Clear Form

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

Submit the Annual Report no later than March 1, 2018

A. This annual report is for the year of operation from January 01, 2017 to December 31, 2017

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 Facility			
FACILITY LOCATION ADDRESS: 209 Partition Street 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 #: 4-3899-00006/00006	**DATE ISSUED:** 9/9/2016	**DATE EXPIRES:** 7/19/2022	**NYS DEC ACTIVITY CODE OR REGISTRATION NUMBER:**

FACILITY CONTACT: Joel Falbo	☐ public ☒ private	**CONTACT PHONE NUMBER:** (518)650-6106	**CONTACT FAX NUMBER:** (518)650-6109
CONTACT EMAIL ADDRESS: Joel.Falbo@WasteConnections.com			

OWNER INFORMATION

OWNER NAME: S.A. Dunn & Company, LLC	**OWNER PHONE NUMBER:** (518) 650-6106	**OWNER FAX NUMBER:** (518) 650-6109	
OWNER ADDRESS: 209 Partition Street Ext.	**OWNER CITY:** Rensselaer	**STATE:** NY	**ZIP CODE:** 12144
OWNER CONTACT: Joel Falbo	**OWNER CONTACT EMAIL ADDRESS:** Joel.Falbo@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 2017? ☒ Yes; Complete this form.

☐ No; Complete and submit Sections 1 and 18. 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: http://www.dec.ny.gov/chemical/52706.html .

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?

   828,500 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?

   0.6 Tons/Cubic Yard

2. Remaining Constructed Capacity

   a. What is the remaining capacity of the landfill that is already constructed?

   637,500 Cubic Yards of Airspace

   b. What is the estimated remaining life of the constructed capacity?

   0 Years 9 Months

   at 490,000 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):

   _____ The amount of materials placed in the landfill in the reporting year

   X 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?

   8,616,000 Cubic Yards of Airspace

   b. What is the projected life of capacity reported in 3a.?

   10 Years 6 Months

   at 490,000 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

Does the landfill have a constructed liner and a leachate collection system? ☒ 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												
February												
March												
April												
May												
June			See	Attachment	1			See	Attachment	1		
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			Not	Applicable					Not	Applicable		
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:

See 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:

See Attachment 3.

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

Leachate Cost: (including transportation if appropriate) during the calendar year for leachate treatment: $ 135,635.00

Total quantity treated: 2,511,772 gal

SECTION 4 – BENEFICIAL USE DETERMINATION MATERIALS

For each type of waste material that the Department has approved for use as alternative daily cover, intermediate cover, or other landfill material, provide the annual weight in tons, use (i.e., daily cover, intermediate cover, 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						
Processed C&D						NOT APPLICABLE
Other (specify)						
Total ADC	NONE					
Total Beneficial Use Determination Materials	NONE					

SECTION 5 – CONSTRUCTION & DEMOLITION (CD) DEBRIS DISPOSED

Provide the tonnages of CD debris disposed. Exclude Beneficial Use Determination Material 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	33,819.02
February	28,672.81
March	37,546.22
April	39,937.13
May	51,543.64
June	48,989.64
July	42,211.43
August	50,977.07
September	43,459.08
October	41,786.99
November	43,122.05
December	35,101.64
Total Disposed For Year	497,166.72
Daily Average (Tons)	1,362.1

Has the landfill received pulverized C&D debris? ☒ Yes ☐ No

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

Tipping Fee

Tipping Fee: Varies $/ton

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SECTION 6 – SERVICE AREA OF C&D DEBRIS RECEIVED

Identify the service area of the waste. The Total Tons Received reported below should equal the Total Tons Received in Section 2 (Solid Waste Received). DO NOT REPORT IN CUBIC YARDS!

1) Direct hauled from the generator of the waste. In the case where the waste is hauled to your facility from the generator (i.e. hauled from residences, commercial establishments, etc.), "Direct Haul" is the appropriate response in Column 2 under "Service Area." Please report the tonnage by waste type and identify the state, county and planning unit where it was generated; or

2) Sent to your facility from another solid waste management facility. Waste may be sent to your facility from another solid waste management facility. In this case, please report the tonnage by waste type from each sending solid waste management facility, as well as the sending facility's name, address, county, and the planning unit where the sending facility is located.

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 All via road.

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)					
	SEE ATTACHMENT 4				
Other (specify)					
				TOTAL RECEIVED (tons):	

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SECTION 7 – 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
	See Attachment 5	for outbound waste	report (i.e., waste separated for off-site disposal)

SECTION 8 - 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 9 – 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. See Note below.

SECTION 10 – 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.

In April 2017 the facility received notice from NYSDEC regarding fluff lift and intermediate cover practices. Cover improvements were made as soon as weather permitted. Fluff lift material practices were also improved to NYSDEC satisfaction.

SECTION 11 - 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:

See Attachment 7 (Cornerstone Environmental Group, Forth Quarter and Annual Report, 2/23/18)

SECTION 12 - 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:

See Attachment 7 (Cornerstone Environmental Group, Forth Quarter and Annual Report, 2/23/18)

SECTION 13 - 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:

See Attachment 7 (Cornerstone Environmental Group, Forth Quarter and Annual Report, 2/23/18)

SECTION 14 - 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:

See Attachment 7 (Cornerstone Environmental Group, Forth Quarter and Annual Report, 2/23/18)

SECTION 15 - SUMMARIES OF MONITORING DATA

Submit (attached to this form) a summary of the water quality information presented in Sections 12 and 13 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:

See Attachment 7 (Cornerstone Environmental Group, Forth Quarter and Annual Report, 2/23/18)

SECTION 16 - SURFACE IMPOUNDMENTS

Does this landfill have a surface impoundment?

☐ Yes ■ No If yes, repeat Sections 11 through 14 above for Quarterly Reports and Section 15 above for Annual report. Attach additional submissions required by this section.

SECTION 17 - 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 18 - SIGNATURE AND DATE BY OWNER OR OPERATOR

Owner or Operator must sign, date and submit the completed form by email or mail to the appropriate Regional Office (See attachment for Regional Office email & mailing addresses and Solid Waste 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 Permitting and Planning
625 Broadway
Albany, New York 12233-7260
Fax 518-402-9041
Email address: SWMFannualreport@dec.ny.gov

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits was prepared by me or under my supervision and direction and is true to the best of my knowledge and belief, and that I have the authority to sign this report form pursuant to 6 NYCRR Part 360. I am aware that any false statement made herein is punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Signature

2/28/18
Date

Joel Falbo
Name (Print or Type)

ADM
Title (Print or Type)

Joel.Falbo@WasteConnections.com
Email (Print or Type)

209 Partition Street Ext.
Address

Rensselaer
City

NY, 12144
State and Zip

(585) 303-3280
Phone Number

ATTACHMENTS: ☒ YES ☐ NO

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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 (gallons)				Primary Leachate Treated Offsite (gallons)			
	Cell 1	Cell 2	Cell 3	Total	Cell 1	Cell 2	Cell 3	Total
	7.9	7.4	4.7					
January	24,929	68,026	82,390	175,345	26,155	71,371	86,441	183,967
February	94,515	88,408	137,619	320,542	81,551	76,282	118,743	276,576
March	155,188	84,025	190,748	429,961	139,060	75,292	170,924	385,276
April	161,307	94,785	139,729	395,821	180,918	106,309	156,717	443,943
May	175,740	80,587	104,060	360,387	158,959	72,892	94,123	325,974
June	127,676	60,511	88,680	276,867	128,638	60,967	89,348	278,953
July	66,526	40,123	56,823	163,472	69,540	41,941	59,397	170,878
August	38,476	27,994	45,144	111,614	36,001	26,193	42,240	104,435
September	38,452	28,111	61,771	128,334	36,961	27,021	59,376	123,358
October	27,563	19,266	57,043	103,872	26,854	18,771	55,576	101,201
November	18,408	12,665	49,555	80,628	17,851	12,282	48,057	78,190
December	9,984	4,963	35,756	50,703	7,684	3,820	27,518	39,021
2017 Total	938,764	609,464	1,049,318	2,597,546	910,172	593,140	1,008,460	2,511,772

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

Attachment 2

Leachate Collection System - Routine Cleaning Summary
Dunn Mine & C&D Facility, Rensselaer, NY

Date	Activity	Contractor
10/11/2017	Leachate collection jet/vac 700-750 LF of 8'' Line Sump cleaning jet/vac 210 LF , removed 1500 gallons.	Corbett Industrial Cleaning
10/11/2017	Leachate collection jet/vac 900-950 LF of 8'' Line Sump cleaning jet/vac 190 LF, removed 4500 gallons	Corbett Industrial Cleaning
10/12/2017	Leachate collection jet/vac 900-950 LF of 8'' Line Sump cleaning jet/vac 170 LF, removed 3000 gallons	Corbett Industrial Cleaning

Attachment

3

Attachment 3

Leachate Sampling - Detection Summary

Dunn Mine & C&D Facility, Rensselaer, NY

Sample Date	6/15/2016	12/21/2016	7/31/2017	12/18/2017
Analyte	Result	Result	Result	Result
1,1-Dichloroethane	0.0069	0.0069	0.0067	0.0087
1,1-Dichloroethene	0.051	0.15	<0.004	<0.004
1,2-Dichloroethane	0.0091	0.0091	0.014	0.0092
2-Butanone (MEK)	0.10	0.056	0.15	<0.040
4-Methyl-2-pentanone (MIBK)	0.028	<0.020	0.037	<0.020
Acetone	0.46	0.094	0.35	<0.040
Benzene	<0.004	<0.004	0.0047	0.0041
Dichlorodifluoromethane	0.025	0.021	0.019	<0.004
Ethylbenzene	0.0092	0.0081	0.0074	0.0062
Methylene Chloride	0.20	0.043	0.039	0.017
Tetrachloroethene	<0.004	0.0047	<0.004	<0.004
Toluene	0.077	0.042	0.047	0.033
t-1,2-Dichloroethene	<0.004	0.0066	0.011	0.0061
Trichlorofluoromethane	0.180	0.11	0.051	<0.004
Vinyl Chloride	<0.004	0.028	<0.004	<0.004
Xylenes, Total	0.052	0.034	0.025	0.024
o-Xylene	0.018	0.012	0.0091	0.0087
m,p-Xylene	0.034	0.022	0.016	0.015
1,2-Dichloroethene (Total)	<0.008	<0.008	0.011	<0.008
3&4 Methylphenol	<0.010	<0.038	0.011	<0.010
3-Methylphenol	<0.010	<0.038	0.011	<0.010
4-Methylphenol	<0.010	<0.038	0.011	<0.010
Aluminum	0.23	<0.20	<0.20	<0.20
Barium	0.094	0.11	0.13	0.12
Boron	0.73	0.52 B	0.83	1.8
Calcium	329	307	393	351
Cobalt	0.020	0.014	<0.004	<0.004
Copper	<0.010	<0.010	<0.010	<0.010
Iron	6.6	9.3	6.0	7.6
Magnesium	135	106	150	137
Manganese	9.2	6.8	9.7	8.3
Nickel	0.035	0.023	0.012	0.024
Potassium	3.9	3.8	4.8	4.4
Sodium	49.4	36.7	102	98
Zinc	0.064	<0.010	0.020	0.027
Bromide	0.92	0.46	<2.0	0.33
Ammonia	0.077	<0.020	0.037	0.81
Total Kjeldahl Nitrogen	1.6	0.76	2.3	2.8
Chemical Oxygen Demand	89.0	30.7	107	81.3
Sulfate	459	408	553	420
Total Organic Carbon	30.8	14.2	25	25.8
Phenolics, Total Recoverable	<0.010	<0.010	0.014	0.024 F1
Chloride	111	80.3	190	147
Alkalinity, Total	956	852	1190	1170
Total Dissolved Solids	1770	1660	2180	1800
Sulfide	0.13	<0.1	2.4	<0.67
Biochemical Oxygen Demand	27.4	36	31.0 b	5.1
Turbidity (NTU)	22.8	49.6	172	47.4
Color (color units)	<0.01	<0.01	<0.01	<0.01

Notes:

1. Units are mg/l, unless otherwise noted.

2. NYSDEC Part 360 Expanded Parameters analyzed. Only detected analytes are listed.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-121971-1
Client Project/Site: Dunn Landfill - Leachate Expanded
Sampling Event: Expanded

For:
Waste Connections, Inc.
209 Partition Street Extension
Rensselaer, New York 12144

Attn: Corey Judd

Denise L Giglia

Authorized for release by:
8/18/2017 4:20:07 PM
Denise Giglia, Project Management Assistant II
denise.giglia@testamericainc.com

Designee for

Ryan VanDette, Project Manager II
(716)504-9830
ryan.vandette@testamericainc.com

Table of Contents

Definitions/Glossary

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

TestAmerica Job ID: 480-121971-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

General Chemistry

Qualifier	Qualifier Description
b	Result Detected in the Unseeded Control blank (USB).
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance 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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-121971-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-121971-1

Comments
No additional comments.

Receipt
The sample was received on 8/1/2017 2:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-371230 recovered outside acceptance criteria, low biased, for Trichlorofluoromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following sample is impacted: Leachate (480-121971-1).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-371230 recovered outside acceptance criteria, low biased, for Acetonitrile. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated sample was non-detect for this analyte, the data have been reported. The following sample is impacted: Leachate (480-121971-1).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-371230 recovered above the upper control limit for Pentachloroethane. The sample associated with this CCV was non-detect for the affected analyte; therefore, the data have been reported. The following sample is impacted: Leachate (480-121971-1).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: Leachate (480-121971-1). 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(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-370105 recovered above the upper control limit for 1,3,5-Trinitrobenzene, 2,4-Dinitrophenol and 3,3'-Dimethylbenzidine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: Leachate (480-121971-1).

Method(s) 8270D: Due to an increase in the spiking concentration required for other analytes of interest, the following compounds have been elevated to a level at the upper range of the initial calibration: 3,3'-Dichlorobenzidine. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) recovered within acceptable limits for these analytes and have been qualified with an "E" flag. (LCS 480-369875/2-A) and (LCSD 480-369875/3-A)

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

HPLC/IC
Method(s) 300.0: The following sample was diluted due to the abundance of non-target analytes: Leachate (480-121971-1). 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(s) 8151A: The continuing calibration verification (CCV) associated with batch 480-370372 recovered above the upper control limit for multiple analytes. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: Leachate (480-121971-1).

Method(s) 8151A: Surrogate recovery for the following sample was above the used quadratic curve due to matrix interference, and is thusly marked as not quantitated (NQ) : Leachate (480-121971-1). The sample was biased high, but did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Job ID: 480-121971-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 8082A: All primary data for analytical batch 370374 is reported from the ZB-35 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8151A: All primary data for analytical batch 370372 is reported from the RTX-CLPI column.

Method(s) 8081B: All primary data for analytical batch 370967 is reported from the RTX-CLPI column.

Method(s) 8151A: The percent difference for the surrogate 2,4-Dichlorophenylacetic acid in the continuing calibration verification associated with analytical batch 370372 exceeded 15% on the RTX-CLPI column, indicating a high bias.

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(s) SM 2120B: The following sample was filtered prior to analysis, therefore the analytical results are being report as "True Color": Leachate (480-121971-1)

Method(s) SM 2320B: The following sample was received with headspace in the sample bottle: Leachate (480-121971-1).

Method(s) SM 4500 S2 F: The results reported for the following sample do not concur with results previously reported for this site: Leachate (480-121971-1). Reanalysis was performed, and the result(s) confirmed.

Method(s) SM 2540C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: Leachate (480-121971-1). The reporting limits (RLs) have been adjusted proportionately.

Method(s) 7196A: To verify the absence of an interference, EPA Method 7196A requires the sample to be diluted until the matrix spike (MS) recovery is within 85-115%. For this reason, the following sample was diluted: Leachate (480-121971-1). 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.

Organic Prep
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-369875.

Method(s) 8151A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-369978.

Method(s) 8151A: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: Leachate (480-121971-1). The reporting limits (RLs) have been adjusted proportionately.

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 480-370725.

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

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

Detection Summary

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

TestAmerica Job ID: 480-121971-1

Client Sample ID: Leachate

Lab Sample ID: 480-121971-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	6.7		4.0		ug/L	4		8260C	Total/NA
1,2-Dichloroethane	14		4.0		ug/L	4		8260C	Total/NA
2-Butanone (MEK)	150		40		ug/L	4		8260C	Total/NA
4-Methyl-2-pentanone (MIBK)	37		20		ug/L	4		8260C	Total/NA
Acetone	350		40		ug/L	4		8260C	Total/NA
Benzene	4.7		4.0		ug/L	4		8260C	Total/NA
Dichlorodifluoromethane	19		4.0		ug/L	4		8260C	Total/NA
Ethylbenzene	7.4		4.0		ug/L	4		8260C	Total/NA
Methylene Chloride	39		4.0		ug/L	4		8260C	Total/NA
Toluene	47		4.0		ug/L	4		8260C	Total/NA
trans-1,2-Dichloroethene	11		4.0		ug/L	4		8260C	Total/NA
Trichlorofluoromethane	51		4.0		ug/L	4		8260C	Total/NA
Xylenes, Total	25		8.0		ug/L	4		8260C	Total/NA
o-Xylene	9.1		4.0		ug/L	4		8260C	Total/NA
m,p-Xylene	16		8.0		ug/L	4		8260C	Total/NA
1,2-Dichloroethene, Total	11		8.0		ug/L	4		8260C	Total/NA
3 & 4 Methylphenol	11		10		ug/L	1		8270D	Total/NA
3-Methylphenol	11		10		ug/L	1		8270D	Total/NA
4-Methylphenol	11		10		ug/L	1		8270D	Total/NA
Barium	0.13		0.0020		mg/L	1		6010C	Total/NA
Boron	0.83		0.020		mg/L	1		6010C	Total/NA
Calcium	393		0.50		mg/L	1		6010C	Total/NA
Iron	6.0		0.050		mg/L	1		6010C	Total/NA
Magnesium	150		0.20		mg/L	1		6010C	Total/NA
Manganese	9.7		0.0030		mg/L	1		6010C	Total/NA
Nickel	0.012		0.010		mg/L	1		6010C	Total/NA
Potassium	4.8		0.50		mg/L	1		6010C	Total/NA
Sodium	102		1.0		mg/L	1		6010C	Total/NA
Zinc	0.020		0.010		mg/L	1		6010C	Total/NA
Ammonia	0.37		0.020		mg/L as N	1		350.1	Total/NA
Total Kjeldahl Nitrogen	2.3		0.20		mg/L as N	1		351.2	Total/NA
Chemical Oxygen Demand	107		10.0		mg/L	1		410.4	Total/NA
Sulfate	553		80.0		mg/L	16		9038	Total/NA
Total Organic Carbon	25.0		1.0		mg/L	1		9060A	Total/NA
Phenolics, Total Recoverable	0.014		0.010		mg/L	1		9065	Total/NA
Chloride	190		5.0		mg/L	5		9251	Total/NA
Alkalinity, Total	1190		5.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	2180		20.0		mg/L	1		SM 2540C	Total/NA
Sulfide	2.4		1.3		mg/L	1		SM 4500 S2 F	Total/NA
Biochemical Oxygen Demand	31.0	b	12.0		mg/L	1		SM 5210B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Turbidity	172		10.0		NTU	10		180.1	Total/NA

This Detection Summary does not include radiochemical test results.

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

TestAmerica Job ID: 480-121971-1

Client Sample ID: Leachate
Date Collected: 07/31/17 13:30
Date Received: 08/01/17 02:00

Lab Sample ID: 480-121971-1
Matrix: Water

Method: 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			08/09/17 18:56	4
1,1,1-Trichloroethane	ND		4.0		ug/L			08/09/17 18:56	4
1,1,2,2-Tetrachloroethane	ND		4.0		ug/L			08/09/17 18:56	4
1,1,2-Trichloroethane	ND		4.0		ug/L			08/09/17 18:56	4
1,1-Dichloroethane	**6.7**		4.0		ug/L			08/09/17 18:56	4
1,1-Dichloroethene	ND		4.0		ug/L			08/09/17 18:56	4
1,1-Dichloropropene	ND		4.0		ug/L			08/09/17 18:56	4
1,2,3-Trichloropropane	ND		4.0		ug/L			08/09/17 18:56	4
1,2,4-Trichlorobenzene	ND		4.0		ug/L			08/09/17 18:56	4
1,2-Dibromo-3-Chloropropane	ND		4.0		ug/L			08/09/17 18:56	4
1,2-Dichlorobenzene	ND		4.0		ug/L			08/09/17 18:56	4
1,2-Dichloroethane	**14**		4.0		ug/L			08/09/17 18:56	4
1,2-Dichloropropane	ND		4.0		ug/L			08/09/17 18:56	4
1,3-Dichloropropane	ND		4.0		ug/L			08/09/17 18:56	4
1,4-Dichlorobenzene	ND		4.0		ug/L			08/09/17 18:56	4
2,2-Dichloropropane	ND		4.0		ug/L			08/09/17 18:56	4
2-Butanone (MEK)	**150**		40		ug/L			08/09/17 18:56	4
2-Hexanone	ND		20		ug/L			08/09/17 18:56	4
4-Methyl-2-pentanone (MIBK)	**37**		20		ug/L			08/09/17 18:56	4
Acetone	**350**		40		ug/L			08/09/17 18:56	4
Acetonitrile	ND		60		ug/L			08/09/17 18:56	4
Acrolein	ND		80		ug/L			08/09/17 18:56	4
Acrylonitrile	ND		20		ug/L			08/09/17 18:56	4
Allyl chloride	ND		4.0		ug/L			08/09/17 18:56	4
Benzene	**4.7**		4.0		ug/L			08/09/17 18:56	4
Chlorobromomethane	ND		4.0		ug/L			08/09/17 18:56	4
Bromodichloromethane	ND		4.0		ug/L			08/09/17 18:56	4
Bromoform	ND		4.0		ug/L			08/09/17 18:56	4
Bromomethane	ND		4.0		ug/L			08/09/17 18:56	4
Carbon disulfide	ND		4.0		ug/L			08/09/17 18:56	4
Carbon tetrachloride	ND		4.0		ug/L			08/09/17 18:56	4
Chlorobenzene	ND		4.0		ug/L			08/09/17 18:56	4
Dibromochloromethane	ND		4.0		ug/L			08/09/17 18:56	4
Chloroethane	ND		4.0		ug/L			08/09/17 18:56	4
Chloroform	ND		4.0		ug/L			08/09/17 18:56	4
Chloromethane	ND		4.0		ug/L			08/09/17 18:56	4
cis-1,2-Dichloroethene	ND		4.0		ug/L			08/09/17 18:56	4
cis-1,3-Dichloropropene	ND		4.0		ug/L			08/09/17 18:56	4
Chloroprene	ND		4.0		ug/L			08/09/17 18:56	4
Dibromomethane	ND		4.0		ug/L			08/09/17 18:56	4
Dichlorodifluoromethane	**19**		4.0		ug/L			08/09/17 18:56	4
Ethyl methacrylate	ND		4.0		ug/L			08/09/17 18:56	4
Ethylbenzene	**7.4**		4.0		ug/L			08/09/17 18:56	4
1,2-Dibromoethane	ND		4.0		ug/L			08/09/17 18:56	4
Hexachlorobutadiene	ND		4.0		ug/L			08/09/17 18:56	4
Iodomethane	ND		4.0		ug/L			08/09/17 18:56	4
Isobutyl alcohol	ND		100		ug/L			08/09/17 18:56	4
Methacrylonitrile	ND		20		ug/L			08/09/17 18:56	4
Methyl methacrylate	ND		4.0		ug/L			08/09/17 18:56	4

Client Sample ID: Leachate
Date Collected: 07/31/17 13:30
Date Received: 08/01/17 02:00

Lab Sample ID: 480-121971-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**39**		4.0		ug/L			08/09/17 18:56	4
Naphthalene	ND		4.0		ug/L			08/09/17 18:56	4
Pentachloroethane	ND		4.0		ug/L			08/09/17 18:56	4
Propionitrile	ND		40		ug/L			08/09/17 18:56	4
Styrene	ND		4.0		ug/L			08/09/17 18:56	4
Tetrachloroethene	ND		4.0		ug/L			08/09/17 18:56	4
Toluene	**47**		4.0		ug/L			08/09/17 18:56	4
trans-1,2-Dichloroethene	**11**		4.0		ug/L			08/09/17 18:56	4
trans-1,3-Dichloropropene	ND		4.0		ug/L			08/09/17 18:56	4
trans-1,4-Dichloro-2-butene	ND		4.0		ug/L			08/09/17 18:56	4
Trichloroethene	ND		4.0		ug/L			08/09/17 18:56	4
Trichlorofluoromethane	**51**		4.0		ug/L			08/09/17 18:56	4
Vinyl acetate	ND		20		ug/L			08/09/17 18:56	4
Vinyl chloride	ND		4.0		ug/L			08/09/17 18:56	4
Xylenes, Total	**25**		8.0		ug/L			08/09/17 18:56	4
o-Xylene	**9.1**		4.0		ug/L			08/09/17 18:56	4
m,p-Xylene	**16**		8.0		ug/L			08/09/17 18:56	4
1,2-Dichloroethene, Total	**11**		8.0		ug/L			08/09/17 18:56	4
1,3-Dichlorobenzene	ND		4.0		ug/L			08/09/17 18:56	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*08/09/17 18:56*	*4*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*08/09/17 18:56*	*4*
Toluene-d8 (Surr)	*108*		*80 - 120*		*08/09/17 18:56*	*4*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*08/09/17 18:56*	*4*

Method: 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		08/01/17 14:22	08/02/17 18:43	1
1,2,4-Trichlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
1,2-Dichlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
1,3,5-Trinitrobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
1,3-Dichlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
1,3-Dinitrobenzene	ND		20		ug/L		08/01/17 14:22	08/02/17 18:43	1
1,4-Naphthoquinone	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
1,4-Dichlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
1-Naphthylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
2,3,4,6-Tetrachlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2,4,5-Trichlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2,4,6-Trichlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2,4-Dichlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2,4-Dimethylphenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2,4-Dinitrophenol	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
2,4-Dinitrotoluene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2,6-Dichlorophenol	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
2,6-Dinitrotoluene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2-Acetylaminofluorene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
2-Chloronaphthalene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2-Chlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2-Methylnaphthalene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1

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

TestAmerica Job ID: 480-121971-1

Client Sample ID: Leachate
Date Collected: 07/31/17 13:30
Date Received: 08/01/17 02:00

Lab Sample ID: 480-121971-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2-Naphthylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
2-Nitroaniline	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
2-Nitrophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
2-Toluidine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
3 & 4 Methylphenol	**11**		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
3-Methylphenol	**11**		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
4-Methylphenol	**11**		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
3,3'-Dichlorobenzidine	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
3,3'-Dimethylbenzidine	ND		40		ug/L		08/01/17 14:22	08/02/17 18:43	1
3-Methylcholanthrene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
3-Nitroaniline	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
4-Aminobiphenyl	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
4-Bromophenyl phenyl ether	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
4-Chloro-3-methylphenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
4-Chloroaniline	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
4-Chlorophenyl phenyl ether	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
4-Nitroaniline	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
4-Nitrophenol	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Acenaphthene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Acenaphthylene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Acetophenone	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Anthracene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Benzo[a]anthracene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Benzo[a]pyrene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Benzo[b]fluoranthene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Benzo[g,h,i]perylene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Benzo[k]fluoranthene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Benzyl alcohol	ND		20		ug/L		08/01/17 14:22	08/02/17 18:43	1
Bis(2-chloroethoxy)methane	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Bis(2-chloroethyl)ether	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Bis(2-ethylhexyl) phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
bis (2-chloroisopropyl) ether	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Butyl benzyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Chrysene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Diallate	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Dibenz(a,h)anthracene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Dibenzofuran	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Diethyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Dimethoate	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Dimethyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Di-n-butyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Di-n-octyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Dinoseb	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Diphenylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Disulfoton	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Ethyl methanesulfonate	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1

Client Sample ID: Leachate
Date Collected: 07/31/17 13:30
Date Received: 08/01/17 02:00

Lab Sample ID: 480-121971-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Famphur	ND		40		ug/L		08/01/17 14:22	08/02/17 18:43	1
Fluoranthene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Fluorene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Hexachlorobenzene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Hexachlorobutadiene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Hexachlorocyclopentadiene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Hexachloroethane	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Hexachloropropene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Isodrin	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Isophorone	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Isosafrole	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Methapyrilene	ND		50		ug/L		08/01/17 14:22	08/02/17 18:43	1
Methyl methanesulfonate	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Safrole	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Thionazin	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Naphthalene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Nitrobenzene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
N-Nitro-o-toluidine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
N-Nitrosodiethylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
N-Nitrosodimethylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
N-Nitrosodi-n-propylamine	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
N-Nitrosodiphenylamine	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
N-Nitrosomethylethylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
N-Nitrosopiperidine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
N-Nitrosopyrrolidine	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Parathion ethyl	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Parathion methyl	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
p-Dimethylamino azobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Pentachlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Pentachloronitrobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Pentachlorophenol	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Phenacetin	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
Phenanthrene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Phenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Phorate	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1
p-Phenylene diamine	ND		800		ug/L		08/01/17 14:22	08/02/17 18:43	1
Pyrene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 18:43	1
Pronamide	ND		10		ug/L		08/01/17 14:22	08/02/17 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*48 - 120*	*08/01/17 14:22*	*08/02/17 18:43*	*1*
2-Fluorophenol (Surr)	*72*		*35 - 120*	*08/01/17 14:22*	*08/02/17 18:43*	*1*
2,4,6-Tribromophenol (Surr)	*112*		*41 - 120*	*08/01/17 14:22*	*08/02/17 18:43*	*1*
Nitrobenzene-d5 (Surr)	*89*		*46 - 120*	*08/01/17 14:22*	*08/02/17 18:43*	*1*
Phenol-d5 (Surr)	*52*		*22 - 120*	*08/01/17 14:22*	*08/02/17 18:43*	*1*
p-Terphenyl-d14 (Surr)	*92*		*59 - 136*	*08/01/17 14:22*	*08/02/17 18:43*	*1*

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

TestAmerica Job ID: 480-121971-1

Client Sample ID: Leachate
Date Collected: 07/31/17 13:30
Date Received: 08/01/17 02:00

Lab Sample ID: 480-121971-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kepone	ND		50		ug/L		08/01/17 14:22	08/10/17 15:39	1

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*	*08/01/17 14:22*	*08/10/17 15:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*48 - 120*	*08/01/17 14:22*	*08/10/17 15:39*	*1*
2-Fluorophenol (Surr)	*66*		*35 - 120*	*08/01/17 14:22*	*08/10/17 15:39*	*1*
2,4,6-Tribromophenol (Surr)	*109*		*41 - 120*	*08/01/17 14:22*	*08/10/17 15:39*	*1*
Nitrobenzene-d5 (Surr)	*88*		*46 - 120*	*08/01/17 14:22*	*08/10/17 15:39*	*1*
Phenol-d5 (Surr)	*51*		*22 - 120*	*08/01/17 14:22*	*08/10/17 15:39*	*1*
p-Terphenyl-d14 (Surr)	*91*		*59 - 136*	*08/01/17 14:22*	*08/10/17 15:39*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
4,4'-DDE	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
4,4'-DDT	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Aldrin	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
alpha-BHC	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
beta-BHC	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Chlordane (technical)	ND		0.50		ug/L		08/07/17 08:12	08/08/17 10:29	1
delta-BHC	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Dieldrin	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Endosulfan I	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Endosulfan II	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Endosulfan sulfate	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Endrin	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Endrin aldehyde	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
gamma-BHC (Lindane)	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Heptachlor	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Methoxychlor	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1
Toxaphene	ND		0.50		ug/L		08/07/17 08:12	08/08/17 10:29	1
Heptachlor epoxide	ND		0.050		ug/L		08/07/17 08:12	08/08/17 10:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*57*		*20 - 120*	*08/07/17 08:12*	*08/08/17 10:29*	*1*
DCB Decachlorobiphenyl	*45*		*20 - 120*	*08/07/17 08:12*	*08/08/17 10:29*	*1*
Tetrachloro-m-xylene	*79*		*44 - 120*	*08/07/17 08:12*	*08/08/17 10:29*	*1*
Tetrachloro-m-xylene	*94*		*44 - 120*	*08/07/17 08:12*	*08/08/17 10:29*	*1*

Method: 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		08/03/17 07:51	08/03/17 22:41	1
PCB-1221	ND		0.50		ug/L		08/03/17 07:51	08/03/17 22:41	1
PCB-1232	ND		0.50		ug/L		08/03/17 07:51	08/03/17 22:41	1
PCB-1242	ND		0.50		ug/L		08/03/17 07:51	08/03/17 22:41	1
PCB-1248	ND		0.50		ug/L		08/03/17 07:51	08/03/17 22:41	1
PCB-1254	ND		0.50		ug/L		08/03/17 07:51	08/03/17 22:41	1
PCB-1260	ND		0.50		ug/L		08/03/17 07:51	08/03/17 22:41	1

Client Sample ID: Leachate

Date Collected: 07/31/17 13:30
Date Received: 08/01/17 02:00

Lab Sample ID: 480-121971-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*95*		*39 - 121*	*08/03/17 07:51*	*08/03/17 22:41*	*1*
Tetrachloro-m-xylene	*76*		*39 - 121*	*08/03/17 07:51*	*08/03/17 22:41*	*1*
DCB Decachlorobiphenyl	*56*		*19 - 120*	*08/03/17 07:51*	*08/03/17 22:41*	*1*
DCB Decachlorobiphenyl	*42*		*19 - 120*	*08/03/17 07:51*	*08/03/17 22:41*	*1*

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		5.0		ug/L		08/02/17 07:28	08/03/17 20:27	1
2,4-D	ND		5.0		ug/L		08/02/17 07:28	08/03/17 20:27	1
Dinoseb	ND		5.0		ug/L		08/02/17 07:28	08/03/17 20:27	1
Silvex (2,4,5-TP)	ND		5.0		ug/L		08/02/17 07:28	08/03/17 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*NaN*		*48 - 132*	*08/02/17 07:28*	*08/03/17 20:27*	*1*
2,4-Dichlorophenylacetic acid	*NaN*		*48 - 132*	*08/02/17 07:28*	*08/03/17 20:27*	*1*

Method: 8280B - Dioxins and Furans (HRGC/LRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		4.8		ng/L		08/09/17 07:51	08/10/17 20:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*76*		*25 - 150*	*08/09/17 07:51*	*08/10/17 20:55*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*104*		*25 - 150*	*08/09/17 07:51*	*08/10/17 20:55*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20		mg/L		08/02/17 08:13	08/08/17 17:10	1
Antimony	ND		0.020		mg/L		08/02/17 08:13	08/08/17 17:10	1
Arsenic	ND		0.015		mg/L		08/02/17 08:13	08/08/17 17:10	1
Barium	**0.13**		0.0020		mg/L		08/02/17 08:13	08/08/17 17:10	1
Beryllium	ND		0.0020		mg/L		08/02/17 08:13	08/08/17 17:10	1
Boron	**0.83**		0.020		mg/L		08/02/17 08:13	08/08/17 17:10	1
Cadmium	ND		0.0020		mg/L		08/02/17 08:13	08/08/17 17:10	1
Calcium	**393**		0.50		mg/L		08/02/17 08:13	08/08/17 17:10	1
Chromium	ND		0.0040		mg/L		08/02/17 08:13	08/08/17 17:10	1
Cobalt	ND		0.0040		mg/L		08/02/17 08:13	08/08/17 17:10	1
Copper	ND		0.010		mg/L		08/02/17 08:13	08/08/17 17:10	1
Iron	**6.0**		0.050		mg/L		08/02/17 08:13	08/08/17 17:10	1
Lead	ND		0.010		mg/L		08/02/17 08:13	08/08/17 17:10	1
Magnesium	**150**		0.20		mg/L		08/02/17 08:13	08/08/17 17:10	1
Manganese	**9.7**		0.0030		mg/L		08/02/17 08:13	08/08/17 17:10	1
Nickel	**0.012**		0.010		mg/L		08/02/17 08:13	08/08/17 17:10	1
Potassium	**4.8**		0.50		mg/L		08/02/17 08:13	08/08/17 17:10	1
Selenium	ND		0.025		mg/L		08/02/17 08:13	08/08/17 17:10	1
Silver	ND		0.0060		mg/L		08/02/17 08:13	08/08/17 17:10	1
Sodium	**102**		1.0		mg/L		08/02/17 08:13	08/08/17 17:10	1
Thallium	ND		0.020		mg/L		08/02/17 08:13	08/08/17 17:10	1
Tin	ND		0.010		mg/L		08/02/17 08:13	08/08/17 17:10	1
Vanadium	ND		0.0050		mg/L		08/02/17 08:13	08/08/17 17:10	1
Zinc	**0.020**		0.010		mg/L		08/02/17 08:13	08/08/17 17:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		08/01/17 11:35	08/01/17 15:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		2.0		mg/L			08/16/17 19:50	10
Ammonia	**0.37**		0.020		mg/L as N			08/09/17 11:27	1
Total Kjeldahl Nitrogen	**2.3**		0.20		mg/L as N		08/02/17 07:30	08/02/17 13:29	1
Nitrate as N	ND		0.050		mg/L			08/01/17 18:34	1
Chemical Oxygen Demand	**107**		10.0		mg/L			08/03/17 14:00	1
Cr (VI)	ND		0.10		mg/L			08/01/17 04:52	10
Cyanide, Total	ND		0.010		mg/L		08/10/17 03:10	08/10/17 10:37	1
Sulfate	**553**		80.0		mg/L			08/03/17 11:24	16
Total Organic Carbon	**25.0**		1.0		mg/L			08/09/17 08:25	1
Phenolics, Total Recoverable	**0.014**		0.010		mg/L		08/09/17 10:57	08/10/17 02:57	1
Chloride	**190**		5.0		mg/L			08/01/17 14:57	5
Alkalinity, Total	**1190**		5.0		mg/L			08/01/17 22:34	1
Total Dissolved Solids	**2180**		20.0		mg/L			08/02/17 04:14	1
Sulfide	**2.4**		1.3		mg/L			08/02/17 13:45	1
Biochemical Oxygen Demand	**31.0**	**b**	12.0		mg/L			08/01/17 15:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	**172**		10.0		NTU			08/01/17 17:07	10
Color	ND		0.0100		Color Units			08/01/17 16:05	1

Surrogate Summary

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

TestAmerica Job ID: 480-121971-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(80-120)	(75-123)
480-121971-1	Leachate	102	103	108	104
LCS 480-371230/4	Lab Control Sample	95	101	106	101
MB 480-371230/6	Method Blank	95	102	106	100

Surrogate Legend

12DCE = 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	TPH
Lab Sample ID	Client Sample ID	(48-120)	(35-120)	(41-120)	(46-120)	(22-120)	(59-136)
480-121971-1	Leachate	89	72	112	89	52	92
480-121971-1 - RA	Leachate	88	66	109	88	51	91
LCS 480-369875/2-A	Lab Control Sample	97	81	107	101	64	118
LCSD 480-369875/3-A	Lab Control Sample Dup	89	95	111	99	65	102
MB 480-369875/1-A	Method Blank	96	75	103	102	56	101

Surrogate Legend

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

Method: 8081B - Organochlorine Pesticides (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCB1	DCB2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(20-120)	(20-120)	(44-120)	(44-120)
480-121971-1	Leachate	57	45	79	94
LCS 480-370725/2-A	Lab Control Sample	44	46	77	68
LCSD 480-370725/3-A	Lab Control Sample Dup	37	37	79	65
MB 480-370725/1-A	Method Blank	46	47	75	67

Surrogate Legend

DCB = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

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

TestAmerica Job ID: 480-121971-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(39-121)	(39-121)	(19-120)	(19-120)
480-121971-1	Leachate	95	76	56	42
LCS 480-370244/2-A	Lab Control Sample	106	77	50	39
MB 480-370244/1-A	Method Blank	87	71	44	31

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(48-132)	(48-132)
480-121971-1	Leachate	NaN	NaN
LCS 480-369978/2-A	Lab Control Sample	113	115
LCSD 480-369978/3-A	Lab Control Sample Dup	67	77
MB 480-369978/1-A	Method Blank	90	106

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8280B - Dioxins and Furans (HRGC/LRMS)

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

		Percent Surrogate Recovery (Acceptance Limits)
		37TCDD
Lab Sample ID	Client Sample ID	(25-150)
480-121971-1	Leachate	104
LCS 320-178429/2-A	Lab Control Sample	112
LCSD 320-178429/3-A	Lab Control Sample Dup	105
MB 320-178429/1-A	Method Blank	108

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

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

TestAmerica Job ID: 480-121971-1

Method: 8280B - Dioxins and Furans (HRGC/LRMS)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)
		TCDD
Lab Sample ID	Client Sample ID	(25-150)
480-121971-1	Leachate	76
LCS 320-178429/2-A	Lab Control Sample	70
LCSD 320-178429/3-A	Lab Control Sample Dup	70
MB 320-178429/1-A	Method Blank	66

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD

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

Lab Sample ID: MB 480-371230/6
Matrix: Water
Analysis Batch: 371230

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			08/09/17 13:32	1
1,1,1-Trichloroethane	ND		1.0		ug/L			08/09/17 13:32	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			08/09/17 13:32	1
1,1,2-Trichloroethane	ND		1.0		ug/L			08/09/17 13:32	1
1,1-Dichloroethane	ND		1.0		ug/L			08/09/17 13:32	1
1,1-Dichloroethene	ND		1.0		ug/L			08/09/17 13:32	1
1,1-Dichloropropene	ND		1.0		ug/L			08/09/17 13:32	1
1,2,3-Trichloropropane	ND		1.0		ug/L			08/09/17 13:32	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			08/09/17 13:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/09/17 13:32	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/09/17 13:32	1
1,2-Dichloroethane	ND		1.0		ug/L			08/09/17 13:32	1
1,2-Dichloropropane	ND		1.0		ug/L			08/09/17 13:32	1
1,3-Dichloropropane	ND		1.0		ug/L			08/09/17 13:32	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/09/17 13:32	1
2,2-Dichloropropane	ND		1.0		ug/L			08/09/17 13:32	1
2-Butanone (MEK)	ND		10		ug/L			08/09/17 13:32	1
2-Hexanone	ND		5.0		ug/L			08/09/17 13:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			08/09/17 13:32	1
Acetone	ND		10		ug/L			08/09/17 13:32	1
Acetonitrile	ND		15		ug/L			08/09/17 13:32	1
Acrolein	ND		20		ug/L			08/09/17 13:32	1
Acrylonitrile	ND		5.0		ug/L			08/09/17 13:32	1
Allyl chloride	ND		1.0		ug/L			08/09/17 13:32	1
Benzene	ND		1.0		ug/L			08/09/17 13:32	1
Chlorobromomethane	ND		1.0		ug/L			08/09/17 13:32	1
Bromodichloromethane	ND		1.0		ug/L			08/09/17 13:32	1
Bromoform	ND		1.0		ug/L			08/09/17 13:32	1
Bromomethane	ND		1.0		ug/L			08/09/17 13:32	1
Carbon disulfide	ND		1.0		ug/L			08/09/17 13:32	1
Carbon tetrachloride	ND		1.0		ug/L			08/09/17 13:32	1
Chlorobenzene	ND		1.0		ug/L			08/09/17 13:32	1
Dibromochloromethane	ND		1.0		ug/L			08/09/17 13:32	1
Chloroethane	ND		1.0		ug/L			08/09/17 13:32	1
Chloroform	ND		1.0		ug/L			08/09/17 13:32	1
Chloromethane	ND		1.0		ug/L			08/09/17 13:32	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/09/17 13:32	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			08/09/17 13:32	1
Chloroprene	ND		1.0		ug/L			08/09/17 13:32	1
Dibromomethane	ND		1.0		ug/L			08/09/17 13:32	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/09/17 13:32	1
Ethyl methacrylate	ND		1.0		ug/L			08/09/17 13:32	1
Ethylbenzene	ND		1.0		ug/L			08/09/17 13:32	1
1,2-Dibromoethane	ND		1.0		ug/L			08/09/17 13:32	1
Hexachlorobutadiene	ND		1.0		ug/L			08/09/17 13:32	1
Iodomethane	ND		1.0		ug/L			08/09/17 13:32	1
Isobutyl alcohol	ND		25		ug/L			08/09/17 13:32	1
Methacrylonitrile	ND		5.0		ug/L			08/09/17 13:32	1

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

Lab Sample ID: MB 480-371230/6
Matrix: Water
Analysis Batch: 371230

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			08/09/17 13:32	1
Methylene Chloride	ND		1.0		ug/L			08/09/17 13:32	1
Naphthalene	ND		1.0		ug/L			08/09/17 13:32	1
Pentachloroethane	ND		1.0		ug/L			08/09/17 13:32	1
Propionitrile	ND		10		ug/L			08/09/17 13:32	1
Styrene	ND		1.0		ug/L			08/09/17 13:32	1
Tetrachloroethene	ND		1.0		ug/L			08/09/17 13:32	1
Toluene	ND		1.0		ug/L			08/09/17 13:32	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/09/17 13:32	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			08/09/17 13:32	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			08/09/17 13:32	1
Trichloroethene	ND		1.0		ug/L			08/09/17 13:32	1
Trichlorofluoromethane	ND		1.0		ug/L			08/09/17 13:32	1
Vinyl acetate	ND		5.0		ug/L			08/09/17 13:32	1
Vinyl chloride	ND		1.0		ug/L			08/09/17 13:32	1
Xylenes, Total	ND		2.0		ug/L			08/09/17 13:32	1
o-Xylene	ND		1.0		ug/L			08/09/17 13:32	1
m,p-Xylene	ND		2.0		ug/L			08/09/17 13:32	1
1,2-Dichloroethene, Total	ND		2.0		ug/L			08/09/17 13:32	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/09/17 13:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*08/09/17 13:32*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*08/09/17 13:32*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*08/09/17 13:32*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*08/09/17 13:32*	*1*

Lab Sample ID: LCS 480-371230/4
Matrix: Water
Analysis Batch: 371230

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	25.1		ug/L		100	80 - 120
1,1,1-Trichloroethane	25.0	24.4		ug/L		97	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.3		ug/L		101	76 - 120
1,1,2-Trichloroethane	25.0	25.6		ug/L		102	76 - 122
1,1-Dichloroethane	25.0	22.6		ug/L		90	77 - 120
1,1-Dichloroethene	25.0	25.4		ug/L		102	66 - 127
1,1-Dichloropropene	25.0	23.8		ug/L		95	72 - 122
1,2,3-Trichloropropane	25.0	25.5		ug/L		102	68 - 122
1,2,4-Trichlorobenzene	25.0	25.6		ug/L		102	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.0		ug/L		96	56 - 134
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	21.8		ug/L		87	75 - 120
1,2-Dichloropropane	25.0	26.8		ug/L		107	76 - 120
1,3-Dichloropropane	25.0	25.7		ug/L		103	75 - 120
1,4-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 120
2,2-Dichloropropane	25.0	26.9		ug/L		108	63 - 136

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

Lab Sample ID: LCS 480-371230/4
Matrix: Water
Analysis Batch: 371230

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	114		ug/L		91	57 - 140
2-Hexanone	125	121		ug/L		97	65 - 127
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	71 - 125
Acetone	125	93.1		ug/L		74	56 - 142
Acrolein	125	119		ug/L		95	52 - 143
Acrylonitrile	250	222		ug/L		89	63 - 125
Allyl chloride	25.0	23.1		ug/L		92	60 - 140
Benzene	25.0	25.5		ug/L		102	71 - 124
Chlorobromomethane	25.0	24.1		ug/L		97	72 - 130
Bromodichloromethane	25.0	25.6		ug/L		102	80 - 122
Bromoform	25.0	21.0		ug/L		84	61 - 132
Bromomethane	25.0	22.4		ug/L		90	55 - 144
Carbon disulfide	25.0	24.5		ug/L		98	59 - 134
Carbon tetrachloride	25.0	25.0		ug/L		100	72 - 134
Chlorobenzene	25.0	24.7		ug/L		99	80 - 120
Dibromochloromethane	25.0	26.7		ug/L		107	75 - 125
Chloroethane	25.0	24.7		ug/L		99	69 - 136
Chloroform	25.0	23.5		ug/L		94	73 - 127
Chloromethane	25.0	23.3		ug/L		93	68 - 124
cis-1,2-Dichloroethene	25.0	24.9		ug/L		99	74 - 124
cis-1,3-Dichloropropene	25.0	29.8		ug/L		119	74 - 124
Dibromomethane	25.0	25.2		ug/L		101	76 - 127
Dichlorodifluoromethane	25.0	22.7		ug/L		91	59 - 135
Ethyl methacrylate	25.0	29.4		ug/L		118	74 - 120
Ethylbenzene	25.0	24.3		ug/L		97	77 - 123
1,2-Dibromoethane	25.0	26.6		ug/L		106	77 - 120
Hexachlorobutadiene	25.0	21.6		ug/L		86	68 - 131
Iodomethane	25.0	25.6		ug/L		102	78 - 123
Isobutyl alcohol	625	615		ug/L		98	51 - 150
Methylene Chloride	25.0	23.8		ug/L		95	75 - 124
Naphthalene	25.0	26.9		ug/L		108	66 - 125
Styrene	25.0	26.6		ug/L		107	80 - 120
Tetrachloroethene	25.0	24.4		ug/L		98	74 - 122
Toluene	25.0	26.0		ug/L		104	80 - 122
trans-1,2-Dichloroethene	25.0	24.5		ug/L		98	73 - 127
trans-1,3-Dichloropropene	25.0	28.8		ug/L		115	80 - 120
trans-1,4-Dichloro-2-butene	25.0	17.9		ug/L		72	41 - 131
Trichloroethene	25.0	25.7		ug/L		103	74 - 123
Trichlorofluoromethane	25.0	21.1		ug/L		85	62 - 150
Vinyl acetate	50.0	52.5		ug/L		105	50 - 144
Vinyl chloride	25.0	23.5		ug/L		94	65 - 133
o-Xylene	25.0	25.8		ug/L		103	76 - 122
m,p-Xylene	25.0	26.9		ug/L		107	76 - 122
1,3-Dichlorobenzene	25.0	24.9		ug/L		100	77 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*

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

Lab Sample ID: LCS 480-371230/4
Matrix: Water
Analysis Batch: 371230

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*106*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*

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

Lab Sample ID: MB 480-369875/1-A
Matrix: Water
Analysis Batch: 370105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369875

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
1,2,4-Trichlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
1,2-Dichlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
1,3,5-Trinitrobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
1,3-Dichlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
1,3-Dinitrobenzene	ND		20		ug/L		08/01/17 14:22	08/02/17 17:16	1
1,4-Naphthoquinone	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
1,4-Dichlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
1-Naphthylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
2,3,4,6-Tetrachlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2,4,5-Trichlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2,4,6-Trichlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2,4-Dichlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2,4-Dimethylphenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2,4-Dinitrophenol	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
2,4-Dinitrotoluene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2,6-Dichlorophenol	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
2,6-Dinitrotoluene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2-Acetylaminofluorene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
2-Chloronaphthalene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2-Chlorophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2-Methylnaphthalene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2-Methylphenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2-Naphthylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
2-Nitroaniline	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
2-Nitrophenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
2-Toluidine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
3 & 4 Methylphenol	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
3-Methylphenol	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
4-Methylphenol	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
3,3'-Dichlorobenzidine	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
3,3'-Dimethylbenzidine	ND		40		ug/L		08/01/17 14:22	08/02/17 17:16	1
3-Methylcholanthrene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
3-Nitroaniline	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
4-Aminobiphenyl	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
4-Bromophenyl phenyl ether	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
4-Chloro-3-methylphenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1

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

Lab Sample ID: MB 480-369875/1-A
Matrix: Water
Analysis Batch: 370105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369875

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
4-Chlorophenyl phenyl ether	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
4-Nitroaniline	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
4-Nitrophenol	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Acenaphthene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Acenaphthylene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Acetophenone	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Anthracene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Benzo[a]anthracene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Benzo[a]pyrene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Benzo[b]fluoranthene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Benzo[g,h,i]perylene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Benzo[k]fluoranthene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Benzyl alcohol	ND		20		ug/L		08/01/17 14:22	08/02/17 17:16	1
Bis(2-chloroethoxy)methane	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Bis(2-chloroethyl)ether	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Bis(2-ethylhexyl) phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
bis (2-chloroisopropyl) ether	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Butyl benzyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Chrysene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Diallate	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Dibenz(a,h)anthracene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Dibenzofuran	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Diethyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Dimethoate	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Dimethyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Di-n-butyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Di-n-octyl phthalate	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Dinoseb	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Diphenylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Disulfoton	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Ethyl methanesulfonate	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Famphur	ND		40		ug/L		08/01/17 14:22	08/02/17 17:16	1
Fluoranthene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Fluorene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Hexachlorobenzene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Hexachlorobutadiene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Hexachlorocyclopentadiene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Hexachloroethane	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Hexachloropropene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Isodrin	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Isophorone	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Isosafrole	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Methapyrilene	ND		50		ug/L		08/01/17 14:22	08/02/17 17:16	1
Methyl methanesulfonate	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Safrole	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1

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

Lab Sample ID: MB 480-369875/1-A
Matrix: Water
Analysis Batch: 370105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369875

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thionazin	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Naphthalene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Nitrobenzene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
N-Nitro-o-toluidine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
N-Nitrosodiethylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
N-Nitrosodimethylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
N-Nitrosodi-n-propylamine	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
N-Nitrosodiphenylamine	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
N-Nitrosomethylethylamine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
N-Nitrosopiperidine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
N-Nitrosopyrrolidine	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Parathion ethyl	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Parathion methyl	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
p-Dimethylamino azobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Pentachlorobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Pentachloronitrobenzene	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Pentachlorophenol	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Phenacetin	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
Phenanthrene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Phenol	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Phorate	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1
p-Phenylene diamine	ND		800		ug/L		08/01/17 14:22	08/02/17 17:16	1
Pyrene	ND		5.0		ug/L		08/01/17 14:22	08/02/17 17:16	1
Pronamide	ND		10		ug/L		08/01/17 14:22	08/02/17 17:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*48 - 120*	*08/01/17 14:22*	*08/02/17 17:16*	*1*
2-Fluorophenol (Surr)	*75*		*35 - 120*	*08/01/17 14:22*	*08/02/17 17:16*	*1*
2,4,6-Tribromophenol (Surr)	*103*		*41 - 120*	*08/01/17 14:22*	*08/02/17 17:16*	*1*
Nitrobenzene-d5 (Surr)	*102*		*46 - 120*	*08/01/17 14:22*	*08/02/17 17:16*	*1*
Phenol-d5 (Surr)	*56*		*22 - 120*	*08/01/17 14:22*	*08/02/17 17:16*	*1*
p-Terphenyl-d14 (Surr)	*101*		*59 - 136*	*08/01/17 14:22*	*08/02/17 17:16*	*1*

Lab Sample ID: LCS 480-369875/2-A
Matrix: Water
Analysis Batch: 370105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369875

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	32.0	29.5		ug/L		92	53 - 120
1,2,4-Trichlorobenzene	32.0	28.9		ug/L		90	40 - 120
1,2-Dichlorobenzene	32.0	27.7		ug/L		86	49 - 120
1,3-Dichlorobenzene	32.0	27.8		ug/L		87	50 - 120
1,3-Dinitrobenzene	32.0	37.5		ug/L		117	68 - 131
1,4-Dichlorobenzene	32.0	27.1		ug/L		85	51 - 120
2,3,4,6-Tetrachlorophenol	32.0	35.4		ug/L		111	63 - 120
2,4,5-Trichlorophenol	32.0	36.0		ug/L		113	65 - 126

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

Lab Sample ID: LCS 480-369875/2-A
Matrix: Water
Analysis Batch: 370105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369875

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,6-Trichlorophenol	32.0	31.6		ug/L		99	64 - 120
2,4-Dichlorophenol	32.0	33.2		ug/L		104	63 - 120
2,4-Dimethylphenol	32.0	32.1		ug/L		100	47 - 120
2,4-Dinitrophenol	64.0	78.6		ug/L		123	31 - 137
2,4-Dinitrotoluene	32.0	35.2		ug/L		110	69 - 120
2,6-Dichlorophenol	32.0	32.8		ug/L		102	62 - 120
2,6-Dinitrotoluene	32.0	34.4		ug/L		108	68 - 120
2-Chloronaphthalene	32.0	30.0		ug/L		94	58 - 120
2-Chlorophenol	32.0	30.5		ug/L		95	48 - 120
2-Methylnaphthalene	32.0	29.7		ug/L		93	59 - 120
2-Methylphenol	32.0	27.2		ug/L		85	39 - 120
2-Nitroaniline	32.0	31.4		ug/L		98	54 - 127
2-Nitrophenol	32.0	34.1		ug/L		106	52 - 125
3-Methylphenol	32.0	26.9		ug/L		84	39 - 120
4-Methylphenol	32.0	26.9		ug/L		84	29 - 131
3,3'-Dichlorobenzidine	64.0	71.8	E	ug/L		112	49 - 135
3-Nitroaniline	32.0	30.5		ug/L		95	51 - 120
4,6-Dinitro-2-methylphenol	64.0	62.9		ug/L		98	46 - 136
4-Bromophenyl phenyl ether	32.0	33.9		ug/L		106	65 - 120
4-Chloro-3-methylphenol	32.0	34.6		ug/L		108	61 - 123
4-Chloroaniline	32.0	26.1		ug/L		82	30 - 120
4-Chlorophenyl phenyl ether	32.0	32.5		ug/L		102	62 - 120
4-Nitroaniline	32.0	33.9		ug/L		106	65 - 120
4-Nitrophenol	64.0	52.1		ug/L		81	45 - 120
Acenaphthene	32.0	29.8		ug/L		93	60 - 120
Acenaphthylene	32.0	31.8		ug/L		99	63 - 120
Acetophenone	32.0	28.1		ug/L		88	45 - 120
Anthracene	32.0	32.7		ug/L		102	67 - 120
Benzo[a]anthracene	32.0	34.9		ug/L		109	70 - 121
Benzo[a]pyrene	32.0	32.8		ug/L		103	60 - 123
Benzo[b]fluoranthene	32.0	33.4		ug/L		104	66 - 126
Benzo[g,h,i]perylene	32.0	35.5		ug/L		111	66 - 150
Benzo[k]fluoranthene	32.0	32.8		ug/L		102	65 - 124
Benzyl alcohol	32.0	28.8		ug/L		90	41 - 126
Bis(2-chloroethoxy)methane	32.0	31.3		ug/L		98	50 - 128
Bis(2-chloroethyl)ether	32.0	29.3		ug/L		92	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	31.9		ug/L		100	63 - 139
bis (2-chloroisopropyl) ether	32.0	28.4		ug/L		89	21 - 136
Butyl benzyl phthalate	32.0	34.9		ug/L		109	70 - 129
Chrysene	32.0	33.1		ug/L		104	69 - 120
Dibenz(a,h)anthracene	32.0	34.5		ug/L		108	65 - 135
Dibenzofuran	32.0	31.5		ug/L		98	66 - 120
Diethyl phthalate	32.0	33.4		ug/L		104	59 - 127
Dimethyl phthalate	32.0	33.3		ug/L		104	68 - 120
Di-n-butyl phthalate	32.0	33.1		ug/L		103	69 - 131
Di-n-octyl phthalate	32.0	34.3		ug/L		107	63 - 140
Diphenylamine	27.4	25.3		ug/L		93	61 - 120
Fluoranthene	32.0	35.1		ug/L		110	69 - 126

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

Lab Sample ID: LCS 480-369875/2-A
Matrix: Water
Analysis Batch: 370105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369875

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluorene	32.0	30.7		ug/L		96	66 - 120
Hexachlorobenzene	32.0	34.2		ug/L		107	61 - 120
Hexachlorobutadiene	32.0	27.5		ug/L		86	35 - 120
Hexachlorocyclopentadiene	32.0	23.6		ug/L		74	31 - 120
Hexachloroethane	32.0	23.5		ug/L		74	43 - 120
Indeno[1,2,3-cd]pyrene	32.0	35.4		ug/L		111	69 - 146
Isophorone	32.0	31.8		ug/L		99	55 - 120
Naphthalene	32.0	29.9		ug/L		93	57 - 120
Nitrobenzene	32.0	30.9		ug/L		96	53 - 123
N-Nitrosodimethylamine	32.0	22.1		ug/L		69	10 - 120
N-Nitrosodi-n-propylamine	32.0	27.6		ug/L		86	32 - 140
N-Nitrosodiphenylamine	32.0	29.6		ug/L		93	61 - 120
Pentachlorophenol	64.0	67.7		ug/L		106	29 - 136
Phenanthrene	32.0	32.0		ug/L		100	68 - 120
Phenol	32.0	20.8		ug/L		65	17 - 120
Pyrene	32.0	35.1		ug/L		110	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*97*		*48 - 120*
2-Fluorophenol (Surr)	*81*		*35 - 120*
2,4,6-Tribromophenol (Surr)	*107*		*41 - 120*
Nitrobenzene-d5 (Surr)	*101*		*46 - 120*
Phenol-d5 (Surr)	*64*		*22 - 120*
p-Terphenyl-d14 (Surr)	*118*		*59 - 136*

Lab Sample ID: LCSD 480-369875/3-A
Matrix: Water
Analysis Batch: 370105

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 369875

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4,5-Tetrachlorobenzene	32.0	27.1		ug/L		85	53 - 120	8	30
1,2,4-Trichlorobenzene	32.0	29.3		ug/L		92	40 - 120	1	30
1,2-Dichlorobenzene	32.0	28.0		ug/L		88	49 - 120	1	29
1,3-Dichlorobenzene	32.0	27.5		ug/L		86	50 - 120	1	37
1,3-Dinitrobenzene	32.0	37.6		ug/L		117	68 - 131	0	18
1,4-Dichlorobenzene	32.0	27.9		ug/L		87	51 - 120	3	36
2,3,4,6-Tetrachlorophenol	32.0	35.6		ug/L		111	63 - 120	1	30
2,4,5-Trichlorophenol	32.0	33.4		ug/L		104	65 - 126	8	18
2,4,6-Trichlorophenol	32.0	29.0		ug/L		91	64 - 120	8	19
2,4-Dichlorophenol	32.0	33.3		ug/L		104	63 - 120	0	19
2,4-Dimethylphenol	32.0	30.1		ug/L		94	47 - 120	6	42
2,4-Dinitrophenol	64.0	77.6		ug/L		121	31 - 137	1	22
2,4-Dinitrotoluene	32.0	35.1		ug/L		110	69 - 120	0	20
2,6-Dichlorophenol	32.0	32.2		ug/L		101	62 - 120	2	30
2,6-Dinitrotoluene	32.0	33.3		ug/L		104	68 - 120	3	15
2-Chloronaphthalene	32.0	28.0		ug/L		88	58 - 120	7	21
2-Chlorophenol	32.0	30.8		ug/L		96	48 - 120	1	25
2-Methylnaphthalene	32.0	29.7		ug/L		93	59 - 120	0	21

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

Lab Sample ID: LCSD 480-369875/3-A
Matrix: Water
Analysis Batch: 370105

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 369875

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylphenol	32.0	28.9		ug/L		90	39 - 120	6	27
2-Nitroaniline	32.0	29.1		ug/L		91	54 - 127	8	15
2-Nitrophenol	32.0	34.3		ug/L		107	52 - 125	1	18
3-Methylphenol	32.0	30.0		ug/L		94	39 - 120	11	30
4-Methylphenol	32.0	30.0		ug/L		94	29 - 131	11	24
3,3'-Dichlorobenzidine	64.0	71.0	E	ug/L		111	49 - 135	1	25
3-Nitroaniline	32.0	31.0		ug/L		97	51 - 120	2	19
4,6-Dinitro-2-methylphenol	64.0	68.1		ug/L		106	46 - 136	8	15
4-Bromophenyl phenyl ether	32.0	33.9		ug/L		106	65 - 120	0	15
4-Chloro-3-methylphenol	32.0	34.0		ug/L		106	61 - 123	2	27
4-Chloroaniline	32.0	27.1		ug/L		85	30 - 120	4	22
4-Chlorophenyl phenyl ether	32.0	33.0		ug/L		103	62 - 120	1	16
4-Nitroaniline	32.0	30.7		ug/L		96	65 - 120	10	24
4-Nitrophenol	64.0	55.4		ug/L		87	45 - 120	6	48
Acenaphthene	32.0	30.0		ug/L		94	60 - 120	0	24
Acenaphthylene	32.0	30.8		ug/L		96	63 - 120	3	18
Acetophenone	32.0	31.4		ug/L		98	45 - 120	11	20
Anthracene	32.0	33.8		ug/L		106	67 - 120	3	15
Benzo[a]anthracene	32.0	34.1		ug/L		107	70 - 121	2	15
Benzo[a]pyrene	32.0	31.9		ug/L		100	60 - 123	3	15
Benzo[b]fluoranthene	32.0	33.0		ug/L		103	66 - 126	1	15
Benzo[g,h,i]perylene	32.0	35.0		ug/L		109	66 - 150	1	15
Benzo[k]fluoranthene	32.0	32.9		ug/L		103	65 - 124	0	22
Benzyl alcohol	32.0	29.3		ug/L		92	41 - 126	2	34
Bis(2-chloroethoxy)methane	32.0	30.6		ug/L		96	50 - 128	2	17
Bis(2-chloroethyl)ether	32.0	29.0		ug/L		91	44 - 120	1	21
Bis(2-ethylhexyl) phthalate	32.0	31.4		ug/L		98	63 - 139	1	15
bis (2-chloroisopropyl) ether	32.0	31.2		ug/L		97	21 - 136	9	24
Butyl benzyl phthalate	32.0	32.8		ug/L		103	70 - 129	6	16
Chrysene	32.0	33.1		ug/L		104	69 - 120	0	15
Dibenz(a,h)anthracene	32.0	34.2		ug/L		107	65 - 135	1	15
Dibenzofuran	32.0	31.6		ug/L		99	66 - 120	0	15
Diethyl phthalate	32.0	33.2		ug/L		104	59 - 127	1	15
Dimethyl phthalate	32.0	30.8		ug/L		96	68 - 120	8	15
Di-n-butyl phthalate	32.0	33.2		ug/L		104	69 - 131	0	15
Di-n-octyl phthalate	32.0	33.8		ug/L		105	63 - 140	1	16
Diphenylamine	27.4	27.6		ug/L		101	61 - 120	8	30
Fluoranthene	32.0	31.3		ug/L		98	69 - 126	11	15
Fluorene	32.0	31.6		ug/L		99	66 - 120	3	15
Hexachlorobenzene	32.0	33.9		ug/L		106	61 - 120	1	15
Hexachlorobutadiene	32.0	27.4		ug/L		86	35 - 120	0	44
Hexachlorocyclopentadiene	32.0	21.5		ug/L		67	31 - 120	9	49
Hexachloroethane	32.0	26.4		ug/L		82	43 - 120	11	46
Indeno[1,2,3-cd]pyrene	32.0	35.0		ug/L		109	69 - 146	1	15
Isophorone	32.0	31.3		ug/L		98	55 - 120	1	17
Naphthalene	32.0	29.6		ug/L		92	57 - 120	1	29
Nitrobenzene	32.0	30.5		ug/L		95	53 - 123	1	24
N-Nitrosodimethylamine	32.0	24.4		ug/L		76	10 - 120	10	30

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

Lab Sample ID: LCSD 480-369875/3-A
Matrix: Water
Analysis Batch: 370105

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 369875

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodi-n-propylamine	32.0	31.0		ug/L		97	32 - 140	11	31
N-Nitrosodiphenylamine	32.0	32.2		ug/L		101	61 - 120	8	15
Pentachlorophenol	64.0	65.2		ug/L		102	29 - 136	4	37
Phenanthrene	32.0	32.2		ug/L		101	68 - 120	1	15
Phenol	32.0	20.6		ug/L		64	17 - 120	1	34
Pyrene	32.0	30.9		ug/L		97	70 - 125	13	19

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*48 - 120*
2-Fluorophenol (Surr)	*95*		*35 - 120*
2,4,6-Tribromophenol (Surr)	*111*		*41 - 120*
Nitrobenzene-d5 (Surr)	*99*		*46 - 120*
Phenol-d5 (Surr)	*65*		*22 - 120*
p-Terphenyl-d14 (Surr)	*102*		*59 - 136*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-370725/1-A
Matrix: Water
Analysis Batch: 370967

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 370725

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
4,4'-DDE	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
4,4'-DDT	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Aldrin	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
alpha-BHC	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
beta-BHC	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Chlordane (technical)	ND		0.50		ug/L		08/07/17 08:12	08/08/17 09:31	1
delta-BHC	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Dieldrin	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Endosulfan I	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Endosulfan II	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Endosulfan sulfate	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Endrin	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Endrin aldehyde	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
gamma-BHC (Lindane)	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Heptachlor	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Methoxychlor	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1
Toxaphene	ND		0.50		ug/L		08/07/17 08:12	08/08/17 09:31	1
Heptachlor epoxide	ND		0.050		ug/L		08/07/17 08:12	08/08/17 09:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*46*		*20 - 120*	*08/07/17 08:12*	*08/08/17 09:31*	*1*
DCB Decachlorobiphenyl	*47*		*20 - 120*	*08/07/17 08:12*	*08/08/17 09:31*	*1*
Tetrachloro-m-xylene	*75*		*44 - 120*	*08/07/17 08:12*	*08/08/17 09:31*	*1*
Tetrachloro-m-xylene	*67*		*44 - 120*	*08/07/17 08:12*	*08/08/17 09:31*	*1*

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

Lab Sample ID: LCS 480-370725/2-A
Matrix: Water
Analysis Batch: 370967

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 370725

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.400	0.360		ug/L		90	64 - 129
4,4'-DDE	0.400	0.309		ug/L		77	50 - 120
4,4'-DDT	0.400	0.378		ug/L		94	59 - 120
Aldrin	0.400	0.253		ug/L		63	40 - 125
alpha-BHC	0.400	0.284		ug/L		71	52 - 125
beta-BHC	0.400	0.327		ug/L		82	51 - 120
delta-BHC	0.400	0.337		ug/L		84	51 - 120
Dieldrin	0.400	0.356		ug/L		89	66 - 128
Endosulfan I	0.400	0.345		ug/L		86	57 - 120
Endosulfan II	0.400	0.347		ug/L		87	66 - 131
Endosulfan sulfate	0.400	0.410		ug/L		102	66 - 136
Endrin	0.400	0.373		ug/L		93	65 - 135
Endrin aldehyde	0.400	0.285		ug/L		71	61 - 134
gamma-BHC (Lindane)	0.400	0.321		ug/L		80	56 - 120
Heptachlor	0.400	0.327		ug/L		82	58 - 120
Methoxychlor	0.400	0.387		ug/L		97	50 - 150
Heptachlor epoxide	0.400	0.353		ug/L		88	65 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*44*		*20 - 120*
DCB Decachlorobiphenyl	*46*		*20 - 120*
Tetrachloro-m-xylene	*77*		*44 - 120*
Tetrachloro-m-xylene	*68*		*44 - 120*

Lab Sample ID: LCSD 480-370725/3-A
Matrix: Water
Analysis Batch: 370967

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 370725

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.400	0.368		ug/L		92	64 - 129	2	23
4,4'-DDE	0.400	0.315		ug/L		79	50 - 120	2	22
4,4'-DDT	0.400	0.384		ug/L		96	59 - 120	2	24
Aldrin	0.400	0.260		ug/L		65	40 - 125	3	25
alpha-BHC	0.400	0.287		ug/L		72	52 - 125	1	24
beta-BHC	0.400	0.339		ug/L		85	51 - 120	4	24
delta-BHC	0.400	0.347		ug/L		87	51 - 120	3	24
Dieldrin	0.400	0.377		ug/L		94	66 - 128	6	24
Endosulfan I	0.400	0.361		ug/L		90	57 - 120	5	30
Endosulfan II	0.400	0.366		ug/L		92	66 - 131	5	40
Endosulfan sulfate	0.400	0.420		ug/L		105	66 - 136	2	24
Endrin	0.400	0.387		ug/L		97	65 - 135	4	24
Endrin aldehyde	0.400	0.286		ug/L		71	61 - 134	0	28
gamma-BHC (Lindane)	0.400	0.332		ug/L		83	56 - 120	3	24
Heptachlor	0.400	0.332		ug/L		83	58 - 120	1	25
Methoxychlor	0.400	0.394		ug/L		99	50 - 150	2	26
Heptachlor epoxide	0.400	0.366		ug/L		91	65 - 125	4	23

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

Lab Sample ID: LCSD 480-370725/3-A
Matrix: Water
Analysis Batch: 370967

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 370725

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*37*		*20 - 120*
DCB Decachlorobiphenyl	*37*		*20 - 120*
Tetrachloro-m-xylene	*79*		*44 - 120*
Tetrachloro-m-xylene	*65*		*44 - 120*

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

Lab Sample ID: MB 480-370244/1-A
Matrix: Water
Analysis Batch: 370374

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 370244

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		08/03/17 07:51	08/03/17 21:37	1
PCB-1221	ND		0.50		ug/L		08/03/17 07:51	08/03/17 21:37	1
PCB-1232	ND		0.50		ug/L		08/03/17 07:51	08/03/17 21:37	1
PCB-1242	ND		0.50		ug/L		08/03/17 07:51	08/03/17 21:37	1
PCB-1248	ND		0.50		ug/L		08/03/17 07:51	08/03/17 21:37	1
PCB-1254	ND		0.50		ug/L		08/03/17 07:51	08/03/17 21:37	1
PCB-1260	ND		0.50		ug/L		08/03/17 07:51	08/03/17 21:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*39 - 121*	*08/03/17 07:51*	*08/03/17 21:37*	*1*
Tetrachloro-m-xylene	*71*		*39 - 121*	*08/03/17 07:51*	*08/03/17 21:37*	*1*
DCB Decachlorobiphenyl	*44*		*19 - 120*	*08/03/17 07:51*	*08/03/17 21:37*	*1*
DCB Decachlorobiphenyl	*31*		*19 - 120*	*08/03/17 07:51*	*08/03/17 21:37*	*1*

Lab Sample ID: LCS 480-370244/2-A
Matrix: Water
Analysis Batch: 370374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 370244

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	4.09		ug/L		102	62 - 130
PCB-1260	4.00	3.14		ug/L		78	56 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*106*		*39 - 121*
Tetrachloro-m-xylene	*77*		*39 - 121*
DCB Decachlorobiphenyl	*50*		*19 - 120*
DCB Decachlorobiphenyl	*39*		*19 - 120*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-369978/1-A
Matrix: Water
Analysis Batch: 370372

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.50		ug/L		08/02/17 07:28	08/03/17 18:57	1
2,4-D	ND		0.50		ug/L		08/02/17 07:28	08/03/17 18:57	1
Dinoseb	ND		0.50		ug/L		08/02/17 07:28	08/03/17 18:57	1
Silvex (2,4,5-TP)	ND		0.50		ug/L		08/02/17 07:28	08/03/17 18:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*90*		*48 - 132*	*08/02/17 07:28*	*08/03/17 18:57*	*1*
2,4-Dichlorophenylacetic acid	*106*		*48 - 132*	*08/02/17 07:28*	*08/03/17 18:57*	*1*

Lab Sample ID: LCS 480-369978/2-A
Matrix: Water
Analysis Batch: 370372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	2.00	2.07		ug/L		103	41 - 150
2,4-D	2.00	2.19		ug/L		109	36 - 150
Dinoseb	2.00	1.63		ug/L		82	21 - 120
Silvex (2,4,5-TP)	2.00	2.20		ug/L		110	49 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*113*		*48 - 132*
2,4-Dichlorophenylacetic acid	*115*		*48 - 132*

Lab Sample ID: LCSD 480-369978/3-A
Matrix: Water
Analysis Batch: 370372

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 369978

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	2.00	1.67		ug/L		83	41 - 150	21	50
2,4-D	2.00	2.14		ug/L		107	36 - 150	2	50
Dinoseb	2.00	1.15		ug/L		57	21 - 120	35	50
Silvex (2,4,5-TP)	2.00	1.60		ug/L		80	49 - 150	32	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*67*		*48 - 132*
2,4-Dichlorophenylacetic acid	*77*		*48 - 132*

Method: 8280B - Dioxins and Furans (HRGC/LRMS)

Lab Sample ID: MB 320-178429/1-A
Matrix: Water
Analysis Batch: 178857

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 178429

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		5.0		ng/L		08/09/17 07:51	08/10/17 17:58	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	66		25 - 150	08/09/17 07:51	08/10/17 17:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	108		25 - 150	08/09/17 07:51	08/10/17 17:58	1

Lab Sample ID: LCS 320-178429/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 178857 — **Prep Batch: 178429**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	25.0	24.2		ng/L		97	67 - 127

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	70		25 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
37Cl4-2,3,7,8-TCDD	112		25 - 150

Lab Sample ID: LCSD 320-178429/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 178857 — **Prep Batch: 178429**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	25.0	21.5		ng/L		86	67 - 127	12	60

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C-2,3,7,8-TCDD	70		25 - 150

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
37Cl4-2,3,7,8-TCDD	105		25 - 150

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-369915/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371217 — **Prep Batch: 369915**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20		mg/L		08/02/17 08:13	08/08/17 15:13	1
Antimony	ND		0.020		mg/L		08/02/17 08:13	08/08/17 15:13	1
Arsenic	ND		0.015		mg/L		08/02/17 08:13	08/08/17 15:13	1
Barium	ND		0.0020		mg/L		08/02/17 08:13	08/08/17 15:13	1
Beryllium	ND		0.0020		mg/L		08/02/17 08:13	08/08/17 15:13	1
Boron	ND		0.020		mg/L		08/02/17 08:13	08/08/17 15:13	1
Cadmium	ND		0.0020		mg/L		08/02/17 08:13	08/08/17 15:13	1
Calcium	ND		0.50		mg/L		08/02/17 08:13	08/08/17 15:13	1
Chromium	ND		0.0040		mg/L		08/02/17 08:13	08/08/17 15:13	1
Cobalt	ND		0.0040		mg/L		08/02/17 08:13	08/08/17 15:13	1
Copper	ND		0.010		mg/L		08/02/17 08:13	08/08/17 15:13	1
Iron	ND		0.050		mg/L		08/02/17 08:13	08/08/17 15:13	1
Lead	ND		0.010		mg/L		08/02/17 08:13	08/08/17 15:13	1
Magnesium	ND		0.20		mg/L		08/02/17 08:13	08/08/17 15:13	1
Manganese	ND		0.0030		mg/L		08/02/17 08:13	08/08/17 15:13	1

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

Lab Sample ID: MB 480-369915/1-A
Matrix: Water
Analysis Batch: 371217

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369915

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.010		mg/L		08/02/17 08:13	08/08/17 15:13	1
Potassium	ND		0.50		mg/L		08/02/17 08:13	08/08/17 15:13	1
Selenium	ND		0.025		mg/L		08/02/17 08:13	08/08/17 15:13	1
Silver	ND		0.0060		mg/L		08/02/17 08:13	08/08/17 15:13	1
Sodium	ND		1.0		mg/L		08/02/17 08:13	08/08/17 15:13	1
Thallium	ND		0.020		mg/L		08/02/17 08:13	08/08/17 15:13	1
Tin	ND		0.010		mg/L		08/02/17 08:13	08/08/17 15:13	1
Vanadium	ND		0.0050		mg/L		08/02/17 08:13	08/08/17 15:13	1
Zinc	ND		0.010		mg/L		08/02/17 08:13	08/08/17 15:13	1

Lab Sample ID: LCS 480-369915/2-A
Matrix: Water
Analysis Batch: 371217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.19		mg/L		102	80 - 120
Antimony	0.200	0.201		mg/L		100	80 - 120
Arsenic	0.200	0.201		mg/L		101	80 - 120
Barium	0.200	0.205		mg/L		103	80 - 120
Beryllium	0.200	0.204		mg/L		102	80 - 120
Boron	0.200	0.207		mg/L		104	80 - 120
Cadmium	0.200	0.203		mg/L		102	80 - 120
Calcium	10.0	10.23		mg/L		102	80 - 120
Chromium	0.200	0.200		mg/L		100	80 - 120
Cobalt	0.200	0.193		mg/L		97	80 - 120
Copper	0.200	0.199		mg/L		99	80 - 120
Iron	10.0	10.58		mg/L		106	80 - 120
Lead	0.200	0.205		mg/L		102	80 - 120
Magnesium	10.0	10.29		mg/L		103	80 - 120
Manganese	0.200	0.212		mg/L		106	80 - 120
Nickel	0.200	0.197		mg/L		99	80 - 120
Potassium	10.0	10.00		mg/L		100	80 - 120
Selenium	0.200	0.202		mg/L		101	80 - 120
Silver	0.0500	0.0501		mg/L		100	80 - 120
Sodium	10.0	9.97		mg/L		100	80 - 120
Thallium	0.200	0.204		mg/L		102	80 - 120
Tin	0.200	0.183		mg/L		92	80 - 120
Vanadium	0.200	0.206		mg/L		103	80 - 120
Zinc	0.200	0.208		mg/L		104	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-369814/1-A
Matrix: Water
Analysis Batch: 370077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369814

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		08/01/17 11:35	08/01/17 15:08	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 480-369814/2-A
Matrix: Water
Analysis Batch: 370077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369814

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00623		mg/L		93	80 - 120

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 480-369942/3
Matrix: Water
Analysis Batch: 369942

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		1.00		NTU			08/01/17 17:07	1

Lab Sample ID: LCS 480-369942/4
Matrix: Water
Analysis Batch: 369942

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Turbidity	10.2	10.70		NTU		105	90 - 110

Lab Sample ID: 480-121971-1 DU
Matrix: Water
Analysis Batch: 369942

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Turbidity	172		176.0		NTU		2	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-372452/4
Matrix: Water
Analysis Batch: 372452

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			08/16/17 16:26	1

Lab Sample ID: LCS 480-372452/3
Matrix: Water
Analysis Batch: 372452

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.02		mg/L		100	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-371295/27
Matrix: Water
Analysis Batch: 371295

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			08/09/17 11:23	1

Lab Sample ID: MB 480-371295/3
Matrix: Water
Analysis Batch: 371295

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			08/09/17 11:02	1

Lab Sample ID: MB 480-371295/51
Matrix: Water
Analysis Batch: 371295

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			08/09/17 11:44	1

Lab Sample ID: LCS 480-371295/28
Matrix: Water
Analysis Batch: 371295

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

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

Lab Sample ID: LCS 480-371295/4
Matrix: Water
Analysis Batch: 371295

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

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

Lab Sample ID: LCS 480-371295/52
Matrix: Water
Analysis Batch: 371295

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

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

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-369985/1-A
Matrix: Water
Analysis Batch: 370143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 369985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L as N		08/02/17 07:30	08/02/17 12:58	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 480-369985/2-A
Matrix: Water
Analysis Batch: 370143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 369985

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

Method: 410.4 - COD

Lab Sample ID: MB 480-370398/3
Matrix: Water
Analysis Batch: 370398

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			08/03/17 14:00	1

Lab Sample ID: LCS 480-370398/4
Matrix: Water
Analysis Batch: 370398

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	25.01		mg/L		100	90 - 110

Lab Sample ID: 480-121971-1 MS
Matrix: Water
Analysis Batch: 370398

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	107		50.0	148.2		mg/L		82	75 - 125

Lab Sample ID: 480-121971-1 DU
Matrix: Water
Analysis Batch: 370398

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	107		106.1		mg/L		1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-369731/3
Matrix: Water
Analysis Batch: 369731

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.010		mg/L			08/01/17 04:52	1

Lab Sample ID: LCS 480-369731/4
Matrix: Water
Analysis Batch: 369731

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0500	0.0506		mg/L		101	85 - 115

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 480-121971-1 MS
Matrix: Water
Analysis Batch: 369731

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	ND		0.500	0.445		mg/L		89	85 - 115

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-371403/1-A
Matrix: Water
Analysis Batch: 371497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371403

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	^	0.010		mg/L		08/10/17 03:10	08/10/17 10:12	1

Lab Sample ID: LCS 480-371403/2-A
Matrix: Water
Analysis Batch: 371497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.407	^	mg/L		102	90 - 110

Lab Sample ID: LCS 480-371403/3-A
Matrix: Water
Analysis Batch: 371497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371403

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.255	^	mg/L		102	90 - 110

Method: 9038 - Sulfate, Turbidimetric

Lab Sample ID: MB 480-370399/25
Matrix: Water
Analysis Batch: 370399

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			08/03/17 11:07	1

Lab Sample ID: MB 480-370399/45
Matrix: Water
Analysis Batch: 370399

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			08/03/17 11:20	1

Lab Sample ID: LCS 480-370399/24
Matrix: Water
Analysis Batch: 370399

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	29.02		mg/L		97	90 - 110

Method: 9038 - Sulfate, Turbidimetric (Continued)

Lab Sample ID: LCS 480-370399/44
Matrix: Water
Analysis Batch: 370399

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	29.48		mg/L		98	90 - 110

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

Lab Sample ID: MB 480-371175/4
Matrix: Water
Analysis Batch: 371175

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			08/09/17 07:25	1

Lab Sample ID: LCS 480-371175/5
Matrix: Water
Analysis Batch: 371175

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	57.72		mg/L		96	90 - 110

Method: 9065 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-371247/1-A
Matrix: Water
Analysis Batch: 371401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371247

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L		08/09/17 10:57	08/10/17 01:57	1

Lab Sample ID: LCS 480-371247/2-A
Matrix: Water
Analysis Batch: 371401

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371247

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.100	0.0941		mg/L		94	90 - 110

Lab Sample ID: 480-121971-1 DU
Matrix: Water
Analysis Batch: 371401

Client Sample ID: Leachate
Prep Type: Total/NA
Prep Batch: 371247

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phenolics, Total Recoverable	0.014		0.0151		mg/L		6	20

Method: 9251 - Chloride

Lab Sample ID: MB 480-369943/18
Matrix: Water
Analysis Batch: 369943

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			08/01/17 13:56	1

Lab Sample ID: MB 480-369943/27
Matrix: Water
Analysis Batch: 369943

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			08/01/17 14:47	1

Lab Sample ID: MB 480-369943/8
Matrix: Water
Analysis Batch: 369943

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			08/01/17 13:49	1

Lab Sample ID: LCS 480-369943/19
Matrix: Water
Analysis Batch: 369943

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	25.89		mg/L		104	90 - 110

Lab Sample ID: LCS 480-369943/28
Matrix: Water
Analysis Batch: 369943

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	26.23		mg/L		105	90 - 110

Lab Sample ID: LCS 480-369943/9
Matrix: Water
Analysis Batch: 369943

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	26.12		mg/L		104	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 480-369941/3
Matrix: Water
Analysis Batch: 369941

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			08/01/17 16:05	1

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

Lab Sample ID: LCS 480-369941/4
Matrix: Water
Analysis Batch: 369941

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 480-369966/30
Matrix: Water
Analysis Batch: 369966

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			08/01/17 21:00	1

Lab Sample ID: LCS 480-369966/31
Matrix: Water
Analysis Batch: 369966

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	95.47		mg/L		95	90 - 110

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

Lab Sample ID: MB 480-369963/1
Matrix: Water
Analysis Batch: 369963

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			08/02/17 04:14	1

Lab Sample ID: LCS 480-369963/2
Matrix: Water
Analysis Batch: 369963

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	502	518.0		mg/L		103	85 - 115

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-370168/3
Matrix: Water
Analysis Batch: 370168

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.67		mg/L			08/02/17 13:45	1

Method: SM 4500 S2 F - Sulfide, Total (Continued)

Lab Sample ID: LCS 480-370168/4
Matrix: Water
Analysis Batch: 370168

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

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: 480-121971-1 DU
Matrix: Water
Analysis Batch: 370168

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	2.4		2.40		mg/L		0	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-369945/1
Matrix: Water
Analysis Batch: 369945

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			08/01/17 15:10	1

Lab Sample ID: LCS 480-369945/2
Matrix: Water
Analysis Batch: 369945

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	171.3		mg/L		87	85 - 115

GC/MS VOA

Analysis Batch: 371230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	8260C	
MB 480-371230/6	Method Blank	Total/NA	Water	8260C	
LCS 480-371230/4	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 369875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	3510C	
480-121971-1 - RA	Leachate	Total/NA	Water	3510C	
MB 480-369875/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-369875/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-369875/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 370105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	8270D	369875
MB 480-369875/1-A	Method Blank	Total/NA	Water	8270D	369875
LCS 480-369875/2-A	Lab Control Sample	Total/NA	Water	8270D	369875
LCSD 480-369875/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	369875

Analysis Batch: 371547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1 - RA	Leachate	Total/NA	Water	8270D	369875

GC Semi VOA

Prep Batch: 369978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	8151A	
MB 480-369978/1-A	Method Blank	Total/NA	Water	8151A	
LCS 480-369978/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 480-369978/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Prep Batch: 370244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	3510C	
MB 480-370244/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-370244/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 370372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	8151A	369978
MB 480-369978/1-A	Method Blank	Total/NA	Water	8151A	369978
LCS 480-369978/2-A	Lab Control Sample	Total/NA	Water	8151A	369978
LCSD 480-369978/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	369978

Analysis Batch: 370374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	8082A	370244

GC Semi VOA (Continued)

Analysis Batch: 370374 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-370244/1-A	Method Blank	Total/NA	Water	8082A	370244
LCS 480-370244/2-A	Lab Control Sample	Total/NA	Water	8082A	370244

Prep Batch: 370725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	3510C	
MB 480-370725/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-370725/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-370725/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 370967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	8081B	370725
MB 480-370725/1-A	Method Blank	Total/NA	Water	8081B	370725
LCS 480-370725/2-A	Lab Control Sample	Total/NA	Water	8081B	370725
LCSD 480-370725/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	370725

Specialty Organics

Prep Batch: 178429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	8280B	
MB 320-178429/1-A	Method Blank	Total/NA	Water	8280B	
LCS 320-178429/2-A	Lab Control Sample	Total/NA	Water	8280B	
LCSD 320-178429/3-A	Lab Control Sample Dup	Total/NA	Water	8280B	

Analysis Batch: 178857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	8280B	178429
MB 320-178429/1-A	Method Blank	Total/NA	Water	8280B	178429
LCS 320-178429/2-A	Lab Control Sample	Total/NA	Water	8280B	178429
LCSD 320-178429/3-A	Lab Control Sample Dup	Total/NA	Water	8280B	178429

Metals

Prep Batch: 369814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	7470A	
MB 480-369814/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-369814/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 369915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	3005A	
MB 480-369915/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-369915/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 370077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	7470A	369814

Metals (Continued)

Analysis Batch: 370077 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-369814/1-A	Method Blank	Total/NA	Water	7470A	369814
LCS 480-369814/2-A	Lab Control Sample	Total/NA	Water	7470A	369814

Analysis Batch: 371217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	6010C	369915
MB 480-369915/1-A	Method Blank	Total/NA	Water	6010C	369915
LCS 480-369915/2-A	Lab Control Sample	Total/NA	Water	6010C	369915

General Chemistry

Analysis Batch: 369731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	7196A	
MB 480-369731/3	Method Blank	Total/NA	Water	7196A	
LCS 480-369731/4	Lab Control Sample	Total/NA	Water	7196A	
480-121971-1 MS	Leachate	Total/NA	Water	7196A	

Analysis Batch: 369941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	SM 2120B	
MB 480-369941/3	Method Blank	Total/NA	Water	SM 2120B	
LCS 480-369941/4	Lab Control Sample	Total/NA	Water	SM 2120B	

Analysis Batch: 369942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	180.1	
MB 480-369942/3	Method Blank	Total/NA	Water	180.1	
LCS 480-369942/4	Lab Control Sample	Total/NA	Water	180.1	
480-121971-1 DU	Leachate	Total/NA	Water	180.1	

Analysis Batch: 369943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	9251	
MB 480-369943/18	Method Blank	Total/NA	Water	9251	
MB 480-369943/27	Method Blank	Total/NA	Water	9251	
MB 480-369943/8	Method Blank	Total/NA	Water	9251	
LCS 480-369943/19	Lab Control Sample	Total/NA	Water	9251	
LCS 480-369943/28	Lab Control Sample	Total/NA	Water	9251	
LCS 480-369943/9	Lab Control Sample	Total/NA	Water	9251	

Analysis Batch: 369945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	SM 5210B	
USB 480-369945/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-369945/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 369959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	353.2	

General Chemistry (Continued)

Analysis Batch: 369963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	SM 2540C	
MB 480-369963/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-369963/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 369966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	SM 2320B	
MB 480-369966/30	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-369966/31	Lab Control Sample	Total/NA	Water	SM 2320B	

Prep Batch: 369985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	351.2	
MB 480-369985/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-369985/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 370143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	351.2	369985
MB 480-369985/1-A	Method Blank	Total/NA	Water	351.2	369985
LCS 480-369985/2-A	Lab Control Sample	Total/NA	Water	351.2	369985

Analysis Batch: 370168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	SM 4500 S2 F	
MB 480-370168/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-370168/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
480-121971-1 DU	Leachate	Total/NA	Water	SM 4500 S2 F	

Analysis Batch: 370398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	410.4	
MB 480-370398/3	Method Blank	Total/NA	Water	410.4	
LCS 480-370398/4	Lab Control Sample	Total/NA	Water	410.4	
480-121971-1 MS	Leachate	Total/NA	Water	410.4	
480-121971-1 DU	Leachate	Total/NA	Water	410.4	

Analysis Batch: 370399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	9038	
MB 480-370399/25	Method Blank	Total/NA	Water	9038	
MB 480-370399/45	Method Blank	Total/NA	Water	9038	
LCS 480-370399/24	Lab Control Sample	Total/NA	Water	9038	
LCS 480-370399/44	Lab Control Sample	Total/NA	Water	9038	

Analysis Batch: 371175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	9060A	
MB 480-371175/4	Method Blank	Total/NA	Water	9060A	
LCS 480-371175/5	Lab Control Sample	Total/NA	Water	9060A	

General Chemistry (Continued)

Prep Batch: 371247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	Distill/Phenol	
MB 480-371247/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 480-371247/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
480-121971-1 DU	Leachate	Total/NA	Water	Distill/Phenol	

Analysis Batch: 371295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	350.1	
MB 480-371295/27	Method Blank	Total/NA	Water	350.1	
MB 480-371295/3	Method Blank	Total/NA	Water	350.1	
MB 480-371295/51	Method Blank	Total/NA	Water	350.1	
LCS 480-371295/28	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-371295/4	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-371295/52	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 371401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	9065	371247
MB 480-371247/1-A	Method Blank	Total/NA	Water	9065	371247
LCS 480-371247/2-A	Lab Control Sample	Total/NA	Water	9065	371247
480-121971-1 DU	Leachate	Total/NA	Water	9065	371247

Prep Batch: 371403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	9012B	
MB 480-371403/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-371403/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-371403/3-A	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 371497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	9012B	371403
MB 480-371403/1-A	Method Blank	Total/NA	Water	9012B	371403
LCS 480-371403/2-A	Lab Control Sample	Total/NA	Water	9012B	371403
LCS 480-371403/3-A	Lab Control Sample	Total/NA	Water	9012B	371403

Analysis Batch: 372452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-121971-1	Leachate	Total/NA	Water	300.0	
MB 480-372452/4	Method Blank	Total/NA	Water	300.0	
LCS 480-372452/3	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

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

TestAmerica Job ID: 480-121971-1

Client Sample ID: Leachate

Date Collected: 07/31/17 13:30
Date Received: 08/01/17 02:00

Lab Sample ID: 480-121971-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	371230	08/09/17 18:56	ARS	TAL BUF
Total/NA	Prep	3510C			369875	08/01/17 14:22	SMP	TAL BUF
Total/NA	Analysis	8270D		1	370105	08/02/17 18:43	PJQ	TAL BUF
Total/NA	Prep	3510C	RA		369875	08/01/17 14:22	SMP	TAL BUF
Total/NA	Analysis	8270D	RA	1	371547	08/10/17 15:39	DMR	TAL BUF
Total/NA	Prep	3510C			370725	08/07/17 08:12	JMP	TAL BUF
Total/NA	Analysis	8081B		1	370967	08/08/17 10:29	MAN	TAL BUF
Total/NA	Prep	3510C			370244	08/03/17 07:51	JMP	TAL BUF
Total/NA	Analysis	8082A		1	370374	08/03/17 22:41	JMO	TAL BUF
Total/NA	Prep	8151A			369978	08/02/17 07:28	JMP	TAL BUF
Total/NA	Analysis	8151A		1	370372	08/03/17 20:27	JMO	TAL BUF
Total/NA	Prep	8280B			178429	08/09/17 07:51	DXD	TAL SAC
Total/NA	Analysis	8280B		1	178857	08/10/17 20:55	FRD	TAL SAC
Total/NA	Prep	3005A			369915	08/02/17 08:13	MJW	TAL BUF
Total/NA	Analysis	6010C		1	371217	08/08/17 17:10	LMH	TAL BUF
Total/NA	Prep	7470A			369814	08/01/17 11:35	MVZ	TAL BUF
Total/NA	Analysis	7470A		1	370077	08/01/17 15:38	BMB	TAL BUF
Total/NA	Analysis	180.1		10	369942	08/01/17 17:07	SSS	TAL BUF
Total/NA	Analysis	300.0		10	372452	08/16/17 19:50	RJS	TAL BUF
Total/NA	Analysis	350.1		1	371295	08/09/17 11:27	SSS	TAL BUF
Total/NA	Prep	351.2			369985	08/02/17 07:30	CLT	TAL BUF
Total/NA	Analysis	351.2		1	370143	08/02/17 13:29	CLT	TAL BUF
Total/NA	Analysis	353.2		1	369959	08/01/17 18:34	DCB	TAL BUF
Total/NA	Analysis	410.4		1	370398	08/03/17 14:00	LED	TAL BUF
Total/NA	Analysis	7196A		10	369731	08/01/17 04:52	KMB	TAL BUF
Total/NA	Prep	9012B			371403	08/10/17 03:10	LAW	TAL BUF
Total/NA	Analysis	9012B		1	371497	08/10/17 10:37	MDL	TAL BUF
Total/NA	Analysis	9038		16	370399	08/03/17 11:24	EKB	TAL BUF
Total/NA	Analysis	9060A		1	371175	08/09/17 08:25	EKB	TAL BUF
Total/NA	Prep	Distill/Phenol			371247	08/09/17 10:57	BEV	TAL BUF
Total/NA	Analysis	9065		1	371401	08/10/17 02:57	KMB	TAL BUF
Total/NA	Analysis	9251		5	369943	08/01/17 14:57	LED	TAL BUF
Total/NA	Analysis	SM 2120B		1	369941	08/01/17 16:05	SSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	369966	08/01/17 22:34	ALZ	TAL BUF
Total/NA	Analysis	SM 2540C		1	369963	08/02/17 04:14	KMB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	370168	08/02/17 13:45	MDL	TAL BUF
Total/NA	Analysis	SM 5210B		1	369945	08/01/17 15:10	ALZ	TAL BUF

Laboratory References:

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

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 480-121971-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2-Dichloroethene, Total
8260C		Water	Pentachloroethane
9038		Water	Sulfate
9251		Water	Chloride

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8270D	3510C	Water	2,3,7,8-TCDD

Laboratory: TestAmerica Sacramento

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-17 *
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-17
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-29-18
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-17
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	10-31-17
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-29-17 *

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

Method Summary

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

TestAmerica Job ID: 480-121971-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
8280B	Dioxins and Furans (HRGC/LRMS)	SW846	TAL SAC
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
180.1	Turbidity, Nephelometric	MCAWW	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
410.4	COD	MCAWW	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
9038	Sulfate, Turbidimetric	SW846	TAL BUF
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF
9065	Phenolics, Total Recoverable	SW846	TAL BUF
9251	Chloride	SW846	TAL BUF
SM 2120B	Color, Colorimetric	SM	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

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

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 480-121971-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-121971-1	Leachate	Water	07/31/17 13:30	08/01/17 02:00

Quantitation Limit Exceptions Summary

Client: Waste Connections, Inc. TestAmerica Job ID: 480-121971-1
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	Matrix	Analyte	Units	Client RL	Lab PQL
SM 2120B	Water	Color	Color Units	0.0100	5
SM 4500 S2 F	Water	Sulfide	mg/L	0.67	1.0

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

480501-Albany

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

480-121971 COC

Client Information	Sampler: Corey Judd	Lab PM: VanDette, Ryan T	COC No: 480-99865-19482.1
Client Contact: Corey Judd	Phone: 518-431-9439	E-Mail: ryan.vandette@testamericainc.com	Page: Page 1 of 2
Company: Waste Connections, Inc.		Analysis Requ	Job #:
Address: 209 Partition Street Extension	Due Date Requested:		Preservation Codes:
City: Rensselaer	TAT Requested (days):		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 12144			Other:
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required		
Email: coreyj@wasteconnections.com	WO #:		
Project Name: Dunn Landfill/ Event Desc: Expanded	Project #: 48010065		
Site: New York	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, 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 - Arocolors	8081B - NY Part 360 Expanded Pesticides	8270D - NY Part 360 Expanded Semivolatiles	300.0_28D - Bromide	360.1, 351.2, 410.4	6010C, 7470A	9065 - Phenolics, Total Recoverable	8260C - NY Part 360 Expanded Volatiles	9060A - Total Organic Carbon	8151A - SAP 6.1 Expanded Herbicides	6210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	FieldSampling - (MOD) pH,Cond,Temp,ORP,GWElv,DTW,WD,TURB	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	S	D	S	A	A	N	N	N	N		
Leachate	7/31/17	1:30p.m		Water			2	2	2	1	1	1	1	3	2	2	1	1			

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]	7/31/17	WCI	[signature]	7/31/17	TA
Karl Fadus	7/31/17 1800	TA	[signature]	8-1-17 0200	TAS
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: 0.6 #1

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8/18/2017

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

480501-Albany

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Corey Judd	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-99865-19482.2
Client Contact: Corey Judd	Phone: 518-431-9439	E-Mail: ryan.vandette@testamericainc.com		Page: Page 2 of 2
Company: Waste Connections, Inc.				Job #:
Address: 209 Partition Street Extension	Due Date Requested:			
City: Rensselaer	TAT Requested (days):			
State, Zip: NY, 12144				
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: coreyj@wasteconnections.com	WO #:			
Project Name: Dunn Landfill/ Event Desc: Expanded	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	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)	9012B - Cyanide, Total	180.1, 2120B, 353.2, 353.2_Nitrite, 9038, 9251, Nitrate_Calc	7196A - Cr (VI)	2320B - Alkalinity, Total	310.2 - Alkalinity, Total	8280B - (MOD) TCDD Only	SM4500_S2_F - Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	N	N	N	N	N	CB		
Leachate	7/31/17	1:30pm		Water			1	3	1	1	1	2	1		

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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
Corey Judd	7/31/17 14:38	WCT	Karl Jachne	7/31/17 1438	TA
Karl Jachne	7/31/17 1800	TA		8-1-17 0720	TA
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:
		0.6 #1

8/18/2017

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-36389.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: ryan.vandette@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-121971-1
Address: 880 Riverside Parkway,	Due Date Requested: 8/17/2017			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Dunn Landfill - Leachate Expanded	Project #: 48010065			
Site: Dunn Landfill	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8280B/8280B_SoxSep_P (MOD) TCDD Only	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Leachate (480-121971-1)	7/31/17	13:30 Eastern		Water			X	2	

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

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

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	8/2/17 1645	TAB	Brian Hussey	8/3/17 0925	TAMS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

8/18/2017

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-121971-1
SDG Number:

Login Number: 121971
List Number: 1
Creator: Williams, Christopher S

List Source: TestAmerica Buffalo

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

Job Number: 480-121971-1
SDG Number:

Login Number: 121971
List Number: 2
Creator: Aguayo, Alonso

List Source: TestAmerica Sacramento
List Creation: 08/03/17 01:56 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	034069
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-129162-1
Client Project/Site: Dunn Landfill - Leachate Expanded
Sampling Event: Expanded

For:
Waste Connections, Inc.
209 Partition Street Extension
Rensselaer, New York 12144

Attn: Corey Judd

Denise L Giglia

Authorized for release by:
1/5/2018 12:17:26 PM
Denise Giglia, Project Management Assistant II
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Designee for

Ryan VanDette, Project Manager II
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ryan.vandette@testamericainc.com

Table of Contents

Definitions/Glossary

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

TestAmerica Job ID: 480-129162-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance 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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-129162-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-129162-1

Comments
No additional comments.

Receipt
The sample was received on 12/19/2017 1:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-393280 recovered outside acceptance criteria, low biased, for 2-Butanone, Vinyl Chloride, Chloromethane, Trichlorofluoromethane and 1,1-Dichloroethene. A reporting limit (RL) standard was analyzed, and the target analytes were detected. Since the associated samples were non-detects for these analytes, the data have been reported. The following sample is impacted: Leachate (480-129162-1).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-393280 recovered outside acceptance criteria, low biased, for Acetonitrile. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following sample is impacted: Leachate (480-129162-1).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-393280 recovered above the upper control limit for Pentachloroethane. The sample associated with this CCV was non-detect for the affected analyte; therefore, the data have been reported. The following sample is impacted: Leachate (480-129162-1).

Method(s) 8260C: The following sample was diluted due to the abundance of non-target analytes: Leachate (480-129162-1). 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(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-393723 recovered outside acceptance criteria, low biased, for 3-Nitroaniline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following sample is impacted: Leachate (480-129162-1).

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 480-393723 was outside the method criteria for the following analyte(s): 2,4,6-Tribromophenol (Surr). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. The following sample is impacted: Leachate (480-129162-1).

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

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

GC Semi VOA
Method(s) 8081B: The following sample was diluted due to the nature of the sample matrix: Leachate (480-129162-1). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8151A: The continuing calibration verification (CCV) associated with batch 480-393010 recovered above the upper control limit for multiple analytes and surrogate 2,4-Dichlorophenylacetic acid. The samples associated with this CCV were non-detect for the affected analytes and the surrogate results are not adversely affected; therefore, the data have been reported. The following sample is impacted: Leachate (480-129162-1).

Method(s) 8081B: All primary data for analytical batch 392859 is reported from the RTX-CLPII column.

Job ID: 480-129162-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 8082A: All primary data for analytical batch 393108 is reported from the ZB-5 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Method(s) 8151A: All primary data for analytical batch 393010 is reported from the RTX-CLPI column.

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

Metals
Method(s) 6010C: The Low Level Continuing Calibration Verification, (CCVL 480-393339/17) associated with batch 480-393339, contained Total Manganese above the upper quality control limit. The associated samples were either ND for the affected analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples (LCS 480-392736/2-A) and (MB 480-392736/1-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(s) SM 2120B: The following sample was filtered prior to analysis, therefore the analytical results are being report as "True Color": Leachate (480-129162-1).

Method(s) SM 5210B: The RPD between the lowest and highest results used in averaging the final result was greater than 30% for sample: Leachate (480-129162-1).

Method(s) SM 2540C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: Leachate (480-129162-1). 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
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Detection Summary

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

TestAmerica Job ID: 480-129162-1

Client Sample ID: Leachate

Lab Sample ID: 480-129162-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	8.7		4.0		ug/L	4		8260C	Total/NA
1,2-Dichloroethane	9.2		4.0		ug/L	4		8260C	Total/NA
Benzene	4.1		4.0		ug/L	4		8260C	Total/NA
Ethylbenzene	6.2		4.0		ug/L	4		8260C	Total/NA
Methylene Chloride	17		4.0		ug/L	4		8260C	Total/NA
Toluene	33		4.0		ug/L	4		8260C	Total/NA
trans-1,2-Dichloroethene	6.1		4.0		ug/L	4		8260C	Total/NA
Xylenes, Total	24		8.0		ug/L	4		8260C	Total/NA
o-Xylene	8.7		4.0		ug/L	4		8260C	Total/NA
m,p-Xylene	15		8.0		ug/L	4		8260C	Total/NA
Barium	0.12		0.0020		mg/L	1		6010C	Total/NA
Boron	1.8		0.020		mg/L	1		6010C	Total/NA
Calcium	351		0.50		mg/L	1		6010C	Total/NA
Iron	7.6		0.050		mg/L	1		6010C	Total/NA
Magnesium	137		0.20		mg/L	1		6010C	Total/NA
Manganese	8.3		0.0030		mg/L	1		6010C	Total/NA
Nickel	0.024		0.010		mg/L	1		6010C	Total/NA
Potassium	4.4		0.50		mg/L	1		6010C	Total/NA
Sodium	98.0		1.0		mg/L	1		6010C	Total/NA
Zinc	0.027		0.010		mg/L	1		6010C	Total/NA
Bromide	0.33		0.20		mg/L	1		300.0	Total/NA
Ammonia	0.81		0.020		mg/L as N	1		350.1	Total/NA
Total Kjeldahl Nitrogen	2.8		0.20		mg/L as N	1		351.2	Total/NA
Chemical Oxygen Demand	81.3		10.0		mg/L	1		410.4	Total/NA
Sulfate	420		55.0		mg/L	11		9038	Total/NA
Total Organic Carbon	25.8		1.0		mg/L	1		9060A	Total/NA
Phenolics, Total Recoverable	0.024	F1	0.010		mg/L	1		9065	Total/NA
Chloride	147		3.0		mg/L	3		9251	Total/NA
Alkalinity, Total	1170		5.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1800		20.0		mg/L	1		SM 2540C	Total/NA
Biochemical Oxygen Demand	5.1		2.0		mg/L	1		SM 5210B	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Turbidity	47.4		2.00		NTU	2		180.1	Total/NA

This Detection Summary does not include radiochemical test results.

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

TestAmerica Job ID: 480-129162-1

Client Sample ID: Leachate
Date Collected: 12/18/17 10:30
Date Received: 12/19/17 01:00

Lab Sample ID: 480-129162-1
Matrix: Water

Method: 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			12/22/17 15:48	4
1,1,1-Trichloroethane	ND		4.0		ug/L			12/22/17 15:48	4
1,1,2,2-Tetrachloroethane	ND		4.0		ug/L			12/22/17 15:48	4
1,1,2-Trichloroethane	ND		4.0		ug/L			12/22/17 15:48	4
1,1-Dichloroethane	**8.7**		4.0		ug/L			12/22/17 15:48	4
1,1-Dichloroethene	ND		4.0		ug/L			12/22/17 15:48	4
1,1-Dichloropropene	ND		4.0		ug/L			12/22/17 15:48	4
1,2,3-Trichloropropane	ND		4.0		ug/L			12/22/17 15:48	4
1,2,4-Trichlorobenzene	ND		4.0		ug/L			12/22/17 15:48	4
1,2-Dibromo-3-Chloropropane	ND		4.0		ug/L			12/22/17 15:48	4
1,2-Dichlorobenzene	ND		4.0		ug/L			12/22/17 15:48	4
1,2-Dichloroethane	**9.2**		4.0		ug/L			12/22/17 15:48	4
1,2-Dichloropropane	ND		4.0		ug/L			12/22/17 15:48	4
1,3-Dichloropropane	ND		4.0		ug/L			12/22/17 15:48	4
1,4-Dichlorobenzene	ND		4.0		ug/L			12/22/17 15:48	4
2,2-Dichloropropane	ND		4.0		ug/L			12/22/17 15:48	4
2-Butanone (MEK)	ND		40		ug/L			12/22/17 15:48	4
2-Hexanone	ND		20		ug/L			12/22/17 15:48	4
4-Methyl-2-pentanone (MIBK)	ND		20		ug/L			12/22/17 15:48	4
Acetone	ND		40		ug/L			12/22/17 15:48	4
Acetonitrile	ND		60		ug/L			12/22/17 15:48	4
Acrolein	ND		80		ug/L			12/22/17 15:48	4
Acrylonitrile	ND		20		ug/L			12/22/17 15:48	4
Allyl chloride	ND		4.0		ug/L			12/22/17 15:48	4
Benzene	**4.1**		4.0		ug/L			12/22/17 15:48	4
Chlorobromomethane	ND		4.0		ug/L			12/22/17 15:48	4
Bromodichloromethane	ND		4.0		ug/L			12/22/17 15:48	4
Bromoform	ND		4.0		ug/L			12/22/17 15:48	4
Bromomethane	ND		4.0		ug/L			12/22/17 15:48	4
Carbon disulfide	ND		4.0		ug/L			12/22/17 15:48	4
Carbon tetrachloride	ND		4.0		ug/L			12/22/17 15:48	4
Chlorobenzene	ND		4.0		ug/L			12/22/17 15:48	4
Dibromochloromethane	ND		4.0		ug/L			12/22/17 15:48	4
Chloroethane	ND		4.0		ug/L			12/22/17 15:48	4
Chloroform	ND		4.0		ug/L			12/22/17 15:48	4
Chloromethane	ND		4.0		ug/L			12/22/17 15:48	4
cis-1,2-Dichloroethene	ND		4.0		ug/L			12/22/17 15:48	4
cis-1,3-Dichloropropene	ND		4.0		ug/L			12/22/17 15:48	4
Chloroprene	ND		4.0		ug/L			12/22/17 15:48	4
Dibromomethane	ND		4.0		ug/L			12/22/17 15:48	4
Dichlorodifluoromethane	ND		4.0		ug/L			12/22/17 15:48	4
Ethyl methacrylate	ND		4.0		ug/L			12/22/17 15:48	4
Ethylbenzene	**6.2**		4.0		ug/L			12/22/17 15:48	4
1,2-Dibromoethane	ND		4.0		ug/L			12/22/17 15:48	4
Hexachlorobutadiene	ND		4.0		ug/L			12/22/17 15:48	4
Iodomethane	ND		4.0		ug/L			12/22/17 15:48	4
Isobutyl alcohol	ND		100		ug/L			12/22/17 15:48	4
Methacrylonitrile	ND		20		ug/L			12/22/17 15:48	4
Methyl methacrylate	ND		4.0		ug/L			12/22/17 15:48	4

Client Sample ID: Leachate
Date Collected: 12/18/17 10:30
Date Received: 12/19/17 01:00

Lab Sample ID: 480-129162-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**17**		4.0		ug/L			12/22/17 15:48	4
Naphthalene	ND		4.0		ug/L			12/22/17 15:48	4
Pentachloroethane	ND		4.0		ug/L			12/22/17 15:48	4
Propionitrile	ND		40		ug/L			12/22/17 15:48	4
Styrene	ND		4.0		ug/L			12/22/17 15:48	4
Tetrachloroethene	ND		4.0		ug/L			12/22/17 15:48	4
Toluene	**33**		4.0		ug/L			12/22/17 15:48	4
trans-1,2-Dichloroethene	**6.1**		4.0		ug/L			12/22/17 15:48	4
trans-1,3-Dichloropropene	ND		4.0		ug/L			12/22/17 15:48	4
trans-1,4-Dichloro-2-butene	ND		4.0		ug/L			12/22/17 15:48	4
Trichloroethene	ND		4.0		ug/L			12/22/17 15:48	4
Trichlorofluoromethane	ND		4.0		ug/L			12/22/17 15:48	4
Vinyl acetate	ND		20		ug/L			12/22/17 15:48	4
Vinyl chloride	ND		4.0		ug/L			12/22/17 15:48	4
Xylenes, Total	**24**		8.0		ug/L			12/22/17 15:48	4
o-Xylene	**8.7**		4.0		ug/L			12/22/17 15:48	4
m,p-Xylene	**15**		8.0		ug/L			12/22/17 15:48	4
1,2-Dichloroethene, Total	ND		8.0		ug/L			12/22/17 15:48	4
1,3-Dichlorobenzene	ND		4.0		ug/L			12/22/17 15:48	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*77 - 120*		*12/22/17 15:48*	*4*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*12/22/17 15:48*	*4*
Toluene-d8 (Surr)	*94*		*80 - 120*		*12/22/17 15:48*	*4*
Dibromofluoromethane (Surr)	*90*		*75 - 123*		*12/22/17 15:48*	*4*

Method: 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		12/20/17 08:10	12/27/17 16:34	1
1,2,4-Trichlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
1,2-Dichlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
1,3,5-Trinitrobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
1,3-Dichlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
1,3-Dinitrobenzene	ND		20		ug/L		12/20/17 08:10	12/27/17 16:34	1
1,4-Naphthoquinone	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
1,4-Dichlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
1-Naphthylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
2,3,4,6-Tetrachlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2,4,5-Trichlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2,4,6-Trichlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2,4-Dichlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2,4-Dimethylphenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2,4-Dinitrophenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
2,4-Dinitrotoluene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2,6-Dichlorophenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
2,6-Dinitrotoluene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2-Acetylaminofluorene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
2-Chloronaphthalene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2-Chlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2-Methylnaphthalene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1

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

TestAmerica Job ID: 480-129162-1

Client Sample ID: Leachate
Date Collected: 12/18/17 10:30
Date Received: 12/19/17 01:00

Lab Sample ID: 480-129162-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2-Naphthylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
2-Nitroaniline	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
2-Nitrophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
2-Toluidine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
3 & 4 Methylphenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
3-Methylphenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
4-Methylphenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
3,3'-Dichlorobenzidine	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
3,3'-Dimethylbenzidine	ND		40		ug/L		12/20/17 08:10	12/27/17 16:34	1
3-Methylcholanthrene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
3-Nitroaniline	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
4-Aminobiphenyl	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
4-Bromophenyl phenyl ether	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
4-Chloro-3-methylphenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
4-Chloroaniline	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
4-Chlorophenyl phenyl ether	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
4-Nitroaniline	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
4-Nitrophenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Acenaphthene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Acenaphthylene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Acetophenone	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Anthracene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Benzo[a]anthracene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Benzo[a]pyrene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Benzo[b]fluoranthene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Benzo[g,h,i]perylene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Benzo[k]fluoranthene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Benzyl alcohol	ND		20		ug/L		12/20/17 08:10	12/27/17 16:34	1
Bis(2-chloroethoxy)methane	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Bis(2-chloroethyl)ether	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Bis(2-ethylhexyl) phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
bis (2-chloroisopropyl) ether	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Butyl benzyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Chrysene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Diallate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Dibenz(a,h)anthracene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Dibenzofuran	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Diethyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Dimethoate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Dimethyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Di-n-butyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Di-n-octyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Dinoseb	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Diphenylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Disulfoton	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Ethyl methanesulfonate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1

Client Sample ID: Leachate
Date Collected: 12/18/17 10:30
Date Received: 12/19/17 01:00

Lab Sample ID: 480-129162-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Famphur	ND		40		ug/L		12/20/17 08:10	12/27/17 16:34	1
Fluoranthene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Fluorene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Hexachlorobenzene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Hexachlorobutadiene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Hexachlorocyclopentadiene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Hexachloroethane	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Hexachloropropene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Isodrin	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Isophorone	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Isosafrole	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Kepone	ND		50		ug/L		12/20/17 08:10	12/27/17 16:34	1
Methapyrilene	ND		50		ug/L		12/20/17 08:10	12/27/17 16:34	1
Methyl methanesulfonate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Safrole	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Thionazin	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Naphthalene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Nitrobenzene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
N-Nitro-o-toluidine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
N-Nitrosodiethylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
N-Nitrosodimethylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
N-Nitrosodi-n-propylamine	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
N-Nitrosodiphenylamine	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
N-Nitrosomethylethylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
N-Nitrosopiperidine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
N-Nitrosopyrrolidine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Parathion ethyl	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Parathion methyl	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
p-Dimethylamino azobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Pentachlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Pentachloronitrobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Pentachlorophenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Phenacetin	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
Phenanthrene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Phenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Phorate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1
p-Phenylene diamine	ND		800		ug/L		12/20/17 08:10	12/27/17 16:34	1
Pyrene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:34	1
Pronamide	ND		10		ug/L		12/20/17 08:10	12/27/17 16:34	1

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*	*12/20/17 08:10*	*12/27/17 16:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*48 - 120*	*12/20/17 08:10*	*12/27/17 16:34*	*1*
2-Fluorophenol (Surr)	*61*		*35 - 120*	*12/20/17 08:10*	*12/27/17 16:34*	*1*
2,4,6-Tribromophenol (Surr)	*118*		*41 - 120*	*12/20/17 08:10*	*12/27/17 16:34*	*1*

Client Sample ID: Leachate
Date Collected: 12/18/17 10:30
Date Received: 12/19/17 01:00

Lab Sample ID: 480-129162-1
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	*75*		*46 - 120*	*12/20/17 08:10*	*12/27/17 16:34*	*1*
Phenol-d5 (Surr)	*46*		*22 - 120*	*12/20/17 08:10*	*12/27/17 16:34*	*1*
p-Terphenyl-d14 (Surr)	*67*		*59 - 136*	*12/20/17 08:10*	*12/27/17 16:34*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
4,4'-DDE	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
4,4'-DDT	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Aldrin	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
alpha-BHC	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
beta-BHC	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Chlordane (technical)	ND		2.5		ug/L		12/19/17 14:29	12/20/17 12:52	5
delta-BHC	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Dieldrin	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Endosulfan I	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Endosulfan II	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Endosulfan sulfate	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Endrin	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Endrin aldehyde	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
gamma-BHC (Lindane)	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Heptachlor	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Methoxychlor	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5
Toxaphene	ND		2.5		ug/L		12/19/17 14:29	12/20/17 12:52	5
Heptachlor epoxide	ND		0.25		ug/L		12/19/17 14:29	12/20/17 12:52	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	*33*		*20 - 120*	*12/19/17 14:29*	*12/20/17 12:52*	*5*
DCB Decachlorobiphenyl	*31*		*20 - 120*	*12/19/17 14:29*	*12/20/17 12:52*	*5*
Tetrachloro-m-xylene	*61*		*44 - 120*	*12/19/17 14:29*	*12/20/17 12:52*	*5*
Tetrachloro-m-xylene	*155*	*X*	*44 - 120*	*12/19/17 14:29*	*12/20/17 12:52*	*5*

Method: 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		12/19/17 14:11	12/21/17 15:29	1
PCB-1221	ND		0.50		ug/L		12/19/17 14:11	12/21/17 15:29	1
PCB-1232	ND		0.50		ug/L		12/19/17 14:11	12/21/17 15:29	1
PCB-1242	ND		0.50		ug/L		12/19/17 14:11	12/21/17 15:29	1
PCB-1248	ND		0.50		ug/L		12/19/17 14:11	12/21/17 15:29	1
PCB-1254	ND		0.50		ug/L		12/19/17 14:11	12/21/17 15:29	1
PCB-1260	ND		0.50		ug/L		12/19/17 14:11	12/21/17 15:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*78*		*39 - 121*	*12/19/17 14:11*	*12/21/17 15:29*	*1*
Tetrachloro-m-xylene	*70*		*39 - 121*	*12/19/17 14:11*	*12/21/17 15:29*	*1*
DCB Decachlorobiphenyl	*61*		*19 - 120*	*12/19/17 14:11*	*12/21/17 15:29*	*1*
DCB Decachlorobiphenyl	*44*		*19 - 120*	*12/19/17 14:11*	*12/21/17 15:29*	*1*

Client Sample ID: Leachate

Date Collected: 12/18/17 10:30
Date Received: 12/19/17 01:00

Lab Sample ID: 480-129162-1

Matrix: Water

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.50		ug/L		12/19/17 14:27	12/20/17 20:46	1
2,4-D	ND		0.50		ug/L		12/19/17 14:27	12/20/17 20:46	1
Dinoseb	ND		0.50		ug/L		12/19/17 14:27	12/20/17 20:46	1
Silvex (2,4,5-TP)	ND		0.50		ug/L		12/19/17 14:27	12/20/17 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*91*		*48 - 132*	*12/19/17 14:27*	*12/20/17 20:46*	*1*
2,4-Dichlorophenylacetic acid	*190*	*X*	*48 - 132*	*12/19/17 14:27*	*12/20/17 20:46*	*1*

Method: 8280B - Dioxins and Furans (HRGC/LRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		4.8		ng/L		12/22/17 11:35	01/03/18 14:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*72*		*25 - 150*	*12/22/17 11:35*	*01/03/18 14:20*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*100*		*25 - 150*	*12/22/17 11:35*	*01/03/18 14:20*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20		mg/L		12/20/17 07:45	12/21/17 14:53	1
Antimony	ND		0.020		mg/L		12/20/17 07:45	12/21/17 14:53	1
Arsenic	ND		0.015		mg/L		12/20/17 07:45	12/21/17 14:53	1
Barium	**0.12**		0.0020		mg/L		12/20/17 07:45	12/21/17 14:53	1
Beryllium	ND		0.0020		mg/L		12/20/17 07:45	12/21/17 14:53	1
Boron	**1.8**		0.020		mg/L		12/20/17 07:45	12/21/17 14:53	1
Cadmium	ND		0.0020		mg/L		12/20/17 07:45	12/21/17 14:53	1
Calcium	**351**		0.50		mg/L		12/20/17 07:45	12/21/17 14:53	1
Chromium	ND		0.0040		mg/L		12/20/17 07:45	12/21/17 14:53	1
Cobalt	ND		0.0040		mg/L		12/20/17 07:45	12/21/17 14:53	1
Copper	ND		0.010		mg/L		12/20/17 07:45	12/21/17 14:53	1
Iron	**7.6**		0.050		mg/L		12/20/17 07:45	12/21/17 14:53	1
Lead	ND		0.010		mg/L		12/20/17 07:45	12/21/17 14:53	1
Magnesium	**137**		0.20		mg/L		12/20/17 07:45	12/21/17 14:53	1
Manganese	**8.3**		0.0030		mg/L		12/20/17 07:45	12/21/17 14:53	1
Nickel	**0.024**		0.010		mg/L		12/20/17 07:45	12/21/17 14:53	1
Potassium	**4.4**		0.50		mg/L		12/20/17 07:45	12/21/17 14:53	1
Selenium	ND		0.025		mg/L		12/20/17 07:45	12/21/17 14:53	1
Silver	ND		0.0060		mg/L		12/20/17 07:45	12/21/17 14:53	1
Sodium	**98.0**		1.0		mg/L		12/20/17 07:45	12/21/17 14:53	1
Thallium	ND		0.020		mg/L		12/20/17 07:45	12/21/17 14:53	1
Tin	ND		0.010		mg/L		12/20/17 07:45	12/21/17 14:53	1
Vanadium	ND		0.0050		mg/L		12/20/17 07:45	12/21/17 14:53	1
Zinc	**0.027**		0.010		mg/L		12/20/17 07:45	12/21/17 14:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/22/17 13:45	12/22/17 18:03	1

Client Sample Results

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

TestAmerica Job ID: 480-129162-1

Client Sample ID: Leachate
Date Collected: 12/18/17 10:30
Date Received: 12/19/17 01:00

Lab Sample ID: 480-129162-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.33**		0.20		mg/L			12/23/17 00:18	1
Ammonia	**0.81**		0.020		mg/L as N			12/27/17 13:35	1
Total Kjeldahl Nitrogen	**2.8**		0.20		mg/L as N		12/26/17 07:05	12/26/17 13:09	1
Nitrate as N	ND		0.050		mg/L			12/19/17 17:34	1
Chemical Oxygen Demand	**81.3**		10.0		mg/L			01/02/18 15:00	1
Cr (VI)	ND		0.010		mg/L			12/19/17 04:48	1
Cyanide, Total	ND		0.010		mg/L		12/29/17 03:15	12/29/17 11:18	1
Sulfate	**420**		55.0		mg/L			12/20/17 15:59	11
Total Organic Carbon	**25.8**		1.0		mg/L			12/21/17 10:33	1
Phenolics, Total Recoverable	**0.024**	**F1**	0.010		mg/L		12/28/17 05:31	12/28/17 15:57	1
Chloride	**147**		3.0		mg/L			12/21/17 11:51	3
Alkalinity, Total	**1170**		5.0		mg/L			12/20/17 19:25	1
Total Dissolved Solids	**1800**		20.0		mg/L			12/20/17 19:40	1
Sulfide	ND		0.67		mg/L			12/24/17 10:15	1
Biochemical Oxygen Demand	**5.1**		2.0		mg/L			12/19/17 17:42	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	**47.4**		2.00		NTU			12/19/17 15:21	2
Color	ND		0.0100		Color Units			12/20/17 10:27	1

Surrogate Summary

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

TestAmerica Job ID: 480-129162-1

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)
480-129162-1	Leachate	85	103	94	90
LCS 480-393280/4	Lab Control Sample	87	101	94	89
MB 480-393280/6	Method Blank	89	99	92	91

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)	(59-136)
480-129162-1	Leachate	87	61	118	75	46	67
LCS 480-392888/2-A	Lab Control Sample	88	69	93	89	57	99
MB 480-392888/1-A	Method Blank	83	59	69	77	45	93

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)
480-129162-1	Leachate	33	31	61	155 X
LCS 480-392786/2-A	Lab Control Sample	37	42	76	69
MB 480-392786/1-A	Method Blank	37	44	76	70

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

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)
480-129162-1	Leachate	78	70	61	44
LCS 480-392782/2-A	Lab Control Sample	82	82	55	55

Surrogate Summary

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

TestAmerica Job ID: 480-129162-1

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

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)
MB 480-392782/1-A	Method Blank	98	96	56	54

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)
480-129162-1	Leachate	91	190 X
LCS 480-392785/2-A	Lab Control Sample	77	73
LCSD 480-392785/3-A	Lab Control Sample Dup	76	65
MB 480-392785/1-A	Method Blank	57	174 X

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 8280B - Dioxins and Furans (HRGC/LRMS)

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

		Percent Surrogate Recovery (Acceptance Limits)
		37TCDD
Lab Sample ID	Client Sample ID	(25-150)
480-129162-1	Leachate	100
LCS 320-201119/2-A	Lab Control Sample	100
LCSD 320-201119/3-A	Lab Control Sample Dup	100
MB 320-201119/1-A	Method Blank	102

Surrogate Legend

37TCDD = 37Cl4-2,3,7,8-TCDD

Isotope Dilution Summary

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

TestAmerica Job ID: 480-129162-1

Method: 8280B - Dioxins and Furans (HRGC/LRMS)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)
		TCDD
Lab Sample ID	Client Sample ID	(25-150)
480-129162-1	Leachate	72
LCS 320-201119/2-A	Lab Control Sample	70
LCSD 320-201119/3-A	Lab Control Sample Dup	70
MB 320-201119/1-A	Method Blank	69

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD

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

Lab Sample ID: MB 480-393280/6
Matrix: Water
Analysis Batch: 393280

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			12/22/17 11:35	1
1,1,1-Trichloroethane	ND		1.0		ug/L			12/22/17 11:35	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/22/17 11:35	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/22/17 11:35	1
1,1-Dichloroethane	ND		1.0		ug/L			12/22/17 11:35	1
1,1-Dichloroethene	ND		1.0		ug/L			12/22/17 11:35	1
1,1-Dichloropropene	ND		1.0		ug/L			12/22/17 11:35	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/22/17 11:35	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/22/17 11:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/22/17 11:35	1
1,2-Dichlorobenzene	ND		1.0		ug/L			12/22/17 11:35	1
1,2-Dichloroethane	ND		1.0		ug/L			12/22/17 11:35	1
1,2-Dichloropropane	ND		1.0		ug/L			12/22/17 11:35	1
1,3-Dichloropropane	ND		1.0		ug/L			12/22/17 11:35	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/22/17 11:35	1
2,2-Dichloropropane	ND		1.0		ug/L			12/22/17 11:35	1
2-Butanone (MEK)	ND		10		ug/L			12/22/17 11:35	1
2-Hexanone	ND		5.0		ug/L			12/22/17 11:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			12/22/17 11:35	1
Acetone	ND		10		ug/L			12/22/17 11:35	1
Acetonitrile	ND		15		ug/L			12/22/17 11:35	1
Acrolein	ND		20		ug/L			12/22/17 11:35	1
Acrylonitrile	ND		5.0		ug/L			12/22/17 11:35	1
Allyl chloride	ND		1.0		ug/L			12/22/17 11:35	1
Benzene	ND		1.0		ug/L			12/22/17 11:35	1
Chlorobromomethane	ND		1.0		ug/L			12/22/17 11:35	1
Bromodichloromethane	ND		1.0		ug/L			12/22/17 11:35	1
Bromoform	ND		1.0		ug/L			12/22/17 11:35	1
Bromomethane	ND		1.0		ug/L			12/22/17 11:35	1
Carbon disulfide	ND		1.0		ug/L			12/22/17 11:35	1
Carbon tetrachloride	ND		1.0		ug/L			12/22/17 11:35	1
Chlorobenzene	ND		1.0		ug/L			12/22/17 11:35	1
Dibromochloromethane	ND		1.0		ug/L			12/22/17 11:35	1
Chloroethane	ND		1.0		ug/L			12/22/17 11:35	1
Chloroform	ND		1.0		ug/L			12/22/17 11:35	1
Chloromethane	ND		1.0		ug/L			12/22/17 11:35	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/22/17 11:35	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/22/17 11:35	1
Chloroprene	ND		1.0		ug/L			12/22/17 11:35	1
Dibromomethane	ND		1.0		ug/L			12/22/17 11:35	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/22/17 11:35	1
Ethyl methacrylate	ND		1.0		ug/L			12/22/17 11:35	1
Ethylbenzene	ND		1.0		ug/L			12/22/17 11:35	1
1,2-Dibromoethane	ND		1.0		ug/L			12/22/17 11:35	1
Hexachlorobutadiene	ND		1.0		ug/L			12/22/17 11:35	1
Iodomethane	ND		1.0		ug/L			12/22/17 11:35	1
Isobutyl alcohol	ND		25		ug/L			12/22/17 11:35	1
Methacrylonitrile	ND		5.0		ug/L			12/22/17 11:35	1

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

Lab Sample ID: MB 480-393280/6
Matrix: Water
Analysis Batch: 393280

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			12/22/17 11:35	1
Methylene Chloride	ND		1.0		ug/L			12/22/17 11:35	1
Naphthalene	ND		1.0		ug/L			12/22/17 11:35	1
Pentachloroethane	ND		1.0		ug/L			12/22/17 11:35	1
Propionitrile	ND		10		ug/L			12/22/17 11:35	1
Styrene	ND		1.0		ug/L			12/22/17 11:35	1
Tetrachloroethene	ND		1.0		ug/L			12/22/17 11:35	1
Toluene	ND		1.0		ug/L			12/22/17 11:35	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/22/17 11:35	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/22/17 11:35	1
trans-1,4-Dichloro-2-butene	ND		1.0		ug/L			12/22/17 11:35	1
Trichloroethene	ND		1.0		ug/L			12/22/17 11:35	1
Trichlorofluoromethane	ND		1.0		ug/L			12/22/17 11:35	1
Vinyl acetate	ND		5.0		ug/L			12/22/17 11:35	1
Vinyl chloride	ND		1.0		ug/L			12/22/17 11:35	1
Xylenes, Total	ND		2.0		ug/L			12/22/17 11:35	1
o-Xylene	ND		1.0		ug/L			12/22/17 11:35	1
m,p-Xylene	ND		2.0		ug/L			12/22/17 11:35	1
1,2-Dichloroethene, Total	ND		2.0		ug/L			12/22/17 11:35	1
1,3-Dichlorobenzene	ND		1.0		ug/L			12/22/17 11:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*77 - 120*		*12/22/17 11:35*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/22/17 11:35*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*12/22/17 11:35*	*1*
Dibromofluoromethane (Surr)	*91*		*75 - 123*		*12/22/17 11:35*	*1*

Lab Sample ID: LCS 480-393280/4
Matrix: Water
Analysis Batch: 393280

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	25.3		ug/L		101	80 - 120
1,1,1-Trichloroethane	25.0	22.7		ug/L		91	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.2		ug/L		89	76 - 120
1,1,2-Trichloroethane	25.0	22.9		ug/L		91	76 - 122
1,1-Dichloroethane	25.0	22.5		ug/L		90	77 - 120
1,1-Dichloroethene	25.0	22.1		ug/L		88	66 - 127
1,1-Dichloropropene	25.0	22.4		ug/L		90	72 - 122
1,2,3-Trichloropropane	25.0	21.2		ug/L		85	68 - 122
1,2,4-Trichlorobenzene	25.0	23.4		ug/L		94	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.7		ug/L		95	56 - 134
1,2-Dichlorobenzene	25.0	23.2		ug/L		93	80 - 124
1,2-Dichloroethane	25.0	21.9		ug/L		88	75 - 120
1,2-Dichloropropane	25.0	23.3		ug/L		93	76 - 120
1,3-Dichloropropane	25.0	24.3		ug/L		97	75 - 120
1,4-Dichlorobenzene	25.0	22.1		ug/L		88	80 - 120
2,2-Dichloropropane	25.0	23.5		ug/L		94	63 - 136

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

Lab Sample ID: LCS 480-393280/4
Matrix: Water
Analysis Batch: 393280

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	113		ug/L		90	57 - 140
2-Hexanone	125	125		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	71 - 125
Acetone	125	108		ug/L		86	56 - 142
Acrolein	125	117		ug/L		93	52 - 143
Acrylonitrile	250	237		ug/L		95	63 - 125
Allyl chloride	25.0	22.2		ug/L		89	60 - 140
Benzene	25.0	22.8		ug/L		91	71 - 124
Chlorobromomethane	25.0	22.7		ug/L		91	72 - 130
Bromodichloromethane	25.0	24.1		ug/L		96	80 - 122
Bromoform	25.0	24.4		ug/L		97	61 - 132
Bromomethane	25.0	21.8		ug/L		87	55 - 144
Carbon disulfide	25.0	21.1		ug/L		84	59 - 134
Carbon tetrachloride	25.0	24.0		ug/L		96	72 - 134
Chlorobenzene	25.0	23.3		ug/L		93	80 - 120
Dibromochloromethane	25.0	25.0		ug/L		100	75 - 125
Chloroethane	25.0	21.3		ug/L		85	69 - 136
Chloroform	25.0	21.9		ug/L		88	73 - 127
Chloromethane	25.0	18.9		ug/L		76	68 - 124
cis-1,2-Dichloroethene	25.0	22.5		ug/L		90	74 - 124
cis-1,3-Dichloropropene	25.0	24.5		ug/L		98	74 - 124
Dibromomethane	25.0	21.8		ug/L		87	76 - 127
Dichlorodifluoromethane	25.0	18.3		ug/L		73	59 - 135
Ethyl methacrylate	25.0	25.9		ug/L		104	74 - 120
Ethylbenzene	25.0	23.8		ug/L		95	77 - 123
1,2-Dibromoethane	25.0	23.6		ug/L		94	77 - 120
Hexachlorobutadiene	25.0	20.8		ug/L		83	68 - 131
Iodomethane	25.0	21.9		ug/L		88	78 - 123
Isobutyl alcohol	625	597		ug/L		95	51 - 150
Methylene Chloride	25.0	23.4		ug/L		94	75 - 124
Naphthalene	25.0	24.0		ug/L		96	66 - 125
Styrene	25.0	25.5		ug/L		102	80 - 120
Tetrachloroethene	25.0	24.2		ug/L		97	74 - 122
Toluene	25.0	23.4		ug/L		94	80 - 122
trans-1,2-Dichloroethene	25.0	22.9		ug/L		92	73 - 127
trans-1,3-Dichloropropene	25.0	25.9		ug/L		104	80 - 120
trans-1,4-Dichloro-2-butene	25.0	21.4		ug/L		85	41 - 131
Trichloroethene	25.0	22.8		ug/L		91	74 - 123
Trichlorofluoromethane	25.0	21.8		ug/L		87	62 - 150
Vinyl acetate	50.0	48.8		ug/L		98	50 - 144
Vinyl chloride	25.0	19.3		ug/L		77	65 - 133
o-Xylene	25.0	25.0		ug/L		100	76 - 122
m,p-Xylene	25.0	25.5		ug/L		102	76 - 122
1,3-Dichlorobenzene	25.0	23.0		ug/L		92	77 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*

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

Lab Sample ID: LCS 480-393280/4
Matrix: Water
Analysis Batch: 393280

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*89*		*75 - 123*

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

Lab Sample ID: MB 480-392888/1-A
Matrix: Water
Analysis Batch: 393723

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 392888

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
1,2,4-Trichlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
1,2-Dichlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
1,3,5-Trinitrobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
1,3-Dichlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
1,3-Dinitrobenzene	ND		20		ug/L		12/20/17 08:10	12/27/17 16:05	1
1,4-Naphthoquinone	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
1,4-Dichlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
1-Naphthylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
2,3,4,6-Tetrachlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2,4,5-Trichlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2,4,6-Trichlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2,4-Dichlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2,4-Dimethylphenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2,4-Dinitrophenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
2,4-Dinitrotoluene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2,6-Dichlorophenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
2,6-Dinitrotoluene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2-Acetylaminofluorene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
2-Chloronaphthalene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2-Chlorophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2-Methylnaphthalene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2-Methylphenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2-Naphthylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
2-Nitroaniline	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
2-Nitrophenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
2-Toluidine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
3 & 4 Methylphenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
3-Methylphenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
4-Methylphenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
3,3'-Dichlorobenzidine	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
3,3'-Dimethylbenzidine	ND		40		ug/L		12/20/17 08:10	12/27/17 16:05	1
3-Methylcholanthrene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
3-Nitroaniline	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
4,6-Dinitro-2-methylphenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
4-Aminobiphenyl	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
4-Bromophenyl phenyl ether	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
4-Chloro-3-methylphenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1

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

Lab Sample ID: MB 480-392888/1-A
Matrix: Water
Analysis Batch: 393723

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 392888

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
4-Chlorophenyl phenyl ether	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
4-Nitroaniline	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
4-Nitrophenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
7,12-Dimethylbenz(a)anthracene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Acenaphthene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Acenaphthylene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Acetophenone	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Anthracene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Benzo[a]anthracene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Benzo[a]pyrene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Benzo[b]fluoranthene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Benzo[g,h,i]perylene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Benzo[k]fluoranthene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Benzyl alcohol	ND		20		ug/L		12/20/17 08:10	12/27/17 16:05	1
Bis(2-chloroethoxy)methane	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Bis(2-chloroethyl)ether	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Bis(2-ethylhexyl) phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
bis (2-chloroisopropyl) ether	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Butyl benzyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Chrysene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Diallate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Dibenz(a,h)anthracene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Dibenzofuran	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Diethyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Dimethoate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Dimethyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Di-n-butyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Di-n-octyl phthalate	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Dinoseb	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Diphenylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Disulfoton	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Ethyl methanesulfonate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Famphur	ND		40		ug/L		12/20/17 08:10	12/27/17 16:05	1
Fluoranthene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Fluorene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Hexachlorobenzene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Hexachlorobutadiene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Hexachlorocyclopentadiene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Hexachloroethane	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Hexachloropropene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Isodrin	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Isophorone	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Isosafrole	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Kepone	ND		50		ug/L		12/20/17 08:10	12/27/17 16:05	1
Methapyrilene	ND		50		ug/L		12/20/17 08:10	12/27/17 16:05	1
Methyl methanesulfonate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1

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

Lab Sample ID: MB 480-392888/1-A
Matrix: Water
Analysis Batch: 393723

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 392888

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Safrole	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Thionazin	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Naphthalene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Nitrobenzene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
N-Nitro-o-toluidine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
N-Nitrosodiethylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
N-Nitrosodimethylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
N-Nitrosodi-n-butylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
N-Nitrosodi-n-propylamine	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
N-Nitrosodiphenylamine	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
N-Nitrosomethylethylamine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
N-Nitrosopiperidine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
N-Nitrosopyrrolidine	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
o,o',o''-Triethylphosphorothioate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Parathion ethyl	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Parathion methyl	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
p-Dimethylamino azobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Pentachlorobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Pentachloronitrobenzene	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Pentachlorophenol	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Phenacetin	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
Phenanthrene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Phenol	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Phorate	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1
p-Phenylene diamine	ND		800		ug/L		12/20/17 08:10	12/27/17 16:05	1
Pyrene	ND		5.0		ug/L		12/20/17 08:10	12/27/17 16:05	1
Pronamide	ND		10		ug/L		12/20/17 08:10	12/27/17 16:05	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2,3,7,8-TCDD	*ND*		*ug/L*			*1746-01-6*	*12/20/17 08:10*	*12/27/17 16:05*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*48 - 120*	*12/20/17 08:10*	*12/27/17 16:05*	*1*
2-Fluorophenol (Surr)	*59*		*35 - 120*	*12/20/17 08:10*	*12/27/17 16:05*	*1*
2,4,6-Tribromophenol (Surr)	*69*		*41 - 120*	*12/20/17 08:10*	*12/27/17 16:05*	*1*
Nitrobenzene-d5 (Surr)	*77*		*46 - 120*	*12/20/17 08:10*	*12/27/17 16:05*	*1*
Phenol-d5 (Surr)	*45*		*22 - 120*	*12/20/17 08:10*	*12/27/17 16:05*	*1*
p-Terphenyl-d14 (Surr)	*93*		*59 - 136*	*12/20/17 08:10*	*12/27/17 16:05*	*1*

Lab Sample ID: LCS 480-392888/2-A
Matrix: Water
Analysis Batch: 393207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 392888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	32.0	26.0		ug/L		81	53 - 120
1,2,4-Trichlorobenzene	32.0	26.1		ug/L		82	40 - 120
1,2-Dichlorobenzene	32.0	25.3		ug/L		79	49 - 120

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

Lab Sample ID: LCS 480-392888/2-A
Matrix: Water
Analysis Batch: 393207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 392888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	32.0	24.5		ug/L		76	50 - 120
1,3-Dinitrobenzene	32.0	31.4		ug/L		98	68 - 131
1,4-Dichlorobenzene	32.0	24.9		ug/L		78	51 - 120
2,3,4,6-Tetrachlorophenol	32.0	29.6		ug/L		93	63 - 120
2,4,5-Trichlorophenol	32.0	30.1		ug/L		94	65 - 126
2,4,6-Trichlorophenol	32.0	27.1		ug/L		85	64 - 120
2,4-Dichlorophenol	32.0	28.7		ug/L		90	63 - 120
2,4-Dimethylphenol	32.0	28.9		ug/L		90	47 - 120
2,4-Dinitrophenol	64.0	51.8		ug/L		81	31 - 137
2,4-Dinitrotoluene	32.0	30.5		ug/L		95	69 - 120
2,6-Dichlorophenol	32.0	29.0		ug/L		91	62 - 120
2,6-Dinitrotoluene	32.0	31.6		ug/L		99	68 - 120
2-Chloronaphthalene	32.0	26.9		ug/L		84	58 - 120
2-Chlorophenol	32.0	26.8		ug/L		84	48 - 120
2-Methylnaphthalene	32.0	26.4		ug/L		83	59 - 120
2-Methylphenol	32.0	28.5		ug/L		89	39 - 120
2-Nitroaniline	32.0	29.4		ug/L		92	54 - 127
2-Nitrophenol	32.0	27.8		ug/L		87	52 - 125
3-Methylphenol	32.0	26.4		ug/L		83	39 - 120
4-Methylphenol	32.0	26.4		ug/L		83	29 - 131
3,3'-Dichlorobenzidine	64.0	63.5		ug/L		99	49 - 135
3-Nitroaniline	32.0	27.2		ug/L		85	51 - 120
4,6-Dinitro-2-methylphenol	64.0	60.3		ug/L		94	46 - 136
4-Bromophenyl phenyl ether	32.0	28.3		ug/L		88	65 - 120
4-Chloro-3-methylphenol	32.0	30.0		ug/L		94	61 - 123
4-Chloroaniline	32.0	16.8		ug/L		53	30 - 120
4-Chlorophenyl phenyl ether	32.0	28.5		ug/L		89	62 - 120
4-Nitroaniline	32.0	35.3		ug/L		110	65 - 120
4-Nitrophenol	64.0	46.3		ug/L		72	45 - 120
Acenaphthene	32.0	27.3		ug/L		85	60 - 120
Acenaphthylene	32.0	27.5		ug/L		86	63 - 120
Acetophenone	32.0	28.8		ug/L		90	45 - 120
Anthracene	32.0	29.4		ug/L		92	67 - 120
Benzo[a]anthracene	32.0	29.8		ug/L		93	70 - 121
Benzo[a]pyrene	32.0	30.3		ug/L		95	60 - 123
Benzo[b]fluoranthene	32.0	31.5		ug/L		98	66 - 126
Benzo[g,h,i]perylene	32.0	29.4		ug/L		92	66 - 150
Benzo[k]fluoranthene	32.0	31.8		ug/L		99	65 - 124
Benzyl alcohol	32.0	25.9		ug/L		81	41 - 126
Bis(2-chloroethoxy)methane	32.0	28.6		ug/L		90	50 - 128
Bis(2-chloroethyl)ether	32.0	27.2		ug/L		85	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	30.6		ug/L		96	63 - 139
bis (2-chloroisopropyl) ether	32.0	27.9		ug/L		87	21 - 136
Butyl benzyl phthalate	32.0	31.2		ug/L		98	70 - 129
Chrysene	32.0	30.5		ug/L		95	69 - 120
Dibenz(a,h)anthracene	32.0	30.4		ug/L		95	65 - 135
Dibenzofuran	32.0	28.9		ug/L		90	66 - 120
Diethyl phthalate	32.0	32.1		ug/L		100	59 - 127

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

Lab Sample ID: LCS 480-392888/2-A
Matrix: Water
Analysis Batch: 393207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 392888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	32.0	31.7		ug/L		99	68 - 120
Di-n-butyl phthalate	32.0	31.3		ug/L		98	69 - 131
Di-n-octyl phthalate	32.0	30.3		ug/L		95	63 - 140
Diphenylamine	27.4	25.4		ug/L		93	61 - 120
Fluoranthene	32.0	31.0		ug/L		97	69 - 126
Fluorene	32.0	28.6		ug/L		90	66 - 120
Hexachlorobenzene	32.0	28.3		ug/L		88	61 - 120
Hexachlorobutadiene	32.0	24.8		ug/L		77	35 - 120
Hexachlorocyclopentadiene	32.0	14.6		ug/L		46	31 - 120
Hexachloroethane	32.0	23.6		ug/L		74	43 - 120
Indeno[1,2,3-cd]pyrene	32.0	30.0		ug/L		94	69 - 146
Isophorone	32.0	29.1		ug/L		91	55 - 120
Naphthalene	32.0	26.7		ug/L		83	57 - 120
Nitrobenzene	32.0	28.2		ug/L		88	53 - 123
N-Nitrosodimethylamine	32.0	20.5		ug/L		64	10 - 120
N-Nitrosodi-n-propylamine	32.0	29.4		ug/L		92	32 - 140
N-Nitrosodiphenylamine	32.0	29.7		ug/L		93	61 - 120
Pentachlorophenol	64.0	51.8		ug/L		81	29 - 136
Phenanthrene	32.0	29.1		ug/L		91	68 - 120
Phenol	32.0	18.3		ug/L		57	17 - 120
Pyrene	32.0	30.3		ug/L		95	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*48 - 120*
2-Fluorophenol (Surr)	*69*		*35 - 120*
2,4,6-Tribromophenol (Surr)	*93*		*41 - 120*
Nitrobenzene-d5 (Surr)	*89*		*46 - 120*
Phenol-d5 (Surr)	*57*		*22 - 120*
p-Terphenyl-d14 (Surr)	*99*		*59 - 136*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-392786/1-A
Matrix: Water
Analysis Batch: 392859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 392786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
4,4'-DDE	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
4,4'-DDT	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Aldrin	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
alpha-BHC	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
beta-BHC	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Chlordane (technical)	ND		0.50		ug/L		12/19/17 14:29	12/20/17 10:14	1
delta-BHC	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Dieldrin	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Endosulfan I	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Endosulfan II	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1

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

Lab Sample ID: MB 480-392786/1-A
Matrix: Water
Analysis Batch: 392859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 392786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan sulfate	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Endrin	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Endrin aldehyde	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
gamma-BHC (Lindane)	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Heptachlor	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Methoxychlor	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1
Toxaphene	ND		0.50		ug/L		12/19/17 14:29	12/20/17 10:14	1
Heptachlor epoxide	ND		0.050		ug/L		12/19/17 14:29	12/20/17 10:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*37*		*20 - 120*	*12/19/17 14:29*	*12/20/17 10:14*	*1*
DCB Decachlorobiphenyl	*44*		*20 - 120*	*12/19/17 14:29*	*12/20/17 10:14*	*1*
Tetrachloro-m-xylene	*76*		*44 - 120*	*12/19/17 14:29*	*12/20/17 10:14*	*1*
Tetrachloro-m-xylene	*70*		*44 - 120*	*12/19/17 14:29*	*12/20/17 10:14*	*1*

Lab Sample ID: LCS 480-392786/2-A
Matrix: Water
Analysis Batch: 392859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 392786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.400	0.405		ug/L		101	64 - 129
4,4'-DDE	0.400	0.353		ug/L		88	50 - 120
4,4'-DDT	0.400	0.453		ug/L		113	59 - 120
Aldrin	0.400	0.286		ug/L		71	40 - 125
alpha-BHC	0.400	0.342		ug/L		86	52 - 125
beta-BHC	0.400	0.355		ug/L		89	51 - 120
delta-BHC	0.400	0.369		ug/L		92	51 - 120
Dieldrin	0.400	0.394		ug/L		99	66 - 128
Endosulfan I	0.400	0.388		ug/L		97	57 - 120
Endosulfan II	0.400	0.391		ug/L		98	66 - 131
Endosulfan sulfate	0.400	0.433		ug/L		108	66 - 136
Endrin	0.400	0.393		ug/L		98	65 - 135
Endrin aldehyde	0.400	0.402		ug/L		101	61 - 134
gamma-BHC (Lindane)	0.400	0.375		ug/L		94	56 - 120
Heptachlor	0.400	0.357		ug/L		89	58 - 120
Methoxychlor	0.400	0.536		ug/L		134	50 - 150
Heptachlor epoxide	0.400	0.387		ug/L		97	65 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*37*		*20 - 120*
DCB Decachlorobiphenyl	*42*		*20 - 120*
Tetrachloro-m-xylene	*76*		*44 - 120*
Tetrachloro-m-xylene	*69*		*44 - 120*

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

Lab Sample ID: MB 480-392782/1-A
Matrix: Water
Analysis Batch: 393108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 392782

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		12/19/17 14:11	12/21/17 12:25	1
PCB-1221	ND		0.50		ug/L		12/19/17 14:11	12/21/17 12:25	1
PCB-1232	ND		0.50		ug/L		12/19/17 14:11	12/21/17 12:25	1
PCB-1242	ND		0.50		ug/L		12/19/17 14:11	12/21/17 12:25	1
PCB-1248	ND		0.50		ug/L		12/19/17 14:11	12/21/17 12:25	1
PCB-1254	ND		0.50		ug/L		12/19/17 14:11	12/21/17 12:25	1
PCB-1260	ND		0.50		ug/L		12/19/17 14:11	12/21/17 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*98*		*39 - 121*	*12/19/17 14:11*	*12/21/17 12:25*	*1*
Tetrachloro-m-xylene	*96*		*39 - 121*	*12/19/17 14:11*	*12/21/17 12:25*	*1*
DCB Decachlorobiphenyl	*56*		*19 - 120*	*12/19/17 14:11*	*12/21/17 12:25*	*1*
DCB Decachlorobiphenyl	*54*		*19 - 120*	*12/19/17 14:11*	*12/21/17 12:25*	*1*

Lab Sample ID: LCS 480-392782/2-A
Matrix: Water
Analysis Batch: 393108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 392782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	3.70		ug/L		93	62 - 130
PCB-1260	4.00	3.54		ug/L		89	56 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*82*		*39 - 121*
Tetrachloro-m-xylene	*82*		*39 - 121*
DCB Decachlorobiphenyl	*55*		*19 - 120*
DCB Decachlorobiphenyl	*55*		*19 - 120*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-392785/1-A
Matrix: Water
Analysis Batch: 393010

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 392785

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		0.50		ug/L		12/19/17 14:27	12/20/17 17:47	1
2,4-D	ND		0.50		ug/L		12/19/17 14:27	12/20/17 17:47	1
Dinoseb	ND		0.50		ug/L		12/19/17 14:27	12/20/17 17:47	1
Silvex (2,4,5-TP)	ND		0.50		ug/L		12/19/17 14:27	12/20/17 17:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*57*		*48 - 132*	*12/19/17 14:27*	*12/20/17 17:47*	*1*
2,4-Dichlorophenylacetic acid	*174*	*X*	*48 - 132*	*12/19/17 14:27*	*12/20/17 17:47*	*1*

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

Lab Sample ID: LCS 480-392785/2-A
Matrix: Water
Analysis Batch: 393010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 392785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	2.00	1.73		ug/L		87	41 - 150
2,4-D	2.00	2.35		ug/L		117	36 - 150
Dinoseb	2.00	0.892		ug/L		45	21 - 120
Silvex (2,4,5-TP)	2.00	1.63		ug/L		82	49 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*77*		*48 - 132*
2,4-Dichlorophenylacetic acid	*73*		*48 - 132*

Lab Sample ID: LCSD 480-392785/3-A
Matrix: Water
Analysis Batch: 393010

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 392785

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	2.00	2.08		ug/L		104	41 - 150	18	50
2,4-D	2.00	2.22		ug/L		111	36 - 150	6	50
Dinoseb	2.00	0.870		ug/L		43	21 - 120	3	50
Silvex (2,4,5-TP)	2.00	1.90		ug/L		95	49 - 150	15	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*76*		*48 - 132*
2,4-Dichlorophenylacetic acid	*65*		*48 - 132*

Method: 8280B - Dioxins and Furans (HRGC/LRMS)

Lab Sample ID: MB 320-201119/1-A
Matrix: Water
Analysis Batch: 202307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201119

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		5.0		ng/L		12/22/17 11:35	01/03/18 12:08	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*69*		*25 - 150*	*12/22/17 11:35*	*01/03/18 12:08*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*102*		*25 - 150*	*12/22/17 11:35*	*01/03/18 12:08*	*1*

Lab Sample ID: LCS 320-201119/2-A
Matrix: Water
Analysis Batch: 202307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	25.0	26.7		ng/L		107	67 - 127

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*70*		*25 - 150*

Surrogate	LCS %Recovery	LCS Qualifier	Limits
37Cl4-2,3,7,8-TCDD	*100*		*25 - 150*

Lab Sample ID: LCSD 320-201119/3-A
Matrix: Water
Analysis Batch: 202307

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 201119

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	25.0	26.6		ng/L		106	67 - 127	0	60

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C-2,3,7,8-TCDD	*70*		*25 - 150*

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
37Cl4-2,3,7,8-TCDD	*100*		*25 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-392736/1-A
Matrix: Water
Analysis Batch: 393339

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 392736

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20		mg/L		12/20/17 07:45	12/21/17 13:55	1
Antimony	ND		0.020		mg/L		12/20/17 07:45	12/21/17 13:55	1
Arsenic	ND		0.015		mg/L		12/20/17 07:45	12/21/17 13:55	1
Barium	ND		0.0020		mg/L		12/20/17 07:45	12/21/17 13:55	1
Beryllium	ND		0.0020		mg/L		12/20/17 07:45	12/21/17 13:55	1
Boron	ND		0.020		mg/L		12/20/17 07:45	12/21/17 13:55	1
Cadmium	ND		0.0020		mg/L		12/20/17 07:45	12/21/17 13:55	1
Calcium	ND		0.50		mg/L		12/20/17 07:45	12/21/17 13:55	1
Chromium	ND		0.0040		mg/L		12/20/17 07:45	12/21/17 13:55	1
Cobalt	ND		0.0040		mg/L		12/20/17 07:45	12/21/17 13:55	1
Copper	ND		0.010		mg/L		12/20/17 07:45	12/21/17 13:55	1
Iron	ND		0.050		mg/L		12/20/17 07:45	12/21/17 13:55	1
Lead	ND		0.010		mg/L		12/20/17 07:45	12/21/17 13:55	1
Magnesium	ND		0.20		mg/L		12/20/17 07:45	12/21/17 13:55	1
Manganese	ND	^	0.0030		mg/L		12/20/17 07:45	12/21/17 13:55	1
Nickel	ND		0.010		mg/L		12/20/17 07:45	12/21/17 13:55	1
Potassium	ND		0.50		mg/L		12/20/17 07:45	12/21/17 13:55	1
Selenium	ND		0.025		mg/L		12/20/17 07:45	12/21/17 13:55	1
Silver	ND		0.0060		mg/L		12/20/17 07:45	12/21/17 13:55	1
Sodium	ND		1.0		mg/L		12/20/17 07:45	12/21/17 13:55	1
Thallium	ND		0.020		mg/L		12/20/17 07:45	12/21/17 13:55	1
Tin	ND		0.010		mg/L		12/20/17 07:45	12/21/17 13:55	1
Vanadium	ND		0.0050		mg/L		12/20/17 07:45	12/21/17 13:55	1
Zinc	ND		0.010		mg/L		12/20/17 07:45	12/21/17 13:55	1

Lab Sample ID: LCS 480-392736/2-A
Matrix: Water
Analysis Batch: 393339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 392736

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.03		mg/L		100	80 - 120

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

Lab Sample ID: LCS 480-392736/2-A
Matrix: Water
Analysis Batch: 393339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 392736

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.200	0.198		mg/L		99	80 - 120
Arsenic	0.200	0.203		mg/L		102	80 - 120
Barium	0.200	0.200		mg/L		100	80 - 120
Beryllium	0.200	0.201		mg/L		101	80 - 120
Boron	0.200	0.199		mg/L		99	80 - 120
Cadmium	0.200	0.195		mg/L		98	80 - 120
Calcium	10.0	10.19		mg/L		102	80 - 120
Chromium	0.200	0.200		mg/L		100	80 - 120
Cobalt	0.200	0.193		mg/L		97	80 - 120
Copper	0.200	0.205		mg/L		102	80 - 120
Iron	10.0	10.21		mg/L		102	80 - 120
Lead	0.200	0.204		mg/L		102	80 - 120
Magnesium	10.0	10.25		mg/L		103	80 - 120
Manganese	0.200	0.215	^	mg/L		107	80 - 120
Nickel	0.200	0.202		mg/L		101	80 - 120
Potassium	10.0	10.03		mg/L		100	80 - 120
Selenium	0.200	0.197		mg/L		98	80 - 120
Silver	0.0500	0.0487		mg/L		97	80 - 120
Sodium	10.0	9.61		mg/L		96	80 - 120
Thallium	0.200	0.200		mg/L		100	80 - 120
Tin	0.200	0.199		mg/L		99	80 - 120
Vanadium	0.200	0.201		mg/L		100	80 - 120
Zinc	0.200	0.203		mg/L		102	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-393359/1-A
Matrix: Water
Analysis Batch: 393416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 393359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/22/17 13:45	12/22/17 17:08	1

Lab Sample ID: LCS 480-393359/2-A
Matrix: Water
Analysis Batch: 393416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 393359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00693		mg/L		104	80 - 120

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 480-392811/3
Matrix: Water
Analysis Batch: 392811

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	ND		1.00		NTU			12/19/17 15:21	1

Method: 180.1 - Turbidity, Nephelometric (Continued)

Lab Sample ID: LCS 480-392811/4
Matrix: Water
Analysis Batch: 392811

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Turbidity	10.0	10.00		NTU		100	90 - 110

Lab Sample ID: 480-129162-1 DU
Matrix: Water
Analysis Batch: 392811

Client Sample ID: Leachate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Turbidity	47.4		48.60		NTU		3	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-393363/29
Matrix: Water
Analysis Batch: 393363

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND		0.20		mg/L			12/22/17 20:10	1

Lab Sample ID: LCS 480-393363/28
Matrix: Water
Analysis Batch: 393363

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.09		mg/L		102	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-393748/3
Matrix: Water
Analysis Batch: 393748

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			12/27/17 12:14	1

Lab Sample ID: MB 480-393748/75
Matrix: Water
Analysis Batch: 393748

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			12/27/17 13:17	1

Lab Sample ID: LCS 480-393748/4
Matrix: Water
Analysis Batch: 393748

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	0.990		mg/L as N		99	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 480-393748/76
Matrix: Water
Analysis Batch: 393748

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	0.990		mg/L as N		99	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-393471/1-A
Matrix: Water
Analysis Batch: 393585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 393471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20		mg/L as N		12/26/17 07:05	12/26/17 11:40	1

Lab Sample ID: LCS 480-393471/2-A
Matrix: Water
Analysis Batch: 393585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 393471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.71		mg/L as N		108	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-394298/51
Matrix: Water
Analysis Batch: 394298

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0		mg/L			01/02/18 15:00	1

Lab Sample ID: LCS 480-394298/52
Matrix: Water
Analysis Batch: 394298

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

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

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-392651/3
Matrix: Water
Analysis Batch: 392651

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.010		mg/L			12/19/17 04:48	1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 480-392651/4
Matrix: Water
Analysis Batch: 392651

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.200	0.199		mg/L		99	85 - 115

Lab Sample ID: LCSD 480-392651/5
Matrix: Water
Analysis Batch: 392651

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
Cr (VI)	0.200	0.210		mg/L		105	85 - 115	5	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-394011/1-A
Matrix: Water
Analysis Batch: 394075

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 394011

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L		12/29/17 03:15	12/29/17 10:47	1

Lab Sample ID: LCS 480-394011/2-A
Matrix: Water
Analysis Batch: 394075

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 394011

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.240		mg/L		96	90 - 110

Lab Sample ID: LCSD 480-394011/3-A
Matrix: Water
Analysis Batch: 394075

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 394011

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.250	0.264		mg/L		106	90 - 110	10	15

Method: 9038 - Sulfate, Turbidimetric

Lab Sample ID: MB 480-393011/197
Matrix: Water
Analysis Batch: 393011

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			12/20/17 15:47	1

Lab Sample ID: LCS 480-393011/196
Matrix: Water
Analysis Batch: 393011

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	30.0	28.41		mg/L		95	90 - 110

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

Lab Sample ID: MB 480-393238/28
Matrix: Water
Analysis Batch: 393238

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			12/21/17 06:35	1

Lab Sample ID: LCS 480-393238/29
Matrix: Water
Analysis Batch: 393238

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	60.42		mg/L		101	90 - 110

Method: 9065 - Phenolics, Total Recoverable

Lab Sample ID: MB 480-393821/1-A
Matrix: Water
Analysis Batch: 393996

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 393821

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	ND		0.010		mg/L		12/28/17 05:31	12/28/17 16:18	1

Lab Sample ID: LCS 480-393821/2-A
Matrix: Water
Analysis Batch: 393996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 393821

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.100	0.0960		mg/L		96	90 - 110

Lab Sample ID: 480-129162-1 MS
Matrix: Water
Analysis Batch: 393996

Client Sample ID: Leachate
Prep Type: Total/NA
Prep Batch: 393821

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.024	F1	0.100	0.0971	F1	mg/L		73	90 - 110

Method: 9251 - Chloride

Lab Sample ID: MB 480-393225/142
Matrix: Water
Analysis Batch: 393225

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			12/21/17 11:22	1

Lab Sample ID: MB 480-393225/166
Matrix: Water
Analysis Batch: 393225

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			12/21/17 11:50	1

Method: 9251 - Chloride (Continued)

Lab Sample ID: LCS 480-393225/143
Matrix: Water
Analysis Batch: 393225

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	26.26		mg/L		105	90 - 110

Lab Sample ID: LCS 480-393225/167
Matrix: Water
Analysis Batch: 393225

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	26.41		mg/L		106	90 - 110

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 480-392998/3
Matrix: Water
Analysis Batch: 392998

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			12/20/17 10:27	1

Lab Sample ID: LCS 480-392998/4
Matrix: Water
Analysis Batch: 392998

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 480-393054/30
Matrix: Water
Analysis Batch: 393054

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			12/20/17 18:38	1

Lab Sample ID: LCS 480-393054/31
Matrix: Water
Analysis Batch: 393054

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	96.44		mg/L		96	90 - 110

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

Lab Sample ID: MB 480-393046/1
Matrix: Water
Analysis Batch: 393046

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			12/20/17 19:40	1

Lab Sample ID: LCS 480-393046/2
Matrix: Water
Analysis Batch: 393046

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	501	498.0		mg/L		99	85 - 115

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-393469/3
Matrix: Water
Analysis Batch: 393469

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.67		mg/L			12/24/17 10:15	1

Lab Sample ID: MB 480-393469/51
Matrix: Water
Analysis Batch: 393469

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.67		mg/L			12/24/17 10:15	1

Lab Sample ID: LCS 480-393469/4
Matrix: Water
Analysis Batch: 393469

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	7.20	7.20		mg/L		100	90 - 110

Lab Sample ID: LCS 480-393469/52
Matrix: Water
Analysis Batch: 393469

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	7.20	7.60		mg/L		106	90 - 110

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 480-392845/1
Matrix: Water
Analysis Batch: 392845

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0		mg/L			12/19/17 17:42	1

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

Lab Sample ID: LCS 480-392845/2
Matrix: Water
Analysis Batch: 392845

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	191.4		mg/L		97	85 - 115

QC Association Summary

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

TestAmerica Job ID: 480-129162-1

GC/MS VOA

Analysis Batch: 393280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	8260C	
MB 480-393280/6	Method Blank	Total/NA	Water	8260C	
LCS 480-393280/4	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 392888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	3510C	
MB 480-392888/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-392888/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 393207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-392888/2-A	Lab Control Sample	Total/NA	Water	8270D	392888

Analysis Batch: 393723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	8270D	392888
MB 480-392888/1-A	Method Blank	Total/NA	Water	8270D	392888

GC Semi VOA

Prep Batch: 392782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	3510C	
MB 480-392782/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-392782/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 392785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	8151A	
MB 480-392785/1-A	Method Blank	Total/NA	Water	8151A	
LCS 480-392785/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 480-392785/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Prep Batch: 392786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	3510C	
MB 480-392786/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-392786/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 392859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	8081B	392786
MB 480-392786/1-A	Method Blank	Total/NA	Water	8081B	392786
LCS 480-392786/2-A	Lab Control Sample	Total/NA	Water	8081B	392786

GC Semi VOA (Continued)

Analysis Batch: 393010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	8151A	392785
MB 480-392785/1-A	Method Blank	Total/NA	Water	8151A	392785
LCS 480-392785/2-A	Lab Control Sample	Total/NA	Water	8151A	392785
LCSD 480-392785/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	392785

Analysis Batch: 393108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	8082A	392782
MB 480-392782/1-A	Method Blank	Total/NA	Water	8082A	392782
LCS 480-392782/2-A	Lab Control Sample	Total/NA	Water	8082A	392782

Specialty Organics

Prep Batch: 201119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	8280B	
MB 320-201119/1-A	Method Blank	Total/NA	Water	8280B	
LCS 320-201119/2-A	Lab Control Sample	Total/NA	Water	8280B	
LCSD 320-201119/3-A	Lab Control Sample Dup	Total/NA	Water	8280B	

Analysis Batch: 202307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	8280B	201119
MB 320-201119/1-A	Method Blank	Total/NA	Water	8280B	201119
LCS 320-201119/2-A	Lab Control Sample	Total/NA	Water	8280B	201119
LCSD 320-201119/3-A	Lab Control Sample Dup	Total/NA	Water	8280B	201119

Metals

Prep Batch: 392736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	3005A	
MB 480-392736/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-392736/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 393339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	6010C	392736
MB 480-392736/1-A	Method Blank	Total/NA	Water	6010C	392736
LCS 480-392736/2-A	Lab Control Sample	Total/NA	Water	6010C	392736

Prep Batch: 393359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	7470A	
MB 480-393359/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-393359/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 393416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	7470A	393359

Metals (Continued)

Analysis Batch: 393416 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-393359/1-A	Method Blank	Total/NA	Water	7470A	393359
LCS 480-393359/2-A	Lab Control Sample	Total/NA	Water	7470A	393359

General Chemistry

Analysis Batch: 392651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	7196A	
MB 480-392651/3	Method Blank	Total/NA	Water	7196A	
LCS 480-392651/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 480-392651/5	Lab Control Sample Dup	Total/NA	Water	7196A	

Analysis Batch: 392811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	180.1	
MB 480-392811/3	Method Blank	Total/NA	Water	180.1	
LCS 480-392811/4	Lab Control Sample	Total/NA	Water	180.1	
480-129162-1 DU	Leachate	Total/NA	Water	180.1	

Analysis Batch: 392838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	353.2	

Analysis Batch: 392845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	SM 5210B	
USB 480-392845/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 480-392845/2	Lab Control Sample	Total/NA	Water	SM 5210B	

Analysis Batch: 392998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	SM 2120B	
MB 480-392998/3	Method Blank	Total/NA	Water	SM 2120B	
LCS 480-392998/4	Lab Control Sample	Total/NA	Water	SM 2120B	

Analysis Batch: 393011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	9038	
MB 480-393011/197	Method Blank	Total/NA	Water	9038	
LCS 480-393011/196	Lab Control Sample	Total/NA	Water	9038	

Analysis Batch: 393046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	SM 2540C	
MB 480-393046/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-393046/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 393054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 393054 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-393054/30	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-393054/31	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 393225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	9251	
MB 480-393225/142	Method Blank	Total/NA	Water	9251	
MB 480-393225/166	Method Blank	Total/NA	Water	9251	
LCS 480-393225/143	Lab Control Sample	Total/NA	Water	9251	
LCS 480-393225/167	Lab Control Sample	Total/NA	Water	9251	

Analysis Batch: 393238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	9060A	
MB 480-393238/28	Method Blank	Total/NA	Water	9060A	
LCS 480-393238/29	Lab Control Sample	Total/NA	Water	9060A	

Analysis Batch: 393363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	300.0	
MB 480-393363/29	Method Blank	Total/NA	Water	300.0	
LCS 480-393363/28	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 393469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	SM 4500 S2 F	
MB 480-393469/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
MB 480-393469/51	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-393469/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
LCS 480-393469/52	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	

Prep Batch: 393471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	351.2	
MB 480-393471/1-A	Method Blank	Total/NA	Water	351.2	
LCS 480-393471/2-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 393585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	351.2	393471
MB 480-393471/1-A	Method Blank	Total/NA	Water	351.2	393471
LCS 480-393471/2-A	Lab Control Sample	Total/NA	Water	351.2	393471

Analysis Batch: 393748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	350.1	
MB 480-393748/3	Method Blank	Total/NA	Water	350.1	
MB 480-393748/75	Method Blank	Total/NA	Water	350.1	
LCS 480-393748/4	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-393748/76	Lab Control Sample	Total/NA	Water	350.1	

General Chemistry (Continued)

Prep Batch: 393821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	Distill/Phenol	
MB 480-393821/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 480-393821/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
480-129162-1 MS	Leachate	Total/NA	Water	Distill/Phenol	

Analysis Batch: 393996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	9065	393821
MB 480-393821/1-A	Method Blank	Total/NA	Water	9065	393821
LCS 480-393821/2-A	Lab Control Sample	Total/NA	Water	9065	393821
480-129162-1 MS	Leachate	Total/NA	Water	9065	393821

Prep Batch: 394011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	9012B	
MB 480-394011/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-394011/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCSD 480-394011/3-A	Lab Control Sample Dup	Total/NA	Water	9012B	

Analysis Batch: 394075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	9012B	394011
MB 480-394011/1-A	Method Blank	Total/NA	Water	9012B	394011
LCS 480-394011/2-A	Lab Control Sample	Total/NA	Water	9012B	394011
LCSD 480-394011/3-A	Lab Control Sample Dup	Total/NA	Water	9012B	394011

Analysis Batch: 394298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-129162-1	Leachate	Total/NA	Water	410.4	
MB 480-394298/51	Method Blank	Total/NA	Water	410.4	
LCS 480-394298/52	Lab Control Sample	Total/NA	Water	410.4	

Lab Chronicle

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

TestAmerica Job ID: 480-129162-1

Client Sample ID: Leachate

Date Collected: 12/18/17 10:30
Date Received: 12/19/17 01:00

Lab Sample ID: 480-129162-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	393280	12/22/17 15:48	ARS	TAL BUF
Total/NA	Prep	3510C			392888	12/20/17 08:10	JMP	TAL BUF
Total/NA	Analysis	8270D		1	393723	12/27/17 16:34	RJS	TAL BUF
Total/NA	Prep	3510C			392786	12/19/17 14:29	ATG	TAL BUF
Total/NA	Analysis	8081B		5	392859	12/20/17 12:52	JLS	TAL BUF
Total/NA	Prep	3510C			392782	12/19/17 14:11	ATG	TAL BUF
Total/NA	Analysis	8082A		1	393108	12/21/17 15:29	JMO	TAL BUF
Total/NA	Prep	8151A			392785	12/19/17 14:27	RLT	TAL BUF
Total/NA	Analysis	8151A		1	393010	12/20/17 20:46	JMO	TAL BUF
Total/NA	Prep	8280B			201119	12/22/17 11:35	DXD	TAL SAC
Total/NA	Analysis	8280B		1	202307	01/03/18 14:20	FRD	TAL SAC
Total/NA	Prep	3005A			392736	12/20/17 07:45	EMB	TAL BUF
Total/NA	Analysis	6010C		1	393339	12/21/17 14:53	AMH	TAL BUF
Total/NA	Prep	7470A			393359	12/22/17 13:45	EMB	TAL BUF
Total/NA	Analysis	7470A		1	393416	12/22/17 18:03	BMB	TAL BUF
Total/NA	Analysis	180.1		2	392811	12/19/17 15:21	EKB	TAL BUF
Total/NA	Analysis	300.0		1	393363	12/23/17 00:18	RJS	TAL BUF
Total/NA	Analysis	350.1		1	393748	12/27/17 13:35	SSS	TAL BUF
Total/NA	Prep	351.2			393471	12/26/17 07:05	CLT	TAL BUF
Total/NA	Analysis	351.2		1	393585	12/26/17 13:09	CLT	TAL BUF
Total/NA	Analysis	353.2		1	392838	12/19/17 17:34	DCB	TAL BUF
Total/NA	Analysis	410.4		1	394298	01/02/18 15:00	LED	TAL BUF
Total/NA	Analysis	7196A		1	392651	12/19/17 04:48	KMB	TAL BUF
Total/NA	Prep	9012B			394011	12/29/17 03:15	KMB	TAL BUF
Total/NA	Analysis	9012B		1	394075	12/29/17 11:18	JCL	TAL BUF
Total/NA	Analysis	9038		11	393011	12/20/17 15:59	ALZ	TAL BUF
Total/NA	Analysis	9060A		1	393238	12/21/17 10:33	EKB	TAL BUF
Total/NA	Prep	Distill/Phenol			393821	12/28/17 05:31	BEV	TAL BUF
Total/NA	Analysis	9065		1	393996	12/28/17 15:57	EKB	TAL BUF
Total/NA	Analysis	9251		3	393225	12/21/17 11:51	ALZ	TAL BUF
Total/NA	Analysis	SM 2120B		1	392998	12/20/17 10:27	DSC	TAL BUF
Total/NA	Analysis	SM 2320B		1	393054	12/20/17 19:25	ALZ	TAL BUF
Total/NA	Analysis	SM 2540C		1	393046	12/20/17 19:40	CDC	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	393469	12/24/17 10:15	MDL	TAL BUF
Total/NA	Analysis	SM 5210B		1	392845	12/19/17 17:42	CDC	TAL BUF

Laboratory References:

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

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 480-129162-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2-Dichloroethene, Total
8260C		Water	Pentachloroethane
9038		Water	Sulfate
9251		Water	Chloride

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8270D	3510C	Water	2,3,7,8-TCDD

Laboratory: TestAmerica Sacramento

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-055	01-31-18
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	12-31-17 *
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	12-30-17 *
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
Wyoming	State Program	8	8TMS-L	01-28-19

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

Method Summary

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

TestAmerica Job ID: 480-129162-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
8280B	Dioxins and Furans (HRGC/LRMS)	SW846	TAL SAC
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
180.1	Turbidity, Nephelometric	MCAWW	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
410.4	COD	MCAWW	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
9038	Sulfate, Turbidimetric	SW846	TAL BUF
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF
9065	Phenolics, Total Recoverable	SW846	TAL BUF
9251	Chloride	SW846	TAL BUF
SM 2120B	Color, Colorimetric	SM	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
SM 5210B	BOD, 5-Day	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

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

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

Laboratory References:

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

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

Sample Summary

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

TestAmerica Job ID: 480-129162-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-129162-1	Leachate	Water	12/18/17 10:30	12/19/17 01:00

Quantitation Limit Exceptions Summary

Client: Waste Connections, Inc. TestAmerica Job ID: 480-129162-1
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	Matrix	Analyte	Units	Client RL	Lab PQL
SM 2120B	Water	Color	Color Units	0.0100	5
SM 4500 S2 F	Water	Sulfide	mg/L	0.67	1.0

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

480501-Albany

Chain of Custody Record

TestAmerica

480-129162 COC

Client Information	Sampler: Daniel Snyder	Lab PM: VanDette, Ryan T	COC No: 480-106540-19482.1
Client Contact: Corey Judd	Phone: 518 915 3521	E-Mail: ryan.vandette@testamericainc.com	Page: Page 1 of 2
Company: Waste Connections, Inc.			Job #:
Address: 209 Partition Street Extension	Due Date Requested:		
City: Rensselaer	TAT Requested (days):		
State, Zip: NY, 12144			
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required		
Email: coreyj@wasteconnections.com	WO #:		
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
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	350.1, 351.2, 410.4	6010C, 7470A	9065 - Phenolics, Total Recoverable	8260C - NY Part 360 Expanded Volatiles	9060A - Total Organic Carbon	8151A - SAP 6.1 Expanded Herbicides	5210B - Biochemical Oxygen Demand	2540C_Calcd - Total Dissolved Solids	FieldSampling - (MOD) pH,Cond,Temp,ORP,GWElv,DTW,WD,TURB	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	S	D	S	A	A	N	N	N	N		
Leachate	12-18-17	1030AM		Water			2	2	2	1	1	1	1	3	2	2	1	1			

DLZ 12-18-17

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Daniel Snyder	12-18-17 1130AM	WCI	Rob Yoder	12-18-17 1130	TA
2	Rob Yoder	12-18-17 1800	TA	[illegible]	12-19-17 0100	TAS
3						

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.1 #1

Ver: 08/04/2016

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

480501-Albany

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Daniel Snyder	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-106540-19482.2
Client Contact: Corey Judd	Phone: 518 415 3521	E-Mail: ryan.vandette@testamericainc.com		Page: Page 2 of 2
Company: Waste Connections, Inc.				Job #:
Address: 209 Partition Street Extension	Due Date Requested:			
City: Rensselaer	TAT Requested (days): standard			
State, Zip: NY, 12144				
Phone: 518-431-9439(Tel)	PO #: Purchase Order not required			
Email: coreyj@wasteconnections.com	WO #:			
Project Name: Dunn Landfill/ Event Desc: Expanded	Project #: 48010065			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	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)	9012B - Cyanide, Total	180.1, 2120B, 353.2, 353.2_Nitrite, 9038, 9251, Nitrate_Calc	7196A - Cr (VI)	2320B - Alkalinity, Total	310.2 - Alkalinity, Total	8280B - (MOD) TCDD Only	SM4500_S2_F - Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	N	N	N	N	N	CB		
Leachate	12-18-17	1030Am		Water			1	3	1	1	1	2	1		
KZ	12-18-17														

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		12-18-17 1130Am	LCCI		12-18-17 1130	TA
2		12-18-17 1800	TA		12-19-17 0100	DAD
3		Date/Time	Company		Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.1 #1

Ver: 08/04/2016

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-39747.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: ryan.vandette@testamericainc.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-129162-1
Address: 880 Riverside Parkway,	Due Date Requested: 1/2/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Dunn Landfill	Project #: 48010065			
Site: Dunn Landfill	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Wwater, Sesolid, Owaste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8280B/8280B_SoxSep_P (MOD) TCDD Only	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Leachate (480-129162-1)	12/18/17	10:30 Eastern		Water			X	2	

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

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]	12/19/17 1600	TAS	[signature]	12/20/17 1045	TAS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.4

Ver: 09/20/2016

1/5/2018

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Samp

480-129162 Field Sheet

Job: _____

Tracking # 5657 0123 5967

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

Notes: _____

Therm. ID: AK-2 / AK-3 / HACCP /Other _____

Ice X Wet X Dry _____ Other _____

Cooler Custody Seal: 000432

Sample Custody Seal: —

Cooler ID: —

Temp: Observed 5.5

Corrected: —

From: Temp Blank ☐ Sample ☒

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Cooler compromised/tampered with?	☐	☒	☐
Samples compromised/tampered with?	☐	☒	☐
COC and Samples w/o discrepancies?	☒	☐	☐
Sample containers have legible labels?	☒	☐	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided.	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

Initials: PH Date: 12/20/17

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

W23 D

Login Sample Receipt Checklist

Client: Waste Connections, Inc.

Job Number: 480-129162-1
SDG Number:

Login Number: 129162
List Number: 1
Creator: Williams, Christopher S

List Source: TestAmerica Buffalo

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

Job Number: 480-129162-1
SDG Number:

Login Number: 129162
List Number: 2
Creator: Aguayo, Alonso

List Source: TestAmerica Sacramento
List Creation: 12/20/17 06:44 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	009432
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	5.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Attachment

4

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	**USA Hauling & Recycling** 185 Torrington Rd, Winsted, CT 06098	Connecticut	Litchfield		795.85
C&D	**New Bedford Waste Services, LLC** 1245 Shawmut Avenue New Bedford, MA 02746	Massachusetts	Bristol		32871.4
C&D	**All American Waste** 19 Wheeler St New Haven, CT 06516	Connecticut	New Haven		406.33
C&D	**Valley Recycling** 234 East Hampton Rd Northhampton, MA 01060	Massachusetts	Hampshire		1810.88
C&D	**Greene County Solid Waste** 240 West Main Street Catskill, NY 12414	New York	Greene	Greene County	9807.49
C&D	**Albreada Refuse & Sweeping, LLC** 14 Iffland Pond Rd Litchfield, CT 06759	Connecticut	Litchfield		2637.32
C&D	**AMEC Carting LLC** 1 Crescent Street Norwalk, CT 06854	Connecticut	Fairfield		39665.04
C&D	**JD Recycling Inc.** 216 Manida Street Bronx, NY 10474	New York	Bronx	New York City	67804.61
C&D	**F&G Recycling, LLC** 9 Shoham Road East Windsor, CT 06088	Connecticut	Hartford		16025.17
C&D	**F&G Recycling, LLC** 184 Municipal Rd. Waterbury, CT 06708	Connecticut	New Haven		23325.13
C&D	**Brooklyn C&D** 521 Varick Avenue Brooklyn , NY 11222	New York	Kings	New York City	3598.56
C&D	**Empire Recycling** 538 Stewart Avenue Brooklyn, NY 11222	New York	Kings	New York City	6683.04
C&D	**TAM Waste Management INC.** 639 North Road Shaftsbury, VT 05262	Vermont	Bennington		5171.33
C&D	**TAM Recycling** 171 Church Street Pownal, VT 05261	Vermont	Bennington		4744.9
C&D	**Covanta B3 Transfer Station** Flints Crossing Road Canaan, NY 12029	New York	Columbia	Canaan	18183.45
C&D	**K&W Materials & Recycling** 138 Palmer Avenue West Springfield, MA 01089	Massachusetts	Hampden		28047.65
C&D	**Covanta** 306 Fayette Avenue Mamaroneck, NY 10543	New York	Westchester	Westchester County	6373.48
C&D	**County Waste - Troy** 83 Water Street Troy, NY 12180	New York	Rensselaer	CRSWMP	32391.49
C&D	**J.R. Vinagro Corporation** 2208 Plain Pike Johnston, RI 02919	Rhode Island	Providence		643.8

C&D	**United Material Management** 896 Main Street Holyoke, MA 01040	Massachusetts	Hampden		28996.13
C&D	**S&L Zeppetelli Inc.** 191 Moonachie Road Moonachie, NJ 07074	New Jersey	Bergen		4404.51
C&D	**Enviro Express** 555 Wordin Avenue Bridgeport, CT 06605	Connecticut	Fairfield		136.78
C&D	**Evergreen Disposal TS** 465 Ross Ruland Road Extension South Cairo, NY 12482	New York	Greene	Greene County	126.65
C&D	**County Waste - Clifton Park** 1927 Route 9 Clifton Park, NY 12165	New York	Saratoga	Saratoga County	17714.46
C&D	**County Waste - Fort Ann** 10913 Route 149 Fort Ann, NY 12827	New York	Washington	Washington County	10448.6
C&D	**Colonie Landfill** 1319 New Loudon Road Colonie, NY 12047	New York	Albany	Colonie (Town)	11116.49
C&D	**Ruggiero Transfer Station** 32 Industrial Drive Walpole, NH 03608	New Hampshire	Cheshire		2832.59
C&D	**JL Seaman** 3 Merritt Street Norwalk, CT 06851	Connecticut	Fairfield		16290.38
C&D	**West Nyack Transfer Station** 183 Western Highway West Nyack, NY 10994	New York	Rockland	RCSWMA	5768.12
C&D	**New England Recycling** 569 Winthrop St. Taunton, MA 02780	Massachusetts	Bristol		9543.06
C&D	**City Carting** 241 Route 100 Somers, NY 10589	New York	Westchester	Westchester County	24744.70
C&D	**ReEnergy Roxbury** 101 Gerard Street Roxbury, MA 02119	Massachusetts	Suffolk		10653.77
C&D	**Western Recycling** 120 Old Boston Rd Wilbraham, MA 01095	Massachusetts	Hampden County		462.33
C&D	**Direct Haul**	ALBANY	Albany	CRSWMP	1733.82
C&D	**Direct Haul**	AMHERST, MA	Hampshire		4.88
C&D	**Direct Haul**	AMSTERDAM, NY	Fulton		60.74
C&D	**Direct Haul**	ABINGTON, MA	Plymouth		1433.33
C&D	**Direct Haul**	ADAMS, MA	Berkshire		138.44
C&D	**Direct Haul**	AGAWAM, MA	Hampden		475.09
C&D	**Direct Haul**	AMENIA	Dutchess		29.56
C&D	**Direct Haul**	ARLINGTON, MA	Middlesex		17.49
C&D	**Direct Haul**	ATHENS	Greene		43.18
C&D	**Direct Haul**	BARNSTABLE, MA	Barnstable		252.65
C&D	**Direct Haul**	BALSTON SPA	Saratoga	Saratoga County	48.94
C&D	**Direct Haul**	BEDFORD, MA	Middlesex		219.22
C&D	**Direct Haul**	BELCHERTOWN, MA	Hampshire		3070.86
C&D	**Direct Haul**	BELLOWS FALLS, VT	Windham		102.66
C&D	**Direct Haul**	BEVERLY,MA	Essex		82.24
C&D	**Direct Haul**	BLOOMFIELD, CT	Hartford		7.48
C&D	**Direct Haul**	BOICEVILLE, NY	Ulster	UCRRA	109.63
C&D	**Direct Haul**	BOLTON LANDING	Warren		35.42
C&D	**Direct Haul**	BOSTON, MA	Suffolk		6314.02
C&D	**Direct Haul**	BRATTLEBORO, VT	Windham		650.46
C&D	**Direct Haul**	BRIDGEPORT,CT	Fairfield		255.66

C&D	**Direct Haul**	BRIGHTON,MA	Suffolk		73.44
C&D	**Direct Haul**	BROOKLINE,MA	Norfolk		193.37
C&D	**Direct Haul**	BROCKTON, MA	Plymouth		41.28
C&D	**Direct Haul**	CAMBRIDGE, MA	Middlesex		1691.64
C&D	**Direct Haul**	CAVANESE, VT	Winsdsor		32.01
C&D	**Direct Haul**	CHARLESTOWN, MA	Suffolk		46.26
C&D	**Direct Haul**	CHICOPEE, MA	Hampden		293.10
C&D	**Direct Haul**	CLIFTON PARK	Saratoga	Saratoga County	469.03
C&D	**Direct Haul**	CLINTON, MA	Worcester		22.81
C&D	**Direct Haul**	COEYMANS	Albany	CRSWMP	342.48
C&D	**Direct Haul**	COLONIE, NY	Albany	CRSWMP	203.28
C&D	**Direct Haul**	COHOES	Albany	CRSWMP	158.59
C&D	**Direct Haul**	DEDHAM, MA	Norfolk		23.86
C&D	**Direct Haul**	DELMAR, NY	Albany	CRSWMP	253.56
C&D	**Direct Haul**	DORCHESTER, MA	Suffolk		18.04
C&D	**Direct Haul**	DUANESBURG, NY	Schenectady		54.45
C&D	**Direct Haul**	EAST HAMPTON, MA	Hampshire		18.81
C&D	**Direct Haul**	EVERTT, MA	Middlesex		585.88
C&D	**Direct Haul**	FALL RIVER, MA	Bristol		15.80
C&D	**Direct Haul**	FISHKILL, NY	Dutchess		35.38
C&D	**Direct Haul**	FORT ANN, NY	Washington		35.35
C&D	**Direct Haul**	FORT PLAIN, NY	Montgomery		14.13
C&D	**Direct Haul**	FRANKLYN, CT	New London		19.73
C&D	**Direct Haul**	GLENMONT, NY	Albany	CRSWMP	229.70
C&D	**Direct Haul**	GLENS FALLS	Warren	Warren County	43.37
C&D	**Direct Haul**	GREENFIELD, MA	Franklin		745.72
C&D	**Direct Haul**	GREENWICH, CT	Fairfield		42.78
C&D	**Direct Haul**	GREEN ISLAND, NY	Albany	CRSWMP	102.86
C&D	**Direct Haul**	HALFMOON	Saratoga	Saratoga County	36.18
C&D	**Direct Haul**	HARTFORD, CT	Hartford		20.91
C&D	**Direct Haul**	HAVERHILL,MA	Essex		13.12
C&D	**Direct Haul**	HOLBROOK, MA	Norfolk		149.79
C&D	**Direct Haul**	HOLYOKE, MA	Hampden		1379.39
C&D	**Direct Haul**	HOOSICK FALLS	Rensselaer	ERCSWMA	1258.19
C&D	**Direct Haul**	HUDSON	Columbia		218.08
C&D	**Direct Haul**	JAMAICA PLAIN, MA	Suffolk		1527.49
C&D	**Direct Haul**	KEENE,NH	Cheshire		33.22
C&D	**Direct Haul**	KERHONKSON	Ulster	UCRRA	41.15
C&D	**Direct Haul**	KINGSTON	Ulster	UCRRA	1111.19
C&D	**Direct Haul**	LAKE GEORGE	Warren		183.96
C&D	**Direct Haul**	LATHAM	Albany	CRSWMP	91.87
C&D	**Direct Haul**	LAWRENCE, MA	Essex		42.68
C&D	**Direct Haul**	LOWELL,MA	Middlesex		555.92
C&D	**Direct Haul**	LYNN, MA	Essex		104.57
C&D	**Direct Haul**	MALDEN, MA	Middlesex		5529.58
C&D	**Direct Haul**	MANCHESTER, NH	Hillsborough		92.52
C&D	**Direct Haul**	MARLBORO, NY	Ulster		16.23
C&D	**Direct Haul**	MAYNARD, MA	Middlesex		56.04
C&D	**Direct Haul**	MECHANICVILLE	Saratoga		29.10
C&D	**Direct Haul**	MEDFORD, MA	Middlesex		62.99
C&D	**Direct Haul**	MELROSE, MA	Middlesex		303.41
C&D	**Direct Haul**	MENANDS	Albany	Colonie	252.99
C&D	**Direct Haul**	MIDDLEBURG, MA	Plymouth		61.10
C&D	**Direct Haul**	MIDDLEBURG, NY	Schoharie		141.49
C&D	**Direct Haul**	MIDDLEBURG, VT	Addison		106.87
C&D	**Direct Haul**	MT. TREMPER, NY	Ulster		55.70
C&D	**Direct Haul**	NATICK, MA	Middlesex		495.04
C&D	**Direct Haul**	NEW BEDFORD, MA	Bristol		156.45
C&D	**Direct Haul**	NEW HAVEN, CT	New Haven		104.22
C&D	**Direct Haul**	NEWTON, MA	Middlesex		398.69
C&D	**Direct Haul**	NORTH GREENBUSH	Rensselaer	ERCSWMA	28.81
C&D	**Direct Haul**	NORTH HAVEN	Suffolk	Southhampton	82.48
C&D	**Direct Haul**	PEABODY,MA	Essex		58.34

C&D	**Direct Haul**	PITTSFIELD, MA	Berkshire		654.14
C&D	**Direct Haul**	PLAINVILLE, MA	Norfolk		496.36
C&D	**Direct Haul**	POESTENKILL	Rensselaer	ERCSWMA	42.28
C&D	**Direct Haul**	PROVIDENCE, RI	Providence		16.56
C&D	**Direct Haul**	REDDING, CT	Fairfield		21.59
C&D	**Direct Haul**	RENSSELAER	Rensselaer	ERCSWMA	118.66
C&D	**Direct Haul**	REXFORD	Saratoga	Saratoga County	81.53
C&D	**Direct Haul**	RHINEBACK, NY	Dutchess		10.66
C&D	**Direct Haul**	ROCHESTER, MA	Plymouth		46.76
C&D	**Direct Haul**	ROTTERDAM, NY	Schenectady		76.88
C&D	**Direct Haul**	SALEM, NH	Rockingham		959.63
C&D	**Direct Haul**	SANFORD, ME	York		20.56
C&D	**Direct Haul**	SARANAC LAKE, NY	Franklin		31.06
C&D	**Direct Haul**	SARATOGA	Saratoga	Saratoga County	853.08
C&D	**Direct Haul**	SAXTONS RIVERS, VT	Windham		201.72
C&D	**Direct Haul**	SCHENECTADY	Schenectady	Schenectady County	3166.91
C&D	**Direct Haul**	SCHODACK	Rensselaer	ERCSWMA	6.10
C&D	**Direct Haul**	SCHUYLERVILLE, NY	Saratoga		68.77
C&D	**Direct Haul**	SCOTIA, NY	Schenectady		153.51
C&D	**Direct Haul**	SHANDAKEN, NY	Ulster	UCRRA	134.51
C&D	**Direct Haul**	SHELTON, CT	Fairfield		15.50
C&D	**Direct Haul**	SHREWSBURY, VT	Rutland		21.71
C&D	**Direct Haul**	SLINGERLANDS	Albany	CRSWMP	3.01
C&D	**Direct Haul**	SOMERVILLE, MA	Middlesex		235.66
C&D	**Direct Haul**	SOMERS, NY	Westchester	Westchester County	61.01
C&D	**Direct Haul**	SOMERSET,MA	Bristol		69.77
C&D	**Direct Haul**	SPRINGFIELD, MA	Hampden		817.89
C&D	**Direct Haul**	STANFORD, CT	Fairfield		75.83
C&D	**Direct Haul**	ST LAWRENCE, MA	Essex		234.75
C&D	**Direct Haul**	ST LOWELL, MA	Middlesex		195.64
C&D	**Direct Haul**	STILLWATER, NY	Saratoga		38.28
C&D	**Direct Haul**	STOUGHTON, MA	Norfolk		27.44
C&D	**Direct Haul**	STRATFORD, CT	Fairfield		12.51
C&D	**Direct Haul**	TAUNTON, MA	Bristol		33.26
C&D	**Direct Haul**	TIVILO, NY	Dutchess		75.11
C&D	**Direct Haul**	TROY, NY	Rensselaer	ERCSWMA	313.36
C&D	**Direct Haul**	WAKEFIELD, MA	Middlesex		88.67
C&D	**Direct Haul**	WALLKILL, NY	Orange		55.10
C&D	**Direct Haul**	WALPOLE, MA	Norfolk		120.03
C&D	**Direct Haul**	WALTHAM, MA	Middlesex		259.79
C&D	**Direct Haul**	WATERVLIET	Albany	CRSWMP	75.63
C&D	**Direct Haul**	WAWARSING, NY	Ulster		23.19
C&D	**Direct Haul**	WESTFIELD, MA	Hampden		238.03
C&D	**Direct Haul**	WEST HARTFORD, CT	Hartford		87.99
C&D	**Direct Haul**	WEST SPRINGFIELD, MA	Hampden		3607.34
C&D	**Direct Haul**	WESTKILL, NY	Greene		11.75
C&D	**Direct Haul**	WEYMOUTH, MA	Norfolk		914.36
C&D	**Direct Haul**	WILLIAMSTOWN, MA	Berkshire		570.39
C&D	**Direct Haul**	WILBRAHAM, MA	Hampden		465.95
C&D	**Direct Haul**	WILLINGTON, CT	Tolland		34.25
C&D	**Direct Haul**	WILMINGTON, MA	Middlesex		53.74
C&D	**Direct Haul**	WINTHROP, MA	Suffolk		783.67
C&D	**Direct Haul**	WORCHESTER, MA	Worcester		457.51
C&D	**Direct Haul**	WYMOUTH, MA	Norfolk		9.60

Total: 497166.72

Attachment

5

Attachment 5

Outbound Material Disposal 2017

Date Received	Type Received	Date Disposed	Disposal Method & Location	Column1	Column2
	Metal	1/3/2017	20yrd Roll Off - Ben Weitsman of Albany		
	Metal	6/6/2017	20yrd Roll Off - Ben Weitsman of Albany		
	Metal	9/6/2017	20yrd Roll Off - Ben Weitsman of Albany		
	MSW	1/11/2017	40 yrd Roll Off - County Waste Troy		
	MSW	6/6/2017	40 yrd Roll Off - County Waste Troy		
	MSW	10/17/2017	40 yrd Roll Off - County Waste Troy		
	MSW	10/30/2017	40 yrd Roll Off - County Waste Troy		
	MSW	12/5/2017	40 yrd Roll Off - County Waste Troy		
	Tires	10/17/2017	40 yrd Roll Off - County Waste Clifton Park		

Material Analysis Report by Material
Outbound Materials for period 01/01/2017 - 12/31/2017

SITE	TICKET	ACCOUNT	CUSTOMER	MATERIAL	DATEOUT	ESTVOLUME	ACTVOLUME	ESTWEIGHT	ACTWEIGHT
1	30316	6250	DUNN LANDFILL	OUT_METAL	1/3/2017	0	0	4.61	4.61
1	37724	6250	DUNN LANDFILL	OUT_METAL	6/6/2017	0	0	4.07	4.07
1	43254	6250	DUNN LANDFILL	OUT_METAL	9/6/2017	0	0	2.64	2.64
			Total			**0**	**0**	**11.32**	**11.32**
1	30612	6250	DUNN LANDFILL	OUT_MSW	1/11/2017	0	0	9.86	9.86
1	37711	6250	DUNN LANDFILL	OUT_MSW	6/6/2017	0	0	8.35	8.35
1	45654	6250	DUNN LANDFILL	OUT_MSW	10/17/2017	0	0	2.19	2.19
1	46418	6250	DUNN LANDFILL	OUT_MSW	10/30/2017	0	0	9.57	9.57
1	48587	6250	DUNN LANDFILL	OUT_MSW	12/5/2017	0	0	4.18	4.18
			Total			**0**	**0**	**34**	**34**
1	45671	6250	DUNN LANDFILL	OUT_TIRE	10/17/2017	0	0	5.97	5.97
			Total			**0**	**0**	**6**	**6**

Attachment

6

February 26, 2018

Mr. Curt Taylor
S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, NY 12144

Subject: Dunn C&D Facility – Financial Assurance – Closure/Post-Closure Estimate
CEC Project 174-728

Dear Mr. Taylor:

As requested, we have prepared this closure and post closure cost estimate to reflect closure after operation of Phases 1 through 5 of the proposed modified facility fill progression (see Sheet C604 of the Footprint Modification Permit Drawings). The total constructed waste footprint for Phases 1, 2, 3, 4 and 5 will encompass approximately 23.8 acres.

The attached Table 1 presents the capital costs associated with construction of the permitted final cover system at the site, including a 5 percent contingency. The total cost of closure is estimated at $2,986,954.

Table 2 presents the estimated annual post-closure costs divided into years 1 through 5, 6 through 10, and 11 through 30. Post-closure costs include mowing, final cover maintenance, leachate disposal, leachate collection system maintenance, environmental monitoring, site inspections, and utility costs. Mowing, environmental monitoring, and utility costs are based on the current costs for the landfill. Leachate disposal costs were estimated based on the historic leachate generation rate and assuming a drawdown after completion of closure, as noted in the attached table. Final cover maintenance was estimated based on historical maintenance required for other similar sites. The total cost for the 30-year post-closure period is $692,670.

Based on these calculations, the total financial assurance required for the project, including the closure and post-closure cost, costs is $3,679,624.

If you have any questions on the information provided, or require additional information, please feel free to contact us.

Sincerely,

CIVIL & ENVIRONMENTAL ENGINEERING, LANDSCAPE ARCHITECTURE AND LAND SURVEYING, PLLC

Christopher S. Dohner

Christopher Dohner
Project Manager

Amy J. Knight

Amy J. Knight, P.E.
Principal

Attachments: Table 1 Landfill Closure Cost Estimate
Table 2 Landfill Post-Closure Cost Estimate
Leachate Generation Estimates

Table 1
Dunn Mine & C&D Facility
Landfill Closure Cost Estimate

Project:	Dunn Mine and C&D Facilty	**Date:**	2/18/2018
Prepared by:	AJK	**Job #:**	174-728
Revised by:	AJK	**Checked by:**	CSD

No.	Item	Quantity	Unit	Unit Price	Total Cost
1	Mob/Demob	1	LS	$50,000.00	$50,000.00
2	Survey and Record Drawings	1	LS	$22,000.00	$22,000.00
3	Construction Observation	1	LS	$195,000.00	$195,000.00
4	6-inch topsoil (including seed, lime, fertilize, mulch)	19,199	CY	$32.00	$614,368.00
5	12-inch barrier protection layer	38,398	CY	$9.00	$345,582.00
6	Geocomposite drainage layer	1,036,728	SF	$0.33	$342,120.24
7	40 mil textured LLDPE geomembrane liner	1,036,728	SF	$0.37	$383,589.36
8	18-inch low permeability soil liner	8,470	CY	$9.00	$76,230.00
9	Non-woven geotextile filter fabric	1,036,728	SF	$0.18	$186,611.04
10	12-inch gas venting layer	38,398	CY	$9.00	$345,582.00
11	Stormwater Management System	23.8	AC	$10,000.00	$238,000.00
12	Anchor Trench Excavation	3,890	LF	$15.00	$58,350.00
13	Construction Contingency (items 4 - 12)	1	LS	5%	$129,521.63
TOTAL					$2,986,954.27

Notes:

1. Closure cost estimate based on closing Phases 1, 2, 3, 4, and 5 (total acreage of 23.8 acres). Clay is only required on slopes <25%.
2. Unit costs based on actual costs at Dunn C&D Facility or similar landfill projects.

Table 2
Dunn Mine and C&D Facility
Landfill Post-Closure Cost Estimate

Years 1-5					
Item	Quantity	Unit	Unit Price	Extension	Notes
1. Site Maintenance					
Mowing	23.8	acres	$160.00	$3,808.00	Based on current mowing costs
Final Cover Maintenance	0.476	acres	$160.00	$76.16	Assume 2% of total area requires maintenance (replace 1/2 the B.P. layer and 6-inches topsoil/seed)
2. Leachate					
Disposal	1,146,121	gallons	$0.02	$22,922.42	Based on current leachate collection rate per acre for Phase 1
Miscellaneous maintenance	1	LS	$1,500.00	$1,500.00	
3. Environmental Monitoring					
Groundwater & Surface Water					
Quarterly Sampling and Reporting	3	Events	$500.00	$1,500.00	Based on current monitoring costs at landfill
Analytical	3	Events	$900.00	$2,700.00	
Quarterly Sampling and Reporting	1	Events	$500.00	$500.00	
Analytical	1	Events	$1,800.00	$1,800.00	
4. Annual Site Inspections	1	each	$1,500.00	$1,500.00	Assume 10 hours $ $150/hour
5. Utilities	12	months	$200.00	$2,400.00	
		Annual Cost Year 1-5		**$38,706.58**	
		Total Cost Year 1-5		**$193,532.89**	

Table 2
Dunn Mine and C&D Facility
Landfill Post-Closure Cost Estimate

Years 6-10					
Item	Quantity	Unit	Unit Price	Extension	Notes
1. Site Maintenance					
Mowing	23.8	acres	$160.00	$3,808.00	Based on current mowing costs
Final Cover Maintenance	0.238	acres	$160.00	$38.08	Assume 1% of total area requires maintenance (replace 1/2 the B.P. layer and 6-inches topsoil/seed)
2. Leachate					
Disposal	211,732	gallons	$0.02	$4,234.63	Based on 4% of initial generation rate
Miscellaneous maintenance	1	LS	$1,500.00	$1,500.00	
3. Environmental Monitoring					
Groundwater & Surface Water					Based on current monitoring costs at landfill
Quarterly Sampling and Reporting	3	Events	$500.00	$1,500.00	
Analytical	3	Events	$900.00	$2,700.00	
Quarterly Sampling and Reporting	1	Events	$500.00	$500.00	
Analytical	1	Events	$1,800.00	$1,800.00	
4. Annual Site Inspections	1	each	$1,500.00	$1,500.00	Assume 10 hours $ $150/hour
5. Utilities	12	months	$200.00	$2,400.00	
		Annual Cost Year 6-10		**$19,980.71**	
		Total Cost Year 6-10		**$99,903.55**	

Notes:

Table 2
Dunn Mine and C&D Facility
Landfill Post-Closure Cost Estimate

Years 11-30					
Item	Quantity	Unit	Unit Price	Extension	Notes
1. Site Maintenance					
Mowing	23.8	acres	$160.00	$3,808.00	Based on current costs
Final Cover Maintenance	0.119	acres	$160.00	$19.04	Assume 0.5% of total area requires maintenance (replace 1/2 the B.P. layer and 6-inches topsoil/seed)
2. Leachate					
Disposal	211,732	gallons	$0.02	$4,234.63	Based on 4% of initial generation rate
Miscellaneous maintenance	1	LS	$1,500.00	$1,500.00	
3. Environmental Monitoring					
Groundwater & Surface Water					Based on current costs at landfill
Quarterly Sampling and Reporting	3	Events	$500.00	$1,500.00	
Analytical	3	Events	$900.00	$2,700.00	
Quarterly Sampling and Reporting	1	Events	$500.00	$500.00	
Analytical	1	Events	$1,800.00	$1,800.00	
4. Annual Site Inspections	1	each	$1,500.00	$1,500.00	Assume 10 hours at $150/hour
5. Utilities	12	months	$200.00	$2,400.00	
		Annual Cost Year 11-30		**$19,961.67**	
		Total Cost Year 11-30		**$399,233.41**	
		Thirty Year total		**$692,669.85**	

BY	AJK	DATE	2/18/2018
CKD BY	CSD	DATE	2/19/2018
			2/19/2018

SA Dunn Landfill
Leachate Generation Estimates
Post-Closure Financial Assurance

Determine the leachate drawdown rates after closure at Dunn LF, based on equations provided in paper titled "Leachate Collection", Mureebe, Paraskeva, Battaglia, attached.

$L = 10^{(1/(K*T+C))}$ where:

L = leachate generation rate
K = leachate generation rate change (0.008 to 0.011)
T = Time (T=0 at closure)
C = initial leachate generation factor at T=0 where:

$C = 1 / \log (L_{max})$

L_{max} = initial leachate generation rate at T= 0 (completion of closure)

Use k= 0.008 to provide the most conservative leachate flow estimates. Leachate generation reaches an asymptotic level of 4% of initial production.

Initial leachate generation rate will be based on leachate flow data for Phase 1 (8.5 acres) from May to July 2015 and projected to an annual value for Phases 1 and 2 (12.7 acres). These three months will be used to provide a conservative estimate as these are typically rainy months which will result in higher generation rates.

May	167,980	gal
June	165,880	gal
July	138,755	gal
Total	**472,615**	**gal**

Annual leachate generation rate	1,890,460	gal/year	
Leachate rate	222,407.1	gal/year/acre	Based on Phase 1 area of 8.5 acres
Leachate rate	609.3	gal/ac/day	

Projected L_{max} at closure of Phases 1 and 2:

L_{max} =	5,293,288.0	gal/year	Total area of Phases 1,2,3,4&5 =	23.8 acres
4% of max =	211,731.5	gal/year		

BY AJK DATE 2/18/2018
CKD BY CSD DATE 2/19/2018
2/19/2018

SA Dunn Landfill
Leachate Generation Estimates
Post-Closure Financial Assurance

Determine leachate generation rate for years 0-5

C = 0.15570 (based on 6-month average at closure completion)

Time	Year	L (k = 0.008)	Total	
0		2,646,644		
1	1	1,284,739	3,931,383	
2		667,090		
3	2	367,195	1,034,284	
4		212,672		
5	3	128,801	341,473	
6		81,139		
7	4	52,931	134,071	Default to 211,732/year
8		35,621		(asymptotic minimum)
9	5	24,648		

Therefore for years 1 through 5, total leachate production will be = 5,730,605 gallons
This equates to an average leachate production rate = 1,146,121 gallons/year

For years 6-30, use 211,731.5 gal/year

These methods include the following MODELS:

- HELP (Schroder et al. 1988)
- HSSWDS Model (Perrier and Gibson, 1982)
- Water Balance Method (Thornthwaite)

Post-Closure

Post-Closure leachate generation is divided into two periods; initial drawdown and steady-state. A curve fitting method has been proposed in this paper for estimating leachate drawdown characteristics. This method is based upon data available from several sites in New York State and on a log distribution. In order to apply this method, the initial and steady-state leachate generation rates must be estimated. The initial generation rate can be estimated by using the water balance. The steady-state generation rate is determined as a percentage of the initial leachate generation rate, typically 3 to 4%.

The water balance in conjunction with Darcy's Law is applied for estimating the steady-state generation rate for sites having low permeability soil final cover systems. The water balance is used to determine the months when the soil cover is in saturated conditions. Darcy's Law is then applied to the final cover for the saturated months to estimate the quantity of percolation through the final cover.

Drawdown Leachate Prediction Method – Log Normal Distribution

A method for determining the drawdown leachate generation rate, the time to reach steady-state and the volume of leachate produced during this period, is presented below. The method is based upon the following assumptions:

1. Once the waste cell is capped, the leachate generation rate undergoes a log distribution of the following form:

$$\frac{1}{K \cdot T + C} \qquad (5)$$

$$L = 10$$

Where:

- L = Leachate generation rate during drawdown period (six month – monthly average gal/month)
- K = Leachate generation rate change factor (typically ranging from 0.008 to 0.011)
- T = Time (T = 0 at completion of closure in a six month period)
- C = Initial leachate generation factor at T = 0

$$C = \frac{1}{\text{Log}(L_{Max})} \qquad (6)$$

L_{Max} = Initial Leachate Generation Rate at T = 0

2. The leachate generation rate reaches a steady-state rate at approximately 4% of the pre-closure rate for FML cover systems. The steady-state rate for soil cover is estimated using the water balance and Darcy's Law.
3. The initial leachate generation rate, prior to closure, is estimated using water balance methods.

This method provides a good estimation of leachate generation which can be used when evaluating post-closure conditions. To develop the drawdown equation and associated factors, least squares curve fitting was used on each of the facilities. Figures 2 through 4 show the actual versus the estimated leachate production rates for each of the three hazardous waste landfills located in New York State. Using this method, a curve was fit for the data with correlations (Rsquare) ranging from 0.86 to 0.98. In addition, the data indicated that the approximate steady-state flow was 4% of the average 6-month maximum flow. The average maximum leachate generation rate could be determined using the standard water balance methods. In each case, the sites included composite (low permeability soil and FML) final cover systems. The contribution of groundwater was negligible for the sites.

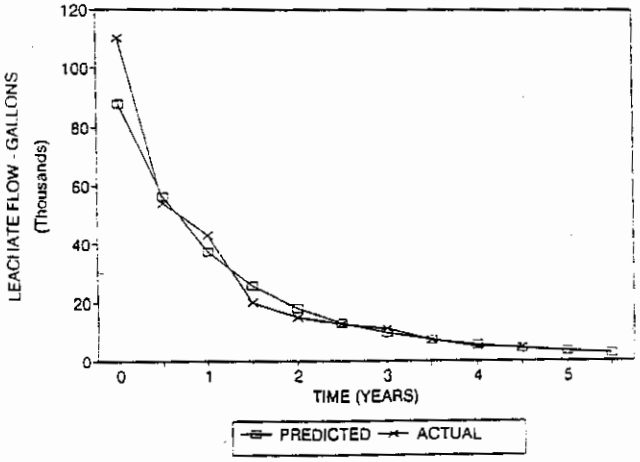

Figure 2
Site 1: Average Leachate Flow vs. Time

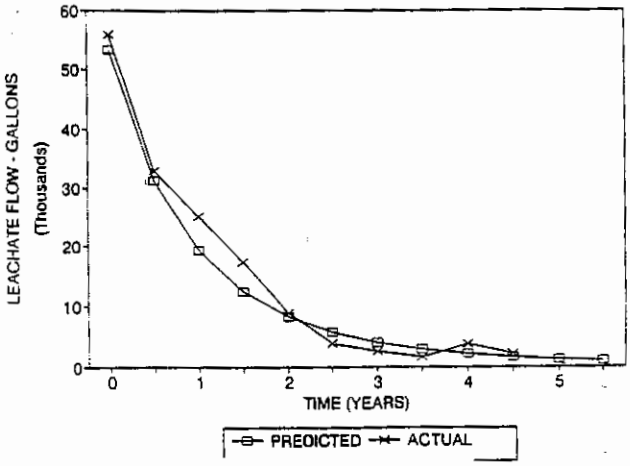

Figure 3
Site 2: Average Leachate Flow vs. Time

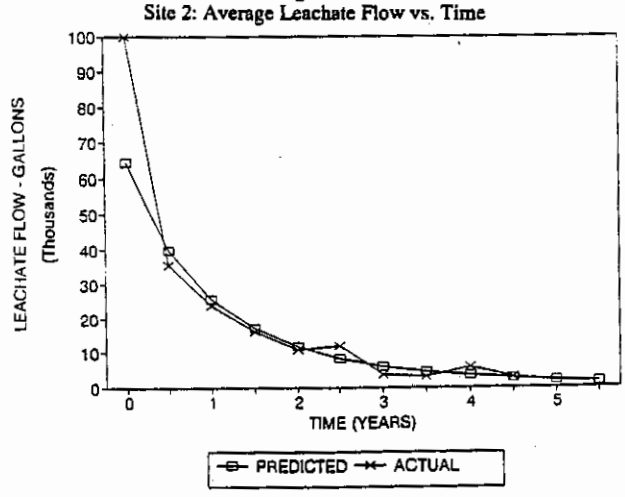

Figure 4
Site 3: Average Leachate Flow vs. Time

Attachment

7

cornerstone
environmental

100 Crystal Run Road, Suite 101, Middletown, NY, 10941
T 845.695.0200 | F 845.692.5894 | W www.cornerstoneeg.com

February 23, 2018

Mr. Joel Falbo
Assistant District Manager
Dunn C&D Landfill
209 Partition Street Ext.
Rensselaer, NY 12144

Re: Environmental Monitoring Program
2017 Annual Summary Report
S.A. Dunn Sand and Gravel

Dear Mr. Falbo:

The following presents an annual summary of water quality data collected through the end of 2017. Sampling was completed quarterly in accordance with the monitoring program presented in the Environmental Monitoring Plan (EMP) and Sampling and Analysis Plan (SAP), included as part of the Hydrogeologic Report, Dunn Sand & Gravel Mined Land Use Plan Modification/C&D Landfill, prepared by C.T. Male Associates, P.C., October 5, 2010, revised June 14, 2011. Quarterly reports, inclusive of the laboratory analytical report, are submitted to the New York State Department of Environmental Conservation (NYSDEC) following completion of each quarterly sampling event.

The facility began accepting waste during the last week in January 2015 and the monitoring program included the collection of samples from downgradient monitoring wells MW-6S, MW-7S and MW-8S, as well as up and down stream surface water samples from locations SW-2 and SW-1, respectively. Upgradient monitoring well MW-9S was first sampled in January 2017 and was found to be damaged (PVC casing was pinched which prevented the sampling pump from reaching the required depth) when attempting to collect a sample for the second quarter event in April 2017. The NYSDEC was notified and a replacement well, MW-9SR, was installed and subsequently sampled in May 2017. A new downgradient monitoring well, MW-10S, was first sampled in the third quarter of 2017. The current monitoring program therefore, includes wells MW-6S, MW-7S, MW-8S, MW-9SR (upgradient well) and MW-10S, plus two surface water sampling locations SW-1 (downstream) and SW-2 (upstream). As noted in the quarterly monitoring reports, existing water quality values for wells MW-9SR and MW-10S will be calculated once eight rounds of analytical data have been collected. The annual (analysis for the expanded parameter list) sampling event for 2017 was completed during the second quarter and is rotated quarterly from year to year.

Annual Summary

Summary tables of leachate indicators and metals data collected as part of the Site Investigation (March 2011) and under the environmental monitoring plan through the fourth quarter (October) of 2017 are provided in Tables 1 and 2. Volatile organic data is not summarized as the results are routinely reported as not detected.

The 2016 annual assessment noted generally increasing concentrations at upstream surface water location SW-2 for calcium, magnesium, alkalinity, hardness, sulfate, and total dissolved solids, as well as elevated concentrations of chloride, which routinely exceed the surface water quality standard of 250 mg/l. This general trend was also observed in 2017 and may reflect seasonal changes. Notably, location SW-2 always has the highest chloride concentration of any location and may be associated with marginally increasing chloride concentrations observed in MW-6S and MW-7S. Chloride concentrations at these locations, however, remain well below groundwater quality standards and are not statistically significant in comparison to existing water quality values.

In summary, the 2017 data are consistent with that collected historically, with a limited number of parameter concentrations reported above applicable groundwater or surface water quality criteria. The most notable concentrations are those reported for upstream surface water location SW-2. Collectively, the data provide no evidence of groundwater/surface water impacts associated with the Facility and are representative of natural water quality or upstream (SW-2) influences.

Please do not hesitate to contact us with any questions you may have.

Sincerely,

CORNERSTONE ENGINEERING AND LAND SURVEYING, PLLC

Timothy R. Roeper, P.G.
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TABLE 1
SUMMARY OF LEACHATE INDICATOR RESULTS
ANNUAL SUMMARY
(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
ALKALINITY, TOTAL (AS CACO3)									
	01-Mar-11	NA	229 B	222 B	299 B			219 B	113 B
	01-Jul-14	NA	275	253	303			359	209
	16-Oct-14	NA	253	262	299			385	144
	26-Jan-15	NA	251	249	293			280	178
	02-Apr-15	NA	272	296	268			256	144
	01-Jul-15	NA	286	260	313			354 T	175
	15-Oct-15	NA	279	278	313			440	201
	01-Feb-16	NA	274	269	302			350	202
	06-Apr-16	NA	276	282	310			351	197
	05-Jul-16	NA	276 T	280	308			339	225
	13-Oct-16	NA	276	275	307			394	243
	17-Jan-17	NA	273	262	302	297		428	201
	07-Apr-17	NA	272	258	303			276	117
	22-May-17	NA				297			
	06-Jul-17	NA	290	259 T	320	256	286	345	201
	02-Oct-17	NA	297	281	318	287	288	396	241
BIOCHEMICAL OXYGEN DEMAND (BOD)									
	01-Mar-11	NA	2 U	2 U	54.4			2 U	2 U
	01-Jul-14	NA	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	16-Oct-14	NA	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	26-Jan-15	NA	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	02-Apr-15	NA	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	01-Jul-15	NA	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	15-Oct-15	NA	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	01-Feb-16	NA	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	06-Apr-16	NA	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	05-Jul-16	NA	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	13-Oct-16	NA	2.0 U	2.0 U	2.0 U			3.0 U	2.0 U
	17-Jan-17	NA	2.0 U	2.0 U	2.0 U	3.0 U		2.0 U	2.0 U
	07-Apr-17	NA	3.0 U	2.0 U	2.0 U			2.0 U	2.0 U
	22-May-17	NA				2.0 U			
	06-Jul-17	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	02-Oct-17	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.4
BROMIDE									
	01-Mar-11	2	0.073 U	0.073 U	0.073 U			0.073 U	0.073 U
	01-Jul-14	2	0.073 U	0.073 U	0.073 U			0.073 U	0.073 U
	16-Oct-14	2	0.073 U	0.073 U	0.073 U			0.073 U	0.073 U
	26-Jan-15	2	1.8	0.35	3.4			0.79	0.073 U
	02-Apr-15	2	1.5 U	0.37 U	1.5 U			0.73 U	1.5 U
	01-Jul-15	2	0.73 U	0.37 U	0.73 U			0.73 U	0.73 U
	15-Oct-15	2	0.073 U	0.073 U	0.073 U			0.073 U	0.073 U
	01-Feb-16	2	0.073 U	0.073 U	0.073 U			0.073 U	0.073 U
	06-Apr-16	2	0.073 U	0.073 U	0.073 U			0.073 U	0.15 U
	05-Jul-16	2	0.073 U	0.073 U	0.073 U			0.073 U	0.37 U
	13-Oct-16	2	0.15 U	0.073 U	0.15 U			0.073 U	0.15 U
	17-Jan-17	2	0.37 U	0.073 U	0.37 U	0.073 U		0.073 U	0.073 U
	07-Apr-17	2	0.37 U	0.15 U	0.073 U			0.073 U	0.15 U
	22-May-17	2				0.15 U			
	06-Jul-17	2	0.37 U	0.15 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
	02-Oct-17	2	0.37 U	0.37 U	0.37 U	0.073 U	0.37 U	0.15 U	0.073 U

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ANNUAL SUMMARY
(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
CHLORIDE (AS CL)									
	01-Mar-11	250	24	11.7	47.9			199	250
	01-Jul-14	250	38.1	13.8	49.5			89.2	276
	16-Oct-14	250	32.2	12.2	43.4			79.0	129
	26-Jan-15	250	36.3	13.2	52.2			49.5	358
	02-Apr-15	250	42.4	12.8	48.1			42.3	249
	01-Jul-15	250	39.5	13.3	51.8			53.4	166
	15-Oct-15	250	36.7	15.3	55.5			91.8	244
	01-Feb-16	250	33.6 T	17.0	56.0			60.8	184
	06-Apr-16	250	40.3	18.0	57.2			56.5	327
	05-Jul-16	250	38.0	17.2	54.2			76.4	306
	13-Oct-16	250	37.0	16.4	49.2			91.0	288
	17-Jan-17	250	39.7	17.9	53.1	24.9		89.0	299
	07-Apr-17	250	43.3	18.5	60.5			48.5	155
	22-May-17	250				27.0			
	06-Jul-17	250	56.4	16.3	39.0	25.7	19.2	74.8	308
	02-Oct-17	250	52.5	19.4	55.6	31.0	20.2	82.6	306
COD - CHEMICAL OXYGEN DEMAND									
	01-Mar-11	NA	5 U	5 U	106			5 U	5 U
	01-Jul-14	NA	5.0 U	5.0 U	5.0 U			5.0 U	5.0 U
	16-Oct-14	NA	5.0 U	5.0 U	5.0 U			19.3	19.0
	26-Jan-15	NA	5.0 U	5.0 U	5.0 U			5.0 U	5.0 U
	02-Apr-15	NA	5.0 U	5.0 U	5.0 U			5.0 U	5.0 U
	01-Jul-15	NA	5.0 U	5.0 U	5.0 U			20.8	5.0 U
	15-Oct-15	NA	5.0 U	5.0 U	5.0 U			17.1	11.3
	01-Feb-16	NA	5.0 U	5.0 U	5.0 U			5.0 U	5.0 U
	06-Apr-16	NA	11.5	5.0 U	5.0 U			15.5	11.8
	05-Jul-16	NA	5.0 U	5.0 U	5.0 U			5.0 U	5.0 U
	13-Oct-16	NA	5.0 U	5.0 U	5.0 U			14.5	5.0 U
	17-Jan-17	NA	5.0 U	5.0 U	5.0 U	5.0 U		15.0	5.0 U
	07-Apr-17	NA	5.0 U	5.0 U	5.0 U			5.0 U	15.1
	22-May-17	NA				17.4			
	06-Jul-17	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
	02-Oct-17	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
HARDNESS (AS CACO3)									
	01-Mar-11	NA	587	483	697			363	315
	01-Jul-14	NA	510	330	524			400	340
	16-Oct-14	NA	520	350	540			420	230
	26-Jan-15	NA	525	345	560			320	370
	02-Apr-15	NA	524	424	536			292	304
	01-Jul-15	NA	540	340	530			360	230
	15-Oct-15	NA	510	400	530			380	384
	01-Feb-16	NA	500	360	540			380	424
	06-Apr-16	NA	500	370	520			340	340
	05-Jul-16	NA	506	375	560			334	515
	13-Oct-16	NA	496	368	536			380	524
	17-Jan-17	NA	528	364	564	610		436	400
	07-Apr-17	NA	520	376	545			318	188
	22-May-17	NA				670			
	06-Jul-17	NA	540	344	560	535	385	354	400
	02-Oct-17	NA	540	360	520	620	470	420	490

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(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
NITROGEN, AMMONIA (AS N)									
	01-Mar-11	2.0	0.009 U	0.038 B	0.035			0.009 U	0.009 U
	01-Jul-14	2.0	0.0090 U	0.0090 U	0.0090 U			0.043	0.0090 U
	16-Oct-14	2.0	0.21	0.10 U	0.60			0.10 U	0.27
	26-Jan-15	2.0	0.10 U	0.10 U	0.29			0.10 U	0.10 U
	02-Apr-15	2.0	0.10 U	0.10 U	0.10 U			0.10 U	0.10 U
	01-Jul-15	2.0	0.10 U	0.10 U	0.10 U			0.10 U	0.10 U
	15-Oct-15	2.0	0.058	0.14	0.0090 U			0.0090 U	0.0090 U
	01-Feb-16	2.0	0.0090 U	0.0090 U	0.0090 U			0.0090 U	0.0090 U
	06-Apr-16	2.0	0.10 U	0.10 U	0.10 U			0.10 U	0.10 U
	05-Jul-16	2.0	0.10 U	0.10 U	0.10 U			0.10 U	0.10 U
	13-Oct-16	2.0	0.10 U	0.21	0.10 U			0.20	0.10 U
	17-Jan-17	2.0	0.10 U	0.10 U	0.36	0.22		0.23	0.20
	07-Apr-17	2.0	0.0090 U	0.0090 U	0.0090 U			0.0090 U	0.0090 U
	22-May-17	2.0				0.0090 U			
	06-Jul-17	2.0	0.10 U	0.10 U	0.10 U	0.23	0.10 U	0.22	0.44
	02-Oct-17	2.0	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.22	0.41
NITROGEN, KJELDAHL, TOTAL									
	01-Mar-11	NA	0.15 U	1.4	0.45			0.15 U	0.29
	01-Jul-14	NA	0.15 U	0.23	0.20			0.30	0.24
	16-Oct-14	NA	0.55	0.60	0.49			1.1	0.60
	26-Jan-15	NA	0.26	0.20	0.24			0.33	0.47
	02-Apr-15	NA	0.15 U	0.15 U	0.40			0.55	0.15 U
	01-Jul-15	NA	0.15 U	0.15 U	0.15 U			0.34	0.27
	15-Oct-15	NA	0.30	0.63	0.15 U			0.35	0.33 T
	01-Feb-16	NA	0.15 U	0.15 U	0.15 U			0.63	0.44
	06-Apr-16	NA	0.15 U	0.15 U	0.15 U			0.21	0.15 U
	05-Jul-16	NA	0.15 U	0.15 U	0.15 U			0.38	0.25
	13-Oct-16	NA	0.15 U	0.25	0.15 U			0.45	0.23
	17-Jan-17	NA	0.15 U	0.15 U	0.47	0.36		0.24	0.15 U
	07-Apr-17	NA	0.15 U	0.15 U	0.15 U			0.25 T	0.28
	22-May-17	NA				1.0			
	06-Jul-17	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.31	0.38
	02-Oct-17	NA	0.15 U	0.15 U	0.15 U	0.56	0.15 U	0.38	0.15 U
NITROGEN, NITRATE (AS N)									
	01-Mar-11	10	0.011 U	0.15	0.011 U			0.55	0.85
	01-Jul-14	10	0.020 U	0.092	0.089			0.11	0.51
	16-Oct-14	10	0.020 U	0.22	0.15			0.70	0.18
	26-Jan-15	10	0.020 U	0.12	0.020 U			0.40	0.99
	02-Apr-15	10	0.020 U	0.098	0.093			0.30	0.62
	01-Jul-15	10	0.020 U	0.10	0.075			0.17	0.37
	15-Oct-15	10	0.020 U	0.19	0.020 U			0.020 U	0.42
	01-Feb-16	10	0.020 U	0.25	0.020 U			0.17	0.59
	06-Apr-16	10	0.020 U	0.23	0.057			0.10	0.60
	05-Jul-16	10	0.020 U	0.19	0.020 U			0.14	0.49
	13-Oct-16	10	0.020 U	0.23	0.020 U			0.020 U	0.37
	17-Jan-17	10	0.020 U	0.23	0.020 U	0.31		0.074	0.98
	07-Apr-17	10	0.020 U	0.26	0.020 U			0.21	0.81
	22-May-17	10				0.32			
	06-Jul-17	10	0.020 U	0.10	0.074	0.28	0.20	0.15	0.76
	02-Oct-17	10	0.020 U	0.23	0.020 U	0.27	0.21	0.020 U	0.59

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(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
PHENOLICS, TOTAL RECOVERABLE									
	01-Mar-11	0.001	0.005 U	0.005 U	0.005 U			0.005 U	0.005 U
	01-Jul-14	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	16-Oct-14	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	26-Jan-15	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	02-Apr-15	0.001	0.0050 U	0.030	0.0050 U			0.0050 U	0.0050 U
	01-Jul-15	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	15-Oct-15	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	01-Feb-16	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	06-Apr-16	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	05-Jul-16	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	13-Oct-16	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	17-Jan-17	0.001	0.0050 U	0.0050 U	0.0050 U	0.0050 U		0.0050 U	0.014
	07-Apr-17	0.001	0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	22-May-17	0.001				0.0050 U			
	06-Jul-17	0.001	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.017	0.0050 U	0.0050 U
	02-Oct-17	0.001	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
SULFATE (AS SO4)									
	01-Mar-11	250	291 E	96.9	253 E			114	83.4
	01-Jul-14	250	241	77.5	184			60.5	116
	16-Oct-14	250	252	79.2	237			41.4	75.7
	26-Jan-15	250	59.7	15.4	41.1			8.4	10.3
	02-Apr-15	250	230	85.0	183			38.7	86.9
	01-Jul-15	250	268	86.4	190			43.8	57.9
	15-Oct-15	250	215	92.5	194			88.2	128
	01-Feb-16	250	254	50.3	231			51.6	206
	06-Apr-16	250	219	96.6	191			43.5	107
	05-Jul-16	250	222	97.3	193			33.6	222
	13-Oct-16	250	236	107	230			44.8	269
	17-Jan-17	250	235	100	251	305		86.0	140
	07-Apr-17	250	184	87.7	164			65.3	37.0
	22-May-17	250				317			
	06-Jul-17	250	212	86.8	225	246	204	90.8	132
	02-Oct-17	250	225	110	214	302	221	87.2	231
TOTAL DISSOLVED SOLIDS									
	01-Mar-11	500	706	400	636			664	679
	01-Jul-14	500	719	407	665			609	840
	16-Oct-14	500	682	390	687			573	468
	26-Jan-15	500	640	362	667			419	864
	02-Apr-15	500	675	406	686			375	657
	01-Jul-15	500	697	411	712 B			511	572
	15-Oct-15	500	628	399	650			684	741
	01-Feb-16	500	619	445	669			481	765
	06-Apr-16	500	658	452	673			496	846
	05-Jul-16	500	661	427	679			527	1010
	13-Oct-16	500	644	438	727			605	1060
	17-Jan-17	500	665	445	697	809		697	877
	07-Apr-17	500	653	424	656			475	420
	22-May-17	500				763			
	06-Jul-17	500	678	398	702	640	646	606	900
	02-Oct-17	500	768	490	757	805	650	641	1020

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(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
TOTAL ORGANIC CARBON									
	01-Mar-11	NA	0.44 J	0.56 J	22.4			1.4	1.4
	01-Jul-14	NA	0.43 U	0.43 U	0.43 U			6.4	2.1
	16-Oct-14	NA	1.1	1.1	1.3			5.9	4.5
	26-Jan-15	NA	0.43 U	0.43 U	0.43 U			2.5	1.3
	02-Apr-15	NA	0.43 U	0.43 U	0.43 U			2.9	2.0
	01-Jul-15	NA	0.43 U	0.43 U	0.43 U			5.1	4.5
	15-Oct-15	NA	0.43 U	0.43 U	0.43 U			7.0	2.3
	01-Feb-16	NA	0.43 U	0.43 U	0.43 U			3.6	1.5
	06-Apr-16	NA	0.43 U	0.43 U	0.43 U			4.1	2.5
	05-Jul-16	NA	0.43 U	0.43 U	0.43 U			5.7	1.9
	13-Oct-16	NA	0.43 U	0.43 U	0.43 U			6.0	1.8
	17-Jan-17	NA	0.43 U	0.43 U	0.43 U	0.43 U		5.8	2.1
	07-Apr-17	NA	0.43 U	0.43 U	0.43 U			4.1	2.9
	22-May-17	NA				1.1			
	06-Jul-17	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	4.6	1.6
	02-Oct-17	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	6.4	2.0

*MW-9S was damaged and replaced with MW-9SR in May 2017

U: Indicates the analyte was analyzed but not detected. Value represents detection limit.

TABLE 2
SUMMARY OF METALS RESULTS
ANNUAL SUMMARY
(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
ALUMINUM									
	01-Jul-14		0.06 U	2.72	0.06 U			0.06 U	0.06 U
	15-Oct-15		6.19	17.5	2.05			0.06 U	0.06 U
	01-Feb-16		0.06 U	2.57	0.557			2.85	3.61
	07-Apr-17		0.06 U	0.422	0.306			0.478	1.27
	22-May-17					41			
ANTIMONY									
	01-Jul-14		0.0068 U	0.0068 U	0.0068 U			0.0068 U	0.0068 U
	15-Oct-15		0.0068 U	0.0068 U	0.0068 U			0.0068 U	0.0068 U
	01-Feb-16		0.0068 U	0.0068 U	0.0068 U			0.0068 U	0.0068 U
	07-Apr-17		0.0068 U	0.0068 U	0.0068 U			0.0068 U	0.0068 U
	22-May-17					0.0068 U			
ARSENIC									
	01-Jul-14		0.0056 U	0.0056 U	0.0056 U			0.0056 U	0.0056 U
	15-Oct-15		0.0056 U	0.0056 U	0.0056 U			0.0056 U	0.0056 U
	01-Feb-16		0.0056 U	0.0056 U	0.0056 U			0.0056 U	0.0056 U
	07-Apr-17		0.0056 U	0.0056 U	0.0056 U			0.0056 U	0.0056 U
	22-May-17					0.0193			
BARIUM									
	01-Jul-14		0.0125	0.0309	0.0162			0.0527	0.109
	15-Oct-15		0.0502	0.123	0.0303			0.0594	0.105
	01-Feb-16		0.0135	0.0354	0.02			0.0542	0.119
	07-Apr-17		0.0137	0.019	0.0182			0.0369	0.0761
	22-May-17					0.365			
BERYLLIUM									
	01-Jul-14		0.0003 U	0.0003 U	0.0003 U			0.0003 U	0.0003 U
	15-Oct-15		0.0003 U	0.0003 U	0.0003 U			0.0003 U	0.0003 U
	01-Feb-16		0.0003 U	0.0003 U	0.0003 U			0.0003 U	0.0003 U
	07-Apr-17		0.0003 U	0.0003 U	0.0003 U			0.0003 U	0.0003 U
	22-May-17					0.0003 U			
BORON									
	01-Jul-14		0.0262	0.0274	0.0322			0.058	0.036
	15-Oct-15		0.0328	0.0387	0.0359			0.0549	0.0366
	01-Feb-16		0.0315	0.0292	0.041			0.0323	0.0327
	07-Apr-17		0.0246	0.0204	0.0276			0.0347	0.0204
	22-May-17					0.0548			
CADMIUM									
	01-Mar-11	0.005	0.00033 U	0.00076	0.00084			0.00033 U	NA U
	01-Jul-14	0.005	0.0005 U	0.0005 U	0.0005 U			0.0005 U	0.0005 U
	16-Oct-14	0.005	0.00050 U	0.00050 U	0.00050 U			0.00050 U	0.00050 U
	26-Jan-15	0.005	0.00050 U	0.00050 U	0.00050 U			0.00050 U	0.00050 U
	02-Apr-15	0.005	0.00050 U	0.00050 U	0.00050 U			0.00050 U	0.00050 U
	01-Jul-15	0.005	0.00050 U	0.00050 U	0.00050 U			0.00050 U	0.00050 U
	15-Oct-15	0.005	0.0005 U	0.0005 U	0.0005 U			0.0005 U	0.0005 U
	01-Feb-16	0.005	0.0005 U	0.0005 U	0.0005 U			0.0005 U	0.0005 U
	06-Apr-16	0.005	0.00050 U	0.00050 U	0.00050 U			0.00050 U	0.00050 U
	05-Jul-16	0.005	0.00050 U	0.00050 U	0.00050 U			0.00050 U	0.00050 U
	13-Oct-16	0.005	0.00050 U	0.00050 U	0.00050 U			0.00050 U	0.00050 U
	17-Jan-17	0.005	0.00050 U	0.00050 U	0.00050 U	0.00050 U		0.00050 U	0.00050 U
	07-Apr-17	0.005	0.0005 U	0.0005 U	0.0005 U			0.0005 U	0.0005 U
	22-May-17	0.005				0.0005 U			
	06-Jul-17	0.005	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U
	02-Oct-17	0.005	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U	0.00050 U

TABLE 2
SUMMARY OF METALS RESULTS
ANNUAL SUMMARY
(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
CALCIUM									
	01-Mar-11	NA	137	114	152			91.2	81.9
	01-Jul-14	NA	124	78.4	115			110	95
	16-Oct-14	NA	122	81.1	120			116	58.7
	26-Jan-15	NA	124	79.9	128			95.0	92.9
	02-Apr-15	NA	129	96.8	116			82.1	78.6
	01-Jul-15	NA	118	75.6	107			93.5	57.1
	15-Oct-15	NA	124	94.9	123			131	97.1
	01-Feb-16	NA	119	90.1	122			108	101
	06-Apr-16	NA	123	84.0	120			96.5	92.4
	05-Jul-16	NA	115	82.4	114			81.6	113
	13-Oct-16	NA	115	84.7	116			93.2	119
	17-Jan-17	NA	123	88.9	131	163		128	102
	07-Apr-17	NA	110	78.4	111			86.2	49.8
	22-May-17	NA				178			
	06-Jul-17	NA	126	81.1	122	140	123	88.6	101
	02-Oct-17	NA	119	86.8	113	154	123	101	121
CHROMIUM, HEXAVALENT									
	01-Jul-14		0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	15-Oct-15		0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	01-Feb-16		0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	07-Apr-17		0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	22-May-17					0.0050 U			
CHROMIUM, TOTAL									
	01-Jul-14		0.001 U	0.009	0.001 U			0.001 U	0.001 U
	15-Oct-15		0.0102	0.0392	0.0042			0.001 U	0.001 U
	01-Feb-16		0.001 U	0.0079	0.001 U			0.001 U	0.001 U
	07-Apr-17		0.001 U	0.001 U	0.001 U			0.001 U	0.001 U
	22-May-17					0.116			
COBALT									
	01-Jul-14		0.00063 U	0.00063 U	0.00063 U			0.00063 U	0.00063 U
	15-Oct-15		0.0041	0.0167	0.00063 U			0.00063 U	0.00063 U
	01-Feb-16		0.00063 U	0.00063 U	0.00063 U			0.00063 U	0.00063 U
	07-Apr-17		0.00063 U	0.00063 U	0.00063 U			0.00063 U	0.00063 U
	22-May-17					0.0285			
COPPER									
	01-Jul-14		0.0016 U	0.0016 U	0.0016 U			0.0016 U	0.0016 U
	15-Oct-15		0.0016 U	0.0336	0.0016 U			0.0016 U	0.0016 U
	01-Feb-16		0.0016 U	0.0016 U	0.0016 U			0.0016 U	0.0016 U
	07-Apr-17		0.0016 U	0.0016 U	0.0016 U			0.0016 U	0.0016 U
	22-May-17					0.111			
CYANIDE									
	01-Jul-14		0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	15-Oct-15		0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	01-Feb-16		0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	07-Apr-17		0.0050 U	0.0050 U	0.0050 U			0.0050 U	0.0050 U
	22-May-17					0.0050 U			
IRON									
	01-Mar-11	0.3	20.7	55.1	98			0.17	0.16
	01-Jul-14	0.3	0.0193 U	3.6	0.123			0.298	0.111
	16-Oct-14	0.3	0.019 U	0.49	0.78			0.58	0.50
	26-Jan-15	0.3	0.16	1.2	11.0B			0.20	0.20
	02-Apr-15	0.3	0.17	36.1	14.8			5.2	0.39
	01-Jul-15	0.3	0.019 U	2.0	3.0			0.84	0.67

TABLE 2
SUMMARY OF METALS RESULTS
ANNUAL SUMMARY
(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
	15-Oct-15	0.3	5.86	22.9	1.8			0.233	0.0885
	01-Feb-16	0.3	0.0859	3.11	0.52			3.1	3.25
	06-Apr-16	0.3	4.8	1.3	7.4			0.079	0.15
	05-Jul-16	0.3	0.079	0.019 U	0.46			1.3	0.10
	13-Oct-16	0.3	0.12	0.11	1.9			1.5	0.084
	17-Jan-17	0.3	6.2	2.3	22.1	21.5		0.42	0.12
	07-Apr-17	0.3	0.19	0.501	0.342			0.555	1.14
	22-May-17	0.3				67.9			
	06-Jul-17	0.3	0.21	0.44	0.55	1.3	0.90	0.15	0.17
	02-Oct-17	0.3	0.17	0.19	2.1	57.9	0.28	0.18	0.11
LEAD									
	01-Mar-11	0.025	0.0104	0.039	0.0469			0.00035 U	NA U
	01-Jul-14	0.025	0.003 U	0.003 U	0.003 U			0.003 U	0.003 U
	16-Oct-14	0.025	0.0030 U	0.0030 U	0.0030 U			0.0030 U	0.0030 U
	26-Jan-15	0.025	0.0030 U	0.0030 U	0.0030 U			0.0030 U	0.0030 U
	02-Apr-15	0.025	0.0030 U	0.025	0.0030 U			0.0030 U	0.0030 U
	01-Jul-15	0.025	0.0030 U	0.0030 U	0.0030 U			0.0030 U	0.0030 U
	15-Oct-15	0.025	0.003 U	0.0142	0.003 U			0.003 U	0.003 U
	01-Feb-16	0.025	0.003 U	0.003 U	0.003 U			0.003 U	0.003 U
	06-Apr-16	0.025	0.0030 U	0.0030 U	0.0030 U			0.0030 U	0.0030 U
	05-Jul-16	0.025	0.0030 U	0.0030 U	0.0030 U			0.0030 U	0.0030 U
	13-Oct-16	0.025	0.0030 U	0.0030 U	0.0030 U			0.0030 U	0.0030 U
	17-Jan-17	0.025	0.0030 U	0.0030 U	0.0060 U	0.015		0.0030 U	0.0030 U
	07-Apr-17	0.025	0.003 U	0.003 U	0.003 U			0.003 U	0.003 U
	22-May-17	0.025				0.0391			
	06-Jul-17	0.025	0.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U	0.0030 U
	02-Oct-17	0.025	0.0030 U	0.0030 U	0.0030 U	0.039	0.0030 U	0.0030 U	0.0030 U
MAGNESIUM									
	01-Mar-11	35	59.7	48	77			32.9	26.7
	01-Jul-14	35	53.6	34.3	54.4			27.4	35.9
	16-Oct-14	35	53.9	36.9	60.2			29.4	21.6
	26-Jan-15	35	54.5	34.8	62.0			22.2	33.8
	02-Apr-15	35	55.5	42.8	57.1			19.1	26.7
	01-Jul-15	35	53.5	33.2	53.8			23.8	18.2
	15-Oct-15	35	54.1	42.9	59.8			35.5	37.3
	01-Feb-16	35	50.3	38.2	58.6			28.7	44.2
	06-Apr-16	35	54.4	37.7	59.7			25.2	32.6
	05-Jul-16	35	50.8	37.2	57.0			29.9	52.6
	13-Oct-16	35	49.1	37.0	57.8			35.1	57.8
	17-Jan-17	35	51.3	37.1	61.9	58.8		33.3	39.1
	07-Apr-17	35	48.3	34.1	55.3			17.9	15.2
	22-May-17	35				67.4			
	06-Jul-17	35	56.6	36.0	60.3	45.8	45.7	30.0	36.6
	02-Oct-17	35	53.2	39.9	57.0	55.8	47.0	34.4	53.8
MANGANESE									
	01-Mar-11	0.3	1.5	2.1	4.4			0.089	0.072
	01-Jul-14	0.3	0.0004 U	0.151	0.006			0.422	0.033
	16-Oct-14	0.3	0.0034	0.024	0.037			0.54	0.052
	26-Jan-15	0.3	0.013	0.050	0.27			0.13	0.080
	02-Apr-15	0.3	0.019	2.2	0.62			0.31	0.065
	01-Jul-15	0.3	0.00040 U	0.059	0.19			0.48	0.065
	15-Oct-15	0.3	0.298	0.798	0.0483			0.376	0.0403
	01-Feb-16	0.3	0.0081	0.156	0.0109			0.296	0.128
	06-Apr-16	0.3	0.21	0.10	0.22			0.13	0.067

TABLE 2
SUMMARY OF METALS RESULTS
ANNUAL SUMMARY
(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
	05-Jul-16	0.3	0.014	0.00040 U	0.019			0.047	0.036
	13-Oct-16	0.3	0.0068	0.011	0.072			0.057	0.028
	17-Jan-17	0.3	0.27	0.075	0.89	1.4		0.056	0.057
	07-Apr-17	0.3	0.017	0.0502	0.0186			0.126	0.0542
	22-May-17	0.3				2.1			
	06-Jul-17	0.3	0.023	0.038	0.016	0.63	0.22	0.048	0.034
	02-Oct-17	0.3	0.022	0.025	0.052	1.8	0.12	0.15	0.036
MERCURY									
	01-Jul-14		0.00012 U	0.00012 U	0.00012 U			0.00012 U	0.00012 U
	15-Oct-15		0.00012 U	0.00012 U	0.00012 U			0.00012 U	0.00012 U
	01-Feb-16		0.00012 U	0.00012 U	0.00012 U			0.00012 U	0.00012 U
	07-Apr-17		0.00012 U	0.00012 U	0.00012 U			0.00012 U	0.00012 U
	22-May-17					0.00012 U			
NICKEL									
	01-Jul-14		0.0013 U	0.0013 U	0.0013 U			0.0013 U	0.0013 U
	15-Oct-15		0.0013 U	0.0317	0.0013 U			0.0013 U	0.0013 U
	01-Feb-16		0.0013 U	0.0013 U	0.0013 U			0.0013 U	0.0013 U
	07-Apr-17		0.0013 U	0.0013 U	0.0013 U			0.0013 U	0.0013 U
	22-May-17					0.0625			
POTASSIUM									
	01-Mar-11	NA	5.5	9.6	12.7			2.1	2
	01-Jul-14	NA	1.7	2.5	1.81			4.46	2.46
	16-Oct-14	NA	1.6	1.8	2.5			5.1	3.3
	26-Jan-15	NA	1.7	1.8	4.7			2.2	2.2
	02-Apr-15	NA	1.7	7.5	5.1			4.1	2.2
	01-Jul-15	NA	1.6	2.1	2.8			3.8	2.0
	15-Oct-15	NA	3.85	7.4	2.63			5.47	2.78
	01-Feb-16	NA	1.66	2.63	2.18			3.82	3.61
	06-Apr-16	NA	3.7	2.1	4.8			2.5	2.1
	05-Jul-16	NA	1.6	1.6	2.0			4.3	2.5
	13-Oct-16	NA	1.5	1.5	2.4			4.6	2.5
	17-Jan-17	NA	3.4	2.4	6.1	8.7		3.1	2.2
	07-Apr-17	NA	1.59	1.63	1.92			4.29	2.36
	22-May-17	NA				14.1			
	06-Jul-17	NA	1.7	1.7	2.0	1.9	2.0	6.1	2.3
	02-Oct-17	NA	1.7	1.7	2.8	7.6	1.9	5.7	2.7
SELENIUM									
	01-Jul-14		0.0087 U	0.0087 U	0.0087 U			0.0087 U	0.0087 U
	15-Oct-15		0.0087 U	0.0087 U	0.0087 U			0.0087 U	0.0087 U
	01-Feb-16		0.0087 U	0.0087 U	0.0087 U			0.0087 U	0.0087 U
	07-Apr-17		0.0087 U	0.0087 U	0.0087 U			0.0087 U	0.0087 U
	22-May-17					0.0087 U			
SILVER									
	01-Jul-14		0.0017 U	0.0017 U	0.0017 U			0.0017 U	0.0017 U
	15-Oct-15		0.0017 U	0.0017 U	0.0017 U			0.0017 U	0.0017 U
	01-Feb-16		0.0017 U	0.0017 U	0.0017 U			0.0017 U	0.0017 U
	07-Apr-17		0.0017 U	0.0017 U	0.0017 U			0.0017 U	0.0017 U
	22-May-17					0.0017 U			
SODIUM									
	01-Mar-11	20	14.2	8.3	23.1			107	133
	01-Jul-14	20	15.1	7.23	20.8			72.2	144
	16-Oct-14	20	15.6	7.7	21.9			59.7	73.8
	26-Jan-15	20	15.9	7.9	22.4			41.4	200
	02-Apr-15	20	17.8	8.5	23.0			37.5	138

TABLE 2
SUMMARY OF METALS RESULTS
ANNUAL SUMMARY
(All Values mg/L)

Analyte	Sample Event	GW Standard	MW-6S	MW-7S	MW-8S	MW-9S/ MW-9SR*	MW-10S	SW-1	SW-2
	01-Jul-15	20	16.2	7.4	20.3			48.2	95.0
	15-Oct-15	20	17.5	8.59	23.1			84.2	138
	01-Feb-16	20	16.1	8.43	23			54.6	105
	06-Apr-16	20	16.6	8.0	23.9			48.6	188
	05-Jul-16	20	15.9	7.9	22.9			67.0	158
	13-Oct-16	20	15.5	7.8	23.0			81.8	152
	17-Jan-17	20	16.0	8.1	22.9	19.1		82.3	155
	07-Apr-17	20	15.6	7.65	22.6			43.6	81.7
	22-May-17	20				18			
	06-Jul-17	20	18.1	7.7	23.9	13.6	13.2	85.9	159
	02-Oct-17	20	20.2	8.8	24.7	14.9	15.1	87.1	181
THALLIUM									
	01-Jul-14		0.0102 U	0.0102 U	0.0102 U			0.0102 U	0.0102 U
	15-Oct-15		0.0102 U	0.0102 U	0.0102 U			0.0102 U	0.0102 U
	01-Feb-16		0.0102 U	0.0102 U	0.0102 U			0.0102 U	0.0102 U
	07-Apr-17		0.0102 U	0.0102 U	0.0102 U			0.0102 U	0.0102 U
	22-May-17					0.0102 U			
VANADIUM									
	01-Jul-14		0.0015 U	0.0015 U	0.0015 U			0.0015 U	0.0015 U
	15-Oct-15		0.0105	0.0293	0.0015 U			0.0015 U	0.0015 U
	01-Feb-16		0.0015 U	0.0015 U	0.0015 U			0.0015 U	0.0015 U
	07-Apr-17		0.0015 U	0.0015 U	0.0015 U			0.0015 U	0.0015 U
	22-May-17					0.0776			
ZINC									
	01-Jul-14		0.0015 U	0.0132	0.0015 U			0.0015 U	0.0015 U
	15-Oct-15		0.0192	0.066	0.0015 U			0.0115	0.0015 U
	01-Feb-16		0.0015 U	0.0143	0.0015 U			0.0313	0.0147
	07-Apr-17		0.0015 U	0.0015 U	0.0015 U			0.0015 U	0.0015 U
	22-May-17					0.362			

*MW-9S was damaged and replaced with MW-9SR in May 2017

U: Indicates the analyte was analyzed but not detected. Value represents detection limit.

Attachment

8

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

February 6, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to January 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill January, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops	Leachate Hauls
1/3/2017	56	1608.48	0	0
1/4/2017	55	1623.78	0	2
1/5/2017	51	1491.31	0	6
1/6/2017	57	1433.14	0	0
1/9/2017	46	1208.23	0	0
1/10/2017	48	1318.98	0	0
1/11/2017	54	1367.62	0	0
1/12/2017	62	1792.23	0	0
1/13/2017	59	1770.74	0	0
1/17/2017	56	1636.09	0	8
1/18/2017	59	1770.57	0	0
1/19/2017	62	1905.27	0	0
1/20/2017	69	1965.08	0	0
1/23/2017	55	1573.83	0	0
1/24/2017	47	1439.31	0	0
1/25/2017	63	1972.33	0	0
1/26/2017	73	2182.01	0	12
1/27/2017	67	1962.30	0	0
1/30/2017	66	1922.34	0	0
1/31/2017	75	1875.38	0	0

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

March 1, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to February 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill February, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops	Leachate Hauls
2/1/2017	63	1944.07	0	0
2/2/2017	63	1889.32	0	10
2/3/2017	61	1828.60	0	0
2/6/2017	64	1788.60	0	0
2/7/2017	65	1795.58	0	0
2/8/2017	68	1747.29	0	11
2/9/2017	6	196.42	0	0
2/10/2017	43	1138.36	0	0
2/13/2017	26	731.39	0	0
2/14/2017	45	1437.55	0	0
2/15/2017	56	1574.38	0	0
2/16/2017	52	1509.60	0	12
2/17/2017	47	1420.20	0	0
2/21/2017	55	1571.12	0	9
2/22/2017	48	1414.70	0	0
2/23/2017	61	1801.82	0	0
2/24/2017	50	1437.63	0	0
2/27/2017	56	1665.00	0	0
2/28/2017	68	1781.18	0	0

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

April 4, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to March 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill March, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops	Leachate Hauls
3/1/2017	62	1823.02	0	12
3/2/2017	55	1430.15	0	0
3/3/2017	64	1966.35	0	0
3/6/2017	65	1884.88	0	5
3/7/2017	76	2074.23	0	6
3/8/2017	68	1936.84	0	0
3/9/2017	59	1739.59	0	5
3/10/2017	42	1262.52	3	0
3/13/2017	66	1452.07	4	0
3/14/2017	3	49.16	0	0
3/15/2017	30	824.17	0	0
3/16/2017	35	973.84	0	0
3/17/2017	34	948.66	2	15
3/20/2017	55	1566.85	0	0
3/21/2017	68	2072.08	4	0
3/22/2017	69	2007.12	2	0
3/23/2017	65	1904.02	5	7
3/24/2017	68	1990.56	4	0
3/27/2017	65	1908.82	0	0
3/28/2017	60	1832.32	0	0
3/29/2017	71	1916.01	5	0
3/30/2017	67	1961.32	3	8
3/31/2017	77	2021.64	0	0

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

May 1, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to April 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill April, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops	Leachate Hauls
4/3/2017	57	1724.12	0	3
4/4/2017	77	2176.52	1	0
4/5/2017	65	1964.28	0	0
4/6/2017	78	2358.07	0	11
4/7/2017	62	1945.19	0	9
4/10/2017	62	1786.17	3	0
4/11/2017	78	2274.11	4	6
4/12/2017	76	2233.14	0	0
4/13/2017	76	1881.93	3	1
4/14/2017	57	1545.08	0	7
4/17/2017	73	1885.66	12	0
4/18/2017	59	1689.48	11	8
4/19/2017	79	2273.42	15	0
4/20/2017	84	2218.09	14	0
4/21/2017	81	2111.28	12	0
4/24/2017	86	2388.84	13	0
4/25/2017	71	1820.84	8	7
4/26/2017	74	2064.36	9	0
4/27/2017	66	1807.40	3	4
4/28/2017	72	1789.15	4	10

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

June 1, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to May 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill May, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops	Leachate Hauls
5/1/2017	88	2526.41	8	0
5/2/2017	94	2579.42	6	0
5/3/2017	93	2569.10	6	0
5/4/2017	68	1944.40	9	7
5/5/2017	76	2233.81	20	0
5/8/2017	72	2122.43	10	2
5/9/2017	85	2450.02	2	1
5/10/2017	89	2462.43	5	2
5/11/2017	91	2599.20	7	2
5/12/2017	82	2295.70	6	0
5/15/2017	81	2332.70	5	8
5/16/2017	82	2389.60	9	0
5/17/2017	84	2433.13	9	3
5/18/2017	89	2074.41	2	2
5/19/2017	89	2424.55	5	5
5/22/2017	84	2206.75	0	3
5/23/2017	95	2645.27	4	0
5/24/2017	87	2511.68	9	1
5/25/2017	82	2334.12	9	3
5/26/2017	79	2295.87	8	6
5/30/2017	68	1972.10	14	4
5/31/2017	86	2140.54	11	2

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

July 3, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to June 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill June, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops*	Leachate Loads
6/1/2017	85	2503.09	3	3
6/2/2017	91	2566.41	5	4
6/5/2017	86	2466.77	9	3
6/6/2017	90	2603.73	8	2
6/7/2017	92	2685.67	6	0
6/8/2017	78	2261.63	3	1
6/9/2017	95	2661.12	0	3
6/12/2017	72	1989.96	1	3
6/13/2017	71	2046.48	0	0
6/14/2017	81	2417.64	4	3
6/15/2017	77	2290.97	1	0
6/16/2017	77	2282.92	6	5
6/19/2017	62	1699.19	2	4
6/20/2017	64	1752.84	3	1
6/21/2017	63	1744.09	5	0
6/22/2017	75	2167.54	4	4
6/23/2017	68	1917.12	5	0
6/26/2017	74	2086.84	3	4
6/27/2017	74	2107.03	3	2
6/28/2017	84	2210.25	8	1
6/29/2017	86	2377.16	14	0
6/30/2017	80	2151.19	13	0

*Excludes C&D trucks backhauling sand in the same trip.

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

August 4, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to July 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill July, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops*	Leachate Loads
7/3/2017	59	1693.92	3	0
7/5/2017	67	1824.74	15	5
7/6/2017	74	2075.60	7	2
7/7/2017	73	2007.05	7	0
7/10/2017	73	2000.86	4	0
7/11/2017	75	2166.99	5	3
7/12/2017	77	2202.63	21	0
7/13/2017	69	1982.24	10	3
7/14/2017	72	2085.25	13	4
7/17/2017	67	1981.76	18	2
7/18/2017	82	2375.21	10	0
7/19/2017	84	2436.38	4	0
7/20/2017	79	2305.04	7	0
7/21/2017	74	2016.16	9	4
7/24/2017	73	2111.77	12	0
7/25/2017	78	2136.40	13	0
7/26/2017	71	2144.95	16	0
7/27/2017	76	2139.40	2	0
7/28/2017	86	2287.52	9	5
7/31/2017	84	2237.56	13	0

*Excludes C&D trucks backhauling sand in the same trip.

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

September 6, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to August 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill August, 2017 Totals

Date	C&D Loads	Tonnage	Mines Ops*	Leachate Loads
8/1/2017	80	2261.83	20	0
8/2/2017	77	2064.79	16	0
8/3/2017	97	2489.48	0	0
8/4/2017	86	2501.92	7	0
8/7/2017	71	1933.48	6	0
8/8/2017	86	2516.68	7	1
8/9/2017	72	2050.95	7	4
8/10/2017	81	2286.57	10	0
8/11/2017	83	2243.95	9	0
8/14/2017	80	2131.54	4	0
8/15/2017	85	2543.34	15	0
8/16/2017	84	2433.20	2	4
8/17/2017	67	1871.29	16	0
8/18/2017	71	1886.27	17	2
8/21/2017	69	1997.43	7	0
8/22/2017	79	2265.94	14	0
8/23/2017	72	2110.79	11	0
8/24/2017	88	2454.62	12	0
8/25/2017	63	1743.49	5	0
8/28/2017	72	1897.85	3	5
8/29/2017	84	2303.48	0	0
8/30/2017	86	2413.83	8	0
8/31/2017	91	2574.35	7	0

*Excludes C&D trucks backhauling sand in the same trip.

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

October 2, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to September 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill September, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops*	Leachate Loads
9/1/2017	77	2170.33	0	0
9/5/2017	74	2217.62	15	0
9/6/2017	76	2206.19	9	0
9/7/2017	74	2009.94	0	2
9/8/2017	92	2554.49	0	0
9/11/2017	74	2106.64	11	5
9/12/2017	80	2343.66	12	0
9/13/2017	89	2523.47	9	0
9/14/2017	76	2254.40	8	0
9/15/2017	93	2451.50	5	0
9/18/2017	77	2198.82	9	5
9/19/2017	71	2008.30	10	0
9/20/2017	79	2229.14	6	0
9/21/2017	88	2431.55	0	0
9/22/2017	58	1627.39	4	0
9/25/2017	69	1863.50	0	0
9/26/2017	79	2164.26	9	2
9/27/2017	75	2080.11	0	5
9/28/2017	71	1922.41	0	0
9/29/2017	77	2095.36	0	0

*Excludes C&D trucks backhauling sand in the same trip.

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

November 14, 2017

Attn: Ms. Nancy M. Baker

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to October 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill October, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops*	Leachate Loads
10/2/2017	69	1840.98	0	0
10/3/2017	80	2207.75	0	0
10/4/2017	77	2192.38	0	5
10/5/2017	70	2070.42	8	0
10/6/2017	63	1750.66	11	0
10/10/2017	81	2195.67	3	0
10/11/2017	66	1784.28	12	4
10/12/2017	71	1951.86	6	0
10/13/2017	68	1899.01	16	0
10/16/2017	70	1968.84	19	0
10/17/2017	80	2201.63	15	0
10/18/2017	79	2293.59	10	0
10/19/2017	76	2103.27	13	0
10/20/2017	71	1954.85	0	0
10/23/2017	74	2082.00	13	0
10/24/2017	72	2009.75	21	3
10/25/2017	74	2025.77	25	0
10/26/2017	60	1732.43	11	0
10/27/2017	61	1678.94	20	2
10/30/2017	61	1692.32	5	2
10/31/2017	85	2150.59	11	0

*Excludes C&D trucks backhauling sand in the same trip.

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

December 4, 2017

Attn: Ms. Kate F. Kornak

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Kornak:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to November 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill November, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops*	Leachate Loads
11/1/2017	66	1857.33	8	0
11/2/2017	67	1835.69	4	4
11/3/2017	81	2115.17	7	0
11/6/2017	80	2172.29	16	0
11/7/2017	78	2254.51	3	0
11/8/2017	79	2206.00	14	0
11/9/2017	88	2518.67	10	0
11/13/2017	88	2378.96	1	4
11/14/2017	86	2220.42	12	0
11/15/2017	87	2341.81	10	0
11/16/2017	81	2426.12	15	0
11/17/2017	64	1895.53	10	0
11/20/2017	77	2269.22	10	0
11/21/2017	70	2068.98	10	0
11/22/2017	64	1941.69	18	0
11/24/2017	76	2266.10	16	0
11/27/2017	72	2108.76	19	0
11/28/2017	81	2210.12	10	0
11/29/2017	64	1752.14	0	4
11/30/2017	86	2282.54	2	0

*Excludes C&D trucks backhauling sand in the same trip.

S.A. Dunn & Company, LLC
209 Partition Street Extension
Rensselaer, New York 12144

DUNN C&D LANDFILL

NYS DEC Region 4 Office
1130 North Westcott Rd.
Schenectady, NY 12306-2014

January 2, 2018

Attn: Ms. Kate F. Kornak

Dunn C&D Facility
Monthly Scale Activity Report

Dear Ms. Baker:

As per the requirements of Condition No. 14 of Permit ID 4-3899-00006/00006 for our Dunn C&D Facility, please note the appended report which outlines our Monthly Scale Activity applicable to December 2017.

Please don't hesitate to let me know if you have any questions.

Yours truly,
S.A. Dunn & Company, LLC

Corey Judd
Assistant District Manager

cc: Victoria M. Schmitt, P.E.
Jeff Burrier
Curt Taylor

Dunn Landfill December, 2017 Totals

Date	C&D Loads	Tonnage	Mine Ops*	Leachate Loads
12/1/2017	90	2254.33	0	0
12/4/2017	72	2036.41	13	0
12/5/2017	72	2003.91	13	0
12/6/2017	70	2007.86	5	0
12/7/2017	70	2025.92	4	0
12/8/2017	67	1898.52	8	4
12/11/2017	68	1976.96	8	0
12/12/2017	62	1769.98	6	0
12/13/2017	66	1810.73	5	0
12/14/2017	58	1674.93	0	0
12/15/2017	63	1703.75	0	0
12/18/2017	62	1807.42	0	0
12/19/2017	63	1800.06	0	0
12/20/2017	68	1964.96	0	0
12/21/2017	55	1691.11	0	0
12/22/2017	48	1393.59	0	0
12/26/2017	52	1415.80	0	0
12/27/2017	52	1452.09	0	0
12/28/2017	47	1380.37	0	2
12/29/2017	45	1032.94	0	0

*Excludes C&D trucks backhauling sand in the same trip.