480-206498-3), MW-12S-02272023 (480-206498-4), MW-10S-02272023 (480-206498-5) and MW-7S-02272023 (480-206498-6). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-8S-03012023 (480-206602-1) and MW-6S-03012023 (480-206602-2). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: SW-01-03012023 (480-206632-1) and SW-02-03012023 (480-206632-2). 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.

RAD
Method PrecSep-21: Radium-226 Prep Batch 160-602810: The following sample was prepared at a reduced aliquot due to Matrix: MW-8S-03012023 (480-206602-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-602810: Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-6S-03012023 (480-206602-2), SW-01-03012023 (480-206632-1) and SW-02-03012023 (480-206632-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Job ID: 480-206498-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

Method PrecSep_0: Radium-228 Prep Batch 160-602812: The following sample was prepared at a reduced aliquot due to Matrix: MW-8S-03012023 (480-206602-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep_0: Radium-228 Prep Batch 160-602812: Insufficient sample volume was available to perform a sample duplicate for the following samples: MW-6S-03012023 (480-206602-2), SW-01-03012023 (480-206632-1) and SW-02-03012023 (480-206632-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Methods 904.0, 9320: Radium-228 batch 602255: The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: MW-9SR-02272023 (480-206498-3). Analytical results are reported with the detection limit achieved.

Methods 904.0, 9320: Radium-228 batch 602255: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01-02272023 (480-206498-1), MW-11S-02272023 (480-206498-2), MW-9SR-02272023 (480-206498-3), MW-12S-02272023 (480-206498-4), MW-10S-02272023 (480-206498-5), (LCS 160-602255/2-A), (MB 160-602255/1-A), (380-38964-C-1-B) and (380-38964-D-1-B DU)

Methods 904.0, 9320: Radium-228 batch 602331: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-7S-02272023 (480-206498-6), (LCS 160-602331/2-A), (MB 160-602331/1-A), (500-230034-D-1-B) and (500-230034-E-1-B DU)

Methods 904.0, 9320: Radium-228 batch 602812: The detection goal was not met for the following sample(s). Sample was prepped at a reduced volume due to the presence of matrix interferences: MW-8S-03012023 (480-206602-1). Analytical results are reported with the detection limit achieved.

Methods 904.0, 9320: Radium-228 batch 602812: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-8S-03012023 (480-206602-1), MW-6S-03012023 (480-206602-2), SW-01-03012023 (480-206632-1), SW-02-03012023 (480-206632-2), (LCS 160-602812/2-A), (LCSD 160-602812/3-A) and (MB 160-602812/1-A)

Methods 903.0, 9315: Radium-226 batch 602254: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01-02272023 (480-206498-1), MW-11S-02272023 (480-206498-2), MW-9SR-02272023 (480-206498-3), MW-12S-02272023 (480-206498-4), MW-10S-02272023 (480-206498-5), (LCS 160-602254/2-A), (MB 160-602254/1-A), (380-38964-C-1-A) and (380-38964-D-1-A DU)

Methods 903.0, 9315: Radium-226 batch 602324: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-7S-02272023 (480-206498-6), (LCS 160-602324/2-A), (MB 160-602324/1-A), (500-230034-D-1-A) and (500-230034-E-1-A DU)

Methods 903.0, 9315: Prep batch 160-602810: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-8S-03012023 (480-206602-1), MW-6S-03012023 (480-206602-2), SW-01-03012023 (480-206632-1), SW-02-03012023 (480-206632-2), (LCS 160-602810/2-A), (LCSD 160-602810/3-A) and (MB 160-602810/1-A)

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

Metals

Method 6010C: The continuing calibration blank (CCB 480-660298/29) contained Total Manganese above the reporting limit (RL). All reported samples (LCS 480-660060/2-A) and (MB 480-660060/1-A) associated with this CCB were either ND for this analyte or contained

Job ID: 480-206498-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 6010C: The low level continuing calibration verification (CCVL 480-660298/30) recovered above the upper control limit for Total Manganese. The samples associated with this CCVL were either less than the reporting limit (RL) for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples (LCS 480-660060/2-A) and (MB 480-660060/1-A) was not performed.

Method 6010C: The laboratory control sample (LCS) for preparation batch 480-660459 and analytical batch 480-661184 recovered outside control limits for the following analyte: Total Cadmium. This analyte was biased high in the LCS and were not detected in the associated samples MW-8S-03012023 (480-206602-1), MW-6S-03012023 (480-206602-2), SW-01-03012023 (480-206632-1) and SW-02-03012023 (480-206632-2); therefore, the data have been reported.

Method 6010C: The recovery of post spike, (480-206602-F-2-A PDS), associated with batch 480-661184, exhibited results outside quality control limits for Total Cadium, Magnesium, and Sodium. However, the serial dilution (SD) of this sample was compliant, therefore no corrective action was necessary.

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

LCMS
Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 200-189165.

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

General Chemistry
Method 353.2: The continuing calibration verification low standard after the calibration fails low at 42%, the following samples are affected: MW-11S-02272023 (480-206498-2), MW-9SR-02272023 (480-206498-3), MW-7S-02272023 (480-206498-6), (190-31120-U-3) and (480-206507-A-1). The samples were analyzed for conformational purposes on our new instrument as these are time critical samples. The data is being reported.

Method 353.2: The following sample was received outside of holding time: SW-01-03012023 (480-206632-1).

Method 353.2: The following samples were analyzed outside of analytical holding time due to instrument issues: MW-8S-03012023 (480-206602-1), MW-6S-03012023 (480-206602-2), SW-02-03012023 (480-206632-2) and (480-206602-N-1 DU).

Method 353.2: The following samples were analyzed outside of analytical holding time due to instrument issues: MW-8S-03012023 (480-206602-1), MW-6S-03012023 (480-206602-2), SW-02-03012023 (480-206632-2), (480-206610-B-5) and (480-206610-B-5 MS).

Method 353.2: The following sample was received outside of holding time: SW-01-03012023 (480-206632-1).

Method Nitrate by calc: The following samples were analyzed outside of analytical holding time due to instrument issues: MW-8S-03012023 (480-206602-1), MW-6S-03012023 (480-206602-2) and SW-02-03012023 (480-206632-2).

Method Nitrate by calc: The following sample was received outside of holding time: SW-01-03012023 (480-206632-1).

Method SM 2540C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: MW-11S-02272023 (480-206498-2). The reporting limits (RLs) have been adjusted proportionately.

Methods 9251, SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 480-660734 were outside control limits: SW-01-03012023 (480-206632-1). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method SM 5210B: The glucose-glutamic acid standard (LCS) recovered outside the recovery limits specified in the method in batch 480-660472. The method holding time had expired, therefore the analysis was not repeated. The data was qualified and reported.

Job ID: 480-206498-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

Method SM 5210B: The correction factor for the Seeded Control Blank (SCB) for batch 480-660472 was outside the method range of 0.6 to 1.0 mg/L. Thus, there is added uncertainty for the associated sample results.

Method SM 2320B: The method requirement for no headspace was not met. The following samples were analyzed with headspace in the sample container(s): MW-11S-02272023 (480-206498-2), MW-9SR-02272023 (480-206498-3), MW-12S-02272023 (480-206498-4), MW-10S-02272023 (480-206498-5), MW-7S-02272023 (480-206498-6), (480-206498-M-2 DU), (480-206498-N-2 DU), (480-206498-M-2 MS) and (480-206498-N-2 MS).

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

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-660099.

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

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: FB-01-02272023 — Lab Sample ID: 480-206498-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.0087		0.0030		mg/L	1		6010C	Total/NA
Phenolics, Total Recoverable	0.016		0.010		mg/L	1		420.4	Total/NA
Total Dissolved Solids	16.0		10.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-11S-02272023 — Lab Sample ID: 480-206498-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	7.5		1.0		ug/L	2		200.8	Total/NA
Calcium	195		0.50		mg/L	1		6010C	Total/NA
Iron	0.063		0.050		mg/L	1		6010C	Total/NA
Magnesium	149		0.20		mg/L	1		6010C	Total/NA
Manganese	0.033		0.0030		mg/L	1		6010C	Total/NA
Potassium	3.1		0.50		mg/L	1		6010C	Total/NA
Sodium	45.3		1.0		mg/L	1		6010C	Total/NA
Sulfate	706		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.28		0.050		mg/L	1	☼	353.2	Total/NA
Chemical Oxygen Demand	15.7		10.0		mg/L	1		410.4	Total/NA
Alkalinity, Total	396	F1	5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	1850		50.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	1420		20.0		mg/L	1		SM 2540C	Total/NA
Chloride	70.6		5.0		mg/L	5		SM 4500 Cl- E	Total/NA
Total Organic Carbon	1.1		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: MW-9SR-02272023 — Lab Sample ID: 480-206498-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	2.5		1.0		ug/L	2		200.8	Total/NA
Calcium	151		0.50		mg/L	1		6010C	Total/NA
Iron	6.6		0.050		mg/L	1		6010C	Total/NA
Magnesium	63.6		0.20		mg/L	1		6010C	Total/NA
Manganese	0.27		0.0030		mg/L	1		6010C	Total/NA
Potassium	3.0		0.50		mg/L	1		6010C	Total/NA
Sodium	21.2		1.0		mg/L	1		6010C	Total/NA
Sulfate	301		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.55		0.050		mg/L	1	☼	353.2	Total/NA
Phenolics, Total Recoverable	0.051		0.010		mg/L	1		420.4	Total/NA
Alkalinity, Total	281		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	700		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	723		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	33.8		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-12S-02272023 — Lab Sample ID: 480-206498-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	2.6		1.0		ug/L	2		200.8	Total/NA
Calcium	147		0.50		mg/L	1		6010C	Total/NA
Iron	4.3		0.050		mg/L	1		6010C	Total/NA
Magnesium	51.9		0.20		mg/L	1		6010C	Total/NA
Manganese	0.31		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.4		0.50		mg/L	1		6010C	Total/NA
Sodium	13.1		1.0		mg/L	1		6010C	Total/NA
Sulfate	220		10.0		mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-12S-02272023 (Continued) — Lab Sample ID: 480-206498-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Kjeldahl Nitrogen	0.26		0.20		mg/L	1		351.2	Total/NA
Phenolics, Total Recoverable	0.018		0.010		mg/L	1		420.4	Total/NA
Alkalinity, Total	343		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	730		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	681		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	23.4		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-10S-02272023 — Lab Sample ID: 480-206498-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	2.7		1.0		ug/L	2		200.8	Total/NA
Calcium	135		0.50		mg/L	1		6010C	Total/NA
Iron	0.99		0.050		mg/L	1		6010C	Total/NA
Magnesium	56.3		0.20		mg/L	1		6010C	Total/NA
Manganese	0.065		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.0		0.50		mg/L	1		6010C	Total/NA
Sodium	16.5		1.0		mg/L	1		6010C	Total/NA
Sulfate	240		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.27		0.20		mg/L	1		351.2	Total/NA
Alkalinity, Total	316		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	532		4.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	713		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	23.9		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-7S-02272023 — Lab Sample ID: 480-206498-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	4.7		1.0		ug/L	2		200.8	Total/NA
Calcium	117		0.50		mg/L	1		6010C	Total/NA
Iron	2.3		0.050		mg/L	1		6010C	Total/NA
Magnesium	48.1		0.20		mg/L	1		6010C	Total/NA
Manganese	0.074		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.7		0.50		mg/L	1		6010C	Total/NA
Sodium	8.9		1.0		mg/L	1		6010C	Total/NA
Sulfate	153		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.33		0.20		mg/L	1		351.2	Total/NA
Nitrate	0.44		0.050		mg/L	1	☼	353.2	Total/NA
Alkalinity, Total	303		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	570		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	525		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	22.8		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-8S-03012023 — Lab Sample ID: 480-206602-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	5.1		1.0		ug/L	2		200.8	Total/NA
Calcium	147		0.50		mg/L	1		6010C	Total/NA
Iron	1.5		0.050		mg/L	1		6010C	Total/NA
Magnesium	68.0		0.20		mg/L	1		6010C	Total/NA
Manganese	0.060		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.5		0.50		mg/L	1		6010C	Total/NA
Sodium	30.6		1.0		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-8S-03012023 (Continued) — Lab Sample ID: 480-206602-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	239		10.0		mg/L	5		300.0	Total/NA
Alkalinity, Total	310		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	596		4.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	678		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	41.3		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-6S-03012023 — Lab Sample ID: 480-206602-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	4.4		1.0		ug/L	2		200.8	Total/NA
Calcium	149		0.50		mg/L	1		6010C	Total/NA
Iron	0.29		0.050		mg/L	1		6010C	Total/NA
Magnesium	62.9		0.20		mg/L	1		6010C	Total/NA
Manganese	0.015		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.0		0.50		mg/L	1		6010C	Total/NA
Sodium	32.2		1.0		mg/L	1		6010C	Total/NA
Sulfate	208		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.23		0.20		mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	14.0		10.0		mg/L	1		410.4	Total/NA
Alkalinity, Total	323		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	630		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	661		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	74.7		5.0		mg/L	5		SM 4500 Cl- E	Total/NA

Client Sample ID: SW-01-03012023 — Lab Sample ID: 480-206632-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.0		1.8		ng/L	1		537 (modified)	Total/NA
Uranium	1.4		1.0		ug/L	2		200.8	Total/NA
Calcium	117		0.50		mg/L	1		6010C	Total/NA
Iron	0.19		0.050		mg/L	1		6010C	Total/NA
Magnesium	36.6		0.20		mg/L	1		6010C	Total/NA
Manganese	0.10		0.0030		mg/L	1		6010C	Total/NA
Potassium	3.0		0.50		mg/L	1		6010C	Total/NA
Sodium	284		1.0		mg/L	1		6010C	Total/NA
Sulfate	104		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.56	H H3	0.050		mg/L	1	☼	353.2	Total/NA
Chemical Oxygen Demand	28.0	F1	10.0		mg/L	1		410.4	Total/NA
Alkalinity, Total	221		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	416		4.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	1090		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	480	F1	32.0		mg/L	32		SM 4500 Cl- E	Total/NA
Total Organic Carbon	2.1		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: SW-02-03012023 — Lab Sample ID: 480-206632-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.9		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.8		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.8		1.8		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.9		1.8		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: SW-02-03012023 (Continued)

Lab Sample ID: 480-206632-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	1.1		1.0		ug/L	2		200.8	Total/NA
Calcium	108		0.50		mg/L	1		6010C	Total/NA
Iron	0.13		0.050		mg/L	1		6010C	Total/NA
Magnesium	32.5		0.20		mg/L	1		6010C	Total/NA
Manganese	0.066		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.6		0.50		mg/L	1		6010C	Total/NA
Sodium	286		1.0		mg/L	1		6010C	Total/NA
Sulfate	96.2		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.51	F1	0.20		mg/L	1		351.2	Total/NA
Nitrate	0.76	H	0.050		mg/L	1	☼	353.2	Total/NA
Chemical Oxygen Demand	28.4		10.0		mg/L	1		410.4	Total/NA
Alkalinity, Total	190		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	420		4.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	1070		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	487		33.0		mg/L	33		SM 4500 Cl- E	Total/NA
Total Organic Carbon	2.2		1.0		mg/L	1		SM 5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: FB-01-02272023

Date Collected: 02/27/23 07:40
Date Received: 02/28/23 09:00

Lab Sample ID: 480-206498-1

Matrix: Water

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		02/28/23 15:03	03/01/23 13:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*15 - 110*	*02/28/23 15:03*	*03/01/23 13:05*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		03/08/23 11:54	03/08/23 21:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		03/08/23 11:54	03/08/23 21:40	1
6:2 FTS	ND		4.6		ng/L		03/08/23 11:54	03/08/23 21:40	1
8:2 FTS	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*92*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C4 PFHpA	*104*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C4 PFOA	*98*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C4 PFOS	*104*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C5 PFNA	*100*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C4 PFBA	*88*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C2 PFHxA	*95*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C2 PFDA	*102*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C2 PFUnA	*108*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C2 PFDoA	*105*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C8 FOSA	*81*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C5 PFPeA	*84*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C2 PFTeDA	*93*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
d3-NMeFOSAA	*139*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
d5-NEtFOSAA	*135*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
M2-8:2 FTS	*98*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*
13C3 PFBS	*86*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:40*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: FB-01-02272023

Date Collected: 02/27/23 07:40
Date Received: 02/28/23 09:00

Lab Sample ID: 480-206498-1

Matrix: Water

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L		03/02/23 14:01	03/09/23 14:02	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		03/01/23 08:08	03/01/23 17:58	1
Calcium	ND		0.50		mg/L		03/01/23 08:08	03/01/23 17:58	1
Iron	ND		0.050		mg/L		03/01/23 08:08	03/01/23 17:58	1
Lead	ND		0.010		mg/L		03/01/23 08:08	03/01/23 17:58	1
Magnesium	ND		0.20		mg/L		03/01/23 08:08	03/01/23 17:58	1
Manganese	**0.0087**		0.0030		mg/L		03/01/23 08:08	03/02/23 20:12	1
Potassium	ND		0.50		mg/L		03/01/23 08:08	03/01/23 17:58	1
Sodium	ND		1.0		mg/L		03/01/23 08:08	03/01/23 17:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		0.20		mg/L			03/02/23 18:17	1
Sulfate (EPA 300.0)	ND		2.0		mg/L			03/02/23 18:17	1
Ammonia (EPA 350.1)	ND	F1	0.20		mg/L		03/06/23 07:00	03/06/23 11:01	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND	F1	0.20		mg/L		03/06/23 10:20	03/07/23 08:25	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		02/28/23 15:21	1
Chemical Oxygen Demand (EPA 410.4)	ND	F1	10.0		mg/L			03/10/23 21:03	1
Phenolics, Total Recoverable (EPA 420.4)	**0.016**		0.010		mg/L			03/08/23 16:42	1
Alkalinity, Total (SM 2320B)	ND		5.0		mg/L			03/08/23 18:50	1
Total Hardness (SM 2340C)	ND		4.0		mg/L			03/02/23 11:48	1
Total Dissolved Solids (SM 2540C)	**16.0**		10.0		mg/L			03/03/23 09:29	1
Chloride (SM 4500 Cl- E)	ND		1.0		mg/L			03/07/23 13:33	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			02/28/23 12:29	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			03/03/23 09:25	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00789	U	0.0622	0.0622	1.00	0.127	pCi/L	03/03/23 09:30	03/27/23 10:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*03/03/23 09:30*	*03/27/23 10:04*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.442**		0.287	0.290	1.00	0.414	pCi/L	03/03/23 09:57	03/15/23 11:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:35*	*1*
Y Carrier	*84.9*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:35*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-11S-02272023

Date Collected: 02/27/23 08:25
Date Received: 02/28/23 09:00

Lab Sample ID: 480-206498-2

Matrix: Water

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		02/28/23 15:03	03/01/23 13:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*44*		*15 - 110*	*02/28/23 15:03*	*03/01/23 13:21*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		03/08/23 11:54	03/08/23 21:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		03/08/23 11:54	03/08/23 21:48	1
6:2 FTS	ND		4.5		ng/L		03/08/23 11:54	03/08/23 21:48	1
8:2 FTS	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*82*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C4 PFHpA	*82*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C4 PFOA	*92*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C4 PFOS	*85*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C5 PFNA	*88*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C4 PFBA	*83*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C2 PFHxA	*85*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C2 PFDA	*82*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C2 PFUnA	*88*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C2 PFDoA	*81*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C8 FOSA	*79*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C5 PFPeA	*80*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C2 PFTeDA	*90*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
d3-NMeFOSAA	*122*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
d5-NEtFOSAA	*118*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
M2-6:2 FTS	*102*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
M2-8:2 FTS	*82*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*
13C3 PFBS	*94*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:48*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-11S-02272023

Date Collected: 02/27/23 08:25
Date Received: 02/28/23 09:00

Lab Sample ID: 480-206498-2

Matrix: Water

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**7.5**		1.0		ug/L		03/02/23 14:01	03/09/23 14:15	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		03/01/23 08:08	03/01/23 18:02	1
Calcium	**195**		0.50		mg/L		03/01/23 08:08	03/01/23 18:02	1
Iron	**0.063**		0.050		mg/L		03/01/23 08:08	03/01/23 18:02	1
Lead	ND		0.010		mg/L		03/01/23 08:08	03/01/23 18:02	1
Magnesium	**149**		0.20		mg/L		03/01/23 08:08	03/01/23 18:02	1
Manganese	**0.033**		0.0030		mg/L		03/01/23 08:08	03/02/23 20:16	1
Potassium	**3.1**		0.50		mg/L		03/01/23 08:08	03/01/23 18:02	1
Sodium	**45.3**		1.0		mg/L		03/01/23 08:08	03/01/23 18:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			03/02/23 18:36	5
Sulfate (EPA 300.0)	**706**		10.0		mg/L			03/02/23 18:36	5
Ammonia (EPA 350.1)	ND	F1	0.20		mg/L		03/06/23 07:00	03/06/23 11:35	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		03/06/23 10:20	03/07/23 08:25	1
Nitrate (EPA 353.2)	**0.28**		0.050		mg/L	☼		02/28/23 15:28	1
Chemical Oxygen Demand (EPA 410.4)	**15.7**		10.0		mg/L			03/10/23 21:09	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			03/08/23 16:46	1
Alkalinity, Total (SM 2320B)	**396**	**F1**	5.0		mg/L			03/09/23 19:36	1
Total Hardness (SM 2340C)	**1850**		50.0		mg/L			03/02/23 11:48	1
Total Dissolved Solids (SM 2540C)	**1420**		20.0		mg/L			03/03/23 09:29	1
Chloride (SM 4500 Cl- E)	**70.6**		5.0		mg/L			03/07/23 13:49	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			02/28/23 12:29	1
Total Organic Carbon (SM 5310C)	**1.1**		1.0		mg/L			03/03/23 10:21	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0444	U	0.0645	0.0647	1.00	0.110	pCi/L	03/03/23 09:30	03/27/23 10:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.9*		*30 - 110*	*03/03/23 09:30*	*03/27/23 10:04*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0804	U	0.256	0.256	1.00	0.507	pCi/L	03/03/23 09:57	03/15/23 11:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.9*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:36*	*1*
Y Carrier	*84.9*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:36*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-9SR-02272023

Lab Sample ID: 480-206498-3

Date Collected: 02/27/23 10:05
Matrix: Water
Date Received: 02/28/23 09:00

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.21		ug/L		02/28/23 15:03	03/01/23 13:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*15 - 110*	*02/28/23 15:03*	*03/01/23 13:36*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.6		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.6		ng/L		03/08/23 11:54	03/08/23 21:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.6		ng/L		03/08/23 11:54	03/08/23 21:56	1
6:2 FTS	ND		4.6		ng/L		03/08/23 11:54	03/08/23 21:56	1
8:2 FTS	ND		1.8		ng/L		03/08/23 11:54	03/08/23 21:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*84*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C4 PFHpA	*88*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C4 PFOA	*90*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C4 PFOS	*79*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C5 PFNA	*86*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C4 PFBA	*92*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C2 PFHxA	*82*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C2 PFDA	*81*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C2 PFUnA	*69*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C2 PFDoA	*76*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C8 FOSA	*81*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C5 PFPeA	*73*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
d3-NMeFOSAA	*110*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
d5-NEtFOSAA	*116*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
M2-6:2 FTS	*92*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
M2-8:2 FTS	*89*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*
13C3 PFBS	*88*		*50 - 150*	*03/08/23 11:54*	*03/08/23 21:56*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-9SR-02272023

Date Collected: 02/27/23 10:05
Date Received: 02/28/23 09:00

Lab Sample ID: 480-206498-3

Matrix: Water

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**2.5**		1.0		ug/L		03/02/23 14:01	03/09/23 14:19	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		03/01/23 08:08	03/01/23 18:32	1
Calcium	**151**		0.50		mg/L		03/01/23 08:08	03/01/23 18:32	1
Iron	**6.6**		0.050		mg/L		03/01/23 08:08	03/01/23 18:32	1
Lead	ND		0.010		mg/L		03/01/23 08:08	03/01/23 18:32	1
Magnesium	**63.6**		0.20		mg/L		03/01/23 08:08	03/01/23 18:32	1
Manganese	**0.27**		0.0030		mg/L		03/01/23 08:08	03/01/23 18:32	1
Potassium	**3.0**		0.50		mg/L		03/01/23 08:08	03/01/23 18:32	1
Sodium	**21.2**		1.0		mg/L		03/01/23 08:08	03/01/23 18:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			03/02/23 18:56	5
Sulfate (EPA 300.0)	**301**		10.0		mg/L			03/02/23 18:56	5
Ammonia (EPA 350.1)	ND	F1	0.20		mg/L		03/06/23 07:00	03/06/23 12:18	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		03/06/23 10:20	03/07/23 08:25	1
Nitrate (EPA 353.2)	**0.55**		0.050		mg/L	☼		02/28/23 15:29	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			03/10/23 21:18	1
Phenolics, Total Recoverable (EPA 420.4)	**0.051**		0.010		mg/L			03/13/23 14:39	1
Alkalinity, Total (SM 2320B)	**281**		5.0		mg/L			03/09/23 11:49	1
Total Hardness (SM 2340C)	**700**		10.0		mg/L			03/02/23 11:48	1
Total Dissolved Solids (SM 2540C)	**723**		10.0		mg/L			03/03/23 09:29	1
Chloride (SM 4500 Cl- E)	**33.8**		1.0		mg/L			03/07/23 13:27	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			02/28/23 12:29	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			03/03/23 10:50	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.315**		0.215	0.217	1.00	0.306	pCi/L	03/03/23 09:30	03/27/23 10:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*65.8*		*30 - 110*	*03/03/23 09:30*	*03/27/23 10:04*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.956	U G	0.877	0.882	1.00	1.39	pCi/L	03/03/23 09:57	03/15/23 11:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*65.8*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:36*	*1*
Y Carrier	*80.7*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:36*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-12S-02272023

Lab Sample ID: 480-206498-4

Date Collected: 02/27/23 12:05
Matrix: Water
Date Received: 02/28/23 09:00

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.21		ug/L		02/28/23 15:03	03/01/23 13:52	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*15 - 110*	*02/28/23 15:03*	*03/01/23 13:52*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.7		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluoropentanoic acid (PFPeA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorohexanoic acid (PFHxA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorooctanoic acid (PFOA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.7		ng/L		03/08/23 11:54	03/08/23 22:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.7		ng/L		03/08/23 11:54	03/08/23 22:04	1
6:2 FTS	ND		4.7		ng/L		03/08/23 11:54	03/08/23 22:04	1
8:2 FTS	ND		1.9		ng/L		03/08/23 11:54	03/08/23 22:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*85*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C4 PFHpA	*90*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C4 PFOA	*96*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C4 PFOS	*88*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C5 PFNA	*93*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C4 PFBA	*87*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C2 PFHxA	*80*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C2 PFDA	*86*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C2 PFUnA	*89*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C2 PFDoA	*80*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C8 FOSA	*89*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C5 PFPeA	*77*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C2 PFTeDA	*92*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
d3-NMeFOSAA	*120*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
d5-NEtFOSAA	*116*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
M2-6:2 FTS	*100*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
M2-8:2 FTS	*85*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*
13C3 PFBS	*83*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:04*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-12S-02272023

Date Collected: 02/27/23 12:05
Date Received: 02/28/23 09:00

Lab Sample ID: 480-206498-4

Matrix: Water

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**2.6**		1.0		ug/L		03/02/23 14:01	03/09/23 14:22	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		03/01/23 08:08	03/01/23 18:36	1
Calcium	**147**		0.50		mg/L		03/01/23 08:08	03/01/23 18:36	1
Iron	**4.3**		0.050		mg/L		03/01/23 08:08	03/01/23 18:36	1
Lead	ND		0.010		mg/L		03/01/23 08:08	03/01/23 18:36	1
Magnesium	**51.9**		0.20		mg/L		03/01/23 08:08	03/01/23 18:36	1
Manganese	**0.31**		0.0030		mg/L		03/01/23 08:08	03/01/23 18:36	1
Potassium	**1.4**		0.50		mg/L		03/01/23 08:08	03/01/23 18:36	1
Sodium	**13.1**		1.0		mg/L		03/01/23 08:08	03/01/23 18:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			03/02/23 20:34	5
Sulfate (EPA 300.0)	**220**		10.0		mg/L			03/02/23 20:34	5
Ammonia (EPA 350.1)	ND	F1	0.20		mg/L		03/06/23 07:00	03/06/23 12:50	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.26**		0.20		mg/L		03/06/23 10:20	03/07/23 08:25	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		02/28/23 15:31	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			03/10/23 21:20	1
Phenolics, Total Recoverable (EPA 420.4)	**0.018**		0.010		mg/L			03/13/23 14:43	1
Alkalinity, Total (SM 2320B)	**343**		5.0		mg/L			03/09/23 11:56	1
Total Hardness (SM 2340C)	**730**		10.0		mg/L			03/02/23 11:48	1
Total Dissolved Solids (SM 2540C)	**681**		10.0		mg/L			03/03/23 09:29	1
Chloride (SM 4500 Cl- E)	**23.4**		1.0		mg/L			03/07/23 13:26	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			02/28/23 12:29	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			03/03/23 11:18	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0476	U	0.0702	0.0703	1.00	0.120	pCi/L	03/03/23 09:30	03/27/23 10:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.2*		*30 - 110*	*03/03/23 09:30*	*03/27/23 10:05*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.223	U	0.371	0.372	1.00	0.636	pCi/L	03/03/23 09:57	03/15/23 11:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.2*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:36*	*1*
Y Carrier	*80.7*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:36*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-10S-02272023

Lab Sample ID: 480-206498-5

Date Collected: 02/27/23 13:50
Matrix: Water
Date Received: 02/28/23 09:00

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		02/28/23 15:03	03/01/23 14:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*43*		*15 - 110*	*02/28/23 15:03*	*03/01/23 14:07*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.2		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.2		ng/L		03/08/23 11:54	03/08/23 22:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.2		ng/L		03/08/23 11:54	03/08/23 22:12	1
6:2 FTS	ND		4.2		ng/L		03/08/23 11:54	03/08/23 22:12	1
8:2 FTS	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*91*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C4 PFHpA	*104*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C4 PFOA	*97*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C4 PFOS	*86*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C5 PFNA	*93*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C4 PFBA	*97*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C2 PFHxA	*97*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C2 PFDA	*75*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C2 PFUnA	*75*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C2 PFDoA	*67*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C8 FOSA	*85*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C5 PFPeA	*85*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C2 PFTeDA	*83*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
d3-NMeFOSAA	*104*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
d5-NEtFOSAA	*101*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
M2-6:2 FTS	*103*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
M2-8:2 FTS	*84*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*
13C3 PFBS	*92*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:12*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-10S-02272023

Date Collected: 02/27/23 13:50
Date Received: 02/28/23 09:00

Lab Sample ID: 480-206498-5

Matrix: Water

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**2.7**		1.0		ug/L		03/02/23 14:01	03/09/23 14:26	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		03/01/23 08:08	03/01/23 18:40	1
Calcium	**135**		0.50		mg/L		03/01/23 08:08	03/01/23 18:40	1
Iron	**0.99**		0.050		mg/L		03/01/23 08:08	03/01/23 18:40	1
Lead	ND		0.010		mg/L		03/01/23 08:08	03/01/23 18:40	1
Magnesium	**56.3**		0.20		mg/L		03/01/23 08:08	03/01/23 18:40	1
Manganese	**0.065**		0.0030		mg/L		03/01/23 08:08	03/01/23 18:40	1
Potassium	**2.0**		0.50		mg/L		03/01/23 08:08	03/01/23 18:40	1
Sodium	**16.5**		1.0		mg/L		03/01/23 08:08	03/01/23 18:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			03/02/23 20:54	5
Sulfate (EPA 300.0)	**240**		10.0		mg/L			03/02/23 20:54	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		03/06/23 07:00	03/06/23 13:15	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.27**		0.20		mg/L		03/06/23 10:20	03/07/23 08:25	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		02/28/23 15:35	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			03/10/23 21:15	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			03/13/23 14:46	1
Alkalinity, Total (SM 2320B)	**316**		5.0		mg/L			03/09/23 12:05	1
Total Hardness (SM 2340C)	**532**		4.0		mg/L			03/02/23 11:48	1
Total Dissolved Solids (SM 2540C)	**713**		10.0		mg/L			03/03/23 09:29	1
Chloride (SM 4500 Cl- E)	**23.9**		1.0		mg/L			03/07/23 13:26	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			02/28/23 12:29	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			03/03/23 11:47	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0379	U	0.0858	0.0859	1.00	0.158	pCi/L	03/03/23 09:30	03/27/23 10:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.5*		*30 - 110*	*03/03/23 09:30*	*03/27/23 10:05*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.434	U	0.463	0.465	1.00	0.751	pCi/L	03/03/23 09:57	03/15/23 11:36	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.5*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:36*	*1*
Y Carrier	*89.7*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:36*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-7S-02272023

Date Collected: 02/27/23 15:25
Date Received: 02/28/23 09:00

Lab Sample ID: 480-206498-6

Matrix: Water

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.21		ug/L		02/28/23 15:03	03/01/23 14:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*42*		*15 - 110*	*02/28/23 15:03*	*03/01/23 14:23*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.3		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
Perfluorooctanesulfonamide (FOSA)	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3		ng/L		03/08/23 11:54	03/08/23 22:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3		ng/L		03/08/23 11:54	03/08/23 22:21	1
6:2 FTS	ND		4.3		ng/L		03/08/23 11:54	03/08/23 22:21	1
8:2 FTS	ND		1.7		ng/L		03/08/23 11:54	03/08/23 22:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*85*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C4 PFHpA	*93*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C4 PFOA	*93*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C4 PFOS	*95*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C5 PFNA	*90*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C4 PFBA	*91*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C2 PFHxA	*94*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C2 PFDA	*95*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C2 PFUnA	*98*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C2 PFDoA	*90*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C8 FOSA	*90*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C5 PFPeA	*77*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C2 PFTeDA	*100*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
d3-NMeFOSAA	*127*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
d5-NEtFOSAA	*134*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
M2-6:2 FTS	*112*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
M2-8:2 FTS	*98*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*
13C3 PFBS	*85*		*50 - 150*	*03/08/23 11:54*	*03/08/23 22:21*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-7S-02272023

Date Collected: 02/27/23 15:25
Date Received: 02/28/23 09:00

Lab Sample ID: 480-206498-6

Matrix: Water

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**4.7**		1.0		ug/L		03/02/23 14:01	03/09/23 14:29	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		03/01/23 08:08	03/01/23 18:44	1
Calcium	**117**		0.50		mg/L		03/01/23 08:08	03/01/23 18:44	1
Iron	**2.3**		0.050		mg/L		03/01/23 08:08	03/01/23 18:44	1
Lead	ND		0.010		mg/L		03/01/23 08:08	03/01/23 18:44	1
Magnesium	**48.1**		0.20		mg/L		03/01/23 08:08	03/01/23 18:44	1
Manganese	**0.074**		0.0030		mg/L		03/01/23 08:08	03/01/23 18:44	1
Potassium	**2.7**		0.50		mg/L		03/01/23 08:08	03/01/23 18:44	1
Sodium	**8.9**		1.0		mg/L		03/01/23 08:08	03/01/23 18:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			03/02/23 21:13	5
Sulfate (EPA 300.0)	**153**		10.0		mg/L			03/02/23 21:13	5
Ammonia (EPA 350.1)	ND	F1	0.20		mg/L		03/06/23 07:00	03/06/23 13:33	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.33**		0.20		mg/L		03/06/23 10:20	03/07/23 08:25	1
Nitrate (EPA 353.2)	**0.44**		0.050		mg/L	☼		02/28/23 15:38	1
Chemical Oxygen Demand (EPA 410.4)	ND	F1	10.0		mg/L			03/10/23 21:42	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			03/13/23 14:50	1
Alkalinity, Total (SM 2320B)	**303**		5.0		mg/L			03/09/23 12:12	1
Total Hardness (SM 2340C)	**570**		10.0		mg/L			03/02/23 11:48	1
Total Dissolved Solids (SM 2540C)	**525**		10.0		mg/L			03/03/23 09:29	1
Chloride (SM 4500 Cl- E)	**22.8**		1.0		mg/L			03/07/23 13:33	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			02/28/23 12:29	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			03/03/23 12:15	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.119	U	0.0974	0.0980	1.00	0.145	pCi/L	03/03/23 11:25	03/27/23 16:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*30 - 110*	*03/03/23 11:25*	*03/27/23 16:04*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.409	U	0.397	0.398	1.00	0.630	pCi/L	03/03/23 12:12	03/15/23 11:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*30 - 110*	*03/03/23 12:12*	*03/15/23 11:42*	*1*
Y Carrier	*81.5*		*30 - 110*	*03/03/23 12:12*	*03/15/23 11:42*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-8S-03012023

Date Collected: 03/01/23 09:20
Date Received: 03/02/23 09:50

Lab Sample ID: 480-206602-1

Matrix: Water

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		03/06/23 15:44	03/07/23 17:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 110*	*03/06/23 15:44*	*03/07/23 17:47*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.8		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluoropentanoic acid (PFPeA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorohexanoic acid (PFHxA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluoroheptanoic acid (PFHpA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorooctanoic acid (PFOA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorononanoic acid (PFNA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorodecanoic acid (PFDA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluoroundecanoic acid (PFUnA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorododecanoic acid (PFDoA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorotridecanoic acid (PFTriA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
Perfluorooctanesulfonamide (FOSA)	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.8		ng/L		03/06/23 09:45	03/07/23 02:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.8		ng/L		03/06/23 09:45	03/07/23 02:26	1
6:2 FTS	ND		4.8		ng/L		03/06/23 09:45	03/07/23 02:26	1
8:2 FTS	ND		1.9		ng/L		03/06/23 09:45	03/07/23 02:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*79*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C4 PFHpA	*99*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C4 PFOA	*90*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C4 PFOS	*90*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C5 PFNA	*88*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C4 PFBA	*96*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C2 PFHxA	*93*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C2 PFDA	*93*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C2 PFUnA	*91*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C2 PFDoA	*79*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C8 FOSA	*87*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C5 PFPeA	*95*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C2 PFTeDA	*90*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
d3-NMeFOSAA	*121*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
d5-NEtFOSAA	*125*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
M2-6:2 FTS	*112*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
M2-8:2 FTS	*95*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*
13C3 PFBS	*84*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:26*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-8S-03012023

Date Collected: 03/01/23 09:20
Date Received: 03/02/23 09:50

Lab Sample ID: 480-206602-1

Matrix: Water

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**5.1**		1.0		ug/L		03/07/23 12:50	03/08/23 14:21	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND	*+	0.0020		mg/L		03/06/23 08:43	03/10/23 12:15	1
Calcium	**147**		0.50		mg/L		03/06/23 08:43	03/10/23 12:15	1
Iron	**1.5**		0.050		mg/L		03/06/23 08:43	03/10/23 12:15	1
Lead	ND		0.010		mg/L		03/06/23 08:43	03/10/23 12:15	1
Magnesium	**68.0**		0.20		mg/L		03/06/23 08:43	03/10/23 12:15	1
Manganese	**0.060**		0.0030		mg/L		03/06/23 08:43	03/10/23 12:15	1
Potassium	**2.5**		0.50		mg/L		03/06/23 08:43	03/10/23 12:15	1
Sodium	**30.6**		1.0		mg/L		03/06/23 08:43	03/10/23 12:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			03/08/23 15:34	5
Sulfate (EPA 300.0)	**239**		10.0		mg/L			03/08/23 15:34	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		03/06/23 07:00	03/06/23 13:09	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		03/07/23 10:05	03/08/23 07:09	1
Nitrate (EPA 353.2)	ND	H	0.050		mg/L	☼		03/04/23 14:03	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			03/11/23 02:44	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			03/08/23 19:31	1
Alkalinity, Total (SM 2320B)	**310**		5.0		mg/L			03/14/23 17:14	1
Total Hardness (SM 2340C)	**596**		4.0		mg/L			03/13/23 12:30	1
Total Dissolved Solids (SM 2540C)	**678**		10.0		mg/L			03/06/23 11:48	1
Chloride (SM 4500 Cl- E)	**41.3**		1.0		mg/L			03/09/23 11:07	1
Biochemical Oxygen Demand (SM 5210B)	ND	*-	2.0		mg/L			03/03/23 07:22	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			03/04/23 11:02	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0321	U	0.118	0.118	1.00	0.224	pCi/L	03/08/23 10:10	03/31/23 14:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*57.1*		*30 - 110*	*03/08/23 10:10*	*03/31/23 14:30*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.838	U G	0.703	0.707	1.00	1.10	pCi/L	03/08/23 10:36	03/21/23 12:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*57.1*		*30 - 110*	*03/08/23 10:36*	*03/21/23 12:56*	*1*
Y Carrier	*84.1*		*30 - 110*	*03/08/23 10:36*	*03/21/23 12:56*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-6S-03012023

Date Collected: 03/01/23 08:15
Date Received: 03/02/23 09:50

Lab Sample ID: 480-206602-2

Matrix: Water

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		03/06/23 15:44	03/07/23 18:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*37*		*15 - 110*	*03/06/23 15:44*	*03/07/23 18:10*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.5		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluoropentanoic acid (PFPeA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.5		ng/L		03/06/23 09:45	03/07/23 02:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.5		ng/L		03/06/23 09:45	03/07/23 02:34	1
6:2 FTS	ND		4.5		ng/L		03/06/23 09:45	03/07/23 02:34	1
8:2 FTS	ND		1.8		ng/L		03/06/23 09:45	03/07/23 02:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*83*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C4 PFHpA	*83*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C4 PFOA	*98*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C4 PFOS	*88*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C5 PFNA	*98*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C4 PFBA	*89*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C2 PFHxA	*90*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C2 PFDA	*88*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C2 PFUnA	*89*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C2 PFDoA	*82*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C8 FOSA	*89*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C5 PFPeA	*73*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C2 PFTeDA	*83*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
d3-NMeFOSAA	*113*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
d5-NEtFOSAA	*113*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
M2-6:2 FTS	*112*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
M2-8:2 FTS	*92*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*
13C3 PFBS	*87*		*50 - 150*	*03/06/23 09:45*	*03/07/23 02:34*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-6S-03012023

Date Collected: 03/01/23 08:15
Date Received: 03/02/23 09:50

Lab Sample ID: 480-206602-2

Matrix: Water

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**4.4**		1.0		ug/L		03/07/23 12:50	03/08/23 14:25	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND	*+	0.0020		mg/L		03/06/23 08:43	03/10/23 12:19	1
Calcium	**149**		0.50		mg/L		03/06/23 08:43	03/10/23 12:19	1
Iron	**0.29**		0.050		mg/L		03/06/23 08:43	03/10/23 12:19	1
Lead	ND		0.010		mg/L		03/06/23 08:43	03/10/23 12:19	1
Magnesium	**62.9**		0.20		mg/L		03/06/23 08:43	03/10/23 12:19	1
Manganese	**0.015**		0.0030		mg/L		03/06/23 08:43	03/10/23 12:19	1
Potassium	**2.0**		0.50		mg/L		03/06/23 08:43	03/10/23 12:19	1
Sodium	**32.2**		1.0		mg/L		03/06/23 08:43	03/10/23 12:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			03/08/23 17:08	5
Sulfate (EPA 300.0)	**208**		10.0		mg/L			03/08/23 17:08	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		03/06/23 07:00	03/06/23 13:12	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.23**		0.20		mg/L		03/07/23 10:05	03/08/23 07:09	1
Nitrate (EPA 353.2)	ND	H	0.050		mg/L	☼		03/04/23 14:07	1
Chemical Oxygen Demand (EPA 410.4)	**14.0**		10.0		mg/L			03/11/23 02:48	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			03/08/23 19:54	1
Alkalinity, Total (SM 2320B)	**323**		5.0		mg/L			03/14/23 19:07	1
Total Hardness (SM 2340C)	**630**		10.0		mg/L			03/13/23 12:30	1
Total Dissolved Solids (SM 2540C)	**661**		10.0		mg/L			03/06/23 11:48	1
Chloride (SM 4500 Cl- E)	**74.7**		5.0		mg/L			03/09/23 11:22	5
Biochemical Oxygen Demand (SM 5210B)	ND	*-	2.0		mg/L			03/03/23 07:22	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			03/04/23 11:30	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0815	U	0.0904	0.0907	1.00	0.146	pCi/L	03/08/23 10:10	03/31/23 14:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.5*		*30 - 110*	*03/08/23 10:10*	*03/31/23 14:30*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.251	U	0.352	0.353	1.00	0.593	pCi/L	03/08/23 10:36	03/21/23 12:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.5*		*30 - 110*	*03/08/23 10:36*	*03/21/23 12:56*	*1*
Y Carrier	*81.9*		*30 - 110*	*03/08/23 10:36*	*03/21/23 12:56*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: SW-01-03012023

Date Collected: 03/01/23 10:35
Date Received: 03/03/23 11:00

Lab Sample ID: 480-206632-1

Matrix: Water

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		03/06/23 15:44	03/07/23 18:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*39*		*15 - 110*	*03/06/23 15:44*	*03/07/23 18:32*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluoropentanoic acid (PFPeA)	**2.0**		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		03/07/23 16:36	03/08/23 15:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		03/07/23 16:36	03/08/23 15:32	1
6:2 FTS	ND		4.4		ng/L		03/07/23 16:36	03/08/23 15:32	1
8:2 FTS	ND		1.8		ng/L		03/07/23 16:36	03/08/23 15:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*84*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C4 PFHpA	*91*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C4 PFOA	*93*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C4 PFOS	*100*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C5 PFNA	*91*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C4 PFBA	*86*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C2 PFHxA	*87*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C2 PFDA	*86*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C2 PFUnA	*97*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C2 PFDoA	*95*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C8 FOSA	*88*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C5 PFPeA	*86*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C2 PFTeDA	*98*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
d3-NMeFOSAA	*123*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
d5-NEtFOSAA	*128*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
M2-6:2 FTS	*106*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
M2-8:2 FTS	*91*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*
13C3 PFBS	*86*		*50 - 150*	*03/07/23 16:36*	*03/08/23 15:32*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: SW-01-03012023

Date Collected: 03/01/23 10:35
Date Received: 03/03/23 11:00

Lab Sample ID: 480-206632-1

Matrix: Water

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**1.4**		1.0		ug/L		03/07/23 12:50	03/08/23 14:28	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND	*+	0.0020		mg/L		03/06/23 08:43	03/10/23 13:09	1
Calcium	**117**		0.50		mg/L		03/06/23 08:43	03/10/23 13:09	1
Iron	**0.19**		0.050		mg/L		03/06/23 08:43	03/10/23 13:09	1
Lead	ND		0.010		mg/L		03/06/23 08:43	03/10/23 13:09	1
Magnesium	**36.6**		0.20		mg/L		03/06/23 08:43	03/10/23 13:09	1
Manganese	**0.10**		0.0030		mg/L		03/06/23 08:43	03/10/23 13:09	1
Potassium	**3.0**		0.50		mg/L		03/06/23 08:43	03/10/23 13:09	1
Sodium	**284**		1.0		mg/L		03/06/23 08:43	03/10/23 13:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			03/09/23 18:56	5
Sulfate (EPA 300.0)	**104**		10.0		mg/L			03/09/23 18:56	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			03/20/23 11:16	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND	F1	0.20		mg/L		03/06/23 10:20	03/07/23 11:31	1
Nitrate (EPA 353.2)	**0.56**	**H H3**	0.050		mg/L	☼		03/04/23 14:24	1
Chemical Oxygen Demand (EPA 410.4)	**28.0**	**F1**	10.0		mg/L			03/10/23 20:36	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			03/08/23 20:22	1
Alkalinity, Total (SM 2320B)	**221**		5.0		mg/L			03/15/23 09:25	1
Total Hardness (SM 2340C)	**416**		4.0		mg/L			03/13/23 12:30	1
Total Dissolved Solids (SM 2540C)	**1090**		10.0		mg/L			03/06/23 11:48	1
Chloride (SM 4500 Cl- E)	**480**	**F1**	32.0		mg/L			03/07/23 13:58	32
Biochemical Oxygen Demand (SM 5210B)	ND	*-	2.0		mg/L			03/03/23 07:22	1
Total Organic Carbon (SM 5310C)	**2.1**		1.0		mg/L			03/07/23 17:23	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.144	U	0.108	0.109	1.00	0.158	pCi/L	03/08/23 10:10	03/31/23 14:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*67.2*		*30 - 110*	*03/08/23 10:10*	*03/31/23 14:30*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.960**		0.460	0.468	1.00	0.605	pCi/L	03/08/23 10:36	03/21/23 12:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*67.2*		*30 - 110*	*03/08/23 10:36*	*03/21/23 12:56*	*1*
Y Carrier	*84.1*		*30 - 110*	*03/08/23 10:36*	*03/21/23 12:56*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: SW-02-03012023

Date Collected: 03/01/23 11:45
Date Received: 03/03/23 11:00

Lab Sample ID: 480-206632-2

Matrix: Water

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		03/06/23 15:44	03/07/23 18:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*36*		*15 - 110*	*03/06/23 15:44*	*03/07/23 18:55*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.4		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluoropentanoic acid (PFPeA)	**1.9**		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorohexanoic acid (PFHxA)	**2.0**		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorooctanoic acid (PFOA)	**1.8**		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorotridecanoic acid (PFTriA)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorobutanesulfonic acid (PFBS)	**1.8**		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorooctanesulfonic acid (PFOS)	**1.9**		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
Perfluorooctanesulfonamide (FOSA)	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.4		ng/L		03/07/23 16:36	03/09/23 18:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.4		ng/L		03/07/23 16:36	03/09/23 18:29	1
6:2 FTS	ND		4.4		ng/L		03/07/23 16:36	03/09/23 18:29	1
8:2 FTS	ND		1.8		ng/L		03/07/23 16:36	03/09/23 18:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*81*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C4 PFHpA	*92*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C4 PFOA	*98*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C4 PFOS	*88*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C5 PFNA	*93*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C4 PFBA	*84*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C2 PFHxA	*94*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C2 PFDA	*89*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C2 PFUnA	*97*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C2 PFDoA	*84*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C8 FOSA	*83*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C5 PFPeA	*87*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
13C2 PFTeDA	*101*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
d3-NMeFOSAA	*120*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
d5-NEtFOSAA	*109*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
M2-6:2 FTS	*93*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*
M2-8:2 FTS	*91*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: SW-02-03012023

Date Collected: 03/01/23 11:45
Date Received: 03/03/23 11:00

Lab Sample ID: 480-206632-2

Matrix: Water

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFBS	*83*		*50 - 150*	*03/07/23 16:36*	*03/09/23 18:29*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**1.1**		1.0		ug/L		03/07/23 12:50	03/08/23 14:32	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND	*+	0.0020		mg/L		03/06/23 08:43	03/10/23 13:13	1
Calcium	**108**		0.50		mg/L		03/06/23 08:43	03/10/23 13:13	1
Iron	**0.13**		0.050		mg/L		03/06/23 08:43	03/10/23 13:13	1
Lead	ND		0.010		mg/L		03/06/23 08:43	03/10/23 13:13	1
Magnesium	**32.5**		0.20		mg/L		03/06/23 08:43	03/10/23 13:13	1
Manganese	**0.066**		0.0030		mg/L		03/06/23 08:43	03/10/23 13:13	1
Potassium	**2.6**		0.50		mg/L		03/06/23 08:43	03/10/23 13:13	1
Sodium	**286**		1.0		mg/L		03/06/23 08:43	03/10/23 13:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			03/09/23 19:15	5
Sulfate (EPA 300.0)	**96.2**		10.0		mg/L			03/09/23 19:15	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			03/20/23 11:17	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.51**	**F1**	0.20		mg/L		03/06/23 10:20	03/07/23 08:16	1
Nitrate (EPA 353.2)	**0.76**	**H**	0.050		mg/L	☼		03/04/23 14:22	1
Chemical Oxygen Demand (EPA 410.4)	**28.4**		10.0		mg/L			03/11/23 02:51	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			03/08/23 20:26	1
Alkalinity, Total (SM 2320B)	**190**		5.0		mg/L			03/15/23 09:33	1
Total Hardness (SM 2340C)	**420**		4.0		mg/L			03/13/23 12:30	1
Total Dissolved Solids (SM 2540C)	**1070**		10.0		mg/L			03/06/23 11:48	1
Chloride (SM 4500 Cl- E)	**487**		33.0		mg/L			03/07/23 13:55	33
Biochemical Oxygen Demand (SM 5210B)	ND	*-	2.0		mg/L			03/03/23 07:22	1
Total Organic Carbon (SM 5310C)	**2.2**		1.0		mg/L			03/07/23 17:51	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0654	U	0.0681	0.0683	1.00	0.107	pCi/L	03/08/23 10:10	03/31/23 14:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*30 - 110*	*03/08/23 10:10*	*03/31/23 14:30*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.186	U	0.310	0.310	1.00	0.531	pCi/L	03/08/23 10:36	03/21/23 12:57	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: SW-02-03012023

Date Collected: 03/01/23 11:45
Date Received: 03/03/23 11:00

Lab Sample ID: 480-206632-2

Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		30 - 110	03/08/23 10:36	03/21/23 12:57	1
Y Carrier	82.6		30 - 110	03/08/23 10:36	03/21/23 12:57	1

Isotope Dilution Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

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

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

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	Client Sample ID	(15-110)
480-206498-1	FB-01-02272023	40
480-206498-2	MW-11S-02272023	44
480-206498-3	MW-9SR-02272023	40
480-206498-4	MW-12S-02272023	40
480-206498-5	MW-10S-02272023	43
480-206498-6	MW-7S-02272023	42
480-206602-1	MW-8S-03012023	34
480-206602-2	MW-6S-03012023	37
480-206632-1	SW-01-03012023	39
480-206632-2	SW-02-03012023	36
LCS 480-660099/2-A	Lab Control Sample	37
LCS 480-660626/2-A	Lab Control Sample	36
LCSD 480-660099/3-A	Lab Control Sample Dup	40
MB 480-660099/1-A	Method Blank	34
MB 480-660626/1-A	Method Blank	35

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 537 (modified) - Fluorinated Alkyl Substances

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
480-206498-1	FB-01-02272023	92	104	98	104	100	88	95	102
480-206498-2	MW-11S-02272023	82	82	92	85	88	83	85	82
480-206498-3	MW-9SR-02272023	84	88	90	79	86	92	82	81
480-206498-4	MW-12S-02272023	85	90	96	88	93	87	80	86
480-206498-5	MW-10S-02272023	91	104	97	86	93	97	97	75
480-206498-6	MW-7S-02272023	85	93	93	95	90	91	94	95
480-206602-1	MW-8S-03012023	79	99	90	90	88	96	93	93
480-206602-2	MW-6S-03012023	83	83	98	88	98	89	90	88
480-206632-1	SW-01-03012023	84	91	93	100	91	86	87	86
480-206632-2	SW-02-03012023	81	92	98	88	93	84	94	89
LCS 200-189094/2-A	Lab Control Sample	93	106	94	95	99	100	98	92
LCS 200-189152/2-A	Lab Control Sample	80	87	103	89	103	98	100	91
LCS 200-189165/2-A	Lab Control Sample	83	89	94	92	97	92	96	93
LCSD 200-189152/3-A	Lab Control Sample Dup	90	92	100	92	88	93	88	92
LCSD 200-189165/3-A	Lab Control Sample Dup	93	98	94	89	93	90	91	89
MB 200-189094/1-A	Method Blank	85	110	98	101	96	94	90	101
MB 200-189152/1-A	Method Blank	91	87	96	95	98	104	92	97
MB 200-189165/1-A	Method Blank	83	93	94	98	88	89	92	82

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
480-206498-1	FB-01-02272023	108	105	81	84	93	139	135	111
480-206498-2	MW-11S-02272023	88	81	79	80	90	122	118	102
480-206498-3	MW-9SR-02272023	69	76	81	73	79	110	116	92
480-206498-4	MW-12S-02272023	89	80	89	77	92	120	116	100

Isotope Dilution Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

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

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (50-150)	PFPeA (50-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (50-150)
480-206498-5	MW-10S-02272023	75	67	85	85	83	104	101	103
480-206498-6	MW-7S-02272023	98	90	90	77	100	127	134	112
480-206602-1	MW-8S-03012023	91	79	87	95	90	121	125	112
480-206602-2	MW-6S-03012023	89	82	89	73	83	113	113	112
480-206632-1	SW-01-03012023	97	95	88	86	98	123	128	106
480-206632-2	SW-02-03012023	97	84	83	87	101	120	109	93
LCS 200-189094/2-A	Lab Control Sample	104	87	83	84	98	127	138	113
LCS 200-189152/2-A	Lab Control Sample	102	89	68	88	100	107	125	105
LCS 200-189165/2-A	Lab Control Sample	99	89	70	80	97	129	131	100
LCSD 200-189152/3-A	Lab Control Sample Dup	90	90	67	82	92	125	127	110
LCSD 200-189165/3-A	Lab Control Sample Dup	95	93	72	88	88	125	124	110
MB 200-189094/1-A	Method Blank	97	91	76	89	104	139	133	114
MB 200-189152/1-A	Method Blank	95	95	80	91	98	138	137	103
MB 200-189165/1-A	Method Blank	92	80	69	82	91	123	120	101

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M282FTS (50-150)	C3PFBS (50-150)
480-206498-1	FB-01-02272023	98	86
480-206498-2	MW-11S-02272023	82	94
480-206498-3	MW-9SR-02272023	89	88
480-206498-4	MW-12S-02272023	85	83
480-206498-5	MW-10S-02272023	84	92
480-206498-6	MW-7S-02272023	98	85
480-206602-1	MW-8S-03012023	95	84
480-206602-2	MW-6S-03012023	92	87
480-206632-1	SW-01-03012023	91	86
480-206632-2	SW-02-03012023	91	83
LCS 200-189094/2-A	Lab Control Sample	112	92
LCS 200-189152/2-A	Lab Control Sample	88	88
LCS 200-189165/2-A	Lab Control Sample	104	80
LCSD 200-189152/3-A	Lab Control Sample Dup	98	84
LCSD 200-189165/3-A	Lab Control Sample Dup	98	97
MB 200-189094/1-A	Method Blank	113	84
MB 200-189152/1-A	Method Blank	117	81
MB 200-189165/1-A	Method Blank	90	89

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA

Isotope Dilution Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Tracer/Carrier Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Method: 903.0 - Radium-226 (GFPC)

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

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
480-206498-1	FB-01-02272023	89.8
480-206498-2	MW-11S-02272023	87.9
480-206498-3	MW-9SR-02272023	65.8
480-206498-4	MW-12S-02272023	71.2
480-206498-5	MW-10S-02272023	71.5
480-206498-6	MW-7S-02272023	86.7
480-206602-1	MW-8S-03012023	57.1
480-206602-2	MW-6S-03012023	71.5
480-206632-1	SW-01-03012023	67.2
480-206632-2	SW-02-03012023	85.0
LCS 160-602254/2-A	Lab Control Sample	94.6
LCS 160-602324/2-A	Lab Control Sample	81.9
LCS 160-602810/2-A	Lab Control Sample	89.3
LCSD 160-602810/3-A	Lab Control Sample Dup	88.7
MB 160-602254/1-A	Method Blank	91.8
MB 160-602324/1-A	Method Blank	91.0
MB 160-602810/1-A	Method Blank	88.1

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

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

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
480-206498-1	FB-01-02272023	89.8	84.9
480-206498-2	MW-11S-02272023	87.9	84.9
480-206498-3	MW-9SR-02272023	65.8	80.7
480-206498-4	MW-12S-02272023	71.2	80.7
480-206498-5	MW-10S-02272023	71.5	89.7
480-206498-6	MW-7S-02272023	86.7	81.5
480-206602-1	MW-8S-03012023	57.1	84.1
480-206602-2	MW-6S-03012023	71.5	81.9
480-206632-1	SW-01-03012023	67.2	84.1
480-206632-2	SW-02-03012023	85.0	82.6
LCS 160-602255/2-A	Lab Control Sample	94.6	87.5
LCS 160-602331/2-A	Lab Control Sample	81.9	86.0
LCS 160-602812/2-A	Lab Control Sample	89.3	83.4
LCSD 160-602812/3-A	Lab Control Sample Dup	88.7	83.7
MB 160-602255/1-A	Method Blank	91.8	84.5
MB 160-602331/1-A	Method Blank	91.0	83.0
MB 160-602812/1-A	Method Blank	88.1	84.9

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

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

Lab Sample ID: MB 480-660099/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660146 — **Prep Batch: 660099**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		02/28/23 15:03	03/01/23 12:19	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 110*	*02/28/23 15:03*	*03/01/23 12:19*	*1*

Lab Sample ID: LCS 480-660099/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660146 — **Prep Batch: 660099**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.08		ug/L		104	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*37*		*15 - 110*

Lab Sample ID: LCSD 480-660099/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660146 — **Prep Batch: 660099**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	2.00	2.03		ug/L		101	40 - 140	3	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*40*		*15 - 110*

Lab Sample ID: MB 480-660626/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660761 — **Prep Batch: 660626**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		03/06/23 15:44	03/07/23 15:55	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*35*		*15 - 110*	*03/06/23 15:44*	*03/07/23 15:55*	*1*

Lab Sample ID: LCS 480-660626/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660761 — **Prep Batch: 660626**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.11		ug/L		105	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*36*		*15 - 110*

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-189094/1-A
Matrix: Water
Analysis Batch: 189115

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 189094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
6:2 FTS	ND		5.0		ng/L		03/06/23 09:44	03/06/23 23:35	1
8:2 FTS	ND		2.0		ng/L		03/06/23 09:44	03/06/23 23:35	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*85*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C4 PFHpA	*110*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C4 PFOA	*98*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C4 PFOS	*101*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C5 PFNA	*96*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C4 PFBA	*94*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C2 PFHxA	*90*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C2 PFDA	*101*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C2 PFUnA	*97*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C2 PFDoA	*91*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C8 FOSA	*76*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C5 PFPeA	*89*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C2 PFTeDA	*104*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
d3-NMeFOSAA	*139*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
d5-NEtFOSAA	*133*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
M2-6:2 FTS	*114*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
M2-8:2 FTS	*113*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*
13C3 PFBS	*84*		*50 - 150*	*03/06/23 09:44*	*03/06/23 23:35*	*1*

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

Lab Sample ID: LCS 200-189094/2-A
Matrix: Water
Analysis Batch: 189115

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 189094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	79.5		ng/L		99	70 - 130
Perfluoropentanoic acid (PFPeA)	80.0	82.9		ng/L		104	70 - 130
Perfluorohexanoic acid (PFHxA)	80.0	86.9		ng/L		109	70 - 130
Perfluoroheptanoic acid (PFHpA)	80.0	82.6		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	80.0	87.1		ng/L		109	70 - 130
Perfluorononanoic acid (PFNA)	80.0	77.2		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	80.0	77.4		ng/L		97	70 - 130
Perfluoroundecanoic acid (PFUnA)	80.0	83.3		ng/L		104	70 - 130
Perfluorododecanoic acid (PFDoA)	80.0	79.2		ng/L		99	70 - 130
Perfluorotridecanoic acid (PFTriA)	80.0	86.9		ng/L		109	70 - 130
Perfluorotetradecanoic acid (PFTeA)	80.0	73.5		ng/L		92	70 - 130
Perfluorobutanesulfonic acid (PFBS)	70.7	73.9		ng/L		105	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	72.8	74.9		ng/L		103	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	76.2	73.9		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	74.2	71.7		ng/L		97	70 - 130
Perfluorodecanesulfonic acid (PFDS)	77.1	65.0		ng/L		84	70 - 130
Perfluorooctanesulfonamide (FOSA)	80.0	78.0		ng/L		97	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	80.0	77.5		ng/L		97	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	80.0	73.1		ng/L		91	70 - 130
6:2 FTS	75.8	79.8		ng/L		105	60 - 140
8:2 FTS	76.6	87.6		ng/L		114	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*93*		*50 - 150*
13C4 PFHpA	*106*		*50 - 150*
13C4 PFOA	*94*		*50 - 150*
13C4 PFOS	*95*		*50 - 150*
13C5 PFNA	*99*		*50 - 150*
13C4 PFBA	*100*		*50 - 150*
13C2 PFHxA	*98*		*50 - 150*
13C2 PFDA	*92*		*50 - 150*
13C2 PFUnA	*104*		*50 - 150*
13C2 PFDoA	*87*		*50 - 150*
13C8 FOSA	*83*		*50 - 150*
13C5 PFPeA	*84*		*50 - 150*
13C2 PFTeDA	*98*		*50 - 150*
d3-NMeFOSAA	*127*		*50 - 150*
d5-NEtFOSAA	*138*		*50 - 150*
M2-6:2 FTS	*113*		*50 - 150*

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

Lab Sample ID: LCS 200-189094/2-A
Matrix: Water
Analysis Batch: 189115

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 189094

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-8:2 FTS	112		50 - 150
13C3 PFBS	92		50 - 150

Lab Sample ID: MB 200-189152/1-A
Matrix: Water
Analysis Batch: 189163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 189152

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
6:2 FTS	ND		5.0		ng/L		03/07/23 16:36	03/08/23 14:52	1
8:2 FTS	ND		2.0		ng/L		03/07/23 16:36	03/08/23 14:52	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	91		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C4 PFHpA	87		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C4 PFOA	96		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C4 PFOS	95		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C5 PFNA	98		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C4 PFBA	104		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C2 PFHxA	92		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C2 PFDA	97		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C2 PFUnA	95		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C2 PFDoA	95		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C8 FOSA	80		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C5 PFPeA	91		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C2 PFTeDA	98		50 - 150	03/07/23 16:36	03/08/23 14:52	1
d3-NMeFOSAA	138		50 - 150	03/07/23 16:36	03/08/23 14:52	1
d5-NEtFOSAA	137		50 - 150	03/07/23 16:36	03/08/23 14:52	1
M2-6:2 FTS	103		50 - 150	03/07/23 16:36	03/08/23 14:52	1

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

Lab Sample ID: MB 200-189152/1-A
Matrix: Water
Analysis Batch: 189163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 189152

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	117		50 - 150	03/07/23 16:36	03/08/23 14:52	1
13C3 PFBS	81		50 - 150	03/07/23 16:36	03/08/23 14:52	1

Lab Sample ID: LCS 200-189152/2-A
Matrix: Water
Analysis Batch: 189218

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 189152

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	10.3		ng/L		103	70 - 130
Perfluoropentanoic acid (PFPeA)	4.00	4.25		ng/L		106	70 - 130
Perfluorohexanoic acid (PFHxA)	4.00	4.21		ng/L		105	70 - 130
Perfluoroheptanoic acid (PFHpA)	4.00	5.14		ng/L		129	70 - 130
Perfluorooctanoic acid (PFOA)	4.00	4.00		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	4.00	3.84		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	4.00	4.63		ng/L		116	70 - 130
Perfluoroundecanoic acid (PFUnA)	4.00	3.75		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	4.00	4.04		ng/L		101	70 - 130
Perfluorotridecanoic acid (PFTriA)	4.00	3.65		ng/L		91	70 - 130
Perfluorotetradecanoic acid (PFTeA)	4.00	3.37		ng/L		84	70 - 130
Perfluorobutanesulfonic acid (PFBS)	3.54	3.98		ng/L		113	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	3.64	3.84		ng/L		106	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	3.81	3.65		ng/L		96	70 - 130
Perfluorooctanesulfonic acid (PFOS)	3.71	3.84		ng/L		103	70 - 130
Perfluorodecanesulfonic acid (PFDS)	3.86	3.47		ng/L		90	70 - 130
Perfluorooctanesulfonamide (FOSA)	4.00	4.08		ng/L		102	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	10.0	10.2		ng/L		102	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	10.0	9.51		ng/L		95	70 - 130
6:2 FTS	9.48	9.80		ng/L		103	60 - 140
8:2 FTS	3.83	4.37		ng/L		114	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
18O2 PFHxS	80		50 - 150
13C4 PFHpA	87		50 - 150
13C4 PFOA	103		50 - 150
13C4 PFOS	89		50 - 150
13C5 PFNA	103		50 - 150
13C4 PFBA	98		50 - 150
13C2 PFHxA	100		50 - 150
13C2 PFDA	91		50 - 150
13C2 PFUnA	102		50 - 150

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

Lab Sample ID: LCS 200-189152/2-A
Matrix: Water
Analysis Batch: 189218

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 189152

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 PFDoA	*89*		*50 - 150*
13C8 FOSA	*68*		*50 - 150*
13C5 PFPeA	*88*		*50 - 150*
13C2 PFTeDA	*100*		*50 - 150*
d3-NMeFOSAA	*107*		*50 - 150*
d5-NEtFOSAA	*125*		*50 - 150*
M2-6:2 FTS	*105*		*50 - 150*
M2-8:2 FTS	*88*		*50 - 150*
13C3 PFBS	*88*		*50 - 150*

Lab Sample ID: LCSD 200-189152/3-A
Matrix: Water
Analysis Batch: 189163

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 189152

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	10.0	10.3		ng/L		103	70 - 130	0	30
Perfluoropentanoic acid (PFPeA)	4.00	5.14		ng/L		128	70 - 130	19	30
Perfluorohexanoic acid (PFHxA)	4.00	4.40		ng/L		110	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	4.00	4.43		ng/L		111	70 - 130	15	30
Perfluorooctanoic acid (PFOA)	4.00	3.94		ng/L		99	70 - 130	1	30
Perfluorononanoic acid (PFNA)	4.00	4.27		ng/L		107	70 - 130	11	30
Perfluorodecanoic acid (PFDA)	4.00	4.28		ng/L		107	70 - 130	8	30
Perfluoroundecanoic acid (PFUnA)	4.00	3.95		ng/L		99	70 - 130	5	30
Perfluorododecanoic acid (PFDoA)	4.00	3.83		ng/L		96	70 - 130	5	30
Perfluorotridecanoic acid (PFTriA)	4.00	4.48		ng/L		112	70 - 130	20	30
Perfluorotetradecanoic acid (PFTeA)	4.00	4.10		ng/L		102	70 - 130	20	30
Perfluorobutanesulfonic acid (PFBS)	3.54	3.66		ng/L		104	70 - 130	8	30
Perfluorohexanesulfonic acid (PFHxS)	3.64	3.53		ng/L		97	70 - 130	8	30
Perfluoroheptanesulfonic acid (PFHpS)	3.81	3.99		ng/L		105	70 - 130	9	30
Perfluorooctanesulfonic acid (PFOS)	3.71	3.49		ng/L		94	70 - 130	10	30
Perfluorodecanesulfonic acid (PFDS)	3.86	3.58		ng/L		93	70 - 130	3	30
Perfluorooctanesulfonamide (FOSA)	4.00	3.58		ng/L		89	70 - 130	13	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	10.0	10.3		ng/L		103	70 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	10.0	9.72		ng/L		97	70 - 130	2	30
6:2 FTS	9.48	10.9		ng/L		115	60 - 140	11	30
8:2 FTS	3.83	4.54		ng/L		119	70 - 130	4	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
18O2 PFHxS	*90*		*50 - 150*
13C4 PFHpA	*92*		*50 - 150*

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

Lab Sample ID: LCSD 200-189152/3-A
Matrix: Water
Analysis Batch: 189163

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 189152

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFOA	*100*		*50 - 150*
13C4 PFOS	*92*		*50 - 150*
13C5 PFNA	*88*		*50 - 150*
13C4 PFBA	*93*		*50 - 150*
13C2 PFHxA	*88*		*50 - 150*
13C2 PFDA	*92*		*50 - 150*
13C2 PFUnA	*90*		*50 - 150*
13C2 PFDoA	*90*		*50 - 150*
13C8 FOSA	*67*		*50 - 150*
13C5 PFPeA	*82*		*50 - 150*
13C2 PFTeDA	*92*		*50 - 150*
d3-NMeFOSAA	*125*		*50 - 150*
d5-NEtFOSAA	*127*		*50 - 150*
M2-6:2 FTS	*110*		*50 - 150*
M2-8:2 FTS	*98*		*50 - 150*
13C3 PFBS	*84*		*50 - 150*

Lab Sample ID: MB 200-189165/1-A
Matrix: Water
Analysis Batch: 189189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 189165

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
Perfluorooctanesulfonamide (FOSA)	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
6:2 FTS	ND		5.0		ng/L		03/08/23 11:53	03/08/23 21:15	1
8:2 FTS	ND		2.0		ng/L		03/08/23 11:53	03/08/23 21:15	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*83*		*50 - 150*	*03/08/23 11:53*	*03/08/23 21:15*	*1*
13C4 PFHpA	*93*		*50 - 150*	*03/08/23 11:53*	*03/08/23 21:15*	*1*

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

Lab Sample ID: MB 200-189165/1-A
Matrix: Water
Analysis Batch: 189189

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 189165

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	94		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C4 PFOS	98		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C5 PFNA	88		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C4 PFBA	89		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C2 PFHxA	92		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C2 PFDA	82		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C2 PFUnA	92		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C2 PFDoA	80		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C8 FOSA	69		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C5 PFPeA	82		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C2 PFTeDA	91		50 - 150	03/08/23 11:53	03/08/23 21:15	1
d3-NMeFOSAA	123		50 - 150	03/08/23 11:53	03/08/23 21:15	1
d5-NEtFOSAA	120		50 - 150	03/08/23 11:53	03/08/23 21:15	1
M2-6:2 FTS	101		50 - 150	03/08/23 11:53	03/08/23 21:15	1
M2-8:2 FTS	90		50 - 150	03/08/23 11:53	03/08/23 21:15	1
13C3 PFBS	89		50 - 150	03/08/23 11:53	03/08/23 21:15	1

Lab Sample ID: LCS 200-189165/2-A
Matrix: Water
Analysis Batch: 189189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 189165

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	40.0	40.9		ng/L		102	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	37.0		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	40.0	37.9		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	43.3		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	38.3		ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	40.0	36.3		ng/L		91	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	37.0		ng/L		92	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	34.4		ng/L		86	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	38.1		ng/L		95	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	38.8		ng/L		97	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	38.4		ng/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	36.2		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.8		ng/L		104	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	38.1	36.0		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	37.1	35.4		ng/L		95	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	35.5		ng/L		92	70 - 130
Perfluorooctanesulfonamide (FOSA)	40.0	39.3		ng/L		98	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	40.7		ng/L		102	70 - 130

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

Lab Sample ID: LCS 200-189165/2-A
Matrix: Water
Analysis Batch: 189189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 189165

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.8		ng/L		97	70 - 130
6:2 FTS	37.9	42.1		ng/L		111	60 - 140
8:2 FTS	38.3	41.6		ng/L		109	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*83*		*50 - 150*
13C4 PFHpA	*89*		*50 - 150*
13C4 PFOA	*94*		*50 - 150*
13C4 PFOS	*92*		*50 - 150*
13C5 PFNA	*97*		*50 - 150*
13C4 PFBA	*92*		*50 - 150*
13C2 PFHxA	*96*		*50 - 150*
13C2 PFDA	*93*		*50 - 150*
13C2 PFUnA	*99*		*50 - 150*
13C2 PFDoA	*89*		*50 - 150*
13C8 FOSA	*70*		*50 - 150*
13C5 PFPeA	*80*		*50 - 150*
13C2 PFTeDA	*97*		*50 - 150*
d3-NMeFOSAA	*129*		*50 - 150*
d5-NEtFOSAA	*131*		*50 - 150*
M2-6:2 FTS	*100*		*50 - 150*
M2-8:2 FTS	*104*		*50 - 150*
13C3 PFBS	*80*		*50 - 150*

Lab Sample ID: LCSD 200-189165/3-A
Matrix: Water
Analysis Batch: 189189

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 189165

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	43.8		ng/L		110	70 - 130	7	30
Perfluoropentanoic acid (PFPeA)	40.0	41.1		ng/L		103	70 - 130	11	30
Perfluorohexanoic acid (PFHxA)	40.0	42.1		ng/L		105	70 - 130	11	30
Perfluoroheptanoic acid (PFHpA)	40.0	44.8		ng/L		112	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	40.0	37.4		ng/L		94	70 - 130	2	30
Perfluorononanoic acid (PFNA)	40.0	38.7		ng/L		97	70 - 130	6	30
Perfluorodecanoic acid (PFDA)	40.0	40.8		ng/L		102	70 - 130	10	30
Perfluoroundecanoic acid (PFUnA)	40.0	38.0		ng/L		95	70 - 130	10	30
Perfluorododecanoic acid (PFDoA)	40.0	34.9		ng/L		87	70 - 130	9	30
Perfluorotridecanoic acid (PFTriA)	40.0	35.8		ng/L		90	70 - 130	8	30
Perfluorotetradecanoic acid (PFTeA)	40.0	40.2		ng/L		101	70 - 130	5	30
Perfluorobutanesulfonic acid (PFBS)	35.4	31.4		ng/L		89	70 - 130	14	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	35.5		ng/L		98	70 - 130	6	30
Perfluoroheptanesulfonic acid (PFHpS)	38.1	39.9		ng/L		105	70 - 130	10	30

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

Lab Sample ID: LCSD 200-189165/3-A
Matrix: Water
Analysis Batch: 189189

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 189165

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)	37.1	35.9		ng/L		97	70 - 130	1	30
Perfluorodecanesulfonic acid (PFDS)	38.6	35.3		ng/L		92	70 - 130	0	30
Perfluorooctanesulfonamide (FOSA)	40.0	35.8		ng/L		90	70 - 130	9	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.6		ng/L		104	70 - 130	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	39.9		ng/L		100	70 - 130	3	30
6:2 FTS	37.9	40.5		ng/L		107	60 - 140	4	30
8:2 FTS	38.3	44.6		ng/L		116	70 - 130	7	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
18O2 PFHxS	*93*		*50 - 150*
13C4 PFHpA	*98*		*50 - 150*
13C4 PFOA	*94*		*50 - 150*
13C4 PFOS	*89*		*50 - 150*
13C5 PFNA	*93*		*50 - 150*
13C4 PFBA	*90*		*50 - 150*
13C2 PFHxA	*91*		*50 - 150*
13C2 PFDA	*89*		*50 - 150*
13C2 PFUnA	*95*		*50 - 150*
13C2 PFDoA	*93*		*50 - 150*
13C8 FOSA	*72*		*50 - 150*
13C5 PFPeA	*88*		*50 - 150*
13C2 PFTeDA	*88*		*50 - 150*
d3-NMeFOSAA	*125*		*50 - 150*
d5-NEtFOSAA	*124*		*50 - 150*
M2-6:2 FTS	*110*		*50 - 150*
M2-8:2 FTS	*98*		*50 - 150*
13C3 PFBS	*97*		*50 - 150*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 160-602218/1-A
Matrix: Water
Analysis Batch: 603173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602218

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L		03/02/23 14:01	03/09/23 13:55	2

Lab Sample ID: LCS 160-602218/2-A
Matrix: Water
Analysis Batch: 603173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602218

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	1000	1083		ug/L		108	85 - 115

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 160-602707/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 602891 — **Prep Batch: 602707**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L		03/07/23 12:50	03/08/23 14:01	2

Lab Sample ID: LCS 160-602707/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 602891 — **Prep Batch: 602707**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	1000	1081		ug/L		108	85 - 115

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-660060/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660298 — **Prep Batch: 660060**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		03/01/23 08:08	03/01/23 17:03	1
Calcium	ND		0.50		mg/L		03/01/23 08:08	03/01/23 17:03	1
Iron	ND		0.050		mg/L		03/01/23 08:08	03/01/23 17:03	1
Lead	ND		0.010		mg/L		03/01/23 08:08	03/01/23 17:03	1
Magnesium	ND		0.20		mg/L		03/01/23 08:08	03/01/23 17:03	1
Manganese	ND	^+	0.0030		mg/L		03/01/23 08:08	03/01/23 17:03	1
Potassium	ND		0.50		mg/L		03/01/23 08:08	03/01/23 17:03	1
Sodium	ND		1.0		mg/L		03/01/23 08:08	03/01/23 17:03	1

Lab Sample ID: LCS 480-660060/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660298 — **Prep Batch: 660060**

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	9.61		mg/L		96	80 - 120
Iron	10.0	10.16		mg/L		101	80 - 120
Lead	0.200	0.191		mg/L		96	80 - 120
Magnesium	10.0	9.95		mg/L		99	80 - 120
Manganese	0.200	0.210	^+	mg/L		105	80 - 120
Potassium	10.0	10.20		mg/L		102	80 - 120
Sodium	10.0	9.99		mg/L		100	80 - 120

Lab Sample ID: 480-206498-2 MS — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660298 — **Prep Batch: 660060**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	ND		0.200	0.212		mg/L		106	75 - 125
Calcium	195		10.0	206.1	4	mg/L		113	75 - 125
Iron	0.063		10.0	10.18		mg/L		101	75 - 125
Lead	ND		0.200	0.200		mg/L		100	75 - 125
Magnesium	149		10.0	158.8	4	mg/L		98	75 - 125
Potassium	3.1		10.0	13.75		mg/L		106	75 - 125

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

Lab Sample ID: 480-206498-2 MS — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660298 — **Prep Batch: 660060**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	45.3		10.0	55.87	4	mg/L		105	75 - 125

Lab Sample ID: 480-206498-2 MS — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660406 — **Prep Batch: 660060**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.033		0.200	0.245		mg/L		106	75 - 125

Lab Sample ID: 480-206498-2 MSD — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660298 — **Prep Batch: 660060**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	ND		0.200	0.218		mg/L		109	75 - 125	3	20
Calcium	195		10.0	209.6	4	mg/L		148	75 - 125	2	20
Iron	0.063		10.0	10.45		mg/L		104	75 - 125	3	20
Lead	ND		0.200	0.206		mg/L		103	75 - 125	3	20
Magnesium	149		10.0	164.1	4	mg/L		151	75 - 125	3	20
Potassium	3.1		10.0	14.11		mg/L		110	75 - 125	3	20
Sodium	45.3		10.0	58.48	4	mg/L		131	75 - 125	5	20

Lab Sample ID: 480-206498-2 MSD — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660406 — **Prep Batch: 660060**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	0.033		0.200	0.250		mg/L		109	75 - 125	2	20

Lab Sample ID: MB 480-660459/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661184 — **Prep Batch: 660459**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		03/06/23 08:43	03/10/23 12:07	1
Calcium	ND		0.50		mg/L		03/06/23 08:43	03/10/23 12:07	1
Iron	ND		0.050		mg/L		03/06/23 08:43	03/10/23 12:07	1
Lead	ND		0.010		mg/L		03/06/23 08:43	03/10/23 12:07	1
Magnesium	ND		0.20		mg/L		03/06/23 08:43	03/10/23 12:07	1
Manganese	ND		0.0030		mg/L		03/06/23 08:43	03/10/23 12:07	1
Potassium	ND		0.50		mg/L		03/06/23 08:43	03/10/23 12:07	1
Sodium	ND		1.0		mg/L		03/06/23 08:43	03/10/23 12:07	1

Lab Sample ID: LCS 480-660459/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661184 — **Prep Batch: 660459**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.200	0.243	*+	mg/L		121	80 - 120
Calcium	10.0	11.42		mg/L		114	80 - 120

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

Lab Sample ID: LCS 480-660459/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661184 — **Prep Batch: 660459**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10.0	11.87		mg/L		119	80 - 120
Lead	0.200	0.238		mg/L		119	80 - 120
Magnesium	10.0	11.04		mg/L		110	80 - 120
Manganese	0.200	0.241		mg/L		120	80 - 120
Potassium	10.0	11.70		mg/L		117	80 - 120
Sodium	10.0	11.92		mg/L		119	80 - 120

Lab Sample ID: 480-206602-2 MS — **Client Sample ID: MW-6S-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661184 — **Prep Batch: 660459**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	ND	*+	0.200	0.223		mg/L		111	75 - 125
Calcium	149		10.0	153.6	4	mg/L		49	75 - 125
Iron	0.29		10.0	10.82		mg/L		105	75 - 125
Lead	ND		0.200	0.216		mg/L		108	75 - 125
Magnesium	62.9		10.0	71.33	4	mg/L		85	75 - 125
Manganese	0.015		0.200	0.231		mg/L		108	75 - 125
Potassium	2.0		10.0	12.94		mg/L		109	75 - 125
Sodium	32.2		10.0	42.14		mg/L		99	75 - 125

Lab Sample ID: 480-206602-2 MSD — **Client Sample ID: MW-6S-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661184 — **Prep Batch: 660459**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	ND	*+	0.200	0.222		mg/L		111	75 - 125	0	20
Calcium	149		10.0	151.9	4	mg/L		32	75 - 125	1	20
Iron	0.29		10.0	10.77		mg/L		105	75 - 125	0	20
Lead	ND		0.200	0.221		mg/L		110	75 - 125	2	20
Magnesium	62.9		10.0	70.48	4	mg/L		76	75 - 125	1	20
Manganese	0.015		0.200	0.227		mg/L		106	75 - 125	2	20
Potassium	2.0		10.0	12.76		mg/L		107	75 - 125	1	20
Sodium	32.2		10.0	41.42		mg/L		92	75 - 125	2	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-660333/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660333

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			03/02/23 16:39	1
Sulfate	ND		2.0		mg/L			03/02/23 16:39	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 480-660333/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660333

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.91		mg/L		98	90 - 110
Sulfate	50.1	49.59		mg/L		99	90 - 110

Lab Sample ID: 480-206498-3 MS — **Client Sample ID: MW-9SR-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660333

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	ND		25.0	24.07		mg/L		96	80 - 120
Sulfate	301		250	523.9		mg/L		89	80 - 120

Lab Sample ID: 480-206498-3 MSD — **Client Sample ID: MW-9SR-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660333

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	ND		25.0	23.98		mg/L		96	80 - 120	0	15
Sulfate	301		250	525.9		mg/L		90	80 - 120	0	15

Lab Sample ID: MB 480-660870/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			03/08/23 13:22	1
Sulfate	ND		2.0		mg/L			03/08/23 13:22	1

Lab Sample ID: LCS 480-660870/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.98		mg/L		99	90 - 110
Sulfate	50.1	49.26		mg/L		98	90 - 110

Lab Sample ID: 480-206602-1 MS — **Client Sample ID: MW-8S-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660870

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	ND		25.0	21.80		mg/L		87	80 - 120
Sulfate	239		250	462.1		mg/L		89	80 - 120

Lab Sample ID: 480-206602-1 MSD — **Client Sample ID: MW-8S-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660870

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	ND		25.0	21.78		mg/L		87	80 - 120	0	15
Sulfate	239		250	467.0		mg/L		91	80 - 120	1	15

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-661003/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661003

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			03/09/23 13:01	1
Sulfate	ND		2.0		mg/L			03/09/23 13:01	1

Lab Sample ID: LCS 480-661003/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661003

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.92		mg/L		98	90 - 110
Sulfate	50.1	49.61		mg/L		99	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: 480-206498-1 MS — **Client Sample ID: FB-01-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622 — **Prep Batch: 660568**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	ND	F1	0.200	ND	F1	mg/L		74	90 - 110

Lab Sample ID: 480-206498-2 MS — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622 — **Prep Batch: 660568**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	ND	F1	0.200	ND	F1	mg/L		71	90 - 110

Lab Sample ID: 480-206498-2 DU — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622 — **Prep Batch: 660568**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia	ND	F1	ND		mg/L		NC	20

Lab Sample ID: 480-206498-3 MS — **Client Sample ID: MW-9SR-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622 — **Prep Batch: 660569**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	ND	F1	0.200	ND	F1	mg/L		77	90 - 110

Lab Sample ID: 480-206498-4 MS — **Client Sample ID: MW-12S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622 — **Prep Batch: 660569**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	ND	F1	0.200	ND	F1	mg/L		84	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 480-206498-4 DU — **Client Sample ID: MW-12S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622 — **Prep Batch: 660569**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia	ND	F1	ND		mg/L		NC	20

Lab Sample ID: 480-206498-6 MS — **Client Sample ID: MW-7S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622 — **Prep Batch: 660570**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	ND	F1	0.200	ND	F1	mg/L		74	90 - 110

Lab Sample ID: 480-206498-6 DU — **Client Sample ID: MW-7S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622 — **Prep Batch: 660570**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia	ND	F1	ND		mg/L		NC	20

Lab Sample ID: MB 480-660622/17 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L			03/06/23 10:56	1

Lab Sample ID: MB 480-660622/46 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L			03/06/23 12:13	1

Lab Sample ID: MB 480-660622/74 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L			03/06/23 13:27	1

Lab Sample ID: LCS 480-660622/18 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.988		mg/L		99	90 - 110

Lab Sample ID: LCS 480-660622/47 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.988		mg/L		99	90 - 110

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: LCS 480-660622/75 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.979		mg/L		98	90 - 110

Lab Sample ID: MB 480-662074/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 662074

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			03/20/23 11:08	1

Lab Sample ID: LCS 480-662074/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 662074

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

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-660599/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660718 — **Prep Batch: 660599**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		03/06/23 10:20	03/07/23 07:26	1

Lab Sample ID: LCS 480-660599/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660718 — **Prep Batch: 660599**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.67		mg/L		107	90 - 110

Lab Sample ID: 480-206498-1 MS — **Client Sample ID: FB-01-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660718 — **Prep Batch: 660599**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	ND	F1	1.00	1.60	F1	mg/L		160	90 - 110

Lab Sample ID: 480-206632-2 MS — **Client Sample ID: SW-02-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660718 — **Prep Batch: 660599**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	0.51	F1	1.00	1.92	F1	mg/L		141	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: 480-206632-2 DU — **Client Sample ID: SW-02-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660718 — **Prep Batch: 660599**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	0.51	F1	0.532		mg/L		4	20

Lab Sample ID: MB 480-660600/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660718 — **Prep Batch: 660600**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		03/06/23 10:20	03/07/23 07:26	1

Lab Sample ID: LCS 480-660600/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660718 — **Prep Batch: 660600**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.58		mg/L		103	90 - 110

Lab Sample ID: 480-206632-1 MS — **Client Sample ID: SW-01-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660718 — **Prep Batch: 660600**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	ND	F1	1.00	1.35	F1	mg/L		135	90 - 110

Lab Sample ID: 480-206632-1 DU — **Client Sample ID: SW-01-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660718 — **Prep Batch: 660600**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	ND	F1	ND		mg/L		NC	20

Lab Sample ID: MB 480-660692/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660830 — **Prep Batch: 660692**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		03/07/23 10:05	03/08/23 06:29	1

Lab Sample ID: LCS 480-660692/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660830 — **Prep Batch: 660692**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.30		mg/L		92	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-661224/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			03/10/23 21:36	1

Lab Sample ID: MB 480-661224/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			03/10/23 20:30	1

Lab Sample ID: MB 480-661224/51 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			03/11/23 01:53	1

Lab Sample ID: LCS 480-661224/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	26.31		mg/L		105	90 - 110

Lab Sample ID: LCS 480-661224/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	27.29		mg/L		109	90 - 110

Lab Sample ID: LCS 480-661224/52 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	27.19		mg/L		109	90 - 110

Lab Sample ID: 480-206498-1 MS — **Client Sample ID: FB-01-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	ND	F1	50.0	26.52	F1	mg/L		53	75 - 125

Lab Sample ID: 480-206498-6 MS — **Client Sample ID: MW-7S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	ND	F1	50.0	27.81	F1	mg/L		44	75 - 125

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Method: 410.4 - COD

Lab Sample ID: 480-206632-1 MS — **Client Sample ID: SW-01-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	28.0	F1	50.0	53.08	F1	mg/L		50	75 - 125

Lab Sample ID: 480-206498-6 DU — **Client Sample ID: MW-7S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	ND	F1	ND		mg/L		NC	20

Lab Sample ID: 480-206632-1 DU — **Client Sample ID: SW-01-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661224

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	28.0	F1	43.10	F3	mg/L		42	20

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-660946/16 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660946

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			03/08/23 15:15	1

Lab Sample ID: MB 480-660946/76 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660946

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			03/08/23 18:59	1

Lab Sample ID: LCS 480-660946/17 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.100	0.0945		mg/L		95	90 - 110

Lab Sample ID: LCS 480-660946/77 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.100	0.0997		mg/L		100	90 - 110

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: 480-206602-2 MS — **Client Sample ID: MW-6S-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660946

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	ND		0.100	0.101		mg/L		101	90 - 110

Lab Sample ID: 480-206602-2 DU — **Client Sample ID: MW-6S-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660946

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phenolics, Total Recoverable	ND		ND		mg/L		NC	20

Lab Sample ID: MB 480-661403/16 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			03/13/23 14:24	1

Lab Sample ID: LCS 480-661403/17 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.100	0.0953		mg/L		95	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-661107/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661107

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			03/08/23 17:42	1

Lab Sample ID: LCS 480-661107/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	98.88		mg/L		99	90 - 110

Lab Sample ID: MB 480-661154/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			03/09/23 11:09	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 480-661154/52 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			03/09/23 18:04	1

Lab Sample ID: LCS 480-661154/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	100.4		mg/L		100	90 - 110

Lab Sample ID: LCS 480-661154/53 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	96.56		mg/L		97	90 - 110

Lab Sample ID: 480-206498-2 MS — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	396	F1	100	434.1	F1	mg/L		38	60 - 140

Lab Sample ID: 480-206498-2 DU — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661154

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	396	F1	405.0		mg/L		2	20

Lab Sample ID: MB 480-661704/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			03/14/23 19:51	1

Lab Sample ID: MB 480-661704/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			03/14/23 15:28	1

Lab Sample ID: LCS 480-661704/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	97.60		mg/L		98	90 - 110

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 480-661704/5
Matrix: Water
Analysis Batch: 661704

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	101.9		mg/L		102	90 - 110

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 480-660437/3
Matrix: Water
Analysis Batch: 660437

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			03/02/23 11:48	1

Lab Sample ID: LCS 480-660437/4
Matrix: Water
Analysis Batch: 660437

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	277	284.0		mg/L		103	90 - 110

Lab Sample ID: MB 480-661324/3
Matrix: Water
Analysis Batch: 661324

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			03/13/23 12:30	1

Lab Sample ID: LCS 480-661324/4
Matrix: Water
Analysis Batch: 661324

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	277	280.0		mg/L		101	90 - 110

Lab Sample ID: 480-206602-2 MS
Matrix: Water
Analysis Batch: 661324

Client Sample ID: MW-6S-03012023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	630		500	1200		mg/L		114	74 - 130

Lab Sample ID: 480-206602-1 DU
Matrix: Water
Analysis Batch: 661324

Client Sample ID: MW-8S-03012023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Hardness	596		600.0		mg/L		0.7	15

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

Lab Sample ID: MB 480-660402/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660402

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			03/03/23 09:29	1

Lab Sample ID: LCS 480-660402/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	509	508.0		mg/L		100	85 - 115

Lab Sample ID: 480-206498-1 DU — **Client Sample ID: FB-01-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660402

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	16.0		15.00		mg/L		6	10

Lab Sample ID: MB 480-660577/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660577

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			03/06/23 11:48	1

Lab Sample ID: LCS 480-660577/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	509	524.0		mg/L		103	85 - 115

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-660734/107 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/07/23 13:28	1

Lab Sample ID: MB 480-660734/118 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/07/23 13:40	1

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

Lab Sample ID: MB 480-660734/125 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/07/23 13:47	1

Lab Sample ID: MB 480-660734/137 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/07/23 13:57	1

Lab Sample ID: MB 480-660734/41 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/07/23 12:58	1

Lab Sample ID: MB 480-660734/50 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/07/23 13:02	1

Lab Sample ID: MB 480-660734/88 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/07/23 13:20	1

Lab Sample ID: MB 480-660734/96 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/07/23 13:24	1

Lab Sample ID: LCS 480-660734/106 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	23.42		mg/L		94	90 - 110

Lab Sample ID: LCS 480-660734/124 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.89		mg/L		100	90 - 110

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: LCS 480-660734/136 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.59		mg/L		98	90 - 110

Lab Sample ID: LCS 480-660734/49 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.09		mg/L		100	90 - 110

Lab Sample ID: LCS 480-660734/95 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.02		mg/L		100	90 - 110

Lab Sample ID: 480-206632-1 MS — **Client Sample ID: SW-01-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	480	F1	661	486.0	F1	mg/L		0.8	74 - 131

Lab Sample ID: 480-206632-1 MSD — **Client Sample ID: SW-01-03012023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660734

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	480	F1	661	484.2	F1	mg/L		0.6	74 - 131	0	20

Lab Sample ID: MB 480-661100/108 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/09/23 11:06	1

Lab Sample ID: MB 480-661100/117 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/09/23 11:10	1

Lab Sample ID: MB 480-661100/13 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/09/23 09:47	1

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-661100/20 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/09/23 09:57	1

Lab Sample ID: MB 480-661100/46 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/09/23 10:27	1

Lab Sample ID: MB 480-661100/58 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/09/23 10:34	1

Lab Sample ID: MB 480-661100/68 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/09/23 10:40	1

Lab Sample ID: MB 480-661100/99 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			03/09/23 10:59	1

Lab Sample ID: LCS 480-661100/107 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.86		mg/L		99	90 - 110

Lab Sample ID: LCS 480-661100/116 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.85		mg/L		99	90 - 110

Lab Sample ID: LCS 480-661100/19 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.89		mg/L		100	90 - 110

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: LCS 480-661100/57 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.33		mg/L		101	90 - 110

Lab Sample ID: LCS 480-661100/64 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 661100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.10		mg/L		100	90 - 110

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-660106/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660106

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			02/28/23 12:29	1

Lab Sample ID: LCS 480-660106/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660106

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	187.8		mg/L		94	85 - 115

Lab Sample ID: 480-206498-1 DU — **Client Sample ID: FB-01-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660106

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

Lab Sample ID: USB 480-660472/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660472

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			03/03/23 07:22	1

Lab Sample ID: LCS 480-660472/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	101.3	*-	mg/L		51	85 - 115

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Method: SM 5310C - TOC

Lab Sample ID: MB 480-660683/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660683

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			03/03/23 02:17	1

Lab Sample ID: LCS 480-660683/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660683

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	62.33		mg/L		104	90 - 110

Lab Sample ID: 480-206498-1 MS — **Client Sample ID: FB-01-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660683

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	ND		23.3	27.35		mg/L		117	54 - 131

Lab Sample ID: 480-206498-2 DU — **Client Sample ID: MW-11S-02272023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660683

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	1.1		1.29		mg/L		13	20

Lab Sample ID: MB 480-660685/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660685

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			03/04/23 02:43	1

Lab Sample ID: LCS 480-660685/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660685

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	56.73		mg/L		95	90 - 110

Lab Sample ID: MB 480-660857/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660857

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			03/07/23 15:30	1

Lab Sample ID: LCS 480-660857/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 660857

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	60.43		mg/L		101	90 - 110

Method: SM 5310C - TOC

Lab Sample ID: 480-206632-1 MS
Matrix: Water
Analysis Batch: 660857

Client Sample ID: SW-01-03012023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	2.1		23.3	27.84		mg/L		110	54 - 131

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-602254/1-A
Matrix: Water
Analysis Batch: 605094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602254

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01008	U	0.0349	0.0349	1.00	0.0837	pCi/L	03/03/23 09:30	03/27/23 09:57	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*03/03/23 09:30*	*03/27/23 09:57*	*1*

Lab Sample ID: LCS 160-602254/2-A
Matrix: Water
Analysis Batch: 605094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602254

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	11.30		1.15	1.00	0.0837	pCi/L	100	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.6*		*30 - 110*

Lab Sample ID: MB 160-602324/1-A
Matrix: Water
Analysis Batch: 605095

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602324

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02066	U	0.0536	0.0537	1.00	0.0993	pCi/L	03/03/23 11:25	03/27/23 16:04	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*03/03/23 11:25*	*03/27/23 16:04*	*1*

Lab Sample ID: LCS 160-602324/2-A
Matrix: Water
Analysis Batch: 605095

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602324

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	11.64		1.20	1.00	0.113	pCi/L	103	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.9*		*30 - 110*

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-602810/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605624 — **Prep Batch: 602810**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02387	U	0.0631	0.0632	1.00	0.136	pCi/L	03/08/23 10:10	03/30/23 21:14	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*30 - 110*	*03/08/23 10:10*	*03/30/23 21:14*	*1*

Lab Sample ID: LCS 160-602810/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605624 — **Prep Batch: 602810**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	13.03		1.33	1.00	0.101	pCi/L	115	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*89.3*		*30 - 110*

Lab Sample ID: LCSD 160-602810/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605622 — **Prep Batch: 602810**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	11.3	12.77		1.29	1.00	0.107	pCi/L	113	75 - 125	0.1	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.7*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-602255/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 603703 — **Prep Batch: 602255**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.07622	U	0.332	0.332	1.00	0.594	pCi/L	03/03/23 09:57	03/15/23 11:55	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:55*	*1*
Y Carrier	*84.5*		*30 - 110*	*03/03/23 09:57*	*03/15/23 11:55*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-602255/2-A
Matrix: Water
Analysis Batch: 603703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602255

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.12	9.867		1.31	1.00	0.609	pCi/L	122	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.6*		*30 - 110*
Y Carrier	*87.5*		*30 - 110*

Lab Sample ID: MB 160-602331/1-A
Matrix: Water
Analysis Batch: 603705

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602331

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6207		0.332	0.337	1.00	0.457	pCi/L	03/03/23 12:12	03/15/23 11:40	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*03/03/23 12:12*	*03/15/23 11:40*	*1*
Y Carrier	*83.0*		*30 - 110*	*03/03/23 12:12*	*03/15/23 11:40*	*1*

Lab Sample ID: LCS 160-602331/2-A
Matrix: Water
Analysis Batch: 603705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602331

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.12	8.960		1.27	1.00	0.583	pCi/L	110	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*81.9*		*30 - 110*
Y Carrier	*86.0*		*30 - 110*

Lab Sample ID: MB 160-602812/1-A
Matrix: Water
Analysis Batch: 604464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602812

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4307	U	0.338	0.340	1.00	0.520	pCi/L	03/08/23 10:36	03/21/23 12:52	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*30 - 110*	*03/08/23 10:36*	*03/21/23 12:52*	*1*
Y Carrier	*84.9*		*30 - 110*	*03/08/23 10:36*	*03/21/23 12:52*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-602812/2-A
Matrix: Water
Analysis Batch: 604464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602812

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.10	9.785		1.32	1.00	0.481	pCi/L	121	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*89.3*		*30 - 110*
Y Carrier	*83.4*		*30 - 110*

Lab Sample ID: LCSD 160-602812/3-A
Matrix: Water
Analysis Batch: 604464

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 602812

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	8.10	9.896		1.34	1.00	0.564	pCi/L	122	75 - 125	0.04	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*88.7*		*30 - 110*
Y Carrier	*83.7*		*30 - 110*

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

GC/MS Semi VOA

Prep Batch: 660099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	3510C	
480-206498-2	MW-11S-02272023	Total/NA	Water	3510C	
480-206498-3	MW-9SR-02272023	Total/NA	Water	3510C	
480-206498-4	MW-12S-02272023	Total/NA	Water	3510C	
480-206498-5	MW-10S-02272023	Total/NA	Water	3510C	
480-206498-6	MW-7S-02272023	Total/NA	Water	3510C	
MB 480-660099/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-660099/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-660099/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 660146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	8270D SIM ID	660099
480-206498-2	MW-11S-02272023	Total/NA	Water	8270D SIM ID	660099
480-206498-3	MW-9SR-02272023	Total/NA	Water	8270D SIM ID	660099
480-206498-4	MW-12S-02272023	Total/NA	Water	8270D SIM ID	660099
480-206498-5	MW-10S-02272023	Total/NA	Water	8270D SIM ID	660099
480-206498-6	MW-7S-02272023	Total/NA	Water	8270D SIM ID	660099
MB 480-660099/1-A	Method Blank	Total/NA	Water	8270D SIM ID	660099
LCS 480-660099/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	660099
LCSD 480-660099/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	660099

Prep Batch: 660626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	3510C	
480-206602-2	MW-6S-03012023	Total/NA	Water	3510C	
480-206632-1	SW-01-03012023	Total/NA	Water	3510C	
480-206632-2	SW-02-03012023	Total/NA	Water	3510C	
MB 480-660626/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-660626/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 660761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	8270D SIM ID	660626
480-206602-2	MW-6S-03012023	Total/NA	Water	8270D SIM ID	660626
480-206632-1	SW-01-03012023	Total/NA	Water	8270D SIM ID	660626
480-206632-2	SW-02-03012023	Total/NA	Water	8270D SIM ID	660626
MB 480-660626/1-A	Method Blank	Total/NA	Water	8270D SIM ID	660626
LCS 480-660626/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	660626

LCMS

Prep Batch: 189094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	3535	
480-206602-2	MW-6S-03012023	Total/NA	Water	3535	
MB 200-189094/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-189094/2-A	Lab Control Sample	Total/NA	Water	3535	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

LCMS

Analysis Batch: 189115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	537 (modified)	189094
480-206602-2	MW-6S-03012023	Total/NA	Water	537 (modified)	189094
MB 200-189094/1-A	Method Blank	Total/NA	Water	537 (modified)	189094
LCS 200-189094/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	189094

Prep Batch: 189152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206632-1	SW-01-03012023	Total/NA	Water	3535	
480-206632-2	SW-02-03012023	Total/NA	Water	3535	
MB 200-189152/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-189152/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 200-189152/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 189163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206632-1	SW-01-03012023	Total/NA	Water	537 (modified)	189152
MB 200-189152/1-A	Method Blank	Total/NA	Water	537 (modified)	189152
LCSD 200-189152/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	189152

Prep Batch: 189165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	3535	
480-206498-2	MW-11S-02272023	Total/NA	Water	3535	
480-206498-3	MW-9SR-02272023	Total/NA	Water	3535	
480-206498-4	MW-12S-02272023	Total/NA	Water	3535	
480-206498-5	MW-10S-02272023	Total/NA	Water	3535	
480-206498-6	MW-7S-02272023	Total/NA	Water	3535	
MB 200-189165/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-189165/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 200-189165/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 189189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	537 (modified)	189165
480-206498-2	MW-11S-02272023	Total/NA	Water	537 (modified)	189165
480-206498-3	MW-9SR-02272023	Total/NA	Water	537 (modified)	189165
480-206498-4	MW-12S-02272023	Total/NA	Water	537 (modified)	189165
480-206498-5	MW-10S-02272023	Total/NA	Water	537 (modified)	189165
480-206498-6	MW-7S-02272023	Total/NA	Water	537 (modified)	189165
MB 200-189165/1-A	Method Blank	Total/NA	Water	537 (modified)	189165
LCS 200-189165/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	189165
LCSD 200-189165/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	189165

Analysis Batch: 189218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206632-2	SW-02-03012023	Total/NA	Water	537 (modified)	189152
LCS 200-189152/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	189152

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Metals

Prep Batch: 602218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	200.7/200.8	
480-206498-2	MW-11S-02272023	Total/NA	Water	200.7/200.8	
480-206498-3	MW-9SR-02272023	Total/NA	Water	200.7/200.8	
480-206498-4	MW-12S-02272023	Total/NA	Water	200.7/200.8	
480-206498-5	MW-10S-02272023	Total/NA	Water	200.7/200.8	
480-206498-6	MW-7S-02272023	Total/NA	Water	200.7/200.8	
MB 160-602218/1-A	Method Blank	Total/NA	Water	200.7/200.8	
LCS 160-602218/2-A	Lab Control Sample	Total/NA	Water	200.7/200.8	

Prep Batch: 602707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	200.7/200.8	
480-206602-2	MW-6S-03012023	Total/NA	Water	200.7/200.8	
480-206632-1	SW-01-03012023	Total/NA	Water	200.7/200.8	
480-206632-2	SW-02-03012023	Total/NA	Water	200.7/200.8	
MB 160-602707/1-A	Method Blank	Total/NA	Water	200.7/200.8	
LCS 160-602707/2-A	Lab Control Sample	Total/NA	Water	200.7/200.8	

Analysis Batch: 602891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	200.8	602707
480-206602-2	MW-6S-03012023	Total/NA	Water	200.8	602707
480-206632-1	SW-01-03012023	Total/NA	Water	200.8	602707
480-206632-2	SW-02-03012023	Total/NA	Water	200.8	602707
MB 160-602707/1-A	Method Blank	Total/NA	Water	200.8	602707
LCS 160-602707/2-A	Lab Control Sample	Total/NA	Water	200.8	602707

Analysis Batch: 603173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	200.8	602218
480-206498-2	MW-11S-02272023	Total/NA	Water	200.8	602218
480-206498-3	MW-9SR-02272023	Total/NA	Water	200.8	602218
480-206498-4	MW-12S-02272023	Total/NA	Water	200.8	602218
480-206498-5	MW-10S-02272023	Total/NA	Water	200.8	602218
480-206498-6	MW-7S-02272023	Total/NA	Water	200.8	602218
MB 160-602218/1-A	Method Blank	Total/NA	Water	200.8	602218
LCS 160-602218/2-A	Lab Control Sample	Total/NA	Water	200.8	602218

Prep Batch: 660060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	3005A	
480-206498-2	MW-11S-02272023	Total/NA	Water	3005A	
480-206498-3	MW-9SR-02272023	Total/NA	Water	3005A	
480-206498-4	MW-12S-02272023	Total/NA	Water	3005A	
480-206498-5	MW-10S-02272023	Total/NA	Water	3005A	
480-206498-6	MW-7S-02272023	Total/NA	Water	3005A	
MB 480-660060/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-660060/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-206498-2 MS	MW-11S-02272023	Total/NA	Water	3005A	
480-206498-2 MSD	MW-11S-02272023	Total/NA	Water	3005A	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Metals

Analysis Batch: 660298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	6010C	660060
480-206498-2	MW-11S-02272023	Total/NA	Water	6010C	660060
480-206498-3	MW-9SR-02272023	Total/NA	Water	6010C	660060
480-206498-4	MW-12S-02272023	Total/NA	Water	6010C	660060
480-206498-5	MW-10S-02272023	Total/NA	Water	6010C	660060
480-206498-6	MW-7S-02272023	Total/NA	Water	6010C	660060
MB 480-660060/1-A	Method Blank	Total/NA	Water	6010C	660060
LCS 480-660060/2-A	Lab Control Sample	Total/NA	Water	6010C	660060
480-206498-2 MS	MW-11S-02272023	Total/NA	Water	6010C	660060
480-206498-2 MSD	MW-11S-02272023	Total/NA	Water	6010C	660060

Analysis Batch: 660406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	6010C	660060
480-206498-2	MW-11S-02272023	Total/NA	Water	6010C	660060
480-206498-2 MS	MW-11S-02272023	Total/NA	Water	6010C	660060
480-206498-2 MSD	MW-11S-02272023	Total/NA	Water	6010C	660060

Prep Batch: 660459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	3005A	
480-206602-2	MW-6S-03012023	Total/NA	Water	3005A	
480-206632-1	SW-01-03012023	Total/NA	Water	3005A	
480-206632-2	SW-02-03012023	Total/NA	Water	3005A	
MB 480-660459/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-660459/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-206602-2 MS	MW-6S-03012023	Total/NA	Water	3005A	
480-206602-2 MSD	MW-6S-03012023	Total/NA	Water	3005A	

Analysis Batch: 661184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	6010C	660459
480-206602-2	MW-6S-03012023	Total/NA	Water	6010C	660459
480-206632-1	SW-01-03012023	Total/NA	Water	6010C	660459
480-206632-2	SW-02-03012023	Total/NA	Water	6010C	660459
MB 480-660459/1-A	Method Blank	Total/NA	Water	6010C	660459
LCS 480-660459/2-A	Lab Control Sample	Total/NA	Water	6010C	660459
480-206602-2 MS	MW-6S-03012023	Total/NA	Water	6010C	660459
480-206602-2 MSD	MW-6S-03012023	Total/NA	Water	6010C	660459

General Chemistry

Analysis Batch: 660106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	SM 5210B	
480-206498-2	MW-11S-02272023	Total/NA	Water	SM 5210B	
480-206498-3	MW-9SR-02272023	Total/NA	Water	SM 5210B	
480-206498-4	MW-12S-02272023	Total/NA	Water	SM 5210B	
480-206498-5	MW-10S-02272023	Total/NA	Water	SM 5210B	
480-206498-6	MW-7S-02272023	Total/NA	Water	SM 5210B	
USB 480-660106/1	Method Blank	Total/NA	Water	SM 5210B	

General Chemistry (Continued)

Analysis Batch: 660106 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-660106/2	Lab Control Sample	Total/NA	Water	SM 5210B	
480-206498-1 DU	FB-01-02272023	Total/NA	Water	SM 5210B	

Analysis Batch: 660333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	300.0	
480-206498-2	MW-11S-02272023	Total/NA	Water	300.0	
480-206498-3	MW-9SR-02272023	Total/NA	Water	300.0	
480-206498-4	MW-12S-02272023	Total/NA	Water	300.0	
480-206498-5	MW-10S-02272023	Total/NA	Water	300.0	
480-206498-6	MW-7S-02272023	Total/NA	Water	300.0	
MB 480-660333/4	Method Blank	Total/NA	Water	300.0	
LCS 480-660333/5	Lab Control Sample	Total/NA	Water	300.0	
480-206498-3 MS	MW-9SR-02272023	Total/NA	Water	300.0	
480-206498-3 MSD	MW-9SR-02272023	Total/NA	Water	300.0	

Analysis Batch: 660402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	SM 2540C	
480-206498-2	MW-11S-02272023	Total/NA	Water	SM 2540C	
480-206498-3	MW-9SR-02272023	Total/NA	Water	SM 2540C	
480-206498-4	MW-12S-02272023	Total/NA	Water	SM 2540C	
480-206498-5	MW-10S-02272023	Total/NA	Water	SM 2540C	
480-206498-6	MW-7S-02272023	Total/NA	Water	SM 2540C	
MB 480-660402/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-660402/2	Lab Control Sample	Total/NA	Water	SM 2540C	
480-206498-1 DU	FB-01-02272023	Total/NA	Water	SM 2540C	

Analysis Batch: 660437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	SM 2340C	
480-206498-2	MW-11S-02272023	Total/NA	Water	SM 2340C	
480-206498-3	MW-9SR-02272023	Total/NA	Water	SM 2340C	
480-206498-4	MW-12S-02272023	Total/NA	Water	SM 2340C	
480-206498-5	MW-10S-02272023	Total/NA	Water	SM 2340C	
480-206498-6	MW-7S-02272023	Total/NA	Water	SM 2340C	
MB 480-660437/3	Method Blank	Total/NA	Water	SM 2340C	
LCS 480-660437/4	Lab Control Sample	Total/NA	Water	SM 2340C	

Analysis Batch: 660472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	SM 5210B	
480-206602-2	MW-6S-03012023	Total/NA	Water	SM 5210B	
480-206632-1	SW-01-03012023	Total/NA	Water	SM 5210B	
480-206632-2	SW-02-03012023	Total/NA	Water	SM 5210B	
USB 480-660472/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-660472/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 660491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	353.2	

General Chemistry (Continued)

Analysis Batch: 660491 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-2	MW-6S-03012023	Total/NA	Water	353.2	
480-206632-1	SW-01-03012023	Total/NA	Water	353.2	
480-206632-2	SW-02-03012023	Total/NA	Water	353.2	

Prep Batch: 660568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-2	MW-11S-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-1 MS	FB-01-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-2 MS	MW-11S-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-2 DU	MW-11S-02272023	Total/NA	Water	Distill/Ammonia	

Prep Batch: 660569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-3	MW-9SR-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-4	MW-12S-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-5	MW-10S-02272023	Total/NA	Water	Distill/Ammonia	
480-206602-1	MW-8S-03012023	Total/NA	Water	Distill/Ammonia	
480-206602-2	MW-6S-03012023	Total/NA	Water	Distill/Ammonia	
480-206498-3 MS	MW-9SR-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-4 MS	MW-12S-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-4 DU	MW-12S-02272023	Total/NA	Water	Distill/Ammonia	

Prep Batch: 660570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-6	MW-7S-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-6 MS	MW-7S-02272023	Total/NA	Water	Distill/Ammonia	
480-206498-6 DU	MW-7S-02272023	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 660577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	SM 2540C	
480-206602-2	MW-6S-03012023	Total/NA	Water	SM 2540C	
480-206632-1	SW-01-03012023	Total/NA	Water	SM 2540C	
480-206632-2	SW-02-03012023	Total/NA	Water	SM 2540C	
MB 480-660577/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-660577/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Prep Batch: 660599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	351.2	
480-206498-2	MW-11S-02272023	Total/NA	Water	351.2	
480-206498-3	MW-9SR-02272023	Total/NA	Water	351.2	
480-206498-4	MW-12S-02272023	Total/NA	Water	351.2	
480-206498-5	MW-10S-02272023	Total/NA	Water	351.2	
480-206498-6	MW-7S-02272023	Total/NA	Water	351.2	
480-206632-2	SW-02-03012023	Total/NA	Water	351.2	
MB 480-660599/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-660599/2-A	Lab Control Sample	Total/NA	Water	351.2	
480-206498-1 MS	FB-01-02272023	Total/NA	Water	351.2	
480-206632-2 MS	SW-02-03012023	Total/NA	Water	351.2	

General Chemistry (Continued)

Prep Batch: 660599 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206632-2 DU	SW-02-03012023	Total/NA	Water	351.2	

Prep Batch: 660600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206632-1	SW-01-03012023	Total/NA	Water	351.2	
MB 480-660600/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-660600/2-A	Lab Control Sample	Total/NA	Water	351.2	
480-206632-1 MS	SW-01-03012023	Total/NA	Water	351.2	
480-206632-1 DU	SW-01-03012023	Total/NA	Water	351.2	

Analysis Batch: 660622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	350.1	660568
480-206498-2	MW-11S-02272023	Total/NA	Water	350.1	660568
480-206498-3	MW-9SR-02272023	Total/NA	Water	350.1	660569
480-206498-4	MW-12S-02272023	Total/NA	Water	350.1	660569
480-206498-5	MW-10S-02272023	Total/NA	Water	350.1	660569
480-206498-6	MW-7S-02272023	Total/NA	Water	350.1	660570
480-206602-1	MW-8S-03012023	Total/NA	Water	350.1	660569
480-206602-2	MW-6S-03012023	Total/NA	Water	350.1	660569
MB 480-660622/17	Method Blank	Total/NA	Water	350.1	
MB 480-660622/46	Method Blank	Total/NA	Water	350.1	
MB 480-660622/74	Method Blank	Total/NA	Water	350.1	
LCS 480-660622/18	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-660622/47	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-660622/75	Lab Control Sample	Total/NA	Water	350.1	
480-206498-1 MS	FB-01-02272023	Total/NA	Water	350.1	660568
480-206498-2 MS	MW-11S-02272023	Total/NA	Water	350.1	660568
480-206498-3 MS	MW-9SR-02272023	Total/NA	Water	350.1	660569
480-206498-4 MS	MW-12S-02272023	Total/NA	Water	350.1	660569
480-206498-6 MS	MW-7S-02272023	Total/NA	Water	350.1	660570
480-206498-2 DU	MW-11S-02272023	Total/NA	Water	350.1	660568
480-206498-4 DU	MW-12S-02272023	Total/NA	Water	350.1	660569
480-206498-6 DU	MW-7S-02272023	Total/NA	Water	350.1	660570

Analysis Batch: 660683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	SM 5310C	
480-206498-2	MW-11S-02272023	Total/NA	Water	SM 5310C	
480-206498-3	MW-9SR-02272023	Total/NA	Water	SM 5310C	
480-206498-4	MW-12S-02272023	Total/NA	Water	SM 5310C	
480-206498-5	MW-10S-02272023	Total/NA	Water	SM 5310C	
480-206498-6	MW-7S-02272023	Total/NA	Water	SM 5310C	
MB 480-660683/28	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-660683/29	Lab Control Sample	Total/NA	Water	SM 5310C	
480-206498-1 MS	FB-01-02272023	Total/NA	Water	SM 5310C	
480-206498-2 DU	MW-11S-02272023	Total/NA	Water	SM 5310C	

Analysis Batch: 660685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 660685 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-2	MW-6S-03012023	Total/NA	Water	SM 5310C	
MB 480-660685/28	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-660685/29	Lab Control Sample	Total/NA	Water	SM 5310C	

Prep Batch: 660692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	351.2	
480-206602-2	MW-6S-03012023	Total/NA	Water	351.2	
MB 480-660692/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-660692/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 660718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	351.2	660599
480-206498-2	MW-11S-02272023	Total/NA	Water	351.2	660599
480-206498-3	MW-9SR-02272023	Total/NA	Water	351.2	660599
480-206498-4	MW-12S-02272023	Total/NA	Water	351.2	660599
480-206498-5	MW-10S-02272023	Total/NA	Water	351.2	660599
480-206498-6	MW-7S-02272023	Total/NA	Water	351.2	660599
480-206632-1	SW-01-03012023	Total/NA	Water	351.2	660600
480-206632-2	SW-02-03012023	Total/NA	Water	351.2	660599
MB 480-660599/1-A	Method Blank	Total/NA	Water	351.2	660599
MB 480-660600/1-A	Method Blank	Total/NA	Water	351.2	660600
LCS 480-660599/2-A	Lab Control Sample	Total/NA	Water	351.2	660599
LCS 480-660600/2-A	Lab Control Sample	Total/NA	Water	351.2	660600
480-206498-1 MS	FB-01-02272023	Total/NA	Water	351.2	660599
480-206632-1 MS	SW-01-03012023	Total/NA	Water	351.2	660600
480-206632-2 MS	SW-02-03012023	Total/NA	Water	351.2	660599
480-206632-1 DU	SW-01-03012023	Total/NA	Water	351.2	660600
480-206632-2 DU	SW-02-03012023	Total/NA	Water	351.2	660599

Analysis Batch: 660734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	SM 4500 Cl- E	
480-206498-2	MW-11S-02272023	Total/NA	Water	SM 4500 Cl- E	
480-206498-3	MW-9SR-02272023	Total/NA	Water	SM 4500 Cl- E	
480-206498-4	MW-12S-02272023	Total/NA	Water	SM 4500 Cl- E	
480-206498-5	MW-10S-02272023	Total/NA	Water	SM 4500 Cl- E	
480-206498-6	MW-7S-02272023	Total/NA	Water	SM 4500 Cl- E	
480-206632-1	SW-01-03012023	Total/NA	Water	SM 4500 Cl- E	
480-206632-2	SW-02-03012023	Total/NA	Water	SM 4500 Cl- E	
MB 480-660734/107	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-660734/118	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-660734/125	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-660734/137	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-660734/41	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-660734/50	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-660734/88	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-660734/96	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 480-660734/106	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-660734/124	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 660734 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-660734/136	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-660734/49	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-660734/95	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
480-206632-1 MS	SW-01-03012023	Total/NA	Water	SM 4500 Cl- E	
480-206632-1 MSD	SW-01-03012023	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 660830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	351.2	660692
480-206602-2	MW-6S-03012023	Total/NA	Water	351.2	660692
MB 480-660692/1-A	Method Blank	Total/NA	Water	351.2	660692
LCS 480-660692/2-A	Lab Control Sample	Total/NA	Water	351.2	660692

Analysis Batch: 660857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206632-1	SW-01-03012023	Total/NA	Water	SM 5310C	
480-206632-2	SW-02-03012023	Total/NA	Water	SM 5310C	
MB 480-660857/4	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-660857/5	Lab Control Sample	Total/NA	Water	SM 5310C	
480-206632-1 MS	SW-01-03012023	Total/NA	Water	SM 5310C	

Analysis Batch: 660870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	300.0	
480-206602-2	MW-6S-03012023	Total/NA	Water	300.0	
MB 480-660870/4	Method Blank	Total/NA	Water	300.0	
LCS 480-660870/5	Lab Control Sample	Total/NA	Water	300.0	
480-206602-1 MS	MW-8S-03012023	Total/NA	Water	300.0	
480-206602-1 MSD	MW-8S-03012023	Total/NA	Water	300.0	

Analysis Batch: 660946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	420.4	
480-206498-2	MW-11S-02272023	Total/NA	Water	420.4	
480-206602-1	MW-8S-03012023	Total/NA	Water	420.4	
480-206602-2	MW-6S-03012023	Total/NA	Water	420.4	
480-206632-1	SW-01-03012023	Total/NA	Water	420.4	
480-206632-2	SW-02-03012023	Total/NA	Water	420.4	
MB 480-660946/16	Method Blank	Total/NA	Water	420.4	
MB 480-660946/76	Method Blank	Total/NA	Water	420.4	
LCS 480-660946/17	Lab Control Sample	Total/NA	Water	420.4	
LCS 480-660946/77	Lab Control Sample	Total/NA	Water	420.4	
480-206602-2 MS	MW-6S-03012023	Total/NA	Water	420.4	
480-206602-2 DU	MW-6S-03012023	Total/NA	Water	420.4	

Analysis Batch: 661003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206632-1	SW-01-03012023	Total/NA	Water	300.0	
480-206632-2	SW-02-03012023	Total/NA	Water	300.0	
MB 480-661003/4	Method Blank	Total/NA	Water	300.0	
LCS 480-661003/5	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

General Chemistry

Analysis Batch: 661100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	SM 4500 Cl- E	
480-206602-2	MW-6S-03012023	Total/NA	Water	SM 4500 Cl- E	
MB 480-661100/108	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-661100/117	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-661100/13	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-661100/20	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-661100/46	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-661100/58	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-661100/68	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-661100/99	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 480-661100/107	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-661100/116	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-661100/19	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-661100/57	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-661100/64	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 661107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	SM 2320B	
MB 480-661107/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-661107/5	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 661154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-2	MW-11S-02272023	Total/NA	Water	SM 2320B	
480-206498-3	MW-9SR-02272023	Total/NA	Water	SM 2320B	
480-206498-4	MW-12S-02272023	Total/NA	Water	SM 2320B	
480-206498-5	MW-10S-02272023	Total/NA	Water	SM 2320B	
480-206498-6	MW-7S-02272023	Total/NA	Water	SM 2320B	
MB 480-661154/4	Method Blank	Total/NA	Water	SM 2320B	
MB 480-661154/52	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-661154/5	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 480-661154/53	Lab Control Sample	Total/NA	Water	SM 2320B	
480-206498-2 MS	MW-11S-02272023	Total/NA	Water	SM 2320B	
480-206498-2 DU	MW-11S-02272023	Total/NA	Water	SM 2320B	

Analysis Batch: 661224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	410.4	
480-206498-2	MW-11S-02272023	Total/NA	Water	410.4	
480-206498-3	MW-9SR-02272023	Total/NA	Water	410.4	
480-206498-4	MW-12S-02272023	Total/NA	Water	410.4	
480-206498-5	MW-10S-02272023	Total/NA	Water	410.4	
480-206498-6	MW-7S-02272023	Total/NA	Water	410.4	
480-206602-1	MW-8S-03012023	Total/NA	Water	410.4	
480-206602-2	MW-6S-03012023	Total/NA	Water	410.4	
480-206632-1	SW-01-03012023	Total/NA	Water	410.4	
480-206632-2	SW-02-03012023	Total/NA	Water	410.4	
MB 480-661224/28	Method Blank	Total/NA	Water	410.4	
MB 480-661224/4	Method Blank	Total/NA	Water	410.4	
MB 480-661224/51	Method Blank	Total/NA	Water	410.4	

General Chemistry (Continued)

Analysis Batch: 661224 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-661224/29	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-661224/5	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-661224/52	Lab Control Sample	Total/NA	Water	410.4	
480-206498-1 MS	FB-01-02272023	Total/NA	Water	410.4	
480-206498-6 MS	MW-7S-02272023	Total/NA	Water	410.4	
480-206632-1 MS	SW-01-03012023	Total/NA	Water	410.4	
480-206498-6 DU	MW-7S-02272023	Total/NA	Water	410.4	
480-206632-1 DU	SW-01-03012023	Total/NA	Water	410.4	

Analysis Batch: 661324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	SM 2340C	
480-206602-2	MW-6S-03012023	Total/NA	Water	SM 2340C	
480-206632-1	SW-01-03012023	Total/NA	Water	SM 2340C	
480-206632-2	SW-02-03012023	Total/NA	Water	SM 2340C	
MB 480-661324/3	Method Blank	Total/NA	Water	SM 2340C	
LCS 480-661324/4	Lab Control Sample	Total/NA	Water	SM 2340C	
480-206602-2 MS	MW-6S-03012023	Total/NA	Water	SM 2340C	
480-206602-1 DU	MW-8S-03012023	Total/NA	Water	SM 2340C	

Analysis Batch: 661403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-3	MW-9SR-02272023	Total/NA	Water	420.4	
480-206498-4	MW-12S-02272023	Total/NA	Water	420.4	
480-206498-5	MW-10S-02272023	Total/NA	Water	420.4	
480-206498-6	MW-7S-02272023	Total/NA	Water	420.4	
MB 480-661403/16	Method Blank	Total/NA	Water	420.4	
LCS 480-661403/17	Lab Control Sample	Total/NA	Water	420.4	

Analysis Batch: 661704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	SM 2320B	
480-206602-2	MW-6S-03012023	Total/NA	Water	SM 2320B	
480-206632-1	SW-01-03012023	Total/NA	Water	SM 2320B	
480-206632-2	SW-02-03012023	Total/NA	Water	SM 2320B	
MB 480-661704/28	Method Blank	Total/NA	Water	SM 2320B	
MB 480-661704/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-661704/29	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 480-661704/5	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 662074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206632-1	SW-01-03012023	Total/NA	Water	350.1	
480-206632-2	SW-02-03012023	Total/NA	Water	350.1	
MB 480-662074/3	Method Blank	Total/NA	Water	350.1	
LCS 480-662074/4	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 662648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	353.2	
480-206498-2	MW-11S-02272023	Total/NA	Water	353.2	

General Chemistry (Continued)

Analysis Batch: 662648 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-3	MW-9SR-02272023	Total/NA	Water	353.2	
480-206498-4	MW-12S-02272023	Total/NA	Water	353.2	
480-206498-5	MW-10S-02272023	Total/NA	Water	353.2	
480-206498-6	MW-7S-02272023	Total/NA	Water	353.2	

Rad

Prep Batch: 602254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	PrecSep-21	
480-206498-2	MW-11S-02272023	Total/NA	Water	PrecSep-21	
480-206498-3	MW-9SR-02272023	Total/NA	Water	PrecSep-21	
480-206498-4	MW-12S-02272023	Total/NA	Water	PrecSep-21	
480-206498-5	MW-10S-02272023	Total/NA	Water	PrecSep-21	
MB 160-602254/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-602254/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 602255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-1	FB-01-02272023	Total/NA	Water	PrecSep_0	
480-206498-2	MW-11S-02272023	Total/NA	Water	PrecSep_0	
480-206498-3	MW-9SR-02272023	Total/NA	Water	PrecSep_0	
480-206498-4	MW-12S-02272023	Total/NA	Water	PrecSep_0	
480-206498-5	MW-10S-02272023	Total/NA	Water	PrecSep_0	
MB 160-602255/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-602255/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 602324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-6	MW-7S-02272023	Total/NA	Water	PrecSep-21	
MB 160-602324/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-602324/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 602331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206498-6	MW-7S-02272023	Total/NA	Water	PrecSep_0	
MB 160-602331/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-602331/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 602810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	PrecSep-21	
480-206602-2	MW-6S-03012023	Total/NA	Water	PrecSep-21	
480-206632-1	SW-01-03012023	Total/NA	Water	PrecSep-21	
480-206632-2	SW-02-03012023	Total/NA	Water	PrecSep-21	
MB 160-602810/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-602810/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-602810/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Rad

Prep Batch: 602812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-206602-1	MW-8S-03012023	Total/NA	Water	PrecSep_0	
480-206602-2	MW-6S-03012023	Total/NA	Water	PrecSep_0	
480-206632-1	SW-01-03012023	Total/NA	Water	PrecSep_0	
480-206632-2	SW-02-03012023	Total/NA	Water	PrecSep_0	
MB 160-602812/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-602812/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-602812/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: FB-01-02272023

Lab Sample ID: 480-206498-1

Date Collected: 02/27/23 07:40
Matrix: Water
Date Received: 02/28/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660099	LSC	EET BUF	02/28/23 15:03
Total/NA	Analysis	8270D SIM ID		1	660146	JMM	EET BUF	03/01/23 13:05
Total/NA	Prep	3535			189165	KFW	EET BUR	03/08/23 11:54
Total/NA	Analysis	537 (modified)		1	189189	BWC	EET BUR	03/08/23 21:40
Total/NA	Prep	200.7/200.8			602218	LKP	EET SL	03/02/23 14:01
Total/NA	Analysis	200.8		2	603173	LKP	EET SL	03/09/23 14:02
Total/NA	Prep	3005A			660060	VAK	EET BUF	03/01/23 08:08
Total/NA	Analysis	6010C		1	660298	LMH	EET BUF	03/01/23 17:58
Total/NA	Prep	3005A			660060	VAK	EET BUF	03/01/23 08:08
Total/NA	Analysis	6010C		1	660406	LMH	EET BUF	03/02/23 20:12
Total/NA	Analysis	300.0		1	660333	JMM	EET BUF	03/02/23 18:17
Total/NA	Prep	Distill/Ammonia			660568	CLT	EET BUF	03/06/23 07:00
Total/NA	Analysis	350.1		1	660622	CLT	EET BUF	03/06/23 11:01
Total/NA	Prep	351.2			660599	EV	EET BUF	03/06/23 10:20
Total/NA	Analysis	351.2		1	660718	CLT	EET BUF	03/07/23 08:25
Total/NA	Analysis	353.2		1	662648	KMF	EET BUF	02/28/23 15:21
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/10/23 21:03
Total/NA	Analysis	420.4		1	660946	CLT	EET BUF	03/08/23 16:42
Total/NA	Analysis	SM 2320B		1	661107	DLG	EET BUF	03/08/23 18:50
Total/NA	Analysis	SM 2340C		1	660437	EV	EET BUF	03/02/23 11:48
Total/NA	Analysis	SM 2540C		1	660402	SAK	EET BUF	03/03/23 09:29
Total/NA	Analysis	SM 4500 Cl- E		1	660734	CG	EET BUF	03/07/23 13:33
Total/NA	Analysis	SM 5210B		1	660106	MDS	EET BUF	02/28/23 12:29
Total/NA	Analysis	SM 5310C		1	660683	KER	EET BUF	03/03/23 09:25
Total/NA	Prep	PrecSep-21			602254	DJP	EET SL	03/03/23 09:30
Total/NA	Analysis	903.0		1	605096	FLC	EET SL	03/27/23 10:04
Total/NA	Prep	PrecSep_0			602255	DJP	EET SL	03/03/23 09:57
Total/NA	Analysis	904.0		1	603706	FLC	EET SL	03/15/23 11:35

Client Sample ID: MW-11S-02272023

Lab Sample ID: 480-206498-2

Date Collected: 02/27/23 08:25
Matrix: Water
Date Received: 02/28/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660099	LSC	EET BUF	02/28/23 15:03
Total/NA	Analysis	8270D SIM ID		1	660146	JMM	EET BUF	03/01/23 13:21
Total/NA	Prep	3535			189165	KFW	EET BUR	03/08/23 11:54
Total/NA	Analysis	537 (modified)		1	189189	BWC	EET BUR	03/08/23 21:48
Total/NA	Prep	200.7/200.8			602218	LKP	EET SL	03/02/23 14:01
Total/NA	Analysis	200.8		2	603173	LKP	EET SL	03/09/23 14:15
Total/NA	Prep	3005A			660060	VAK	EET BUF	03/01/23 08:08
Total/NA	Analysis	6010C		1	660298	LMH	EET BUF	03/01/23 18:02

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-11S-02272023

Lab Sample ID: 480-206498-2

Date Collected: 02/27/23 08:25
Matrix: Water
Date Received: 02/28/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			660060	VAK	EET BUF	03/01/23 08:08
Total/NA	Analysis	6010C		1	660406	LMH	EET BUF	03/02/23 20:16
Total/NA	Analysis	300.0		5	660333	JMM	EET BUF	03/02/23 18:36
Total/NA	Prep	Distill/Ammonia			660568	CLT	EET BUF	03/06/23 07:00
Total/NA	Analysis	350.1		1	660622	CLT	EET BUF	03/06/23 11:35
Total/NA	Prep	351.2			660599	EV	EET BUF	03/06/23 10:20
Total/NA	Analysis	351.2		1	660718	CLT	EET BUF	03/07/23 08:25
Total/NA	Analysis	353.2		1	662648	KMF	EET BUF	02/28/23 15:28
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/10/23 21:09
Total/NA	Analysis	420.4		1	660946	CLT	EET BUF	03/08/23 16:46
Total/NA	Analysis	SM 2320B		1	661154	MDS	EET BUF	03/09/23 19:36
Total/NA	Analysis	SM 2340C		1	660437	EV	EET BUF	03/02/23 11:48
Total/NA	Analysis	SM 2540C		1	660402	SAK	EET BUF	03/03/23 09:29
Total/NA	Analysis	SM 4500 Cl- E		5	660734	CG	EET BUF	03/07/23 13:49
Total/NA	Analysis	SM 5210B		1	660106	MDS	EET BUF	02/28/23 12:29
Total/NA	Analysis	SM 5310C		1	660683	KER	EET BUF	03/03/23 10:21
Total/NA	Prep	PrecSep-21			602254	DJP	EET SL	03/03/23 09:30
Total/NA	Analysis	903.0		1	605096	FLC	EET SL	03/27/23 10:04
Total/NA	Prep	PrecSep_0			602255	DJP	EET SL	03/03/23 09:57
Total/NA	Analysis	904.0		1	603706	FLC	EET SL	03/15/23 11:36

Client Sample ID: MW-9SR-02272023

Lab Sample ID: 480-206498-3

Date Collected: 02/27/23 10:05
Matrix: Water
Date Received: 02/28/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660099	LSC	EET BUF	02/28/23 15:03
Total/NA	Analysis	8270D SIM ID		1	660146	JMM	EET BUF	03/01/23 13:36
Total/NA	Prep	3535			189165	KFW	EET BUR	03/08/23 11:54
Total/NA	Analysis	537 (modified)		1	189189	BWC	EET BUR	03/08/23 21:56
Total/NA	Prep	200.7/200.8			602218	LKP	EET SL	03/02/23 14:01
Total/NA	Analysis	200.8		2	603173	LKP	EET SL	03/09/23 14:19
Total/NA	Prep	3005A			660060	VAK	EET BUF	03/01/23 08:08
Total/NA	Analysis	6010C		1	660298	LMH	EET BUF	03/01/23 18:32
Total/NA	Analysis	300.0		5	660333	JMM	EET BUF	03/02/23 18:56
Total/NA	Prep	Distill/Ammonia			660569	CLT	EET BUF	03/06/23 07:00
Total/NA	Analysis	350.1		1	660622	CLT	EET BUF	03/06/23 12:18
Total/NA	Prep	351.2			660599	EV	EET BUF	03/06/23 10:20
Total/NA	Analysis	351.2		1	660718	CLT	EET BUF	03/07/23 08:25
Total/NA	Analysis	353.2		1	662648	KMF	EET BUF	02/28/23 15:29
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/10/23 21:18
Total/NA	Analysis	420.4		1	661403	CLT	EET BUF	03/13/23 14:39
Total/NA	Analysis	SM 2320B		1	661154	MDS	EET BUF	03/09/23 11:49

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-9SR-02272023

Lab Sample ID: 480-206498-3
Date Collected: 02/27/23 10:05
Matrix: Water
Date Received: 02/28/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2340C		1	660437	EV	EET BUF	03/02/23 11:48
Total/NA	Analysis	SM 2540C		1	660402	SAK	EET BUF	03/03/23 09:29
Total/NA	Analysis	SM 4500 Cl- E		1	660734	CG	EET BUF	03/07/23 13:27
Total/NA	Analysis	SM 5210B		1	660106	MDS	EET BUF	02/28/23 12:29
Total/NA	Analysis	SM 5310C		1	660683	KER	EET BUF	03/03/23 10:50
Total/NA	Prep	PrecSep-21			602254	DJP	EET SL	03/03/23 09:30
Total/NA	Analysis	903.0		1	605096	FLC	EET SL	03/27/23 10:04
Total/NA	Prep	PrecSep_0			602255	DJP	EET SL	03/03/23 09:57
Total/NA	Analysis	904.0		1	603706	FLC	EET SL	03/15/23 11:36

Client Sample ID: MW-12S-02272023

Lab Sample ID: 480-206498-4
Date Collected: 02/27/23 12:05
Matrix: Water
Date Received: 02/28/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660099	LSC	EET BUF	02/28/23 15:03
Total/NA	Analysis	8270D SIM ID		1	660146	JMM	EET BUF	03/01/23 13:52
Total/NA	Prep	3535			189165	KFW	EET BUR	03/08/23 11:54
Total/NA	Analysis	537 (modified)		1	189189	BWC	EET BUR	03/08/23 22:04
Total/NA	Prep	200.7/200.8			602218	LKP	EET SL	03/02/23 14:01
Total/NA	Analysis	200.8		2	603173	LKP	EET SL	03/09/23 14:22
Total/NA	Prep	3005A			660060	VAK	EET BUF	03/01/23 08:08
Total/NA	Analysis	6010C		1	660298	LMH	EET BUF	03/01/23 18:36
Total/NA	Analysis	300.0		5	660333	JMM	EET BUF	03/02/23 20:34
Total/NA	Prep	Distill/Ammonia			660569	CLT	EET BUF	03/06/23 07:00
Total/NA	Analysis	350.1		1	660622	CLT	EET BUF	03/06/23 12:50
Total/NA	Prep	351.2			660599	EV	EET BUF	03/06/23 10:20
Total/NA	Analysis	351.2		1	660718	CLT	EET BUF	03/07/23 08:25
Total/NA	Analysis	353.2		1	662648	KMF	EET BUF	02/28/23 15:31
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/10/23 21:20
Total/NA	Analysis	420.4		1	661403	CLT	EET BUF	03/13/23 14:43
Total/NA	Analysis	SM 2320B		1	661154	MDS	EET BUF	03/09/23 11:56
Total/NA	Analysis	SM 2340C		1	660437	EV	EET BUF	03/02/23 11:48
Total/NA	Analysis	SM 2540C		1	660402	SAK	EET BUF	03/03/23 09:29
Total/NA	Analysis	SM 4500 Cl- E		1	660734	CG	EET BUF	03/07/23 13:26
Total/NA	Analysis	SM 5210B		1	660106	MDS	EET BUF	02/28/23 12:29
Total/NA	Analysis	SM 5310C		1	660683	KER	EET BUF	03/03/23 11:18
Total/NA	Prep	PrecSep-21			602254	DJP	EET SL	03/03/23 09:30
Total/NA	Analysis	903.0		1	605096	FLC	EET SL	03/27/23 10:05
Total/NA	Prep	PrecSep_0			602255	DJP	EET SL	03/03/23 09:57
Total/NA	Analysis	904.0		1	603706	FLC	EET SL	03/15/23 11:36

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-10S-02272023

Lab Sample ID: 480-206498-5

Date Collected: 02/27/23 13:50
Matrix: Water
Date Received: 02/28/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660099	LSC	EET BUF	02/28/23 15:03
Total/NA	Analysis	8270D SIM ID		1	660146	JMM	EET BUF	03/01/23 14:07
Total/NA	Prep	3535			189165	KFW	EET BUR	03/08/23 11:54
Total/NA	Analysis	537 (modified)		1	189189	BWC	EET BUR	03/08/23 22:12
Total/NA	Prep	200.7/200.8			602218	LKP	EET SL	03/02/23 14:01
Total/NA	Analysis	200.8		2	603173	LKP	EET SL	03/09/23 14:26
Total/NA	Prep	3005A			660060	VAK	EET BUF	03/01/23 08:08
Total/NA	Analysis	6010C		1	660298	LMH	EET BUF	03/01/23 18:40
Total/NA	Analysis	300.0		5	660333	JMM	EET BUF	03/02/23 20:54
Total/NA	Prep	Distill/Ammonia			660569	CLT	EET BUF	03/06/23 07:00
Total/NA	Analysis	350.1		1	660622	CLT	EET BUF	03/06/23 13:15
Total/NA	Prep	351.2			660599	EV	EET BUF	03/06/23 10:20
Total/NA	Analysis	351.2		1	660718	CLT	EET BUF	03/07/23 08:25
Total/NA	Analysis	353.2		1	662648	KMF	EET BUF	02/28/23 15:35
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/10/23 21:15
Total/NA	Analysis	420.4		1	661403	CLT	EET BUF	03/13/23 14:46
Total/NA	Analysis	SM 2320B		1	661154	MDS	EET BUF	03/09/23 12:05
Total/NA	Analysis	SM 2340C		1	660437	EV	EET BUF	03/02/23 11:48
Total/NA	Analysis	SM 2540C		1	660402	SAK	EET BUF	03/03/23 09:29
Total/NA	Analysis	SM 4500 Cl- E		1	660734	CG	EET BUF	03/07/23 13:26
Total/NA	Analysis	SM 5210B		1	660106	MDS	EET BUF	02/28/23 12:29
Total/NA	Analysis	SM 5310C		1	660683	KER	EET BUF	03/03/23 11:47
Total/NA	Prep	PrecSep-21			602254	DJP	EET SL	03/03/23 09:30
Total/NA	Analysis	903.0		1	605096	FLC	EET SL	03/27/23 10:05
Total/NA	Prep	PrecSep_0			602255	DJP	EET SL	03/03/23 09:57
Total/NA	Analysis	904.0		1	603706	FLC	EET SL	03/15/23 11:36

Client Sample ID: MW-7S-02272023

Lab Sample ID: 480-206498-6

Date Collected: 02/27/23 15:25
Matrix: Water
Date Received: 02/28/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660099	LSC	EET BUF	02/28/23 15:03
Total/NA	Analysis	8270D SIM ID		1	660146	JMM	EET BUF	03/01/23 14:23
Total/NA	Prep	3535			189165	KFW	EET BUR	03/08/23 11:54
Total/NA	Analysis	537 (modified)		1	189189	BWC	EET BUR	03/08/23 22:21
Total/NA	Prep	200.7/200.8			602218	LKP	EET SL	03/02/23 14:01
Total/NA	Analysis	200.8		2	603173	LKP	EET SL	03/09/23 14:29
Total/NA	Prep	3005A			660060	VAK	EET BUF	03/01/23 08:08
Total/NA	Analysis	6010C		1	660298	LMH	EET BUF	03/01/23 18:44
Total/NA	Analysis	300.0		5	660333	JMM	EET BUF	03/02/23 21:13
Total/NA	Prep	Distill/Ammonia			660570	CLT	EET BUF	03/06/23 07:00
Total/NA	Analysis	350.1		1	660622	CLT	EET BUF	03/06/23 13:33

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-7S-02272023

Lab Sample ID: 480-206498-6

Date Collected: 02/27/23 15:25
Matrix: Water
Date Received: 02/28/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	351.2			660599	EV	EET BUF	03/06/23 10:20
Total/NA	Analysis	351.2		1	660718	CLT	EET BUF	03/07/23 08:25
Total/NA	Analysis	353.2		1	662648	KMF	EET BUF	02/28/23 15:38
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/10/23 21:42
Total/NA	Analysis	420.4		1	661403	CLT	EET BUF	03/13/23 14:50
Total/NA	Analysis	SM 2320B		1	661154	MDS	EET BUF	03/09/23 12:12
Total/NA	Analysis	SM 2340C		1	660437	EV	EET BUF	03/02/23 11:48
Total/NA	Analysis	SM 2540C		1	660402	SAK	EET BUF	03/03/23 09:29
Total/NA	Analysis	SM 4500 Cl- E		1	660734	CG	EET BUF	03/07/23 13:33
Total/NA	Analysis	SM 5210B		1	660106	MDS	EET BUF	02/28/23 12:29
Total/NA	Analysis	SM 5310C		1	660683	KER	EET BUF	03/03/23 12:15
Total/NA	Prep	PrecSep-21			602324	DJP	EET SL	03/03/23 11:25
Total/NA	Analysis	903.0		1	605095	FLC	EET SL	03/27/23 16:04
Total/NA	Prep	PrecSep_0			602331	DJP	EET SL	03/03/23 12:12
Total/NA	Analysis	904.0		1	603705	FLC	EET SL	03/15/23 11:42

Client Sample ID: MW-8S-03012023

Lab Sample ID: 480-206602-1

Date Collected: 03/01/23 09:20
Matrix: Water
Date Received: 03/02/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660626	SJM	EET BUF	03/06/23 15:44
Total/NA	Analysis	8270D SIM ID		1	660761	JMM	EET BUF	03/07/23 17:47
Total/NA	Prep	3535			189094	KFW	EET BUR	03/06/23 09:45
Total/NA	Analysis	537 (modified)		1	189115	BWC	EET BUR	03/07/23 02:26
Total/NA	Prep	200.7/200.8			602707	LKP	EET SL	03/07/23 12:50
Total/NA	Analysis	200.8		2	602891	CGB	EET SL	03/08/23 14:21
Total/NA	Prep	3005A			660459	VAK	EET BUF	03/06/23 08:43
Total/NA	Analysis	6010C		1	661184	LMH	EET BUF	03/10/23 12:15
Total/NA	Analysis	300.0		5	660870	KER	EET BUF	03/08/23 15:34
Total/NA	Prep	Distill/Ammonia			660569	CLT	EET BUF	03/06/23 07:00
Total/NA	Analysis	350.1		1	660622	CLT	EET BUF	03/06/23 13:09
Total/NA	Prep	351.2			660692	EV	EET BUF	03/07/23 10:05
Total/NA	Analysis	351.2		1	660830	CLT	EET BUF	03/08/23 07:09
Total/NA	Analysis	353.2		1	660491	DLG	EET BUF	03/04/23 14:03
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/11/23 02:44
Total/NA	Analysis	420.4		1	660946	CLT	EET BUF	03/08/23 19:31
Total/NA	Analysis	SM 2320B		1	661704	DLG	EET BUF	03/14/23 17:14
Total/NA	Analysis	SM 2340C		1	661324	EV	EET BUF	03/13/23 12:30
Total/NA	Analysis	SM 2540C		1	660577	SAK	EET BUF	03/06/23 11:48
Total/NA	Analysis	SM 4500 Cl- E		1	661100	CG	EET BUF	03/09/23 11:07
Total/NA	Analysis	SM 5210B		1	660472	MDS	EET BUF	03/03/23 07:22

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: MW-8S-03012023

Lab Sample ID: 480-206602-1
Date Collected: 03/01/23 09:20
Matrix: Water
Date Received: 03/02/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 5310C		1	660685	KER	EET BUF	03/04/23 11:02
Total/NA	Prep	PrecSep-21			602810	DJP	EET SL	03/08/23 10:10
Total/NA	Analysis	903.0		1	605746	FLC	EET SL	03/31/23 14:30
Total/NA	Prep	PrecSep_0			602812	DJP	EET SL	03/08/23 10:36
Total/NA	Analysis	904.0		1	604464	FLC	EET SL	03/21/23 12:56

Client Sample ID: MW-6S-03012023

Lab Sample ID: 480-206602-2
Date Collected: 03/01/23 08:15
Matrix: Water
Date Received: 03/02/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660626	SJM	EET BUF	03/06/23 15:44
Total/NA	Analysis	8270D SIM ID		1	660761	JMM	EET BUF	03/07/23 18:10
Total/NA	Prep	3535			189094	KFW	EET BUR	03/06/23 09:45
Total/NA	Analysis	537 (modified)		1	189115	BWC	EET BUR	03/07/23 02:34
Total/NA	Prep	200.7/200.8			602707	LKP	EET SL	03/07/23 12:50
Total/NA	Analysis	200.8		2	602891	CGB	EET SL	03/08/23 14:25
Total/NA	Prep	3005A			660459	VAK	EET BUF	03/06/23 08:43
Total/NA	Analysis	6010C		1	661184	LMH	EET BUF	03/10/23 12:19
Total/NA	Analysis	300.0		5	660870	KER	EET BUF	03/08/23 17:08
Total/NA	Prep	Distill/Ammonia			660569	CLT	EET BUF	03/06/23 07:00
Total/NA	Analysis	350.1		1	660622	CLT	EET BUF	03/06/23 13:12
Total/NA	Prep	351.2			660692	EV	EET BUF	03/07/23 10:05
Total/NA	Analysis	351.2		1	660830	CLT	EET BUF	03/08/23 07:09
Total/NA	Analysis	353.2		1	660491	DLG	EET BUF	03/04/23 14:07
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/11/23 02:48
Total/NA	Analysis	420.4		1	660946	CLT	EET BUF	03/08/23 19:54
Total/NA	Analysis	SM 2320B		1	661704	DLG	EET BUF	03/14/23 19:07
Total/NA	Analysis	SM 2340C		1	661324	EV	EET BUF	03/13/23 12:30
Total/NA	Analysis	SM 2540C		1	660577	SAK	EET BUF	03/06/23 11:48
Total/NA	Analysis	SM 4500 Cl- E		5	661100	CG	EET BUF	03/09/23 11:22
Total/NA	Analysis	SM 5210B		1	660472	MDS	EET BUF	03/03/23 07:22
Total/NA	Analysis	SM 5310C		1	660685	KER	EET BUF	03/04/23 11:30
Total/NA	Prep	PrecSep-21			602810	DJP	EET SL	03/08/23 10:10
Total/NA	Analysis	903.0		1	605746	FLC	EET SL	03/31/23 14:30
Total/NA	Prep	PrecSep_0			602812	DJP	EET SL	03/08/23 10:36
Total/NA	Analysis	904.0		1	604464	FLC	EET SL	03/21/23 12:56

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: SW-01-03012023

Lab Sample ID: 480-206632-1

Date Collected: 03/01/23 10:35
Matrix: Water
Date Received: 03/03/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660626	SJM	EET BUF	03/06/23 15:44
Total/NA	Analysis	8270D SIM ID		1	660761	JMM	EET BUF	03/07/23 18:32
Total/NA	Prep	3535			189152	EK	EET BUR	03/07/23 16:36
Total/NA	Analysis	537 (modified)		1	189163	BWC	EET BUR	03/08/23 15:32
Total/NA	Prep	200.7/200.8			602707	LKP	EET SL	03/07/23 12:50
Total/NA	Analysis	200.8		2	602891	CGB	EET SL	03/08/23 14:28
Total/NA	Prep	3005A			660459	VAK	EET BUF	03/06/23 08:43
Total/NA	Analysis	6010C		1	661184	LMH	EET BUF	03/10/23 13:09
Total/NA	Analysis	300.0		5	661003	KER	EET BUF	03/09/23 18:56
Total/NA	Analysis	350.1		1	662074	CLT	EET BUF	03/20/23 11:16
Total/NA	Prep	351.2			660600	EV	EET BUF	03/06/23 10:20
Total/NA	Analysis	351.2		1	660718	CLT	EET BUF	03/07/23 11:31
Total/NA	Analysis	353.2		1	660491	DLG	EET BUF	03/04/23 14:24
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/10/23 20:36
Total/NA	Analysis	420.4		1	660946	CLT	EET BUF	03/08/23 20:22
Total/NA	Analysis	SM 2320B		1	661704	DLG	EET BUF	03/15/23 09:25
Total/NA	Analysis	SM 2340C		1	661324	EV	EET BUF	03/13/23 12:30
Total/NA	Analysis	SM 2540C		1	660577	SAK	EET BUF	03/06/23 11:48
Total/NA	Analysis	SM 4500 Cl- E		32	660734	CG	EET BUF	03/07/23 13:58
Total/NA	Analysis	SM 5210B		1	660472	MDS	EET BUF	03/03/23 07:22
Total/NA	Analysis	SM 5310C		1	660857	KER	EET BUF	03/07/23 17:23
Total/NA	Prep	PrecSep-21			602810	DJP	EET SL	03/08/23 10:10
Total/NA	Analysis	903.0		1	605746	FLC	EET SL	03/31/23 14:30
Total/NA	Prep	PrecSep_0			602812	DJP	EET SL	03/08/23 10:36
Total/NA	Analysis	904.0		1	604464	FLC	EET SL	03/21/23 12:56

Client Sample ID: SW-02-03012023

Lab Sample ID: 480-206632-2

Date Collected: 03/01/23 11:45
Matrix: Water
Date Received: 03/03/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			660626	SJM	EET BUF	03/06/23 15:44
Total/NA	Analysis	8270D SIM ID		1	660761	JMM	EET BUF	03/07/23 18:55
Total/NA	Prep	3535			189152	EK	EET BUR	03/07/23 16:36
Total/NA	Analysis	537 (modified)		1	189218	BWC	EET BUR	03/09/23 18:29
Total/NA	Prep	200.7/200.8			602707	LKP	EET SL	03/07/23 12:50
Total/NA	Analysis	200.8		2	602891	CGB	EET SL	03/08/23 14:32
Total/NA	Prep	3005A			660459	VAK	EET BUF	03/06/23 08:43
Total/NA	Analysis	6010C		1	661184	LMH	EET BUF	03/10/23 13:13
Total/NA	Analysis	300.0		5	661003	KER	EET BUF	03/09/23 19:15
Total/NA	Analysis	350.1		1	662074	CLT	EET BUF	03/20/23 11:17
Total/NA	Prep	351.2			660599	EV	EET BUF	03/06/23 10:20
Total/NA	Analysis	351.2		1	660718	CLT	EET BUF	03/07/23 08:16

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Client Sample ID: SW-02-03012023

Date Collected: 03/01/23 11:45
Date Received: 03/03/23 11:00

Lab Sample ID: 480-206632-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	353.2		1	660491	DLG	EET BUF	03/04/23 14:22
Total/NA	Analysis	410.4		1	661224	EV	EET BUF	03/11/23 02:51
Total/NA	Analysis	420.4		1	660946	CLT	EET BUF	03/08/23 20:26
Total/NA	Analysis	SM 2320B		1	661704	DLG	EET BUF	03/15/23 09:33
Total/NA	Analysis	SM 2340C		1	661324	EV	EET BUF	03/13/23 12:30
Total/NA	Analysis	SM 2540C		1	660577	SAK	EET BUF	03/06/23 11:48
Total/NA	Analysis	SM 4500 Cl- E		33	660734	CG	EET BUF	03/07/23 13:55
Total/NA	Analysis	SM 5210B		1	660472	MDS	EET BUF	03/03/23 07:22
Total/NA	Analysis	SM 5310C		1	660857	KER	EET BUF	03/07/23 17:51
Total/NA	Prep	PrecSep-21			602810	DJP	EET SL	03/08/23 10:10
Total/NA	Analysis	903.0		1	605746	FLC	EET SL	03/31/23 14:30
Total/NA	Prep	PrecSep_0			602812	DJP	EET SL	03/08/23 10:36
Total/NA	Analysis	904.0		1	604464	FLC	EET SL	03/21/23 12:57

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

Laboratory: Eurofins Burlington

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-26
Connecticut	State	PH-0751	09-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-17-23
Florida	NELAP	E87467	06-30-23
Minnesota	NELAP	050-999-436	12-31-23
New Hampshire	NELAP	2006	12-18-23
New Jersey	NELAP	VT972	06-30-23
New York	NELAP	10391	03-31-23
Pennsylvania	NELAP	68-00489	03-13-23
Rhode Island	State	LAO00298	12-30-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-24
Virginia	NELAP	460209	12-14-23
Wisconsin	State	399133350	03-28-23

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24

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

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	06-11-23
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

Method Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	EET BUR
200.8	Metals (ICP/MS)	EPA	EET SL
6010C	Metals (ICP)	SW846	EET BUF
300.0	Anions, Ion Chromatography	EPA	EET BUF
350.1	Nitrogen, Ammonia	EPA	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
353.2	Nitrate	EPA	EET BUF
410.4	COD	EPA	EET BUF
420.4	Phenolics, Total Recoverable	EPA	EET BUF
SM 2320B	Alkalinity	SM	EET BUF
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	EET BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET BUF
SM 4500 Cl- E	Chloride, Total	SM	EET BUF
SM 5210B	BOD, 5-Day	SM	EET BUF
SM 5310C	TOC	SM	EET BUF
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
200.7/200.8	Preparation, Metals	EPA	EET SL
3005A	Preparation, Total Metals	SW846	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3535	Solid-Phase Extraction (SPE)	SW846	EET BUR
Distill/Ammonia	Distillation, Ammonia	None	EET BUF
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency
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:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Routine

Job ID: 480-206498-1
SDG: 206498

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-206498-1	FB-01-02272023	Water	02/27/23 07:40	02/28/23 09:00
480-206498-2	MW-11S-02272023	Water	02/27/23 08:25	02/28/23 09:00
480-206498-3	MW-9SR-02272023	Water	02/27/23 10:05	02/28/23 09:00
480-206498-4	MW-12S-02272023	Water	02/27/23 12:05	02/28/23 09:00
480-206498-5	MW-10S-02272023	Water	02/27/23 13:50	02/28/23 09:00
480-206498-6	MW-7S-02272023	Water	02/27/23 15:25	02/28/23 09:00
480-206602-1	MW-8S-03012023	Water	03/01/23 09:20	03/02/23 09:50
480-206602-2	MW-6S-03012023	Water	03/01/23 08:15	03/02/23 09:50
480-206632-1	SW-01-03012023	Water	03/01/23 10:35	03/03/23 11:00
480-206632-2	SW-02-03012023	Water	03/01/23 11:45	03/03/23 11:00

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: DAN Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-181683-15034.1
Client Contact: Dr. Tim Roeper	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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 - (MOD) Br/SO4	350.1, 351.2, 410.4	6010C - NY Part 360 Routine Metals	2340C - Hardness as calcium carbonate	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	2320B - Alkalinity, Total	420.4_NP - Phenolics	5310C - Total Organic Carbon	PFC_IDA - (MOD) PFAS, Standard List (21 analytes)	903.0 - Rad 226	904.0 - Rad 228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	D	N	N	N	N	S	A	N	D	D		
FB-01-02272023	2-27-23	0740	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-11S-02272023	2-27-23	0825	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-9SR-02272023	2-27-23	1005	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-12S-02272023	2-27-23	1205	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-10S-02272023	2-27-23	1350	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-7S-02272023	2-27-23	1525	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
				Water																	
				Water			MG														
				Water																	
2-27-23				Water																	

480-206498 Chain of Custody

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

Sample Disposal (A fee may be assessed if
☐ Return To Client ☒ Disposal By .

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
Daniel Wheeler	02/27/23 / 1640	CEG/TE	Tim Krollmeyer	2-27-23	EETN
Tim Krollmeyer	2-27-23 1730	EETN	[illegible]	2-28-23 900	TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.0 2.1 1.8 2.2 ICE

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Daniel Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-181683-15034.2
Client Contact: Dr. Tim Roeper	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	200.8 - Uranium	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N		
FB-01 - 02272023	2-27-23	0740	G	Water			X	X		
MW-11S - 02272023	2-27-23	0825	G	Water			X	X		
MW-9SR - 02272023	2-27-23	1005	G	Water			X	X		
MW-12S - 02272023	2-27-23	1205	G	Water			X	X		
MW-10S - 02272023	2-27-23	1350	G	Water			X	X		
MW-7S - 02272023	2-27-23	1525	G	Water			X	X		
				Water						
				Water			MLL			
				Water						
				Water			2-27-23			

480-206498 Chain of Custody

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
Daniel Wheeler	02/27/23 1140	CEG/TL	Tim Kyellyn	2-27-23	EETN
			Christian Lovelis	2/28/23 900	TA

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

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-181683-15034.1
Client Contact: Dr. Tim Roeper	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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 - (MOD) Br/SO4	350.1, 351.2, 410.4	6010C - NY Part 360 Routine Metals	2340C - Hardness as calcium carbonate	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	2320B - Alkalinity, Total	420.4_NP - Phenolics	6310C - Total Organic Carbon	PFC_IDA - (MOD) PFAS, Standard List (21 analytes)	903.0 - Rad 226	904.0 - Rad 228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	D	N	N	N	N	S	A	N	D	D		
MW-8S - 03012023	3-1-23	0930	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-6S - 03012023	3-1-23	0815	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
SW-01 - 03012023	3-1-23	1035	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
SW-02 - 03012023	3-1-23	1145	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
				Water																	
				Water																	
				Water			THC														
				Water																	
				Water			3-1-23														
				Water																	

480-206602 Chain of Custody

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
Dan Wheeler	03/01/2023 / 1250	CEG/TT	Tim Kuhlow	3-1-23 1250	EETW
			Tim Kuhlow	3/2/23 950	TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.8 2.2 # 1 ICE

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: DAW Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-181683-15034.2
Client Contact: Dr. Tim Roeper	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	200.8 - Uranium	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	D	N	X	
MW-85 - 03012023	3-1-23	0920	G	Water			X	X		
MW-65 - 03012023	3-1-23	0815	G	Water			X	X		
AW-01 - 03012023	3-1-23	1035	G	Water			X	X		
SW-02 - 03012023	3-1-23	1145	G	Water			X	X		
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

TMC
3-1-2023

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
Daniel Wheeler	03/01/2023 / 1250	CEG/TT	Tim Kuplinger	3-1-23 1250	EETN
			[illegible]	312123 950	SA

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

Ver: 06/08/2021

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

Chain of Custody Record

#224

eurofins | Environment Testing

Client Information	Sampler: Drew Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-181683-15034.1
Client Contact: Dr. Tim Roeper	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes: A - HCL; M - Hexane; L - EDA; Z - other (specify); Other:

480-206632 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 - (MOD) Br/SO4	350.1, 351.2, 410.4	6010C - NY Part 360 Routine Metals	2340C - Hardness as calcium carbonate	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	2320B - Alkalinity, Total	420.4_NP - Phenolics	5310C - Total Organic Carbon	PFC_IDA - (MOD) PFAS, Standard List (21 analytes)	903.0 - Rad 226	904.0 - Rad 228	Total Number of contain	Special Instructions/Note:
			Preservation Code:				N	S	D	D	N	N	N	N	S	A	N	D	D		
MW-8S - 03012023	3-1-23	0920	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-6S - 03012023	3-1-23	0815	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
SW-01 - 03012023	3-1-23	1035	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
SW-02 - 03012023	3-1-23	1145	G	Water			X	X	X	X	X	X	X	X	X	X	X	X	X		
				Water																	
				Water																	
				Water			TKC														
				Water																	
				Water			3-1-23														
				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
Daniel Wheeler	03/01/2023 / 1250	CEG/TT	Tim Kuller	3-1-23 1250	EETW
Tim Kuller	3-1-23 1700	EETW	[illegible]	3/3/23 1100	TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.0 #1 ICE

Ver: 06/08/2021

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: DAW Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-181683-15034.2
Client Contact: Dr. Tim Roeper	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
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)	200.8 - Uranium	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
				Preservation Code:			D	N		
MW-85 - 03012023	3-1-23	0920	G	Water			X	X		
MW-65 - 03012023	3-1-23	0815	G	Water			X	X		
BW-01 - 03012023	3-1-23	1035	G	Water			X	X		
SW-02 - 03012023	3-1-23	1145	G	Water			X	X		
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

TMC
3-1-2023

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
Daniel Wheeler	03/01/2023 / 1250	CEG/TT	Tim Knollinger	3-1-23 1250	EETN
Tim Knollinger	3-1-23 / 700	EETN	See pg 1		

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

Ver: 06/08/2021

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

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-78782.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-206498-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/13/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Dunn Landfill	Project #: 48010065			
Site: Dunn Landfill	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Rad 226	904.0/PrecSep_0 Rad 228	200.8/200_2%P Uranium	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
FB-01 02272023 (480-206498-1)	2/27/23	07:40 Eastern		Water			X	X	X	3	
MW-11S 02272023 (480-206498-2)	2/27/23	08:25 Eastern		Water			X	X	X	3	
MW-9SR 02272023 (480-206498-3)	2/27/23	10:05 Eastern		Water			X	X	X	3	
MW-12S 02272023 (480-206498-4)	2/27/23	12:05 Eastern		Water			X	X	X	3	
MW-10S 02272023 (480-206498-5)	2/27/23	13:50 Eastern		Water			X	X	X	3	
MW-7S 02272023 (480-206498-6)	2/27/23	15:25 Eastern		Water			X	X	X	3	
											18

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

Possible Hazard Identification
Unconfirmed

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 2-28-23 1600	Company: TAB	Received by: FEDEX	Date/Time:	Company
Relinquished by: FEDEX	Date/Time:	Company	Received by: Briana Sharkey-Gazalez	Date/Time: 2/28/23 0900	Company: ETAFTL
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: 06/08/2021

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

Chain of Custody Record

eurofins Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No 480-78854.1
Client Contact: Shipping/Receiving	Phone	E-Mail Ryan.VanDette@et.eurofinsus.com	State of Origin: New York	Page Page 1 of 1
Company TestAmerica Laboratories, Inc.		Accreditations Required (See note) NELAP - New York		Job # 480-206602-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/15/2023			
City: Earth City	TAT Requested (days):			
State, Zip MO, 63045				
Phone 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email	WO #:			
Project Name: Dunn Landfill	Project #: 48010065			
Site: Dunn Landfill	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Rad 226	904.0/PrecSep_0 Rad 228	200.8/200_2%P Uranium	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-8S-03012023 (480-206602-1)	3/1/23	09:20 Eastern		Water			X	X	X	3	
MW-6S-03012023 (480-206602-2)	3/1/23	08:15 Eastern		Water			X	X	X	3	
											6

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

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 3-3-23 1800	Company: TAB	Received by: FEDEX	Date/Time:	Company
Relinquished by: FEDEX	Date/Time:	Company:	Received by: Briana Sharkey-Hanzel	Date/Time: 3/6/23 0900	Company: ETASTL
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		

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

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-78855.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-206632-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/16/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Dunn Landfill	Project #: 48010065			
Site: Dunn Landfill	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
Y - Trizma
Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Rad 226	904.0/PrecSep_0 Rad 228	200.8/200_2%P Uranium	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
SW-01-03012023 (480-206632-1)	3/1/23	10:35 Eastern		Water			X	X	X	3	
SW-02-03012023 (480-206632-2)	3/1/23	11:45 Eastern		Water			X	X	X	3	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	3-3-23 1800	TAB	FEDEX		
FEDEX			Briana Sharkey-Gonzalez	3/6/23 0900	ETSL

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

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

Chain of Custody Record

eurofins
Environment Testing

480-206498 Chain of Custody

Client Information (Sub Contract Lab)	Sampler:	Lab PM: VanDette, Ryan T	COC No: 480-78777.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ryan VanDette@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Job #: 480-206498-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 3/13/2023		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email:	WO #:		
Project Name: Dunn Landfill	Project #: 48010065		
Site: Dunn Landfill	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
Y - Trizma
Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT (MOD) PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
FB-01 02272023 (480-206498-1)	2/27/23	07.40 Eastern		Water			X	2	
MW-11S 02272023 (480-206498-2)	2/27/23	08:25 Eastern		Water			X	2	
MW-9SR 02272023 (480-206498-3)	2/27/23	10 05 Eastern		Water			X	2	
MW-12S 02272023 (480-206498-4)	2/27/23	12.05 Eastern		Water			X	2	
MW-10S 02272023 (480-206498-5)	2/27/23	13.50 Eastern		Water			X	2	
MW-7S 02272023 (480-206498-6)	2/27/23	15 25 Eastern		Water			X	2	

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

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	2-28-23 1600	TAS	[signature]	3/1/23 1030	ETA Burl
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

ORIGIN ID:DKKA (716) 691-2600
SAMPLE RECEIPT
EUROFINS BUFFALO
10 HAZELWOOD DR

AMHERST, NY 14228
UNITED STATES US

SHIP DATE: 28FEB23
ACTWGT: 36.35 LB
CAD: 846654/CAFE3621
DIMS: 23x15x14 IN

BILL SENDER

TO SAMPLE MGT.
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 923-1026
REF: EUROFINS BURLINGTON

FedEx Express

1 of 2

TRK# 0201 6159 4585 0852

MASTER

WED - 01 MAR 10:30
PRIORITY OVERNIGH

NX BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-206498-1
SDG Number: 206498

Login Number: 206498
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins 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.	False	PAGE 2 OF COC MISSING
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	CEG/TE
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: Waste Connections, Inc.

Job Number: 480-206498-1
SDG Number: 206498

Login Number: 206498
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 03/01/23 02:19 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	2059848
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-206498-1
SDG Number: 206498

Login Number: 206498
List Number: 3
Creator: Sharkey-Gonzalez, Briana L

List Source: Eurofins St. Louis
List Creation: 03/01/23 06:39 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-206498-1
SDG Number: 206498

Login Number: 206602
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins 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	False	2 sample points not received.
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	ceg tt
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: Waste Connections, Inc.

Job Number: 480-206498-1
SDG Number: 206498

Login Number: 206602
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 03/04/23 01:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	2059865
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-206498-1
SDG Number: 206498

Login Number: 206602
List Number: 3
Creator: Sharkey-Gonzalez, Briana L

List Source: Eurofins St. Louis
List Creation: 03/06/23 01:07 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-206498-1
SDG Number: 206498

Login Number: 206632
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins 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)..	False	bod unpreserved nitrates
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	ceg tt
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: Waste Connections, Inc.

Job Number: 480-206498-1
SDG Number: 206498

Login Number: 206632
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 03/04/23 01:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	2059865
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-206498-1
SDG Number: 206498

Login Number: 206632
List Number: 3
Creator: Sharkey-Gonzalez, Briana L

List Source: Eurofins St. Louis
List Creation: 03/06/23 01:07 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

July 18, 2023

Mr. Brian Maglienti
New York State Department of Environmental Conservation
Region 4, Division of Materials Management
1130 North Westcott Road
Schenectady, NY 12306-2014

Re: Environmental Monitoring Program
Second Quarter 2023
S.A. Dunn Sand and Gravel

Dear Mr. Maglienti:

Cornerstone Engineering and Geology, PLLC (Cornerstone) completed the second quarter 2023 groundwater and surface water monitoring event at the above referenced facility on May 15 and 16, 2023. The sampling was completed in accordance with the monitoring program presented in the Environmental Monitoring Plan (EMP) and Site Analysis Plan (SAP), titled Environmental Monitoring Plan, Dunn Mine and C&D Facility, October 2021 prepared by Civil & Environmental Engineering, PLLC. The facility began accepting waste during the last week in January 2015. Samples collected during this quarter were analyzed for the Part 363 Baseline Parameters.

Second Quarter 2023 Groundwater and Surface Water Sampling

Groundwater and surface water samples were obtained on May15 and 16, 2023 from seven monitoring wells and two surface water locations as illustrated on the attached figures. Five monitoring wells (MW-6S, MW-7S, MW-8S, MW-10S, and MW-12S) represent locations down gradient of the current and future C&D waste cells. MW-9SR and MW-11S represent upgradient locations. Surface water locations SW-1 and SW-2 represent downstream and upstream locations, respectively, within Quackenbush Creek.

Samples collected during this quarter were analyzed for the Part 363 Baseline Parameters. The next annual baseline event will be completed during the second quarter of 2024.

Prior to sampling, groundwater levels were measured at each monitoring well location and the volume of groundwater contained in the wells was calculated based upon the measured depth. Groundwater purging and sampling was conducted using a two-inch diameter submersible pump (decontaminated between sampling locations) and dedicated Teflon lined tubing. The submersible pump was placed near the top of the water column and the well was purged at a rate that maintained the water level above the top of the pump. Each well was purged of three well volumes of water, after which the pump rate was reduced to approximately 1 liter/minute and the water was pumped through a flow-through cell for measurement of field parameters (see Table 1) using a Horiba U22 multi-parameter meter calibrated in accordance with the manufacturer's instructions at the beginning of the day. Following recording of the field parameter measurements, samples were collected directly into glass and/or plastic ware provided by Eurofins Laboratories of Amherst, NY.

Surface water samples were collected as grab samples directly into the sample bottles provided by Eurofins. Field parameters were recorded by placing the Horiba U22 multi-parameter meter directly into the creek water and are reported in Table 1.

Cornerstone Engineering and Geology, PLLC
100 Crystal Run Road, Suite 101, Middletown, NY 10941
Tel 877.294.9070 Fax 877.845.1456 tetratech.com

The collected groundwater and surface water samples were transported by courier, under chain-of-custody, to Eurofins Laboratories in Amherst, New York for analysis of the Part 363 Baseline Parameters.

Analytical Results

The groundwater and surface water samples were analyzed by the NYSDOH, ELAP certified (No. 10026) laboratory, Eurofins Laboratories of Amherst, New York for the Part 363 Baseline Parameters. The laboratory report is attached for reference and the analytical results are summarized in Tables 2 through 4.

The following parameters are noted as exceeding their respective groundwater or surface water quality criteria (also summarized in Tables 2 and 3) during this sampling event and are noted in Tables 2 and 3 with bold text.

Total Dissolved Solids (TDS) – MW-6S, MW-7S, MW-8S, MW-9SR*, MW-10S, MW-11S*, MW-12S, SW-1, SW-2*

Chloride – SW-2*

Magnesium – MW-6S, MW-7S, MW-8S, MW-9SR*, MW-10S, MW-11S*, MW-12S, SW-1

Manganese – MW-12S

Iron –MW-9SR*, MW-12S

Sodium – MW-6S, MW-8S, MW-11S*

Sulfate – MW-8S, MW-9SR*, MW-10S, MW-11S*

*Represents upgradient or upstream monitoring point

The inorganic parameters noted above as exceeding applicable groundwater or surface water quality criteria are consistent with those reported as part of prior sampling events and are representative of naturally occurring conditions.

Comparison of the analytical results to the EWQ-SVs (i.e. mean plus three standard deviations), indicate concentrations for the following sampling locations and parameters are above the EWQ-SVs:

MW-12S –Manganese at a concentration of 0.338 mg/l as compared to 0.257 mg/l;

MW-7S – Alkalinity at a concentration of 329 mg/l as compared to 325.5 mg/l.

During this reporting period, the following locations exceeded the groundwater quality standard and the EWQV (average concentration) for the following parameters:

MW-6S – Magnesium and sodium

MW-7S – Magnesium and TDS

MW-8S – Sulfate, magnesium, sodium and TDS

MW-9SR* – Sodium, sulfate, TDS and magnesium

MW-10S – TDS, magnesium, and sulfate

MW-12S – TDS, manganese, magnesium and iron

*Represents upgradient or upstream monitoring point

Manganese exceeded both the groundwater quality standard and the EWQ-SV at MW-12S.

With the exception of manganese, each of the parameters identified above exceeds the groundwater quality standard in at least one, if not both, upgradient well locations (see discussion above). Additionally, the results reported above are generally consistent with historical data and collectively do not indicate any cause for concern.

As shown on Table 4, there were no volatile organics detected in any of the collected samples.

In summary, the collective data provide no evidence of groundwater/surface water impacts associated with the facility and are representative of natural water quality or upstream influences.

QA/QC

A field blank (FB-01) was collected during the second quarter 2023 sampling event by pouring laboratory grade water over the two-inch submersible pump after it was decontaminated between monitoring wells. With the exception of TDS at 21 mg/L and color at 5.0 color units, the results were below reporting limits for all constituents. Both trip blanks associated with this sampling event were also non-detect for volatile organics.

The chain of custody record, field methods and sample labeling were observed to be consistent and in accordance with established procedures. With the exception of the QC issues noted in the laboratory report job narrative, and for which sample results were re-analyzed and/or qualified accordingly, review of the raw data, spike recoveries and related analytical QC indicated acceptable results and provides no basis for qualification (beyond that already provided by the lab) or rejection of the data. The data is deemed usable for the intended purpose.

Summary

A limited number of parameters are routinely reported at concentrations above applicable groundwater or surface water quality criteria and the results are generally consistent over the historical record. During the second quarter 2023 sampling event, manganese was reported above both the existing water quality screening value and groundwater quality criteria at MW-12S. TDS, magnesium, sodium, sulfate and iron exceeded groundwater quality criteria at one or both of the upgradient well locations. TDS and chloride exceeded the surface water standard in upstream sample SW-2.

Collectively, the data provide no evidence of groundwater/surface water impacts attributable to the facility and are representative of natural water quality or off-Site influences.

Samples collected during the next sampling event, third quarter 2023, will be analyzed for the Part 363 Routine Parameters.

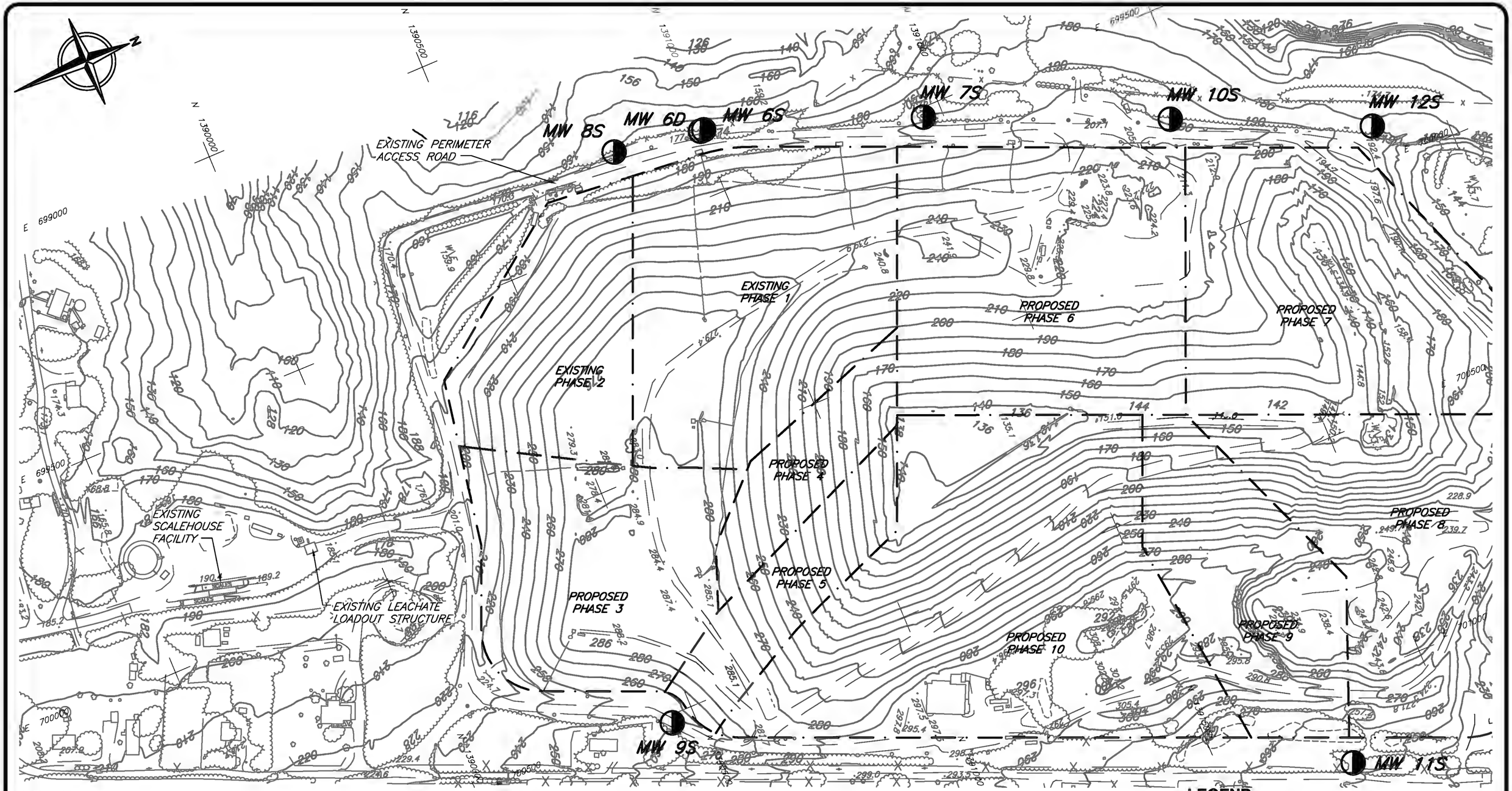
Please do not hesitate to contact us with any questions you may have.

Sincerely,

CORNERSTONE ENGINEERING AND GEOLOGY, PLLC

Timothy R. Roeper, P.G.
Client Manager - Hydrogeology

cc: Brian Maglienti – (NYSDEC) - Via Email
Ross McCredy – (NYSDEC) – Via Email
Lana Brown - Via Email
Curt Taylor - Via Email
Cory Judd – Hard Copy



NOTES:

1. EXISTING SITE FEATURES AND TOPOGRAPHY WERE DEVELOPED USING PHOTOGRAMMATIC METHODS PERFORMED BY SOUTHERN RESOURCE MAPPING CORPORATION OF NORTH PORT, ALABAMA, FROM AERIAL PHOTOGRAPHY DATED NOVEMBER 4, 2020. CORNERSTONE ENGINEERING GROUP, LLC HAS NOT RESURVEYED TO VERIFY ACCURACY OF THE SAME.

0 200 400

SCALE IN FEET

LEGEND:

MW 6D EXISTING MONITORING WELL

cornerstone
A TETRA TECH COMPANY

PREPARED BY:
CORNERSTONE ENVIRONMENTAL GROUP, LLC

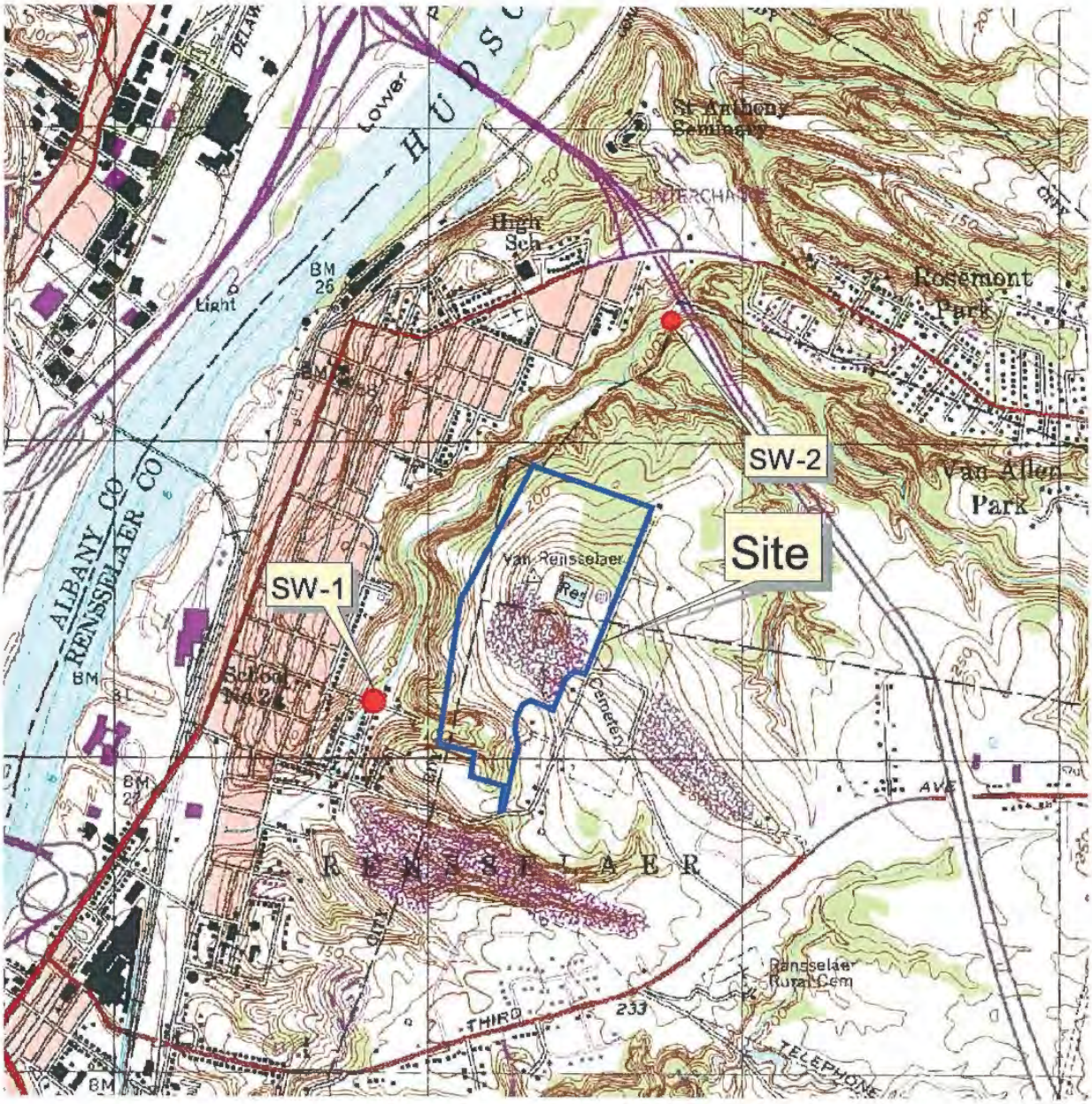
This drawing represents intellectual property of Cornerstone Environmental Group, LLC. Any modification to the original by other than Cornerstone Environmental Group, LLC personnel violates its original purpose and as such is rendered void. Cornerstone Environmental Group, LLC will not be held liable for any changes made to this document without express written consent of the originator.

DUNN C&D LANDFILL

MONITORING WELL LOCATION PLAN

FIGURE NO. 1

PROJECT NO. 190023



Source:
USGS Topographic Map
Troy South, NY Quadrangle
Figure 5 – C.T. Male Associates

cornerstone environmental

PREPARED BY:
CORNERSTONE ENVIRONMENTAL GROUP, LLC

S.A. Dunn Sand And Gravel

Surface Water Sampling Locations

FIGURE NO.
2

PROJECT NO.

TABLE 1
FIELD PARAMETERS
MAY 15 - 16, 2023 - BASELINE SAMPLING EVENT

Well	Ref. Elev.	DTW (ft)	Temp (C°)	Cond. (ms/cm)	pH	DO (mg/L)	NTU	ORP
MW-6S	**179.15**	**131.12**	**13.65**	**1.02**	**7.28**	**0**	**0**	**161**
MW-7S	**190.95**	**143.6**	**13.44**	**0.743**	**7.37**	**2.04**	**0**	**149**
MW-8S	**173.1**	**122.78**	**13.51**	**1.03**	**7.26**	**1.5**	**13.6**	**149**
MW-9SR	**271.51**	**193.36**	**15.39**	**0.896**	**7.36**	**1.77**	**18.5**	**98**
MW-10S	**204.53**	**155.57**	**12.71**	**0.925**	**7.34**	**0**	**3.6**	**135**
MW-11S	**253.50**	**175.6**	**14.7**	**1.93**	**7.1**	**4.46**	**0**	**151**
MW-12S	**187.47**	**138.3**	**12.94**	**0.892**	**7.33**	**0**	**30.5**	**3**
SW-1		**--**	**13.65**	**1.26**	**8.07**	**9.03**	**0**	**105**
SW-2		**--**	**15.2**	**1.38**	**8.85**	**10.85**	**0**	**192**

DTW- Depth to Water from Top of PVC Casing
Note: MW-8S surface casing was damaged and repaired in December 2014. Elevation above references new top of PVC elevation.
Reference elevations for MW-6S and MW-7S from C.T. Male Associates, Figure EM1a, May 2011.

TABLE 2
SUMMARY OF METALS RESULTS
MAY 2023 - BASELINE SAMPLING EVENT

		Groundwater Monitoring														Surface Water Monitoring				
Sample ID	**GW Standard [1]**	**MW-6S-05162023**		**MW-7S-05152023**		**MW-8S-05162023**		**MW-9SR-05152023**		**MW-10S-05152023**		**MW-11S-05152023**		**MW-12S-05152023**		**SW Standard [1]**	**SW-01-05162023**		**SW-02-05162023**	
Lab Sample Number		**480-208931-1**		**480-208896-6**		**480-208931-2**		**480-208896-3**		**480-208896-5**		**480-208896-2**		**480-208896-4**			**480-208931-3**		**480-208931-4**	
Sampling Date		**05/16/2023 09:05:00**		**05/15/2023 14:55:00**		**05/16/2023 10:25:00**		**05/15/2023 11:05:00**		**05/15/2023 14:10:00**		**05/15/2023 09:00:00**		**05/15/2023 12:25:00**			**05/16/2023 11:40:00**		**05/16/2023 12:40:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor																				
Units	**ug/L**	**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**	**ug/L**		**ug/L**	
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
Metals		**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**		**Result**	**Qual**	**Result**	**Qual**
Aluminum	--	ND	U	ND	U	ND	U	411		ND	U	ND	U	597		100000000	ND	U	ND	U
Mercury	0.7	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Antimony	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	3	ND	U	ND	U
Arsenic	25	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	50	ND	U	ND	U
Barium	1000	18.0		24.0		21.3		86.1		48.1		11.2		65.5		1000	99.3		124	
Beryllium	3000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	3	ND	U	ND	U
Boron	1000	27.7		25.3		34.8		22.6		20.0		38.1		ND	U	10000	39.6		26.7	
Cadmium	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	2	ND	U	ND	U
Calcium	--	139000		109000		143000		148000		135000		192000		146000		--	104000		95100	
Chromium	50	ND	U	ND	U	ND	U	7.4		ND	U	ND	U	4.5		74	ND	U	ND	U
Cobalt	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Copper	200	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	9	ND	U	ND	U
Iron	300	84.8		ND	U	235		**592**		155		ND	U	**4150**		300	130		94.4	
Lead	25	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	50	ND	U	ND	U
Magnesium	35000	**61700**		**44800**		**69300**		**58700**		**55400**		**140000**		**53300**		35000	**38200**		32900	
Manganese	300	4.6		8.2		28.5		51.7		26.8		16.8		**338**		300	107		27.9	
Nickel	100	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	52	ND	U	ND	U
Potassium	--	1880		1770		2000		1580		1550		3010		1430		--	2150		2160	
Selenium	10	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Silver	50	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Sodium	20000	**31600**		8660		**29300**		18000		16300		**44900**		14100		--	118000		157000	
Thallium	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	8000000	ND	U	ND	U
Vanadium	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	14	ND	U	ND	U
Zinc	2000	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	2000	ND	U	ND	U

U : Indicates the analyte was analyzed for but not detected.
^ : ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
[1] 6NYCRR Part 703 Surface and Groundwater Quality Standards and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values
Values in **BOLD** exceed applicable groundwater or surface water criteria

TABLE 3
SUMMARY OF LEACHATE INDICATOR RESULTS
MAY 2023 - BASELINE SAMPLING EVENT

		Groundwater Monitoring														Surface Water Monitoring				
Sample ID	**GW Standard [1]**	**MW-6S-05162023**		**MW-7S-05152023**		**MW-8S-05162023**		**MW-9SR-05152023**		**MW-10S-05152023**		**MW-11S-05152023**		**MW-12S-05152023**		**SW Standard [1]**	**SW-01-05162023**		**SW-02-05162023**	
Lab Sample Number		**480-208931-1**		**480-208896-6**		**480-208931-2**		**480-208896-3**		**480-208896-5**		**480-208896-2**		**480-208896-4**			**480-208931-3**		**480-208931-4**	
Sampling Date		**05/16/2023 09:05:00**		**05/15/2023 14:55:00**		**05/16/2023 10:25:00**		**05/15/2023 11:05:00**		**05/15/2023 14:10:00**		**05/15/2023 09:00:00**		**05/15/2023 12:25:00**			**05/16/2023 11:40:00**		**05/16/2023 12:40:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor																				
Units																				
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
Wet Chemistry		**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**		**Result**	**Qual**	**Result**	**Qual**
Alkalinity, Total - mg/L	--	337		329	^2	357		292	^2	336	^2	408	^2	352	^2		253		205	
Ammonia as N - mg/L	2	ND	U	ND	U	ND	U F1	ND	U	ND	U	ND	U	ND	U	2.3	ND	U	ND	U
Biochemical Oxygen Demand - mg/	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Bromide - mg/L	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	2	ND	U	ND	U
Chemical Oxygen Demand - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Chloride - mg/L	250	73.0		23.9		41.8	F1	33.6		25.6		66.2		28.1		250	205		**281**	
Chromium, hexavalent - mg/L	0.05	ND	H F1	ND	U	ND	U H	ND	U	ND	U	ND	U H	ND	U	0.011	ND	U	ND	U
Color - Color Units	15	5.00	H	5.00		15.0		5.00		5.00		5.00	H	10.0		--	20.0		15.0	
Cyanide, Total - mg/L	0.2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.2	ND	U	ND	U
Nitrate - mg/L	10	ND	U	0.28		0.078		0.47		0.14		0.27		ND	U	10	0.31		0.55	
Phenolics, Total Recoverable - mg/l	0.001	ND	U ^+	ND	U ^+	ND	U ^+	ND	U ^+	ND	U ^+	ND	U ^+	ND	U ^+	--	ND	U ^+	ND	U ^+
Total Dissolved Solids - mg/L	500	**670**		**565**		**748**		**692**		**714**		**1320**		**688**		500	**708**		**704**	
Total Hardness - mg/L	--	570		460		620		530		560		1050		560		--	420		380	
Total Kjeldahl Nitrogen - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Total Organic Carbon - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	2.5		2.5	
Sulfate - mg/L	250	216		135		**279**		**282**		**253**		**684**		243		250	126		105	

^+ : Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2 : Calibration Blank (ICB and/or CCB) is outside acceptance limits.
F1 : MS and/or MSD recovery exceeds control limits.
H : Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3 : Sample was received and analyzed past holding time. This does not meet regulatory requirements.
U : Indicates the analyte was analyzed for but not detected.

[1] 6NYCRR Part 703 Surface and Groundwater Quality Standards and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values
Values in **BOLD** exceed applicable groundwater or surface water criteria

TABLE 4
SUMMARY OF VOLATILE ORGANIC RESULTS
MAY 2023 - BASELINE SAMPLING EVENT

		Groundwater Monitoring														Surface Water Monitoring				
Sample ID	**GW Standard [1]**	**MW-6S-05162023**		**MW-7S-05152023**		**MW-8S-05162023**		**MW-9SR-05152023**		**MW-10S-05152023**		**MW-11S-05152023**		**MW-12S-05152023**		**SW Standard [1]**	**SW-01-05162023**		**SW-02-05162023**	
Lab Sample Number		**480-208931-1**		**480-208896-6**		**480-208931-2**		**480-208896-3**		**480-208896-5**		**480-208896-2**		**480-208896-4**			**480-208931-3**		**480-208931-4**	
Sampling Date		**05/16/2023 09:05:00**		**05/15/2023 14:55:00**		**05/16/2023 10:25:00**		**05/15/2023 11:05:00**		**05/15/2023 14:10:00**		**05/15/2023 09:00:00**		**05/15/2023 12:25:00**			**05/16/2023 11:40:00**		**05/16/2023 12:40:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor		**1**		**1**		**1**		**1**		**1**		**1**		**1**			**1**		**1**	
Units	**ug/L**	**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**			**ug/L**		**ug/L**	
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
Volatiles - 8260C		**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**		**Result**	**Qual**	**Result**	**Qual**
1,1,1,2-Tetrachloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
1,1,1-Trichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
1,1,2,2-Tetrachloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
1,1,2-Trichloroethane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	1	ND	U	ND	U
1,1-Dichloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
1,1-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
1,2,3-Trichloropropane	0.04	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.04	ND	U	ND	U
1,2-Dibromo-3-Chloropropane	0.04	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.04	ND	U	ND	U
1,2-Dibromoethane (EDB)	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
1,2-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
1,2-Dichloroethane	0.6	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.6	ND	U	ND	U
1,2-Dichloropropane	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	1	ND	U	ND	U
1,4-Dichlorobenzene	3	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
2-Butanone (MEK)	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
2-Hexanone	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
4-Methyl-2-pentanone (MIBK)	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Acetone	5	ND	U *1	ND	U	ND	U *1	ND	U	ND	U	ND	U	ND	U	--	ND	U *1	ND	U *1
Acrylonitrile	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Benzene	1	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	10	ND	U	ND	U
Bromochloromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Bromodichloromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Bromoform	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Bromomethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Carbon disulfide	60	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	60	ND	U	ND	U
Carbon tetrachloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Chlorobenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Chlorodibromomethane	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Chloroethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Chloroform	7	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	7	ND	U	ND	U
Chloromethane	5	ND	U *1	ND	U	ND	U *1	ND	U	ND	U	ND	U	ND	U	5	ND	U *1	ND	U *1
cis-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
cis-1,3-Dichloropropene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Dibromomethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Ethylbenzene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	17	ND	U	ND	U
Iodomethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Methylene Chloride	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Styrene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	50	ND	U	ND	U
Tetrachloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Toluene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	6000	ND	U	ND	U
trans-1,2-Dichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
trans-1,3-Dichloropropene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
trans-1,4-Dichloro-2-butene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Trichloroethene	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Trichlorofluoromethane	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	5	ND	U	ND	U
Vinyl acetate	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Vinyl chloride	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	2	ND	U	ND	U
Xylenes, Total	5	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Total VOC Conc.	--																			

[1] 6NYCRR Part 703 Surface and Groundwater Quality Standards and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values

U : Indicates the analyte was analyzed for but not detected.

* : LCS or LCSD is outside acceptance limits.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Corey Judd
Waste Connections, Inc.
209 Partition Street Extension
Rensselaer, New York 12144

Generated 6/28/2023 11:31:52 AM

JOB DESCRIPTION

Dunn Landfill - Baseline
SDG NUMBER 208896
Baseline

JOB NUMBER

480-208896-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

my EOL

Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
6/28/2023 11:31:52 AM

Authorized for release by
Joshua Velez, Project Management Assistant I
Joshua.Velez@et.eurofinsus.com
Designee for
Ryan VanDette, Project Manager II
Ryan.VanDette@et.eurofinsus.com
(716)504-9830

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 6
Detection Summary 10
Client Sample Results 14
Surrogate Summary 48
Isotope Dilution Summary 49
Tracer Carrier Summary 50
QC Sample Results 51
QC Association Summary 86
Lab Chronicle 99
Certification Summary 108
Method Summary 109
Sample Summary 110
Chain of Custody 111
Receipt Checklists 119

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.

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
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Job ID: 480-208896-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-208896-1

Comments
No additional comments.

Receipt
The samples were received on 5/16/2023 9:00 AM and 5/17/2023 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.5º C, 2.8º C, 2.9º C, 3.3º C and 3.7º C.

Receipt Exceptions
The following samples were received outside of holding time: FB-01-05152023 (480-208896-1) and MW-11S-05152023 (480-208896-2).

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-669608 recovered above the upper control limit for Carbon tetrachloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: FB-01-05152023 (480-208896-1), MW-11S-05152023 (480-208896-2), MW-9SR-05152023 (480-208896-3), MW-12S-05152023 (480-208896-4), MW-10S-05152023 (480-208896-5) and MW-7S-05152023 (480-208896-6).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-669977 recovered outside acceptance criteria, low biased, for 1,2,3-Trichloropropane, 1,1,2,2-Tetrachloroethane and Acrylonitrile. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported. The associated samples are impacted: MW-6S-05162023 (480-208931-1), MW-8S-05162023 (480-208931-2), SW-01-05162023 (480-208931-3), SW-02-05162023 (480-208931-4) and TB-01-05162023 (480-208931-5).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 480-669977 recovered outside control limits for the following analytes: Acetone and Chloromethane. The associated samples are impacted: MW-6S-05162023 (480-208931-1), MW-8S-05162023 (480-208931-2), SW-01-05162023 (480-208931-3), SW-02-05162023 (480-208931-4) and TB-01-05162023 (480-208931-5).

Method 8260C: The surrogate recovery for the blank associated with analytical batch 480-669977 was outside the upper control limits. The associated samples are impacted: MW-6S-05162023 (480-208931-1), MW-8S-05162023 (480-208931-2), SW-01-05162023 (480-208931-3), SW-02-05162023 (480-208931-4) and TB-01-05162023 (480-208931-5).

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

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-11S-05152023 (480-208896-2), MW-9SR-05152023 (480-208896-3) and MW-12S-05152023 (480-208896-4). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-10S-05152023 (480-208896-5), MW-7S-05152023 (480-208896-6), MW-6S-05162023 (480-208931-1), MW-8S-05162023 (480-208931-2), SW-01-05162023 (480-208931-3) and SW-02-05162023 (480-208931-4). 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 recovery of post spike, (480-208931-F-3-A PDS), associated with batch 480-670123, exhibited a result outside quality control limits for Total Antimony. However, the serial dilution (SD) of this sample was compliant, therefore no corrective action was

Job ID: 480-208896-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

necessary.

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

General Chemistry
Method SM 3500 CR B: The following sample was received outside of holding time: FB-01-05152023 (480-208896-1).

Method SM 2120B: The following samples were analyzed outside of analytical holding time due to lab oversight: FB-01-05152023 (480-208896-1) and MW-11S-05152023 (480-208896-2).

Method SM 3500 CR B: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-11S-05152023 (480-208896-2).

Method SM 2120B: The following sample was analyzed outside of analytical holding time due to lab error: MW-6S-05162023 (480-208931-1).

Method SM 2120B: The following sample was filtered prior to analysis, therefore the analytical results are being report as "True Color": (CCB 480-669994/12)

Method SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 480-670015 were outside control limits: MW-8S-05162023 (480-208931-2). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method SM 2320B: The continuing calibration blank (CCB) for analytical batch 480-669876 contained Alkalinity, Total 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 laboratory control sample (LCS) and/or continuing calibration verification (CCV) associated with batch 480-671027 recovered above the upper control limit for Phenolics, Total Recoverable. The samples associated with this LCS and or CCV were non-detects for the affected analytes; therefore, the data have been reported.FB-01-05152023 (480-208896-1), MW-11S-05152023 (480-208896-2), MW-9SR-05152023 (480-208896-3), MW-12S-05152023 (480-208896-4), MW-10S-05152023 (480-208896-5), MW-7S-05152023 (480-208896-6), MW-6S-05162023 (480-208931-1), MW-8S-05162023 (480-208931-2), SW-01-05162023 (480-208931-3), SW-02-05162023 (480-208931-4) and (480-208896-L-4 DU)

Method SM 2540C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: MW-11S-05152023 (480-208896-2). The reporting limits (RLs) have been adjusted proportionately.

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

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-669699.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-670099.

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

Narrative

Job Narrative
480-208896-2

Comments
No additional comments.

Receipt

Job ID: 480-208896-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

The samples were received on 5/16/2023 9:00 AM and 5/17/2023 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.5º C, 2.8º C, 2.9º C, 3.3º C and 3.7º C.

Receipt Exceptions
The following samples were received outside of holding time: FB-01-05152023 (480-208896-1) and MW-11S-05152023 (480-208896-2). cr+6

RAD
Methods 903.0, 9315: Radium-226 batch 612377: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01-05152023 (480-208896-1), MW-11S-05152023 (480-208896-2), MW-9SR-05152023 (480-208896-3), MW-12S-05152023 (480-208896-4), MW-10S-05152023 (480-208896-5), MW-7S-05152023 (480-208896-6), (LCS 160-612377/2-A), (LCSD 160-612377/3-A), (MB 160-612377/1-A), (160-50003-C-1-D) and (160-50003-B-1-B DU)

Methods 903.0, 9315: Radium-226 batch 612568: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-6S-05162023 (480-208931-1), MW-8S-05162023 (480-208931-2), SW-01-05162023 (480-208931-3), SW-02-05162023 (480-208931-4), (LCS 160-612568/2-A), (MB 160-612568/1-A), (180-156535-A-1-A) and (180-156535-C-1-A DU)

Methods 904.0, 9320: Radium-228 batch 612446: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. FB-01-05152023 (480-208896-1), MW-11S-05152023 (480-208896-2), MW-9SR-05152023 (480-208896-3), MW-12S-05152023 (480-208896-4), MW-10S-05152023 (480-208896-5), MW-7S-05152023 (480-208896-6), (LCS 160-612446/2-A), (LCSD 160-612446/3-A), (MB 160-612446/1-A), (160-50003-C-1-C) and (160-50003-B-1-A DU)

Methods 904.0, 9320: Radium-228 batch 612632: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-6S-05162023 (480-208931-1), MW-8S-05162023 (480-208931-2), SW-01-05162023 (480-208931-3), SW-02-05162023 (480-208931-4), (LCS 160-612632/2-A), (MB 160-612632/1-A), (180-156535-A-1-B) and (180-156535-C-1-B DU)

An LCS/LCSD was inadvertently added to the batch to insure batch precision. Batch contains a sample duplicate (160-50003-B-1 DU) with a standard aliquot of 1000 mL.

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

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

Narrative

Job Narrative
480-208896-3

Comments
No additional comments.

Receipt
The samples were received on 5/16/2023 9:00 AM and 5/17/2023 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.5º C, 2.8º C, 2.9º C, 3.3º C and 3.7º C.

Receipt Exceptions
The following samples were received outside of holding time: FB-01-05152023 (480-208896-1) and MW-11S-05152023 (480-208896-2).

Job ID: 480-208896-1 (Continued)

Laboratory: Eurofins Buffalo (Continued)

cr+6

RAD

Methods 904.0, 9320: Radium-228 batch 612446: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.FB-01-05152023 (480-208896-1), MW-11S-05152023 (480-208896-2), MW-9SR-05152023 (480-208896-3), MW-12S-05152023 (480-208896-4), MW-10S-05152023 (480-208896-5), MW-7S-05152023 (480-208896-6), (LCS 160-612446/2-A), (LCSD 160-612446/3-A), (MB 160-612446/1-A), (160-50003-C-1-C) and (160-50003-B-1-A DU)

Methods 904.0, 9320: Radium-228 batch 612632: Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. MW-6S-05162023 (480-208931-1), MW-8S-05162023 (480-208931-2), SW-01-05162023 (480-208931-3), SW-02-05162023 (480-208931-4), (LCS 160-612632/2-A), (MB 160-612632/1-A), (180-156535-A-1-B) and (180-156535-C-1-B DU)

Method PrecSep_0: Radium-228 Prep Batch 160-612446: An LCS/LCSD was inadvertently added to the batch to insure batch precision. Batch contains a sample duplicate (160-50003-B-1 DU) with a standard aliquot of 1000 mL.

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

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: FB-01-05152023 — Lab Sample ID: 480-208896-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Color	5.00	H	5.00		Color Units	1		SM 2120B	Total/NA
Total Dissolved Solids	21.0		10.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-11S-05152023 — Lab Sample ID: 480-208896-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	7.6		1.0	0.40	ug/L	2		200.8	Total/NA
Barium	11.2		2.0		ug/L	1		6010C	Total/NA
Boron	38.1		20.0		ug/L	1		6010C	Total/NA
Calcium	192000		500		ug/L	1		6010C	Total/NA
Magnesium	140000		200		ug/L	1		6010C	Total/NA
Manganese	16.8		3.0		ug/L	1		6010C	Total/NA
Potassium	3010		500		ug/L	1		6010C	Total/NA
Sodium	44900		1000		ug/L	1		6010C	Total/NA
Sulfate	684		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.27		0.050		mg/L	1	☼	353.2	Total/NA
Color	5.00	H	5.00		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	408	^2	5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	1050		50.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	1320		20.0		mg/L	1		SM 2540C	Total/NA
Chloride	66.2		5.0		mg/L	5		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-9SR-05152023 — Lab Sample ID: 480-208896-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	2.1		1.0	0.40	ug/L	2		200.8	Total/NA
Aluminum	411		200		ug/L	1		6010C	Total/NA
Barium	86.1		2.0		ug/L	1		6010C	Total/NA
Boron	22.6		20.0		ug/L	1		6010C	Total/NA
Calcium	148000		500		ug/L	1		6010C	Total/NA
Chromium	7.4		4.0		ug/L	1		6010C	Total/NA
Iron	592		50.0		ug/L	1		6010C	Total/NA
Magnesium	58700		200		ug/L	1		6010C	Total/NA
Manganese	51.7		3.0		ug/L	1		6010C	Total/NA
Potassium	1580		500		ug/L	1		6010C	Total/NA
Sodium	18000		1000		ug/L	1		6010C	Total/NA
Sulfate	282		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.47		0.050		mg/L	1	☼	353.2	Total/NA
Color	5.00		5.00		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	292	^2	5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	530		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	692		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	33.6		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-12S-05152023 — Lab Sample ID: 480-208896-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	2.7		1.0	0.40	ug/L	2		200.8	Total/NA
Aluminum	597		200		ug/L	1		6010C	Total/NA
Barium	65.5		2.0		ug/L	1		6010C	Total/NA
Calcium	146000		500		ug/L	1		6010C	Total/NA
Chromium	4.5		4.0		ug/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-12S-05152023 (Continued) — Lab Sample ID: 480-208896-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	4150		50.0		ug/L	1		6010C	Total/NA
Magnesium	53300		200		ug/L	1		6010C	Total/NA
Manganese	338		3.0		ug/L	1		6010C	Total/NA
Potassium	1430		500		ug/L	1		6010C	Total/NA
Sodium	14100		1000		ug/L	1		6010C	Total/NA
Sulfate	243		10.0		mg/L	5		300.0	Total/NA
Color	10.0		5.00		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	352	^2	5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	560		20.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	688		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	28.1		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-10S-05152023 — Lab Sample ID: 480-208896-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	2.9		1.0	0.40	ug/L	2		200.8	Total/NA
Barium	48.1		2.0		ug/L	1		6010C	Total/NA
Boron	20.0		20.0		ug/L	1		6010C	Total/NA
Calcium	135000		500		ug/L	1		6010C	Total/NA
Iron	155		50.0		ug/L	1		6010C	Total/NA
Magnesium	55400		200		ug/L	1		6010C	Total/NA
Manganese	26.8		3.0		ug/L	1		6010C	Total/NA
Potassium	1550		500		ug/L	1		6010C	Total/NA
Sodium	16300		1000		ug/L	1		6010C	Total/NA
Sulfate	253		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.14		0.050		mg/L	1	☼	353.2	Total/NA
Color	5.00		5.00		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	336	^2	5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	560		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	714		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	25.6		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-7S-05152023 — Lab Sample ID: 480-208896-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	4.5		1.0	0.40	ug/L	2		200.8	Total/NA
Barium	24.0		2.0		ug/L	1		6010C	Total/NA
Boron	25.3		20.0		ug/L	1		6010C	Total/NA
Calcium	109000		500		ug/L	1		6010C	Total/NA
Magnesium	44800		200		ug/L	1		6010C	Total/NA
Manganese	8.2		3.0		ug/L	1		6010C	Total/NA
Potassium	1770		500		ug/L	1		6010C	Total/NA
Sodium	8660		1000		ug/L	1		6010C	Total/NA
Sulfate	135		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.28		0.050		mg/L	1	☼	353.2	Total/NA
Color	5.00		5.00		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	329	^2	5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	460		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	565		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	23.9		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: TRIP BLANK-05152023 — Lab Sample ID: 480-208896-7

No Detections.

Client Sample ID: MW-6S-05162023 — Lab Sample ID: 480-208931-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	4.2		1.0		ug/L	2		200.8	Total/NA
Barium	18.0		2.0		ug/L	1		6010C	Total/NA
Boron	27.7		20.0		ug/L	1		6010C	Total/NA
Calcium	139000		500		ug/L	1		6010C	Total/NA
Iron	84.8		50.0		ug/L	1		6010C	Total/NA
Magnesium	61700		200		ug/L	1		6010C	Total/NA
Manganese	4.6		3.0		ug/L	1		6010C	Total/NA
Potassium	1880		500		ug/L	1		6010C	Total/NA
Sodium	31600		1000		ug/L	1		6010C	Total/NA
Sulfate	216		10.0		mg/L	5		300.0	Total/NA
Color	5.00	H	5.00		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	337		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	570		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	670		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	73.0		5.0		mg/L	5		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-8S-05162023 — Lab Sample ID: 480-208931-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	5.1		1.0		ug/L	2		200.8	Total/NA
Barium	21.3		2.0		ug/L	1		6010C	Total/NA
Boron	34.8		20.0		ug/L	1		6010C	Total/NA
Calcium	143000		500		ug/L	1		6010C	Total/NA
Iron	235		50.0		ug/L	1		6010C	Total/NA
Magnesium	69300		200		ug/L	1		6010C	Total/NA
Manganese	28.5		3.0		ug/L	1		6010C	Total/NA
Potassium	2000		500		ug/L	1		6010C	Total/NA
Sodium	29300		1000		ug/L	1		6010C	Total/NA
Sulfate	279		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.078		0.050		mg/L	1	☼	353.2	Total/NA
Color	15.0		5.00		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	357		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	620		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	748		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	41.8	F1	1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: SW-01-05162023 — Lab Sample ID: 480-208931-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Uranium	1.4		1.0		ug/L	2		200.8	Total/NA
Barium	99.3		2.0		ug/L	1		6010C	Total/NA
Boron	39.6		20.0		ug/L	1		6010C	Total/NA
Calcium	104000		500		ug/L	1		6010C	Total/NA
Iron	130		50.0		ug/L	1		6010C	Total/NA
Magnesium	38200		200		ug/L	1		6010C	Total/NA
Manganese	107		3.0		ug/L	1		6010C	Total/NA
Potassium	2150		500		ug/L	1		6010C	Total/NA
Sodium	118000		1000		ug/L	1		6010C	Total/NA
Sulfate	126		10.0		mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: SW-01-05162023 (Continued) — Lab Sample ID: 480-208931-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate	0.31		0.050		mg/L	1	☼	353.2	Total/NA
Color	20.0		5.00		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	253		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	420		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	708		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	205		5.0		mg/L	5		SM 4500 Cl- E	Total/NA
Total Organic Carbon	2.5		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: SW-02-05162023 — Lab Sample ID: 480-208931-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	124		2.0		ug/L	1		6010C	Total/NA
Boron	26.7		20.0		ug/L	1		6010C	Total/NA
Calcium	95100		500		ug/L	1		6010C	Total/NA
Iron	94.4		50.0		ug/L	1		6010C	Total/NA
Magnesium	32900		200		ug/L	1		6010C	Total/NA
Manganese	27.9		3.0		ug/L	1		6010C	Total/NA
Potassium	2160		500		ug/L	1		6010C	Total/NA
Sodium	157000		1000		ug/L	1		6010C	Total/NA
Sulfate	105		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.55		0.050		mg/L	1	☼	353.2	Total/NA
Color	15.0		5.00		Color Units	1		SM 2120B	Total/NA
Alkalinity, Total	205		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	380		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	704		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	281		21.0		mg/L	21		SM 4500 Cl- E	Total/NA
Total Organic Carbon	2.5		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: TB-01-05162023 — Lab Sample ID: 480-208931-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: FB-01-05152023

Date Collected: 05/15/23 08:10
Date Received: 05/16/23 09:00

Lab Sample ID: 480-208896-1

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 11:44	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/16/23 11:44	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 11:44	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/16/23 11:44	1
1,1-Dichloroethane	ND		1.0		ug/L			05/16/23 11:44	1
1,1-Dichloroethene	ND		1.0		ug/L			05/16/23 11:44	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/16/23 11:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/16/23 11:44	1
1,2-Dibromoethane	ND		1.0		ug/L			05/16/23 11:44	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/16/23 11:44	1
1,2-Dichloroethane	ND		1.0		ug/L			05/16/23 11:44	1
1,2-Dichloropropane	ND		1.0		ug/L			05/16/23 11:44	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/16/23 11:44	1
2-Butanone (MEK)	ND		10		ug/L			05/16/23 11:44	1
2-Hexanone	ND		5.0		ug/L			05/16/23 11:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/16/23 11:44	1
Acetone	ND		10		ug/L			05/16/23 11:44	1
Acrylonitrile	ND		5.0		ug/L			05/16/23 11:44	1
Benzene	ND		1.0		ug/L			05/16/23 11:44	1
Chlorobromomethane	ND		1.0		ug/L			05/16/23 11:44	1
Bromodichloromethane	ND		1.0		ug/L			05/16/23 11:44	1
Bromoform	ND		1.0		ug/L			05/16/23 11:44	1
Bromomethane	ND		1.0		ug/L			05/16/23 11:44	1
Carbon disulfide	ND		1.0		ug/L			05/16/23 11:44	1
Carbon tetrachloride	ND		1.0		ug/L			05/16/23 11:44	1
Chlorobenzene	ND		1.0		ug/L			05/16/23 11:44	1
Chlorodibromomethane	ND		1.0		ug/L			05/16/23 11:44	1
Chloroethane	ND		1.0		ug/L			05/16/23 11:44	1
Chloroform	ND		1.0		ug/L			05/16/23 11:44	1
Chloromethane	ND		1.0		ug/L			05/16/23 11:44	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 11:44	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 11:44	1
Dibromomethane	ND		1.0		ug/L			05/16/23 11:44	1
Ethylbenzene	ND		1.0		ug/L			05/16/23 11:44	1
Iodomethane	ND		1.0		ug/L			05/16/23 11:44	1
Methylene Chloride	ND		1.0		ug/L			05/16/23 11:44	1
Styrene	ND		1.0		ug/L			05/16/23 11:44	1
Tetrachloroethene	ND		1.0		ug/L			05/16/23 11:44	1
Toluene	ND		1.0		ug/L			05/16/23 11:44	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 11:44	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 11:44	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/16/23 11:44	1
Trichloroethene	ND		1.0		ug/L			05/16/23 11:44	1
Trichlorofluoromethane	ND		1.0		ug/L			05/16/23 11:44	1
Vinyl acetate	ND		5.0		ug/L			05/16/23 11:44	1
Vinyl chloride	ND		1.0		ug/L			05/16/23 11:44	1
Xylenes, Total	ND		2.0		ug/L			05/16/23 11:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/16/23 11:44*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: FB-01-05152023

Date Collected: 05/15/23 08:10
Date Received: 05/16/23 09:00

Lab Sample ID: 480-208896-1

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*05/16/23 11:44*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/16/23 11:44*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/16/23 16:06	05/17/23 12:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*31*		*15 - 110*	*05/16/23 16:06*	*05/17/23 12:02*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0	0.40	ug/L		05/17/23 14:07	05/18/23 15:18	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/17/23 07:55	05/17/23 18:25	1
Antimony	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Arsenic	ND		15.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Barium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Beryllium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Boron	ND		20.0		ug/L		05/17/23 07:55	05/22/23 14:38	1
Cadmium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Calcium	ND		500		ug/L		05/17/23 07:55	05/17/23 18:25	1
Chromium	ND		4.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Cobalt	ND		4.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Copper	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Iron	ND		50.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Lead	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Magnesium	ND		200		ug/L		05/17/23 07:55	05/17/23 18:25	1
Manganese	ND		3.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Nickel	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Potassium	ND		500		ug/L		05/17/23 07:55	05/17/23 18:25	1
Selenium	ND		25.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Silver	ND		6.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Sodium	ND		1000		ug/L		05/17/23 07:55	05/17/23 18:25	1
Thallium	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Vanadium	ND		5.0		ug/L		05/17/23 07:55	05/17/23 18:25	1
Zinc	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/17/23 11:21	05/17/23 15:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		0.20		mg/L			05/19/23 01:55	1
Sulfate (EPA 300.0)	ND		2.0		mg/L			05/19/23 01:55	1
Ammonia (EPA 350.1)	ND		0.020		mg/L			05/22/23 20:09	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/22/23 13:43	05/23/23 09:23	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		05/16/23 14:22	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: FB-01-05152023

Date Collected: 05/15/23 08:10
Date Received: 05/16/23 09:00

Lab Sample ID: 480-208896-1

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/18/23 12:55	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 03:47	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 14:49	1
Alkalinity, Total (SM 2320B)	ND		5.0		mg/L			05/17/23 13:19	1
Total Hardness (SM 2340C)	ND		4.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**21.0**		10.0		mg/L			05/18/23 14:47	1
Chromium, hexavalent (SM 3500 CR B)	ND	H H3	0.010		mg/L			05/16/23 10:30	1
Chloride (SM 4500 Cl- E)	ND		1.0		mg/L			05/18/23 11:54	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/16/23 16:16	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			05/23/23 02:36	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**5.00**	**H**	5.00		Color Units			05/17/23 09:01	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0731	U	0.108	0.108	1.00	0.268	pCi/L	05/19/23 13:41	06/14/23 08:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*30 - 110*	*05/19/23 13:41*	*06/14/23 08:18*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.130	U	0.299	0.299	1.00	0.526	pCi/L	05/19/23 13:56	06/13/23 12:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:52*	*1*
Y Carrier	*81.7*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:52*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-11S-05152023

Date Collected: 05/15/23 09:00
Date Received: 05/16/23 09:00

Lab Sample ID: 480-208896-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 12:06	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/16/23 12:06	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 12:06	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/16/23 12:06	1
1,1-Dichloroethane	ND		1.0		ug/L			05/16/23 12:06	1
1,1-Dichloroethene	ND		1.0		ug/L			05/16/23 12:06	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/16/23 12:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/16/23 12:06	1
1,2-Dibromoethane	ND		1.0		ug/L			05/16/23 12:06	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/16/23 12:06	1
1,2-Dichloroethane	ND		1.0		ug/L			05/16/23 12:06	1
1,2-Dichloropropane	ND		1.0		ug/L			05/16/23 12:06	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/16/23 12:06	1
2-Butanone (MEK)	ND		10		ug/L			05/16/23 12:06	1
2-Hexanone	ND		5.0		ug/L			05/16/23 12:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/16/23 12:06	1
Acetone	ND		10		ug/L			05/16/23 12:06	1
Acrylonitrile	ND		5.0		ug/L			05/16/23 12:06	1
Benzene	ND		1.0		ug/L			05/16/23 12:06	1
Chlorobromomethane	ND		1.0		ug/L			05/16/23 12:06	1
Bromodichloromethane	ND		1.0		ug/L			05/16/23 12:06	1
Bromoform	ND		1.0		ug/L			05/16/23 12:06	1
Bromomethane	ND		1.0		ug/L			05/16/23 12:06	1
Carbon disulfide	ND		1.0		ug/L			05/16/23 12:06	1
Carbon tetrachloride	ND		1.0		ug/L			05/16/23 12:06	1
Chlorobenzene	ND		1.0		ug/L			05/16/23 12:06	1
Chlorodibromomethane	ND		1.0		ug/L			05/16/23 12:06	1
Chloroethane	ND		1.0		ug/L			05/16/23 12:06	1
Chloroform	ND		1.0		ug/L			05/16/23 12:06	1
Chloromethane	ND		1.0		ug/L			05/16/23 12:06	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 12:06	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 12:06	1
Dibromomethane	ND		1.0		ug/L			05/16/23 12:06	1
Ethylbenzene	ND		1.0		ug/L			05/16/23 12:06	1
Iodomethane	ND		1.0		ug/L			05/16/23 12:06	1
Methylene Chloride	ND		1.0		ug/L			05/16/23 12:06	1
Styrene	ND		1.0		ug/L			05/16/23 12:06	1
Tetrachloroethene	ND		1.0		ug/L			05/16/23 12:06	1
Toluene	ND		1.0		ug/L			05/16/23 12:06	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 12:06	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 12:06	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/16/23 12:06	1
Trichloroethene	ND		1.0		ug/L			05/16/23 12:06	1
Trichlorofluoromethane	ND		1.0		ug/L			05/16/23 12:06	1
Vinyl acetate	ND		5.0		ug/L			05/16/23 12:06	1
Vinyl chloride	ND		1.0		ug/L			05/16/23 12:06	1
Xylenes, Total	ND		2.0		ug/L			05/16/23 12:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*05/16/23 12:06*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-11S-05152023

Lab Sample ID: 480-208896-2

Date Collected: 05/15/23 09:00
Date Received: 05/16/23 09:00

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*05/16/23 12:06*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/16/23 12:06*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/16/23 16:06	05/17/23 12:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*32*		*15 - 110*	*05/16/23 16:06*	*05/17/23 12:25*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**7.6**		1.0	0.40	ug/L		05/17/23 14:07	05/18/23 15:25	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/17/23 07:55	05/17/23 18:41	1
Antimony	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Arsenic	ND		15.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Barium	**11.2**		2.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Beryllium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Boron	**38.1**		20.0		ug/L		05/17/23 07:55	05/22/23 14:54	1
Cadmium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Calcium	**192000**		500		ug/L		05/17/23 07:55	05/17/23 18:41	1
Chromium	ND		4.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Cobalt	ND		4.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Copper	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Iron	ND		50.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Lead	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Magnesium	**140000**		200		ug/L		05/17/23 07:55	05/17/23 18:41	1
Manganese	**16.8**		3.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Nickel	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Potassium	**3010**		500		ug/L		05/17/23 07:55	05/17/23 18:41	1
Selenium	ND		25.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Silver	ND		6.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Sodium	**44900**		1000		ug/L		05/17/23 07:55	05/17/23 18:41	1
Thallium	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Vanadium	ND		5.0		ug/L		05/17/23 07:55	05/17/23 18:41	1
Zinc	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:41	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/17/23 11:21	05/17/23 15:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			05/19/23 02:14	5
Sulfate (EPA 300.0)	**684**		10.0		mg/L			05/19/23 02:14	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			05/22/23 20:10	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/23/23 11:27	05/24/23 07:56	1
Nitrate (EPA 353.2)	**0.27**		0.050		mg/L	☼		05/16/23 14:26	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-11S-05152023

Lab Sample ID: 480-208896-2

Date Collected: 05/15/23 09:00
Matrix: Water
Date Received: 05/16/23 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/18/23 12:55	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 03:51	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 14:44	1
Alkalinity, Total (SM 2320B)	**408**	**^2**	5.0		mg/L			05/17/23 13:28	1
Total Hardness (SM 2340C)	**1050**		50.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**1320**		20.0		mg/L			05/18/23 14:47	1
Chromium, hexavalent (SM 3500 CR B)	ND	H	0.010		mg/L			05/16/23 10:30	1
Chloride (SM 4500 Cl- E)	**66.2**		5.0		mg/L			05/18/23 12:12	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/16/23 16:16	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			05/23/23 03:04	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**5.00**	**H**	5.00		Color Units			05/17/23 09:01	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0999	U	0.189	0.189	1.00	0.331	pCi/L	05/19/23 13:41	06/14/23 08:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.8*		*30 - 110*	*05/19/23 13:41*	*06/14/23 08:19*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.218	U	0.323	0.324	1.00	0.645	pCi/L	05/19/23 13:56	06/13/23 12:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.8*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:52*	*1*
Y Carrier	*84.0*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:52*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-9SR-05152023

Lab Sample ID: 480-208896-3

Date Collected: 05/15/23 11:05
Matrix: Water
Date Received: 05/16/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 12:28	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/16/23 12:28	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 12:28	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/16/23 12:28	1
1,1-Dichloroethane	ND		1.0		ug/L			05/16/23 12:28	1
1,1-Dichloroethene	ND		1.0		ug/L			05/16/23 12:28	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/16/23 12:28	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/16/23 12:28	1
1,2-Dibromoethane	ND		1.0		ug/L			05/16/23 12:28	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/16/23 12:28	1
1,2-Dichloroethane	ND		1.0		ug/L			05/16/23 12:28	1
1,2-Dichloropropane	ND		1.0		ug/L			05/16/23 12:28	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/16/23 12:28	1
2-Butanone (MEK)	ND		10		ug/L			05/16/23 12:28	1
2-Hexanone	ND		5.0		ug/L			05/16/23 12:28	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/16/23 12:28	1
Acetone	ND		10		ug/L			05/16/23 12:28	1
Acrylonitrile	ND		5.0		ug/L			05/16/23 12:28	1
Benzene	ND		1.0		ug/L			05/16/23 12:28	1
Chlorobromomethane	ND		1.0		ug/L			05/16/23 12:28	1
Bromodichloromethane	ND		1.0		ug/L			05/16/23 12:28	1
Bromoform	ND		1.0		ug/L			05/16/23 12:28	1
Bromomethane	ND		1.0		ug/L			05/16/23 12:28	1
Carbon disulfide	ND		1.0		ug/L			05/16/23 12:28	1
Carbon tetrachloride	ND		1.0		ug/L			05/16/23 12:28	1
Chlorobenzene	ND		1.0		ug/L			05/16/23 12:28	1
Chlorodibromomethane	ND		1.0		ug/L			05/16/23 12:28	1
Chloroethane	ND		1.0		ug/L			05/16/23 12:28	1
Chloroform	ND		1.0		ug/L			05/16/23 12:28	1
Chloromethane	ND		1.0		ug/L			05/16/23 12:28	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 12:28	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 12:28	1
Dibromomethane	ND		1.0		ug/L			05/16/23 12:28	1
Ethylbenzene	ND		1.0		ug/L			05/16/23 12:28	1
Iodomethane	ND		1.0		ug/L			05/16/23 12:28	1
Methylene Chloride	ND		1.0		ug/L			05/16/23 12:28	1
Styrene	ND		1.0		ug/L			05/16/23 12:28	1
Tetrachloroethene	ND		1.0		ug/L			05/16/23 12:28	1
Toluene	ND		1.0		ug/L			05/16/23 12:28	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 12:28	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 12:28	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/16/23 12:28	1
Trichloroethene	ND		1.0		ug/L			05/16/23 12:28	1
Trichlorofluoromethane	ND		1.0		ug/L			05/16/23 12:28	1
Vinyl acetate	ND		5.0		ug/L			05/16/23 12:28	1
Vinyl chloride	ND		1.0		ug/L			05/16/23 12:28	1
Xylenes, Total	ND		2.0		ug/L			05/16/23 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/16/23 12:28*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-9SR-05152023

Lab Sample ID: 480-208896-3
Date Collected: 05/15/23 11:05
Matrix: Water
Date Received: 05/16/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*73 - 120*		*05/16/23 12:28*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/16/23 12:28*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/16/23 16:06	05/17/23 12:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*37*		*15 - 110*	*05/16/23 16:06*	*05/17/23 12:48*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**2.1**		1.0	0.40	ug/L		05/17/23 14:07	05/18/23 15:32	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**411**		200		ug/L		05/17/23 07:55	05/19/23 15:01	1
Antimony	ND		20.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Arsenic	ND		15.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Barium	**86.1**		2.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Beryllium	ND		2.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Boron	**22.6**		20.0		ug/L		05/17/23 07:55	05/22/23 14:58	1
Cadmium	ND		2.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Calcium	**148000**		500		ug/L		05/17/23 07:55	05/19/23 15:01	1
Chromium	**7.4**		4.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Cobalt	ND		4.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Copper	ND		10.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Iron	**592**		50.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Lead	ND		10.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Magnesium	**58700**		200		ug/L		05/17/23 07:55	05/19/23 15:01	1
Manganese	**51.7**		3.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Nickel	ND		10.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Potassium	**1580**		500		ug/L		05/17/23 07:55	05/19/23 15:01	1
Selenium	ND		25.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Silver	ND		6.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Sodium	**18000**		1000		ug/L		05/17/23 07:55	05/19/23 15:01	1
Thallium	ND		20.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Vanadium	ND		5.0		ug/L		05/17/23 07:55	05/19/23 15:01	1
Zinc	ND		10.0		ug/L		05/17/23 07:55	05/19/23 15:01	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/17/23 11:21	05/17/23 15:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			05/19/23 02:33	5
Sulfate (EPA 300.0)	**282**		10.0		mg/L			05/19/23 02:33	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			05/22/23 20:11	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/23/23 11:27	05/24/23 07:56	1
Nitrate (EPA 353.2)	**0.47**		0.050		mg/L	☼		05/16/23 14:27	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-9SR-05152023

Lab Sample ID: 480-208896-3

Date Collected: 05/15/23 11:05
Matrix: Water
Date Received: 05/16/23 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/18/23 12:55	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 03:54	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 14:51	1
Alkalinity, Total (SM 2320B)	**292**	**^2**	5.0		mg/L			05/17/23 13:36	1
Total Hardness (SM 2340C)	**530**		10.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**692**		10.0		mg/L			05/18/23 14:47	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.010		mg/L			05/16/23 10:30	1
Chloride (SM 4500 Cl- E)	**33.6**		1.0		mg/L			05/18/23 11:56	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/16/23 16:16	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			05/23/23 03:32	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**5.00**		5.00		Color Units			05/17/23 09:01	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106	U	0.163	0.164	1.00	0.281	pCi/L	05/19/23 13:41	06/14/23 08:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*30 - 110*	*05/19/23 13:41*	*06/14/23 08:19*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.342	U	0.223	0.225	1.00	0.535	pCi/L	05/19/23 13:56	06/13/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:53*	*1*
Y Carrier	*84.3*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:53*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-12S-05152023

Date Collected: 05/15/23 12:25
Date Received: 05/16/23 09:00

Lab Sample ID: 480-208896-4

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 12:50	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/16/23 12:50	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 12:50	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/16/23 12:50	1
1,1-Dichloroethane	ND		1.0		ug/L			05/16/23 12:50	1
1,1-Dichloroethene	ND		1.0		ug/L			05/16/23 12:50	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/16/23 12:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/16/23 12:50	1
1,2-Dibromoethane	ND		1.0		ug/L			05/16/23 12:50	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/16/23 12:50	1
1,2-Dichloroethane	ND		1.0		ug/L			05/16/23 12:50	1
1,2-Dichloropropane	ND		1.0		ug/L			05/16/23 12:50	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/16/23 12:50	1
2-Butanone (MEK)	ND		10		ug/L			05/16/23 12:50	1
2-Hexanone	ND		5.0		ug/L			05/16/23 12:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/16/23 12:50	1
Acetone	ND		10		ug/L			05/16/23 12:50	1
Acrylonitrile	ND		5.0		ug/L			05/16/23 12:50	1
Benzene	ND		1.0		ug/L			05/16/23 12:50	1
Chlorobromomethane	ND		1.0		ug/L			05/16/23 12:50	1
Bromodichloromethane	ND		1.0		ug/L			05/16/23 12:50	1
Bromoform	ND		1.0		ug/L			05/16/23 12:50	1
Bromomethane	ND		1.0		ug/L			05/16/23 12:50	1
Carbon disulfide	ND		1.0		ug/L			05/16/23 12:50	1
Carbon tetrachloride	ND		1.0		ug/L			05/16/23 12:50	1
Chlorobenzene	ND		1.0		ug/L			05/16/23 12:50	1
Chlorodibromomethane	ND		1.0		ug/L			05/16/23 12:50	1
Chloroethane	ND		1.0		ug/L			05/16/23 12:50	1
Chloroform	ND		1.0		ug/L			05/16/23 12:50	1
Chloromethane	ND		1.0		ug/L			05/16/23 12:50	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 12:50	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 12:50	1
Dibromomethane	ND		1.0		ug/L			05/16/23 12:50	1
Ethylbenzene	ND		1.0		ug/L			05/16/23 12:50	1
Iodomethane	ND		1.0		ug/L			05/16/23 12:50	1
Methylene Chloride	ND		1.0		ug/L			05/16/23 12:50	1
Styrene	ND		1.0		ug/L			05/16/23 12:50	1
Tetrachloroethene	ND		1.0		ug/L			05/16/23 12:50	1
Toluene	ND		1.0		ug/L			05/16/23 12:50	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 12:50	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 12:50	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/16/23 12:50	1
Trichloroethene	ND		1.0		ug/L			05/16/23 12:50	1
Trichlorofluoromethane	ND		1.0		ug/L			05/16/23 12:50	1
Vinyl acetate	ND		5.0		ug/L			05/16/23 12:50	1
Vinyl chloride	ND		1.0		ug/L			05/16/23 12:50	1
Xylenes, Total	ND		2.0		ug/L			05/16/23 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*05/16/23 12:50*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-12S-05152023

Lab Sample ID: 480-208896-4

Date Collected: 05/15/23 12:25
Date Received: 05/16/23 09:00

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*73 - 120*		*05/16/23 12:50*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/16/23 12:50*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/16/23 16:06	05/17/23 13:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*28*		*15 - 110*	*05/16/23 16:06*	*05/17/23 13:11*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**2.7**		1.0	0.40	ug/L		05/17/23 14:07	05/18/23 15:35	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**597**		200		ug/L		05/17/23 07:55	05/17/23 18:48	1
Antimony	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Arsenic	ND		15.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Barium	**65.5**		2.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Beryllium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Boron	ND		20.0		ug/L		05/17/23 07:55	05/22/23 15:01	1
Cadmium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Calcium	**146000**		500		ug/L		05/17/23 07:55	05/17/23 18:48	1
Chromium	**4.5**		4.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Cobalt	ND		4.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Copper	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Iron	**4150**		50.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Lead	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Magnesium	**53300**		200		ug/L		05/17/23 07:55	05/17/23 18:48	1
Manganese	**338**		3.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Nickel	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Potassium	**1430**		500		ug/L		05/17/23 07:55	05/17/23 18:48	1
Selenium	ND		25.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Silver	ND		6.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Sodium	**14100**		1000		ug/L		05/17/23 07:55	05/17/23 18:48	1
Thallium	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Vanadium	ND		5.0		ug/L		05/17/23 07:55	05/17/23 18:48	1
Zinc	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/17/23 11:21	05/17/23 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			05/19/23 02:52	5
Sulfate (EPA 300.0)	**243**		10.0		mg/L			05/19/23 02:52	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			05/22/23 20:12	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/23/23 11:27	05/24/23 08:05	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		05/16/23 14:29	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-12S-05152023

Lab Sample ID: 480-208896-4

Date Collected: 05/15/23 12:25
Date Received: 05/16/23 09:00

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/18/23 12:55	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 04:24	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 14:54	1
Alkalinity, Total (SM 2320B)	**352**	**^2**	5.0		mg/L			05/17/23 13:43	1
Total Hardness (SM 2340C)	**560**		20.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**688**		10.0		mg/L			05/18/23 14:47	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.010		mg/L			05/16/23 10:30	1
Chloride (SM 4500 Cl- E)	**28.1**		1.0		mg/L			05/18/23 11:56	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/16/23 16:16	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			05/23/23 04:02	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**10.0**		5.00		Color Units			05/17/23 09:01	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0875	U	0.161	0.162	1.00	0.285	pCi/L	05/19/23 13:41	06/14/23 08:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*30 - 110*	*05/19/23 13:41*	*06/14/23 08:19*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00431	U	0.235	0.235	1.00	0.452	pCi/L	05/19/23 13:56	06/13/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.5*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:53*	*1*
Y Carrier	*84.0*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:53*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-10S-05152023

Lab Sample ID: 480-208896-5

Date Collected: 05/15/23 14:10
Date Received: 05/16/23 09:00

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 13:12	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/16/23 13:12	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 13:12	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/16/23 13:12	1
1,1-Dichloroethane	ND		1.0		ug/L			05/16/23 13:12	1
1,1-Dichloroethene	ND		1.0		ug/L			05/16/23 13:12	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/16/23 13:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/16/23 13:12	1
1,2-Dibromoethane	ND		1.0		ug/L			05/16/23 13:12	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/16/23 13:12	1
1,2-Dichloroethane	ND		1.0		ug/L			05/16/23 13:12	1
1,2-Dichloropropane	ND		1.0		ug/L			05/16/23 13:12	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/16/23 13:12	1
2-Butanone (MEK)	ND		10		ug/L			05/16/23 13:12	1
2-Hexanone	ND		5.0		ug/L			05/16/23 13:12	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/16/23 13:12	1
Acetone	ND		10		ug/L			05/16/23 13:12	1
Acrylonitrile	ND		5.0		ug/L			05/16/23 13:12	1
Benzene	ND		1.0		ug/L			05/16/23 13:12	1
Chlorobromomethane	ND		1.0		ug/L			05/16/23 13:12	1
Bromodichloromethane	ND		1.0		ug/L			05/16/23 13:12	1
Bromoform	ND		1.0		ug/L			05/16/23 13:12	1
Bromomethane	ND		1.0		ug/L			05/16/23 13:12	1
Carbon disulfide	ND		1.0		ug/L			05/16/23 13:12	1
Carbon tetrachloride	ND		1.0		ug/L			05/16/23 13:12	1
Chlorobenzene	ND		1.0		ug/L			05/16/23 13:12	1
Chlorodibromomethane	ND		1.0		ug/L			05/16/23 13:12	1
Chloroethane	ND		1.0		ug/L			05/16/23 13:12	1
Chloroform	ND		1.0		ug/L			05/16/23 13:12	1
Chloromethane	ND		1.0		ug/L			05/16/23 13:12	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 13:12	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 13:12	1
Dibromomethane	ND		1.0		ug/L			05/16/23 13:12	1
Ethylbenzene	ND		1.0		ug/L			05/16/23 13:12	1
Iodomethane	ND		1.0		ug/L			05/16/23 13:12	1
Methylene Chloride	ND		1.0		ug/L			05/16/23 13:12	1
Styrene	ND		1.0		ug/L			05/16/23 13:12	1
Tetrachloroethene	ND		1.0		ug/L			05/16/23 13:12	1
Toluene	ND		1.0		ug/L			05/16/23 13:12	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 13:12	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 13:12	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/16/23 13:12	1
Trichloroethene	ND		1.0		ug/L			05/16/23 13:12	1
Trichlorofluoromethane	ND		1.0		ug/L			05/16/23 13:12	1
Vinyl acetate	ND		5.0		ug/L			05/16/23 13:12	1
Vinyl chloride	ND		1.0		ug/L			05/16/23 13:12	1
Xylenes, Total	ND		2.0		ug/L			05/16/23 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*05/16/23 13:12*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-10S-05152023

Lab Sample ID: 480-208896-5
Date Collected: 05/15/23 14:10
Matrix: Water
Date Received: 05/16/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*05/16/23 13:12*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/16/23 13:12*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/16/23 16:06	05/17/23 13:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*26*		*15 - 110*	*05/16/23 16:06*	*05/17/23 13:34*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**2.9**		1.0	0.40	ug/L		05/17/23 14:07	05/18/23 15:39	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/17/23 07:55	05/17/23 18:52	1
Antimony	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Arsenic	ND		15.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Barium	**48.1**		2.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Beryllium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Boron	**20.0**		20.0		ug/L		05/17/23 07:55	05/22/23 15:05	1
Cadmium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Calcium	**135000**		500		ug/L		05/17/23 07:55	05/17/23 18:52	1
Chromium	ND		4.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Cobalt	ND		4.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Copper	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Iron	**155**		50.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Lead	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Magnesium	**55400**		200		ug/L		05/17/23 07:55	05/17/23 18:52	1
Manganese	**26.8**		3.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Nickel	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Potassium	**1550**		500		ug/L		05/17/23 07:55	05/17/23 18:52	1
Selenium	ND		25.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Silver	ND		6.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Sodium	**16300**		1000		ug/L		05/17/23 07:55	05/17/23 18:52	1
Thallium	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Vanadium	ND		5.0		ug/L		05/17/23 07:55	05/17/23 18:52	1
Zinc	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/17/23 11:21	05/17/23 15:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			05/22/23 19:03	5
Sulfate (EPA 300.0)	**253**		10.0		mg/L			05/22/23 19:03	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			05/22/23 20:12	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/23/23 11:27	05/24/23 08:05	1
Nitrate (EPA 353.2)	**0.14**		0.050		mg/L	☼		05/16/23 14:30	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-10S-05152023

Lab Sample ID: 480-208896-5

Date Collected: 05/15/23 14:10
Matrix: Water
Date Received: 05/16/23 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/18/23 12:55	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 04:35	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 14:57	1
Alkalinity, Total (SM 2320B)	**336**	**^2**	5.0		mg/L			05/17/23 13:51	1
Total Hardness (SM 2340C)	**560**		10.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**714**		10.0		mg/L			05/18/23 14:47	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.010		mg/L			05/16/23 10:30	1
Chloride (SM 4500 Cl- E)	**25.6**		1.0		mg/L			05/18/23 11:56	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/16/23 16:16	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			05/23/23 04:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**5.00**		5.00		Color Units			05/17/23 09:01	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.162	U	0.144	0.145	1.00	0.212	pCi/L	05/19/23 13:41	06/14/23 10:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*30 - 110*	*05/19/23 13:41*	*06/14/23 10:19*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00221	U	0.254	0.254	1.00	0.484	pCi/L	05/19/23 13:56	06/13/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:53*	*1*
Y Carrier	*84.8*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:53*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-7S-05152023

Date Collected: 05/15/23 14:55
Date Received: 05/16/23 09:00

Lab Sample ID: 480-208896-6

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 13:35	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/16/23 13:35	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 13:35	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/16/23 13:35	1
1,1-Dichloroethane	ND		1.0		ug/L			05/16/23 13:35	1
1,1-Dichloroethene	ND		1.0		ug/L			05/16/23 13:35	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/16/23 13:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/16/23 13:35	1
1,2-Dibromoethane	ND		1.0		ug/L			05/16/23 13:35	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/16/23 13:35	1
1,2-Dichloroethane	ND		1.0		ug/L			05/16/23 13:35	1
1,2-Dichloropropane	ND		1.0		ug/L			05/16/23 13:35	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/16/23 13:35	1
2-Butanone (MEK)	ND		10		ug/L			05/16/23 13:35	1
2-Hexanone	ND		5.0		ug/L			05/16/23 13:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/16/23 13:35	1
Acetone	ND		10		ug/L			05/16/23 13:35	1
Acrylonitrile	ND		5.0		ug/L			05/16/23 13:35	1
Benzene	ND		1.0		ug/L			05/16/23 13:35	1
Chlorobromomethane	ND		1.0		ug/L			05/16/23 13:35	1
Bromodichloromethane	ND		1.0		ug/L			05/16/23 13:35	1
Bromoform	ND		1.0		ug/L			05/16/23 13:35	1
Bromomethane	ND		1.0		ug/L			05/16/23 13:35	1
Carbon disulfide	ND		1.0		ug/L			05/16/23 13:35	1
Carbon tetrachloride	ND		1.0		ug/L			05/16/23 13:35	1
Chlorobenzene	ND		1.0		ug/L			05/16/23 13:35	1
Chlorodibromomethane	ND		1.0		ug/L			05/16/23 13:35	1
Chloroethane	ND		1.0		ug/L			05/16/23 13:35	1
Chloroform	ND		1.0		ug/L			05/16/23 13:35	1
Chloromethane	ND		1.0		ug/L			05/16/23 13:35	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 13:35	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 13:35	1
Dibromomethane	ND		1.0		ug/L			05/16/23 13:35	1
Ethylbenzene	ND		1.0		ug/L			05/16/23 13:35	1
Iodomethane	ND		1.0		ug/L			05/16/23 13:35	1
Methylene Chloride	ND		1.0		ug/L			05/16/23 13:35	1
Styrene	ND		1.0		ug/L			05/16/23 13:35	1
Tetrachloroethene	ND		1.0		ug/L			05/16/23 13:35	1
Toluene	ND		1.0		ug/L			05/16/23 13:35	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 13:35	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 13:35	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/16/23 13:35	1
Trichloroethene	ND		1.0		ug/L			05/16/23 13:35	1
Trichlorofluoromethane	ND		1.0		ug/L			05/16/23 13:35	1
Vinyl acetate	ND		5.0		ug/L			05/16/23 13:35	1
Vinyl chloride	ND		1.0		ug/L			05/16/23 13:35	1
Xylenes, Total	ND		2.0		ug/L			05/16/23 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*05/16/23 13:35*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-7S-05152023

Lab Sample ID: 480-208896-6

Date Collected: 05/15/23 14:55
Date Received: 05/16/23 09:00

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*05/16/23 13:35*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/16/23 13:35*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/16/23 16:06	05/17/23 13:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*33*		*15 - 110*	*05/16/23 16:06*	*05/17/23 13:56*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**4.5**		1.0	0.40	ug/L		05/17/23 14:07	05/18/23 15:42	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/17/23 07:55	05/17/23 18:56	1
Antimony	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Arsenic	ND		15.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Barium	**24.0**		2.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Beryllium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Boron	**25.3**		20.0		ug/L		05/17/23 07:55	05/22/23 15:09	1
Cadmium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Calcium	**109000**		500		ug/L		05/17/23 07:55	05/17/23 18:56	1
Chromium	ND		4.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Cobalt	ND		4.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Copper	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Iron	ND		50.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Lead	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Magnesium	**44800**		200		ug/L		05/17/23 07:55	05/17/23 18:56	1
Manganese	**8.2**		3.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Nickel	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Potassium	**1770**		500		ug/L		05/17/23 07:55	05/17/23 18:56	1
Selenium	ND		25.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Silver	ND		6.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Sodium	**8660**		1000		ug/L		05/17/23 07:55	05/17/23 18:56	1
Thallium	ND		20.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Vanadium	ND		5.0		ug/L		05/17/23 07:55	05/17/23 18:56	1
Zinc	ND		10.0		ug/L		05/17/23 07:55	05/17/23 18:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/17/23 11:21	05/17/23 15:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			05/22/23 19:21	5
Sulfate (EPA 300.0)	**135**		10.0		mg/L			05/22/23 19:21	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			05/22/23 20:13	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/23/23 11:27	05/24/23 08:05	1
Nitrate (EPA 353.2)	**0.28**		0.050		mg/L	☼		05/16/23 14:32	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-7S-05152023

Lab Sample ID: 480-208896-6

Date Collected: 05/15/23 14:55
Matrix: Water
Date Received: 05/16/23 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/18/23 12:55	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 04:39	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 15:11	1
Alkalinity, Total (SM 2320B)	**329**	**^2**	5.0		mg/L			05/17/23 13:58	1
Total Hardness (SM 2340C)	**460**		10.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**565**		10.0		mg/L			05/18/23 14:55	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.010		mg/L			05/16/23 10:30	1
Chloride (SM 4500 Cl- E)	**23.9**		1.0		mg/L			05/18/23 11:57	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/16/23 16:16	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			05/23/23 05:27	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**5.00**		5.00		Color Units			05/17/23 09:01	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0833	U	0.177	0.177	1.00	0.314	pCi/L	05/19/23 13:41	06/14/23 10:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.0*		*30 - 110*	*05/19/23 13:41*	*06/14/23 10:19*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.269	U	0.260	0.261	1.00	0.564	pCi/L	05/19/23 13:56	06/13/23 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.0*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:53*	*1*
Y Carrier	*80.1*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:53*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: TRIP BLANK-05152023

Lab Sample ID: 480-208896-7

Date Collected: 05/15/23 00:00
Matrix: Water
Date Received: 05/16/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 20:35	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/16/23 20:35	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 20:35	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/16/23 20:35	1
1,1-Dichloroethane	ND		1.0		ug/L			05/16/23 20:35	1
1,1-Dichloroethene	ND		1.0		ug/L			05/16/23 20:35	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/16/23 20:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/16/23 20:35	1
1,2-Dibromoethane	ND		1.0		ug/L			05/16/23 20:35	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/16/23 20:35	1
1,2-Dichloroethane	ND		1.0		ug/L			05/16/23 20:35	1
1,2-Dichloropropane	ND		1.0		ug/L			05/16/23 20:35	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/16/23 20:35	1
2-Butanone (MEK)	ND		10		ug/L			05/16/23 20:35	1
2-Hexanone	ND		5.0		ug/L			05/16/23 20:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/16/23 20:35	1
Acetone	ND		10		ug/L			05/16/23 20:35	1
Acrylonitrile	ND		5.0		ug/L			05/16/23 20:35	1
Benzene	ND		1.0		ug/L			05/16/23 20:35	1
Chlorobromomethane	ND		1.0		ug/L			05/16/23 20:35	1
Bromodichloromethane	ND		1.0		ug/L			05/16/23 20:35	1
Bromoform	ND		1.0		ug/L			05/16/23 20:35	1
Bromomethane	ND		1.0		ug/L			05/16/23 20:35	1
Carbon disulfide	ND		1.0		ug/L			05/16/23 20:35	1
Carbon tetrachloride	ND		1.0		ug/L			05/16/23 20:35	1
Chlorobenzene	ND		1.0		ug/L			05/16/23 20:35	1
Chlorodibromomethane	ND		1.0		ug/L			05/16/23 20:35	1
Chloroethane	ND		1.0		ug/L			05/16/23 20:35	1
Chloroform	ND		1.0		ug/L			05/16/23 20:35	1
Chloromethane	ND		1.0		ug/L			05/16/23 20:35	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 20:35	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 20:35	1
Dibromomethane	ND		1.0		ug/L			05/16/23 20:35	1
Ethylbenzene	ND		1.0		ug/L			05/16/23 20:35	1
Iodomethane	ND		1.0		ug/L			05/16/23 20:35	1
Methylene Chloride	ND		1.0		ug/L			05/16/23 20:35	1
Styrene	ND		1.0		ug/L			05/16/23 20:35	1
Tetrachloroethene	ND		1.0		ug/L			05/16/23 20:35	1
Toluene	ND		1.0		ug/L			05/16/23 20:35	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 20:35	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 20:35	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/16/23 20:35	1
Trichloroethene	ND		1.0		ug/L			05/16/23 20:35	1
Trichlorofluoromethane	ND		1.0		ug/L			05/16/23 20:35	1
Vinyl acetate	ND		5.0		ug/L			05/16/23 20:35	1
Vinyl chloride	ND		1.0		ug/L			05/16/23 20:35	1
Xylenes, Total	ND		2.0		ug/L			05/16/23 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*05/16/23 20:35*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: TRIP BLANK-05152023

Lab Sample ID: 480-208896-7

Date Collected: 05/15/23 00:00
Date Received: 05/16/23 09:00

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		73 - 120		05/16/23 20:35	1
Toluene-d8 (Surr)	105		80 - 120		05/16/23 20:35	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-6S-05162023

Date Collected: 05/16/23 09:05
Date Received: 05/17/23 09:00

Lab Sample ID: 480-208931-1

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 15:08	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/18/23 15:08	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 15:08	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/18/23 15:08	1
1,1-Dichloroethane	ND		1.0		ug/L			05/18/23 15:08	1
1,1-Dichloroethene	ND		1.0		ug/L			05/18/23 15:08	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/18/23 15:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/18/23 15:08	1
1,2-Dibromoethane	ND		1.0		ug/L			05/18/23 15:08	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/18/23 15:08	1
1,2-Dichloroethane	ND		1.0		ug/L			05/18/23 15:08	1
1,2-Dichloropropane	ND		1.0		ug/L			05/18/23 15:08	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/18/23 15:08	1
2-Butanone (MEK)	ND		10		ug/L			05/18/23 15:08	1
2-Hexanone	ND		5.0		ug/L			05/18/23 15:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/18/23 15:08	1
Acetone	ND	*1	10		ug/L			05/18/23 15:08	1
Acrylonitrile	ND		5.0		ug/L			05/18/23 15:08	1
Benzene	ND		1.0		ug/L			05/18/23 15:08	1
Chlorobromomethane	ND		1.0		ug/L			05/18/23 15:08	1
Bromodichloromethane	ND		1.0		ug/L			05/18/23 15:08	1
Bromoform	ND		1.0		ug/L			05/18/23 15:08	1
Bromomethane	ND		1.0		ug/L			05/18/23 15:08	1
Carbon disulfide	ND		1.0		ug/L			05/18/23 15:08	1
Carbon tetrachloride	ND		1.0		ug/L			05/18/23 15:08	1
Chlorobenzene	ND		1.0		ug/L			05/18/23 15:08	1
Chlorodibromomethane	ND		1.0		ug/L			05/18/23 15:08	1
Chloroethane	ND		1.0		ug/L			05/18/23 15:08	1
Chloroform	ND		1.0		ug/L			05/18/23 15:08	1
Chloromethane	ND	*1	1.0		ug/L			05/18/23 15:08	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 15:08	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 15:08	1
Dibromomethane	ND		1.0		ug/L			05/18/23 15:08	1
Ethylbenzene	ND		1.0		ug/L			05/18/23 15:08	1
Iodomethane	ND		1.0		ug/L			05/18/23 15:08	1
Methylene Chloride	ND		1.0		ug/L			05/18/23 15:08	1
Styrene	ND		1.0		ug/L			05/18/23 15:08	1
Tetrachloroethene	ND		1.0		ug/L			05/18/23 15:08	1
Toluene	ND		1.0		ug/L			05/18/23 15:08	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 15:08	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 15:08	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/18/23 15:08	1
Trichloroethene	ND		1.0		ug/L			05/18/23 15:08	1
Trichlorofluoromethane	ND		1.0		ug/L			05/18/23 15:08	1
Vinyl acetate	ND		5.0		ug/L			05/18/23 15:08	1
Vinyl chloride	ND		1.0		ug/L			05/18/23 15:08	1
Xylenes, Total	ND		2.0		ug/L			05/18/23 15:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*05/18/23 15:08*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-6S-05162023

Date Collected: 05/16/23 09:05
Date Received: 05/17/23 09:00

Lab Sample ID: 480-208931-1

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*05/18/23 15:08*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/18/23 15:08*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/19/23 08:42	05/22/23 17:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*30*		*15 - 110*	*05/19/23 08:42*	*05/22/23 17:08*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**4.2**		1.0		ug/L		05/23/23 13:50	06/14/23 18:10	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/18/23 08:18	05/18/23 20:46	1
Antimony	ND		20.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Arsenic	ND		15.0		ug/L		05/18/23 08:18	05/19/23 19:44	1
Barium	**18.0**		2.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Beryllium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Boron	**27.7**		20.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Cadmium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Calcium	**139000**		500		ug/L		05/18/23 08:18	05/18/23 20:46	1
Chromium	ND		4.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Cobalt	ND		4.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Copper	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Iron	**84.8**		50.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Lead	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Magnesium	**61700**		200		ug/L		05/18/23 08:18	05/18/23 20:46	1
Manganese	**4.6**		3.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Nickel	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Potassium	**1880**		500		ug/L		05/18/23 08:18	05/19/23 19:44	1
Selenium	ND		25.0		ug/L		05/18/23 08:18	05/19/23 19:44	1
Silver	ND		6.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Sodium	**31600**		1000		ug/L		05/18/23 08:18	05/18/23 20:46	1
Thallium	ND		20.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Vanadium	ND		5.0		ug/L		05/18/23 08:18	05/18/23 20:46	1
Zinc	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/18/23 11:53	05/18/23 16:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			05/23/23 03:30	5
Sulfate (EPA 300.0)	**216**		10.0		mg/L			05/23/23 03:30	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			05/22/23 20:23	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/23/23 11:27	05/24/23 08:05	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		05/17/23 13:27	1

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-6S-05162023

Lab Sample ID: 480-208931-1

Date Collected: 05/16/23 09:05
Date Received: 05/17/23 09:00

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/30/23 19:36	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 05:19	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 17:08	1
Alkalinity, Total (SM 2320B)	**337**		5.0		mg/L			05/18/23 17:33	1
Total Hardness (SM 2340C)	**570**		10.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**670**		10.0		mg/L			05/23/23 14:33	1
Chromium, hexavalent (SM 3500 CR B)	ND	H F1	0.010		mg/L			05/17/23 10:40	1
Chloride (SM 4500 Cl- E)	**73.0**		5.0		mg/L			05/18/23 12:49	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/17/23 17:55	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			05/23/23 10:19	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**5.00**	**H**	5.00		Color Units			05/18/23 09:30	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0621	U	0.184	0.184	1.00	0.342	pCi/L	05/22/23 11:40	06/14/23 18:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:41*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.149	U	0.273	0.273	1.00	0.472	pCi/L	05/22/23 12:57	06/14/23 12:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:47*	*1*
Y Carrier	*89.9*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:47*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-8S-05162023

Date Collected: 05/16/23 10:25
Date Received: 05/17/23 09:00

Lab Sample ID: 480-208931-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 15:37	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/18/23 15:37	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 15:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/18/23 15:37	1
1,1-Dichloroethane	ND		1.0		ug/L			05/18/23 15:37	1
1,1-Dichloroethene	ND		1.0		ug/L			05/18/23 15:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/18/23 15:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/18/23 15:37	1
1,2-Dibromoethane	ND		1.0		ug/L			05/18/23 15:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/18/23 15:37	1
1,2-Dichloroethane	ND		1.0		ug/L			05/18/23 15:37	1
1,2-Dichloropropane	ND		1.0		ug/L			05/18/23 15:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/18/23 15:37	1
2-Butanone (MEK)	ND		10		ug/L			05/18/23 15:37	1
2-Hexanone	ND		5.0		ug/L			05/18/23 15:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/18/23 15:37	1
Acetone	ND	*1	10		ug/L			05/18/23 15:37	1
Acrylonitrile	ND		5.0		ug/L			05/18/23 15:37	1
Benzene	ND		1.0		ug/L			05/18/23 15:37	1
Chlorobromomethane	ND		1.0		ug/L			05/18/23 15:37	1
Bromodichloromethane	ND		1.0		ug/L			05/18/23 15:37	1
Bromoform	ND		1.0		ug/L			05/18/23 15:37	1
Bromomethane	ND		1.0		ug/L			05/18/23 15:37	1
Carbon disulfide	ND		1.0		ug/L			05/18/23 15:37	1
Carbon tetrachloride	ND		1.0		ug/L			05/18/23 15:37	1
Chlorobenzene	ND		1.0		ug/L			05/18/23 15:37	1
Chlorodibromomethane	ND		1.0		ug/L			05/18/23 15:37	1
Chloroethane	ND		1.0		ug/L			05/18/23 15:37	1
Chloroform	ND		1.0		ug/L			05/18/23 15:37	1
Chloromethane	ND	*1	1.0		ug/L			05/18/23 15:37	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 15:37	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 15:37	1
Dibromomethane	ND		1.0		ug/L			05/18/23 15:37	1
Ethylbenzene	ND		1.0		ug/L			05/18/23 15:37	1
Iodomethane	ND		1.0		ug/L			05/18/23 15:37	1
Methylene Chloride	ND		1.0		ug/L			05/18/23 15:37	1
Styrene	ND		1.0		ug/L			05/18/23 15:37	1
Tetrachloroethene	ND		1.0		ug/L			05/18/23 15:37	1
Toluene	ND		1.0		ug/L			05/18/23 15:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 15:37	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 15:37	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/18/23 15:37	1
Trichloroethene	ND		1.0		ug/L			05/18/23 15:37	1
Trichlorofluoromethane	ND		1.0		ug/L			05/18/23 15:37	1
Vinyl acetate	ND		5.0		ug/L			05/18/23 15:37	1
Vinyl chloride	ND		1.0		ug/L			05/18/23 15:37	1
Xylenes, Total	ND		2.0		ug/L			05/18/23 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*77 - 120*		*05/18/23 15:37*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-8S-05162023

Date Collected: 05/16/23 10:25
Date Received: 05/17/23 09:00

Lab Sample ID: 480-208931-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*05/18/23 15:37*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/18/23 15:37*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/19/23 08:42	05/22/23 17:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*35*		*15 - 110*	*05/19/23 08:42*	*05/22/23 17:30*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**5.1**		1.0		ug/L		05/23/23 13:50	06/14/23 18:23	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/18/23 08:18	05/18/23 20:50	1
Antimony	ND		20.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Arsenic	ND		15.0		ug/L		05/18/23 08:18	05/19/23 19:48	1
Barium	**21.3**		2.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Beryllium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Boron	**34.8**		20.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Cadmium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Calcium	**143000**		500		ug/L		05/18/23 08:18	05/18/23 20:50	1
Chromium	ND		4.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Cobalt	ND		4.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Copper	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Iron	**235**		50.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Lead	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Magnesium	**69300**		200		ug/L		05/18/23 08:18	05/18/23 20:50	1
Manganese	**28.5**		3.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Nickel	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Potassium	**2000**		500		ug/L		05/18/23 08:18	05/19/23 19:48	1
Selenium	ND		25.0		ug/L		05/18/23 08:18	05/19/23 19:48	1
Silver	ND		6.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Sodium	**29300**		1000		ug/L		05/18/23 08:18	05/18/23 20:50	1
Thallium	ND		20.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Vanadium	ND		5.0		ug/L		05/18/23 08:18	05/18/23 20:50	1
Zinc	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:50	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/18/23 11:53	05/18/23 16:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			05/23/23 03:49	5
Sulfate (EPA 300.0)	**279**		10.0		mg/L			05/23/23 03:49	5
Ammonia (EPA 350.1)	ND	F1	0.020		mg/L			05/22/23 20:23	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/23/23 11:27	05/24/23 08:05	1
Nitrate (EPA 353.2)	**0.078**		0.050		mg/L	☼		05/17/23 14:51	1

Client Sample ID: MW-8S-05162023

Lab Sample ID: 480-208931-2

Date Collected: 05/16/23 10:25
Matrix: Water
Date Received: 05/17/23 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/30/23 19:39	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 05:22	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 17:16	1
Alkalinity, Total (SM 2320B)	**357**		5.0		mg/L			05/18/23 17:41	1
Total Hardness (SM 2340C)	**620**		10.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**748**		10.0		mg/L			05/23/23 14:33	1
Chromium, hexavalent (SM 3500 CR B)	ND	H	0.010		mg/L			05/17/23 10:40	1
Chloride (SM 4500 Cl- E)	**41.8**	**F1**	1.0		mg/L			05/18/23 12:51	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/17/23 17:55	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			05/23/23 10:48	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**15.0**		5.00		Color Units			05/18/23 09:30	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.129	U	0.267	0.267	1.00	0.471	pCi/L	05/22/23 11:40	06/14/23 18:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:41*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.193	U	0.366	0.366	1.00	0.632	pCi/L	05/22/23 12:57	06/14/23 12:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:47*	*1*
Y Carrier	*83.4*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:47*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: SW-01-05162023

Date Collected: 05/16/23 11:40
Date Received: 05/17/23 09:00

Lab Sample ID: 480-208931-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 15:59	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/18/23 15:59	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 15:59	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/18/23 15:59	1
1,1-Dichloroethane	ND		1.0		ug/L			05/18/23 15:59	1
1,1-Dichloroethene	ND		1.0		ug/L			05/18/23 15:59	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/18/23 15:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/18/23 15:59	1
1,2-Dibromoethane	ND		1.0		ug/L			05/18/23 15:59	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/18/23 15:59	1
1,2-Dichloroethane	ND		1.0		ug/L			05/18/23 15:59	1
1,2-Dichloropropane	ND		1.0		ug/L			05/18/23 15:59	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/18/23 15:59	1
2-Butanone (MEK)	ND		10		ug/L			05/18/23 15:59	1
2-Hexanone	ND		5.0		ug/L			05/18/23 15:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/18/23 15:59	1
Acetone	ND	*1	10		ug/L			05/18/23 15:59	1
Acrylonitrile	ND		5.0		ug/L			05/18/23 15:59	1
Benzene	ND		1.0		ug/L			05/18/23 15:59	1
Chlorobromomethane	ND		1.0		ug/L			05/18/23 15:59	1
Bromodichloromethane	ND		1.0		ug/L			05/18/23 15:59	1
Bromoform	ND		1.0		ug/L			05/18/23 15:59	1
Bromomethane	ND		1.0		ug/L			05/18/23 15:59	1
Carbon disulfide	ND		1.0		ug/L			05/18/23 15:59	1
Carbon tetrachloride	ND		1.0		ug/L			05/18/23 15:59	1
Chlorobenzene	ND		1.0		ug/L			05/18/23 15:59	1
Chlorodibromomethane	ND		1.0		ug/L			05/18/23 15:59	1
Chloroethane	ND		1.0		ug/L			05/18/23 15:59	1
Chloroform	ND		1.0		ug/L			05/18/23 15:59	1
Chloromethane	ND	*1	1.0		ug/L			05/18/23 15:59	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 15:59	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 15:59	1
Dibromomethane	ND		1.0		ug/L			05/18/23 15:59	1
Ethylbenzene	ND		1.0		ug/L			05/18/23 15:59	1
Iodomethane	ND		1.0		ug/L			05/18/23 15:59	1
Methylene Chloride	ND		1.0		ug/L			05/18/23 15:59	1
Styrene	ND		1.0		ug/L			05/18/23 15:59	1
Tetrachloroethene	ND		1.0		ug/L			05/18/23 15:59	1
Toluene	ND		1.0		ug/L			05/18/23 15:59	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 15:59	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 15:59	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/18/23 15:59	1
Trichloroethene	ND		1.0		ug/L			05/18/23 15:59	1
Trichlorofluoromethane	ND		1.0		ug/L			05/18/23 15:59	1
Vinyl acetate	ND		5.0		ug/L			05/18/23 15:59	1
Vinyl chloride	ND		1.0		ug/L			05/18/23 15:59	1
Xylenes, Total	ND		2.0		ug/L			05/18/23 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*77 - 120*		*05/18/23 15:59*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: SW-01-05162023

Date Collected: 05/16/23 11:40
Date Received: 05/17/23 09:00

Lab Sample ID: 480-208931-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/18/23 15:59*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/18/23 15:59*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/19/23 08:42	05/22/23 17:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*		*15 - 110*	*05/19/23 08:42*	*05/22/23 17:53*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	**1.4**		1.0		ug/L		05/23/23 13:50	06/14/23 18:27	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/18/23 08:18	05/18/23 20:54	1
Antimony	ND		20.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Arsenic	ND		15.0		ug/L		05/18/23 08:18	05/19/23 19:52	1
Barium	**99.3**		2.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Beryllium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Boron	**39.6**		20.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Cadmium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Calcium	**104000**		500		ug/L		05/18/23 08:18	05/18/23 20:54	1
Chromium	ND		4.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Cobalt	ND		4.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Copper	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Iron	**130**		50.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Lead	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Magnesium	**38200**		200		ug/L		05/18/23 08:18	05/18/23 20:54	1
Manganese	**107**		3.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Nickel	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Potassium	**2150**		500		ug/L		05/18/23 08:18	05/19/23 19:52	1
Selenium	ND		25.0		ug/L		05/18/23 08:18	05/19/23 19:52	1
Silver	ND		6.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Sodium	**118000**		1000		ug/L		05/18/23 08:18	05/18/23 20:54	1
Thallium	ND		20.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Vanadium	ND		5.0		ug/L		05/18/23 08:18	05/18/23 20:54	1
Zinc	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:54	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/18/23 11:53	05/18/23 16:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			05/23/23 05:23	5
Sulfate (EPA 300.0)	**126**		10.0		mg/L			05/23/23 05:23	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			05/22/23 20:29	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/23/23 11:27	05/24/23 08:05	1
Nitrate (EPA 353.2)	**0.31**		0.050		mg/L	☼		05/17/23 14:55	1

Client Sample ID: SW-01-05162023

Lab Sample ID: 480-208931-3

Date Collected: 05/16/23 11:40

Matrix: Water

Date Received: 05/17/23 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/30/23 19:42	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 05:26	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 17:18	1
Alkalinity, Total (SM 2320B)	**253**		5.0		mg/L			05/18/23 17:47	1
Total Hardness (SM 2340C)	**420**		10.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**708**		10.0		mg/L			05/23/23 14:33	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.010		mg/L			05/17/23 10:40	1
Chloride (SM 4500 Cl- E)	**205**		5.0		mg/L			05/18/23 13:10	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/17/23 17:55	1
Total Organic Carbon (SM 5310C)	**2.5**		1.0		mg/L			05/23/23 11:16	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**20.0**		5.00		Color Units			05/18/23 09:30	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0827	U	0.236	0.236	1.00	0.431	pCi/L	05/22/23 11:40	06/14/23 18:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:41*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.108	U	0.377	0.377	1.00	0.669	pCi/L	05/22/23 12:57	06/14/23 12:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.0*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:47*	*1*
Y Carrier	*80.6*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:47*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: SW-02-05162023

Date Collected: 05/16/23 12:40
Date Received: 05/17/23 09:00

Lab Sample ID: 480-208931-4

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 16:22	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/18/23 16:22	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 16:22	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/18/23 16:22	1
1,1-Dichloroethane	ND		1.0		ug/L			05/18/23 16:22	1
1,1-Dichloroethene	ND		1.0		ug/L			05/18/23 16:22	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/18/23 16:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/18/23 16:22	1
1,2-Dibromoethane	ND		1.0		ug/L			05/18/23 16:22	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/18/23 16:22	1
1,2-Dichloroethane	ND		1.0		ug/L			05/18/23 16:22	1
1,2-Dichloropropane	ND		1.0		ug/L			05/18/23 16:22	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/18/23 16:22	1
2-Butanone (MEK)	ND		10		ug/L			05/18/23 16:22	1
2-Hexanone	ND		5.0		ug/L			05/18/23 16:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/18/23 16:22	1
Acetone	ND	*1	10		ug/L			05/18/23 16:22	1
Acrylonitrile	ND		5.0		ug/L			05/18/23 16:22	1
Benzene	ND		1.0		ug/L			05/18/23 16:22	1
Chlorobromomethane	ND		1.0		ug/L			05/18/23 16:22	1
Bromodichloromethane	ND		1.0		ug/L			05/18/23 16:22	1
Bromoform	ND		1.0		ug/L			05/18/23 16:22	1
Bromomethane	ND		1.0		ug/L			05/18/23 16:22	1
Carbon disulfide	ND		1.0		ug/L			05/18/23 16:22	1
Carbon tetrachloride	ND		1.0		ug/L			05/18/23 16:22	1
Chlorobenzene	ND		1.0		ug/L			05/18/23 16:22	1
Chlorodibromomethane	ND		1.0		ug/L			05/18/23 16:22	1
Chloroethane	ND		1.0		ug/L			05/18/23 16:22	1
Chloroform	ND		1.0		ug/L			05/18/23 16:22	1
Chloromethane	ND	*1	1.0		ug/L			05/18/23 16:22	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 16:22	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 16:22	1
Dibromomethane	ND		1.0		ug/L			05/18/23 16:22	1
Ethylbenzene	ND		1.0		ug/L			05/18/23 16:22	1
Iodomethane	ND		1.0		ug/L			05/18/23 16:22	1
Methylene Chloride	ND		1.0		ug/L			05/18/23 16:22	1
Styrene	ND		1.0		ug/L			05/18/23 16:22	1
Tetrachloroethene	ND		1.0		ug/L			05/18/23 16:22	1
Toluene	ND		1.0		ug/L			05/18/23 16:22	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 16:22	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 16:22	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/18/23 16:22	1
Trichloroethene	ND		1.0		ug/L			05/18/23 16:22	1
Trichlorofluoromethane	ND		1.0		ug/L			05/18/23 16:22	1
Vinyl acetate	ND		5.0		ug/L			05/18/23 16:22	1
Vinyl chloride	ND		1.0		ug/L			05/18/23 16:22	1
Xylenes, Total	ND		2.0		ug/L			05/18/23 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*77 - 120*		*05/18/23 16:22*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: SW-02-05162023

Date Collected: 05/16/23 12:40
Date Received: 05/17/23 09:00

Lab Sample ID: 480-208931-4

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*05/18/23 16:22*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/18/23 16:22*	*1*

Method: SW846 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/19/23 08:42	05/22/23 18:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*30*		*15 - 110*	*05/19/23 08:42*	*05/22/23 18:15*	*1*

Method: EPA 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L		05/23/23 13:50	06/14/23 18:30	2

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/18/23 08:18	05/18/23 21:24	1
Antimony	ND		20.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Arsenic	ND		15.0		ug/L		05/18/23 08:18	05/19/23 20:11	1
Barium	**124**		2.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Beryllium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Boron	**26.7**		20.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Cadmium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Calcium	**95100**		500		ug/L		05/18/23 08:18	05/18/23 21:24	1
Chromium	ND		4.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Cobalt	ND		4.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Copper	ND		10.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Iron	**94.4**		50.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Lead	ND		10.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Magnesium	**32900**		200		ug/L		05/18/23 08:18	05/18/23 21:24	1
Manganese	**27.9**		3.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Nickel	ND		10.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Potassium	**2160**		500		ug/L		05/18/23 08:18	05/19/23 20:11	1
Selenium	ND		25.0		ug/L		05/18/23 08:18	05/19/23 20:11	1
Silver	ND		6.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Sodium	**157000**		1000		ug/L		05/18/23 08:18	05/18/23 21:24	1
Thallium	ND		20.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Vanadium	ND		5.0		ug/L		05/18/23 08:18	05/18/23 21:24	1
Zinc	ND		10.0		ug/L		05/18/23 08:18	05/18/23 21:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/18/23 11:53	05/18/23 16:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			05/23/23 05:41	5
Sulfate (EPA 300.0)	**105**		10.0		mg/L			05/23/23 05:41	5
Ammonia (EPA 350.1)	ND		0.020		mg/L			05/22/23 20:30	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		05/23/23 11:27	05/24/23 08:05	1
Nitrate (EPA 353.2)	**0.55**		0.050		mg/L	☼		05/17/23 14:57	1

Client Sample ID: SW-02-05162023

Lab Sample ID: 480-208931-4

Date Collected: 05/16/23 12:40

Matrix: Water

Date Received: 05/17/23 09:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			05/30/23 19:55	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+	0.010		mg/L			05/26/23 05:30	1
Cyanide, Total (SW846 9012B)	ND		0.010		mg/L			05/23/23 17:21	1
Alkalinity, Total (SM 2320B)	**205**		5.0		mg/L			05/18/23 17:55	1
Total Hardness (SM 2340C)	**380**		10.0		mg/L			05/31/23 11:50	1
Total Dissolved Solids (SM 2540C)	**704**		10.0		mg/L			05/23/23 14:33	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.010		mg/L			05/17/23 10:40	1
Chloride (SM 4500 Cl- E)	**281**		21.0		mg/L			05/18/23 13:49	21
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			05/17/23 17:55	1
Total Organic Carbon (SM 5310C)	**2.5**		1.0		mg/L			05/23/23 11:46	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color (SM 2120B)	**15.0**		5.00		Color Units			05/18/23 09:30	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0610	U	0.198	0.198	1.00	0.368	pCi/L	05/22/23 11:40	06/14/23 18:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:43*	*1*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.317	U	0.340	0.341	1.00	0.551	pCi/L	05/22/23 12:57	06/14/23 12:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:48*	*1*
Y Carrier	*82.3*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:48*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: TB-01-05162023

Lab Sample ID: 480-208931-5

Date Collected: 05/16/23 00:00
Matrix: Water
Date Received: 05/17/23 09:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 16:44	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/18/23 16:44	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 16:44	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/18/23 16:44	1
1,1-Dichloroethane	ND		1.0		ug/L			05/18/23 16:44	1
1,1-Dichloroethene	ND		1.0		ug/L			05/18/23 16:44	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/18/23 16:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/18/23 16:44	1
1,2-Dibromoethane	ND		1.0		ug/L			05/18/23 16:44	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/18/23 16:44	1
1,2-Dichloroethane	ND		1.0		ug/L			05/18/23 16:44	1
1,2-Dichloropropane	ND		1.0		ug/L			05/18/23 16:44	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/18/23 16:44	1
2-Butanone (MEK)	ND		10		ug/L			05/18/23 16:44	1
2-Hexanone	ND		5.0		ug/L			05/18/23 16:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/18/23 16:44	1
Acetone	ND	*1	10		ug/L			05/18/23 16:44	1
Acrylonitrile	ND		5.0		ug/L			05/18/23 16:44	1
Benzene	ND		1.0		ug/L			05/18/23 16:44	1
Chlorobromomethane	ND		1.0		ug/L			05/18/23 16:44	1
Bromodichloromethane	ND		1.0		ug/L			05/18/23 16:44	1
Bromoform	ND		1.0		ug/L			05/18/23 16:44	1
Bromomethane	ND		1.0		ug/L			05/18/23 16:44	1
Carbon disulfide	ND		1.0		ug/L			05/18/23 16:44	1
Carbon tetrachloride	ND		1.0		ug/L			05/18/23 16:44	1
Chlorobenzene	ND		1.0		ug/L			05/18/23 16:44	1
Chlorodibromomethane	ND		1.0		ug/L			05/18/23 16:44	1
Chloroethane	ND		1.0		ug/L			05/18/23 16:44	1
Chloroform	ND		1.0		ug/L			05/18/23 16:44	1
Chloromethane	ND	*1	1.0		ug/L			05/18/23 16:44	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 16:44	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 16:44	1
Dibromomethane	ND		1.0		ug/L			05/18/23 16:44	1
Ethylbenzene	ND		1.0		ug/L			05/18/23 16:44	1
Iodomethane	ND		1.0		ug/L			05/18/23 16:44	1
Methylene Chloride	ND		1.0		ug/L			05/18/23 16:44	1
Styrene	ND		1.0		ug/L			05/18/23 16:44	1
Tetrachloroethene	ND		1.0		ug/L			05/18/23 16:44	1
Toluene	ND		1.0		ug/L			05/18/23 16:44	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 16:44	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 16:44	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/18/23 16:44	1
Trichloroethene	ND		1.0		ug/L			05/18/23 16:44	1
Trichlorofluoromethane	ND		1.0		ug/L			05/18/23 16:44	1
Vinyl acetate	ND		5.0		ug/L			05/18/23 16:44	1
Vinyl chloride	ND		1.0		ug/L			05/18/23 16:44	1
Xylenes, Total	ND		2.0		ug/L			05/18/23 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*05/18/23 16:44*	*1*

Client Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: TB-01-05162023

Lab Sample ID: 480-208931-5

Date Collected: 05/16/23 00:00
Date Received: 05/17/23 09:00

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		73 - 120		05/18/23 16:44	1
Toluene-d8 (Surr)	104		80 - 120		05/18/23 16:44	1

Surrogate Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)
480-208896-1	FB-01-05152023	102	105	102
480-208896-2	MW-11S-05152023	103	105	102
480-208896-3	MW-9SR-05152023	102	106	103
480-208896-4	MW-12S-05152023	101	108	105
480-208896-5	MW-10S-05152023	102	105	103
480-208896-6	MW-7S-05152023	103	104	103
480-208896-7	TRIP BLANK-05152023	99	104	105
480-208931-1	MW-6S-05162023	113	104	101
480-208931-2	MW-8S-05162023	118	102	101
480-208931-3	SW-01-05162023	116	100	103
480-208931-4	SW-02-05162023	120	105	101
480-208931-5	TB-01-05162023	114	100	104
LCS 480-669608/5	Lab Control Sample	101	104	102
LCS 480-669676/6	Lab Control Sample	98	99	102
LCS 480-669977/6	Lab Control Sample	114	100	102
LCSD 480-669977/29	Lab Control Sample Dup	113	102	103
MB 480-669608/7	Method Blank	102	104	104
MB 480-669676/9	Method Blank	98	100	100
MB 480-669977/8	Method Blank	121 S1+	103	101

Surrogate Legend

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

Isotope Dilution Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

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

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

		Percent Isotope Dilution Recovery (Acceptance Limits)
		DXE
Lab Sample ID	**Client Sample ID**	**(15-110)**
480-208896-1	FB-01-05152023	31
480-208896-2	MW-11S-05152023	32
480-208896-3	MW-9SR-05152023	37
480-208896-4	MW-12S-05152023	28
480-208896-5	MW-10S-05152023	26
480-208896-6	MW-7S-05152023	33
480-208931-1	MW-6S-05162023	30
480-208931-2	MW-8S-05162023	35
480-208931-3	SW-01-05162023	29
480-208931-4	SW-02-05162023	30
LCS 480-669699/2-A	Lab Control Sample	30
LCS 480-670099/2-A	Lab Control Sample	31
LCSD 480-669699/3-A	Lab Control Sample Dup	25
LCSD 480-670099/3-A	Lab Control Sample Dup	38
MB 480-669699/1-A	Method Blank	25
MB 480-670099/1-A	Method Blank	34

Surrogate Legend

DXE = 1,4-Dioxane-d8

Tracer/Carrier Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Method: 903.0 - Radium-226 (GFPC)

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

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (30-110)
480-208896-1	FB-01-05152023	89.0
480-208896-2	MW-11S-05152023	88.8
480-208896-3	MW-9SR-05152023	86.3
480-208896-4	MW-12S-05152023	89.5
480-208896-5	MW-10S-05152023	88.0
480-208896-6	MW-7S-05152023	93.0
480-208931-1	MW-6S-05162023	94.8
480-208931-2	MW-8S-05162023	84.8
480-208931-3	SW-01-05162023	92.0
480-208931-4	SW-02-05162023	87.5
LCS 160-612377/2-A	Lab Control Sample	93.8
LCS 160-612568/2-A	Lab Control Sample	92.5
LCSD 160-612377/3-A	Lab Control Sample Dup	97.0
MB 160-612377/1-A	Method Blank	96.0
MB 160-612568/1-A	Method Blank	95.8

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

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

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
480-208896-1	FB-01-05152023	89.0	81.7
480-208896-2	MW-11S-05152023	88.8	84.0
480-208896-3	MW-9SR-05152023	86.3	84.3
480-208896-4	MW-12S-05152023	89.5	84.0
480-208896-5	MW-10S-05152023	88.0	84.8
480-208896-6	MW-7S-05152023	93.0	80.1
480-208931-1	MW-6S-05162023	94.8	89.9
480-208931-2	MW-8S-05162023	84.8	83.4
480-208931-3	SW-01-05162023	92.0	80.6
480-208931-4	SW-02-05162023	87.5	82.3
LCS 160-612446/2-A	Lab Control Sample	93.8	85.4
LCS 160-612632/2-A	Lab Control Sample	92.5	84.6
LCSD 160-612446/3-A	Lab Control Sample Dup	97.0	83.4
MB 160-612446/1-A	Method Blank	96.0	83.4
MB 160-612632/1-A	Method Blank	95.8	84.6

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

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

Lab Sample ID: MB 480-669608/7
Matrix: Water
Analysis Batch: 669608

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 11:22	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/16/23 11:22	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 11:22	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/16/23 11:22	1
1,1-Dichloroethane	ND		1.0		ug/L			05/16/23 11:22	1
1,1-Dichloroethene	ND		1.0		ug/L			05/16/23 11:22	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/16/23 11:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/16/23 11:22	1
1,2-Dibromoethane	ND		1.0		ug/L			05/16/23 11:22	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/16/23 11:22	1
1,2-Dichloroethane	ND		1.0		ug/L			05/16/23 11:22	1
1,2-Dichloropropane	ND		1.0		ug/L			05/16/23 11:22	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/16/23 11:22	1
2-Butanone (MEK)	ND		10		ug/L			05/16/23 11:22	1
2-Hexanone	ND		5.0		ug/L			05/16/23 11:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/16/23 11:22	1
Acetone	ND		10		ug/L			05/16/23 11:22	1
Acrylonitrile	ND		5.0		ug/L			05/16/23 11:22	1
Benzene	ND		1.0		ug/L			05/16/23 11:22	1
Chlorobromomethane	ND		1.0		ug/L			05/16/23 11:22	1
Bromodichloromethane	ND		1.0		ug/L			05/16/23 11:22	1
Bromoform	ND		1.0		ug/L			05/16/23 11:22	1
Bromomethane	ND		1.0		ug/L			05/16/23 11:22	1
Carbon disulfide	ND		1.0		ug/L			05/16/23 11:22	1
Carbon tetrachloride	ND		1.0		ug/L			05/16/23 11:22	1
Chlorobenzene	ND		1.0		ug/L			05/16/23 11:22	1
Chlorodibromomethane	ND		1.0		ug/L			05/16/23 11:22	1
Chloroethane	ND		1.0		ug/L			05/16/23 11:22	1
Chloroform	ND		1.0		ug/L			05/16/23 11:22	1
Chloromethane	ND		1.0		ug/L			05/16/23 11:22	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 11:22	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 11:22	1
Dibromomethane	ND		1.0		ug/L			05/16/23 11:22	1
Ethylbenzene	ND		1.0		ug/L			05/16/23 11:22	1
Iodomethane	ND		1.0		ug/L			05/16/23 11:22	1
Methylene Chloride	ND		1.0		ug/L			05/16/23 11:22	1
Styrene	ND		1.0		ug/L			05/16/23 11:22	1
Tetrachloroethene	ND		1.0		ug/L			05/16/23 11:22	1
Toluene	ND		1.0		ug/L			05/16/23 11:22	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 11:22	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 11:22	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/16/23 11:22	1
Trichloroethene	ND		1.0		ug/L			05/16/23 11:22	1
Trichlorofluoromethane	ND		1.0		ug/L			05/16/23 11:22	1
Vinyl acetate	ND		5.0		ug/L			05/16/23 11:22	1
Vinyl chloride	ND		1.0		ug/L			05/16/23 11:22	1
Xylenes, Total	ND		2.0		ug/L			05/16/23 11:22	1

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

Lab Sample ID: MB 480-669608/7
Matrix: Water
Analysis Batch: 669608

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		05/16/23 11:22	1
4-Bromofluorobenzene (Surr)	104		73 - 120		05/16/23 11:22	1
Toluene-d8 (Surr)	104		80 - 120		05/16/23 11:22	1

Lab Sample ID: LCS 480-669608/5
Matrix: Water
Analysis Batch: 669608

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	28.0		ug/L		112	80 - 120
1,1,1-Trichloroethane	25.0	26.0		ug/L		104	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		103	76 - 120
1,1,2-Trichloroethane	25.0	25.8		ug/L		103	76 - 122
1,1-Dichloroethane	25.0	24.9		ug/L		100	77 - 120
1,1-Dichloroethene	25.0	26.0		ug/L		104	66 - 127
1,2,3-Trichloropropane	25.0	26.9		ug/L		108	68 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.4		ug/L		94	56 - 134
1,2-Dibromoethane	25.0	27.1		ug/L		109	77 - 120
1,2-Dichlorobenzene	25.0	24.9		ug/L		99	80 - 124
1,2-Dichloroethane	25.0	24.4		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	26.0		ug/L		104	76 - 120
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	80 - 120
2-Butanone (MEK)	125	140		ug/L		112	57 - 140
2-Hexanone	125	133		ug/L		106	65 - 127
4-Methyl-2-pentanone (MIBK)	125	132		ug/L		105	71 - 125
Acetone	125	133		ug/L		106	56 - 142
Acrylonitrile	250	256		ug/L		102	63 - 125
Benzene	25.0	25.2		ug/L		101	71 - 124
Chlorobromomethane	25.0	26.1		ug/L		104	72 - 130
Bromodichloromethane	25.0	27.4		ug/L		109	80 - 122
Bromoform	25.0	26.1		ug/L		104	61 - 132
Bromomethane	25.0	22.6		ug/L		90	55 - 144
Carbon disulfide	25.0	25.2		ug/L		101	59 - 134
Carbon tetrachloride	25.0	29.3		ug/L		117	72 - 134
Chlorobenzene	25.0	25.3		ug/L		101	80 - 120
Chlorodibromomethane	25.0	28.8		ug/L		115	75 - 125
Chloroethane	25.0	25.2		ug/L		101	69 - 136
Chloroform	25.0	24.2		ug/L		97	73 - 127
Chloromethane	25.0	23.6		ug/L		95	68 - 124
cis-1,2-Dichloroethene	25.0	25.7		ug/L		103	74 - 124
cis-1,3-Dichloropropene	25.0	27.5		ug/L		110	74 - 124
Dibromomethane	25.0	26.0		ug/L		104	76 - 127
Ethylbenzene	25.0	25.5		ug/L		102	77 - 123
Iodomethane	25.0	25.9		ug/L		103	78 - 123
Methylene Chloride	25.0	24.7		ug/L		99	75 - 124
Styrene	25.0	26.3		ug/L		105	80 - 120
Tetrachloroethene	25.0	27.0		ug/L		108	74 - 122
Toluene	25.0	25.6		ug/L		102	80 - 122

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

Lab Sample ID: LCS 480-669608/5
Matrix: Water
Analysis Batch: 669608

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,2-Dichloroethene	25.0	25.5		ug/L		102	73 - 127
trans-1,3-Dichloropropene	25.0	28.2		ug/L		113	80 - 120
trans-1,4-Dichloro-2-butene	25.0	23.8		ug/L		95	41 - 131
Trichloroethene	25.0	26.2		ug/L		105	74 - 123
Trichlorofluoromethane	25.0	27.0		ug/L		108	62 - 150
Vinyl acetate	50.0	56.2		ug/L		112	50 - 144
Vinyl chloride	25.0	25.7		ug/L		103	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 480-669676/9
Matrix: Water
Analysis Batch: 669676

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 17:34	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/16/23 17:34	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/16/23 17:34	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/16/23 17:34	1
1,1-Dichloroethane	ND		1.0		ug/L			05/16/23 17:34	1
1,1-Dichloroethene	ND		1.0		ug/L			05/16/23 17:34	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/16/23 17:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/16/23 17:34	1
1,2-Dibromoethane	ND		1.0		ug/L			05/16/23 17:34	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/16/23 17:34	1
1,2-Dichloroethane	ND		1.0		ug/L			05/16/23 17:34	1
1,2-Dichloropropane	ND		1.0		ug/L			05/16/23 17:34	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/16/23 17:34	1
2-Butanone (MEK)	ND		10		ug/L			05/16/23 17:34	1
2-Hexanone	ND		5.0		ug/L			05/16/23 17:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/16/23 17:34	1
Acetone	ND		10		ug/L			05/16/23 17:34	1
Acrylonitrile	ND		5.0		ug/L			05/16/23 17:34	1
Benzene	ND		1.0		ug/L			05/16/23 17:34	1
Chlorobromomethane	ND		1.0		ug/L			05/16/23 17:34	1
Bromodichloromethane	ND		1.0		ug/L			05/16/23 17:34	1
Bromoform	ND		1.0		ug/L			05/16/23 17:34	1
Bromomethane	ND		1.0		ug/L			05/16/23 17:34	1
Carbon disulfide	ND		1.0		ug/L			05/16/23 17:34	1
Carbon tetrachloride	ND		1.0		ug/L			05/16/23 17:34	1
Chlorobenzene	ND		1.0		ug/L			05/16/23 17:34	1
Chlorodibromomethane	ND		1.0		ug/L			05/16/23 17:34	1
Chloroethane	ND		1.0		ug/L			05/16/23 17:34	1
Chloroform	ND		1.0		ug/L			05/16/23 17:34	1
Chloromethane	ND		1.0		ug/L			05/16/23 17:34	1

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

Lab Sample ID: MB 480-669676/9
Matrix: Water
Analysis Batch: 669676

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 17:34	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 17:34	1
Dibromomethane	ND		1.0		ug/L			05/16/23 17:34	1
Ethylbenzene	ND		1.0		ug/L			05/16/23 17:34	1
Iodomethane	ND		1.0		ug/L			05/16/23 17:34	1
Methylene Chloride	ND		1.0		ug/L			05/16/23 17:34	1
Styrene	ND		1.0		ug/L			05/16/23 17:34	1
Tetrachloroethene	ND		1.0		ug/L			05/16/23 17:34	1
Toluene	ND		1.0		ug/L			05/16/23 17:34	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/16/23 17:34	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/16/23 17:34	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/16/23 17:34	1
Trichloroethene	ND		1.0		ug/L			05/16/23 17:34	1
Trichlorofluoromethane	ND		1.0		ug/L			05/16/23 17:34	1
Vinyl acetate	ND		5.0		ug/L			05/16/23 17:34	1
Vinyl chloride	ND		1.0		ug/L			05/16/23 17:34	1
Xylenes, Total	ND		2.0		ug/L			05/16/23 17:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*05/16/23 17:34*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*05/16/23 17:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/16/23 17:34*	*1*

Lab Sample ID: LCS 480-669676/6
Matrix: Water
Analysis Batch: 669676

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	25.8		ug/L		103	80 - 120
1,1,1-Trichloroethane	25.0	24.8		ug/L		99	73 - 126
1,1,2,2-Tetrachloroethane	25.0	28.0		ug/L		112	76 - 120
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	76 - 122
1,1-Dichloroethane	25.0	25.4		ug/L		102	77 - 120
1,1-Dichloroethene	25.0	24.7		ug/L		99	66 - 127
1,2,3-Trichloropropane	25.0	28.0		ug/L		112	68 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.1		ug/L		93	56 - 134
1,2-Dibromoethane	25.0	25.0		ug/L		100	77 - 120
1,2-Dichlorobenzene	25.0	25.3		ug/L		101	80 - 124
1,2-Dichloroethane	25.0	23.3		ug/L		93	75 - 120
1,2-Dichloropropane	25.0	24.5		ug/L		98	76 - 120
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	80 - 120
2-Butanone (MEK)	125	125		ug/L		100	57 - 140
2-Hexanone	125	140		ug/L		112	65 - 127
4-Methyl-2-pentanone (MIBK)	125	127		ug/L		101	71 - 125
Acetone	125	152		ug/L		122	56 - 142
Acrylonitrile	250	257		ug/L		103	63 - 125
Benzene	25.0	24.9		ug/L		100	71 - 124
Chlorobromomethane	25.0	23.3		ug/L		93	72 - 130

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

Lab Sample ID: LCS 480-669676/6
Matrix: Water
Analysis Batch: 669676

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	25.0	23.3		ug/L		93	80 - 122
Bromoform	25.0	23.2		ug/L		93	61 - 132
Bromomethane	25.0	27.8		ug/L		111	55 - 144
Carbon disulfide	25.0	27.5		ug/L		110	59 - 134
Carbon tetrachloride	25.0	25.3		ug/L		101	72 - 134
Chlorobenzene	25.0	26.1		ug/L		104	80 - 120
Chlorodibromomethane	25.0	24.7		ug/L		99	75 - 125
Chloroethane	25.0	24.8		ug/L		99	69 - 136
Chloroform	25.0	24.2		ug/L		97	73 - 127
Chloromethane	25.0	24.0		ug/L		96	68 - 124
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	74 - 124
cis-1,3-Dichloropropene	25.0	23.5		ug/L		94	74 - 124
Dibromomethane	25.0	23.8		ug/L		95	76 - 127
Ethylbenzene	25.0	26.2		ug/L		105	77 - 123
Iodomethane	25.0	25.6		ug/L		102	78 - 123
Methylene Chloride	25.0	23.8		ug/L		95	75 - 124
Styrene	25.0	25.9		ug/L		104	80 - 120
Tetrachloroethene	25.0	26.6		ug/L		107	74 - 122
Toluene	25.0	26.6		ug/L		106	80 - 122
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	73 - 127
trans-1,3-Dichloropropene	25.0	24.9		ug/L		100	80 - 120
trans-1,4-Dichloro-2-butene	25.0	25.9		ug/L		103	41 - 131
Trichloroethene	25.0	24.8		ug/L		99	74 - 123
Trichlorofluoromethane	25.0	26.7		ug/L		107	62 - 150
Vinyl acetate	50.0	48.7		ug/L		97	50 - 144
Vinyl chloride	25.0	26.4		ug/L		106	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 480-669977/8
Matrix: Water
Analysis Batch: 669977

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 14:38	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/18/23 14:38	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/18/23 14:38	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/18/23 14:38	1
1,1-Dichloroethane	ND		1.0		ug/L			05/18/23 14:38	1
1,1-Dichloroethene	ND		1.0		ug/L			05/18/23 14:38	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/18/23 14:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/18/23 14:38	1
1,2-Dibromoethane	ND		1.0		ug/L			05/18/23 14:38	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/18/23 14:38	1
1,2-Dichloroethane	ND		1.0		ug/L			05/18/23 14:38	1

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

Lab Sample ID: MB 480-669977/8
Matrix: Water
Analysis Batch: 669977

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0		ug/L			05/18/23 14:38	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/18/23 14:38	1
2-Butanone (MEK)	ND		10		ug/L			05/18/23 14:38	1
2-Hexanone	ND		5.0		ug/L			05/18/23 14:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/18/23 14:38	1
Acetone	ND		10		ug/L			05/18/23 14:38	1
Acrylonitrile	ND		5.0		ug/L			05/18/23 14:38	1
Benzene	ND		1.0		ug/L			05/18/23 14:38	1
Chlorobromomethane	ND		1.0		ug/L			05/18/23 14:38	1
Bromodichloromethane	ND		1.0		ug/L			05/18/23 14:38	1
Bromoform	ND		1.0		ug/L			05/18/23 14:38	1
Bromomethane	ND		1.0		ug/L			05/18/23 14:38	1
Carbon disulfide	ND		1.0		ug/L			05/18/23 14:38	1
Carbon tetrachloride	ND		1.0		ug/L			05/18/23 14:38	1
Chlorobenzene	ND		1.0		ug/L			05/18/23 14:38	1
Chlorodibromomethane	ND		1.0		ug/L			05/18/23 14:38	1
Chloroethane	ND		1.0		ug/L			05/18/23 14:38	1
Chloroform	ND		1.0		ug/L			05/18/23 14:38	1
Chloromethane	ND		1.0		ug/L			05/18/23 14:38	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 14:38	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 14:38	1
Dibromomethane	ND		1.0		ug/L			05/18/23 14:38	1
Ethylbenzene	ND		1.0		ug/L			05/18/23 14:38	1
Iodomethane	ND		1.0		ug/L			05/18/23 14:38	1
Methylene Chloride	ND		1.0		ug/L			05/18/23 14:38	1
Styrene	ND		1.0		ug/L			05/18/23 14:38	1
Tetrachloroethene	ND		1.0		ug/L			05/18/23 14:38	1
Toluene	ND		1.0		ug/L			05/18/23 14:38	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/18/23 14:38	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			05/18/23 14:38	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			05/18/23 14:38	1
Trichloroethene	ND		1.0		ug/L			05/18/23 14:38	1
Trichlorofluoromethane	ND		1.0		ug/L			05/18/23 14:38	1
Vinyl acetate	ND		5.0		ug/L			05/18/23 14:38	1
Vinyl chloride	ND		1.0		ug/L			05/18/23 14:38	1
Xylenes, Total	ND		2.0		ug/L			05/18/23 14:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*	*S1+*	*77 - 120*		*05/18/23 14:38*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*05/18/23 14:38*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/18/23 14:38*	*1*

Lab Sample ID: LCS 480-669977/6
Matrix: Water
Analysis Batch: 669977

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	25.0	22.7		ug/L		91	80 - 120

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

Lab Sample ID: LCS 480-669977/6
Matrix: Water
Analysis Batch: 669977

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	73 - 126
1,1,2,2-Tetrachloroethane	25.0	20.5		ug/L		82	76 - 120
1,1,2-Trichloroethane	25.0	22.4		ug/L		89	76 - 122
1,1-Dichloroethane	25.0	24.6		ug/L		98	77 - 120
1,1-Dichloroethene	25.0	25.8		ug/L		103	66 - 127
1,2,3-Trichloropropane	25.0	20.1		ug/L		80	68 - 122
1,2-Dibromo-3-Chloropropane	25.0	21.6		ug/L		86	56 - 134
1,2-Dibromoethane	25.0	22.5		ug/L		90	77 - 120
1,2-Dichlorobenzene	25.0	22.7		ug/L		91	80 - 124
1,2-Dichloroethane	25.0	23.5		ug/L		94	75 - 120
1,2-Dichloropropane	25.0	24.9		ug/L		100	76 - 120
1,4-Dichlorobenzene	25.0	23.2		ug/L		93	80 - 120
2-Butanone (MEK)	125	110		ug/L		88	57 - 140
2-Hexanone	125	109		ug/L		87	65 - 127
4-Methyl-2-pentanone (MIBK)	125	103		ug/L		82	71 - 125
Acetone	125	110		ug/L		88	56 - 142
Acrylonitrile	250	197		ug/L		79	63 - 125
Benzene	25.0	24.7		ug/L		99	71 - 124
Chlorobromomethane	25.0	24.0		ug/L		96	72 - 130
Bromodichloromethane	25.0	25.5		ug/L		102	80 - 122
Bromoform	25.0	24.6		ug/L		98	61 - 132
Bromomethane	25.0	22.8		ug/L		91	55 - 144
Carbon disulfide	25.0	25.5		ug/L		102	59 - 134
Carbon tetrachloride	25.0	27.3		ug/L		109	72 - 134
Chlorobenzene	25.0	23.4		ug/L		94	80 - 120
Chlorodibromomethane	25.0	23.6		ug/L		94	75 - 125
Chloroethane	25.0	22.4		ug/L		90	69 - 136
Chloroform	25.0	23.6		ug/L		94	73 - 127
Chloromethane	25.0	22.5		ug/L		90	68 - 124
cis-1,2-Dichloroethene	25.0	24.5		ug/L		98	74 - 124
cis-1,3-Dichloropropene	25.0	27.1		ug/L		108	74 - 124
Dibromomethane	25.0	23.8		ug/L		95	76 - 127
Ethylbenzene	25.0	23.6		ug/L		95	77 - 123
Iodomethane	25.0	24.6		ug/L		98	78 - 123
Methylene Chloride	25.0	21.4		ug/L		86	75 - 124
Styrene	25.0	24.7		ug/L		99	80 - 120
Tetrachloroethene	25.0	24.6		ug/L		99	74 - 122
Toluene	25.0	22.7		ug/L		91	80 - 122
trans-1,2-Dichloroethene	25.0	26.2		ug/L		105	73 - 127
trans-1,3-Dichloropropene	25.0	24.1		ug/L		96	80 - 120
trans-1,4-Dichloro-2-butene	25.0	23.8		ug/L		95	41 - 131
Trichloroethene	25.0	26.3		ug/L		105	74 - 123
Trichlorofluoromethane	25.0	25.4		ug/L		101	62 - 150
Vinyl acetate	50.0	48.0		ug/L		96	50 - 144
Vinyl chloride	25.0	24.0		ug/L		96	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*

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

Lab Sample ID: LCS 480-669977/6
Matrix: Water
Analysis Batch: 669977

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: LCSD 480-669977/29
Matrix: Water
Analysis Batch: 669977

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	25.9		ug/L		103	80 - 120	13	20
1,1,1-Trichloroethane	25.0	30.8		ug/L		123	73 - 126	15	15
1,1,2,2-Tetrachloroethane	25.0	23.2		ug/L		93	76 - 120	12	15
1,1,2-Trichloroethane	25.0	24.9		ug/L		99	76 - 122	11	15
1,1-Dichloroethane	25.0	28.0		ug/L		112	77 - 120	13	20
1,1-Dichloroethene	25.0	29.1		ug/L		117	66 - 127	12	16
1,2,3-Trichloropropane	25.0	23.2		ug/L		93	68 - 122	14	14
1,2-Dibromo-3-Chloropropane	25.0	22.9		ug/L		92	56 - 134	6	15
1,2-Dibromoethane	25.0	25.3		ug/L		101	77 - 120	12	15
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	80 - 124	11	20
1,2-Dichloroethane	25.0	26.6		ug/L		107	75 - 120	12	20
1,2-Dichloropropane	25.0	28.0		ug/L		112	76 - 120	12	20
1,4-Dichlorobenzene	25.0	26.1		ug/L		104	80 - 120	12	20
2-Butanone (MEK)	125	131		ug/L		105	57 - 140	17	20
2-Hexanone	125	126		ug/L		101	65 - 127	14	15
4-Methyl-2-pentanone (MIBK)	125	118		ug/L		94	71 - 125	13	35
Acetone	125	130	*1	ug/L		104	56 - 142	17	15
Acrylonitrile	250	224		ug/L		90	63 - 125	13	20
Benzene	25.0	27.7		ug/L		111	71 - 124	12	13
Chlorobromomethane	25.0	27.0		ug/L		108	72 - 130	12	15
Bromodichloromethane	25.0	28.3		ug/L		113	80 - 122	10	15
Bromoform	25.0	26.6		ug/L		106	61 - 132	8	15
Bromomethane	25.0	26.5		ug/L		106	55 - 144	15	15
Carbon disulfide	25.0	27.9		ug/L		112	59 - 134	9	15
Carbon tetrachloride	25.0	31.2		ug/L		125	72 - 134	13	15
Chlorobenzene	25.0	27.0		ug/L		108	80 - 120	14	25
Chlorodibromomethane	25.0	25.8		ug/L		103	75 - 125	9	15
Chloroethane	25.0	25.3		ug/L		101	69 - 136	12	15
Chloroform	25.0	27.0		ug/L		108	73 - 127	13	20
Chloromethane	25.0	27.6	*1	ug/L		111	68 - 124	21	15
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	74 - 124	11	15
cis-1,3-Dichloropropene	25.0	29.2		ug/L		117	74 - 124	8	15
Dibromomethane	25.0	27.0		ug/L		108	76 - 127	13	15
Ethylbenzene	25.0	27.3		ug/L		109	77 - 123	14	15
Iodomethane	25.0	28.2		ug/L		113	78 - 123	14	20
Methylene Chloride	25.0	24.6		ug/L		98	75 - 124	14	15
Styrene	25.0	28.1		ug/L		112	80 - 120	13	20
Tetrachloroethene	25.0	28.4		ug/L		114	74 - 122	14	20
Toluene	25.0	25.9		ug/L		104	80 - 122	13	15
trans-1,2-Dichloroethene	25.0	29.5		ug/L		118	73 - 127	12	20

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

Lab Sample ID: LCSD 480-669977/29
Matrix: Water
Analysis Batch: 669977

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,3-Dichloropropene	25.0	25.8		ug/L		103	80 - 120	7	15
trans-1,4-Dichloro-2-butene	25.0	23.4		ug/L		94	41 - 131	2	20
Trichloroethene	25.0	29.0		ug/L		116	74 - 123	10	16
Trichlorofluoromethane	25.0	30.1		ug/L		120	62 - 150	17	20
Vinyl acetate	50.0	53.6		ug/L		107	50 - 144	11	23
Vinyl chloride	25.0	27.8		ug/L		111	65 - 133	15	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

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

Lab Sample ID: MB 480-669699/1-A
Matrix: Water
Analysis Batch: 669764

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669699

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/16/23 16:06	05/17/23 10:53	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*25*		*15 - 110*	*05/16/23 16:06*	*05/17/23 10:53*	*1*

Lab Sample ID: LCS 480-669699/2-A
Matrix: Water
Analysis Batch: 669764

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669699

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.37		ug/L		118	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*30*		*15 - 110*

Lab Sample ID: LCSD 480-669699/3-A
Matrix: Water
Analysis Batch: 669764

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669699

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	2.00	2.29		ug/L		114	40 - 140	3	20

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

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

Lab Sample ID: MB 480-670099/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670367 — **Prep Batch: 670099**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		05/19/23 08:42	05/22/23 16:01	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 110*	*05/19/23 08:42*	*05/22/23 16:01*	*1*

Lab Sample ID: LCS 480-670099/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670367 — **Prep Batch: 670099**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.27		ug/L		113	40 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*31*		*15 - 110*

Lab Sample ID: LCSD 480-670099/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670367 — **Prep Batch: 670099**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	2.00	2.26		ug/L		113	40 - 140	0	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*38*		*15 - 110*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 160-611929/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612270 — **Prep Batch: 611929**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0	0.40	ug/L		05/17/23 14:07	05/18/23 14:37	2

Lab Sample ID: LCS 160-611929/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 612270 — **Prep Batch: 611929**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	1000	1058		ug/L		106	85 - 115

Lab Sample ID: MB 160-612791/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616104 — **Prep Batch: 612791**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	ND		1.0		ug/L		05/23/23 13:50	06/14/23 18:03	2

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 160-612791/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616104 — **Prep Batch: 612791**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Uranium	1000	995.6		ug/L		100	85 - 115

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-669687/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669966 — **Prep Batch: 669687**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/17/23 07:55	05/17/23 17:26	1
Antimony	ND		20.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Arsenic	ND		15.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Barium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Beryllium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Boron	ND		20.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Cadmium	ND		2.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Calcium	ND		500		ug/L		05/17/23 07:55	05/17/23 17:26	1
Chromium	ND		4.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Cobalt	ND		4.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Copper	ND		10.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Iron	ND		50.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Lead	ND		10.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Magnesium	ND		200		ug/L		05/17/23 07:55	05/17/23 17:26	1
Manganese	ND		3.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Nickel	ND		10.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Potassium	ND		500		ug/L		05/17/23 07:55	05/17/23 17:26	1
Selenium	ND		25.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Silver	ND		6.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Sodium	ND		1000		ug/L		05/17/23 07:55	05/17/23 17:26	1
Thallium	ND		20.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Vanadium	ND		5.0		ug/L		05/17/23 07:55	05/17/23 17:26	1
Zinc	ND		10.0		ug/L		05/17/23 07:55	05/17/23 17:26	1

Lab Sample ID: LCS 480-669687/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669966 — **Prep Batch: 669687**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10000	10390		ug/L		104	80 - 120
Antimony	200	225.9		ug/L		113	80 - 120
Arsenic	200	206.7		ug/L		103	80 - 120
Barium	200	216.7		ug/L		108	80 - 120
Beryllium	200	219.8		ug/L		110	80 - 120
Boron	201	208.1		ug/L		104	80 - 120
Cadmium	200	215.3		ug/L		108	80 - 120
Calcium	10000	10510		ug/L		105	80 - 120
Chromium	201	211.2		ug/L		105	80 - 120
Cobalt	200	202.3		ug/L		101	80 - 120
Copper	200	199.8		ug/L		100	80 - 120

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

Lab Sample ID: LCS 480-669687/2-A
Matrix: Water
Analysis Batch: 669966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669687

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10000	10540		ug/L		105	80 - 120
Lead	200	207.3		ug/L		104	80 - 120
Magnesium	10000	9765		ug/L		98	80 - 120
Manganese	200	205.2		ug/L		103	80 - 120
Nickel	200	199.1		ug/L		100	80 - 120
Potassium	10000	9883		ug/L		99	80 - 120
Selenium	200	199.0		ug/L		99	80 - 120
Silver	50.0	52.06		ug/L		104	80 - 120
Sodium	10000	10040		ug/L		100	80 - 120
Thallium	200	206.3		ug/L		103	80 - 120
Vanadium	200	211.2		ug/L		106	80 - 120
Zinc	200	196.7		ug/L		98	80 - 120

Lab Sample ID: MB 480-669847/1-A
Matrix: Water
Analysis Batch: 670123

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		200		ug/L		05/18/23 08:18	05/18/23 20:35	1
Antimony	ND		20.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Barium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Beryllium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Boron	ND		20.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Cadmium	ND		2.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Calcium	ND		500		ug/L		05/18/23 08:18	05/18/23 20:35	1
Chromium	ND		4.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Cobalt	ND		4.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Copper	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Iron	ND		50.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Lead	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Magnesium	ND		200		ug/L		05/18/23 08:18	05/18/23 20:35	1
Manganese	ND		3.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Nickel	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Silver	ND		6.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Sodium	ND		1000		ug/L		05/18/23 08:18	05/18/23 20:35	1
Thallium	ND		20.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Vanadium	ND		5.0		ug/L		05/18/23 08:18	05/18/23 20:35	1
Zinc	ND		10.0		ug/L		05/18/23 08:18	05/18/23 20:35	1

Lab Sample ID: MB 480-669847/1-A
Matrix: Water
Analysis Batch: 670337

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		15.0		ug/L		05/18/23 08:18	05/19/23 19:25	1
Potassium	ND		500		ug/L		05/18/23 08:18	05/19/23 19:25	1
Selenium	ND		25.0		ug/L		05/18/23 08:18	05/19/23 19:25	1

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

Lab Sample ID: LCS 480-669847/2-A
Matrix: Water
Analysis Batch: 670123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10000	10300		ug/L		103	80 - 120
Antimony	200	220.5		ug/L		110	80 - 120
Barium	200	213.4		ug/L		107	80 - 120
Beryllium	200	222.8		ug/L		111	80 - 120
Boron	201	199.3		ug/L		99	80 - 120
Cadmium	200	206.6		ug/L		103	80 - 120
Calcium	10000	10190		ug/L		102	80 - 120
Chromium	201	198.2		ug/L		99	80 - 120
Cobalt	200	196.9		ug/L		98	80 - 120
Copper	200	194.9		ug/L		97	80 - 120
Iron	10000	10730		ug/L		107	80 - 120
Lead	200	198.8		ug/L		99	80 - 120
Magnesium	10000	9729		ug/L		97	80 - 120
Manganese	200	211.4		ug/L		106	80 - 120
Nickel	200	199.1		ug/L		100	80 - 120
Silver	50.0	44.84		ug/L		90	80 - 120
Sodium	10000	10340		ug/L		103	80 - 120
Thallium	200	206.5		ug/L		103	80 - 120
Vanadium	200	208.9		ug/L		104	80 - 120
Zinc	200	188.3		ug/L		94	80 - 120

Lab Sample ID: LCS 480-669847/2-A
Matrix: Water
Analysis Batch: 670337

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	200	207.4		ug/L		104	80 - 120
Potassium	10000	10060		ug/L		101	80 - 120
Selenium	200	199.7		ug/L		100	80 - 120

Lab Sample ID: LCSD 480-669847/3-A
Matrix: Water
Analysis Batch: 670123

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669847

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	10000	10190		ug/L		102	80 - 120	1	20
Antimony	200	216.9		ug/L		108	80 - 120	2	20
Barium	200	207.2		ug/L		104	80 - 120	3	20
Beryllium	200	222.6		ug/L		111	80 - 120	0	20
Boron	201	192.9		ug/L		96	80 - 120	3	20
Cadmium	200	204.1		ug/L		102	80 - 120	1	20
Calcium	10000	10410		ug/L		104	80 - 120	2	20
Chromium	201	199.7		ug/L		100	80 - 120	1	20
Cobalt	200	194.8		ug/L		97	80 - 120	1	20
Copper	200	194.6		ug/L		97	80 - 120	0	20
Iron	10000	10820		ug/L		108	80 - 120	1	20
Lead	200	197.1		ug/L		99	80 - 120	1	20
Magnesium	10000	9825		ug/L		98	80 - 120	1	20
Manganese	200	211.4		ug/L		106	80 - 120	0	20

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

Lab Sample ID: LCSD 480-669847/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670123 — **Prep Batch: 669847**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nickel	200	197.4		ug/L		99	80 - 120	1	20
Silver	50.0	45.30		ug/L		91	80 - 120	1	20
Sodium	10000	10070		ug/L		101	80 - 120	3	20
Thallium	200	203.2		ug/L		102	80 - 120	2	20
Vanadium	200	207.9		ug/L		104	80 - 120	1	20
Zinc	200	193.2		ug/L		97	80 - 120	3	20

Lab Sample ID: 480-208931-3 MS — **Client Sample ID: SW-01-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670123 — **Prep Batch: 669847**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	ND		10000	10560		ug/L		105	75 - 125
Antimony	ND		200	229.8		ug/L		115	75 - 125
Barium	99.3		200	310.7		ug/L		106	75 - 125
Beryllium	ND		200	224.4		ug/L		112	75 - 125
Boron	39.6		201	246.5		ug/L		103	75 - 125
Cadmium	ND		200	213.8		ug/L		107	75 - 125
Calcium	104000		10000	114800	4	ug/L		108	75 - 125
Chromium	ND		201	199.2		ug/L		99	75 - 125
Cobalt	ND		200	202.2		ug/L		101	75 - 125
Copper	ND		200	202.8		ug/L		101	75 - 125
Iron	130		10000	10800		ug/L		107	75 - 125
Lead	ND		200	203.8		ug/L		102	75 - 125
Magnesium	38200		10000	48510		ug/L		103	75 - 125
Manganese	107		200	317.2		ug/L		105	75 - 125
Nickel	ND		200	203.9		ug/L		102	75 - 125
Silver	ND		50.0	46.85		ug/L		94	75 - 125
Sodium	118000		10000	129900	4	ug/L		117	75 - 125
Thallium	ND		200	206.1		ug/L		103	75 - 125
Vanadium	ND		200	212.2		ug/L		106	75 - 125
Zinc	ND		200	191.5		ug/L		96	75 - 125

Lab Sample ID: 480-208931-3 MS — **Client Sample ID: SW-01-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670337 — **Prep Batch: 669847**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		200	214.6		ug/L		107	75 - 125
Potassium	2150		10000	12800		ug/L		106	75 - 125
Selenium	ND		200	205.2		ug/L		103	75 - 125

Lab Sample ID: 480-208931-3 MSD — **Client Sample ID: SW-01-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670123 — **Prep Batch: 669847**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	ND		10000	10550		ug/L		105	75 - 125	0	20
Antimony	ND		200	228.2		ug/L		114	75 - 125	1	20

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

Lab Sample ID: 480-208931-3 MSD — **Client Sample ID: SW-01-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670123 — **Prep Batch: 669847**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	99.3		200	308.6		ug/L		105	75 - 125	1	20
Beryllium	ND		200	228.2		ug/L		114	75 - 125	2	20
Boron	39.6		201	246.7		ug/L		103	75 - 125	0	20
Cadmium	ND		200	214.7		ug/L		107	75 - 125	0	20
Calcium	104000		10000	117900	4	ug/L		139	75 - 125	3	20
Chromium	ND		201	201.9		ug/L		101	75 - 125	1	20
Cobalt	ND		200	205.3		ug/L		103	75 - 125	2	20
Copper	ND		200	199.8		ug/L		99	75 - 125	2	20
Iron	130		10000	11030		ug/L		109	75 - 125	2	20
Lead	ND		200	208.6		ug/L		104	75 - 125	2	20
Magnesium	38200		10000	49110		ug/L		109	75 - 125	1	20
Manganese	107		200	322.4		ug/L		108	75 - 125	2	20
Nickel	ND		200	207.2		ug/L		104	75 - 125	2	20
Silver	ND		50.0	47.38		ug/L		95	75 - 125	1	20
Sodium	118000		10000	131700	4	ug/L		135	75 - 125	1	20
Thallium	ND		200	208.0		ug/L		104	75 - 125	1	20
Vanadium	ND		200	214.5		ug/L		107	75 - 125	1	20
Zinc	ND		200	196.1		ug/L		98	75 - 125	2	20

Lab Sample ID: 480-208931-3 MSD — **Client Sample ID: SW-01-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670337 — **Prep Batch: 669847**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		200	216.9		ug/L		108	75 - 125	1	20
Potassium	2150		10000	12950		ug/L		108	75 - 125	1	20
Selenium	ND		200	208.9		ug/L		104	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-669810/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669874 — **Prep Batch: 669810**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/17/23 11:21	05/17/23 15:28	1

Lab Sample ID: LCS 480-669810/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669874 — **Prep Batch: 669810**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	6.69	6.60		ug/L		99	80 - 120

Lab Sample ID: 480-208896-1 MS — **Client Sample ID: FB-01-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669874 — **Prep Batch: 669810**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		6.69	6.63		ug/L		99	80 - 120

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Method: 7470A - Mercury (CVAA)

Lab Sample ID: 480-208896-1 MSD — **Client Sample ID: FB-01-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669874 — **Prep Batch: 669810**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		6.69	6.86		ug/L		103	80 - 120	4	20

Lab Sample ID: MB 480-669979/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670067 — **Prep Batch: 669979**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		05/18/23 11:53	05/18/23 15:51	1

Lab Sample ID: LCS 480-669979/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670067 — **Prep Batch: 669979**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	6.69	6.50		ug/L		97	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-669908/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			05/18/23 20:35	1
Sulfate	ND		2.0		mg/L			05/18/23 20:35	1

Lab Sample ID: LCS 480-669908/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	5.09		mg/L		102	90 - 110
Sulfate	50.1	50.35		mg/L		101	90 - 110

Lab Sample ID: 480-208896-4 MS — **Client Sample ID: MW-12S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	ND		25.0	24.64		mg/L		98	80 - 120
Sulfate	243		250	472.6		mg/L		92	80 - 120

Lab Sample ID: MB 480-670012/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			05/23/23 01:37	1
Sulfate	ND		2.0		mg/L			05/23/23 01:37	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 480-670012/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			05/22/23 18:06	1
Sulfate	ND		2.0		mg/L			05/22/23 18:06	1

Lab Sample ID: LCS 480-670012/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.90		mg/L		98	90 - 110
Sulfate	50.1	48.47		mg/L		97	90 - 110

Lab Sample ID: LCS 480-670012/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.78		mg/L		95	90 - 110
Sulfate	50.1	48.49		mg/L		97	90 - 110

Lab Sample ID: 480-208931-2 MS — **Client Sample ID: MW-8S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	ND		25.0	24.32		mg/L		97	80 - 120
Sulfate	279		250	504.7		mg/L		90	80 - 120

Lab Sample ID: 480-208931-2 MSD — **Client Sample ID: MW-8S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670012

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromide	ND		25.0	24.68		mg/L		99	80 - 120	1	15
Sulfate	279		250	509.0		mg/L		92	80 - 120	1	15

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-670452/123 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			05/22/23 19:47	1

Lab Sample ID: MB 480-670452/147 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			05/22/23 20:07	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MB 480-670452/171 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			05/22/23 20:28	1

Lab Sample ID: MB 480-670452/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020		mg/L			05/22/23 18:05	1

Lab Sample ID: LCS 480-670452/124 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

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 480-670452/148 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

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: LCS 480-670452/172 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

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 480-670452/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

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: 480-208931-2 MS — **Client Sample ID: MW-8S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	ND	F1	0.200	0.175	F1	mg/L		88	90 - 110

Lab Sample ID: 480-208931-2 DU — **Client Sample ID: MW-8S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670452

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia	ND	F1	ND		mg/L		NC	20

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-670406/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670546 — **Prep Batch: 670406**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		05/22/23 13:43	05/23/23 05:15	1

Lab Sample ID: LCS 480-670406/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670546 — **Prep Batch: 670406**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.34		mg/L		94	90 - 110

Lab Sample ID: MB 480-670542/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670752 — **Prep Batch: 670542**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		05/23/23 11:27	05/24/23 06:11	1

Lab Sample ID: LCS 480-670542/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670752 — **Prep Batch: 670542**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.29		mg/L		91	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-669993/123 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/18/23 12:55	1

Lab Sample ID: LCS 480-669993/124 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669993

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	22.42		mg/L		90	90 - 110

Lab Sample ID: MB 480-671412/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671412

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/30/23 19:50	1

Method: 410.4 - COD (Continued)

Lab Sample ID: MB 480-671412/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671412

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			05/30/23 18:44	1

Lab Sample ID: LCS 480-671412/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671412

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	23.78		mg/L		95	90 - 110

Lab Sample ID: LCS 480-671412/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671412

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	25.20		mg/L		101	90 - 110

Lab Sample ID: 480-208931-4 MS — **Client Sample ID: SW-02-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671412

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	ND		50.0	46.98		mg/L		94	75 - 125

Lab Sample ID: 480-208931-4 DU — **Client Sample ID: SW-02-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671412

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

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-671027/246 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			05/26/23 02:31	1

Lab Sample ID: MB 480-671027/275 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND	^+	0.010		mg/L			05/26/23 04:17	1

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 480-671027/247 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.100	0.110		mg/L		110	90 - 110

Lab Sample ID: LCS 480-671027/276 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671027

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: 480-208896-4 MS — **Client Sample ID: MW-12S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671027

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	ND	^+	0.100	0.103	^+	mg/L		103	90 - 110

Lab Sample ID: 480-208896-4 DU — **Client Sample ID: MW-12S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671027

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phenolics, Total Recoverable	ND	^+	ND	^+	mg/L		NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-670610/21 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L			05/23/23 14:33	1

Lab Sample ID: MB 480-670610/77 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L			05/23/23 17:03	1

Lab Sample ID: HLCS 480-670610/22 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.397		mg/L		99	90 - 110

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 480-670610/23 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.244		mg/L		97	90 - 110

Lab Sample ID: LCS 480-670610/78 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.243		mg/L		97	90 - 110

Lab Sample ID: 480-208896-2 MS — **Client Sample ID: MW-11S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND		0.100	0.0926		mg/L		93	90 - 110

Lab Sample ID: 480-208896-6 MS — **Client Sample ID: MW-7S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND		0.100	0.0915		mg/L		92	90 - 110

Lab Sample ID: 480-208931-1 MS — **Client Sample ID: MW-6S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	ND		0.100	0.0901		mg/L		90	90 - 110

Lab Sample ID: 480-208896-6 DU — **Client Sample ID: MW-7S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	ND		ND		mg/L		NC	15

Lab Sample ID: 480-208931-1 DU — **Client Sample ID: MW-6S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670610

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	ND		ND		mg/L		NC	15

QC Sample Results

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 480-669834/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669834

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	ND		5.00		Color Units			05/17/23 09:01	1

Lab Sample ID: LCS 480-669834/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669834

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Color	30.0	30.00		Color Units		100	90 - 110

Lab Sample ID: 480-208896-1 DU — **Client Sample ID: FB-01-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669834

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	5.00	H	5.000		Color Units		0	20

Lab Sample ID: MB 480-669994/27 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669994

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	ND		5.00		Color Units			05/18/23 09:30	1

Lab Sample ID: MB 480-669994/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669994

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color	ND		5.00		Color Units			05/18/23 09:30	1

Lab Sample ID: LCS 480-669994/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Color	30.0	30.00		Color Units		100	90 - 110

Lab Sample ID: 480-208931-1 DU — **Client Sample ID: MW-6S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669994

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color	5.00	H	5.000		Color Units		0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-669876/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			05/17/23 11:24	1

Lab Sample ID: LCS 480-669876/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	98.88		mg/L		99	90 - 110

Lab Sample ID: MB 480-670234/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670234

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			05/18/23 20:26	1

Lab Sample ID: MB 480-670234/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670234

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			05/18/23 17:09	1

Lab Sample ID: LCS 480-670234/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670234

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	99.28		mg/L		99	90 - 110

Lab Sample ID: LCS 480-670234/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670234

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	99.36		mg/L		99	90 - 110

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 480-671517/27 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			05/31/23 11:50	1

Method: SM 2340C - Hardness, Total (mg/l as CaC03) (Continued)

Lab Sample ID: MB 480-671517/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			05/31/23 11:50	1

Lab Sample ID: LCS 480-671517/28 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	274	272.0		mg/L		99	90 - 110

Lab Sample ID: LCS 480-671517/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	274	268.0		mg/L		98	90 - 110

Lab Sample ID: 480-208896-4 MS — **Client Sample ID: MW-12S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	560		1000	1580		mg/L		102	74 - 130

Lab Sample ID: 480-208896-1 DU — **Client Sample ID: FB-01-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671517

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Hardness	ND		ND		mg/L		NC	15

Lab Sample ID: 480-208931-4 DU — **Client Sample ID: SW-02-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 671517

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Hardness	380		370.0		mg/L		3	15

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

Lab Sample ID: MB 480-670024/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670024

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			05/18/23 14:47	1

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

Lab Sample ID: LCS 480-670024/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670024

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	506	552.0		mg/L		109	85 - 115

Lab Sample ID: 480-208896-5 DU — **Client Sample ID: MW-10S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670024

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	714		715.0		mg/L		0.1	10

Lab Sample ID: MB 480-670030/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			05/18/23 14:55	1

Lab Sample ID: LCS 480-670030/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	717	676.0		mg/L		94	85 - 115

Lab Sample ID: MB 480-670559/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670559

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			05/23/23 14:33	1

Lab Sample ID: LCS 480-670559/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670559

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	717	696.0		mg/L		97	85 - 115

Lab Sample ID: 480-208931-1 DU — **Client Sample ID: MW-6S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670559

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	670		673.0		mg/L		0.4	10

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 480-669661/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669661

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010		mg/L			05/16/23 10:30	1

Lab Sample ID: LCS 480-669661/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669661

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.0500	0.0542		mg/L		108	85 - 115

Lab Sample ID: 480-208896-1 MS — **Client Sample ID: FB-01-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669661

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND	H H3	0.0500	0.0505		mg/L		89	85 - 115

Lab Sample ID: 480-208896-1 MSD — **Client Sample ID: FB-01-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669661

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND	H H3	0.0500	0.0542		mg/L		97	85 - 115	7	15

Lab Sample ID: 480-208896-5 MS — **Client Sample ID: MW-10S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669661

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND		0.0500	0.0567		mg/L		102	85 - 115

Lab Sample ID: 480-208896-5 MSD — **Client Sample ID: MW-10S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669661

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.0500	0.0579		mg/L		104	85 - 115	2	15

Lab Sample ID: MB 480-669816/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669816

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010		mg/L			05/17/23 10:40	1

Lab Sample ID: LCS 480-669816/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669816

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.0500	0.0542		mg/L		108	85 - 115

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: 480-208931-1 MS — **Client Sample ID: MW-6S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669816

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND	H F1	0.0500	0.0567		mg/L		113	85 - 115

Lab Sample ID: 480-208931-1 MSD — **Client Sample ID: MW-6S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669816

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND	H F1	0.0500	0.0555		mg/L		111	85 - 115	4	15

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-670015/109 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 13:01	1

Lab Sample ID: MB 480-670015/12 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 11:31	1

Lab Sample ID: MB 480-670015/121 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 13:05	1

Lab Sample ID: MB 480-670015/146 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 13:28	1

Lab Sample ID: MB 480-670015/150 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 13:48	1

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

Lab Sample ID: MB 480-670015/17 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 11:52	1

Lab Sample ID: MB 480-670015/23 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 11:55	1

Lab Sample ID: MB 480-670015/33 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 11:59	1

Lab Sample ID: MB 480-670015/40 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 12:02	1

Lab Sample ID: MB 480-670015/76 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 12:27	1

Lab Sample ID: MB 480-670015/83 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 12:47	1

Lab Sample ID: MB 480-670015/94 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/18/23 12:50	1

Lab Sample ID: LCS 480-670015/120 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.57		mg/L		98	90 - 110

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: LCS 480-670015/149 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.26		mg/L		101	90 - 110

Lab Sample ID: LCS 480-670015/16 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.91		mg/L		100	90 - 110

Lab Sample ID: LCS 480-670015/22 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.53		mg/L		98	90 - 110

Lab Sample ID: LCS 480-670015/39 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.52		mg/L		98	90 - 110

Lab Sample ID: LCS 480-670015/82 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.35		mg/L		97	90 - 110

Lab Sample ID: LCS 480-670015/93 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.28		mg/L		97	90 - 110

Lab Sample ID: 480-208896-6 MS — **Client Sample ID: MW-7S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	23.9		20.0	43.09		mg/L		96	74 - 131

Lab Sample ID: 480-208896-6 MSD — **Client Sample ID: MW-7S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	23.9		20.0	43.68		mg/L		99	74 - 131	1	20

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: 480-208931-2 MS — **Client Sample ID: MW-8S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	41.8	F1	20.0	55.03	F1	mg/L		66	74 - 131

Lab Sample ID: 480-208931-2 MSD — **Client Sample ID: MW-8S-05162023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670015

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	41.8	F1	20.0	55.04	F1	mg/L		66	74 - 131	0	20

Lab Sample ID: MB 480-670216/12 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/19/23 08:50	1

Lab Sample ID: MB 480-670216/17 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/19/23 09:14	1

Lab Sample ID: MB 480-670216/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/19/23 09:21	1

Lab Sample ID: MB 480-670216/34 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			05/19/23 09:25	1

Lab Sample ID: LCS 480-670216/16 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670216

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.62		mg/L		98	90 - 110

Lab Sample ID: LCS 480-670216/33 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670216

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.89		mg/L		100	90 - 110

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-669714/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669714

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			05/16/23 16:16	1

Lab Sample ID: LCS 480-669714/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669714

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	175.9		mg/L		88	85 - 115

Lab Sample ID: 480-208896-6 DU — **Client Sample ID: MW-7S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669714

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

Lab Sample ID: USB 480-669879/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669879

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			05/17/23 17:55	1

Lab Sample ID: LCS 480-669879/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 669879

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	171.6		mg/L		86	85 - 115

Method: SM 5310C - TOC

Lab Sample ID: MB 480-670668/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670668

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			05/23/23 01:37	1

Lab Sample ID: LCS 480-670668/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670668

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	58.56		mg/L		98	90 - 110

Method: SM 5310C - TOC (Continued)

Lab Sample ID: 480-208896-6 MS — **Client Sample ID: MW-7S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670668

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	ND		23.3	26.64		mg/L		114	54 - 131

Lab Sample ID: 480-208896-5 DU — **Client Sample ID: MW-10S-05152023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 670668

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	ND		ND		mg/L		NC	20

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-612377/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616059 — **Prep Batch: 612377**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.09217	U	0.151	0.151	1.00	0.263	pCi/L	05/19/23 13:41	06/14/23 08:18	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*30 - 110*	*05/19/23 13:41*	*06/14/23 08:18*	*1*

Lab Sample ID: LCS 160-612377/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616059 — **Prep Batch: 612377**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.18		1.25	1.00	0.275	pCi/L	90	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.8*		*30 - 110*

Lab Sample ID: LCSD 160-612377/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 616059 — **Prep Batch: 612377**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	11.3	10.89		1.28	1.00	0.246	pCi/L	96	75 - 125	0.28	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*97.0*		*30 - 110*

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-612568/1-A
Matrix: Water
Analysis Batch: 616061

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612568

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.1510	U	0.161	0.161	1.00	0.389	pCi/L	05/22/23 11:40	06/14/23 18:40	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*05/22/23 11:40*	*06/14/23 18:40*	*1*

Lab Sample ID: LCS 160-612568/2-A
Matrix: Water
Analysis Batch: 616061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612568

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.01		1.31	1.00	0.303	pCi/L	88	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.5*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-612446/1-A
Matrix: Water
Analysis Batch: 615817

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612446

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3112	U	0.307	0.309	1.00	0.494	pCi/L	05/19/23 13:56	06/13/23 12:52	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:52*	*1*
Y Carrier	*83.4*		*30 - 110*	*05/19/23 13:56*	*06/13/23 12:52*	*1*

Lab Sample ID: LCS 160-612446/2-A
Matrix: Water
Analysis Batch: 615817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612446

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.12	7.337		1.06	1.00	0.448	pCi/L	90	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.8*		*30 - 110*
Y Carrier	*85.4*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-612446/3-A
Matrix: Water
Analysis Batch: 615817

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 612446

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	8.12	7.685		1.09	1.00	0.442	pCi/L	95	75 - 125	0.16	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*97.0*		*30 - 110*
Y Carrier	*83.4*		*30 - 110*

Lab Sample ID: MB 160-612632/1-A
Matrix: Water
Analysis Batch: 616060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612632

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2359	U	0.259	0.260	1.00	0.553	pCi/L	05/22/23 12:57	06/14/23 12:45	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:45*	*1*
Y Carrier	*84.6*		*30 - 110*	*05/22/23 12:57*	*06/14/23 12:45*	*1*

Lab Sample ID: LCS 160-612632/2-A
Matrix: Water
Analysis Batch: 616060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612632

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.12	9.442		1.31	1.00	0.582	pCi/L	116	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.5*		*30 - 110*
Y Carrier	*84.6*		*30 - 110*

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

GC/MS VOA

Analysis Batch: 669608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	8260C	
480-208896-2	MW-11S-05152023	Total/NA	Water	8260C	
480-208896-3	MW-9SR-05152023	Total/NA	Water	8260C	
480-208896-4	MW-12S-05152023	Total/NA	Water	8260C	
480-208896-5	MW-10S-05152023	Total/NA	Water	8260C	
480-208896-6	MW-7S-05152023	Total/NA	Water	8260C	
MB 480-669608/7	Method Blank	Total/NA	Water	8260C	
LCS 480-669608/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 669676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-7	TRIP BLANK-05152023	Total/NA	Water	8260C	
MB 480-669676/9	Method Blank	Total/NA	Water	8260C	
LCS 480-669676/6	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 669977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	8260C	
480-208931-2	MW-8S-05162023	Total/NA	Water	8260C	
480-208931-3	SW-01-05162023	Total/NA	Water	8260C	
480-208931-4	SW-02-05162023	Total/NA	Water	8260C	
480-208931-5	TB-01-05162023	Total/NA	Water	8260C	
MB 480-669977/8	Method Blank	Total/NA	Water	8260C	
LCS 480-669977/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-669977/29	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 669699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	3510C	
480-208896-2	MW-11S-05152023	Total/NA	Water	3510C	
480-208896-3	MW-9SR-05152023	Total/NA	Water	3510C	
480-208896-4	MW-12S-05152023	Total/NA	Water	3510C	
480-208896-5	MW-10S-05152023	Total/NA	Water	3510C	
480-208896-6	MW-7S-05152023	Total/NA	Water	3510C	
MB 480-669699/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-669699/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-669699/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 669764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	8270D SIM ID	669699
480-208896-2	MW-11S-05152023	Total/NA	Water	8270D SIM ID	669699
480-208896-3	MW-9SR-05152023	Total/NA	Water	8270D SIM ID	669699
480-208896-4	MW-12S-05152023	Total/NA	Water	8270D SIM ID	669699
480-208896-5	MW-10S-05152023	Total/NA	Water	8270D SIM ID	669699
480-208896-6	MW-7S-05152023	Total/NA	Water	8270D SIM ID	669699
MB 480-669699/1-A	Method Blank	Total/NA	Water	8270D SIM ID	669699
LCS 480-669699/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	669699
LCSD 480-669699/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	669699

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

GC/MS Semi VOA

Prep Batch: 670099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	3510C	
480-208931-2	MW-8S-05162023	Total/NA	Water	3510C	
480-208931-3	SW-01-05162023	Total/NA	Water	3510C	
480-208931-4	SW-02-05162023	Total/NA	Water	3510C	
MB 480-670099/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-670099/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-670099/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 670367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	8270D SIM ID	670099
480-208931-2	MW-8S-05162023	Total/NA	Water	8270D SIM ID	670099
480-208931-3	SW-01-05162023	Total/NA	Water	8270D SIM ID	670099
480-208931-4	SW-02-05162023	Total/NA	Water	8270D SIM ID	670099
MB 480-670099/1-A	Method Blank	Total/NA	Water	8270D SIM ID	670099
LCS 480-670099/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	670099
LCSD 480-670099/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	670099

Metals

Prep Batch: 611929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	200.7/200.8	
480-208896-2	MW-11S-05152023	Total/NA	Water	200.7/200.8	
480-208896-3	MW-9SR-05152023	Total/NA	Water	200.7/200.8	
480-208896-4	MW-12S-05152023	Total/NA	Water	200.7/200.8	
480-208896-5	MW-10S-05152023	Total/NA	Water	200.7/200.8	
480-208896-6	MW-7S-05152023	Total/NA	Water	200.7/200.8	
MB 160-611929/1-A	Method Blank	Total/NA	Water	200.7/200.8	
LCS 160-611929/2-A	Lab Control Sample	Total/NA	Water	200.7/200.8	

Analysis Batch: 612270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	200.8	611929
480-208896-2	MW-11S-05152023	Total/NA	Water	200.8	611929
480-208896-3	MW-9SR-05152023	Total/NA	Water	200.8	611929
480-208896-4	MW-12S-05152023	Total/NA	Water	200.8	611929
480-208896-5	MW-10S-05152023	Total/NA	Water	200.8	611929
480-208896-6	MW-7S-05152023	Total/NA	Water	200.8	611929
MB 160-611929/1-A	Method Blank	Total/NA	Water	200.8	611929
LCS 160-611929/2-A	Lab Control Sample	Total/NA	Water	200.8	611929

Prep Batch: 612791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	200.7/200.8	
480-208931-2	MW-8S-05162023	Total/NA	Water	200.7/200.8	
480-208931-3	SW-01-05162023	Total/NA	Water	200.7/200.8	
480-208931-4	SW-02-05162023	Total/NA	Water	200.7/200.8	
MB 160-612791/1-A	Method Blank	Total/NA	Water	200.7/200.8	
LCS 160-612791/2-A	Lab Control Sample	Total/NA	Water	200.7/200.8	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Metals

Analysis Batch: 616104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	200.8	612791
480-208931-2	MW-8S-05162023	Total/NA	Water	200.8	612791
480-208931-3	SW-01-05162023	Total/NA	Water	200.8	612791
480-208931-4	SW-02-05162023	Total/NA	Water	200.8	612791
MB 160-612791/1-A	Method Blank	Total/NA	Water	200.8	612791
LCS 160-612791/2-A	Lab Control Sample	Total/NA	Water	200.8	612791

Prep Batch: 669687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	3005A	
480-208896-2	MW-11S-05152023	Total/NA	Water	3005A	
480-208896-3	MW-9SR-05152023	Total/NA	Water	3005A	
480-208896-4	MW-12S-05152023	Total/NA	Water	3005A	
480-208896-5	MW-10S-05152023	Total/NA	Water	3005A	
480-208896-6	MW-7S-05152023	Total/NA	Water	3005A	
MB 480-669687/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-669687/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 669810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	7470A	
480-208896-2	MW-11S-05152023	Total/NA	Water	7470A	
480-208896-3	MW-9SR-05152023	Total/NA	Water	7470A	
480-208896-4	MW-12S-05152023	Total/NA	Water	7470A	
480-208896-5	MW-10S-05152023	Total/NA	Water	7470A	
480-208896-6	MW-7S-05152023	Total/NA	Water	7470A	
MB 480-669810/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-669810/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-208896-1 MS	FB-01-05152023	Total/NA	Water	7470A	
480-208896-1 MSD	FB-01-05152023	Total/NA	Water	7470A	

Prep Batch: 669847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	3005A	
480-208931-2	MW-8S-05162023	Total/NA	Water	3005A	
480-208931-3	SW-01-05162023	Total/NA	Water	3005A	
480-208931-4	SW-02-05162023	Total/NA	Water	3005A	
MB 480-669847/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-669847/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-669847/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
480-208931-3 MS	SW-01-05162023	Total/NA	Water	3005A	
480-208931-3 MSD	SW-01-05162023	Total/NA	Water	3005A	

Analysis Batch: 669874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	7470A	669810
480-208896-2	MW-11S-05152023	Total/NA	Water	7470A	669810
480-208896-3	MW-9SR-05152023	Total/NA	Water	7470A	669810
480-208896-4	MW-12S-05152023	Total/NA	Water	7470A	669810
480-208896-5	MW-10S-05152023	Total/NA	Water	7470A	669810
480-208896-6	MW-7S-05152023	Total/NA	Water	7470A	669810

Metals (Continued)

Analysis Batch: 669874 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-669810/1-A	Method Blank	Total/NA	Water	7470A	669810
LCS 480-669810/2-A	Lab Control Sample	Total/NA	Water	7470A	669810
480-208896-1 MS	FB-01-05152023	Total/NA	Water	7470A	669810
480-208896-1 MSD	FB-01-05152023	Total/NA	Water	7470A	669810

Analysis Batch: 669966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	6010C	669687
480-208896-2	MW-11S-05152023	Total/NA	Water	6010C	669687
480-208896-4	MW-12S-05152023	Total/NA	Water	6010C	669687
480-208896-5	MW-10S-05152023	Total/NA	Water	6010C	669687
480-208896-6	MW-7S-05152023	Total/NA	Water	6010C	669687
MB 480-669687/1-A	Method Blank	Total/NA	Water	6010C	669687
LCS 480-669687/2-A	Lab Control Sample	Total/NA	Water	6010C	669687

Prep Batch: 669979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	7470A	
480-208931-2	MW-8S-05162023	Total/NA	Water	7470A	
480-208931-3	SW-01-05162023	Total/NA	Water	7470A	
480-208931-4	SW-02-05162023	Total/NA	Water	7470A	
MB 480-669979/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-669979/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 670067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	7470A	669979
480-208931-2	MW-8S-05162023	Total/NA	Water	7470A	669979
480-208931-3	SW-01-05162023	Total/NA	Water	7470A	669979
480-208931-4	SW-02-05162023	Total/NA	Water	7470A	669979
MB 480-669979/1-A	Method Blank	Total/NA	Water	7470A	669979
LCS 480-669979/2-A	Lab Control Sample	Total/NA	Water	7470A	669979

Analysis Batch: 670123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	6010C	669847
480-208931-2	MW-8S-05162023	Total/NA	Water	6010C	669847
480-208931-3	SW-01-05162023	Total/NA	Water	6010C	669847
480-208931-4	SW-02-05162023	Total/NA	Water	6010C	669847
MB 480-669847/1-A	Method Blank	Total/NA	Water	6010C	669847
LCS 480-669847/2-A	Lab Control Sample	Total/NA	Water	6010C	669847
LCSD 480-669847/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	669847
480-208931-3 MS	SW-01-05162023	Total/NA	Water	6010C	669847
480-208931-3 MSD	SW-01-05162023	Total/NA	Water	6010C	669847

Analysis Batch: 670226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-3	MW-9SR-05152023	Total/NA	Water	6010C	669687

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Metals

Analysis Batch: 670337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	6010C	669847
480-208931-2	MW-8S-05162023	Total/NA	Water	6010C	669847
480-208931-3	SW-01-05162023	Total/NA	Water	6010C	669847
480-208931-4	SW-02-05162023	Total/NA	Water	6010C	669847
MB 480-669847/1-A	Method Blank	Total/NA	Water	6010C	669847
LCS 480-669847/2-A	Lab Control Sample	Total/NA	Water	6010C	669847
480-208931-3 MS	SW-01-05162023	Total/NA	Water	6010C	669847
480-208931-3 MSD	SW-01-05162023	Total/NA	Water	6010C	669847

Analysis Batch: 670426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	6010C	669687
480-208896-2	MW-11S-05152023	Total/NA	Water	6010C	669687
480-208896-3	MW-9SR-05152023	Total/NA	Water	6010C	669687
480-208896-4	MW-12S-05152023	Total/NA	Water	6010C	669687
480-208896-5	MW-10S-05152023	Total/NA	Water	6010C	669687
480-208896-6	MW-7S-05152023	Total/NA	Water	6010C	669687

General Chemistry

Analysis Batch: 669661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	SM 3500 CR B	
480-208896-2	MW-11S-05152023	Total/NA	Water	SM 3500 CR B	
480-208896-3	MW-9SR-05152023	Total/NA	Water	SM 3500 CR B	
480-208896-4	MW-12S-05152023	Total/NA	Water	SM 3500 CR B	
480-208896-5	MW-10S-05152023	Total/NA	Water	SM 3500 CR B	
480-208896-6	MW-7S-05152023	Total/NA	Water	SM 3500 CR B	
MB 480-669661/1	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 480-669661/2	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
480-208896-1 MS	FB-01-05152023	Total/NA	Water	SM 3500 CR B	
480-208896-1 MSD	FB-01-05152023	Total/NA	Water	SM 3500 CR B	
480-208896-5 MS	MW-10S-05152023	Total/NA	Water	SM 3500 CR B	
480-208896-5 MSD	MW-10S-05152023	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 669714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	SM 5210B	
480-208896-2	MW-11S-05152023	Total/NA	Water	SM 5210B	
480-208896-3	MW-9SR-05152023	Total/NA	Water	SM 5210B	
480-208896-4	MW-12S-05152023	Total/NA	Water	SM 5210B	
480-208896-5	MW-10S-05152023	Total/NA	Water	SM 5210B	
480-208896-6	MW-7S-05152023	Total/NA	Water	SM 5210B	
USB 480-669714/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-669714/2	Lab Control Sample	Total/NA	Water	SM 5210B	
480-208896-6 DU	MW-7S-05152023	Total/NA	Water	SM 5210B	

Analysis Batch: 669735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	353.2	
480-208896-2	MW-11S-05152023	Total/NA	Water	353.2	

General Chemistry (Continued)

Analysis Batch: 669735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-3	MW-9SR-05152023	Total/NA	Water	353.2	
480-208896-4	MW-12S-05152023	Total/NA	Water	353.2	
480-208896-5	MW-10S-05152023	Total/NA	Water	353.2	
480-208896-6	MW-7S-05152023	Total/NA	Water	353.2	

Analysis Batch: 669816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	SM 3500 CR B	
480-208931-2	MW-8S-05162023	Total/NA	Water	SM 3500 CR B	
480-208931-3	SW-01-05162023	Total/NA	Water	SM 3500 CR B	
480-208931-4	SW-02-05162023	Total/NA	Water	SM 3500 CR B	
MB 480-669816/1	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 480-669816/2	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
480-208931-1 MS	MW-6S-05162023	Total/NA	Water	SM 3500 CR B	
480-208931-1 MSD	MW-6S-05162023	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 669834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	SM 2120B	
480-208896-2	MW-11S-05152023	Total/NA	Water	SM 2120B	
480-208896-3	MW-9SR-05152023	Total/NA	Water	SM 2120B	
480-208896-4	MW-12S-05152023	Total/NA	Water	SM 2120B	
480-208896-5	MW-10S-05152023	Total/NA	Water	SM 2120B	
480-208896-6	MW-7S-05152023	Total/NA	Water	SM 2120B	
MB 480-669834/3	Method Blank	Total/NA	Water	SM 2120B	
LCS 480-669834/4	Lab Control Sample	Total/NA	Water	SM 2120B	
480-208896-1 DU	FB-01-05152023	Total/NA	Water	SM 2120B	

Analysis Batch: 669876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	SM 2320B	
480-208896-2	MW-11S-05152023	Total/NA	Water	SM 2320B	
480-208896-3	MW-9SR-05152023	Total/NA	Water	SM 2320B	
480-208896-4	MW-12S-05152023	Total/NA	Water	SM 2320B	
480-208896-5	MW-10S-05152023	Total/NA	Water	SM 2320B	
480-208896-6	MW-7S-05152023	Total/NA	Water	SM 2320B	
MB 480-669876/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-669876/5	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 669879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	SM 5210B	
480-208931-2	MW-8S-05162023	Total/NA	Water	SM 5210B	
480-208931-3	SW-01-05162023	Total/NA	Water	SM 5210B	
480-208931-4	SW-02-05162023	Total/NA	Water	SM 5210B	
USB 480-669879/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-669879/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 669908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 669908 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-2	MW-11S-05152023	Total/NA	Water	300.0	
480-208896-3	MW-9SR-05152023	Total/NA	Water	300.0	
480-208896-4	MW-12S-05152023	Total/NA	Water	300.0	
MB 480-669908/28	Method Blank	Total/NA	Water	300.0	
LCS 480-669908/29	Lab Control Sample	Total/NA	Water	300.0	
480-208896-4 MS	MW-12S-05152023	Total/NA	Water	300.0	

Analysis Batch: 669993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	410.4	
480-208896-2	MW-11S-05152023	Total/NA	Water	410.4	
480-208896-3	MW-9SR-05152023	Total/NA	Water	410.4	
480-208896-4	MW-12S-05152023	Total/NA	Water	410.4	
480-208896-5	MW-10S-05152023	Total/NA	Water	410.4	
480-208896-6	MW-7S-05152023	Total/NA	Water	410.4	
MB 480-669993/123	Method Blank	Total/NA	Water	410.4	
LCS 480-669993/124	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 669994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	SM 2120B	
480-208931-2	MW-8S-05162023	Total/NA	Water	SM 2120B	
480-208931-3	SW-01-05162023	Total/NA	Water	SM 2120B	
480-208931-4	SW-02-05162023	Total/NA	Water	SM 2120B	
MB 480-669994/27	Method Blank	Total/NA	Water	SM 2120B	
MB 480-669994/3	Method Blank	Total/NA	Water	SM 2120B	
LCS 480-669994/28	Lab Control Sample	Total/NA	Water	SM 2120B	
LCS 480-669994/4	Lab Control Sample	Total/NA	Water	SM 2120B	
480-208931-1 DU	MW-6S-05162023	Total/NA	Water	SM 2120B	

Analysis Batch: 670009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	353.2	
480-208931-2	MW-8S-05162023	Total/NA	Water	353.2	
480-208931-3	SW-01-05162023	Total/NA	Water	353.2	
480-208931-4	SW-02-05162023	Total/NA	Water	353.2	

Analysis Batch: 670012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-5	MW-10S-05152023	Total/NA	Water	300.0	
480-208896-6	MW-7S-05152023	Total/NA	Water	300.0	
480-208931-1	MW-6S-05162023	Total/NA	Water	300.0	
480-208931-2	MW-8S-05162023	Total/NA	Water	300.0	
480-208931-3	SW-01-05162023	Total/NA	Water	300.0	
480-208931-4	SW-02-05162023	Total/NA	Water	300.0	
MB 480-670012/28	Method Blank	Total/NA	Water	300.0	
MB 480-670012/4	Method Blank	Total/NA	Water	300.0	
LCS 480-670012/29	Lab Control Sample	Total/NA	Water	300.0	
LCS 480-670012/5	Lab Control Sample	Total/NA	Water	300.0	
480-208931-2 MS	MW-8S-05162023	Total/NA	Water	300.0	
480-208931-2 MSD	MW-8S-05162023	Total/NA	Water	300.0	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

General Chemistry

Analysis Batch: 670015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	SM 4500 Cl- E	
480-208896-2	MW-11S-05152023	Total/NA	Water	SM 4500 Cl- E	
480-208896-3	MW-9SR-05152023	Total/NA	Water	SM 4500 Cl- E	
480-208896-4	MW-12S-05152023	Total/NA	Water	SM 4500 Cl- E	
480-208896-5	MW-10S-05152023	Total/NA	Water	SM 4500 Cl- E	
480-208896-6	MW-7S-05152023	Total/NA	Water	SM 4500 Cl- E	
480-208931-1	MW-6S-05162023	Total/NA	Water	SM 4500 Cl- E	
480-208931-2	MW-8S-05162023	Total/NA	Water	SM 4500 Cl- E	
480-208931-3	SW-01-05162023	Total/NA	Water	SM 4500 Cl- E	
480-208931-4	SW-02-05162023	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/109	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/121	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/146	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/150	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/17	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/23	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/33	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/40	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/76	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/83	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670015/94	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 480-670015/120	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-670015/149	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-670015/16	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-670015/22	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-670015/39	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-670015/82	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-670015/93	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
480-208896-6 MS	MW-7S-05152023	Total/NA	Water	SM 4500 Cl- E	
480-208896-6 MSD	MW-7S-05152023	Total/NA	Water	SM 4500 Cl- E	
480-208931-2 MS	MW-8S-05162023	Total/NA	Water	SM 4500 Cl- E	
480-208931-2 MSD	MW-8S-05162023	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 670024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	SM 2540C	
480-208896-2	MW-11S-05152023	Total/NA	Water	SM 2540C	
480-208896-3	MW-9SR-05152023	Total/NA	Water	SM 2540C	
480-208896-4	MW-12S-05152023	Total/NA	Water	SM 2540C	
480-208896-5	MW-10S-05152023	Total/NA	Water	SM 2540C	
MB 480-670024/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-670024/2	Lab Control Sample	Total/NA	Water	SM 2540C	
480-208896-5 DU	MW-10S-05152023	Total/NA	Water	SM 2540C	

Analysis Batch: 670030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-6	MW-7S-05152023	Total/NA	Water	SM 2540C	
MB 480-670030/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-670030/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

General Chemistry

Analysis Batch: 670216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-670216/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670216/17	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670216/28	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-670216/34	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 480-670216/16	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-670216/33	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 670234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	SM 2320B	
480-208931-2	MW-8S-05162023	Total/NA	Water	SM 2320B	
480-208931-3	SW-01-05162023	Total/NA	Water	SM 2320B	
480-208931-4	SW-02-05162023	Total/NA	Water	SM 2320B	
MB 480-670234/28	Method Blank	Total/NA	Water	SM 2320B	
MB 480-670234/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-670234/29	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 480-670234/5	Lab Control Sample	Total/NA	Water	SM 2320B	

Prep Batch: 670406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	351.2	
MB 480-670406/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-670406/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 670452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	350.1	
480-208896-2	MW-11S-05152023	Total/NA	Water	350.1	
480-208896-3	MW-9SR-05152023	Total/NA	Water	350.1	
480-208896-4	MW-12S-05152023	Total/NA	Water	350.1	
480-208896-5	MW-10S-05152023	Total/NA	Water	350.1	
480-208896-6	MW-7S-05152023	Total/NA	Water	350.1	
480-208931-1	MW-6S-05162023	Total/NA	Water	350.1	
480-208931-2	MW-8S-05162023	Total/NA	Water	350.1	
480-208931-3	SW-01-05162023	Total/NA	Water	350.1	
480-208931-4	SW-02-05162023	Total/NA	Water	350.1	
MB 480-670452/123	Method Blank	Total/NA	Water	350.1	
MB 480-670452/147	Method Blank	Total/NA	Water	350.1	
MB 480-670452/171	Method Blank	Total/NA	Water	350.1	
MB 480-670452/3	Method Blank	Total/NA	Water	350.1	
LCS 480-670452/124	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-670452/148	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-670452/172	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-670452/4	Lab Control Sample	Total/NA	Water	350.1	
480-208931-2 MS	MW-8S-05162023	Total/NA	Water	350.1	
480-208931-2 DU	MW-8S-05162023	Total/NA	Water	350.1	

Prep Batch: 670542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-2	MW-11S-05152023	Total/NA	Water	351.2	
480-208896-3	MW-9SR-05152023	Total/NA	Water	351.2	

General Chemistry (Continued)

Prep Batch: 670542 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-4	MW-12S-05152023	Total/NA	Water	351.2	
480-208896-5	MW-10S-05152023	Total/NA	Water	351.2	
480-208896-6	MW-7S-05152023	Total/NA	Water	351.2	
480-208931-1	MW-6S-05162023	Total/NA	Water	351.2	
480-208931-2	MW-8S-05162023	Total/NA	Water	351.2	
480-208931-3	SW-01-05162023	Total/NA	Water	351.2	
480-208931-4	SW-02-05162023	Total/NA	Water	351.2	
MB 480-670542/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-670542/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 670546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	351.2	670406
MB 480-670406/1-A	Method Blank	Total/NA	Water	351.2	670406
LCS 480-670406/2-A	Lab Control Sample	Total/NA	Water	351.2	670406

Analysis Batch: 670559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	SM 2540C	
480-208931-2	MW-8S-05162023	Total/NA	Water	SM 2540C	
480-208931-3	SW-01-05162023	Total/NA	Water	SM 2540C	
480-208931-4	SW-02-05162023	Total/NA	Water	SM 2540C	
MB 480-670559/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-670559/2	Lab Control Sample	Total/NA	Water	SM 2540C	
480-208931-1 DU	MW-6S-05162023	Total/NA	Water	SM 2540C	

Analysis Batch: 670610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	9012B	
480-208896-2	MW-11S-05152023	Total/NA	Water	9012B	
480-208896-3	MW-9SR-05152023	Total/NA	Water	9012B	
480-208896-4	MW-12S-05152023	Total/NA	Water	9012B	
480-208896-5	MW-10S-05152023	Total/NA	Water	9012B	
480-208896-6	MW-7S-05152023	Total/NA	Water	9012B	
480-208931-1	MW-6S-05162023	Total/NA	Water	9012B	
480-208931-2	MW-8S-05162023	Total/NA	Water	9012B	
480-208931-3	SW-01-05162023	Total/NA	Water	9012B	
480-208931-4	SW-02-05162023	Total/NA	Water	9012B	
MB 480-670610/21	Method Blank	Total/NA	Water	9012B	
MB 480-670610/77	Method Blank	Total/NA	Water	9012B	
HLCS 480-670610/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-670610/23	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-670610/78	Lab Control Sample	Total/NA	Water	9012B	
480-208896-2 MS	MW-11S-05152023	Total/NA	Water	9012B	
480-208896-6 MS	MW-7S-05152023	Total/NA	Water	9012B	
480-208931-1 MS	MW-6S-05162023	Total/NA	Water	9012B	
480-208896-6 DU	MW-7S-05152023	Total/NA	Water	9012B	
480-208931-1 DU	MW-6S-05162023	Total/NA	Water	9012B	

QC Association Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

General Chemistry

Analysis Batch: 670668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	SM 5310C	
480-208896-2	MW-11S-05152023	Total/NA	Water	SM 5310C	
480-208896-3	MW-9SR-05152023	Total/NA	Water	SM 5310C	
480-208896-4	MW-12S-05152023	Total/NA	Water	SM 5310C	
480-208896-5	MW-10S-05152023	Total/NA	Water	SM 5310C	
480-208896-6	MW-7S-05152023	Total/NA	Water	SM 5310C	
480-208931-1	MW-6S-05162023	Total/NA	Water	SM 5310C	
480-208931-2	MW-8S-05162023	Total/NA	Water	SM 5310C	
480-208931-3	SW-01-05162023	Total/NA	Water	SM 5310C	
480-208931-4	SW-02-05162023	Total/NA	Water	SM 5310C	
MB 480-670668/28	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-670668/29	Lab Control Sample	Total/NA	Water	SM 5310C	
480-208896-6 MS	MW-7S-05152023	Total/NA	Water	SM 5310C	
480-208896-5 DU	MW-10S-05152023	Total/NA	Water	SM 5310C	

Analysis Batch: 670752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-2	MW-11S-05152023	Total/NA	Water	351.2	670542
480-208896-3	MW-9SR-05152023	Total/NA	Water	351.2	670542
480-208896-4	MW-12S-05152023	Total/NA	Water	351.2	670542
480-208896-5	MW-10S-05152023	Total/NA	Water	351.2	670542
480-208896-6	MW-7S-05152023	Total/NA	Water	351.2	670542
480-208931-1	MW-6S-05162023	Total/NA	Water	351.2	670542
480-208931-2	MW-8S-05162023	Total/NA	Water	351.2	670542
480-208931-3	SW-01-05162023	Total/NA	Water	351.2	670542
480-208931-4	SW-02-05162023	Total/NA	Water	351.2	670542
MB 480-670542/1-A	Method Blank	Total/NA	Water	351.2	670542
LCS 480-670542/2-A	Lab Control Sample	Total/NA	Water	351.2	670542

Analysis Batch: 671027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	420.4	
480-208896-2	MW-11S-05152023	Total/NA	Water	420.4	
480-208896-3	MW-9SR-05152023	Total/NA	Water	420.4	
480-208896-4	MW-12S-05152023	Total/NA	Water	420.4	
480-208896-5	MW-10S-05152023	Total/NA	Water	420.4	
480-208896-6	MW-7S-05152023	Total/NA	Water	420.4	
480-208931-1	MW-6S-05162023	Total/NA	Water	420.4	
480-208931-2	MW-8S-05162023	Total/NA	Water	420.4	
480-208931-3	SW-01-05162023	Total/NA	Water	420.4	
480-208931-4	SW-02-05162023	Total/NA	Water	420.4	
MB 480-671027/246	Method Blank	Total/NA	Water	420.4	
MB 480-671027/275	Method Blank	Total/NA	Water	420.4	
LCS 480-671027/247	Lab Control Sample	Total/NA	Water	420.4	
LCS 480-671027/276	Lab Control Sample	Total/NA	Water	420.4	
480-208896-4 MS	MW-12S-05152023	Total/NA	Water	420.4	
480-208896-4 DU	MW-12S-05152023	Total/NA	Water	420.4	

Analysis Batch: 671412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	410.4	

General Chemistry (Continued)

Analysis Batch: 671412 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-2	MW-8S-05162023	Total/NA	Water	410.4	
480-208931-3	SW-01-05162023	Total/NA	Water	410.4	
480-208931-4	SW-02-05162023	Total/NA	Water	410.4	
MB 480-671412/28	Method Blank	Total/NA	Water	410.4	
MB 480-671412/4	Method Blank	Total/NA	Water	410.4	
LCS 480-671412/29	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-671412/5	Lab Control Sample	Total/NA	Water	410.4	
480-208931-4 MS	SW-02-05162023	Total/NA	Water	410.4	
480-208931-4 DU	SW-02-05162023	Total/NA	Water	410.4	

Analysis Batch: 671517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	SM 2340C	
480-208896-2	MW-11S-05152023	Total/NA	Water	SM 2340C	
480-208896-3	MW-9SR-05152023	Total/NA	Water	SM 2340C	
480-208896-4	MW-12S-05152023	Total/NA	Water	SM 2340C	
480-208896-5	MW-10S-05152023	Total/NA	Water	SM 2340C	
480-208896-6	MW-7S-05152023	Total/NA	Water	SM 2340C	
480-208931-1	MW-6S-05162023	Total/NA	Water	SM 2340C	
480-208931-2	MW-8S-05162023	Total/NA	Water	SM 2340C	
480-208931-3	SW-01-05162023	Total/NA	Water	SM 2340C	
480-208931-4	SW-02-05162023	Total/NA	Water	SM 2340C	
MB 480-671517/27	Method Blank	Total/NA	Water	SM 2340C	
MB 480-671517/3	Method Blank	Total/NA	Water	SM 2340C	
LCS 480-671517/28	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 480-671517/4	Lab Control Sample	Total/NA	Water	SM 2340C	
480-208896-4 MS	MW-12S-05152023	Total/NA	Water	SM 2340C	
480-208896-1 DU	FB-01-05152023	Total/NA	Water	SM 2340C	
480-208931-4 DU	SW-02-05162023	Total/NA	Water	SM 2340C	

Rad

Prep Batch: 612377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	PrecSep-21	
480-208896-2	MW-11S-05152023	Total/NA	Water	PrecSep-21	
480-208896-3	MW-9SR-05152023	Total/NA	Water	PrecSep-21	
480-208896-4	MW-12S-05152023	Total/NA	Water	PrecSep-21	
480-208896-5	MW-10S-05152023	Total/NA	Water	PrecSep-21	
480-208896-6	MW-7S-05152023	Total/NA	Water	PrecSep-21	
MB 160-612377/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-612377/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-612377/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 612446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-1	FB-01-05152023	Total/NA	Water	PrecSep_0	
480-208896-2	MW-11S-05152023	Total/NA	Water	PrecSep_0	
480-208896-3	MW-9SR-05152023	Total/NA	Water	PrecSep_0	
480-208896-4	MW-12S-05152023	Total/NA	Water	PrecSep_0	
480-208896-5	MW-10S-05152023	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 612446 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208896-6	MW-7S-05152023	Total/NA	Water	PrecSep_0	
MB 160-612446/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-612446/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-612446/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 612568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	PrecSep-21	
480-208931-2	MW-8S-05162023	Total/NA	Water	PrecSep-21	
480-208931-3	SW-01-05162023	Total/NA	Water	PrecSep-21	
480-208931-4	SW-02-05162023	Total/NA	Water	PrecSep-21	
MB 160-612568/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-612568/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 612632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208931-1	MW-6S-05162023	Total/NA	Water	PrecSep_0	
480-208931-2	MW-8S-05162023	Total/NA	Water	PrecSep_0	
480-208931-3	SW-01-05162023	Total/NA	Water	PrecSep_0	
480-208931-4	SW-02-05162023	Total/NA	Water	PrecSep_0	
MB 160-612632/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-612632/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: FB-01-05152023

Lab Sample ID: 480-208896-1

Date Collected: 05/15/23 08:10
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669608	AXK	EET BUF	05/16/23 11:44
Total/NA	Prep	3510C			669699	SJM	EET BUF	05/16/23 16:06
Total/NA	Analysis	8270D SIM ID		1	669764	JMM	EET BUF	05/17/23 12:02
Total/NA	Prep	200.7/200.8			611929	LKP	EET SL	05/17/23 14:07
Total/NA	Analysis	200.8		2	612270	CGB	EET SL	05/18/23 15:18
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	670426	BMB	EET BUF	05/22/23 14:38
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	669966	LMH	EET BUF	05/17/23 18:25
Total/NA	Prep	7470A			669810	NVK	EET BUF	05/17/23 11:21
Total/NA	Analysis	7470A		1	669874	NVK	EET BUF	05/17/23 15:32
Total/NA	Analysis	300.0		1	669908	RJS	EET BUF	05/19/23 01:55
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:09
Total/NA	Prep	351.2			670406	CG	EET BUF	05/22/23 13:43
Total/NA	Analysis	351.2		1	670546	CLT	EET BUF	05/23/23 09:23
Total/NA	Analysis	353.2		1	669735	DLG	EET BUF	05/16/23 14:22
Total/NA	Analysis	410.4		1	669993	LMH	EET BUF	05/18/23 12:55
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 03:47
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 14:49
Total/NA	Analysis	SM 2120B		1	669834	SAK	EET BUF	05/17/23 09:01
Total/NA	Analysis	SM 2320B		1	669876	DLG	EET BUF	05/17/23 13:19
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670024	SAK	EET BUF	05/18/23 14:47
Total/NA	Analysis	SM 3500 CR B		1	669661	SAK	EET BUF	05/16/23 10:30
Total/NA	Analysis	SM 4500 Cl- E		1	670015	CG	EET BUF	05/18/23 11:54
Total/NA	Analysis	SM 5210B		1	669714	DSC	EET BUF	05/16/23 16:16
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 02:36
Total/NA	Prep	PrecSep-21			612377	MLK	EET SL	05/19/23 13:41
Total/NA	Analysis	903.0		1	616059	FLC	EET SL	06/14/23 08:18
Total/NA	Prep	PrecSep_0			612446	MLK	EET SL	05/19/23 13:56
Total/NA	Analysis	904.0		1	615817	FLC	EET SL	06/13/23 12:52

Client Sample ID: MW-11S-05152023

Lab Sample ID: 480-208896-2

Date Collected: 05/15/23 09:00
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669608	AXK	EET BUF	05/16/23 12:06
Total/NA	Prep	3510C			669699	SJM	EET BUF	05/16/23 16:06
Total/NA	Analysis	8270D SIM ID		1	669764	JMM	EET BUF	05/17/23 12:25
Total/NA	Prep	200.7/200.8			611929	LKP	EET SL	05/17/23 14:07
Total/NA	Analysis	200.8		2	612270	CGB	EET SL	05/18/23 15:25

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-11S-05152023

Lab Sample ID: 480-208896-2

Date Collected: 05/15/23 09:00
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	670426	BMB	EET BUF	05/22/23 14:54
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	669966	LMH	EET BUF	05/17/23 18:41
Total/NA	Prep	7470A			669810	NVK	EET BUF	05/17/23 11:21
Total/NA	Analysis	7470A		1	669874	NVK	EET BUF	05/17/23 15:37
Total/NA	Analysis	300.0		5	669908	RJS	EET BUF	05/19/23 02:14
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:10
Total/NA	Prep	351.2			670542	CG	EET BUF	05/23/23 11:27
Total/NA	Analysis	351.2		1	670752	CLT	EET BUF	05/24/23 07:56
Total/NA	Analysis	353.2		1	669735	DLG	EET BUF	05/16/23 14:26
Total/NA	Analysis	410.4		1	669993	LMH	EET BUF	05/18/23 12:55
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 03:51
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 14:44
Total/NA	Analysis	SM 2120B		1	669834	SAK	EET BUF	05/17/23 09:01
Total/NA	Analysis	SM 2320B		1	669876	DLG	EET BUF	05/17/23 13:28
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670024	SAK	EET BUF	05/18/23 14:47
Total/NA	Analysis	SM 3500 CR B		1	669661	SAK	EET BUF	05/16/23 10:30
Total/NA	Analysis	SM 4500 Cl- E		5	670015	CG	EET BUF	05/18/23 12:12
Total/NA	Analysis	SM 5210B		1	669714	DSC	EET BUF	05/16/23 16:16
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 03:04
Total/NA	Prep	PrecSep-21			612377	MLK	EET SL	05/19/23 13:41
Total/NA	Analysis	903.0		1	616059	FLC	EET SL	06/14/23 08:19
Total/NA	Prep	PrecSep_0			612446	MLK	EET SL	05/19/23 13:56
Total/NA	Analysis	904.0		1	615817	FLC	EET SL	06/13/23 12:52

Client Sample ID: MW-9SR-05152023

Lab Sample ID: 480-208896-3

Date Collected: 05/15/23 11:05
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669608	AXK	EET BUF	05/16/23 12:28
Total/NA	Prep	3510C			669699	SJM	EET BUF	05/16/23 16:06
Total/NA	Analysis	8270D SIM ID		1	669764	JMM	EET BUF	05/17/23 12:48
Total/NA	Prep	200.7/200.8			611929	LKP	EET SL	05/17/23 14:07
Total/NA	Analysis	200.8		2	612270	CGB	EET SL	05/18/23 15:32
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	670226	BMB	EET BUF	05/19/23 15:01
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	670426	BMB	EET BUF	05/22/23 14:58
Total/NA	Prep	7470A			669810	NVK	EET BUF	05/17/23 11:21
Total/NA	Analysis	7470A		1	669874	NVK	EET BUF	05/17/23 15:39

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-9SR-05152023

Lab Sample ID: 480-208896-3

Date Collected: 05/15/23 11:05
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		5	669908	RJS	EET BUF	05/19/23 02:33
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:11
Total/NA	Prep	351.2			670542	CG	EET BUF	05/23/23 11:27
Total/NA	Analysis	351.2		1	670752	CLT	EET BUF	05/24/23 07:56
Total/NA	Analysis	353.2		1	669735	DLG	EET BUF	05/16/23 14:27
Total/NA	Analysis	410.4		1	669993	LMH	EET BUF	05/18/23 12:55
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 03:54
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 14:51
Total/NA	Analysis	SM 2120B		1	669834	SAK	EET BUF	05/17/23 09:01
Total/NA	Analysis	SM 2320B		1	669876	DLG	EET BUF	05/17/23 13:36
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670024	SAK	EET BUF	05/18/23 14:47
Total/NA	Analysis	SM 3500 CR B		1	669661	SAK	EET BUF	05/16/23 10:30
Total/NA	Analysis	SM 4500 Cl- E		1	670015	CG	EET BUF	05/18/23 11:56
Total/NA	Analysis	SM 5210B		1	669714	DSC	EET BUF	05/16/23 16:16
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 03:32
Total/NA	Prep	PrecSep-21			612377	MLK	EET SL	05/19/23 13:41
Total/NA	Analysis	903.0		1	616059	FLC	EET SL	06/14/23 08:19
Total/NA	Prep	PrecSep_0			612446	MLK	EET SL	05/19/23 13:56
Total/NA	Analysis	904.0		1	615817	FLC	EET SL	06/13/23 12:53

Client Sample ID: MW-12S-05152023

Lab Sample ID: 480-208896-4

Date Collected: 05/15/23 12:25
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669608	AXK	EET BUF	05/16/23 12:50
Total/NA	Prep	3510C			669699	SJM	EET BUF	05/16/23 16:06
Total/NA	Analysis	8270D SIM ID		1	669764	JMM	EET BUF	05/17/23 13:11
Total/NA	Prep	200.7/200.8			611929	LKP	EET SL	05/17/23 14:07
Total/NA	Analysis	200.8		2	612270	CGB	EET SL	05/18/23 15:35
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	670426	BMB	EET BUF	05/22/23 15:01
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	669966	LMH	EET BUF	05/17/23 18:48
Total/NA	Prep	7470A			669810	NVK	EET BUF	05/17/23 11:21
Total/NA	Analysis	7470A		1	669874	NVK	EET BUF	05/17/23 15:40
Total/NA	Analysis	300.0		5	669908	RJS	EET BUF	05/19/23 02:52
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:12
Total/NA	Prep	351.2			670542	CG	EET BUF	05/23/23 11:27
Total/NA	Analysis	351.2		1	670752	CLT	EET BUF	05/24/23 08:05
Total/NA	Analysis	353.2		1	669735	DLG	EET BUF	05/16/23 14:29

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-12S-05152023

Lab Sample ID: 480-208896-4

Date Collected: 05/15/23 12:25
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	410.4		1	669993	LMH	EET BUF	05/18/23 12:55
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 04:24
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 14:54
Total/NA	Analysis	SM 2120B		1	669834	SAK	EET BUF	05/17/23 09:01
Total/NA	Analysis	SM 2320B		1	669876	DLG	EET BUF	05/17/23 13:43
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670024	SAK	EET BUF	05/18/23 14:47
Total/NA	Analysis	SM 3500 CR B		1	669661	SAK	EET BUF	05/16/23 10:30
Total/NA	Analysis	SM 4500 Cl- E		1	670015	CG	EET BUF	05/18/23 11:56
Total/NA	Analysis	SM 5210B		1	669714	DSC	EET BUF	05/16/23 16:16
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 04:02
Total/NA	Prep	PrecSep-21			612377	MLK	EET SL	05/19/23 13:41
Total/NA	Analysis	903.0		1	616059	FLC	EET SL	06/14/23 08:19
Total/NA	Prep	PrecSep_0			612446	MLK	EET SL	05/19/23 13:56
Total/NA	Analysis	904.0		1	615817	FLC	EET SL	06/13/23 12:53

Client Sample ID: MW-10S-05152023

Lab Sample ID: 480-208896-5

Date Collected: 05/15/23 14:10
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669608	AXK	EET BUF	05/16/23 13:12
Total/NA	Prep	3510C			669699	SJM	EET BUF	05/16/23 16:06
Total/NA	Analysis	8270D SIM ID		1	669764	JMM	EET BUF	05/17/23 13:34
Total/NA	Prep	200.7/200.8			611929	LKP	EET SL	05/17/23 14:07
Total/NA	Analysis	200.8		2	612270	CGB	EET SL	05/18/23 15:39
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	670426	BMB	EET BUF	05/22/23 15:05
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	669966	LMH	EET BUF	05/17/23 18:52
Total/NA	Prep	7470A			669810	NVK	EET BUF	05/17/23 11:21
Total/NA	Analysis	7470A		1	669874	NVK	EET BUF	05/17/23 15:44
Total/NA	Analysis	300.0		5	670012	RJS	EET BUF	05/22/23 19:03
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:12
Total/NA	Prep	351.2			670542	CG	EET BUF	05/23/23 11:27
Total/NA	Analysis	351.2		1	670752	CLT	EET BUF	05/24/23 08:05
Total/NA	Analysis	353.2		1	669735	DLG	EET BUF	05/16/23 14:30
Total/NA	Analysis	410.4		1	669993	LMH	EET BUF	05/18/23 12:55
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 04:35
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 14:57
Total/NA	Analysis	SM 2120B		1	669834	SAK	EET BUF	05/17/23 09:01
Total/NA	Analysis	SM 2320B		1	669876	DLG	EET BUF	05/17/23 13:51

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-10S-05152023

Lab Sample ID: 480-208896-5
Date Collected: 05/15/23 14:10
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670024	SAK	EET BUF	05/18/23 14:47
Total/NA	Analysis	SM 3500 CR B		1	669661	SAK	EET BUF	05/16/23 10:30
Total/NA	Analysis	SM 4500 Cl- E		1	670015	CG	EET BUF	05/18/23 11:56
Total/NA	Analysis	SM 5210B		1	669714	DSC	EET BUF	05/16/23 16:16
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 04:30
Total/NA	Prep	PrecSep-21			612377	MLK	EET SL	05/19/23 13:41
Total/NA	Analysis	903.0		1	616060	FLC	EET SL	06/14/23 10:19
Total/NA	Prep	PrecSep_0			612446	MLK	EET SL	05/19/23 13:56
Total/NA	Analysis	904.0		1	615817	FLC	EET SL	06/13/23 12:53

Client Sample ID: MW-7S-05152023

Lab Sample ID: 480-208896-6
Date Collected: 05/15/23 14:55
Matrix: Water
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669608	AXK	EET BUF	05/16/23 13:35
Total/NA	Prep	3510C			669699	SJM	EET BUF	05/16/23 16:06
Total/NA	Analysis	8270D SIM ID		1	669764	JMM	EET BUF	05/17/23 13:56
Total/NA	Prep	200.7/200.8			611929	LKP	EET SL	05/17/23 14:07
Total/NA	Analysis	200.8		2	612270	CGB	EET SL	05/18/23 15:42
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	670426	BMB	EET BUF	05/22/23 15:09
Total/NA	Prep	3005A			669687	VAK	EET BUF	05/17/23 07:55
Total/NA	Analysis	6010C		1	669966	LMH	EET BUF	05/17/23 18:56
Total/NA	Prep	7470A			669810	NVK	EET BUF	05/17/23 11:21
Total/NA	Analysis	7470A		1	669874	NVK	EET BUF	05/17/23 15:45
Total/NA	Analysis	300.0		5	670012	RJS	EET BUF	05/22/23 19:21
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:13
Total/NA	Prep	351.2			670542	CG	EET BUF	05/23/23 11:27
Total/NA	Analysis	351.2		1	670752	CLT	EET BUF	05/24/23 08:05
Total/NA	Analysis	353.2		1	669735	DLG	EET BUF	05/16/23 14:32
Total/NA	Analysis	410.4		1	669993	LMH	EET BUF	05/18/23 12:55
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 04:39
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 15:11
Total/NA	Analysis	SM 2120B		1	669834	SAK	EET BUF	05/17/23 09:01
Total/NA	Analysis	SM 2320B		1	669876	DLG	EET BUF	05/17/23 13:58
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670030	SAK	EET BUF	05/18/23 14:55
Total/NA	Analysis	SM 3500 CR B		1	669661	SAK	EET BUF	05/16/23 10:30
Total/NA	Analysis	SM 4500 Cl- E		1	670015	CG	EET BUF	05/18/23 11:57
Total/NA	Analysis	SM 5210B		1	669714	DSC	EET BUF	05/16/23 16:16

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-7S-05152023 — Lab Sample ID: 480-208896-6

Date Collected: 05/15/23 14:55 — **Matrix: Water**
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 05:27
Total/NA	Prep	PrecSep-21			612377	MLK	EET SL	05/19/23 13:41
Total/NA	Analysis	903.0		1	616060	FLC	EET SL	06/14/23 10:19
Total/NA	Prep	PrecSep_0			612446	MLK	EET SL	05/19/23 13:56
Total/NA	Analysis	904.0		1	615817	FLC	EET SL	06/13/23 12:53

Client Sample ID: TRIP BLANK-05152023 — Lab Sample ID: 480-208896-7

Date Collected: 05/15/23 00:00 — **Matrix: Water**
Date Received: 05/16/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669676	ATG	EET BUF	05/16/23 20:35

Client Sample ID: MW-6S-05162023 — Lab Sample ID: 480-208931-1

Date Collected: 05/16/23 09:05 — **Matrix: Water**
Date Received: 05/17/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669977	LCH	EET BUF	05/18/23 15:08
Total/NA	Prep	3510C			670099	MS	EET BUF	05/19/23 08:42
Total/NA	Analysis	8270D SIM ID		1	670367	JMM	EET BUF	05/22/23 17:08
Total/NA	Prep	200.7/200.8			612791	LKP	EET SL	05/23/23 13:50
Total/NA	Analysis	200.8		2	616104	CGB	EET SL	06/14/23 18:10
Total/NA	Prep	3005A			669847	VAK	EET BUF	05/18/23 08:18
Total/NA	Analysis	6010C		1	670123	LMH	EET BUF	05/18/23 20:46
Total/NA	Prep	3005A			669847	VAK	EET BUF	05/18/23 08:18
Total/NA	Analysis	6010C		1	670337	LMH	EET BUF	05/19/23 19:44
Total/NA	Prep	7470A			669979	NVK	EET BUF	05/18/23 11:53
Total/NA	Analysis	7470A		1	670067	NVK	EET BUF	05/18/23 16:05
Total/NA	Analysis	300.0		5	670012	RJS	EET BUF	05/23/23 03:30
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:23
Total/NA	Prep	351.2			670542	CG	EET BUF	05/23/23 11:27
Total/NA	Analysis	351.2		1	670752	CLT	EET BUF	05/24/23 08:05
Total/NA	Analysis	353.2		1	670009	DLG	EET BUF	05/17/23 13:27
Total/NA	Analysis	410.4		1	671412	DLG	EET BUF	05/30/23 19:36
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 05:19
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 17:08
Total/NA	Analysis	SM 2120B		1	669994	SAK	EET BUF	05/18/23 09:30
Total/NA	Analysis	SM 2320B		1	670234	DLG	EET BUF	05/18/23 17:33
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670559	SAK	EET BUF	05/23/23 14:33
Total/NA	Analysis	SM 3500 CR B		1	669816	SAK	EET BUF	05/17/23 10:40
Total/NA	Analysis	SM 4500 Cl- E		5	670015	CG	EET BUF	05/18/23 12:49

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: MW-6S-05162023

Lab Sample ID: 480-208931-1
Date Collected: 05/16/23 09:05
Matrix: Water
Date Received: 05/17/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 5210B		1	669879	DSC	EET BUF	05/17/23 17:55
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 10:19
Total/NA	Prep	PrecSep-21			612568	KAC	EET SL	05/22/23 11:40
Total/NA	Analysis	903.0		1	616061	FLC	EET SL	06/14/23 18:41
Total/NA	Prep	PrecSep_0			612632	KAC	EET SL	05/22/23 12:57
Total/NA	Analysis	904.0		1	616060	FLC	EET SL	06/14/23 12:47

Client Sample ID: MW-8S-05162023

Lab Sample ID: 480-208931-2
Date Collected: 05/16/23 10:25
Matrix: Water
Date Received: 05/17/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669977	LCH	EET BUF	05/18/23 15:37
Total/NA	Prep	3510C			670099	MS	EET BUF	05/19/23 08:42
Total/NA	Analysis	8270D SIM ID		1	670367	JMM	EET BUF	05/22/23 17:30
Total/NA	Prep	200.7/200.8			612791	LKP	EET SL	05/23/23 13:50
Total/NA	Analysis	200.8		2	616104	CGB	EET SL	06/14/23 18:23
Total/NA	Prep	3005A			669847	VAK	EET BUF	05/18/23 08:18
Total/NA	Analysis	6010C		1	670123	LMH	EET BUF	05/18/23 20:50
Total/NA	Prep	3005A			669847	VAK	EET BUF	05/18/23 08:18
Total/NA	Analysis	6010C		1	670337	LMH	EET BUF	05/19/23 19:48
Total/NA	Prep	7470A			669979	NVK	EET BUF	05/18/23 11:53
Total/NA	Analysis	7470A		1	670067	NVK	EET BUF	05/18/23 16:06
Total/NA	Analysis	300.0		5	670012	RJS	EET BUF	05/23/23 03:49
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:23
Total/NA	Prep	351.2			670542	CG	EET BUF	05/23/23 11:27
Total/NA	Analysis	351.2		1	670752	CLT	EET BUF	05/24/23 08:05
Total/NA	Analysis	353.2		1	670009	DLG	EET BUF	05/17/23 14:51
Total/NA	Analysis	410.4		1	671412	DLG	EET BUF	05/30/23 19:39
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 05:22
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 17:16
Total/NA	Analysis	SM 2120B		1	669994	SAK	EET BUF	05/18/23 09:30
Total/NA	Analysis	SM 2320B		1	670234	DLG	EET BUF	05/18/23 17:41
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670559	SAK	EET BUF	05/23/23 14:33
Total/NA	Analysis	SM 3500 CR B		1	669816	SAK	EET BUF	05/17/23 10:40
Total/NA	Analysis	SM 4500 Cl- E		1	670015	CG	EET BUF	05/18/23 12:51
Total/NA	Analysis	SM 5210B		1	669879	DSC	EET BUF	05/17/23 17:55
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 10:48
Total/NA	Prep	PrecSep-21			612568	KAC	EET SL	05/22/23 11:40
Total/NA	Analysis	903.0		1	616061	FLC	EET SL	06/14/23 18:41
Total/NA	Prep	PrecSep_0			612632	KAC	EET SL	05/22/23 12:57
Total/NA	Analysis	904.0		1	616060	FLC	EET SL	06/14/23 12:47

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: SW-01-05162023

Lab Sample ID: 480-208931-3

Date Collected: 05/16/23 11:40
Matrix: Water
Date Received: 05/17/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669977	LCH	EET BUF	05/18/23 15:59
Total/NA	Prep	3510C			670099	MS	EET BUF	05/19/23 08:42
Total/NA	Analysis	8270D SIM ID		1	670367	JMM	EET BUF	05/22/23 17:53
Total/NA	Prep	200.7/200.8			612791	LKP	EET SL	05/23/23 13:50
Total/NA	Analysis	200.8		2	616104	CGB	EET SL	06/14/23 18:27
Total/NA	Prep	3005A			669847	VAK	EET BUF	05/18/23 08:18
Total/NA	Analysis	6010C		1	670123	LMH	EET BUF	05/18/23 20:54
Total/NA	Prep	3005A			669847	VAK	EET BUF	05/18/23 08:18
Total/NA	Analysis	6010C		1	670337	LMH	EET BUF	05/19/23 19:52
Total/NA	Prep	7470A			669979	NVK	EET BUF	05/18/23 11:53
Total/NA	Analysis	7470A		1	670067	NVK	EET BUF	05/18/23 16:08
Total/NA	Analysis	300.0		5	670012	RJS	EET BUF	05/23/23 05:23
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:29
Total/NA	Prep	351.2			670542	CG	EET BUF	05/23/23 11:27
Total/NA	Analysis	351.2		1	670752	CLT	EET BUF	05/24/23 08:05
Total/NA	Analysis	353.2		1	670009	DLG	EET BUF	05/17/23 14:55
Total/NA	Analysis	410.4		1	671412	DLG	EET BUF	05/30/23 19:42
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 05:26
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 17:18
Total/NA	Analysis	SM 2120B		1	669994	SAK	EET BUF	05/18/23 09:30
Total/NA	Analysis	SM 2320B		1	670234	DLG	EET BUF	05/18/23 17:47
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670559	SAK	EET BUF	05/23/23 14:33
Total/NA	Analysis	SM 3500 CR B		1	669816	SAK	EET BUF	05/17/23 10:40
Total/NA	Analysis	SM 4500 Cl- E		5	670015	CG	EET BUF	05/18/23 13:10
Total/NA	Analysis	SM 5210B		1	669879	DSC	EET BUF	05/17/23 17:55
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 11:16
Total/NA	Prep	PrecSep-21			612568	KAC	EET SL	05/22/23 11:40
Total/NA	Analysis	903.0		1	616061	FLC	EET SL	06/14/23 18:41
Total/NA	Prep	PrecSep_0			612632	KAC	EET SL	05/22/23 12:57
Total/NA	Analysis	904.0		1	616060	FLC	EET SL	06/14/23 12:47

Client Sample ID: SW-02-05162023

Lab Sample ID: 480-208931-4

Date Collected: 05/16/23 12:40
Matrix: Water
Date Received: 05/17/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669977	LCH	EET BUF	05/18/23 16:22
Total/NA	Prep	3510C			670099	MS	EET BUF	05/19/23 08:42
Total/NA	Analysis	8270D SIM ID		1	670367	JMM	EET BUF	05/22/23 18:15
Total/NA	Prep	200.7/200.8			612791	LKP	EET SL	05/23/23 13:50
Total/NA	Analysis	200.8		2	616104	CGB	EET SL	06/14/23 18:30

Lab Chronicle

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Client Sample ID: SW-02-05162023

Lab Sample ID: 480-208931-4

Date Collected: 05/16/23 12:40
Matrix: Water
Date Received: 05/17/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			669847	VAK	EET BUF	05/18/23 08:18
Total/NA	Analysis	6010C		1	670123	LMH	EET BUF	05/18/23 21:24
Total/NA	Prep	3005A			669847	VAK	EET BUF	05/18/23 08:18
Total/NA	Analysis	6010C		1	670337	LMH	EET BUF	05/19/23 20:11
Total/NA	Prep	7470A			669979	NVK	EET BUF	05/18/23 11:53
Total/NA	Analysis	7470A		1	670067	NVK	EET BUF	05/18/23 16:09
Total/NA	Analysis	300.0		5	670012	RJS	EET BUF	05/23/23 05:41
Total/NA	Analysis	350.1		1	670452	KMF	EET BUF	05/22/23 20:30
Total/NA	Prep	351.2			670542	CG	EET BUF	05/23/23 11:27
Total/NA	Analysis	351.2		1	670752	CLT	EET BUF	05/24/23 08:05
Total/NA	Analysis	353.2		1	670009	DLG	EET BUF	05/17/23 14:57
Total/NA	Analysis	410.4		1	671412	DLG	EET BUF	05/30/23 19:55
Total/NA	Analysis	420.4		1	671027	CLT	EET BUF	05/26/23 05:30
Total/NA	Analysis	9012B		1	670610	CLT	EET BUF	05/23/23 17:21
Total/NA	Analysis	SM 2120B		1	669994	SAK	EET BUF	05/18/23 09:30
Total/NA	Analysis	SM 2320B		1	670234	DLG	EET BUF	05/18/23 17:55
Total/NA	Analysis	SM 2340C		1	671517	AM	EET BUF	05/31/23 11:50
Total/NA	Analysis	SM 2540C		1	670559	SAK	EET BUF	05/23/23 14:33
Total/NA	Analysis	SM 3500 CR B		1	669816	SAK	EET BUF	05/17/23 10:40
Total/NA	Analysis	SM 4500 Cl- E		21	670015	CG	EET BUF	05/18/23 13:49
Total/NA	Analysis	SM 5210B		1	669879	DSC	EET BUF	05/17/23 17:55
Total/NA	Analysis	SM 5310C		1	670668	KER	EET BUF	05/23/23 11:46
Total/NA	Prep	PrecSep-21			612568	KAC	EET SL	05/22/23 11:40
Total/NA	Analysis	903.0		1	616059	FLC	EET SL	06/14/23 18:43
Total/NA	Prep	PrecSep_0			612632	KAC	EET SL	05/22/23 12:57
Total/NA	Analysis	904.0		1	616060	FLC	EET SL	06/14/23 12:48

Client Sample ID: TB-01-05162023

Lab Sample ID: 480-208931-5

Date Collected: 05/16/23 00:00
Matrix: Water
Date Received: 05/17/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	669977	LCH	EET BUF	05/18/23 16:44

Laboratory References:

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

Accreditation/Certification Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-23
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-23
HI - RadChem Recognition	State	n/a	06-30-23
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana (All)	NELAP	04080	06-30-23
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-23
MI - RadChem Recognition	State	9005	06-30-23
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-23
New Jersey	NELAP	MO002	06-30-23
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-23
North Dakota	State	R-207	06-30-23
Oklahoma	NELAP	9997	08-31-23
Oregon	NELAP	4157	09-01-23
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23
Texas	NELAP	T104704193	07-31-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-23
Virginia	NELAP	10310	06-14-23
Washington	State	C592	08-30-23
West Virginia DEP	State	381	10-31-23

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

Method Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
300.0	Anions, Ion Chromatography	EPA	EET BUF
350.1	Nitrogen, Ammonia	EPA	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
353.2	Nitrate	EPA	EET BUF
410.4	COD	EPA	EET BUF
420.4	Phenolics, Total Recoverable	EPA	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
SM 2120B	Color, Colorimetric	SM	EET BUF
SM 2320B	Alkalinity	SM	EET BUF
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	EET BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET BUF
SM 3500 CR B	Chromium, Hexavalent	SM	EET BUF
SM 4500 Cl- E	Chloride, Total	SM	EET BUF
SM 5210B	BOD, 5-Day	SM	EET BUF
SM 5310C	TOC	SM	EET BUF
3005A	Preparation, Total Metals	SW846	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency
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:

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

Sample Summary

Client: Waste Connections, Inc.
Project/Site: Dunn Landfill - Baseline

Job ID: 480-208896-1
SDG: 208896

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-208896-1	FB-01-05152023	Water	05/15/23 08:10	05/16/23 09:00
480-208896-2	MW-11S-05152023	Water	05/15/23 09:00	05/16/23 09:00
480-208896-3	MW-9SR-05152023	Water	05/15/23 11:05	05/16/23 09:00
480-208896-4	MW-12S-05152023	Water	05/15/23 12:25	05/16/23 09:00
480-208896-5	MW-10S-05152023	Water	05/15/23 14:10	05/16/23 09:00
480-208896-6	MW-7S-05152023	Water	05/15/23 14:55	05/16/23 09:00
480-208896-7	TRIP BLANK-05152023	Water	05/15/23 00:00	05/16/23 09:00
480-208931-1	MW-6S-05162023	Water	05/16/23 09:05	05/17/23 09:00
480-208931-2	MW-8S-05162023	Water	05/16/23 10:25	05/17/23 09:00
480-208931-3	SW-01-05162023	Water	05/16/23 11:40	05/17/23 09:00
480-208931-4	SW-02-05162023	Water	05/16/23 12:40	05/17/23 09:00
480-208931-5	TB-01-05162023	Water	05/16/23 00:00	05/17/23 09:00

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

Chain of Custody Record

Albany #224

eurofins Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-184975-13737.1
Client Contact: Dr. Tim Roeper	Phone: 845-800-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Baseline	Project #: 48010065 209-4233396-002			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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,Sulfate	350.1, 351.2, 410.4	6010C, 7470A	2340C - Total Hardness	8260C - NY Part 360 Baseline Volatiles	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2120B, 353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	3500_CR_D - Chromium, hexavalent	2320B - Alkalinity, Total	420.4_NP - Phenolics	PFC_IDA - (MOD) PFAS, Standard List (21 analytes)	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	D	A	N	N	N	N	N	S	N	N		
FB-01-05152023		0810	G	B Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-11S-05152023		0900	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-9SR-05152023		1105	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-12S-05152023		1225	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-10S-05152023		1410	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-7S-05152023		1455	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X	M	X		
TRIP BLANK-05152023		–	G	B Water	N	N					X										
				Water																	
				Water																	
				Water																	

TMC 5-15-23

480-208896 Chain of Custody

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: Daniel Wheeler	Date/Time: 05/15/23 / 1620	Company: CEG/TE	Received by: [signature] Date/Time: 5-15-23 1620 Company:
Relinquished by: Tim Roeper	Date/Time: 5-15-23 1700	Company: EETN	Received by: [signature] Date/Time: 5/16/23 900 Company: TM
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: 2.9 3.3 3.7 # 1 IK

Ver: 06/08/2021

6/28/2023

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No.: 480-184975-13737.2
Client Contact: Dr. Tim Roeper	Phone: 845-800-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Baseline	Project #: 48010065 209-4233396-002			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	903.0 - Rad 226	904.0 - Rad 228	200.8 - Uranium	5310C - TOC	9012B_NP - Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	D	S	B		
FB-01-05152023		0810	G	B Water	N	N	X	X	X	X	X		
MW-11S-05152023		0900	G	Water	N	N	X	X	X	X	X		
MW-9SR-05152023		1105	G	Water	N	N	X	X	X	X	X		
MW-12S-05152023		1225	G	Water	N	N	X	X	X	X	X		
MW-10S-05152023		1410	G	Water	N	N	X	X	X	X	X		
MW-7S-05152023		1455	G	Water	N	N	X	X	X	X	X		
TRIP BLANK-05152023		—	G	O Water	N	N							
				Water									
				Water									
				Water									

TMS 5-15-23

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
Daniel Wheeler	5/15/23 / 1620	CEG / TT	[illegible]	5-15-23 1620	
[illegible]	5-15-23 1700	ECTN	[illegible]	5/16/23 900	TA

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

Ver: 06/08/2021

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

Chain of Custody Record

Albany #224

eurofins Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-184975-13737.1
Client Contact: Dr. Tim Roeper	Phone: 845-800-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Baseline	Project #: 48010065 209-4233396-002			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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,Sulfate	350.1, 351.2, 410.4	6010C, 7470A	2340C - Total Hardness	8260C - NY Part 360 Baseline Volatiles	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2120B, 353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	3500_CR_D - Chromium, hexavalent	2320B - Alkalinity, Total	420.4_NP - Phenolics	PFC_IDA - (MOD) PFAS, Standard List (21 analytes)	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	D	A	N	N	N	N	N	S	N	N		
FB-01-05152023		0810	G	B Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-11S-05152023		0900	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-9SR-05152023		1105	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-12S-05152023		1225	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-10S-05152023		1410	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-7S-05152023		1455	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X	M	X		
TRIP BLANK-05152023		–	G	B Water	N	N					X										
				Water																	
				Water																	
				Water																	

TMC
5-15-23

480-208896 Chain of Custody

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: Daniel Wheeler	Date/Time: 05/15/23 / 1620	Company: CEG/TE	Received by: [signature] Date/Time: 5-15-23 1620 Company:
Relinquished by: Tim Roeper	Date/Time: 5-15-23 1700	Company: EETN	Received by: [signature] Date/Time: 5/16/23 900 Company: TM
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: 2.9 3.3 3.7 # 1 IK

Ver: 06/08/2021

6/28/2023

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No.: 480-184975-13737.2
Client Contact: Dr. Tim Roeper	Phone: 845-800-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Baseline	Project #: 48010065 209-4233396-002			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	903.0 - Rad 226	904.0 - Rad 228	200.8 - Uranium	5310C - TOC	9012B_NP - Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	D	S	B		
FB-01-05152023		0810	G	BT Water	N	N	X	X	X	X	X		
MW-11S-05152023		0900	G	Water	N	N	X	X	X	X	X		
MW-9SR-05152023		1105	G	Water	N	N	X	X	X	X	X		
MW-12S-05152023		1225	G	Water	N	N	X	X	X	X	X		
MW-10S-05152023		1410	G	Water	N	N	X	X	X	X	X		
MW-7S-05152023		1455	G	Water	N	N	X	X	X	X	X		
TRIP BLANK-05152023		—	G	BT Water	N	N							
				Water									
				Water									
				Water									

TMS 5-15-23

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
Daniel Wheeler	5/15/23 / 1620	CEG / TT	[signature]	5-15-23 1620	
[signature]	5-15-23 1700	ECTN	[signature]	5/16/23 900	TA

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

Ver: 06/08/2021

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No. 480-184975-13737.1
Client Contact: Dr. Tim Roeper	Phone: 845-300-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:

Address: 100 Crystal Run Road Suite 101	Due Date Requested:
City: Middletown	TAT Requested (days):
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required
Email: tim.roeper@tetratech.com	WO #: 209-4203148
Project Name: Dunn Landfill - Baseline	Project #: 48010065 209-4233396-002
Site: New York	SSOW#:

Analysis Requested

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,Sulfate	350.1, 351.2, 410.4	6010C, 7470A	2340C - Total Hardness	8260C - NY Part 360 Baseline Volatiles	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2120B, 353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	3500_CR_D - Chromium, hexavalent	2320B - Alkalinity, Total	420.4_NP - Phenolics	PFC_IDA - (MOD) PFAS, Standard List (21 analytes)	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	D	A	N	N	N	N	N	S	N	N		
MW-6S-05162023	05/16/23	0905	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-8S-05162023	05/16/23	1025	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
SW-01-05162023	05/16/23	1140	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
SW-02-05162023	05/16/23	1240	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
TRIP BLANK-05162023	05/16/23	—	G	B Water	N	N				X											
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

TMC

5-16-23

480-208931 Chain of Custody

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
Y - Trizma
Z - other (specify)
Other:

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
Dan Wheeler	05/16/23 / 1315	CEG Itt	[illegible]	5-16-23 1315	EETW
[illegible]	5-16-23 1500	EETW			
Relinquished by:	Date/Time:	Company	Received by: [illegible]	5-17-23 0900	THB

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

Ver: 06/08/2021

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

Chain of Custody Record

Albany #224

eurofins Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-184975-13737.2
Client Contact: Dr. Tim Roeper	Phone: 845-800-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Baseline	Project #: 48010065 209-4233396-002			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	903.0 - Rad 226	904.0 - Rad 228	200.8 - Uranium	5310C - TOC	9012B_NP - Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	D	S	B		
MW-6S-05162023	05/16/23	0905	G	Water	N	N	X	X	X	X	X		
MW-8S-05162023	05/16/23	1025	G	Water	N	N	X	X	X	X	X		
SW-01-05162023	05/16/23	1140	G	Water	N	N	X	X	X	X	X		
SW-02-05162023	05/16/23	1240	G	Water	N	N	X	X	X	X	X		
TRIP BLANK-05162023	05/16/23	—	G	B Water	N	N							
				Water									
				Water									
				~~Water~~									
				Water									
				Water									

MLC 5-16-23

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
Daniel Wheeler	05/16/23 / 1315	CEG / TE	[signature]	5-16-23 1315	EETN
[signature]	5-16-23 1500	EETN			
			[signature]	5-17-23 0900	TAS

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

Ver: 06/08/2021

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No.: 480-184975-13737.1
Client Contact: Dr. Tim Roeper	Phone: 845-300-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Baseline	Project #: 48010065 209-4233396-002			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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,Sulfate	350.1, 351.2, 410.4	6010C, 7470A	2340C - Total Hardness	8260C - NY Part 360 Baseline Volatiles	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	2120B, 353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	3500_CR_D - Chromium, hexavalent	2320B - Alkalinity, Total	420.4_NP - Phenolics	PFC_IDA - (MOD) PFAS, Standard List (21 analytes)	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	D	D	A	N	N	N	N	N	S	N	N		
MW-6S-05162023	05/16/23	0905	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
MW-8S-05162023	05/16/23	1025	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
SW-01-05162023	05/16/23	1140	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
SW-02-05162023	05/16/23	1240	G	Water	N	N	X	X	X	X	X	X	X	X	X	X	X		X		
TRIP BLANK-05162023	05/16/23	—	G	B Water	N	N				X											
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

TMC
5-16-23

480-208931 Chain of Custody

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: Dan Wheeler	Date/Time: 05/16/23 / 1315	Company: CEG Itt	Received by: [signature]	Date/Time: 5-16-23 1315	Company: EETW
Relinquished by: [signature]	Date/Time: 5-16-23 1500	Company: EETW	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by: [signature]	Date/Time: 5-17-23 0900	Company: THB

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

Ver: 06/08/2021

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

Chain of Custody Record

Albany #224

eurofins Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-184975-13737.2
Client Contact: Dr. Tim Roeper	Phone: 845-800-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Baseline	Project #: 48010065 209-4233396-002			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	903.0 - Rad 226	904.0 - Rad 228	200.8 - Uranium	5310C - TOC	9012B_NP - Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	D	S	B		
MW-6S-05162023	05/16/23	0905	G	Water	N	N	X	X	X	X	X		
MW-8S-05162023	05/16/23	1025	G	Water	N	N	X	X	X	X	X		
SW-01-05162023	05/16/23	1140	G	Water	N	N	X	X	X	X	X		
SW-02-05162023	05/16/23	1240	G	Water	N	N	X	X	X	X	X		
TRIP BLANK-05162023	05/16/23	—	G	B Water	N	N							
				Water									
				Water									
				Water									
				Water									
				Water									

MLC
5-16-23

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
Daniel Wheeler	05/16/23 / 1315	CEG / TE	[signature]	5-16-23 1315	EETN
[signature]	5-16-23 1500	EETN			
			[signature]	5-17-23 0900	TAS

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

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-208896-1
SDG Number: 208896

Login Number: 208896
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins 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	refer to ncm
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	CEG/TE
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: Waste Connections, Inc.

Job Number: 480-208896-1
SDG Number: 208896

Login Number: 208931
List Number: 1
Creator: Sabuda, Brendan D

List Source: Eurofins 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	2.8 2.5 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	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	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

September 15, 2023

Mr. Brian Maglienti
New York State Department of Environmental Conservation
Region 4, Division of Materials Management
1130 North Westcott Road
Schenectady, NY 12306-2014

Re: Environmental Monitoring Program
Third Quarter 2023
S.A. Dunn Sand and Gravel

Dear Mr. Maglienti:

Cornerstone Engineering and Geology, PLLC (Cornerstone) completed the third quarter 2023 groundwater and surface water monitoring event at the above referenced facility on July 13 and 14, 2023. The sampling was completed in accordance with the monitoring program presented in the Environmental Monitoring Plan (EMP) and Site Analysis Plan (SAP), titled Environmental Monitoring Plan, Dunn Mine and C&D Facility, October 2021 prepared by Civil & Environmental Engineering, PLLC. The facility began accepting waste during the last week in January 2015. Samples collected during this quarter were analyzed for the Part 363 Routine Parameters.

Second Quarter 2023 Groundwater and Surface Water Sampling

Groundwater and surface water samples were obtained on July 13 and 14, 2023 from seven monitoring wells and two surface water locations as illustrated on the attached figures. Five monitoring wells (MW-6S, MW-7S, MW-8S, MW-10S, and MW-12S) represent locations down gradient of the current and future C&D waste cells. MW-9SR and MW-11S represent upgradient locations. Surface water locations SW-1 and SW-2 represent downstream and upstream locations, respectively, within Quackenbush Creek.

Samples collected during this quarter were analyzed for the Part 363 Routine Parameters. The next annual baseline event will be completed during the second quarter of 2024.

Prior to sampling, groundwater levels were measured at each monitoring well location and the volume of groundwater contained in the wells was calculated based upon the measured depth. Groundwater purging and sampling was conducted using a two-inch diameter submersible pump (decontaminated between sampling locations) and dedicated Teflon lined tubing. The submersible pump was placed near the top of the water column and the well was purged at a rate that maintained the water level above the top of the pump. Each well was purged of three well volumes of water, after which the pump rate was reduced to approximately 1 liter/minute and the water was pumped through a flow-through cell for measurement of field parameters (see Table 1) using a Horiba U22 multi-parameter meter calibrated in accordance with the manufacturer's instructions at the beginning of the day. Following recording of the field parameter measurements, samples were collected directly into glass and/or plastic ware provided by Eurofins Laboratories of Amherst, NY.

Surface water samples were collected as grab samples directly into the sample bottles provided by Eurofins. Field parameters were recorded by placing the Horiba U22 multi-parameter meter directly into the creek water and are reported in Table 1.

Cornerstone Engineering and Geology, PLLC
100 Crystal Run Road, Suite 101, Middletown, NY 10941
Tel 877.294.9070 Fax 877.845.1456 tetratech.com

The collected groundwater and surface water samples were transported by courier, under chain-of-custody, to Eurofins Laboratories in Amherst, New York for analysis of the Part 363 Routine Parameters.

Analytical Results

The groundwater and surface water samples were analyzed by the NYSDOH, ELAP certified (No. 10026) laboratory, Eurofins Laboratories of Amherst, New York for the Part 363 Routine Parameters. The laboratory report is attached for reference and the analytical results are summarized in Tables 2 and 3.

The following parameters are noted as exceeding their respective groundwater or surface water quality criteria (also summarized in Tables 2 and 3) during this sampling event and are noted in Tables 2 and 3 with bold text.

Total Dissolved Solids (TDS) – MW-6S, MW-7S, MW-8S, MW-9SR*, MW-10S, MW-11S*, MW-12S

Magnesium – MW-6S, MW-7S, MW-8S, MW-9SR*, MW-10S, MW-11S*, MW-12S

Manganese – MW-12S

Iron –MW-9SR*, MW-12S

Sodium – MW-6S, MW-8S, MW-11S*

Sulfate – MW-8S

*Represents upgradient or upstream monitoring point

The inorganic parameters noted above as exceeding applicable groundwater or surface water quality criteria are consistent with those reported as part of prior sampling events and are representative of naturally occurring conditions.

Comparison of the analytical results to the EWQ-SVs (i.e. mean plus three standard deviations), indicate concentrations for the following sampling locations and parameters are above the EWQ-SVs:

MW-7S – Hardness at a concentration of 540 mg/l as compared to 515.4 mg/l.

MW-8S – Nitrogen Nitrate at a concentration of 0.24 mg/l as compared to 0.18 mg/l.

MW-12S – Manganese at a concentration of 0.81 mg/l as compared to 0.257 mg/l.
Hardness at a concentration of 900 mg/l as compared to 735.5 mg/l.
Iron at a concentration of 8.2 mg/l as compared to 5.94 mg/l.

During this reporting period, the following locations exceeded the groundwater quality standard and the EWQV (average concentration) for the following parameters:

MW-6S – Magnesium and sodium

MW-7S – Magnesium and TDS

MW-8S – Sulfate, magnesium, sodium, and TDS

MW-10S – Magnesium and TDS

MW-12S – TDS, manganese, magnesium, and iron

*Represents upgradient or upstream monitoring point

Manganese and iron exceeded both the groundwater quality standard and their respective EWQ-SV at MW-12S.

With the exception of manganese, each of the parameters identified above exceeds the groundwater quality standard in at least one, if not both, upgradient well locations (see discussion above). Additionally, the results reported above are generally consistent with historical data and collectively do not indicate any cause for concern.

In summary, the collective data provide no evidence of groundwater/surface water impacts associated with the facility and are representative of natural water quality or upstream influences.

QA/QC

A field blank (FB-01) was collected during the third quarter 2023 sampling event by pouring laboratory grade water over the two-inch submersible pump after it was decontaminated between monitoring wells. With the exception of TDS at 11 mg/L, the results were below reporting limits for all constituents.

The chain of custody record, field methods and sample labeling were observed to be consistent and in accordance with established procedures. With the exception of the QC issues noted in the laboratory report job narrative, and for which sample results were re-analyzed and/or qualified accordingly, review of the raw data, spike recoveries and related analytical QC indicated acceptable results and provides no basis for qualification (beyond that already provided by the lab) or rejection of the data. The data is deemed usable for the intended purpose.

Summary

A limited number of parameters are routinely reported at concentrations above applicable groundwater or surface water quality criteria and the results are generally consistent over the historical record. During the third quarter 2023 sampling event, manganese and iron were reported above both their respective existing water quality screening value and groundwater quality criteria at MW-12S. TDS, magnesium, sodium, and iron exceeded groundwater quality criteria at one or both of the upgradient well locations.

Collectively, the data provide no evidence of groundwater/surface water impacts attributable to the facility and are representative of natural water quality or off-Site influences.

Samples collected during the next sampling event, fourth quarter 2023, will be analyzed for the Part 363 Routine Parameters.

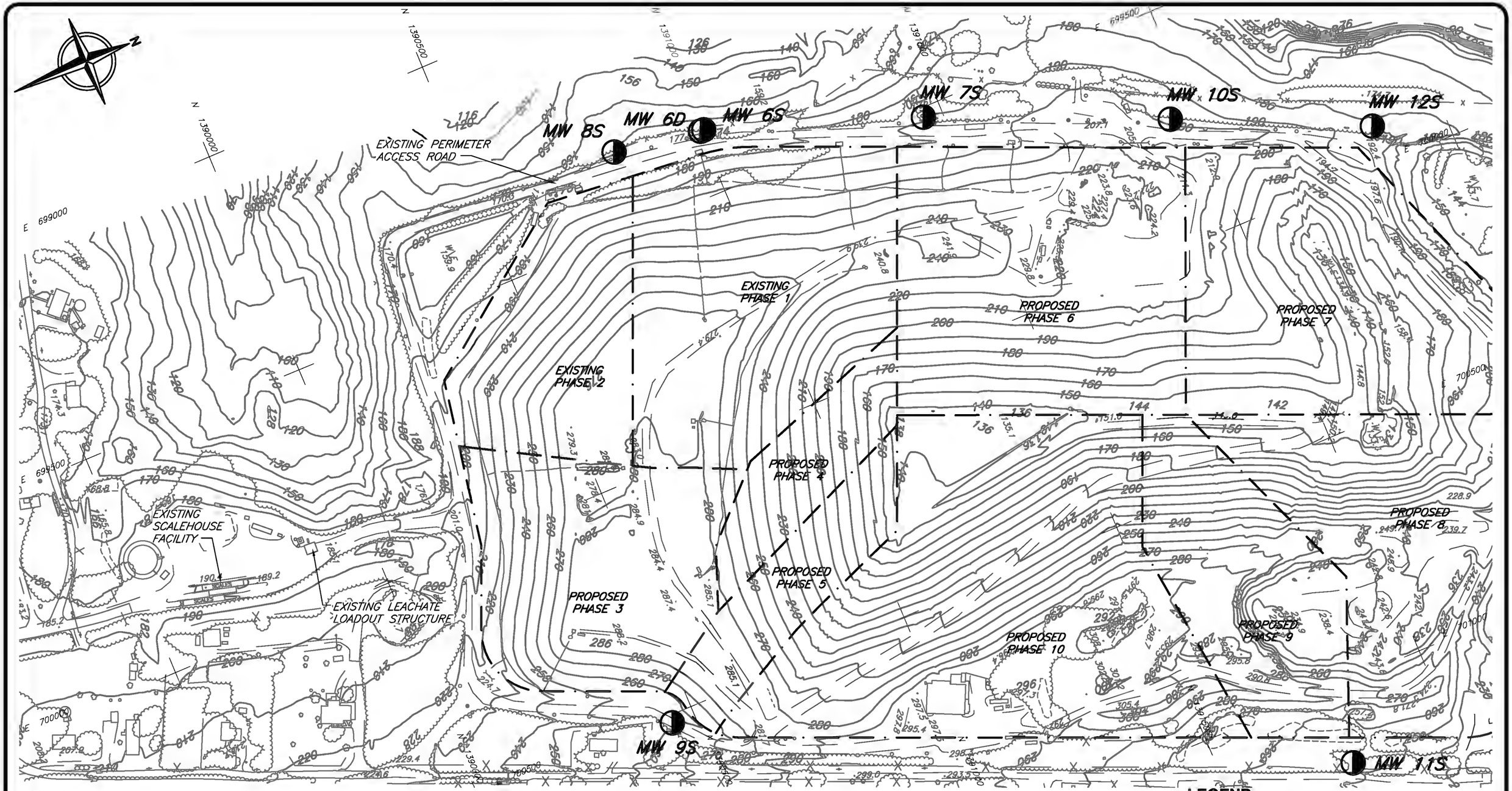
Please do not hesitate to contact us with any questions you may have.

Sincerely,

CORNERSTONE ENGINEERING AND GEOLOGY, PLLC

Timothy R. Roeper, P.G.
Client Manager - Hydrogeology

cc: Ross McCredy – (NYSDEC) – Via Email
Lana Brown - Via Email
Curt Taylor - Via Email
Cory Judd – Hard Copy



NOTES:

1. EXISTING SITE FEATURES AND TOPOGRAPHY WERE DEVELOPED USING PHOTOGRAMMATIC METHODS PERFORMED BY SOUTHERN RESOURCE MAPPING CORPORATION OF NORTH PORT, ALABAMA, FROM AERIAL PHOTOGRAPHY DATED NOVEMBER 4, 2020. CORNERSTONE ENGINEERING GROUP, LLC HAS NOT RESURVEYED TO VERIFY ACCURACY OF THE SAME.

0 200 400

SCALE IN FEET

LEGEND:

MW 6D EXISTING MONITORING WELL

cornerstone
A TETRA TECH COMPANY

PREPARED BY:
CORNERSTONE ENVIRONMENTAL GROUP, LLC

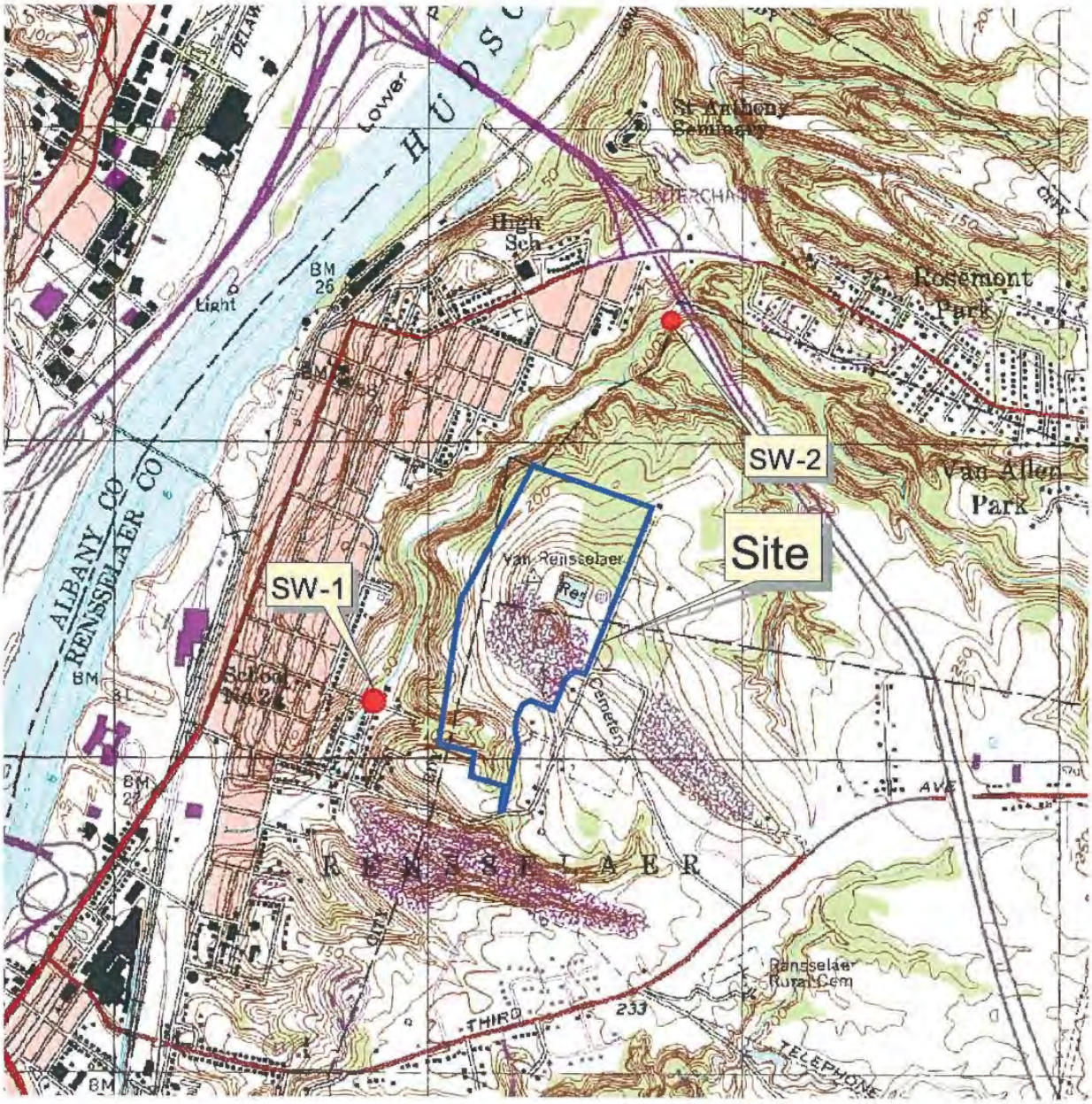
This drawing represents intellectual property of Cornerstone Environmental Group, LLC. Any modification to the original by other than Cornerstone Environmental Group, LLC personnel violates its original purpose and as such is rendered void. Cornerstone Environmental Group, LLC will not be held liable for any changes made to this document without express written consent of the originator.

DUNN C&D LANDFILL

MONITORING WELL LOCATION PLAN

FIGURE NO. 1

PROJECT NO. 190023



Source:
USGS Topographic Map
Troy South, NY Quadrangle
Figure 5 – C.T. Male Associates

cornerstone environmental

PREPARED BY:
CORNERSTONE ENVIRONMENTAL GROUP, LLC

S.A. Dunn Sand And Gravel

Surface Water Sampling Locations

FIGURE NO.
2

PROJECT NO.

TABLE 1
FIELD PARAMETERS
JULY 2023 - ROUTINE SAMPLING EVENT

			Groundwater/Surface Water Monitoring					
Well	**Ref. Elev.**	**DTW (ft)**	**Temp.(C°)**	**Cond.**	**pH**	**DO**	**Turb.**	**ORP**
MW-6S	179.15	130.95	13.92	1.160	7.10	0.81	1.6	166
MW-7S	190.95	143.44	13.07	0.867	7.21	2.56	11.5	189
MW-8S*	173.1	122.50	12.5	1.170	6.95	1.9	27.5	185
MW-9SR	271.51	193.35	15.48	0.948	7.24	4.36	31.0	155
MW-10S	204.53	155.54	12.42	1.050	7.14	0.26	15.9	171
MW-11S	253.5	175.40	12.65	2.140	6.89	6.17	4.5	208
MW-12S	187.47	138.30	13.12	0.931	7.12	0	48.8	78
SW-1		**	19.44	0.619	8.12	8.58	240.0	158
SW-2		**	19.83	0.629	8.20	8.65	59.9	176

DTW- Depth to Water from Top of PVC Casing

Note: MW-8S surface casing was damaged and repaired in December 2014. Elevation above references new top of PVC elevation.

Reference elevations for MW-6S and MW-7S from C.T. Male Associates, Figure EM1a, May 2011.

TABLE 2
SUMMARY OF METALS RESULTS
JULY 2023 - ROUTINE SAMPLING EVENT

		Groundwater Monitoring														Surface Water Monitoring				
Sample ID	**GW Standard [1]**	**MW-6S-07142023**		**MW-7S-07132023**		**MW-8S-07142023**		**MW-9SR-07132023**		**MW-10S-07132023**		**MW-11S-07132023**		**MW-12S-07132023**		**SW Standard [1]**	**SW-01-07142023**		**SW-02-07142023**	
Lab Sample Number		**480-210852-1**		**480-210791-5**		**480-210852-2**		**480-210791-6**		**480-210791-2**		**480-210791-3**		**480-210791-4**			**480-210852-3**		**480-210852-4**	
Sampling Date		**07/14/2023 09:15:00**		**07/13/2023 14:50:00**		**07/14/2023 10:30:00**		**07/13/2023 10:45:00**		**07/13/2023 13:50:00**		**07/13/2023 09:35:00**		**07/13/2023 12:25:00**			**07/14/2023 11:30:00**		**07/14/2023 12:30:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor																				
Units	**mg/L**	**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**	**mg/L**		**mg/L**	
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
Metals		**Result**	**Qua**	**Result**	**Qua**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qua**	**Result**	**Qual**	**Result**	**Qual**		**Result**	**Qual**	**Result**	**Qual**
Cadmium	0.005	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.005	ND	U	ND	U
Calcium	--	134		111		147		129		132		185		146		--	46.9		47.0	
Iron	0.3	0.098		0.094		0.28		**0.60**		0.11		ND	U	**8.2**		0.3	**5.8**		**2.0**	
Lead	0.025	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.05	ND	U	ND	U
Magnesium	35	**58.8**		**46.6**		**68.7**		**48.6**		**52.9**		**140**		**49.6**		35	12.6		12.7	
Manganese	0.3	0.0076		0.013		0.0084		0.049		0.023		0.0041		**0.81**		0.3	0.20		0.084	
Potassium	--	2.0		1.8		2.3		1.3		1.6		3.0		1.7		--	4.1		3.0	
Sodium	20	**30.6**		9.1		**29.6**		13.1		16.1		**44.2**		13.0		--	49.6		61.1	

^ Instrument related QC is outside acceptance limits.
U : Indicates the analyte was analyzed for but not detected.

MW-9SR and MW-11S - Upgradient Monitoring Well Locations
SW-2 - Upstream Monitoring Location
[1] 6NYCRR Part 703 Surface and Groundwater Quality Standards and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values
Values in **BOLD** exceed applicable groundwater or surface water criteria

TABLE 3
SUMMARY OF LEACHATE INDICATOR RESULTS
JULY 2023 - ROUTINE SAMPLING EVENT

		Groundwater Monitoring														Surface Water Monitoring				
Sample ID	**GW Standard [1]**	**MW-6S-07142023**		**MW-7S-07132023**		**MW-8S-07142023**		**MW-9SR-07132023**		**MW-10S-07132023**		**MW-11S-07132023**		**MW-12S-07132023**		**SW Standard [1]**	**SW-01-07142023**		**SW-02-07142023**	
Lab Sample Number		**480-210852-1**		**480-210791-5**		**480-210852-2**		**480-210791-6**		**480-210791-2**		**480-210791-3**		**480-210791-4**			**480-210852-3**		**480-210852-4**	
Sampling Date		**07/14/2023 09:15:00**		**07/13/2023 14:50:00**		**07/14/2023 10:30:00**		**07/13/2023 10:45:00**		**07/13/2023 13:50:00**		**07/13/2023 09:35:00**		**07/13/2023 12:25:00**			**07/14/2023 11:30:00**		**07/14/2023 12:30:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor																				
Units																				
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
Wet Chemistry		**Result**	**Qua**	**Result**	**Qua**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qua**	**Result**	**Qual**	**Result**	**Qual**		**Result**	**Qual**	**Result**	**Qual**
Alkalinity, Total - mg/L	--	316	F1	322		346		285		316		389		342		--	146		150	
Ammonia - mg/L	2	ND	U	ND	U	ND	U F1	ND	U	ND	U	ND	U	ND	U F1	2	ND	U	ND	U
Biochemical Oxygen Demand - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Bromide - mg/L	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Chemical Oxygen Demand - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	20.8		14.5	
Chloride - mg/L	250	78.4		24.5		42.0		34.5		26.1		70.9		25.5		250	62.3	F1	82.1	
Nitrate as N - mg/L	10	ND	U	0.30		0.24		0.45		0.13		0.28		ND	U	10	0.30		0.33	
Phenolics, Total Recoverable - mg/L	0.001	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.001	ND	U	ND	U
Total Dissolved Solids - mg/L	500	**661**		**560**		**775**		**624**		**688**		**1290**		**655**		500	265		288	
Total Hardness	--	600		540		640		590		590		1050		900		--	220		200	
Total Kjeldahl Nitrogen - mg/L	--	ND	U	0.23		ND	U	0.27		ND	U	ND	U	ND	U	--	0.80		0.51	
Total Organic Carbon - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	7.8		6.6	
Sulfate - mg/L	250	212		138		**257**		231		240		**635**		214		250	38.5		31.5	

* : LCS or LCSD is outside acceptance limits.
+ - High biased
F1 : MS and/or MSD Recovery is outside acceptance limits.
U : Indicates the analyte was analyzed for but not detected.
B : Compound was found in the blank and sample.
H : Sample was prepped or analyzed beyond the specified holding time

MW-9SR and MW-11S - Upgradient Monitoring Well Locations
SW-2 - Upstream Monitoring Location
[1] 6NYCRR Part 703 Surface and Groundwater Quality Standards and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values
Values in **BOLD** exceed applicable groundwater or surface water criteria

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Tim Roeper
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Generated 7/28/2023 11:48:05 AM

JOB DESCRIPTION

Dunn Landfill - Routine
SDG NUMBER 210791
Routine

JOB NUMBER

480-210791-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

my EOL

Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
7/28/2023 11:48:05 AM

Authorized for release by
Joshua Velez, Project Management Assistant I
Joshua.Velez@et.eurofinsus.com
Designee for
Ryan VanDette, Project Manager II
Ryan.VanDette@et.eurofinsus.com
(716)504-9830

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 9
QC Sample Results 19
QC Association Summary 33
Lab Chronicle 40
Certification Summary 45
Method Summary 46
Sample Summary 47
Chain of Custody 48
Receipt Checklists 52

Definitions/Glossary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

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
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: 480-210791-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-210791-1

Comments
No additional comments.

Receipt
The samples were received on 7/14/2023 8:00 AM and 7/15/2023 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 2.3º C, 2.6º C, 3.2º C, 3.6º C, 4.0º C and 4.3º C.

HPLC/IC
Method 300.0: The following samples were diluted due to the abundance of non-target analytes: FB-01-07132023 (480-210791-1), MW-10S-07132023 (480-210791-2) and (480-210791-N-2 MS). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-11S-07132023 (480-210791-3), MW-12S-07132023 (480-210791-4), MW-7S-07132023 (480-210791-5), MW-9SR-07132023 (480-210791-6), MW-6S-07142023 (480-210852-1) and MW-8S-07142023 (480-210852-2). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted due to the abundance of non-target analytes: SW-01-07142023 (480-210852-3) and SW-02-07142023 (480-210852-4). 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
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method SM 2320B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-676762 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method SM 2540C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: MW-10S-07132023 (480-210791-2). The reporting limits (RLs) have been adjusted proportionately.

Method SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 480-678071 were outside control limits: SW-01-07142023 (480-210852-3). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: FB-01-07132023 — Lab Sample ID: 480-210791-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	11.0		10.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-10S-07132023 — Lab Sample ID: 480-210791-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	132		0.50		mg/L	1		6010C	Total/NA
Iron	0.11		0.050		mg/L	1		6010C	Total/NA
Magnesium	52.9		0.20		mg/L	1		6010C	Total/NA
Manganese	0.023		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.6		0.50		mg/L	1		6010C	Total/NA
Sodium	16.1		1.0		mg/L	1		6010C	Total/NA
Sulfate	240		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.13		0.050		mg/L	1	☼	353.2	Total/NA
Alkalinity, Total	316		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	590		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	688		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	26.1		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-11S-07132023 — Lab Sample ID: 480-210791-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	185		0.50		mg/L	1		6010C	Total/NA
Magnesium	140		0.20		mg/L	1		6010C	Total/NA
Manganese	0.0041		0.0030		mg/L	1		6010C	Total/NA
Potassium	3.0		0.50		mg/L	1		6010C	Total/NA
Sodium	44.2		1.0		mg/L	1		6010C	Total/NA
Sulfate	635		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.28		0.050		mg/L	1	☼	353.2	Total/NA
Alkalinity, Total	389		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	1050		50.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	1290		20.0		mg/L	1		SM 2540C	Total/NA
Chloride	70.9		5.0		mg/L	5		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-12S-07132023 — Lab Sample ID: 480-210791-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	146		0.50		mg/L	1		6010C	Total/NA
Iron	8.2		0.050		mg/L	1		6010C	Total/NA
Magnesium	49.6		0.20		mg/L	1		6010C	Total/NA
Manganese	0.81		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.7		0.50		mg/L	1		6010C	Total/NA
Sodium	13.0		1.0		mg/L	1		6010C	Total/NA
Sulfate	214		10.0		mg/L	5		300.0	Total/NA
Alkalinity, Total	342		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	900		20.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	655		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	25.5		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-7S-07132023 — Lab Sample ID: 480-210791-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	111		0.50		mg/L	1		6010C	Total/NA
Iron	0.094		0.050		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-7S-07132023 (Continued) — Lab Sample ID: 480-210791-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	46.6		0.20		mg/L	1		6010C	Total/NA
Manganese	0.013		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.8		0.50		mg/L	1		6010C	Total/NA
Sodium	9.1		1.0		mg/L	1		6010C	Total/NA
Sulfate	138		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.23		0.20		mg/L	1		351.2	Total/NA
Nitrate	0.30		0.050		mg/L	1	☼	353.2	Total/NA
Alkalinity, Total	322		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	540		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	560		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	24.5		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-9SR-07132023 — Lab Sample ID: 480-210791-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	129		0.50		mg/L	1		6010C	Total/NA
Iron	0.60		0.050		mg/L	1		6010C	Total/NA
Magnesium	48.6		0.20		mg/L	1		6010C	Total/NA
Manganese	0.049		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.3		0.50		mg/L	1		6010C	Total/NA
Sodium	13.1		1.0		mg/L	1		6010C	Total/NA
Sulfate	231		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.27		0.20		mg/L	1		351.2	Total/NA
Nitrate	0.45		0.050		mg/L	1	☼	353.2	Total/NA
Alkalinity, Total	285		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	590		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	624		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	34.5		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-6S-07142023 — Lab Sample ID: 480-210852-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	134		0.50		mg/L	1		6010C	Total/NA
Iron	0.098		0.050		mg/L	1		6010C	Total/NA
Magnesium	58.8		0.20		mg/L	1		6010C	Total/NA
Manganese	0.0076		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.0		0.50		mg/L	1		6010C	Total/NA
Sodium	30.6		1.0		mg/L	1		6010C	Total/NA
Sulfate	212		10.0		mg/L	5		300.0	Total/NA
Alkalinity, Total	316	F1	5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	600		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	661		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	78.4		5.0		mg/L	5		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-8S-07142023 — Lab Sample ID: 480-210852-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	147		0.50		mg/L	1		6010C	Total/NA
Iron	0.28		0.050		mg/L	1		6010C	Total/NA
Magnesium	68.7		0.20		mg/L	1		6010C	Total/NA
Manganese	0.0084		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.3		0.50		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-8S-07142023 (Continued) — Lab Sample ID: 480-210852-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	29.6		1.0		mg/L	1		6010C	Total/NA
Sulfate	257		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.24		0.050		mg/L	1	☼	353.2	Total/NA
Alkalinity, Total	346		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	640		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	775		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	42.0		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: SW-01-07142023 — Lab Sample ID: 480-210852-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	46.9		0.50		mg/L	1		6010C	Total/NA
Iron	5.8		0.050		mg/L	1		6010C	Total/NA
Magnesium	12.6		0.20		mg/L	1		6010C	Total/NA
Manganese	0.20		0.0030		mg/L	1		6010C	Total/NA
Potassium	4.1		0.50		mg/L	1		6010C	Total/NA
Sodium	49.6		1.0		mg/L	1		6010C	Total/NA
Sulfate	38.5		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.80		0.20		mg/L	1		351.2	Total/NA
Nitrate	0.30		0.050		mg/L	1	☼	353.2	Total/NA
Chemical Oxygen Demand	20.8		10.0		mg/L	1		410.4	Total/NA
Alkalinity, Total	146		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	220		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	265		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	62.3	F1	5.0		mg/L	5		SM 4500 Cl- E	Total/NA
Total Organic Carbon	7.8		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: SW-02-07142023 — Lab Sample ID: 480-210852-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	47.0		0.50		mg/L	1		6010C	Total/NA
Iron	2.0		0.050		mg/L	1		6010C	Total/NA
Magnesium	12.7		0.20		mg/L	1		6010C	Total/NA
Manganese	0.084		0.0030		mg/L	1		6010C	Total/NA
Potassium	3.0		0.50		mg/L	1		6010C	Total/NA
Sodium	61.1		1.0		mg/L	1		6010C	Total/NA
Sulfate	31.5		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.51		0.20		mg/L	1		351.2	Total/NA
Nitrate	0.33		0.050		mg/L	1	☼	353.2	Total/NA
Chemical Oxygen Demand	14.5		10.0		mg/L	1		410.4	Total/NA
Alkalinity, Total	150		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	200		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	288		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	82.1		5.0		mg/L	5		SM 4500 Cl- E	Total/NA
Total Organic Carbon	6.6		1.0		mg/L	1		SM 5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: FB-01-07132023

Date Collected: 07/13/23 08:30
Date Received: 07/14/23 08:00

Lab Sample ID: 480-210791-1

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/17/23 08:16	07/18/23 03:53	1
Calcium	ND		0.50		mg/L		07/17/23 08:16	07/18/23 03:53	1
Iron	ND		0.050		mg/L		07/17/23 08:16	07/18/23 03:53	1
Lead	ND		0.010		mg/L		07/17/23 08:16	07/18/23 03:53	1
Magnesium	ND		0.20		mg/L		07/17/23 08:16	07/18/23 03:53	1
Manganese	ND		0.0030		mg/L		07/17/23 08:16	07/18/23 03:53	1
Potassium	ND		0.50		mg/L		07/17/23 08:16	07/18/23 03:53	1
Sodium	ND		1.0		mg/L		07/17/23 08:16	07/18/23 03:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		0.20		mg/L			07/20/23 05:39	1
Sulfate (EPA 300.0)	ND		2.0		mg/L			07/20/23 05:39	1
Ammonia (EPA 350.1)	ND		0.20		mg/L		07/17/23 06:30	07/17/23 08:58	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		07/18/23 09:00	07/19/23 06:55	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		07/14/23 15:08	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			07/18/23 21:49	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 20:02	1
Alkalinity, Total (SM 2320B)	ND		5.0		mg/L			07/17/23 14:39	1
Total Hardness (SM 2340C)	ND		4.0		mg/L			07/20/23 07:45	1
Total Dissolved Solids (SM 2540C)	**11.0**		10.0		mg/L			07/18/23 11:12	1
Chloride (SM 4500 Cl- E)	ND		1.0		mg/L			07/27/23 11:04	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/14/23 11:25	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			07/18/23 19:09	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-10S-07132023

Lab Sample ID: 480-210791-2

Date Collected: 07/13/23 13:50
Date Received: 07/14/23 08:00

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/17/23 08:16	07/18/23 03:57	1
Calcium	**132**		0.50		mg/L		07/17/23 08:16	07/18/23 03:57	1
Iron	**0.11**		0.050		mg/L		07/17/23 08:16	07/18/23 03:57	1
Lead	ND		0.010		mg/L		07/17/23 08:16	07/18/23 03:57	1
Magnesium	**52.9**		0.20		mg/L		07/17/23 08:16	07/18/23 03:57	1
Manganese	**0.023**		0.0030		mg/L		07/17/23 08:16	07/18/23 03:57	1
Potassium	**1.6**		0.50		mg/L		07/17/23 08:16	07/18/23 03:57	1
Sodium	**16.1**		1.0		mg/L		07/17/23 08:16	07/18/23 03:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			07/20/23 05:59	5
Sulfate (EPA 300.0)	**240**		10.0		mg/L			07/20/23 05:59	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		07/17/23 06:30	07/17/23 09:02	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		07/18/23 09:00	07/19/23 06:55	1
Nitrate (EPA 353.2)	**0.13**		0.050		mg/L	☼		07/14/23 13:51	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			07/18/23 21:52	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 20:09	1
Alkalinity, Total (SM 2320B)	**316**		5.0		mg/L			07/17/23 14:58	1
Total Hardness (SM 2340C)	**590**		10.0		mg/L			07/20/23 07:45	1
Total Dissolved Solids (SM 2540C)	**688**		10.0		mg/L			07/18/23 11:12	1
Chloride (SM 4500 Cl- E)	**26.1**		1.0		mg/L			07/27/23 11:04	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/14/23 11:25	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			07/18/23 19:38	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-11S-07132023

Lab Sample ID: 480-210791-3

Date Collected: 07/13/23 09:35
Date Received: 07/14/23 08:00

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/17/23 08:16	07/18/23 04:00	1
Calcium	**185**		0.50		mg/L		07/17/23 08:16	07/18/23 04:00	1
Iron	ND		0.050		mg/L		07/17/23 08:16	07/18/23 04:00	1
Lead	ND		0.010		mg/L		07/17/23 08:16	07/18/23 04:00	1
Magnesium	**140**		0.20		mg/L		07/17/23 08:16	07/18/23 04:00	1
Manganese	**0.0041**		0.0030		mg/L		07/17/23 08:16	07/18/23 04:00	1
Potassium	**3.0**		0.50		mg/L		07/17/23 08:16	07/18/23 04:00	1
Sodium	**44.2**		1.0		mg/L		07/17/23 08:16	07/18/23 04:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			07/20/23 17:05	5
Sulfate (EPA 300.0)	**635**		10.0		mg/L			07/20/23 17:05	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		07/17/23 06:30	07/17/23 09:04	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		07/18/23 09:00	07/19/23 06:55	1
Nitrate (EPA 353.2)	**0.28**		0.050		mg/L	☼		07/14/23 13:52	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			07/18/23 21:55	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 20:13	1
Alkalinity, Total (SM 2320B)	**389**		5.0		mg/L			07/17/23 15:06	1
Total Hardness (SM 2340C)	**1050**		50.0		mg/L			07/20/23 07:45	1
Total Dissolved Solids (SM 2540C)	**1290**		20.0		mg/L			07/18/23 11:12	1
Chloride (SM 4500 Cl- E)	**70.9**		5.0		mg/L			07/27/23 11:23	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/14/23 13:42	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			07/18/23 20:06	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-12S-07132023

Lab Sample ID: 480-210791-4

Date Collected: 07/13/23 12:25
Date Received: 07/14/23 08:00

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/17/23 08:16	07/18/23 04:04	1
Calcium	**146**		0.50		mg/L		07/17/23 08:16	07/18/23 04:04	1
Iron	**8.2**		0.050		mg/L		07/17/23 08:16	07/18/23 04:04	1
Lead	ND		0.010		mg/L		07/17/23 08:16	07/18/23 04:04	1
Magnesium	**49.6**		0.20		mg/L		07/17/23 08:16	07/18/23 04:04	1
Manganese	**0.81**		0.0030		mg/L		07/17/23 08:16	07/18/23 04:04	1
Potassium	**1.7**		0.50		mg/L		07/17/23 08:16	07/18/23 04:04	1
Sodium	**13.0**		1.0		mg/L		07/17/23 08:16	07/18/23 04:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			07/20/23 17:25	5
Sulfate (EPA 300.0)	**214**		10.0		mg/L			07/20/23 17:25	5
Ammonia (EPA 350.1)	ND	F1	0.20		mg/L		07/17/23 06:30	07/17/23 09:17	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		07/18/23 09:00	07/19/23 06:55	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		07/14/23 15:09	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			07/18/23 21:57	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 20:16	1
Alkalinity, Total (SM 2320B)	**342**		5.0		mg/L			07/17/23 15:15	1
Total Hardness (SM 2340C)	**900**		20.0		mg/L			07/20/23 07:45	1
Total Dissolved Solids (SM 2540C)	**655**		10.0		mg/L			07/18/23 11:12	1
Chloride (SM 4500 Cl- E)	**25.5**		1.0		mg/L			07/27/23 11:04	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/14/23 13:42	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			07/18/23 20:35	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-7S-07132023

Lab Sample ID: 480-210791-5

Date Collected: 07/13/23 14:50
Matrix: Water
Date Received: 07/14/23 08:00

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/17/23 08:16	07/18/23 04:08	1
Calcium	**111**		0.50		mg/L		07/17/23 08:16	07/18/23 04:08	1
Iron	**0.094**		0.050		mg/L		07/17/23 08:16	07/18/23 04:08	1
Lead	ND		0.010		mg/L		07/17/23 08:16	07/18/23 04:08	1
Magnesium	**46.6**		0.20		mg/L		07/17/23 08:16	07/18/23 04:08	1
Manganese	**0.013**		0.0030		mg/L		07/17/23 08:16	07/18/23 04:08	1
Potassium	**1.8**		0.50		mg/L		07/17/23 08:16	07/18/23 04:08	1
Sodium	**9.1**		1.0		mg/L		07/17/23 08:16	07/18/23 04:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			07/20/23 17:45	5
Sulfate (EPA 300.0)	**138**		10.0		mg/L			07/20/23 17:45	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		07/17/23 06:30	07/17/23 09:25	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.23**		0.20		mg/L		07/18/23 09:00	07/19/23 06:55	1
Nitrate (EPA 353.2)	**0.30**		0.050		mg/L	☼		07/14/23 13:59	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			07/18/23 22:00	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 20:20	1
Alkalinity, Total (SM 2320B)	**322**		5.0		mg/L			07/17/23 15:22	1
Total Hardness (SM 2340C)	**540**		10.0		mg/L			07/20/23 07:45	1
Total Dissolved Solids (SM 2540C)	**560**		10.0		mg/L			07/18/23 11:12	1
Chloride (SM 4500 Cl- E)	**24.5**		1.0		mg/L			07/27/23 11:05	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/14/23 13:42	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			07/18/23 21:03	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-9SR-07132023

Lab Sample ID: 480-210791-6

Date Collected: 07/13/23 10:45
Matrix: Water
Date Received: 07/14/23 08:00

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/17/23 08:16	07/18/23 04:23	1
Calcium	**129**		0.50		mg/L		07/17/23 08:16	07/18/23 04:23	1
Iron	**0.60**		0.050		mg/L		07/17/23 08:16	07/18/23 04:23	1
Lead	ND		0.010		mg/L		07/17/23 08:16	07/18/23 04:23	1
Magnesium	**48.6**		0.20		mg/L		07/17/23 08:16	07/18/23 04:23	1
Manganese	**0.049**		0.0030		mg/L		07/17/23 08:16	07/18/23 04:23	1
Potassium	**1.3**		0.50		mg/L		07/17/23 08:16	07/18/23 04:23	1
Sodium	**13.1**		1.0		mg/L		07/17/23 08:16	07/18/23 04:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			07/20/23 18:04	5
Sulfate (EPA 300.0)	**231**		10.0		mg/L			07/20/23 18:04	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		07/17/23 06:30	07/17/23 09:29	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.27**		0.20		mg/L		07/18/23 09:00	07/19/23 06:55	1
Nitrate (EPA 353.2)	**0.45**		0.050		mg/L	☼		07/14/23 14:01	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			07/18/23 22:11	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 20:24	1
Alkalinity, Total (SM 2320B)	**285**		5.0		mg/L			07/17/23 15:30	1
Total Hardness (SM 2340C)	**590**		10.0		mg/L			07/20/23 07:45	1
Total Dissolved Solids (SM 2540C)	**624**		10.0		mg/L			07/18/23 11:12	1
Chloride (SM 4500 Cl- E)	**34.5**		1.0		mg/L			07/27/23 11:06	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/14/23 13:42	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			07/18/23 21:32	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-6S-07142023

Lab Sample ID: 480-210852-1

Date Collected: 07/14/23 09:15
Matrix: Water
Date Received: 07/15/23 10:30

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/18/23 09:47	07/18/23 19:39	1
Calcium	**134**		0.50		mg/L		07/18/23 09:47	07/18/23 19:39	1
Iron	**0.098**		0.050		mg/L		07/18/23 09:47	07/18/23 19:39	1
Lead	ND		0.010		mg/L		07/18/23 09:47	07/18/23 19:39	1
Magnesium	**58.8**		0.20		mg/L		07/18/23 09:47	07/18/23 19:39	1
Manganese	**0.0076**		0.0030		mg/L		07/18/23 09:47	07/18/23 19:39	1
Potassium	**2.0**		0.50		mg/L		07/18/23 09:47	07/18/23 19:39	1
Sodium	**30.6**		1.0		mg/L		07/18/23 09:47	07/18/23 19:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			07/21/23 06:31	5
Sulfate (EPA 300.0)	**212**		10.0		mg/L			07/21/23 06:31	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		07/17/23 06:30	07/17/23 10:02	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		07/19/23 09:00	07/20/23 07:51	1
Nitrate (EPA 353.2)	ND		0.050		mg/L	☼		07/15/23 16:06	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			07/19/23 01:45	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 21:12	1
Alkalinity, Total (SM 2320B)	**316**	**F1**	5.0		mg/L			07/18/23 11:26	1
Total Hardness (SM 2340C)	**600**		10.0		mg/L			07/18/23 13:55	1
Total Dissolved Solids (SM 2540C)	**661**		10.0		mg/L			07/20/23 11:11	1
Chloride (SM 4500 Cl- E)	**78.4**		5.0		mg/L			07/27/23 11:23	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/15/23 13:08	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			07/20/23 01:23	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-8S-07142023

Lab Sample ID: 480-210852-2

Date Collected: 07/14/23 10:30
Date Received: 07/15/23 10:30

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/18/23 09:47	07/18/23 19:58	1
Calcium	**147**		0.50		mg/L		07/18/23 09:47	07/18/23 19:58	1
Iron	**0.28**		0.050		mg/L		07/18/23 09:47	07/18/23 19:58	1
Lead	ND		0.010		mg/L		07/18/23 09:47	07/18/23 19:58	1
Magnesium	**68.7**		0.20		mg/L		07/18/23 09:47	07/18/23 19:58	1
Manganese	**0.0084**		0.0030		mg/L		07/18/23 09:47	07/18/23 19:58	1
Potassium	**2.3**		0.50		mg/L		07/18/23 09:47	07/18/23 19:58	1
Sodium	**29.6**		1.0		mg/L		07/18/23 09:47	07/18/23 19:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			07/21/23 06:50	5
Sulfate (EPA 300.0)	**257**		10.0		mg/L			07/21/23 06:50	5
Ammonia (EPA 350.1)	ND	F1	0.20		mg/L		07/17/23 06:30	07/17/23 10:34	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		07/18/23 09:00	07/19/23 07:04	1
Nitrate (EPA 353.2)	**0.24**		0.050		mg/L	☼		07/15/23 16:07	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			07/19/23 01:59	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 21:15	1
Alkalinity, Total (SM 2320B)	**346**		5.0		mg/L			07/18/23 11:51	1
Total Hardness (SM 2340C)	**640**		10.0		mg/L			07/18/23 13:55	1
Total Dissolved Solids (SM 2540C)	**775**		10.0		mg/L			07/20/23 11:11	1
Chloride (SM 4500 Cl- E)	**42.0**		1.0		mg/L			07/27/23 11:07	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/15/23 13:08	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			07/20/23 01:54	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: SW-01-07142023

Lab Sample ID: 480-210852-3

Date Collected: 07/14/23 11:30
Date Received: 07/15/23 10:30

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/18/23 09:47	07/18/23 20:02	1
Calcium	**46.9**		0.50		mg/L		07/18/23 09:47	07/18/23 20:02	1
Iron	**5.8**		0.050		mg/L		07/18/23 09:47	07/18/23 20:02	1
Lead	ND		0.010		mg/L		07/18/23 09:47	07/18/23 20:02	1
Magnesium	**12.6**		0.20		mg/L		07/18/23 09:47	07/18/23 20:02	1
Manganese	**0.20**		0.0030		mg/L		07/18/23 09:47	07/18/23 20:02	1
Potassium	**4.1**		0.50		mg/L		07/18/23 09:47	07/18/23 20:02	1
Sodium	**49.6**		1.0		mg/L		07/18/23 09:47	07/18/23 20:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			07/21/23 21:22	5
Sulfate (EPA 300.0)	**38.5**		10.0		mg/L			07/21/23 21:22	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		07/17/23 06:30	07/17/23 10:42	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.80**		0.20		mg/L		07/18/23 09:00	07/19/23 07:04	1
Nitrate (EPA 353.2)	**0.30**		0.050		mg/L	☼		07/15/23 15:38	1
Chemical Oxygen Demand (EPA 410.4)	**20.8**		10.0		mg/L			07/19/23 02:07	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 21:19	1
Alkalinity, Total (SM 2320B)	**146**		5.0		mg/L			07/18/23 11:57	1
Total Hardness (SM 2340C)	**220**		10.0		mg/L			07/18/23 13:55	1
Total Dissolved Solids (SM 2540C)	**265**		10.0		mg/L			07/20/23 11:11	1
Chloride (SM 4500 Cl- E)	**62.3**	**F1**	5.0		mg/L			07/27/23 11:25	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/15/23 13:08	1
Total Organic Carbon (SM 5310C)	**7.8**		1.0		mg/L			07/20/23 02:22	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: SW-02-07142023

Date Collected: 07/14/23 12:30
Date Received: 07/15/23 10:30

Lab Sample ID: 480-210852-4

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/18/23 09:47	07/18/23 20:05	1
Calcium	**47.0**		0.50		mg/L		07/18/23 09:47	07/18/23 20:05	1
Iron	**2.0**		0.050		mg/L		07/18/23 09:47	07/18/23 20:05	1
Lead	ND		0.010		mg/L		07/18/23 09:47	07/18/23 20:05	1
Magnesium	**12.7**		0.20		mg/L		07/18/23 09:47	07/18/23 20:05	1
Manganese	**0.084**		0.0030		mg/L		07/18/23 09:47	07/18/23 20:05	1
Potassium	**3.0**		0.50		mg/L		07/18/23 09:47	07/18/23 20:05	1
Sodium	**61.1**		1.0		mg/L		07/18/23 09:47	07/18/23 20:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			07/21/23 21:41	5
Sulfate (EPA 300.0)	**31.5**		10.0		mg/L			07/21/23 21:41	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		07/17/23 06:30	07/17/23 10:45	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.51**		0.20		mg/L		07/18/23 09:00	07/19/23 07:04	1
Nitrate (EPA 353.2)	**0.33**		0.050		mg/L	☼		07/15/23 15:41	1
Chemical Oxygen Demand (EPA 410.4)	**14.5**		10.0		mg/L			07/19/23 02:10	1
Phenolics, Total Recoverable (EPA 420.4)	ND		0.010		mg/L			07/18/23 21:23	1
Alkalinity, Total (SM 2320B)	**150**		5.0		mg/L			07/18/23 12:05	1
Total Hardness (SM 2340C)	**200**		10.0		mg/L			07/18/23 13:55	1
Total Dissolved Solids (SM 2540C)	**288**		10.0		mg/L			07/20/23 11:11	1
Chloride (SM 4500 Cl- E)	**82.1**		5.0		mg/L			07/27/23 11:25	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			07/15/23 13:08	1
Total Organic Carbon (SM 5310C)	**6.6**		1.0		mg/L			07/20/23 02:52	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-676404/1-A
Matrix: Water
Analysis Batch: 676716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 676404

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/17/23 08:16	07/18/23 02:26	1
Calcium	ND		0.50		mg/L		07/17/23 08:16	07/18/23 02:26	1
Iron	ND		0.050		mg/L		07/17/23 08:16	07/18/23 02:26	1
Lead	ND		0.010		mg/L		07/17/23 08:16	07/18/23 02:26	1
Magnesium	ND		0.20		mg/L		07/17/23 08:16	07/18/23 02:26	1
Manganese	ND		0.0030		mg/L		07/17/23 08:16	07/18/23 02:26	1
Potassium	ND		0.50		mg/L		07/17/23 08:16	07/18/23 02:26	1
Sodium	ND		1.0		mg/L		07/17/23 08:16	07/18/23 02:26	1

Lab Sample ID: LCS 480-676404/2-A
Matrix: Water
Analysis Batch: 676716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 676404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.200	0.212		mg/L		106	80 - 120
Calcium	10.0	10.24		mg/L		102	80 - 120
Iron	10.0	10.53		mg/L		105	80 - 120
Lead	0.200	0.198		mg/L		99	80 - 120
Magnesium	10.0	10.41		mg/L		104	80 - 120
Manganese	0.200	0.211		mg/L		106	80 - 120
Potassium	10.0	10.43		mg/L		104	80 - 120
Sodium	10.0	10.08		mg/L		101	80 - 120

Lab Sample ID: MB 480-676708/1-A
Matrix: Water
Analysis Batch: 676926

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 676708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		07/18/23 09:47	07/18/23 19:20	1
Calcium	ND		0.50		mg/L		07/18/23 09:47	07/18/23 19:20	1
Iron	ND		0.050		mg/L		07/18/23 09:47	07/18/23 19:20	1
Lead	ND		0.010		mg/L		07/18/23 09:47	07/18/23 19:20	1
Magnesium	ND		0.20		mg/L		07/18/23 09:47	07/18/23 19:20	1
Manganese	ND		0.0030		mg/L		07/18/23 09:47	07/18/23 19:20	1
Potassium	ND		0.50		mg/L		07/18/23 09:47	07/18/23 19:20	1
Sodium	ND		1.0		mg/L		07/18/23 09:47	07/18/23 19:20	1

Lab Sample ID: LCS 480-676708/2-A
Matrix: Water
Analysis Batch: 676926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 676708

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.200	0.204		mg/L		102	80 - 120
Calcium	10.0	10.56		mg/L		105	80 - 120
Iron	10.0	10.35		mg/L		103	80 - 120
Lead	0.200	0.194		mg/L		97	80 - 120
Magnesium	10.0	10.03		mg/L		100	80 - 120
Manganese	0.200	0.208		mg/L		104	80 - 120
Potassium	10.0	10.24		mg/L		102	80 - 120

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

Lab Sample ID: LCS 480-676708/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676926 — **Prep Batch: 676708**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	10.0	10.44		mg/L		104	80 - 120

Lab Sample ID: 480-210852-1 MS — **Client Sample ID: MW-6S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676926 — **Prep Batch: 676708**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	ND		0.200	0.210		mg/L		105	75 - 125
Calcium	134		10.0	144.4	4	mg/L		106	75 - 125
Iron	0.098		10.0	10.21		mg/L		101	75 - 125
Lead	ND		0.200	0.197		mg/L		99	75 - 125
Magnesium	58.8		10.0	68.57	4	mg/L		98	75 - 125
Manganese	0.0076		0.200	0.213		mg/L		103	75 - 125
Potassium	2.0		10.0	12.63		mg/L		107	75 - 125
Sodium	30.6		10.0	40.86		mg/L		103	75 - 125

Lab Sample ID: 480-210852-1 MSD — **Client Sample ID: MW-6S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676926 — **Prep Batch: 676708**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	ND		0.200	0.212		mg/L		106	75 - 125	1	20
Calcium	134		10.0	147.5	4	mg/L		137	75 - 125	2	20
Iron	0.098		10.0	10.48		mg/L		104	75 - 125	3	20
Lead	ND		0.200	0.202		mg/L		101	75 - 125	2	20
Magnesium	58.8		10.0	69.45	4	mg/L		106	75 - 125	1	20
Manganese	0.0076		0.200	0.217		mg/L		104	75 - 125	2	20
Potassium	2.0		10.0	12.53		mg/L		106	75 - 125	1	20
Sodium	30.6		10.0	40.92		mg/L		104	75 - 125	0	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-676994/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676994

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			07/19/23 23:26	1
Sulfate	ND		2.0		mg/L			07/19/23 23:26	1

Lab Sample ID: LCS 480-676994/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.99		mg/L		100	90 - 110
Sulfate	50.1	49.11		mg/L		98	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 480-210791-2 MS — **Client Sample ID: MW-10S-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676994

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	ND		25.0	23.16		mg/L		93	80 - 120
Sulfate	240		250	452.6		mg/L		85	80 - 120

Lab Sample ID: MB 480-677164/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677164

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			07/21/23 00:17	1
Sulfate	ND		2.0		mg/L			07/21/23 00:17	1

Lab Sample ID: MB 480-677164/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677164

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			07/20/23 16:26	1
Sulfate	ND		2.0		mg/L			07/20/23 16:26	1

Lab Sample ID: LCS 480-677164/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677164

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	5.33		mg/L		106	90 - 110
Sulfate	50.1	51.32		mg/L		103	90 - 110

Lab Sample ID: LCS 480-677164/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677164

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	5.03		mg/L		100	90 - 110
Sulfate	50.1	49.14		mg/L		98	90 - 110

Lab Sample ID: 480-210852-2 MS — **Client Sample ID: MW-8S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677164

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	ND		25.0	24.71		mg/L		99	80 - 120
Sulfate	257		250	481.1		mg/L		90	80 - 120

Lab Sample ID: MB 480-677326/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677326

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			07/21/23 16:27	1
Sulfate	ND		2.0		mg/L			07/21/23 16:27	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 480-677326/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677326

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	5.37		mg/L		107	90 - 110
Sulfate	50.1	51.14		mg/L		102	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: 480-210791-4 MS — **Client Sample ID: MW-12S-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676576 — **Prep Batch: 676512**

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

Lab Sample ID: 480-210791-4 DU — **Client Sample ID: MW-12S-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676576 — **Prep Batch: 676512**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia	ND	F1	ND		mg/L		NC	20

Lab Sample ID: 480-210852-1 MS — **Client Sample ID: MW-6S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676576 — **Prep Batch: 676513**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	ND		0.200	ND		mg/L		97	90 - 110

Lab Sample ID: 480-210852-2 MS — **Client Sample ID: MW-8S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676576 — **Prep Batch: 676513**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	ND	F1	0.200	ND	F1	mg/L		79	90 - 110

Lab Sample ID: 480-210852-2 DU — **Client Sample ID: MW-8S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676576 — **Prep Batch: 676513**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia	ND	F1	ND		mg/L		NC	20

Lab Sample ID: MB 480-676576/17 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676576

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L			07/17/23 08:40	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MB 480-676576/45 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676576

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L			07/17/23 09:57	1

Lab Sample ID: LCS 480-676576/18 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676576

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.926		mg/L		93	90 - 110

Lab Sample ID: LCS 480-676576/46 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676576

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.922		mg/L		92	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-676805/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676849 — **Prep Batch: 676805**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		07/18/23 09:00	07/19/23 06:10	1

Lab Sample ID: LCS 480-676805/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676849 — **Prep Batch: 676805**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.47		mg/L		99	90 - 110

Lab Sample ID: 480-210791-2 MS — **Client Sample ID: MW-10S-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676849 — **Prep Batch: 676805**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	ND		1.00	1.05		mg/L		105	90 - 110

Lab Sample ID: MB 480-676806/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676849 — **Prep Batch: 676806**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		07/18/23 09:00	07/19/23 06:10	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 480-676806/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676849 — **Prep Batch: 676806**

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: 480-210852-2 MS — **Client Sample ID: MW-8S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676849 — **Prep Batch: 676806**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	ND		1.00	1.02		mg/L		102	90 - 110

Lab Sample ID: MB 480-677019/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677104 — **Prep Batch: 677019**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		07/19/23 09:00	07/20/23 06:47	1

Lab Sample ID: LCS 480-677019/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677104 — **Prep Batch: 677019**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.43		mg/L		97	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-676943/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			07/18/23 21:36	1

Lab Sample ID: MB 480-676943/52 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676943

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			07/19/23 01:54	1

Lab Sample ID: LCS 480-676943/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	23.16		mg/L		93	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 480-676943/53 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	23.00		mg/L		92	90 - 110

Lab Sample ID: 480-210791-6 MS — **Client Sample ID: MW-9SR-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676943

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	ND		50.0	46.29		mg/L		93	75 - 125

Lab Sample ID: 480-210852-2 MS — **Client Sample ID: MW-8S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676943

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	ND		50.0	46.65		mg/L		93	75 - 125

Lab Sample ID: 480-210852-2 DU — **Client Sample ID: MW-8S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676943

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

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-676840/43 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676840

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			07/18/23 19:04	1

Lab Sample ID: MB 480-676840/72 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676840

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L			07/18/23 20:51	1

Lab Sample ID: LCS 480-676840/44 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676840

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.100	0.101		mg/L		101	90 - 110

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 480-676840/73 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676840

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.100	0.0991		mg/L		99	90 - 110

Lab Sample ID: 480-210791-1 MS — **Client Sample ID: FB-01-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676840

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	ND		0.100	0.103		mg/L		96	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-676646/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676646

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			07/17/23 14:28	1

Lab Sample ID: LCS 480-676646/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676646

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	90.16		mg/L		90	90 - 110

Lab Sample ID: 480-210791-1 MS — **Client Sample ID: FB-01-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676646

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	ND		100	96.88		mg/L		95	60 - 140

Lab Sample ID: 480-210791-1 DU — **Client Sample ID: FB-01-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676646

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	ND		ND		mg/L		NC	20

Lab Sample ID: MB 480-676762/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676762

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			07/18/23 11:10	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 480-676762/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676762

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	94.56		mg/L		95	90 - 110

Lab Sample ID: 480-210852-1 MS — **Client Sample ID: MW-6S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676762

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	316	F1	100	349.4	F1	mg/L		34	60 - 140

Lab Sample ID: 480-210852-1 DU — **Client Sample ID: MW-6S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676762

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	316	F1	319.0		mg/L		1	20

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 480-676794/27 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			07/18/23 13:55	1

Lab Sample ID: MB 480-676794/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			07/18/23 13:55	1

Lab Sample ID: LCS 480-676794/28 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676794

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	336	332.0		mg/L		99	90 - 110

Lab Sample ID: LCS 480-676794/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676794

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	228	228.0		mg/L		100	90 - 110

Method: SM 2340C - Hardness, Total (mg/l as CaC03) (Continued)

Lab Sample ID: MB 480-677156/75 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677156

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			07/20/23 07:45	1

Lab Sample ID: LCS 480-677156/76 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677156

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	336	336.0		mg/L		100	90 - 110

Lab Sample ID: 480-210791-2 DU — **Client Sample ID: MW-10S-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677156

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Hardness	590		590.0		mg/L		0	15

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

Lab Sample ID: MB 480-676741/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676741

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			07/18/23 11:12	1

Lab Sample ID: LCS 480-676741/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676741

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	525	462.0		mg/L		88	85 - 115

Lab Sample ID: MB 480-677127/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			07/20/23 11:11	1

Lab Sample ID: LCS 480-677127/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	525	475.0		mg/L		90	85 - 115

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

Lab Sample ID: 480-210852-1 DU — **Client Sample ID: MW-6S-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677127

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	661		661.0		mg/L		0	10

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-678071/13 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			07/27/23 10:40	1

Lab Sample ID: MB 480-678071/18 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			07/27/23 10:49	1

Lab Sample ID: MB 480-678071/29 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			07/27/23 11:06	1

Lab Sample ID: MB 480-678071/43 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			07/27/23 11:13	1

Lab Sample ID: MB 480-678071/50 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			07/27/23 11:17	1

Lab Sample ID: LCS 480-678071/17 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.70		mg/L		103	90 - 110

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

Lab Sample ID: LCS 480-678071/28 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.68		mg/L		103	90 - 110

Lab Sample ID: LCS 480-678071/49 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.95		mg/L		104	90 - 110

Lab Sample ID: LCS 480-678071/57 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.95		mg/L		104	90 - 110

Lab Sample ID: 480-210852-3 MS — **Client Sample ID: SW-01-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	62.3	F1	20.0	89.48	F1	mg/L		136	74 - 131

Lab Sample ID: 480-210852-3 MSD — **Client Sample ID: SW-01-07142023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 678071

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	62.3	F1	20.0	84.03		mg/L		109	74 - 131	6	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-676398/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676398

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			07/14/23 11:25	1

Lab Sample ID: LCS 480-676398/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	198	191.5		mg/L		97	85 - 115

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

Lab Sample ID: 480-210791-2 DU — **Client Sample ID: MW-10S-07132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676398

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

Lab Sample ID: USB 480-676453/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676453

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			07/14/23 13:42	1

Lab Sample ID: LCS 480-676453/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676453

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	198	180.9		mg/L		91	85 - 115

Lab Sample ID: USB 480-676481/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676481

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			07/15/23 13:08	1

Lab Sample ID: LCS 480-676481/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 676481

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	208.3		mg/L		105	85 - 115

Method: SM 5310C - TOC

Lab Sample ID: MB 480-677060/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677060

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			07/18/23 11:37	1

Lab Sample ID: LCS 480-677060/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 677060

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	55.38		mg/L		92	90 - 110

Method: SM 5310C - TOC (Continued)

Lab Sample ID: MB 480-677135/52
Matrix: Water
Analysis Batch: 677135

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	ND		1.0		mg/L			07/19/23 17:06	1

Lab Sample ID: LCS 480-677135/53
Matrix: Water
Analysis Batch: 677135

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	60.0	56.67		mg/L		94	90 - 110

QC Association Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Metals

Prep Batch: 676404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	3005A	
480-210791-2	MW-10S-07132023	Total/NA	Water	3005A	
480-210791-3	MW-11S-07132023	Total/NA	Water	3005A	
480-210791-4	MW-12S-07132023	Total/NA	Water	3005A	
480-210791-5	MW-7S-07132023	Total/NA	Water	3005A	
480-210791-6	MW-9SR-07132023	Total/NA	Water	3005A	
MB 480-676404/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-676404/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 676708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	3005A	
480-210852-2	MW-8S-07142023	Total/NA	Water	3005A	
480-210852-3	SW-01-07142023	Total/NA	Water	3005A	
480-210852-4	SW-02-07142023	Total/NA	Water	3005A	
MB 480-676708/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-676708/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-210852-1 MS	MW-6S-07142023	Total/NA	Water	3005A	
480-210852-1 MSD	MW-6S-07142023	Total/NA	Water	3005A	

Analysis Batch: 676716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	6010C	676404
480-210791-2	MW-10S-07132023	Total/NA	Water	6010C	676404
480-210791-3	MW-11S-07132023	Total/NA	Water	6010C	676404
480-210791-4	MW-12S-07132023	Total/NA	Water	6010C	676404
480-210791-5	MW-7S-07132023	Total/NA	Water	6010C	676404
480-210791-6	MW-9SR-07132023	Total/NA	Water	6010C	676404
MB 480-676404/1-A	Method Blank	Total/NA	Water	6010C	676404
LCS 480-676404/2-A	Lab Control Sample	Total/NA	Water	6010C	676404

Analysis Batch: 676926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	6010C	676708
480-210852-2	MW-8S-07142023	Total/NA	Water	6010C	676708
480-210852-3	SW-01-07142023	Total/NA	Water	6010C	676708
480-210852-4	SW-02-07142023	Total/NA	Water	6010C	676708
MB 480-676708/1-A	Method Blank	Total/NA	Water	6010C	676708
LCS 480-676708/2-A	Lab Control Sample	Total/NA	Water	6010C	676708
480-210852-1 MS	MW-6S-07142023	Total/NA	Water	6010C	676708
480-210852-1 MSD	MW-6S-07142023	Total/NA	Water	6010C	676708

General Chemistry

Analysis Batch: 676398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	SM 5210B	
480-210791-2	MW-10S-07132023	Total/NA	Water	SM 5210B	
USB 480-676398/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-676398/2	Lab Control Sample	Total/NA	Water	SM 5210B	
480-210791-2 DU	MW-10S-07132023	Total/NA	Water	SM 5210B	

QC Association Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

General Chemistry

Analysis Batch: 676450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	353.2	
480-210791-2	MW-10S-07132023	Total/NA	Water	353.2	
480-210791-3	MW-11S-07132023	Total/NA	Water	353.2	
480-210791-4	MW-12S-07132023	Total/NA	Water	353.2	
480-210791-5	MW-7S-07132023	Total/NA	Water	353.2	
480-210791-6	MW-9SR-07132023	Total/NA	Water	353.2	

Analysis Batch: 676453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-3	MW-11S-07132023	Total/NA	Water	SM 5210B	
480-210791-4	MW-12S-07132023	Total/NA	Water	SM 5210B	
480-210791-5	MW-7S-07132023	Total/NA	Water	SM 5210B	
480-210791-6	MW-9SR-07132023	Total/NA	Water	SM 5210B	
USB 480-676453/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-676453/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 676481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	SM 5210B	
480-210852-2	MW-8S-07142023	Total/NA	Water	SM 5210B	
480-210852-3	SW-01-07142023	Total/NA	Water	SM 5210B	
480-210852-4	SW-02-07142023	Total/NA	Water	SM 5210B	
USB 480-676481/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-676481/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 676485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	353.2	
480-210852-2	MW-8S-07142023	Total/NA	Water	353.2	
480-210852-3	SW-01-07142023	Total/NA	Water	353.2	
480-210852-4	SW-02-07142023	Total/NA	Water	353.2	

Prep Batch: 676512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	Distill/Ammonia	
480-210791-2	MW-10S-07132023	Total/NA	Water	Distill/Ammonia	
480-210791-3	MW-11S-07132023	Total/NA	Water	Distill/Ammonia	
480-210791-4	MW-12S-07132023	Total/NA	Water	Distill/Ammonia	
480-210791-5	MW-7S-07132023	Total/NA	Water	Distill/Ammonia	
480-210791-6	MW-9SR-07132023	Total/NA	Water	Distill/Ammonia	
480-210791-4 MS	MW-12S-07132023	Total/NA	Water	Distill/Ammonia	
480-210791-4 DU	MW-12S-07132023	Total/NA	Water	Distill/Ammonia	

Prep Batch: 676513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	Distill/Ammonia	
480-210852-2	MW-8S-07142023	Total/NA	Water	Distill/Ammonia	
480-210852-3	SW-01-07142023	Total/NA	Water	Distill/Ammonia	
480-210852-4	SW-02-07142023	Total/NA	Water	Distill/Ammonia	
480-210852-1 MS	MW-6S-07142023	Total/NA	Water	Distill/Ammonia	
480-210852-2 MS	MW-8S-07142023	Total/NA	Water	Distill/Ammonia	

General Chemistry (Continued)

Prep Batch: 676513 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-2 DU	MW-8S-07142023	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 676576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	350.1	676512
480-210791-2	MW-10S-07132023	Total/NA	Water	350.1	676512
480-210791-3	MW-11S-07132023	Total/NA	Water	350.1	676512
480-210791-4	MW-12S-07132023	Total/NA	Water	350.1	676512
480-210791-5	MW-7S-07132023	Total/NA	Water	350.1	676512
480-210791-6	MW-9SR-07132023	Total/NA	Water	350.1	676512
480-210852-1	MW-6S-07142023	Total/NA	Water	350.1	676513
480-210852-2	MW-8S-07142023	Total/NA	Water	350.1	676513
480-210852-3	SW-01-07142023	Total/NA	Water	350.1	676513
480-210852-4	SW-02-07142023	Total/NA	Water	350.1	676513
MB 480-676576/17	Method Blank	Total/NA	Water	350.1	
MB 480-676576/45	Method Blank	Total/NA	Water	350.1	
LCS 480-676576/18	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-676576/46	Lab Control Sample	Total/NA	Water	350.1	
480-210791-4 MS	MW-12S-07132023	Total/NA	Water	350.1	676512
480-210852-1 MS	MW-6S-07142023	Total/NA	Water	350.1	676513
480-210852-2 MS	MW-8S-07142023	Total/NA	Water	350.1	676513
480-210791-4 DU	MW-12S-07132023	Total/NA	Water	350.1	676512
480-210852-2 DU	MW-8S-07142023	Total/NA	Water	350.1	676513

Analysis Batch: 676646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	SM 2320B	
480-210791-2	MW-10S-07132023	Total/NA	Water	SM 2320B	
480-210791-3	MW-11S-07132023	Total/NA	Water	SM 2320B	
480-210791-4	MW-12S-07132023	Total/NA	Water	SM 2320B	
480-210791-5	MW-7S-07132023	Total/NA	Water	SM 2320B	
480-210791-6	MW-9SR-07132023	Total/NA	Water	SM 2320B	
MB 480-676646/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-676646/5	Lab Control Sample	Total/NA	Water	SM 2320B	
480-210791-1 MS	FB-01-07132023	Total/NA	Water	SM 2320B	
480-210791-1 DU	FB-01-07132023	Total/NA	Water	SM 2320B	

Analysis Batch: 676741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	SM 2540C	
480-210791-2	MW-10S-07132023	Total/NA	Water	SM 2540C	
480-210791-3	MW-11S-07132023	Total/NA	Water	SM 2540C	
480-210791-4	MW-12S-07132023	Total/NA	Water	SM 2540C	
480-210791-5	MW-7S-07132023	Total/NA	Water	SM 2540C	
480-210791-6	MW-9SR-07132023	Total/NA	Water	SM 2540C	
MB 480-676741/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-676741/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 676762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 676762 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-2	MW-8S-07142023	Total/NA	Water	SM 2320B	
480-210852-3	SW-01-07142023	Total/NA	Water	SM 2320B	
480-210852-4	SW-02-07142023	Total/NA	Water	SM 2320B	
MB 480-676762/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-676762/5	Lab Control Sample	Total/NA	Water	SM 2320B	
480-210852-1 MS	MW-6S-07142023	Total/NA	Water	SM 2320B	
480-210852-1 DU	MW-6S-07142023	Total/NA	Water	SM 2320B	

Analysis Batch: 676794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	SM 2340C	
480-210852-2	MW-8S-07142023	Total/NA	Water	SM 2340C	
480-210852-3	SW-01-07142023	Total/NA	Water	SM 2340C	
480-210852-4	SW-02-07142023	Total/NA	Water	SM 2340C	
MB 480-676794/27	Method Blank	Total/NA	Water	SM 2340C	
MB 480-676794/3	Method Blank	Total/NA	Water	SM 2340C	
LCS 480-676794/28	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 480-676794/4	Lab Control Sample	Total/NA	Water	SM 2340C	

Prep Batch: 676805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	351.2	
480-210791-2	MW-10S-07132023	Total/NA	Water	351.2	
480-210791-3	MW-11S-07132023	Total/NA	Water	351.2	
480-210791-4	MW-12S-07132023	Total/NA	Water	351.2	
480-210791-5	MW-7S-07132023	Total/NA	Water	351.2	
480-210791-6	MW-9SR-07132023	Total/NA	Water	351.2	
MB 480-676805/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-676805/2-A	Lab Control Sample	Total/NA	Water	351.2	
480-210791-2 MS	MW-10S-07132023	Total/NA	Water	351.2	

Prep Batch: 676806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-2	MW-8S-07142023	Total/NA	Water	351.2	
480-210852-3	SW-01-07142023	Total/NA	Water	351.2	
480-210852-4	SW-02-07142023	Total/NA	Water	351.2	
MB 480-676806/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-676806/2-A	Lab Control Sample	Total/NA	Water	351.2	
480-210852-2 MS	MW-8S-07142023	Total/NA	Water	351.2	

Analysis Batch: 676840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	420.4	
480-210791-2	MW-10S-07132023	Total/NA	Water	420.4	
480-210791-3	MW-11S-07132023	Total/NA	Water	420.4	
480-210791-4	MW-12S-07132023	Total/NA	Water	420.4	
480-210791-5	MW-7S-07132023	Total/NA	Water	420.4	
480-210791-6	MW-9SR-07132023	Total/NA	Water	420.4	
480-210852-1	MW-6S-07142023	Total/NA	Water	420.4	
480-210852-2	MW-8S-07142023	Total/NA	Water	420.4	
480-210852-3	SW-01-07142023	Total/NA	Water	420.4	

General Chemistry (Continued)

Analysis Batch: 676840 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-4	SW-02-07142023	Total/NA	Water	420.4	
MB 480-676840/43	Method Blank	Total/NA	Water	420.4	
MB 480-676840/72	Method Blank	Total/NA	Water	420.4	
LCS 480-676840/44	Lab Control Sample	Total/NA	Water	420.4	
LCS 480-676840/73	Lab Control Sample	Total/NA	Water	420.4	
480-210791-1 MS	FB-01-07132023	Total/NA	Water	420.4	

Analysis Batch: 676849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	351.2	676805
480-210791-2	MW-10S-07132023	Total/NA	Water	351.2	676805
480-210791-3	MW-11S-07132023	Total/NA	Water	351.2	676805
480-210791-4	MW-12S-07132023	Total/NA	Water	351.2	676805
480-210791-5	MW-7S-07132023	Total/NA	Water	351.2	676805
480-210791-6	MW-9SR-07132023	Total/NA	Water	351.2	676805
480-210852-2	MW-8S-07142023	Total/NA	Water	351.2	676806
480-210852-3	SW-01-07142023	Total/NA	Water	351.2	676806
480-210852-4	SW-02-07142023	Total/NA	Water	351.2	676806
MB 480-676805/1-A	Method Blank	Total/NA	Water	351.2	676805
MB 480-676806/1-A	Method Blank	Total/NA	Water	351.2	676806
LCS 480-676805/2-A	Lab Control Sample	Total/NA	Water	351.2	676805
LCS 480-676806/2-A	Lab Control Sample	Total/NA	Water	351.2	676806
480-210791-2 MS	MW-10S-07132023	Total/NA	Water	351.2	676805
480-210852-2 MS	MW-8S-07142023	Total/NA	Water	351.2	676806

Analysis Batch: 676943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	410.4	
480-210791-2	MW-10S-07132023	Total/NA	Water	410.4	
480-210791-3	MW-11S-07132023	Total/NA	Water	410.4	
480-210791-4	MW-12S-07132023	Total/NA	Water	410.4	
480-210791-5	MW-7S-07132023	Total/NA	Water	410.4	
480-210791-6	MW-9SR-07132023	Total/NA	Water	410.4	
480-210852-1	MW-6S-07142023	Total/NA	Water	410.4	
480-210852-2	MW-8S-07142023	Total/NA	Water	410.4	
480-210852-3	SW-01-07142023	Total/NA	Water	410.4	
480-210852-4	SW-02-07142023	Total/NA	Water	410.4	
MB 480-676943/28	Method Blank	Total/NA	Water	410.4	
MB 480-676943/52	Method Blank	Total/NA	Water	410.4	
LCS 480-676943/29	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-676943/53	Lab Control Sample	Total/NA	Water	410.4	
480-210791-6 MS	MW-9SR-07132023	Total/NA	Water	410.4	
480-210852-2 MS	MW-8S-07142023	Total/NA	Water	410.4	
480-210852-2 DU	MW-8S-07142023	Total/NA	Water	410.4	

Analysis Batch: 676994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	300.0	
480-210791-2	MW-10S-07132023	Total/NA	Water	300.0	
MB 480-676994/4	Method Blank	Total/NA	Water	300.0	
LCS 480-676994/5	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 676994 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-2 MS	MW-10S-07132023	Total/NA	Water	300.0	

Prep Batch: 677019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	351.2	
MB 480-677019/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-677019/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 677060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	SM 5310C	
480-210791-2	MW-10S-07132023	Total/NA	Water	SM 5310C	
480-210791-3	MW-11S-07132023	Total/NA	Water	SM 5310C	
480-210791-4	MW-12S-07132023	Total/NA	Water	SM 5310C	
480-210791-5	MW-7S-07132023	Total/NA	Water	SM 5310C	
480-210791-6	MW-9SR-07132023	Total/NA	Water	SM 5310C	
MB 480-677060/4	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-677060/5	Lab Control Sample	Total/NA	Water	SM 5310C	

Analysis Batch: 677104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	351.2	677019
MB 480-677019/1-A	Method Blank	Total/NA	Water	351.2	677019
LCS 480-677019/2-A	Lab Control Sample	Total/NA	Water	351.2	677019

Analysis Batch: 677127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	SM 2540C	
480-210852-2	MW-8S-07142023	Total/NA	Water	SM 2540C	
480-210852-3	SW-01-07142023	Total/NA	Water	SM 2540C	
480-210852-4	SW-02-07142023	Total/NA	Water	SM 2540C	
MB 480-677127/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-677127/2	Lab Control Sample	Total/NA	Water	SM 2540C	
480-210852-1 DU	MW-6S-07142023	Total/NA	Water	SM 2540C	

Analysis Batch: 677135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-1	MW-6S-07142023	Total/NA	Water	SM 5310C	
480-210852-2	MW-8S-07142023	Total/NA	Water	SM 5310C	
480-210852-3	SW-01-07142023	Total/NA	Water	SM 5310C	
480-210852-4	SW-02-07142023	Total/NA	Water	SM 5310C	
MB 480-677135/52	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-677135/53	Lab Control Sample	Total/NA	Water	SM 5310C	

Analysis Batch: 677156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	SM 2340C	
480-210791-2	MW-10S-07132023	Total/NA	Water	SM 2340C	
480-210791-3	MW-11S-07132023	Total/NA	Water	SM 2340C	
480-210791-4	MW-12S-07132023	Total/NA	Water	SM 2340C	
480-210791-5	MW-7S-07132023	Total/NA	Water	SM 2340C	

General Chemistry (Continued)

Analysis Batch: 677156 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-6	MW-9SR-07132023	Total/NA	Water	SM 2340C	
MB 480-677156/75	Method Blank	Total/NA	Water	SM 2340C	
LCS 480-677156/76	Lab Control Sample	Total/NA	Water	SM 2340C	
480-210791-2 DU	MW-10S-07132023	Total/NA	Water	SM 2340C	

Analysis Batch: 677164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-3	MW-11S-07132023	Total/NA	Water	300.0	
480-210791-4	MW-12S-07132023	Total/NA	Water	300.0	
480-210791-5	MW-7S-07132023	Total/NA	Water	300.0	
480-210791-6	MW-9SR-07132023	Total/NA	Water	300.0	
480-210852-1	MW-6S-07142023	Total/NA	Water	300.0	
480-210852-2	MW-8S-07142023	Total/NA	Water	300.0	
MB 480-677164/28	Method Blank	Total/NA	Water	300.0	
MB 480-677164/4	Method Blank	Total/NA	Water	300.0	
LCS 480-677164/29	Lab Control Sample	Total/NA	Water	300.0	
LCS 480-677164/5	Lab Control Sample	Total/NA	Water	300.0	
480-210852-2 MS	MW-8S-07142023	Total/NA	Water	300.0	

Analysis Batch: 677326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210852-3	SW-01-07142023	Total/NA	Water	300.0	
480-210852-4	SW-02-07142023	Total/NA	Water	300.0	
MB 480-677326/4	Method Blank	Total/NA	Water	300.0	
LCS 480-677326/5	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 678071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-210791-1	FB-01-07132023	Total/NA	Water	SM 4500 Cl- E	
480-210791-2	MW-10S-07132023	Total/NA	Water	SM 4500 Cl- E	
480-210791-3	MW-11S-07132023	Total/NA	Water	SM 4500 Cl- E	
480-210791-4	MW-12S-07132023	Total/NA	Water	SM 4500 Cl- E	
480-210791-5	MW-7S-07132023	Total/NA	Water	SM 4500 Cl- E	
480-210791-6	MW-9SR-07132023	Total/NA	Water	SM 4500 Cl- E	
480-210852-1	MW-6S-07142023	Total/NA	Water	SM 4500 Cl- E	
480-210852-2	MW-8S-07142023	Total/NA	Water	SM 4500 Cl- E	
480-210852-3	SW-01-07142023	Total/NA	Water	SM 4500 Cl- E	
480-210852-4	SW-02-07142023	Total/NA	Water	SM 4500 Cl- E	
MB 480-678071/13	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-678071/18	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-678071/29	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-678071/43	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-678071/50	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 480-678071/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-678071/28	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-678071/49	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-678071/57	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
480-210852-3 MS	SW-01-07142023	Total/NA	Water	SM 4500 Cl- E	
480-210852-3 MSD	SW-01-07142023	Total/NA	Water	SM 4500 Cl- E	

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: FB-01-07132023

Lab Sample ID: 480-210791-1

Date Collected: 07/13/23 08:30
Matrix: Water
Date Received: 07/14/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676404	VAK	EET BUF	07/17/23 08:16
Total/NA	Analysis	6010C		1	676716	LMH	EET BUF	07/18/23 03:53
Total/NA	Analysis	300.0		1	676994	AF	EET BUF	07/20/23 05:39
Total/NA	Prep	Distill/Ammonia			676512	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 08:58
Total/NA	Prep	351.2			676805	GW	EET BUF	07/18/23 09:00
Total/NA	Analysis	351.2		1	676849	CLT	EET BUF	07/19/23 06:55
Total/NA	Analysis	353.2		1	676450	KB	EET BUF	07/14/23 15:08
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/18/23 21:49
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 20:02
Total/NA	Analysis	SM 2320B		1	676646	KB	EET BUF	07/17/23 14:39
Total/NA	Analysis	SM 2340C		1	677156	DLG	EET BUF	07/20/23 07:45
Total/NA	Analysis	SM 2540C		1	676741	SAK	EET BUF	07/18/23 11:12
Total/NA	Analysis	SM 4500 Cl- E		1	678071	CG	EET BUF	07/27/23 11:04
Total/NA	Analysis	SM 5210B		1	676398	CG	EET BUF	07/14/23 11:25
Total/NA	Analysis	SM 5310C		1	677060	AF	EET BUF	07/18/23 19:09

Client Sample ID: MW-10S-07132023

Lab Sample ID: 480-210791-2

Date Collected: 07/13/23 13:50
Matrix: Water
Date Received: 07/14/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676404	VAK	EET BUF	07/17/23 08:16
Total/NA	Analysis	6010C		1	676716	LMH	EET BUF	07/18/23 03:57
Total/NA	Analysis	300.0		5	676994	AF	EET BUF	07/20/23 05:59
Total/NA	Prep	Distill/Ammonia			676512	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 09:02
Total/NA	Prep	351.2			676805	GW	EET BUF	07/18/23 09:00
Total/NA	Analysis	351.2		1	676849	CLT	EET BUF	07/19/23 06:55
Total/NA	Analysis	353.2		1	676450	KB	EET BUF	07/14/23 13:51
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/18/23 21:52
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 20:09
Total/NA	Analysis	SM 2320B		1	676646	KB	EET BUF	07/17/23 14:58
Total/NA	Analysis	SM 2340C		1	677156	DLG	EET BUF	07/20/23 07:45
Total/NA	Analysis	SM 2540C		1	676741	SAK	EET BUF	07/18/23 11:12
Total/NA	Analysis	SM 4500 Cl- E		1	678071	CG	EET BUF	07/27/23 11:04
Total/NA	Analysis	SM 5210B		1	676398	CG	EET BUF	07/14/23 11:25
Total/NA	Analysis	SM 5310C		1	677060	AF	EET BUF	07/18/23 19:38

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-11S-07132023

Lab Sample ID: 480-210791-3

Date Collected: 07/13/23 09:35
Matrix: Water
Date Received: 07/14/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676404	VAK	EET BUF	07/17/23 08:16
Total/NA	Analysis	6010C		1	676716	LMH	EET BUF	07/18/23 04:00
Total/NA	Analysis	300.0		5	677164	AF	EET BUF	07/20/23 17:05
Total/NA	Prep	Distill/Ammonia			676512	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 09:04
Total/NA	Prep	351.2			676805	GW	EET BUF	07/18/23 09:00
Total/NA	Analysis	351.2		1	676849	CLT	EET BUF	07/19/23 06:55
Total/NA	Analysis	353.2		1	676450	KB	EET BUF	07/14/23 13:52
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/18/23 21:55
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 20:13
Total/NA	Analysis	SM 2320B		1	676646	KB	EET BUF	07/17/23 15:06
Total/NA	Analysis	SM 2340C		1	677156	DLG	EET BUF	07/20/23 07:45
Total/NA	Analysis	SM 2540C		1	676741	SAK	EET BUF	07/18/23 11:12
Total/NA	Analysis	SM 4500 Cl- E		5	678071	CG	EET BUF	07/27/23 11:23
Total/NA	Analysis	SM 5210B		1	676453	CG	EET BUF	07/14/23 13:42
Total/NA	Analysis	SM 5310C		1	677060	AF	EET BUF	07/18/23 20:06

Client Sample ID: MW-12S-07132023

Lab Sample ID: 480-210791-4

Date Collected: 07/13/23 12:25
Matrix: Water
Date Received: 07/14/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676404	VAK	EET BUF	07/17/23 08:16
Total/NA	Analysis	6010C		1	676716	LMH	EET BUF	07/18/23 04:04
Total/NA	Analysis	300.0		5	677164	AF	EET BUF	07/20/23 17:25
Total/NA	Prep	Distill/Ammonia			676512	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 09:17
Total/NA	Prep	351.2			676805	GW	EET BUF	07/18/23 09:00
Total/NA	Analysis	351.2		1	676849	CLT	EET BUF	07/19/23 06:55
Total/NA	Analysis	353.2		1	676450	KB	EET BUF	07/14/23 15:09
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/18/23 21:57
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 20:16
Total/NA	Analysis	SM 2320B		1	676646	KB	EET BUF	07/17/23 15:15
Total/NA	Analysis	SM 2340C		1	677156	DLG	EET BUF	07/20/23 07:45
Total/NA	Analysis	SM 2540C		1	676741	SAK	EET BUF	07/18/23 11:12
Total/NA	Analysis	SM 4500 Cl- E		1	678071	CG	EET BUF	07/27/23 11:04
Total/NA	Analysis	SM 5210B		1	676453	CG	EET BUF	07/14/23 13:42
Total/NA	Analysis	SM 5310C		1	677060	AF	EET BUF	07/18/23 20:35

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-7S-07132023

Lab Sample ID: 480-210791-5

Date Collected: 07/13/23 14:50
Matrix: Water
Date Received: 07/14/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676404	VAK	EET BUF	07/17/23 08:16
Total/NA	Analysis	6010C		1	676716	LMH	EET BUF	07/18/23 04:08
Total/NA	Analysis	300.0		5	677164	AF	EET BUF	07/20/23 17:45
Total/NA	Prep	Distill/Ammonia			676512	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 09:25
Total/NA	Prep	351.2			676805	GW	EET BUF	07/18/23 09:00
Total/NA	Analysis	351.2		1	676849	CLT	EET BUF	07/19/23 06:55
Total/NA	Analysis	353.2		1	676450	KB	EET BUF	07/14/23 13:59
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/18/23 22:00
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 20:20
Total/NA	Analysis	SM 2320B		1	676646	KB	EET BUF	07/17/23 15:22
Total/NA	Analysis	SM 2340C		1	677156	DLG	EET BUF	07/20/23 07:45
Total/NA	Analysis	SM 2540C		1	676741	SAK	EET BUF	07/18/23 11:12
Total/NA	Analysis	SM 4500 Cl- E		1	678071	CG	EET BUF	07/27/23 11:05
Total/NA	Analysis	SM 5210B		1	676453	CG	EET BUF	07/14/23 13:42
Total/NA	Analysis	SM 5310C		1	677060	AF	EET BUF	07/18/23 21:03

Client Sample ID: MW-9SR-07132023

Lab Sample ID: 480-210791-6

Date Collected: 07/13/23 10:45
Matrix: Water
Date Received: 07/14/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676404	VAK	EET BUF	07/17/23 08:16
Total/NA	Analysis	6010C		1	676716	LMH	EET BUF	07/18/23 04:23
Total/NA	Analysis	300.0		5	677164	AF	EET BUF	07/20/23 18:04
Total/NA	Prep	Distill/Ammonia			676512	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 09:29
Total/NA	Prep	351.2			676805	GW	EET BUF	07/18/23 09:00
Total/NA	Analysis	351.2		1	676849	CLT	EET BUF	07/19/23 06:55
Total/NA	Analysis	353.2		1	676450	KB	EET BUF	07/14/23 14:01
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/18/23 22:11
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 20:24
Total/NA	Analysis	SM 2320B		1	676646	KB	EET BUF	07/17/23 15:30
Total/NA	Analysis	SM 2340C		1	677156	DLG	EET BUF	07/20/23 07:45
Total/NA	Analysis	SM 2540C		1	676741	SAK	EET BUF	07/18/23 11:12
Total/NA	Analysis	SM 4500 Cl- E		1	678071	CG	EET BUF	07/27/23 11:06
Total/NA	Analysis	SM 5210B		1	676453	CG	EET BUF	07/14/23 13:42
Total/NA	Analysis	SM 5310C		1	677060	AF	EET BUF	07/18/23 21:32

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: MW-6S-07142023

Lab Sample ID: 480-210852-1

Date Collected: 07/14/23 09:15
Matrix: Water
Date Received: 07/15/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676708	VAK	EET BUF	07/18/23 09:47
Total/NA	Analysis	6010C		1	676926	LMH	EET BUF	07/18/23 19:39
Total/NA	Analysis	300.0		5	677164	AF	EET BUF	07/21/23 06:31
Total/NA	Prep	Distill/Ammonia			676513	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 10:02
Total/NA	Prep	351.2			677019	GW	EET BUF	07/19/23 09:00
Total/NA	Analysis	351.2		1	677104	CLT	EET BUF	07/20/23 07:51
Total/NA	Analysis	353.2		1	676485	KB	EET BUF	07/15/23 16:06
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/19/23 01:45
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 21:12
Total/NA	Analysis	SM 2320B		1	676762	KB	EET BUF	07/18/23 11:26
Total/NA	Analysis	SM 2340C		1	676794	DLG	EET BUF	07/18/23 13:55
Total/NA	Analysis	SM 2540C		1	677127	SAK	EET BUF	07/20/23 11:11
Total/NA	Analysis	SM 4500 Cl- E		5	678071	CG	EET BUF	07/27/23 11:23
Total/NA	Analysis	SM 5210B		1	676481	CG	EET BUF	07/15/23 13:08
Total/NA	Analysis	SM 5310C		1	677135	AF	EET BUF	07/20/23 01:23

Client Sample ID: MW-8S-07142023

Lab Sample ID: 480-210852-2

Date Collected: 07/14/23 10:30
Matrix: Water
Date Received: 07/15/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676708	VAK	EET BUF	07/18/23 09:47
Total/NA	Analysis	6010C		1	676926	LMH	EET BUF	07/18/23 19:58
Total/NA	Analysis	300.0		5	677164	AF	EET BUF	07/21/23 06:50
Total/NA	Prep	Distill/Ammonia			676513	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 10:34
Total/NA	Prep	351.2			676806	GW	EET BUF	07/18/23 09:00
Total/NA	Analysis	351.2		1	676849	CLT	EET BUF	07/19/23 07:04
Total/NA	Analysis	353.2		1	676485	KB	EET BUF	07/15/23 16:07
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/19/23 01:59
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 21:15
Total/NA	Analysis	SM 2320B		1	676762	KB	EET BUF	07/18/23 11:51
Total/NA	Analysis	SM 2340C		1	676794	DLG	EET BUF	07/18/23 13:55
Total/NA	Analysis	SM 2540C		1	677127	SAK	EET BUF	07/20/23 11:11
Total/NA	Analysis	SM 4500 Cl- E		1	678071	CG	EET BUF	07/27/23 11:07
Total/NA	Analysis	SM 5210B		1	676481	CG	EET BUF	07/15/23 13:08
Total/NA	Analysis	SM 5310C		1	677135	AF	EET BUF	07/20/23 01:54

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Client Sample ID: SW-01-07142023

Lab Sample ID: 480-210852-3

Date Collected: 07/14/23 11:30
Matrix: Water
Date Received: 07/15/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676708	VAK	EET BUF	07/18/23 09:47
Total/NA	Analysis	6010C		1	676926	LMH	EET BUF	07/18/23 20:02
Total/NA	Analysis	300.0		5	677326	AF	EET BUF	07/21/23 21:22
Total/NA	Prep	Distill/Ammonia			676513	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 10:42
Total/NA	Prep	351.2			676806	GW	EET BUF	07/18/23 09:00
Total/NA	Analysis	351.2		1	676849	CLT	EET BUF	07/19/23 07:04
Total/NA	Analysis	353.2		1	676485	KB	EET BUF	07/15/23 15:38
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/19/23 02:07
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 21:19
Total/NA	Analysis	SM 2320B		1	676762	KB	EET BUF	07/18/23 11:57
Total/NA	Analysis	SM 2340C		1	676794	DLG	EET BUF	07/18/23 13:55
Total/NA	Analysis	SM 2540C		1	677127	SAK	EET BUF	07/20/23 11:11
Total/NA	Analysis	SM 4500 Cl- E		5	678071	CG	EET BUF	07/27/23 11:25
Total/NA	Analysis	SM 5210B		1	676481	CG	EET BUF	07/15/23 13:08
Total/NA	Analysis	SM 5310C		1	677135	AF	EET BUF	07/20/23 02:22

Client Sample ID: SW-02-07142023

Lab Sample ID: 480-210852-4

Date Collected: 07/14/23 12:30
Matrix: Water
Date Received: 07/15/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			676708	VAK	EET BUF	07/18/23 09:47
Total/NA	Analysis	6010C		1	676926	LMH	EET BUF	07/18/23 20:05
Total/NA	Analysis	300.0		5	677326	AF	EET BUF	07/21/23 21:41
Total/NA	Prep	Distill/Ammonia			676513	CLT	EET BUF	07/17/23 06:30
Total/NA	Analysis	350.1		1	676576	CLT	EET BUF	07/17/23 10:45
Total/NA	Prep	351.2			676806	GW	EET BUF	07/18/23 09:00
Total/NA	Analysis	351.2		1	676849	CLT	EET BUF	07/19/23 07:04
Total/NA	Analysis	353.2		1	676485	KB	EET BUF	07/15/23 15:41
Total/NA	Analysis	410.4		1	676943	DLG	EET BUF	07/19/23 02:10
Total/NA	Analysis	420.4		1	676840	GW	EET BUF	07/18/23 21:23
Total/NA	Analysis	SM 2320B		1	676762	KB	EET BUF	07/18/23 12:05
Total/NA	Analysis	SM 2340C		1	676794	DLG	EET BUF	07/18/23 13:55
Total/NA	Analysis	SM 2540C		1	677127	SAK	EET BUF	07/20/23 11:11
Total/NA	Analysis	SM 4500 Cl- E		5	678071	CG	EET BUF	07/27/23 11:25
Total/NA	Analysis	SM 5210B		1	676481	CG	EET BUF	07/15/23 13:08
Total/NA	Analysis	SM 5310C		1	677135	AF	EET BUF	07/20/23 02:52

Laboratory References:

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

Accreditation/Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	EET BUF
300.0	Anions, Ion Chromatography	EPA	EET BUF
350.1	Nitrogen, Ammonia	EPA	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
353.2	Nitrate	EPA	EET BUF
410.4	COD	EPA	EET BUF
420.4	Phenolics, Total Recoverable	EPA	EET BUF
SM 2320B	Alkalinity	SM	EET BUF
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	EET BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET BUF
SM 4500 Cl- E	Chloride, Total	SM	EET BUF
SM 5210B	BOD, 5-Day	SM	EET BUF
SM 5310C	TOC	SM	EET BUF
3005A	Preparation, Total Metals	SW846	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
Distill/Ammonia	Distillation, Ammonia	None	EET BUF

Protocol References:

EPA = US Environmental Protection Agency
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:

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

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-210791-1
SDG: 210791

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-210791-1	FB-01-07132023	Water	07/13/23 08:30	07/14/23 08:00
480-210791-2	MW-10S-07132023	Water	07/13/23 13:50	07/14/23 08:00
480-210791-3	MW-11S-07132023	Water	07/13/23 09:35	07/14/23 08:00
480-210791-4	MW-12S-07132023	Water	07/13/23 12:25	07/14/23 08:00
480-210791-5	MW-7S-07132023	Water	07/13/23 14:50	07/14/23 08:00
480-210791-6	MW-9SR-07132023	Water	07/13/23 10:45	07/14/23 08:00
480-210852-1	MW-6S-07142023	Water	07/14/23 09:15	07/15/23 10:30
480-210852-2	MW-8S-07142023	Water	07/14/23 10:30	07/15/23 10:30
480-210852-3	SW-01-07142023	Water	07/14/23 11:30	07/15/23 10:30
480-210852-4	SW-02-07142023	Water	07/14/23 12:30	07/15/23 10:30

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-186642-15034.1
Client Contact: Dr. Tim Roeper	Phone: 845-800-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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 - (MOD) Br/SO4	350.1, 351.2, 410.4	6010C - NY Part 360 Routine Metals	2340C - Hardness as calcium carbonate	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	2320B - Alkalinity, Total	~~DEC_IDA - (MOD) PFAS, Standard List (21 analytes)~~	903.0 - Rad 226	904.0 - Rad 228	200.8 - Uranium	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	S	D	D	N	N	N	N	N	D	D	D	N	X	
FB-01-07132023	07/13/23	0830	G	B Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
MW-11S-07132023	07/13/23	0935	G	Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
MW-9SR-07132023	07/13/23	1045	G	Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
MW-12S-07132023	07/13/23	1225	G	Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
MW-10S-07132023	07/13/23	1350	G	Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
MW-7S-07132023	07/13/23	1450	G	Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
				Water																	
				Water																	
				Water																	
				Water																	

TK
7-13-23

480-210791 Chain of Custody

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

Sample Disposal (A fee may be assessed if sample.
☐ 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
Daniel Wheeler	07/13/23 / 1600	TE/CEG	Tim Kuller	7-13-23 1600	EETW
Tim Kuller	7-13-23 1730	EETW			
			[signature]	7/14/23 0800	TAB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.2 4.0 3.6 4.0 #1 ICE

7/28/2023

Albany
#224

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

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-186642-15034.2
Client Contact: Dr. Tim Roeper	Phone: 845-200-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	5310C - TOC	420.4_NP - Phenolics	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	S		
FB-01-07132023	07/13/23	0830	G	B Water	N	N	X	X		
MW-11S-07132023	07/13/23	0935	G	Water	N	N	X	X		
MW-9SR-07132023	07/13/23	1045	G	Water	N	N	X	X		
MW-12S-07132023	07/13/23	1225	G	Water	N	N	X	X		
MW-10S-07132023	07/13/23	1350	G	Water	N	N	X	X		
MW-7S-07132023	07/13/23	1450	G	Water	N	N	X	X		
				Water						
				Water						
				Water						
				Water						

MK 7-13-23

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
Dan Wheeler	07/13/23 / 1600	TT/CEG	[illegible]	7-13-23 1600	EETN
[illegible]	7-13-23 1730	EETN			

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

Ver: 06/08/2021

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

Chain of Custody Record

Albany #224

eurofins Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-186642-15034.1
Client Contact: Dr. Tim Roeper	Phone: 845-800-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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 - (MOD) Br/SO4	350.1, 351.2, 410.4	6010C - NY Part 360 Routine Metals	2340C - Hardness as calcium carbonate	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	2320B - Alkalinity, Total	~~PFC_IDA - (MOD) PFAS, Standard List (21 analytes)~~	903.0 - Rad 226	904.0 - Rad 228	200.8 - Uranium	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
				Preservation Code:			N	S	D	D	N	N	N	N	N	D	D	D	N		
MW-8S-07142023	07/14/23	1030	G	Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
MW-6S-07142023	07/14/23	0915	G	Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
SW-01-07142023	07/14/23	1130	G	Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
SW-02-07142023	07/14/23	1230	G	Water	N	N	X	X	X	X	X	X	X	X		X	X	X	X		
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	
				Water																	

TMC

7-14-23

480-210852 Chain of Custody

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
Dan Wheeler	07/14/23 / 1330	CEG/TE	[illegible]	7-14-23 1330	EETW
[illegible]	7-14-23 1700	EETW	[illegible]	7/15/23 1030	TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 2.6, 2.3

Ver: 06/08/2021

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

Chain of Custody Record

Albany #224

eurofins | Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-186642-15034.2
Client Contact: Dr. Tim Roeper	Phone: 845-800-7873	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: tim.roeper@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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)	5310C - TOC	420.4_NP - Phenolics	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	S	S	X	
MW-8S-07142023	07/14/23	1030	G	Water	N	N	X	X		
MW-6S-07142023	07/14/23	0915	G	Water	N	N	X	X		
SW-01-07142023	07/14/23	1130	G	Water	N	N	X	X		
SW-02-07142023	07/14/23	1230	G	Water	N	N	X	X		
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

TMcC
7-14-23

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
Daniel Wheeler	07/14/23 / 1330	CEG/TE	[signature]	7-14-23 1330	EETW
[signature]	7-14-23 1700	EETW	[signature]	7/15/23 1030	TAB

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

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 480-210791-1
SDG Number: 210791

Login Number: 210791
List Number: 1
Creator: Stopa, Erik S

List Source: Eurofins 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	CEG
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 480-210791-1
SDG Number: 210791

Login Number: 210852
List Number: 1
Creator: Stopa, Erik S

List Source: Eurofins 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	EETW
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

November 22, 2023

Mr. Brian Maglienti
New York State Department of Environmental Conservation
Region 4, Division of Materials Management
1130 North Westcott Road
Schenectady, NY 12306-2014

Re: Environmental Monitoring Program
Fourth Quarter 2023
S.A. Dunn Sand and Gravel

Dear Mr. Maglienti:

Cornerstone Engineering and Geology, PLLC (Cornerstone) completed the fourth quarter 2023 groundwater and surface water monitoring event at the above referenced facility on October 12 and 13, 2023. The sampling was completed in accordance with the monitoring program presented in the Environmental Monitoring Plan (EMP) and Site Analysis Plan (SAP), titled Environmental Monitoring Plan, Dunn Mine and C&D Facility, October 2021 prepared by Civil & Environmental Engineering, PLLC. The facility began accepting waste during the last week in January 2015. Samples collected during this quarter were analyzed for the Part 363 Routine Parameters.

Fourth Quarter 2023 Groundwater and Surface Water Sampling

Groundwater and surface water samples were obtained on October 12 and 13, 2023 from seven monitoring wells and two surface water locations as illustrated on the attached figures. Five monitoring wells (MW-6S, MW-7S, MW-8S, MW-10S, and MW-12S) represent locations down gradient of the current and future C&D waste cells. MW-9SR and MW-11S represent upgradient locations. Surface water locations SW-1 and SW-2 represent downstream and upstream locations, respectively, within Quackenbush Creek.

Samples collected during this quarter were analyzed for the Part 363 Routine Parameters. The next annual baseline event will be completed during the second quarter of 2024.

Prior to sampling, groundwater levels were measured at each monitoring well location and the volume of groundwater contained in the wells was calculated based upon the measured depth. Groundwater purging and sampling was conducted using a two-inch diameter submersible pump (decontaminated between sampling locations) and dedicated Teflon lined tubing. The submersible pump was placed near the top of the water column and the well was purged at a rate that maintained the water level above the top of the pump. Each well was purged of three well volumes of water, after which the pump rate was reduced to approximately 1 liter/minute and the water was pumped through a flow-through cell for measurement of field parameters (see Table 1) using a Horiba U22 multi-parameter meter calibrated in accordance with the manufacturer's instructions at the beginning of the day. Following recording of the field parameter measurements, samples were collected directly into glass and/or plastic ware provided by Eurofins Laboratories of Amherst, NY.

Surface water samples were collected as grab samples directly into the sample bottles provided by Eurofins. Field parameters were recorded by placing the Horiba U22 multi-parameter meter directly into the creek water and are reported in Table 1.

Cornerstone Engineering and Geology, PLLC
100 Crystal Run Road, Suite 101, Middletown, NY 10941
Tel 877.294.9070 Fax 877.845.1456 tetratech.com

The collected groundwater and surface water samples were transported by courier, under chain-of-custody, to Eurofins Laboratories in Amherst, New York for analysis of the Part 363 Routine Parameters.

Analytical Results

The groundwater and surface water samples were analyzed by the NYSDOH, ELAP certified (No. 10026) laboratory, Eurofins Laboratories of Amherst, New York for the Part 363 Routine Parameters. The laboratory report is attached for reference and the analytical results are summarized in Tables 2 and 3.

The following parameters are noted as exceeding their respective groundwater or surface water quality criteria (also summarized in Tables 2 and 3) during this sampling event and are noted in Tables 2 and 3 with bold text.

Total Dissolved Solids (TDS) – MW-6S, MW-7S, MW-8S, MW-9SR*, MW-10S, MW-11S*, MW-12S, SW-1, SW-2*

Magnesium – MW-6S, MW-7S, MW-8S, MW-9SR*, MW-10S, MW-11S*, MW-12S

Iron –MW-9SR*, MW-12S

Sodium – MW-6S, MW-8S, MW-11S*

Sulfate – MW-11S*

*Represents upgradient or upstream monitoring point

The inorganic parameters noted above as exceeding applicable groundwater or surface water quality criteria are consistent with those reported as part of prior sampling events and are representative of naturally occurring conditions.

Comparison of the analytical results to the EWQ-SVs (i.e. mean plus three standard deviations), indicate concentrations for the following sampling locations and parameters are above the EWQ-SVs:

MW-11S* – Nitrogen Nitrate at a concentration of 0.30 mg/l as compared to 0.29 mg/l.

During this reporting period, the following locations exceeded the groundwater quality standard and the EWQV (average concentration) for the following parameters:

MW-6S – Sodium and TDS

MW-7S – Magnesium and TDS

MW-8S – Magnesium, sodium, and TDS

MW-9SR* - Magnesium and TDS

MW-10S – Magnesium and TDS

MW-11S* - Sodium

MW-12S – Magnesium and TDS

*Represents upgradient or upstream monitoring point

Each of the parameters identified above exceeds the groundwater quality standard in at least one, if not both, upgradient well locations (see discussion above). Additionally, the results reported above are generally consistent with historical data and collectively do not indicate any cause for concern.

In summary, the collective data provide no evidence of groundwater/surface water impacts associated with the facility and are representative of natural water quality or upstream influences.

QA/QC

A field blank (FB-01) was collected during the fourth quarter 2023 sampling event by pouring laboratory grade water over the two-inch submersible pump after it was decontaminated between monitoring wells. With the exception of TKN at 0.25 mg/L, the results were below reporting limits for all constituents.

The chain of custody record, field methods and sample labeling were observed to be consistent and in accordance with established procedures. With the exception of the QC issues noted in the laboratory report job narrative, and for which sample results were re-analyzed and/or qualified accordingly, review of the raw data, spike recoveries and related analytical QC indicated acceptable results and provides no basis for qualification (beyond that already provided by the lab) or rejection of the data. The data is deemed usable for the intended purpose.

Summary

A limited number of parameters are routinely reported at concentrations above applicable groundwater or surface water quality criteria and the results are generally consistent over the historical record. During the fourth quarter 2023 sampling event there were no constituents that were reported above both their respective existing water quality screening value and groundwater quality criteria. TDS, magnesium, and sodium exceeded groundwater quality criteria at one or both of the upgradient well locations.

Collectively, the data provide no evidence of groundwater/surface water impacts attributable to the facility and are representative of natural water quality or off-Site influences.

Samples collected during the next sampling event, first quarter 2024, will be analyzed for the Part 363 Routine Parameters.

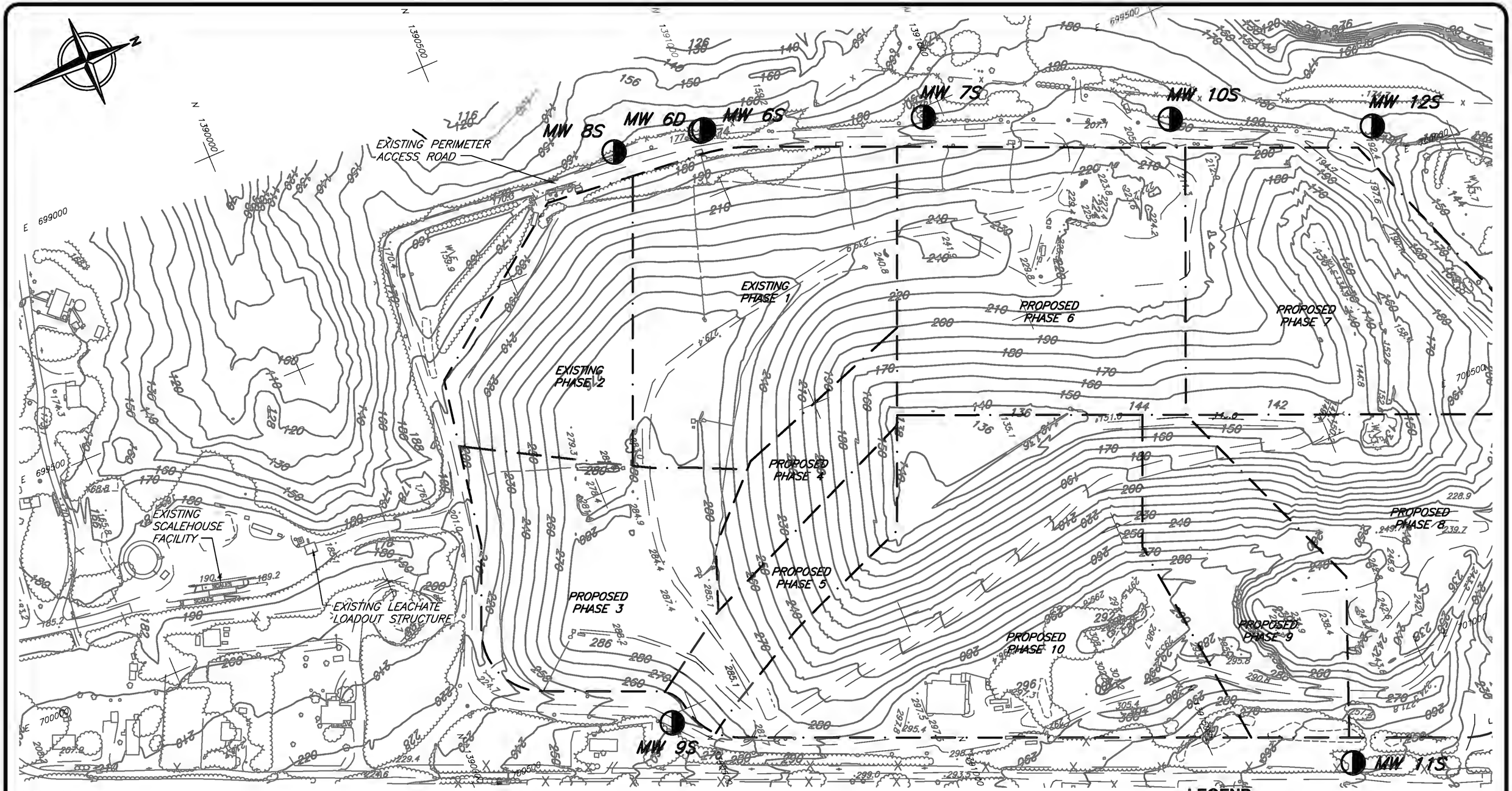
Please do not hesitate to contact us with any questions you may have.

Sincerely,

CORNERSTONE ENGINEERING AND GEOLOGY, PLLC

Timothy R. Roeper, P.G.
Client Manager - Hydrogeology

cc: Ross McCredy – (NYSDEC) – Via Email
Lana Brown - Via Email
Curt Taylor - Via Email
Cory Judd – Hard Copy



NOTES:

1. EXISTING SITE FEATURES AND TOPOGRAPHY WERE DEVELOPED USING PHOTOGRAMMATIC METHODS PERFORMED BY SOUTHERN RESOURCE MAPPING CORPORATION OF NORTH PORT, ALABAMA, FROM AERIAL PHOTOGRAPHY DATED NOVEMBER 4, 2020. CORNERSTONE ENGINEERING GROUP, LLC HAS NOT RESURVEYED TO VERIFY ACCURACY OF THE SAME.

0 200 400

SCALE IN FEET

LEGEND:

MW 6D EXISTING MONITORING WELL

cornerstone
A TETRA TECH COMPANY

PREPARED BY:
CORNERSTONE ENVIRONMENTAL GROUP, LLC

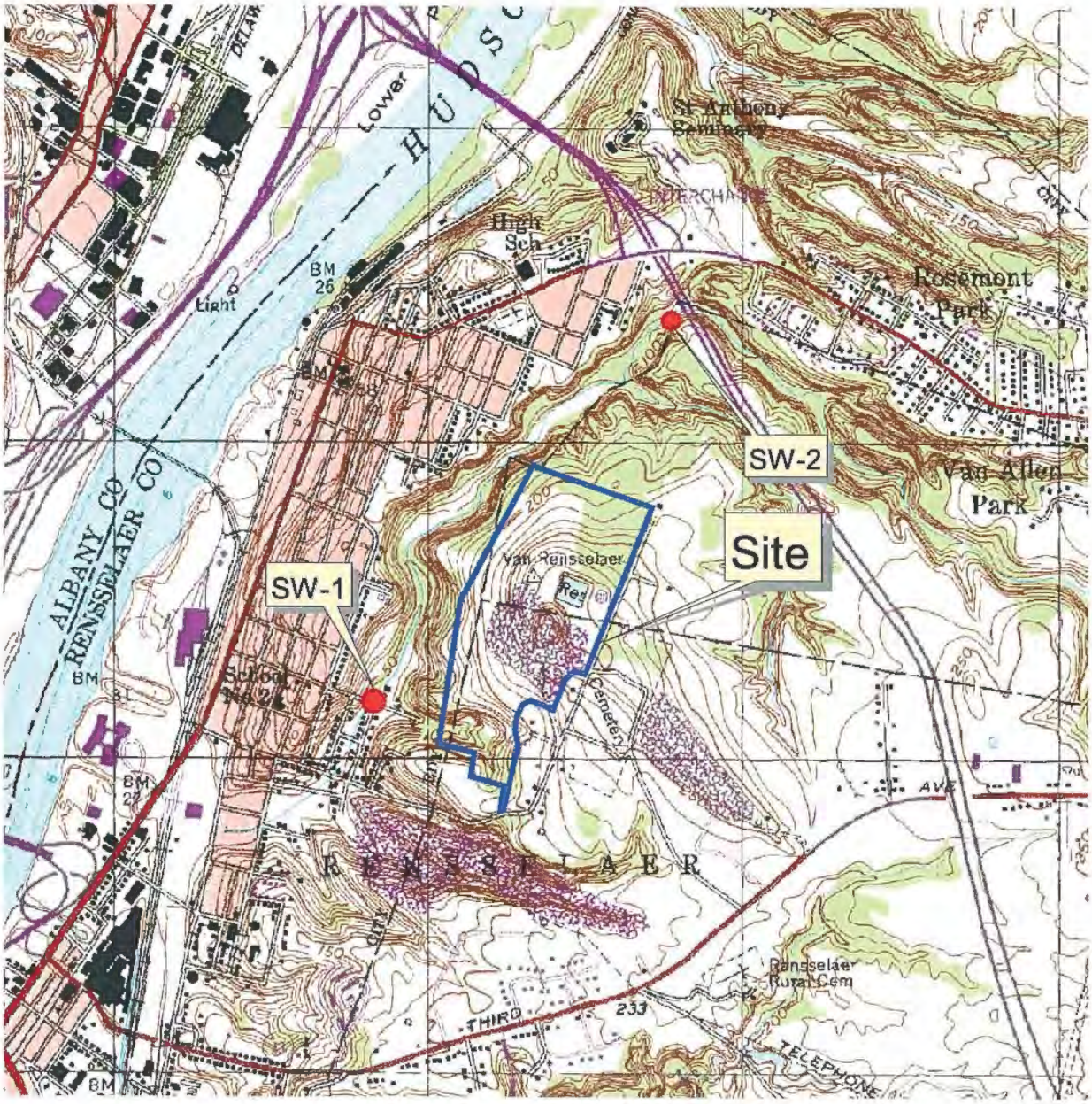
This drawing represents intellectual property of Cornerstone Environmental Group, LLC. Any modification to the original by other than Cornerstone Environmental Group, LLC personnel violates its original purpose and as such is rendered void. Cornerstone Environmental Group, LLC will not be held liable for any changes made to this document without express written consent of the originator.

DUNN C&D LANDFILL

MONITORING WELL LOCATION PLAN

FIGURE NO. 1

PROJECT NO. 190023



Source:
USGS Topographic Map
Troy South, NY Quadrangle
Figure 5 – C.T. Male Associates

cornerstone environmental

PREPARED BY:
CORNERSTONE ENVIRONMENTAL GROUP, LLC

S.A. Dunn Sand And Gravel

Surface Water Sampling Locations

FIGURE NO.
2

PROJECT NO.

TABLE 1
FIELD PARAMETERS
OCTOBER 2023 - ROUTINE SAMPLING EVENT

			Groundwater/Surface Water Monitoring					
Well	**Ref. Elev.**	**DTW (ft)**	**Temp.(C°)**	**Cond.**	**pH**	**DO**	**Turb.**	**ORP**
MW-6S	179.15	131.57	13.08	1.180	7.19	1.19	0.0	168
MW-7S	190.95	143.60	13	0.867	7.28	2.08	0.0	175
MW-8S*	173.1	123.27	12.73	1.160	7.22	4.91	13.0	159
MW-9SR	271.51	193.35	15.44	0.979	7.40	6.23	39.0	142
MW-10S	204.53	155.75	12.54	1.060	7.19	0	14.0	157
MW-11S	253.5	175.31	12.36	2.510	7.18	6.12	2.2	203
MW-12S	187.47	138.19	12.42	1.060	7.36	0	41.0	49
SW-1		**	11.02	1.290	8.16	9.57	5.3	104
SW-2		**	11.25	1.350	8.79	10.91	0.0	211

DTW- Depth to Water from Top of PVC Casing

Note: MW-8S surface casing was damaged and repaired in December 2014. Elevation above references new top of PVC elevation.

Reference elevations for MW-6S and MW-7S from C.T. Male Associates, Figure EM1a, May 2011.

TABLE 2
SUMMARY OF METALS RESULTS
OCTOBER 2023 - ROUTINE SAMPLING EVENT

	Groundwater Monitoring															Surface Water Monitoring				
Sample ID	**GW Standard [1]**	**MW-6S-10132023**		**MW-7S-10122023**		**MW-8S-10132023**		**MW-9SR-10122023**		**MW-10S-10122023**		**MW-11S-10122023**		**MW-12S-10122023**		**SW Standard [1]**	**SW-01-10132023**		**SW-02-10132023**	
Lab Sample Number		**480-213709-1**		**480-213665-6**		**480-213709-2**		**480-213665-3**		**480-213665-5**		**480-213665-2**		**480-213665-4**			**480-213709-3**		**480-213709-4**	
Sampling Date		**10/13/2023 09:10:00**		**10/12/2023 14:20:00**		**10/13/2023 10:20:00**		**10/12/2023 10:10:00**		**10/12/2023 13:25:00**		**10/12/2023 09:00:00**		**10/12/2023 11:45:00**			**10/13/2023 11:15:00**		**10/13/2023 11:40:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor																				
Units	**mg/L**	**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**		**mg/L**	**mg/L**		**mg/L**	
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
Metals		**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**		**Result**	**Qual**	**Result**	**Qual**
Cadmium	0.005	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.005	ND	U	ND	U
Calcium	--	129		107		131		140		129		196		143		--	97.6		84.9	
Iron	0.3	0.079		0.066		0.13		**0.57**		0.15		ND	U	**1.0**		0.3	0.15		0.090	
Lead	0.025	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	0.05	ND	U	ND	U
Magnesium	35	**54.4**		**45.8**		**61.4**		**54.0**		**55.4**		**144**		**54.2**		35	34.3		28.4	
Manganese	0.3	0.0070		0.017		0.0070		0.053		0.031		0.016		0.091		0.3	0.091		0.028	
Potassium	--	1.8		1.8		1.9		1.5		1.5		3.1		1.3		--	2.3		2.1	
Sodium	20	**28.7**		8.7		**27.2**		16.8		15.8		**47.8**		14.3		--	101		120	

^ Instrument related QC is outside acceptance limits.
U : Indicates the analyte was analyzed for but not detected.

MW-9SR and MW-11S - Upgradient Monitoring Well Locations
SW-2 - Upstream Monitoring Location
[1] 6NYCRR Part 703 Surface and Groundwater Quality Standards and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values
Values in **BOLD** exceed applicable groundwater or surface water criteria

TABLE 3
SUMMARY OF LEACHATE INDICATOR RESULTS
OCTOBER 2023 - ROUTINE SAMPLING EVENT

		Groundwater Monitoring														Surface Water Monitoring				
Sample ID	**GW Standard [1]**	**MW-6S-10132023**		**MW-7S-10122023**		**MW-8S-10132023**		**MW-9SR-10122023**		**MW-10S-10122023**		**MW-11S-10122023**		**MW-12S-10122023**		**SW Standard [1]**	**SW-01-10132023**		**SW-02-10132023**	
Lab Sample Number		**480-213709-1**		**480-213665-6**		**480-213709-2**		**480-213665-3**		**480-213665-5**		**480-213665-2**		**480-213665-4**			**480-213709-3**		**480-213709-4**	
Sampling Date		**10/13/2023 09:10:00**		**10/12/2023 14:20:00**		**10/13/2023 10:20:00**		**10/12/2023 10:10:00**		**10/12/2023 13:25:00**		**10/12/2023 09:00:00**		**10/12/2023 11:45:00**			**10/13/2023 11:15:00**		**10/13/2023 11:40:00**	
Matrix		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**		**Water**			**Water**		**Water**	
Dilution Factor																				
Units																				
		Low		**Low**		**Low**		**Low**		**Low**		**Low**		**Low**			**Low**		**Low**	
Wet Chemistry		**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**		**Result**	**Qual**	**Result**	**Qual**
Alkalinity, Total - mg/L	--	312		312		341		271		311		398		303		--	263		217	
Ammonia - mg/L	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	2	ND	U	ND	U
Biochemical Oxygen Demand - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Bromide - mg/L	2	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Chemical Oxygen Demand - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	ND	U	ND	U
Chloride - mg/L	250	61.2		20.8		45.4		35.9		25.6		54.6		26.1		250	120		151	
Nitrate as N - mg/L	10	ND	U	0.35		ND	U	0.45		0.14		0.30		ND	U	10	0.31		0.60	
Phenolics, Total Recoverable - mg/L	0.001	ND	U ^+ *+	ND	U *+ ^+	ND	U ^+ *+ F1	ND	U *+ ^+	ND	U *+ ^+	ND	U *+ ^+ F1	ND	U *+ ^+	0.001	ND	U ^+ *+	ND	U ^+ *+
Total Dissolved Solids - mg/L	500	**777**		**509**		**699**	H	**703**		**641**		**1370**		**671**		500	**710**		**724**	
Total Hardness	--	620		490		600		610		610		1080		74.0		--	510		350	
Total Kjeldahl Nitrogen - mg/L	--	ND	U	0.21		0.23		ND	U	0.39		ND	U	ND	U	--	0.55		0.41	F1
Total Organic Carbon - mg/L	--	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	--	1.8		1.9	
Sulfate - mg/L	250	211		147		234		231		230		**638**		237		250	119		101	

*+ : LCS and/or LCSD is outside acceptance limits, high biased.
^+ : Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
F1 : MS and/or MSD Recovery is outside acceptance limits.
U : Indicates the analyte was analyzed for but not detected.
B : Compound was found in the blank and sample.
H : Sample was prepped or analyzed beyond the specified holding time

MW-9SR and MW-11S - Upgradient Monitoring Well Locations
SW-2 - Upstream Monitoring Location
[1] 6NYCRR Part 703 Surface and Groundwater Quality Standards and TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Dr. Tim Roeper
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Generated 11/9/2023 5:53:06 PM

JOB DESCRIPTION

Dunn Landfill - Routine
SDG NUMBER 213665
Routine

JOB NUMBER

480-213665-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

my EOL

Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
11/9/2023 5:53:06 PM

Authorized for release by
Joshua Velez, Project Management Assistant I
Joshua.Velez@et.eurofinsus.com
Designee for
Ryan VanDette, Project Manager II
Ryan.VanDette@et.eurofinsus.com
(716)504-9830

Table of Contents

Cover Page 1
Table of Contents 3
Definitions/Glossary 4
Case Narrative 5
Detection Summary 6
Client Sample Results 9
QC Sample Results 19
QC Association Summary 32
Lab Chronicle 39
Certification Summary 44
Method Summary 45
Sample Summary 46
Chain of Custody 47
Receipt Checklists 49

Definitions/Glossary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

General Chemistry

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

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: 480-213665-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-213665-1

Receipt
The samples were received on 10/13/2023 9:00 AM and 10/14/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.3º C, 2.4º C and 2.6º C.

HPLC/IC
Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-11S-10122023 (480-213665-2), MW-9SR-10122023 (480-213665-3), MW-12S-10122023 (480-213665-4), MW-10S-10122023 (480-213665-5) and MW-7S-10122023 (480-213665-6). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-6S-10132023 (480-213709-1), MW-8-10132023 (480-213709-2), SW-01-10132023 (480-213709-3) and SW-02-10132023 (480-213709-4). 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 low level continuing calibration verification (CCVL 480-688524/20) recovered above the upper control limit for Total Manganese. The samples associated with this CCVL were either less than the reporting limit (RL) for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples (LCS 480-687587/2-A) and (MB 480-687587/1-A) was not performed.

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

General Chemistry
Method SM 2540C: Reanalysis of the following sample was performed outside of the analytical holding time due to constant weigh back criteria failing in original batch: MW-8-10132023 (480-213709-2). Both sets of data have been reported.

Method SM 2540C: The following sample failed the weigh back criteria in the original batch:MW-8-10132023 (480-213709-2). The sample was re-analyzed outside of analytical hold; both sets of data have been reported.

Methods 420.4, 9066: The continuing calibration verification (CCV) and laboratory control standard (LCS) associated with batch 480-687650 recovered above the upper control limit for Phenolics, Total Recoverable. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: FB-01-10122023 (480-213665-1), MW-11S-10122023 (480-213665-2), MW-9SR-10122023 (480-213665-3), MW-12S-10122023 (480-213665-4), MW-10S-10122023 (480-213665-5), MW-7S-10122023 (480-213665-6), MW-6S-10132023 (480-213709-1), MW-8-10132023 (480-213709-2), SW-01-10132023 (480-213709-3), SW-02-10132023 (480-213709-4), (480-213665-J-1 DU), (480-213665-J-2 MS), (480-213709-J-1 DU) and (480-213709-K-2 MS).

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

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: FB-01-10122023 — Lab Sample ID: 480-213665-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Kjeldahl Nitrogen	0.25		0.20		mg/L	1		351.2	Total/NA

Client Sample ID: MW-11S-10122023 — Lab Sample ID: 480-213665-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	196		0.50		mg/L	1		6010C	Total/NA
Magnesium	144		0.20		mg/L	1		6010C	Total/NA
Manganese	0.016		0.0030		mg/L	1		6010C	Total/NA
Potassium	3.1		0.50		mg/L	1		6010C	Total/NA
Sodium	47.8		1.0		mg/L	1		6010C	Total/NA
Sulfate	638		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.30		0.050		mg/L	1		353.2	Total/NA
Alkalinity, Total	398		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	1080		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	1370		20.0		mg/L	1		SM 2540C	Total/NA
Chloride	54.6		5.0		mg/L	5		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-9SR-10122023 — Lab Sample ID: 480-213665-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	140		0.50		mg/L	1		6010C	Total/NA
Iron	0.57		0.050		mg/L	1		6010C	Total/NA
Magnesium	54.0		0.20		mg/L	1		6010C	Total/NA
Manganese	0.053		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.5		0.50		mg/L	1		6010C	Total/NA
Sodium	16.8		1.0		mg/L	1		6010C	Total/NA
Sulfate	231		10.0		mg/L	5		300.0	Total/NA
Nitrate	0.45		0.050		mg/L	1		353.2	Total/NA
Alkalinity, Total	271		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	610		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	703		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	35.9		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-12S-10122023 — Lab Sample ID: 480-213665-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	143		0.50		mg/L	1		6010C	Total/NA
Iron	1.0		0.050		mg/L	1		6010C	Total/NA
Magnesium	54.2		0.20		mg/L	1		6010C	Total/NA
Manganese	0.091		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.3		0.50		mg/L	1		6010C	Total/NA
Sodium	14.3		1.0		mg/L	1		6010C	Total/NA
Sulfate	237		10.0		mg/L	5		300.0	Total/NA
Alkalinity, Total	303		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	74.0		2.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	671		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	26.1		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-10S-10122023 — Lab Sample ID: 480-213665-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	129		0.50		mg/L	1		6010C	Total/NA
Iron	0.15		0.050		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-10S-10122023 (Continued) — Lab Sample ID: 480-213665-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	55.4		0.20		mg/L	1		6010C	Total/NA
Manganese	0.031		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.5		0.50		mg/L	1		6010C	Total/NA
Sodium	15.8		1.0		mg/L	1		6010C	Total/NA
Sulfate	230		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.39		0.20		mg/L	1		351.2	Total/NA
Nitrate	0.14		0.050		mg/L	1		353.2	Total/NA
Alkalinity, Total	311		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	610		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	641		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	25.6		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-7S-10122023 — Lab Sample ID: 480-213665-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	107		0.50		mg/L	1		6010C	Total/NA
Iron	0.066		0.050		mg/L	1		6010C	Total/NA
Magnesium	45.8		0.20		mg/L	1		6010C	Total/NA
Manganese	0.017		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.8		0.50		mg/L	1		6010C	Total/NA
Sodium	8.7		1.0		mg/L	1		6010C	Total/NA
Sulfate	147		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.21		0.20		mg/L	1		351.2	Total/NA
Nitrate	0.35		0.050		mg/L	1		353.2	Total/NA
Alkalinity, Total	312		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	490		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	509		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	20.8		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-6S-10132023 — Lab Sample ID: 480-213709-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	129		0.50		mg/L	1		6010C	Total/NA
Iron	0.079		0.050		mg/L	1		6010C	Total/NA
Magnesium	54.4		0.20		mg/L	1		6010C	Total/NA
Manganese	0.0070		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.8		0.50		mg/L	1		6010C	Total/NA
Sodium	28.7		1.0		mg/L	1		6010C	Total/NA
Sulfate	211		10.0		mg/L	5		300.0	Total/NA
Alkalinity, Total	312		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	620		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	777		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	61.2		5.0		mg/L	5		SM 4500 Cl- E	Total/NA

Client Sample ID: MW-8-10132023 — Lab Sample ID: 480-213709-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	131		0.50		mg/L	1		6010C	Total/NA
Iron	0.13		0.050		mg/L	1		6010C	Total/NA
Magnesium	61.4		0.20		mg/L	1		6010C	Total/NA
Manganese	0.0070		0.0030		mg/L	1		6010C	Total/NA
Potassium	1.9		0.50		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-8-10132023 (Continued) — Lab Sample ID: 480-213709-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	27.2		1.0		mg/L	1		6010C	Total/NA
Sulfate	234		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.23		0.20		mg/L	1		351.2	Total/NA
Alkalinity, Total	341		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	600		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	732		10.0		mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids	699	H	10.0		mg/L	1		SM 2540C	Total/NA
Chloride	45.4		1.0		mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: SW-01-10132023 — Lab Sample ID: 480-213709-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	97.6		0.50		mg/L	1		6010C	Total/NA
Iron	0.15		0.050		mg/L	1		6010C	Total/NA
Magnesium	34.3		0.20		mg/L	1		6010C	Total/NA
Manganese	0.091		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.3		0.50		mg/L	1		6010C	Total/NA
Sodium	101		1.0		mg/L	1		6010C	Total/NA
Sulfate	119		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.55		0.20		mg/L	1		351.2	Total/NA
Nitrate	0.31		0.050		mg/L	1		353.2	Total/NA
Alkalinity, Total	263		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	510		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	710		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	120		5.0		mg/L	5		SM 4500 Cl- E	Total/NA
Total Organic Carbon	1.8		1.0		mg/L	1		SM 5310C	Total/NA

Client Sample ID: SW-02-10132023 — Lab Sample ID: 480-213709-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	84.9		0.50		mg/L	1		6010C	Total/NA
Iron	0.090		0.050		mg/L	1		6010C	Total/NA
Magnesium	28.4		0.20		mg/L	1		6010C	Total/NA
Manganese	0.028		0.0030		mg/L	1		6010C	Total/NA
Potassium	2.1		0.50		mg/L	1		6010C	Total/NA
Sodium	120		1.0		mg/L	1		6010C	Total/NA
Sulfate	101		10.0		mg/L	5		300.0	Total/NA
Total Kjeldahl Nitrogen	0.41	F1	0.20		mg/L	1		351.2	Total/NA
Nitrate	0.60		0.050		mg/L	1		353.2	Total/NA
Alkalinity, Total	217		5.0		mg/L	1		SM 2320B	Total/NA
Total Hardness	350		10.0		mg/L	1		SM 2340C	Total/NA
Total Dissolved Solids	724		10.0		mg/L	1		SM 2540C	Total/NA
Chloride	151		5.0		mg/L	5		SM 4500 Cl- E	Total/NA
Total Organic Carbon	1.9		1.0		mg/L	1		SM 5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: FB-01-10122023

Lab Sample ID: 480-213665-1

Date Collected: 10/12/23 08:00
Date Received: 10/13/23 09:00

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:41	10/27/23 14:40	1
Calcium	ND		0.50		mg/L		10/17/23 08:41	10/27/23 14:40	1
Iron	ND		0.050		mg/L		10/17/23 08:41	10/27/23 14:40	1
Lead	ND		0.010		mg/L		10/17/23 08:41	10/27/23 14:40	1
Magnesium	ND		0.20		mg/L		10/17/23 08:41	10/27/23 14:40	1
Manganese	ND		0.0030		mg/L		10/17/23 08:41	10/27/23 14:40	1
Potassium	ND		0.50		mg/L		10/17/23 08:41	10/27/23 14:40	1
Sodium	ND		1.0		mg/L		10/17/23 08:41	10/27/23 14:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		0.20		mg/L			10/13/23 17:16	1
Sulfate (EPA 300.0)	ND		2.0		mg/L			10/13/23 17:16	1
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/18/23 07:00	10/18/23 10:23	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.25**		0.20		mg/L		10/16/23 16:00	10/17/23 06:56	1
Nitrate (EPA 353.2)	ND		0.050		mg/L			10/13/23 17:25	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 14:26	1
Phenolics, Total Recoverable (EPA 420.4)	ND	*+ ^+	0.010		mg/L			10/16/23 04:39	1
Alkalinity, Total (SM 2320B)	ND		5.0		mg/L			10/14/23 10:37	1
Total Hardness (SM 2340C)	ND		4.0		mg/L			10/17/23 12:27	1
Total Dissolved Solids (SM 2540C)	ND		10.0		mg/L			10/19/23 10:29	1
Chloride (SM 4500 Cl- E)	ND		1.0		mg/L			10/17/23 12:23	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/13/23 11:22	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			10/19/23 01:24	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-11S-10122023

Lab Sample ID: 480-213665-2

Date Collected: 10/12/23 09:00
Matrix: Water
Date Received: 10/13/23 09:00

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:41	10/27/23 14:44	1
Calcium	**196**		0.50		mg/L		10/17/23 08:41	10/27/23 14:44	1
Iron	ND		0.050		mg/L		10/17/23 08:41	10/27/23 14:44	1
Lead	ND		0.010		mg/L		10/17/23 08:41	10/27/23 14:44	1
Magnesium	**144**		0.20		mg/L		10/17/23 08:41	10/27/23 14:44	1
Manganese	**0.016**		0.0030		mg/L		10/17/23 08:41	10/27/23 14:44	1
Potassium	**3.1**		0.50		mg/L		10/17/23 08:41	10/27/23 14:44	1
Sodium	**47.8**		1.0		mg/L		10/17/23 08:41	10/27/23 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			10/13/23 17:34	5
Sulfate (EPA 300.0)	**638**		10.0		mg/L			10/13/23 17:34	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/18/23 07:00	10/18/23 10:26	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		10/16/23 16:00	10/17/23 06:56	1
Nitrate (EPA 353.2)	**0.30**		0.050		mg/L			10/13/23 17:26	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 14:29	1
Phenolics, Total Recoverable (EPA 420.4)	ND	*+ ^+ F1	0.010		mg/L			10/16/23 04:46	1
Alkalinity, Total (SM 2320B)	**398**		5.0		mg/L			10/14/23 10:45	1
Total Hardness (SM 2340C)	**1080**		10.0		mg/L			10/17/23 12:27	1
Total Dissolved Solids (SM 2540C)	**1370**		20.0		mg/L			10/19/23 10:29	1
Chloride (SM 4500 Cl- E)	**54.6**		5.0		mg/L			10/17/23 12:44	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/13/23 11:22	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			10/19/23 02:20	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-9SR-10122023

Lab Sample ID: 480-213665-3

Date Collected: 10/12/23 10:10
Matrix: Water
Date Received: 10/13/23 09:00

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:41	10/27/23 14:59	1
Calcium	**140**		0.50		mg/L		10/17/23 08:41	10/27/23 14:59	1
Iron	**0.57**		0.050		mg/L		10/17/23 08:41	10/27/23 14:59	1
Lead	ND		0.010		mg/L		10/17/23 08:41	10/27/23 14:59	1
Magnesium	**54.0**		0.20		mg/L		10/17/23 08:41	10/27/23 14:59	1
Manganese	**0.053**		0.0030		mg/L		10/17/23 08:41	10/27/23 14:59	1
Potassium	**1.5**		0.50		mg/L		10/17/23 08:41	10/27/23 14:59	1
Sodium	**16.8**		1.0		mg/L		10/17/23 08:41	10/27/23 14:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			10/13/23 19:22	5
Sulfate (EPA 300.0)	**231**		10.0		mg/L			10/13/23 19:22	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/18/23 07:00	10/18/23 10:28	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		10/16/23 16:00	10/17/23 06:56	1
Nitrate (EPA 353.2)	**0.45**		0.050		mg/L			10/13/23 17:27	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 14:32	1
Phenolics, Total Recoverable (EPA 420.4)	ND	*+ ^+	0.010		mg/L			10/16/23 04:54	1
Alkalinity, Total (SM 2320B)	**271**		5.0		mg/L			10/14/23 10:51	1
Total Hardness (SM 2340C)	**610**		10.0		mg/L			10/17/23 12:27	1
Total Dissolved Solids (SM 2540C)	**703**		10.0		mg/L			10/19/23 10:29	1
Chloride (SM 4500 Cl- E)	**35.9**		1.0		mg/L			10/17/23 12:25	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/13/23 11:22	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			10/19/23 03:15	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-12S-10122023

Lab Sample ID: 480-213665-4

Date Collected: 10/12/23 11:45
Matrix: Water
Date Received: 10/13/23 09:00

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:41	10/27/23 15:02	1
Calcium	**143**		0.50		mg/L		10/17/23 08:41	10/27/23 15:02	1
Iron	**1.0**		0.050		mg/L		10/17/23 08:41	10/27/23 15:02	1
Lead	ND		0.010		mg/L		10/17/23 08:41	10/27/23 15:02	1
Magnesium	**54.2**		0.20		mg/L		10/17/23 08:41	10/27/23 15:02	1
Manganese	**0.091**		0.0030		mg/L		10/17/23 08:41	10/27/23 15:02	1
Potassium	**1.3**		0.50		mg/L		10/17/23 08:41	10/27/23 15:02	1
Sodium	**14.3**		1.0		mg/L		10/17/23 08:41	10/27/23 15:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			10/13/23 19:40	5
Sulfate (EPA 300.0)	**237**		10.0		mg/L			10/13/23 19:40	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/18/23 07:00	10/18/23 10:31	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		10/16/23 16:00	10/17/23 06:56	1
Nitrate (EPA 353.2)	ND		0.050		mg/L			10/13/23 17:29	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 14:35	1
Phenolics, Total Recoverable (EPA 420.4)	ND	*+ ^+	0.010		mg/L			10/16/23 04:57	1
Alkalinity, Total (SM 2320B)	**303**		5.0		mg/L			10/14/23 10:59	1
Total Hardness (SM 2340C)	**74.0**		2.0		mg/L			10/17/23 12:27	1
Total Dissolved Solids (SM 2540C)	**671**		10.0		mg/L			10/19/23 10:29	1
Chloride (SM 4500 Cl- E)	**26.1**		1.0		mg/L			10/17/23 12:26	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/13/23 11:22	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			10/19/23 06:05	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-10S-10122023

Lab Sample ID: 480-213665-5

Date Collected: 10/12/23 13:25
Matrix: Water
Date Received: 10/13/23 09:00

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:41	10/27/23 15:06	1
Calcium	**129**		0.50		mg/L		10/17/23 08:41	10/27/23 15:06	1
Iron	**0.15**		0.050		mg/L		10/17/23 08:41	10/27/23 15:06	1
Lead	ND		0.010		mg/L		10/17/23 08:41	10/27/23 15:06	1
Magnesium	**55.4**		0.20		mg/L		10/17/23 08:41	10/27/23 15:06	1
Manganese	**0.031**		0.0030		mg/L		10/17/23 08:41	10/27/23 15:06	1
Potassium	**1.5**		0.50		mg/L		10/17/23 08:41	10/27/23 15:06	1
Sodium	**15.8**		1.0		mg/L		10/17/23 08:41	10/27/23 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			10/13/23 19:58	5
Sulfate (EPA 300.0)	**230**		10.0		mg/L			10/13/23 19:58	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/18/23 07:00	10/18/23 10:34	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.39**		0.20		mg/L		10/16/23 16:00	10/17/23 06:56	1
Nitrate (EPA 353.2)	**0.14**		0.050		mg/L			10/13/23 17:30	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 14:48	1
Phenolics, Total Recoverable (EPA 420.4)	ND	*+ ^+	0.010		mg/L			10/16/23 05:01	1
Alkalinity, Total (SM 2320B)	**311**		5.0		mg/L			10/14/23 11:06	1
Total Hardness (SM 2340C)	**610**		10.0		mg/L			10/17/23 12:27	1
Total Dissolved Solids (SM 2540C)	**641**		10.0		mg/L			10/19/23 10:29	1
Chloride (SM 4500 Cl- E)	**25.6**		1.0		mg/L			10/17/23 12:26	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/13/23 11:22	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			10/19/23 07:00	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-7S-10122023

Lab Sample ID: 480-213665-6

Date Collected: 10/12/23 14:20
Matrix: Water
Date Received: 10/13/23 09:00

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:41	10/27/23 15:10	1
Calcium	**107**		0.50		mg/L		10/17/23 08:41	10/27/23 15:10	1
Iron	**0.066**		0.050		mg/L		10/17/23 08:41	10/27/23 15:10	1
Lead	ND		0.010		mg/L		10/17/23 08:41	10/27/23 15:10	1
Magnesium	**45.8**		0.20		mg/L		10/17/23 08:41	10/27/23 15:10	1
Manganese	**0.017**		0.0030		mg/L		10/17/23 08:41	10/27/23 15:10	1
Potassium	**1.8**		0.50		mg/L		10/17/23 08:41	10/27/23 15:10	1
Sodium	**8.7**		1.0		mg/L		10/17/23 08:41	10/27/23 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			10/13/23 20:16	5
Sulfate (EPA 300.0)	**147**		10.0		mg/L			10/13/23 20:16	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/18/23 07:00	10/18/23 10:36	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.21**		0.20		mg/L		10/16/23 16:00	10/17/23 06:56	1
Nitrate (EPA 353.2)	**0.35**		0.050		mg/L			10/13/23 17:31	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 14:56	1
Phenolics, Total Recoverable (EPA 420.4)	ND	*+ ^+	0.010		mg/L			10/16/23 05:05	1
Alkalinity, Total (SM 2320B)	**312**		5.0		mg/L			10/14/23 11:13	1
Total Hardness (SM 2340C)	**490**		10.0		mg/L			10/17/23 12:27	1
Total Dissolved Solids (SM 2540C)	**509**		10.0		mg/L			10/19/23 10:29	1
Chloride (SM 4500 Cl- E)	**20.8**		1.0		mg/L			10/17/23 12:26	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/13/23 11:22	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			10/19/23 07:56	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-6S-10132023

Date Collected: 10/13/23 09:10
Date Received: 10/14/23 10:00

Lab Sample ID: 480-213709-1

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:46	10/21/23 22:41	1
Calcium	**129**		0.50		mg/L		10/17/23 08:46	10/21/23 22:41	1
Iron	**0.079**		0.050		mg/L		10/17/23 08:46	10/21/23 22:41	1
Lead	ND		0.010		mg/L		10/17/23 08:46	10/21/23 22:41	1
Magnesium	**54.4**		0.20		mg/L		10/17/23 08:46	10/21/23 22:41	1
Manganese	**0.0070**		0.0030		mg/L		10/17/23 08:46	10/21/23 22:41	1
Potassium	**1.8**		0.50		mg/L		10/17/23 08:46	10/21/23 22:41	1
Sodium	**28.7**		1.0		mg/L		10/17/23 08:46	10/21/23 22:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			10/19/23 03:11	5
Sulfate (EPA 300.0)	**211**		10.0		mg/L			10/19/23 03:11	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/17/23 08:00	10/17/23 16:52	1
Total Kjeldahl Nitrogen (EPA 351.2)	ND		0.20		mg/L		10/16/23 16:00	10/17/23 12:18	1
Nitrate (EPA 353.2)	ND		0.050		mg/L			10/14/23 14:34	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 19:07	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+ *+	0.010		mg/L			10/16/23 06:25	1
Alkalinity, Total (SM 2320B)	**312**		5.0		mg/L			10/16/23 19:47	1
Total Hardness (SM 2340C)	**620**		10.0		mg/L			10/17/23 12:27	1
Total Dissolved Solids (SM 2540C)	**777**		10.0		mg/L			10/20/23 10:39	1
Chloride (SM 4500 Cl- E)	**61.2**		5.0		mg/L			10/17/23 12:44	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/14/23 10:46	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			10/19/23 20:12	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-8-10132023

Date Collected: 10/13/23 10:20
Date Received: 10/14/23 10:00

Lab Sample ID: 480-213709-2

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:46	10/21/23 22:45	1
Calcium	**131**		0.50		mg/L		10/17/23 08:46	10/21/23 22:45	1
Iron	**0.13**		0.050		mg/L		10/17/23 08:46	10/21/23 22:45	1
Lead	ND		0.010		mg/L		10/17/23 08:46	10/21/23 22:45	1
Magnesium	**61.4**		0.20		mg/L		10/17/23 08:46	10/21/23 22:45	1
Manganese	**0.0070**		0.0030		mg/L		10/17/23 08:46	10/21/23 22:45	1
Potassium	**1.9**		0.50		mg/L		10/17/23 08:46	10/21/23 22:45	1
Sodium	**27.2**		1.0		mg/L		10/17/23 08:46	10/21/23 22:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			10/19/23 03:29	5
Sulfate (EPA 300.0)	**234**		10.0		mg/L			10/19/23 03:29	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/17/23 08:00	10/17/23 16:55	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.23**		0.20		mg/L		10/16/23 16:00	10/17/23 12:18	1
Nitrate (EPA 353.2)	ND		0.050		mg/L			10/14/23 14:37	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 19:26	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+ *+ F1	0.010		mg/L			10/16/23 06:33	1
Alkalinity, Total (SM 2320B)	**341**		5.0		mg/L			10/16/23 19:55	1
Total Hardness (SM 2340C)	**600**		10.0		mg/L			10/17/23 12:27	1
Total Dissolved Solids (SM 2540C)	**732**		10.0		mg/L			10/20/23 10:39	1
Total Dissolved Solids (SM 2540C)	**699**	**H**	10.0		mg/L			10/27/23 14:52	1
Chloride (SM 4500 Cl- E)	**45.4**		1.0		mg/L			10/17/23 12:40	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/14/23 10:46	1
Total Organic Carbon (SM 5310C)	ND		1.0		mg/L			10/19/23 20:39	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: SW-01-10132023

Date Collected: 10/13/23 11:15
Date Received: 10/14/23 10:00

Lab Sample ID: 480-213709-3

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:46	10/21/23 22:48	1
Calcium	**97.6**		0.50		mg/L		10/17/23 08:46	10/21/23 22:48	1
Iron	**0.15**		0.050		mg/L		10/17/23 08:46	10/21/23 22:48	1
Lead	ND		0.010		mg/L		10/17/23 08:46	10/21/23 22:48	1
Magnesium	**34.3**		0.20		mg/L		10/17/23 08:46	10/21/23 22:48	1
Manganese	**0.091**		0.0030		mg/L		10/17/23 08:46	10/21/23 22:48	1
Potassium	**2.3**		0.50		mg/L		10/17/23 08:46	10/21/23 22:48	1
Sodium	**101**		1.0		mg/L		10/17/23 08:46	10/21/23 22:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			10/19/23 03:47	5
Sulfate (EPA 300.0)	**119**		10.0		mg/L			10/19/23 03:47	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/17/23 08:00	10/17/23 16:57	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.55**		0.20		mg/L		10/16/23 16:00	10/17/23 12:18	1
Nitrate (EPA 353.2)	**0.31**		0.050		mg/L			10/14/23 14:38	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 19:35	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+ *+	0.010		mg/L			10/16/23 06:40	1
Alkalinity, Total (SM 2320B)	**263**		5.0		mg/L			10/16/23 20:02	1
Total Hardness (SM 2340C)	**510**		10.0		mg/L			10/17/23 12:27	1
Total Dissolved Solids (SM 2540C)	**710**		10.0		mg/L			10/20/23 10:39	1
Chloride (SM 4500 Cl- E)	**120**		5.0		mg/L			10/17/23 12:46	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/14/23 10:46	1
Total Organic Carbon (SM 5310C)	**1.8**		1.0		mg/L			10/19/23 21:07	1

Client Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: SW-02-10132023

Date Collected: 10/13/23 11:40
Date Received: 10/14/23 10:00

Lab Sample ID: 480-213709-4

Matrix: Water

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:46	10/21/23 22:52	1
Calcium	**84.9**		0.50		mg/L		10/17/23 08:46	10/21/23 22:52	1
Iron	**0.090**		0.050		mg/L		10/17/23 08:46	10/21/23 22:52	1
Lead	ND		0.010		mg/L		10/17/23 08:46	10/21/23 22:52	1
Magnesium	**28.4**		0.20		mg/L		10/17/23 08:46	10/21/23 22:52	1
Manganese	**0.028**		0.0030		mg/L		10/17/23 08:46	10/21/23 22:52	1
Potassium	**2.1**		0.50		mg/L		10/17/23 08:46	10/21/23 22:52	1
Sodium	**120**		1.0		mg/L		10/17/23 08:46	10/21/23 22:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide (EPA 300.0)	ND		1.0		mg/L			10/19/23 04:05	5
Sulfate (EPA 300.0)	**101**		10.0		mg/L			10/19/23 04:05	5
Ammonia (EPA 350.1)	ND		0.20		mg/L		10/17/23 08:00	10/17/23 17:00	1
Total Kjeldahl Nitrogen (EPA 351.2	**0.41**	**F1**	0.20		mg/L		10/16/23 16:00	10/17/23 12:23	1
Nitrate (EPA 353.2)	**0.60**		0.050		mg/L			10/14/23 14:40	1
Chemical Oxygen Demand (EPA 410.4)	ND		10.0		mg/L			10/17/23 19:39	1
Phenolics, Total Recoverable (EPA 420.4)	ND	^+ *+	0.010		mg/L			10/16/23 06:44	1
Alkalinity, Total (SM 2320B)	**217**		5.0		mg/L			10/16/23 20:10	1
Total Hardness (SM 2340C)	**350**		10.0		mg/L			10/19/23 15:33	1
Total Dissolved Solids (SM 2540C)	**724**		10.0		mg/L			10/20/23 10:39	1
Chloride (SM 4500 Cl- E)	**151**		5.0		mg/L			10/17/23 12:47	5
Biochemical Oxygen Demand (SM 5210B)	ND		2.0		mg/L			10/14/23 10:46	1
Total Organic Carbon (SM 5310C)	**1.9**		1.0		mg/L			10/19/23 21:34	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-687424/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 689506 — **Prep Batch: 687424**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:41	10/27/23 13:31	1
Calcium	ND		0.50		mg/L		10/17/23 08:41	10/27/23 13:31	1
Iron	ND		0.050		mg/L		10/17/23 08:41	10/27/23 13:31	1
Lead	ND		0.010		mg/L		10/17/23 08:41	10/27/23 13:31	1
Magnesium	ND		0.20		mg/L		10/17/23 08:41	10/27/23 13:31	1
Manganese	ND		0.0030		mg/L		10/17/23 08:41	10/27/23 13:31	1
Potassium	ND		0.50		mg/L		10/17/23 08:41	10/27/23 13:31	1
Sodium	ND		1.0		mg/L		10/17/23 08:41	10/27/23 13:31	1

Lab Sample ID: LCS 480-687424/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 689506 — **Prep Batch: 687424**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.200	0.205		mg/L		102	80 - 120
Calcium	10.0	10.48		mg/L		105	80 - 120
Iron	10.0	10.27		mg/L		103	80 - 120
Lead	0.200	0.207		mg/L		103	80 - 120
Magnesium	10.0	10.03		mg/L		100	80 - 120
Manganese	0.200	0.212		mg/L		106	80 - 120
Potassium	10.0	10.34		mg/L		103	80 - 120
Sodium	10.0	10.42		mg/L		104	80 - 120

Lab Sample ID: MB 480-687587/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688524 — **Prep Batch: 687587**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		10/17/23 08:46	10/21/23 21:13	1
Calcium	ND		0.50		mg/L		10/17/23 08:46	10/21/23 21:13	1
Iron	ND		0.050		mg/L		10/17/23 08:46	10/21/23 21:13	1
Lead	ND		0.010		mg/L		10/17/23 08:46	10/21/23 21:13	1
Magnesium	ND		0.20		mg/L		10/17/23 08:46	10/21/23 21:13	1
Manganese	ND	^+	0.0030		mg/L		10/17/23 08:46	10/21/23 21:13	1
Potassium	ND		0.50		mg/L		10/17/23 08:46	10/21/23 21:13	1
Sodium	ND		1.0		mg/L		10/17/23 08:46	10/21/23 21:13	1

Lab Sample ID: LCS 480-687587/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688524 — **Prep Batch: 687587**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.200	0.201		mg/L		100	80 - 120
Calcium	10.0	10.21		mg/L		102	80 - 120
Iron	10.0	9.98		mg/L		100	80 - 120
Lead	0.200	0.193		mg/L		97	80 - 120
Magnesium	10.0	9.32		mg/L		93	80 - 120
Manganese	0.200	0.209	^+	mg/L		104	80 - 120
Potassium	10.0	9.91		mg/L		99	80 - 120

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

Lab Sample ID: LCS 480-687587/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688524 — **Prep Batch: 687587**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	10.0	10.05		mg/L		100	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-687354/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			10/13/23 15:46	1
Sulfate	ND		2.0		mg/L			10/13/23 15:46	1

Lab Sample ID: LCS 480-687354/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687354

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.90		mg/L		98	90 - 110
Sulfate	50.1	49.48		mg/L		99	90 - 110

Lab Sample ID: MB 480-687996/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687996

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			10/18/23 23:17	1
Sulfate	ND		2.0		mg/L			10/18/23 23:17	1

Lab Sample ID: LCS 480-687996/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687996

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromide	5.01	4.66		mg/L		93	90 - 110
Sulfate	50.1	47.71		mg/L		95	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-687879/73 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687879

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L			10/17/23 16:07	1

Lab Sample ID: LCS 480-687879/74 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687879

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.959		mg/L		96	90 - 110

QC Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-687993/45
Matrix: Water
Analysis Batch: 687993

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L			10/18/23 09:38	1

Lab Sample ID: LCS 480-687993/46
Matrix: Water
Analysis Batch: 687993

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	0.974		mg/L		97	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-687693/1-A
Matrix: Water
Analysis Batch: 687821

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 687693

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		10/16/23 16:00	10/17/23 06:21	1

Lab Sample ID: LCS 480-687693/2-A
Matrix: Water
Analysis Batch: 687821

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687693

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.58		mg/L		103	90 - 110

Lab Sample ID: 480-213665-6 MS
Matrix: Water
Analysis Batch: 687821

Client Sample ID: MW-7S-10122023
Prep Type: Total/NA
Prep Batch: 687693

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	0.21		1.00	1.18		mg/L		97	90 - 110

Lab Sample ID: MB 480-687694/1-A
Matrix: Water
Analysis Batch: 687821

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 687694

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L		10/16/23 16:00	10/17/23 06:21	1

Lab Sample ID: LCS 480-687694/2-A
Matrix: Water
Analysis Batch: 687821

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687694

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	2.50	2.66		mg/L		107	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: 480-213709-4 MS — **Client Sample ID: SW-02-10132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687821 — **Prep Batch: 687694**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Kjeldahl Nitrogen	0.41	F1	1.00	1.30	F1	mg/L		89	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-688035/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			10/17/23 14:43	1

Lab Sample ID: MB 480-688035/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			10/17/23 13:37	1

Lab Sample ID: MB 480-688035/52 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			10/17/23 19:02	1

Lab Sample ID: LCS 480-688035/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	23.79		mg/L		95	90 - 110

Lab Sample ID: LCS 480-688035/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	25.43		mg/L		102	90 - 110

Lab Sample ID: LCS 480-688035/53 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	25.0	25.68		mg/L		103	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: 480-213665-5 MS — **Client Sample ID: MW-10S-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	ND		50.0	50.55		mg/L		101	75 - 125

Lab Sample ID: 480-213709-1 MS — **Client Sample ID: MW-6S-10132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	ND		50.0	50.31		mg/L		101	75 - 125

Lab Sample ID: 480-213709-3 MS — **Client Sample ID: SW-01-10132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	ND		50.0	54.40		mg/L		109	75 - 125

Lab Sample ID: 480-213665-5 DU — **Client Sample ID: MW-10S-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

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

Lab Sample ID: 480-213709-1 DU — **Client Sample ID: MW-6S-10132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688035

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

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-687650/239 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687650

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND	^+	0.010		mg/L			10/16/23 04:32	1

Lab Sample ID: MB 480-687650/268 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687650

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND	^+	0.010		mg/L			10/16/23 06:18	1

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 480-687650/240 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.100	0.111	*+ ^+	mg/L		111	90 - 110

Lab Sample ID: LCS 480-687650/269 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	0.100	0.116	*+ ^+	mg/L		116	90 - 110

Lab Sample ID: 480-213665-2 MS — **Client Sample ID: MW-11S-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687650

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	ND	*+ ^+ F1	0.100	0.119	F1 ^+	mg/L		119	90 - 110

Lab Sample ID: 480-213709-2 MS — **Client Sample ID: MW-8-10132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687650

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenolics, Total Recoverable	ND	^+ *+ F1	0.100	0.118	F1 ^+	mg/L		114	90 - 110

Lab Sample ID: 480-213665-1 DU — **Client Sample ID: FB-01-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687650

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phenolics, Total Recoverable	ND	*+ ^+	ND	*+ ^+	mg/L		NC	20

Lab Sample ID: 480-213709-1 DU — **Client Sample ID: MW-6S-10132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687650

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phenolics, Total Recoverable	ND	^+ *+	ND	^+ *+	mg/L		NC	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-687432/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687432

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			10/13/23 20:30	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 480-687432/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687432

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	103.0		mg/L		103	90 - 110

Lab Sample ID: MB 480-687696/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687696

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			10/16/23 18:09	1

Lab Sample ID: LCS 480-687696/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687696

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity, Total	100	101.6		mg/L		102	90 - 110

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 480-687883/27 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687883

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			10/17/23 12:27	1

Lab Sample ID: MB 480-687883/51 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687883

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			10/17/23 12:27	1

Lab Sample ID: LCS 480-687883/28 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687883

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	336	340.0		mg/L		101	90 - 110

Lab Sample ID: LCS 480-687883/52 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687883

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	336	336.0		mg/L		100	90 - 110

Method: SM 2340C - Hardness, Total (mg/l as CaC03) (Continued)

Lab Sample ID: 480-213665-1 MS — **Client Sample ID: FB-01-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687883

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	ND		200	212.0		mg/L		106	74 - 130

Lab Sample ID: 480-213665-1 DU — **Client Sample ID: FB-01-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687883

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Hardness	ND		ND		mg/L		NC	15

Lab Sample ID: 480-213665-6 DU — **Client Sample ID: MW-7S-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687883

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Hardness	490		490.0		mg/L		0	15

Lab Sample ID: MB 480-688312/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688312

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	ND		2.0		mg/L			10/19/23 15:33	1

Lab Sample ID: LCS 480-688312/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688312

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Hardness	336	332.0		mg/L		99	90 - 110

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

Lab Sample ID: MB 480-688159/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688159

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			10/19/23 10:29	1

Lab Sample ID: LCS 480-688159/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688159

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	507	499.0		mg/L		99	85 - 115

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

Lab Sample ID: MB 480-688314/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			10/20/23 10:39	1

Lab Sample ID: LCS 480-688314/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	507	490.0		mg/L		97	85 - 115

Lab Sample ID: MB 480-689464/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 689464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10.0		mg/L			10/27/23 14:52	1

Lab Sample ID: LCS 480-689464/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 689464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	516	516.0		mg/L		100	85 - 115

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-687837/105 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			10/17/23 12:28	1

Lab Sample ID: MB 480-687837/112 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			10/17/23 12:36	1

Lab Sample ID: MB 480-687837/125 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			10/17/23 12:42	1

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

Lab Sample ID: MB 480-687837/65 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			10/17/23 11:35	1

Lab Sample ID: MB 480-687837/71 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			10/17/23 11:39	1

Lab Sample ID: MB 480-687837/79 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			10/17/23 11:42	1

Lab Sample ID: MB 480-687837/89 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			10/17/23 12:16	1

Lab Sample ID: MB 480-687837/97 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			10/17/23 12:25	1

Lab Sample ID: LCS 480-687837/111 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	26.98		mg/L		108	90 - 110

Lab Sample ID: LCS 480-687837/124 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	26.80		mg/L		107	90 - 110

Lab Sample ID: LCS 480-687837/70 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	26.62		mg/L		106	90 - 110

QC Sample Results

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: LCS 480-687837/88 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	26.40		mg/L		106	90 - 110

Lab Sample ID: LCS 480-687837/96 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	26.19		mg/L		105	90 - 110

Lab Sample ID: 480-213709-3 MS — **Client Sample ID: SW-01-10132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	120		20.0	135.0	4	mg/L		74	74 - 131

Lab Sample ID: 480-213709-3 MSD — **Client Sample ID: SW-01-10132023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687837

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	120		20.0	126.2	4	mg/L		29	74 - 131	7	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-687345/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687345

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			10/13/23 11:22	1

Lab Sample ID: LCS 480-687345/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	198	176.5		mg/L		89	85 - 115

Lab Sample ID: USB 480-687436/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687436

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			10/14/23 10:46	1

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

Lab Sample ID: LCS 480-687436/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 687436

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	197	188.0		mg/L		96	85 - 115

Method: SM 5310C - TOC

Lab Sample ID: MB 480-688287/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688287

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			10/19/23 11:42	1

Lab Sample ID: MB 480-688287/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688287

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			10/19/23 00:29	1

Lab Sample ID: LCS 480-688287/29 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688287

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	58.36		mg/L		97	90 - 110

Lab Sample ID: LCS 480-688287/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688287

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	58.50		mg/L		97	90 - 110

Lab Sample ID: 480-213665-1 MS — **Client Sample ID: FB-01-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688287

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	ND		23.3	22.02		mg/L		94	54 - 131

Lab Sample ID: 480-213665-4 MS — **Client Sample ID: MW-12S-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688287

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	ND		23.3	22.92		mg/L		96	54 - 131

Method: SM 5310C - TOC (Continued)

Lab Sample ID: 480-213665-2 DU — **Client Sample ID: MW-11S-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688287

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	ND		ND		mg/L		NC	20

Lab Sample ID: 480-213665-5 DU — **Client Sample ID: MW-10S-10122023**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 688287

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	ND		ND		mg/L		NC	20

QC Association Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Metals

Prep Batch: 687424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	3005A	
480-213665-2	MW-11S-10122023	Total/NA	Water	3005A	
480-213665-3	MW-9SR-10122023	Total/NA	Water	3005A	
480-213665-4	MW-12S-10122023	Total/NA	Water	3005A	
480-213665-5	MW-10S-10122023	Total/NA	Water	3005A	
480-213665-6	MW-7S-10122023	Total/NA	Water	3005A	
MB 480-687424/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-687424/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 687587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	3005A	
480-213709-2	MW-8-10132023	Total/NA	Water	3005A	
480-213709-3	SW-01-10132023	Total/NA	Water	3005A	
480-213709-4	SW-02-10132023	Total/NA	Water	3005A	
MB 480-687587/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-687587/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 688524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	6010C	687587
480-213709-2	MW-8-10132023	Total/NA	Water	6010C	687587
480-213709-3	SW-01-10132023	Total/NA	Water	6010C	687587
480-213709-4	SW-02-10132023	Total/NA	Water	6010C	687587
MB 480-687587/1-A	Method Blank	Total/NA	Water	6010C	687587
LCS 480-687587/2-A	Lab Control Sample	Total/NA	Water	6010C	687587

Analysis Batch: 689506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	6010C	687424
480-213665-2	MW-11S-10122023	Total/NA	Water	6010C	687424
480-213665-3	MW-9SR-10122023	Total/NA	Water	6010C	687424
480-213665-4	MW-12S-10122023	Total/NA	Water	6010C	687424
480-213665-5	MW-10S-10122023	Total/NA	Water	6010C	687424
480-213665-6	MW-7S-10122023	Total/NA	Water	6010C	687424
MB 480-687424/1-A	Method Blank	Total/NA	Water	6010C	687424
LCS 480-687424/2-A	Lab Control Sample	Total/NA	Water	6010C	687424

General Chemistry

Analysis Batch: 687345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	SM 5210B	
480-213665-2	MW-11S-10122023	Total/NA	Water	SM 5210B	
480-213665-3	MW-9SR-10122023	Total/NA	Water	SM 5210B	
480-213665-4	MW-12S-10122023	Total/NA	Water	SM 5210B	
480-213665-5	MW-10S-10122023	Total/NA	Water	SM 5210B	
480-213665-6	MW-7S-10122023	Total/NA	Water	SM 5210B	
USB 480-687345/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-687345/2	Lab Control Sample	Total/NA	Water	SM 5210B	

QC Association Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

General Chemistry

Analysis Batch: 687354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	300.0	
480-213665-2	MW-11S-10122023	Total/NA	Water	300.0	
480-213665-3	MW-9SR-10122023	Total/NA	Water	300.0	
480-213665-4	MW-12S-10122023	Total/NA	Water	300.0	
480-213665-5	MW-10S-10122023	Total/NA	Water	300.0	
480-213665-6	MW-7S-10122023	Total/NA	Water	300.0	
MB 480-687354/4	Method Blank	Total/NA	Water	300.0	
LCS 480-687354/5	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 687403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	353.2	
480-213665-2	MW-11S-10122023	Total/NA	Water	353.2	
480-213665-3	MW-9SR-10122023	Total/NA	Water	353.2	
480-213665-4	MW-12S-10122023	Total/NA	Water	353.2	
480-213665-5	MW-10S-10122023	Total/NA	Water	353.2	
480-213665-6	MW-7S-10122023	Total/NA	Water	353.2	

Analysis Batch: 687432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	SM 2320B	
480-213665-2	MW-11S-10122023	Total/NA	Water	SM 2320B	
480-213665-3	MW-9SR-10122023	Total/NA	Water	SM 2320B	
480-213665-4	MW-12S-10122023	Total/NA	Water	SM 2320B	
480-213665-5	MW-10S-10122023	Total/NA	Water	SM 2320B	
480-213665-6	MW-7S-10122023	Total/NA	Water	SM 2320B	
MB 480-687432/28	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-687432/29	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 687436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	SM 5210B	
480-213709-2	MW-8-10132023	Total/NA	Water	SM 5210B	
480-213709-3	SW-01-10132023	Total/NA	Water	SM 5210B	
480-213709-4	SW-02-10132023	Total/NA	Water	SM 5210B	
USB 480-687436/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-687436/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 687445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	353.2	
480-213709-2	MW-8-10132023	Total/NA	Water	353.2	
480-213709-3	SW-01-10132023	Total/NA	Water	353.2	
480-213709-4	SW-02-10132023	Total/NA	Water	353.2	

Analysis Batch: 687650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	420.4	
480-213665-2	MW-11S-10122023	Total/NA	Water	420.4	
480-213665-3	MW-9SR-10122023	Total/NA	Water	420.4	
480-213665-4	MW-12S-10122023	Total/NA	Water	420.4	

General Chemistry (Continued)

Analysis Batch: 687650 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-5	MW-10S-10122023	Total/NA	Water	420.4	
480-213665-6	MW-7S-10122023	Total/NA	Water	420.4	
480-213709-1	MW-6S-10132023	Total/NA	Water	420.4	
480-213709-2	MW-8-10132023	Total/NA	Water	420.4	
480-213709-3	SW-01-10132023	Total/NA	Water	420.4	
480-213709-4	SW-02-10132023	Total/NA	Water	420.4	
MB 480-687650/239	Method Blank	Total/NA	Water	420.4	
MB 480-687650/268	Method Blank	Total/NA	Water	420.4	
LCS 480-687650/240	Lab Control Sample	Total/NA	Water	420.4	
LCS 480-687650/269	Lab Control Sample	Total/NA	Water	420.4	
480-213665-2 MS	MW-11S-10122023	Total/NA	Water	420.4	
480-213709-2 MS	MW-8-10132023	Total/NA	Water	420.4	
480-213665-1 DU	FB-01-10122023	Total/NA	Water	420.4	
480-213709-1 DU	MW-6S-10132023	Total/NA	Water	420.4	

Prep Batch: 687693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	351.2	
480-213665-2	MW-11S-10122023	Total/NA	Water	351.2	
480-213665-3	MW-9SR-10122023	Total/NA	Water	351.2	
480-213665-4	MW-12S-10122023	Total/NA	Water	351.2	
480-213665-5	MW-10S-10122023	Total/NA	Water	351.2	
480-213665-6	MW-7S-10122023	Total/NA	Water	351.2	
MB 480-687693/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-687693/2-A	Lab Control Sample	Total/NA	Water	351.2	
480-213665-6 MS	MW-7S-10122023	Total/NA	Water	351.2	

Prep Batch: 687694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	351.2	
480-213709-2	MW-8-10132023	Total/NA	Water	351.2	
480-213709-3	SW-01-10132023	Total/NA	Water	351.2	
480-213709-4	SW-02-10132023	Total/NA	Water	351.2	
MB 480-687694/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-687694/2-A	Lab Control Sample	Total/NA	Water	351.2	
480-213709-4 MS	SW-02-10132023	Total/NA	Water	351.2	

Analysis Batch: 687696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	SM 2320B	
480-213709-2	MW-8-10132023	Total/NA	Water	SM 2320B	
480-213709-3	SW-01-10132023	Total/NA	Water	SM 2320B	
480-213709-4	SW-02-10132023	Total/NA	Water	SM 2320B	
MB 480-687696/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-687696/5	Lab Control Sample	Total/NA	Water	SM 2320B	

Prep Batch: 687757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	Distill/Ammonia	
480-213709-2	MW-8-10132023	Total/NA	Water	Distill/Ammonia	
480-213709-3	SW-01-10132023	Total/NA	Water	Distill/Ammonia	

General Chemistry (Continued)

Prep Batch: 687757 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-4	SW-02-10132023	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 687821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	351.2	687693
480-213665-2	MW-11S-10122023	Total/NA	Water	351.2	687693
480-213665-3	MW-9SR-10122023	Total/NA	Water	351.2	687693
480-213665-4	MW-12S-10122023	Total/NA	Water	351.2	687693
480-213665-5	MW-10S-10122023	Total/NA	Water	351.2	687693
480-213665-6	MW-7S-10122023	Total/NA	Water	351.2	687693
480-213709-1	MW-6S-10132023	Total/NA	Water	351.2	687694
480-213709-2	MW-8-10132023	Total/NA	Water	351.2	687694
480-213709-3	SW-01-10132023	Total/NA	Water	351.2	687694
480-213709-4	SW-02-10132023	Total/NA	Water	351.2	687694
MB 480-687693/1-A	Method Blank	Total/NA	Water	351.2	687693
MB 480-687694/1-A	Method Blank	Total/NA	Water	351.2	687694
LCS 480-687693/2-A	Lab Control Sample	Total/NA	Water	351.2	687693
LCS 480-687694/2-A	Lab Control Sample	Total/NA	Water	351.2	687694
480-213665-6 MS	MW-7S-10122023	Total/NA	Water	351.2	687693
480-213709-4 MS	SW-02-10132023	Total/NA	Water	351.2	687694

Analysis Batch: 687837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	SM 4500 Cl- E	
480-213665-2	MW-11S-10122023	Total/NA	Water	SM 4500 Cl- E	
480-213665-3	MW-9SR-10122023	Total/NA	Water	SM 4500 Cl- E	
480-213665-4	MW-12S-10122023	Total/NA	Water	SM 4500 Cl- E	
480-213665-5	MW-10S-10122023	Total/NA	Water	SM 4500 Cl- E	
480-213665-6	MW-7S-10122023	Total/NA	Water	SM 4500 Cl- E	
480-213709-1	MW-6S-10132023	Total/NA	Water	SM 4500 Cl- E	
480-213709-2	MW-8-10132023	Total/NA	Water	SM 4500 Cl- E	
480-213709-3	SW-01-10132023	Total/NA	Water	SM 4500 Cl- E	
480-213709-4	SW-02-10132023	Total/NA	Water	SM 4500 Cl- E	
MB 480-687837/105	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-687837/112	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-687837/125	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-687837/65	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-687837/71	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-687837/79	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-687837/89	Method Blank	Total/NA	Water	SM 4500 Cl- E	
MB 480-687837/97	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 480-687837/111	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-687837/124	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-687837/70	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-687837/88	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
LCS 480-687837/96	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
480-213709-3 MS	SW-01-10132023	Total/NA	Water	SM 4500 Cl- E	
480-213709-3 MSD	SW-01-10132023	Total/NA	Water	SM 4500 Cl- E	

QC Association Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

General Chemistry

Analysis Batch: 687879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	350.1	687757
480-213709-2	MW-8-10132023	Total/NA	Water	350.1	687757
480-213709-3	SW-01-10132023	Total/NA	Water	350.1	687757
480-213709-4	SW-02-10132023	Total/NA	Water	350.1	687757
MB 480-687879/73	Method Blank	Total/NA	Water	350.1	
LCS 480-687879/74	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 687883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	SM 2340C	
480-213665-2	MW-11S-10122023	Total/NA	Water	SM 2340C	
480-213665-3	MW-9SR-10122023	Total/NA	Water	SM 2340C	
480-213665-4	MW-12S-10122023	Total/NA	Water	SM 2340C	
480-213665-5	MW-10S-10122023	Total/NA	Water	SM 2340C	
480-213665-6	MW-7S-10122023	Total/NA	Water	SM 2340C	
480-213709-1	MW-6S-10132023	Total/NA	Water	SM 2340C	
480-213709-2	MW-8-10132023	Total/NA	Water	SM 2340C	
480-213709-3	SW-01-10132023	Total/NA	Water	SM 2340C	
MB 480-687883/27	Method Blank	Total/NA	Water	SM 2340C	
MB 480-687883/51	Method Blank	Total/NA	Water	SM 2340C	
LCS 480-687883/28	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 480-687883/52	Lab Control Sample	Total/NA	Water	SM 2340C	
480-213665-1 MS	FB-01-10122023	Total/NA	Water	SM 2340C	
480-213665-1 DU	FB-01-10122023	Total/NA	Water	SM 2340C	
480-213665-6 DU	MW-7S-10122023	Total/NA	Water	SM 2340C	

Prep Batch: 687912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	Distill/Ammonia	
480-213665-2	MW-11S-10122023	Total/NA	Water	Distill/Ammonia	
480-213665-3	MW-9SR-10122023	Total/NA	Water	Distill/Ammonia	
480-213665-4	MW-12S-10122023	Total/NA	Water	Distill/Ammonia	
480-213665-5	MW-10S-10122023	Total/NA	Water	Distill/Ammonia	
480-213665-6	MW-7S-10122023	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 687993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	350.1	687912
480-213665-2	MW-11S-10122023	Total/NA	Water	350.1	687912
480-213665-3	MW-9SR-10122023	Total/NA	Water	350.1	687912
480-213665-4	MW-12S-10122023	Total/NA	Water	350.1	687912
480-213665-5	MW-10S-10122023	Total/NA	Water	350.1	687912
480-213665-6	MW-7S-10122023	Total/NA	Water	350.1	687912
MB 480-687993/45	Method Blank	Total/NA	Water	350.1	
LCS 480-687993/46	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 687996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	300.0	
480-213709-2	MW-8-10132023	Total/NA	Water	300.0	
480-213709-3	SW-01-10132023	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 687996 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-4	SW-02-10132023	Total/NA	Water	300.0	
MB 480-687996/28	Method Blank	Total/NA	Water	300.0	
LCS 480-687996/29	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 688035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	410.4	
480-213665-2	MW-11S-10122023	Total/NA	Water	410.4	
480-213665-3	MW-9SR-10122023	Total/NA	Water	410.4	
480-213665-4	MW-12S-10122023	Total/NA	Water	410.4	
480-213665-5	MW-10S-10122023	Total/NA	Water	410.4	
480-213665-6	MW-7S-10122023	Total/NA	Water	410.4	
480-213709-1	MW-6S-10132023	Total/NA	Water	410.4	
480-213709-2	MW-8-10132023	Total/NA	Water	410.4	
480-213709-3	SW-01-10132023	Total/NA	Water	410.4	
480-213709-4	SW-02-10132023	Total/NA	Water	410.4	
MB 480-688035/28	Method Blank	Total/NA	Water	410.4	
MB 480-688035/4	Method Blank	Total/NA	Water	410.4	
MB 480-688035/52	Method Blank	Total/NA	Water	410.4	
LCS 480-688035/29	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-688035/5	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-688035/53	Lab Control Sample	Total/NA	Water	410.4	
480-213665-5 MS	MW-10S-10122023	Total/NA	Water	410.4	
480-213709-1 MS	MW-6S-10132023	Total/NA	Water	410.4	
480-213709-3 MS	SW-01-10132023	Total/NA	Water	410.4	
480-213665-5 DU	MW-10S-10122023	Total/NA	Water	410.4	
480-213709-1 DU	MW-6S-10132023	Total/NA	Water	410.4	

Analysis Batch: 688159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	SM 2540C	
480-213665-2	MW-11S-10122023	Total/NA	Water	SM 2540C	
480-213665-3	MW-9SR-10122023	Total/NA	Water	SM 2540C	
480-213665-4	MW-12S-10122023	Total/NA	Water	SM 2540C	
480-213665-5	MW-10S-10122023	Total/NA	Water	SM 2540C	
480-213665-6	MW-7S-10122023	Total/NA	Water	SM 2540C	
MB 480-688159/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-688159/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 688287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213665-1	FB-01-10122023	Total/NA	Water	SM 5310C	
480-213665-2	MW-11S-10122023	Total/NA	Water	SM 5310C	
480-213665-3	MW-9SR-10122023	Total/NA	Water	SM 5310C	
480-213665-4	MW-12S-10122023	Total/NA	Water	SM 5310C	
480-213665-5	MW-10S-10122023	Total/NA	Water	SM 5310C	
480-213665-6	MW-7S-10122023	Total/NA	Water	SM 5310C	
480-213709-1	MW-6S-10132023	Total/NA	Water	SM 5310C	
480-213709-2	MW-8-10132023	Total/NA	Water	SM 5310C	
480-213709-3	SW-01-10132023	Total/NA	Water	SM 5310C	
480-213709-4	SW-02-10132023	Total/NA	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 688287 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-688287/28	Method Blank	Total/NA	Water	SM 5310C	
MB 480-688287/4	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-688287/29	Lab Control Sample	Total/NA	Water	SM 5310C	
LCS 480-688287/5	Lab Control Sample	Total/NA	Water	SM 5310C	
480-213665-1 MS	FB-01-10122023	Total/NA	Water	SM 5310C	
480-213665-4 MS	MW-12S-10122023	Total/NA	Water	SM 5310C	
480-213665-2 DU	MW-11S-10122023	Total/NA	Water	SM 5310C	
480-213665-5 DU	MW-10S-10122023	Total/NA	Water	SM 5310C	

Analysis Batch: 688312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-4	SW-02-10132023	Total/NA	Water	SM 2340C	
MB 480-688312/3	Method Blank	Total/NA	Water	SM 2340C	
LCS 480-688312/4	Lab Control Sample	Total/NA	Water	SM 2340C	

Analysis Batch: 688314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-1	MW-6S-10132023	Total/NA	Water	SM 2540C	
480-213709-2	MW-8-10132023	Total/NA	Water	SM 2540C	
480-213709-3	SW-01-10132023	Total/NA	Water	SM 2540C	
480-213709-4	SW-02-10132023	Total/NA	Water	SM 2540C	
MB 480-688314/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-688314/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 689464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-213709-2	MW-8-10132023	Total/NA	Water	SM 2540C	
MB 480-689464/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-689464/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: FB-01-10122023

Lab Sample ID: 480-213665-1

Date Collected: 10/12/23 08:00
Matrix: Water
Date Received: 10/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687424	ESB	EET BUF	10/17/23 08:41
Total/NA	Analysis	6010C		1	689506	LMH	EET BUF	10/27/23 14:40
Total/NA	Analysis	300.0		1	687354	AF	EET BUF	10/13/23 17:16
Total/NA	Prep	Distill/Ammonia			687912	CLT	EET BUF	10/18/23 07:00
Total/NA	Analysis	350.1		1	687993	CLT	EET BUF	10/18/23 10:23
Total/NA	Prep	351.2			687693	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 06:56
Total/NA	Analysis	353.2		1	687403	KB	EET BUF	10/13/23 17:25
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 14:26
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 04:39
Total/NA	Analysis	SM 2320B		1	687432	KB	EET BUF	10/14/23 10:37
Total/NA	Analysis	SM 2340C		1	687883	DLG	EET BUF	10/17/23 12:27
Total/NA	Analysis	SM 2540C		1	688159	AB	EET BUF	10/19/23 10:29
Total/NA	Analysis	SM 4500 Cl- E		1	687837	CG	EET BUF	10/17/23 12:23
Total/NA	Analysis	SM 5210B		1	687345	CG	EET BUF	10/13/23 11:22
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 01:24

Client Sample ID: MW-11S-10122023

Lab Sample ID: 480-213665-2

Date Collected: 10/12/23 09:00
Matrix: Water
Date Received: 10/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687424	ESB	EET BUF	10/17/23 08:41
Total/NA	Analysis	6010C		1	689506	LMH	EET BUF	10/27/23 14:44
Total/NA	Analysis	300.0		5	687354	AF	EET BUF	10/13/23 17:34
Total/NA	Prep	Distill/Ammonia			687912	CLT	EET BUF	10/18/23 07:00
Total/NA	Analysis	350.1		1	687993	CLT	EET BUF	10/18/23 10:26
Total/NA	Prep	351.2			687693	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 06:56
Total/NA	Analysis	353.2		1	687403	KB	EET BUF	10/13/23 17:26
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 14:29
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 04:46
Total/NA	Analysis	SM 2320B		1	687432	KB	EET BUF	10/14/23 10:45
Total/NA	Analysis	SM 2340C		1	687883	DLG	EET BUF	10/17/23 12:27
Total/NA	Analysis	SM 2540C		1	688159	AB	EET BUF	10/19/23 10:29
Total/NA	Analysis	SM 4500 Cl- E		5	687837	CG	EET BUF	10/17/23 12:44
Total/NA	Analysis	SM 5210B		1	687345	CG	EET BUF	10/13/23 11:22
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 02:20

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-9SR-10122023

Lab Sample ID: 480-213665-3
Date Collected: 10/12/23 10:10
Matrix: Water
Date Received: 10/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687424	ESB	EET BUF	10/17/23 08:41
Total/NA	Analysis	6010C		1	689506	LMH	EET BUF	10/27/23 14:59
Total/NA	Analysis	300.0		5	687354	AF	EET BUF	10/13/23 19:22
Total/NA	Prep	Distill/Ammonia			687912	CLT	EET BUF	10/18/23 07:00
Total/NA	Analysis	350.1		1	687993	CLT	EET BUF	10/18/23 10:28
Total/NA	Prep	351.2			687693	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 06:56
Total/NA	Analysis	353.2		1	687403	KB	EET BUF	10/13/23 17:27
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 14:32
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 04:54
Total/NA	Analysis	SM 2320B		1	687432	KB	EET BUF	10/14/23 10:51
Total/NA	Analysis	SM 2340C		1	687883	DLG	EET BUF	10/17/23 12:27
Total/NA	Analysis	SM 2540C		1	688159	AB	EET BUF	10/19/23 10:29
Total/NA	Analysis	SM 4500 Cl- E		1	687837	CG	EET BUF	10/17/23 12:25
Total/NA	Analysis	SM 5210B		1	687345	CG	EET BUF	10/13/23 11:22
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 03:15

Client Sample ID: MW-12S-10122023

Lab Sample ID: 480-213665-4
Date Collected: 10/12/23 11:45
Matrix: Water
Date Received: 10/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687424	ESB	EET BUF	10/17/23 08:41
Total/NA	Analysis	6010C		1	689506	LMH	EET BUF	10/27/23 15:02
Total/NA	Analysis	300.0		5	687354	AF	EET BUF	10/13/23 19:40
Total/NA	Prep	Distill/Ammonia			687912	CLT	EET BUF	10/18/23 07:00
Total/NA	Analysis	350.1		1	687993	CLT	EET BUF	10/18/23 10:31
Total/NA	Prep	351.2			687693	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 06:56
Total/NA	Analysis	353.2		1	687403	KB	EET BUF	10/13/23 17:29
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 14:35
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 04:57
Total/NA	Analysis	SM 2320B		1	687432	KB	EET BUF	10/14/23 10:59
Total/NA	Analysis	SM 2340C		1	687883	DLG	EET BUF	10/17/23 12:27
Total/NA	Analysis	SM 2540C		1	688159	AB	EET BUF	10/19/23 10:29
Total/NA	Analysis	SM 4500 Cl- E		1	687837	CG	EET BUF	10/17/23 12:26
Total/NA	Analysis	SM 5210B		1	687345	CG	EET BUF	10/13/23 11:22
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 06:05

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-10S-10122023

Lab Sample ID: 480-213665-5

Date Collected: 10/12/23 13:25
Matrix: Water
Date Received: 10/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687424	ESB	EET BUF	10/17/23 08:41
Total/NA	Analysis	6010C		1	689506	LMH	EET BUF	10/27/23 15:06
Total/NA	Analysis	300.0		5	687354	AF	EET BUF	10/13/23 19:58
Total/NA	Prep	Distill/Ammonia			687912	CLT	EET BUF	10/18/23 07:00
Total/NA	Analysis	350.1		1	687993	CLT	EET BUF	10/18/23 10:34
Total/NA	Prep	351.2			687693	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 06:56
Total/NA	Analysis	353.2		1	687403	KB	EET BUF	10/13/23 17:30
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 14:48
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 05:01
Total/NA	Analysis	SM 2320B		1	687432	KB	EET BUF	10/14/23 11:06
Total/NA	Analysis	SM 2340C		1	687883	DLG	EET BUF	10/17/23 12:27
Total/NA	Analysis	SM 2540C		1	688159	AB	EET BUF	10/19/23 10:29
Total/NA	Analysis	SM 4500 Cl- E		1	687837	CG	EET BUF	10/17/23 12:26
Total/NA	Analysis	SM 5210B		1	687345	CG	EET BUF	10/13/23 11:22
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 07:00

Client Sample ID: MW-7S-10122023

Lab Sample ID: 480-213665-6

Date Collected: 10/12/23 14:20
Matrix: Water
Date Received: 10/13/23 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687424	ESB	EET BUF	10/17/23 08:41
Total/NA	Analysis	6010C		1	689506	LMH	EET BUF	10/27/23 15:10
Total/NA	Analysis	300.0		5	687354	AF	EET BUF	10/13/23 20:16
Total/NA	Prep	Distill/Ammonia			687912	CLT	EET BUF	10/18/23 07:00
Total/NA	Analysis	350.1		1	687993	CLT	EET BUF	10/18/23 10:36
Total/NA	Prep	351.2			687693	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 06:56
Total/NA	Analysis	353.2		1	687403	KB	EET BUF	10/13/23 17:31
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 14:56
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 05:05
Total/NA	Analysis	SM 2320B		1	687432	KB	EET BUF	10/14/23 11:13
Total/NA	Analysis	SM 2340C		1	687883	DLG	EET BUF	10/17/23 12:27
Total/NA	Analysis	SM 2540C		1	688159	AB	EET BUF	10/19/23 10:29
Total/NA	Analysis	SM 4500 Cl- E		1	687837	CG	EET BUF	10/17/23 12:26
Total/NA	Analysis	SM 5210B		1	687345	CG	EET BUF	10/13/23 11:22
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 07:56

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: MW-6S-10132023

Lab Sample ID: 480-213709-1

Date Collected: 10/13/23 09:10
Matrix: Water
Date Received: 10/14/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687587	MP	EET BUF	10/17/23 08:46
Total/NA	Analysis	6010C		1	688524	LMH	EET BUF	10/21/23 22:41
Total/NA	Analysis	300.0		5	687996	AF	EET BUF	10/19/23 03:11
Total/NA	Prep	Distill/Ammonia			687757	CLT	EET BUF	10/17/23 08:00
Total/NA	Analysis	350.1		1	687879	CLT	EET BUF	10/17/23 16:52
Total/NA	Prep	351.2			687694	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 12:18
Total/NA	Analysis	353.2		1	687445	AM	EET BUF	10/14/23 14:34
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 19:07
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 06:25
Total/NA	Analysis	SM 2320B		1	687696	KB	EET BUF	10/16/23 19:47
Total/NA	Analysis	SM 2340C		1	687883	DLG	EET BUF	10/17/23 12:27
Total/NA	Analysis	SM 2540C		1	688314	KO	EET BUF	10/20/23 10:39
Total/NA	Analysis	SM 4500 Cl- E		5	687837	CG	EET BUF	10/17/23 12:44
Total/NA	Analysis	SM 5210B		1	687436	CG	EET BUF	10/14/23 10:46
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 20:12

Client Sample ID: MW-8-10132023

Lab Sample ID: 480-213709-2

Date Collected: 10/13/23 10:20
Matrix: Water
Date Received: 10/14/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687587	MP	EET BUF	10/17/23 08:46
Total/NA	Analysis	6010C		1	688524	LMH	EET BUF	10/21/23 22:45
Total/NA	Analysis	300.0		5	687996	AF	EET BUF	10/19/23 03:29
Total/NA	Prep	Distill/Ammonia			687757	CLT	EET BUF	10/17/23 08:00
Total/NA	Analysis	350.1		1	687879	CLT	EET BUF	10/17/23 16:55
Total/NA	Prep	351.2			687694	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 12:18
Total/NA	Analysis	353.2		1	687445	AM	EET BUF	10/14/23 14:37
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 19:26
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 06:33
Total/NA	Analysis	SM 2320B		1	687696	KB	EET BUF	10/16/23 19:55
Total/NA	Analysis	SM 2340C		1	687883	DLG	EET BUF	10/17/23 12:27
Total/NA	Analysis	SM 2540C		1	688314	KO	EET BUF	10/20/23 10:39
Total/NA	Analysis	SM 2540C		1	689464	AB	EET BUF	10/27/23 14:52
Total/NA	Analysis	SM 4500 Cl- E		1	687837	CG	EET BUF	10/17/23 12:40
Total/NA	Analysis	SM 5210B		1	687436	CG	EET BUF	10/14/23 10:46
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 20:39

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Client Sample ID: SW-01-10132023

Lab Sample ID: 480-213709-3

Date Collected: 10/13/23 11:15
Matrix: Water
Date Received: 10/14/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687587	MP	EET BUF	10/17/23 08:46
Total/NA	Analysis	6010C		1	688524	LMH	EET BUF	10/21/23 22:48
Total/NA	Analysis	300.0		5	687996	AF	EET BUF	10/19/23 03:47
Total/NA	Prep	Distill/Ammonia			687757	CLT	EET BUF	10/17/23 08:00
Total/NA	Analysis	350.1		1	687879	CLT	EET BUF	10/17/23 16:57
Total/NA	Prep	351.2			687694	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 12:18
Total/NA	Analysis	353.2		1	687445	AM	EET BUF	10/14/23 14:38
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 19:35
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 06:40
Total/NA	Analysis	SM 2320B		1	687696	KB	EET BUF	10/16/23 20:02
Total/NA	Analysis	SM 2340C		1	687883	DLG	EET BUF	10/17/23 12:27
Total/NA	Analysis	SM 2540C		1	688314	KO	EET BUF	10/20/23 10:39
Total/NA	Analysis	SM 4500 Cl- E		5	687837	CG	EET BUF	10/17/23 12:46
Total/NA	Analysis	SM 5210B		1	687436	CG	EET BUF	10/14/23 10:46
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 21:07

Client Sample ID: SW-02-10132023

Lab Sample ID: 480-213709-4

Date Collected: 10/13/23 11:40
Matrix: Water
Date Received: 10/14/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			687587	MP	EET BUF	10/17/23 08:46
Total/NA	Analysis	6010C		1	688524	LMH	EET BUF	10/21/23 22:52
Total/NA	Analysis	300.0		5	687996	AF	EET BUF	10/19/23 04:05
Total/NA	Prep	Distill/Ammonia			687757	CLT	EET BUF	10/17/23 08:00
Total/NA	Analysis	350.1		1	687879	CLT	EET BUF	10/17/23 17:00
Total/NA	Prep	351.2			687694	GW	EET BUF	10/16/23 16:00
Total/NA	Analysis	351.2		1	687821	CLT	EET BUF	10/17/23 12:23
Total/NA	Analysis	353.2		1	687445	AM	EET BUF	10/14/23 14:40
Total/NA	Analysis	410.4		1	688035	DLG	EET BUF	10/17/23 19:39
Total/NA	Analysis	420.4		1	687650	GW	EET BUF	10/16/23 06:44
Total/NA	Analysis	SM 2320B		1	687696	KB	EET BUF	10/16/23 20:10
Total/NA	Analysis	SM 2340C		1	688312	AM	EET BUF	10/19/23 15:33
Total/NA	Analysis	SM 2540C		1	688314	KO	EET BUF	10/20/23 10:39
Total/NA	Analysis	SM 4500 Cl- E		5	687837	CG	EET BUF	10/17/23 12:47
Total/NA	Analysis	SM 5210B		1	687436	CG	EET BUF	10/14/23 10:46
Total/NA	Analysis	SM 5310C		1	688287	AF	EET BUF	10/19/23 21:34

Laboratory References:

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

Accreditation/Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	EET BUF
300.0	Anions, Ion Chromatography	EPA	EET BUF
350.1	Nitrogen, Ammonia	EPA	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
353.2	Nitrate	EPA	EET BUF
410.4	COD	EPA	EET BUF
420.4	Phenolics, Total Recoverable	EPA	EET BUF
SM 2320B	Alkalinity	SM	EET BUF
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	EET BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET BUF
SM 4500 Cl- E	Chloride, Total	SM	EET BUF
SM 5210B	BOD, 5-Day	SM	EET BUF
SM 5310C	TOC	SM	EET BUF
3005A	Preparation, Total Metals	SW846	EET BUF
351.2	Nitrogen, Total Kjeldahl	EPA	EET BUF
Distill/Ammonia	Distillation, Ammonia	None	EET BUF

Protocol References:

EPA = US Environmental Protection Agency
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:

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

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: Dunn Landfill - Routine

Job ID: 480-213665-1
SDG: 213665

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-213665-1	FB-01-10122023	Water	10/12/23 08:00	10/13/23 09:00
480-213665-2	MW-11S-10122023	Water	10/12/23 09:00	10/13/23 09:00
480-213665-3	MW-9SR-10122023	Water	10/12/23 10:10	10/13/23 09:00
480-213665-4	MW-12S-10122023	Water	10/12/23 11:45	10/13/23 09:00
480-213665-5	MW-10S-10122023	Water	10/12/23 13:25	10/13/23 09:00
480-213665-6	MW-7S-10122023	Water	10/12/23 14:20	10/13/23 09:00
480-213709-1	MW-6S-10132023	Water	10/13/23 09:10	10/14/23 10:00
480-213709-2	MW-8-10132023	Water	10/13/23 10:20	10/14/23 10:00
480-213709-3	SW-01-10132023	Water	10/13/23 11:15	10/14/23 10:00
480-213709-4	SW-02-10132023	Water	10/13/23 11:40	10/14/23 10:00

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

Chain of Custody Record

Albany #224

eurofins

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-189234-15034.1
Client Contact: ~~Dr. Tim Roeper~~ Magda Mendola	Phone: 845-300-7823	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: ~~tim.roeper@tetratech.com~~ magda.mendola@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
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 - (MOD) Br/SO4	6010C - NY Part 360 Routine Metals	2340C - Hardness as calcium carbonate	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	2320B - Alkalinity, Total	5310C - TOC	420.4_NP - Phenolics	350.1, 351.2, 410.4	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	D	N	N	N	N	S	S	S		
FB-01-10122023	10/12/23	0800	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
MW-11S-10122023	10/12/23	0900	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
MW-9SR-10122023	10/12/23	1010	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
MW-12S-10122023	10/12/23	1145	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
MW-10S-10122023	10/12/23	1325	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
MW-7S-10122023	10/12/23	1420	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
				Water														
				Water														
				Water														
				Water														

TM
10-12-23

480-213665 Chain of Custody

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
Daniel Wheeler	10/12/23 / 1520	CGG/TT	[signature]	10-12-23 1520	EETN
Tim Kuller	10-12-23 1700	EETN	[signature]	10-13-23 900	AD
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: 2.5 2.6 TCG

Ver: 06/08/2021

Albany

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

#224 Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Dan Wheeler	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-189234-15034.1
Client Contact: ~~Dr. Tim Rooper,~~ Magda Mendola	Phone: 845-800-7823	E-Mail: Ryan.VanDette@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Cornerstone Environmental Group, LLC	PWSID:			Job #:
Address: 100 Crystal Run Road Suite 101	Due Date Requested:			
City: Middletown	TAT Requested (days):			
State, Zip: NY, 10941	Compliance Project: Δ Yes Δ No			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: ~~tim.rooper@tetratech.com~~ magda.mendola@tetratech.com	WO #: 209-4203148			
Project Name: Dunn Landfill - Routine	Project #: 48010065 209-4233396-001			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, 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 - (MOD) Br/SO4	6010C - NY Part 360 Routine Metals	2340C - Hardness as calcium carbonate	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	353.2, 353.2_Nitrite, Nitrate_Calc, SM4500_Cl_E	2320B - Alkalinity, Total	5310C - TOC	420.4_NP - Phenolics	350.1, 351.2, 410.4	Total Number of containers	Special Instructions/Note:
				Preservation Code:	X	X	N	D	D	N	N	N	N	S	S	S	X	
MW-6S-10132023	10/13/23	0910	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
MW-8S-10132023	10/13/23	1020	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
SW-01-10132023	10/13/23	1115	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
SW-02-10132023	10/13/23	1140	G	Water	N	N	X	X	X	X	X	X	X	X	X	X		
				Water														
				Water														
				Water														
				Water														
				Water														
				Water														

KD 10-13-2023

480-213709 Chain of Custody

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: Daniel Wheeler	Date/Time: 10/13/23 / 1230	Company: CEG/TE	Received by: Kevin Dul
Relinquished by: Kevin Dul	Date/Time: 10-13-2023 17:00	Company: Eurofins	Received by: [signature]
Relinquished by:	Date/Time:	Company:	Received by:

Date/Time:	Company:
10-13-2023 12:30	Eurofins
10/14/23 1000	TAB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #1 2.4

Ver: 06/08/2021

11/9/2023

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 480-213665-1
SDG Number: 213665

Login Number: 213665
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins 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	CEG/TE
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: Cornerstone Environmental Group, LLC

Job Number: 480-213665-1
SDG Number: 213665

Login Number: 213709
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins 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	CEG
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	