Badin Business Park LLC

201 Isabella Street
Suite 500
Pittsburgh, PA 15212-5858 USA
Tel: 1 412 315 2900

January 12, 2023

Amirhossein (Amir) Rezaei Adaryani, PhD
Division of Water Resources
Water Quality Permitting Section - NPDES
1611 Mail Service Center
Raleigh, NC 27699-1617

RE: Response to Request for Additional Information, NPDES Application NC0004308
Badin Business Park, LLC

Dear Dr. Adaryani:

Badin Business Park, LLC submits the attached information in response to your email request for additional information on the central drainage channel, dated November 4, 2022. The provided information supplements the April 25, 2022, permit renewal application (Application) and is based on the analysis of a sample collected from the central drainage channel on December 15, 2022. Included are updated Form 2F tables, December data summary tables (supplement the Application Tables 1-2 through 1-7), and the respective laboratory reports.

As previously discussed, the Reporting Limits (RL) and Method Detection Limits (MDL) available from the commercial laboratory are reported. When a concentration was detected between the MDL and RL and qualified with a J-flag, the concentration is considered an estimate and not summarized on Form 2F.

Should you have questions or require further information, please contact me at Robyn.gross@alcoa.com or 412-315-2780.

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

Robyn L. Gross
Director, Asset Management Americas
Badin Business Park LLC

cc: Douglas Dowden, NCDEQ
Jason Mibroda, Alcoa Corporation

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
NCD 003 162 542	NC0004308	Badin Business Park, LLC	CDC

Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))[1]

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

	Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
		Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1.	Oil and grease	< 2.4 mg/L		< 2.4 mg/L		1	NA
2.	Biochemical oxygen demand (BOD_5)	8.5 mg/L	NA	8.5 mg/L	NA	1	NA
3.	Chemical oxygen demand (COD)	18 mg/L	NA	17 mg/L	NA	2	NA
4.	Total suspended solids (TSS)	21 mg/L	NA	16 mg/L	NA	3	NA
5.	Total phosphorus	<0.05 mg/L	NA	<0.05 mg/L	NA	1	NA
6.	Total Kjeldahl nitrogen (TKN)	0.13 mg/L	NA	0.13 mg/L	NA	1	NA
7.	Total nitrogen (as N)	0.34 mg/L	NA	0.34 mg/L	NA	1	NA
8.	pH (minimum)	6.4 s.u.		6.4 s.u.		2	NA
	pH (maximum)	8.5 s.u.		8.5 s.u.		2	NA

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
NCD 003 162 542	NC0004308	Badin Business Park, LLC	CDC

Form Approved 03/05/19
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TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))[1]

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Fluoride	1.3 mg/L	NA	1.1 mg/L	NA	2	NA
Cyanide, Total	<6 ug/L	NA	<6 ug/L	NA	2	NA
Aluminum, Total	3,900 ug/L	NA	2,350 ug/L	NA	2	NA

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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Form Approved 03/05/19
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TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))[1]

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Copper	5.4 ug/L	NA	5.4 ug/L	NA	1	NA
Dicamba	1.1 ug/L	NA	1.1 ug/L	NA	1	NA
Additional parameters analyzed were less than the MDL and summarized on the attached. Chloromethane, lead and nickel were detected at concentrations less than the RL, but greater than or equal to the MDL, qualified with a J-flag, considered an estimate, and are not included in this table.						

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number
NCD 003 162 542	NC0004308	Badin Business Park, LLC	CDC

TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	NA	NA	NA	NA	NA

Provide a description of the method of flow measurement or estimate.

Parameter	Result	RL	MDL	Units	Qualifier(s)
Cyanide, Total	< 0.002	0.006	0.002	mg/L	
Phenolics, Total Recoverable	< 0.025	0.05	0.025	mg/L	
Oil & Grease	< 0.66	2.4	0.66	mg/L	
Ammonia	< 0.1	0.25	0.10	mg/L	
Chromium (hexavalent)	< 3	10	3.0	ug/L	H
Total Suspended Solids	21	2.5	2.5	mg/L	
Biochemical Oxygen Demand	8.5	2.0	2.0	mg/L	H b
Parameter	**Result**	**RL**	**MDL**	**Units**	**Qualifier(s)**
Antimony	< 0.52	5	0.52	ug/L	
Arsenic	< 0.86	5	0.86	ug/L	
Beryllium	< 0.2	1	0.2	ug/L	
Cadmium	< 0.078	0.7	0.078	ug/L	
Chromium	< 2.6	5	2.6	ug/L	
Copper	5.4	5	0.9	ug/L	
Lead	0.87	1	0.34	ug/L	J
Mercury	< 0.08	0.5	0.08	ug/L	
Nickel	4.1	5	1.8	ug/L	J
Selenium	< 1.2	5	1.2	ug/L	
Silver	< 0.39	5	0.39	ug/L	
Thallium	< 0.26	1	0.26	ug/L	
Zinc	< 10	10	10	ug/L	
Parameter	**Result**	**RL**	**MDL**	**Units**	**Qualifier(s)**
Acrolein	< 15	50	15	ug/L	H
Acrylonitrile	< 5.5	50	5.5	ug/L	H
Benzene	< 0.27	2	0.27	ug/L	
Dichlorobromomethane	< 0.25	10	0.25	ug/L	
Bromoform	< 0.59	10	0.59	ug/L	
Bromomethane	< 3.7	10	3.7	ug/L	
Carbon tetrachloride	< 0.3	2	0.3	ug/L	
Chlorobenzene	< 0.15	10	0.15	ug/L	
Chloroethane	< 4.6	5	4.6	ug/L	+
2-Chloroethyl vinyl ether	< 0.59	10	0.59	ug/L	H
Chloroform	< 0.27	2	0.27	ug/L	
Chloromethane	0.87	10	0.54	ug/L	J
Chlorodibromomethane	< 0.39	10	0.39	ug/L	
1,1-Dichloroethane	< 0.33	2	0.33	ug/L	
1,2-Dichloroethane	< 0.25	2	0.25	ug/L	
1,1-Dichloroethene	< 0.33	2	0.33	ug/L	
trans-1,2-Dichloroethene	< 0.34	2	0.34	ug/L	
1,2-Dichloropropane	< 0.22	2	0.22	ug/L	

Parameter	Result	RL	MDL	Units	Qualifier(s)
cis-1,3-Dichloropropene	< 0.26	2	0.26	ug/L	
trans-1,3-Dichloropropene	< 0.23	2	0.23	ug/L	
Ethylbenzene	< 0.2	2	0.2	ug/L	
Methylene Chloride	< 3.2	10	3.2	ug/L	
1,1,2,2-Tetrachloroethane	< 0.4	2	0.4	ug/L	
Tetrachloroethene	< 0.35	2	0.35	ug/L	
Toluene	< 0.25	2	0.25	ug/L	
1,1,1-Trichloroethane	< 0.21	2	0.21	ug/L	
1,1,2-Trichloroethane	< 0.32	2	0.32	ug/L	
Trichloroethene	< 0.2	2	0.2	ug/L	
Vinyl chloride	< 0.4	10	0.4	ug/L	
Parameter	**Result**	**RL**	**MDL**	**Units**	**Qualifier(s)**
1,2,4-Trichlorobenzene	< 0.54	9.6	0.54	ug/L	
1,2-Diphenylhydrazine	< 0.83	9.6	0.83	ug/L	
1,3-Dichlorobenzene	< 0.31	1	0.31	ug/L	
1,4-Dichlorobenzene	< 0.31	1	0.31	ug/L	
2,2'-oxybis[1-chloropropane]	< 0.82	9.6	0.82	ug/L	
2,4,6-Trichlorophenol	< 0.79	9.6	0.79	ug/L	
2,4-Dichlorophenol	< 1.1	9.6	1.1	ug/L	
2,4-Dimethylphenol	< 3.8	9.6	3.8	ug/L	
2,4-Dinitrophenol	< 9.6	48	9.6	ug/L	
2,4-Dinitrotoluene	< 1.2	9.6	1.2	ug/L	
2,6-Dinitrotoluene	< 1.1	9.6	1.1	ug/L	
2-Chloronaphthalene	< 0.75	9.6	0.75	ug/L	
2-Chlorophenol	< 0.87	9.6	0.87	ug/L	
2-Nitrophenol	< 0.71	9.6	0.71	ug/L	
3,3'-Dichlorobenzidine	< 29	58	29	ug/L	
4,6-Dinitro-2-methylphenol	< 4.8	48	4.8	ug/L	
4-bromophenyl phenyl ether	< 0.77	9.6	0.77	ug/L	
4-Chlorophenyl phenyl ether	< 0.78	9.6	0.78	ug/L	
4-Nitrophenol	< 9.6	48	9.6	ug/L	
Acenaphthene	< 0.72	9.6	0.72	ug/L	
Acenaphthylene	< 0.77	9.6	0.77	ug/L	
Anthracene	< 0.7	9.6	0.7	ug/L	
Benzidine	< 40	77	40	ug/L	
Benzo[a]anthracene	< 0.9	9.6	0.9	ug/L	
Benzo[a]pyrene	< 0.71	9.6	0.71	ug/L	
Benzo[b]fluoranthene	< 2.4	9.6	2.4	ug/L	
Benzo[g,h,i]perylene	< 0.86	9.6	0.86	ug/L	
Benzo[k]fluoranthene	< 0.87	9.6	0.87	ug/L	
1,2-Dichlorobenzene	< 0.54	9.6	0.54	ug/L	

Parameter	Result	RL	MDL	Units	Qualifier(s)
Bis(2-chloroethoxy)methane	< 1.1	9.6	1.1	ug/L	
Bis(2-chloroethyl)ether	< 1.1	9.6	1.1	ug/L	
Bis(2-ethylhexyl) phthalate	< 1.5	9.6	1.5	ug/L	
Butyl benzyl phthalate	< 1.2	9.6	1.2	ug/L	
Chrysene	< 0.5	9.6	0.5	ug/L	
Dibenz(a,h)anthracene	< 0.73	9.6	0.73	ug/L	
Diethyl phthalate	< 0.83	9.6	0.83	ug/L	
Dimethyl phthalate	< 0.93	9.6	0.93	ug/L	
Di-n-butyl phthalate	< 0.85	9.6	0.85	ug/L	
Di-n-octyl phthalate	< 1.3	9.6	1.3	ug/L	
Fluoranthene	< 0.68	9.6	0.68	ug/L	
Fluorene	< 0.89	9.6	0.89	ug/L	
Hexachlorobenzene	< 0.78	9.6	0.78	ug/L	
Hexachlorobutadiene	< 0.6	9.6	0.6	ug/L	
Hexachlorocyclopentadiene	< 9.6	19	9.6	ug/L	
Hexachloroethane	< 0.78	9.6	0.78	ug/L	
Indeno[1,2,3-cd]pyrene	< 1.1	9.6	1.1	ug/L	
Isophorone	< 0.87	9.6	0.87	ug/L	
Naphthalene	< 0.67	9.6	0.67	ug/L	
Nitrobenzene	< 0.56	9.6	0.56	ug/L	
N-Nitrosodimethylamine	< 9.6	19	9.6	ug/L	
N-Nitrosodi-n-propylamine	< 0.71	9.6	0.71	ug/L	
N-Nitrosodiphenylamine	< 0.88	9.6	0.88	ug/L	
p-chloro-m-cresol	< 1.1	9.6	1.1	ug/L	
Pentachlorophenol	< 1.7	48	1.7	ug/L	
Phenanthrene	< 0.78	9.6	0.78	ug/L	
Phenol	< 1.1	9.6	1.1	ug/L	
Pyrene	< 0.62	9.6	0.62	ug/L	

Parameter	Result	RL	MDL	Units	Qualifier(s)
Aldrin	< 0.0019	0.048	0.0019	ug/L	
alpha-BHC	< 0.00096	0.048	0.00096	ug/L	
beta-BHC	< 0.0019	0.048	0.0019	ug/L	
gamma-BHC (Lindane)	< 0.00096	0.048	0.00096	ug/L	
delta-BHC	< 0.0019	0.048	0.0019	ug/L	
Chlordane (technical)	< 0.15	0.48	0.15	ug/L	
4,4'-DDT	< 0.00096	0.048	0.00096	ug/L	
4,4'-DDE	< 0.00096	0.048	0.00096	ug/L	
4,4'-DDD	< 0.0019	0.048	0.0019	ug/L	
Dieldrin	< 0.0019	0.048	0.0019	ug/L	
Endosulfan I	< 0.0019	0.048	0.0019	ug/L	
Endosulfan II	< 0.0019	0.048	0.0019	ug/L	

Parameter	Result	RL	MDL	Units	Qualifier(s)
Endosulfan sulfate	< 0.0019	0.048	0.0019	ug/L	
Endrin	< 0.00096	0.048	0.00096	ug/L	
Endrin aldehyde	< 0.0038	0.048	0.0038	ug/L	
Heptachlor	< 0.00096	0.048	0.00096	ug/L	
Heptachlor epoxide	< 0.0019	0.048	0.0019	ug/L	
PCB-1242	< 0.33	0.96	0.33	ug/L	
PCB-1254	< 0.33	0.96	0.33	ug/L	
PCB-1221	< 0.33	0.96	0.33	ug/L	
PCB-1232	< 0.33	0.96	0.33	ug/L	
PCB-1248	< 0.33	0.96	0.33	ug/L	
PCB-1260	< 0.33	0.96	0.33	ug/L	
Toxaphene	< 0.3	4.8	0.3	ug/L	
PCB-1016	< 0.31	0.96	0.31	ug/L	
Parameter	**Result**	**RL**	**MDL**	**Units**	**Qualifier(s)**
2,3,7,8 - TCDD	< 0.085	3.8	0.085	pg/L	

H: Prepped or analyzed out of hold time

+: LCS and/or LCSD out of acceptable range; biased high

b: Result detected in Unseeded Control Blank

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-212367-1
Client Project/Site: Outfall CDC

For:
Alcoa Badin Works
293 Highway 740
Badin, North Carolina 28009

Attn: Randall Kiser

Authorized for release by:
3/16/2022 4:27:30 PM
Bernard Kirkland, Lab Director
(912)250-0274
Bernard.Kirkland@Eurofinset.com

Designee for

Sheila Hoffman, Project Manager II
(912)250-0279
Sheila.Hoffman@Eurofinset.com

Sample Summary

Client: Alcoa Badin Works
Project/Site: Outfall CDC

Job ID: 680-212367-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-212367-1	Outfall CDC	Water	03/09/22 09:47	03/10/22 08:20

Method Summary

Client: Alcoa Badin Works
Project/Site: Outfall CDC

Job ID: 680-212367-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
6010D	Metals (ICP)	SW846	TAL SAV
1664B	HEM and SGT-HEM	1664B	TAL SAV
2540 D-2011	Total Suspended Solids (Dried at 103-105°C)	SM	TAL SAV
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL SAV
365.4	Phosphorus, Total	EPA	TAL SAV
410.4-1993 R2.0	COD	MCAWW	TAL SAV
5210B-2011	BOD, 5-Day	SM	TAL SAV
Total Nitrogen	Nitrogen, Total	EPA	TAL SAV
1664B	HEM and SGT-HEM (Aqueous)	1664B	TAL SAV
3010A	Preparation, Total Metals	SW846	TAL SAV
Digestion	Digestion, Hot Block	MCAWW	TAL SAV

Protocol References:

1664B = EPA-821-98-002

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 SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Client: Alcoa Badin Works
Job ID: 680-212367-1
Project/Site: Outfall CDC

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Case Narrative

Client: Alcoa Badin Works
Project/Site: Outfall CDC

Job ID: 680-212367-1

Job ID: 680-212367-1

Laboratory: Eurofins Savannah

Narrative

Receipt
The sample was received on 3/10/2022 8:20 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0º C.

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

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

General Chemistry
Method SM 5210B: The method blank result associated with batch 680-710133 was higher than the method-required limit of 0.2 mg/L.

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

Client: Alcoa Badin Works
Project/Site: Outfall CDC

Job ID: 680-212367-1

Client Sample ID: Outfall CDC
Date Collected: 03/09/22 09:47
Date Received: 03/10/22 08:20

Lab Sample ID: 680-212367-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.3**		0.10		mg/L			03/11/22 01:40	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3900**		200		ug/L		03/11/22 08:59	03/11/22 19:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	<5.9		5.9		mg/L		03/15/22 08:51	03/15/22 11:30	1
Nitrogen, Kjeldahl	**0.13**	**F1**	0.10		mg/L		03/10/22 15:52	03/11/22 17:29	1
Phosphorus	<0.050	F1	0.050		mg/L		03/10/22 15:52	03/11/22 18:34	1
Chemical Oxygen Demand	**16**		10		mg/L			03/16/22 09:58	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**12**		2.5		mg/L			03/10/22 14:39	1
Biochemical Oxygen Demand	<2.0		2.0		mg/L			03/10/22 13:57	1
Nitrogen, Total	**0.34**		0.25		mg/L			03/15/22 16:30	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-710161/33
Matrix: Water
Analysis Batch: 710161

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			03/10/22 21:02	1

Lab Sample ID: LCS 680-710161/34
Matrix: Water
Analysis Batch: 710161

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.00	1.96		mg/L		98	90 - 110

Lab Sample ID: LCSD 680-710161/35
Matrix: Water
Analysis Batch: 710161

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
Fluoride	2.00	1.97		mg/L		98	90 - 110	1	15

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 680-710330/1-A
Matrix: Water
Analysis Batch: 710677

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<200		200		ug/L		03/11/22 08:59	03/11/22 19:18	1

Lab Sample ID: LCS 680-710330/2-A
Matrix: Water
Analysis Batch: 710677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5000	5080		ug/L		102	80 - 120

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 680-710795/1-A
Matrix: Water
Analysis Batch: 710886

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	<5.0		5.0		mg/L		03/15/22 08:51	03/15/22 11:30	1

Lab Sample ID: LCS 680-710795/2-A
Matrix: Water
Analysis Batch: 710886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil & Grease	40.0	35.80		mg/L		90	78 - 114

Method: 1664B - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 680-710795/3-A
Matrix: Water
Analysis Batch: 710886

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 710795

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Oil & Grease			40.0	35.20		mg/L		88	78 - 114	2	18

Method: 2540 D-2011 - Total Suspended Solids (Dried at 103-105°C)

Lab Sample ID: MB 680-710232/1
Matrix: Water
Analysis Batch: 710232

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<2.5		2.5		mg/L			03/10/22 14:39	1

Lab Sample ID: LCS 680-710232/2
Matrix: Water
Analysis Batch: 710232

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			951	832		mg/L		87	80 - 120		

Lab Sample ID: LCSD 680-710232/3
Matrix: Water
Analysis Batch: 710232

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
Total Suspended Solids			951	838		mg/L		88	80 - 120	1	25

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 680-710245/13-A
Matrix: Water
Analysis Batch: 710788

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 710245

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<0.20		0.20		mg/L		03/10/22 15:52	03/14/22 18:31	1

Lab Sample ID: LCS 680-710245/14-A
Matrix: Water
Analysis Batch: 710639

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 710245

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Kjeldahl			2.00	2.00		mg/L		100	75 - 125		

Lab Sample ID: 680-212367-1 MS
Matrix: Water
Analysis Batch: 710639

Client Sample ID: Outfall CDC
Prep Type: Total/NA
Prep Batch: 710245

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Kjeldahl	0.13	F1	1.00	0.639	F1	mg/L		51	75 - 125		

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: 680-212367-1 MSD — **Client Sample ID: Outfall CDC**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710639 — **Prep Batch: 710245**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	0.13	F1	1.00	0.608	F1	mg/L		48	75 - 125	5	40

Method: 365.4 - Phosphorus, Total

Lab Sample ID: 680-212367-1 MS — **Client Sample ID: Outfall CDC**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710640 — **Prep Batch: 710245**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus	<0.050	F1	1.00	0.533	F1	mg/L		53	90 - 110

Lab Sample ID: 680-212367-1 MSD — **Client Sample ID: Outfall CDC**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710640 — **Prep Batch: 710245**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus	<0.050	F1	1.00	0.571	F1	mg/L		57	90 - 110	7	30

Method: 410.4-1993 R2.0 - COD

Lab Sample ID: MB 680-711050/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 711050

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<10		10		mg/L			03/16/22 09:58	1

Lab Sample ID: LCS 680-711050/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 711050

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	50.0	54.6		mg/L		109	90 - 110

Method: 5210B-2011 - BOD, 5-Day

Lab Sample ID: USB 680-710133/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710133

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0		mg/L			03/10/22 12:35	1

Lab Sample ID: LCS 680-710133/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 710133

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	198		mg/L		100	85 - 115

Method: 5210B-2011 - BOD, 5-Day (Continued)

Lab Sample ID: LCSD 680-710133/6
Matrix: Water
Analysis Batch: 710133

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
Biochemical Oxygen Demand			198	201		mg/L		102	85 - 115	2	30

HPLC/IC

Analysis Batch: 710161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	300.0	
MB 680-710161/33	Method Blank	Total/NA	Water	300.0	
LCS 680-710161/34	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-710161/35	Lab Control Sample Dup	Total/NA	Water	300.0	

Metals

Prep Batch: 710330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	3010A	
MB 680-710330/1-A	Method Blank	Total/NA	Water	3010A	
LCS 680-710330/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 710677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	6010D	710330
MB 680-710330/1-A	Method Blank	Total/NA	Water	6010D	710330
LCS 680-710330/2-A	Lab Control Sample	Total/NA	Water	6010D	710330

General Chemistry

Analysis Batch: 710133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	5210B-2011	
USB 680-710133/4	Method Blank	Total/NA	Water	5210B-2011	
LCS 680-710133/5	Lab Control Sample	Total/NA	Water	5210B-2011	
LCSD 680-710133/6	Lab Control Sample Dup	Total/NA	Water	5210B-2011	

Analysis Batch: 710232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	2540 D-2011	
MB 680-710232/1	Method Blank	Total/NA	Water	2540 D-2011	
LCS 680-710232/2	Lab Control Sample	Total/NA	Water	2540 D-2011	
LCSD 680-710232/3	Lab Control Sample Dup	Total/NA	Water	2540 D-2011	

Prep Batch: 710245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	Digestion	
MB 680-710245/13-A	Method Blank	Total/NA	Water	Digestion	
LCS 680-710245/14-A	Lab Control Sample	Total/NA	Water	Digestion	
680-212367-1 MS	Outfall CDC	Total/NA	Water	Digestion	
680-212367-1 MSD	Outfall CDC	Total/NA	Water	Digestion	

Analysis Batch: 710290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	Total Nitrogen	

Analysis Batch: 710639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	351.2	710245
LCS 680-710245/14-A	Lab Control Sample	Total/NA	Water	351.2	710245
680-212367-1 MS	Outfall CDC	Total/NA	Water	351.2	710245

General Chemistry (Continued)

Analysis Batch: 710639 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1 MSD	Outfall CDC	Total/NA	Water	351.2	710245

Analysis Batch: 710640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	365.4	710245
680-212367-1 MS	Outfall CDC	Total/NA	Water	365.4	710245
680-212367-1 MSD	Outfall CDC	Total/NA	Water	365.4	710245

Analysis Batch: 710788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-710245/13-A	Method Blank	Total/NA	Water	351.2	710245

Prep Batch: 710795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	1664B	
MB 680-710795/1-A	Method Blank	Total/NA	Water	1664B	
LCS 680-710795/2-A	Lab Control Sample	Total/NA	Water	1664B	
LCSD 680-710795/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	

Analysis Batch: 710886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	1664B	710795
MB 680-710795/1-A	Method Blank	Total/NA	Water	1664B	710795
LCS 680-710795/2-A	Lab Control Sample	Total/NA	Water	1664B	710795
LCSD 680-710795/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	710795

Analysis Batch: 711050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-212367-1	Outfall CDC	Total/NA	Water	410.4-1993 R2.0	
MB 680-711050/3	Method Blank	Total/NA	Water	410.4-1993 R2.0	
LCS 680-711050/4	Lab Control Sample	Total/NA	Water	410.4-1993 R2.0	

Lab Chronicle

Client: Alcoa Badin Works
Project/Site: Outfall CDC

Job ID: 680-212367-1

Client Sample ID: Outfall CDC

Date Collected: 03/09/22 09:47
Date Received: 03/10/22 08:20

Lab Sample ID: 680-212367-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	710161	03/11/22 01:40	OK	TAL SAV
	Instrument ID: CICK									
Total/NA	Prep	3010A			50 mL	50 mL	710330	03/11/22 08:59	JE	TAL SAV
Total/NA	Analysis	6010D		1			710677	03/11/22 19:38	BCB	TAL SAV
	Instrument ID: ICPH									
Total/NA	Prep	1664B			425 mL	500 mL	710795	03/15/22 08:51	JAS	TAL SAV
Total/NA	Analysis	1664B		1			710886	03/15/22 11:30	JAS	TAL SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	2540 D-2011		1	1000 mL	1000 mL	710232	03/10/22 14:39	PG	TAL SAV
	Instrument ID: NOEQUIP									
Total/NA	Prep	Digestion			40 mL	20 mL	710245	03/10/22 15:52	SM	TAL SAV
Total/NA	Analysis	351.2		1			710639	03/11/22 17:29	NVF	TAL SAV
	Instrument ID: SEAL 2									
Total/NA	Prep	Digestion			40 mL	20 mL	710245	03/10/22 15:52	SM	TAL SAV
Total/NA	Analysis	365.4		1	2 mL	2 mL	710640	03/11/22 18:34	NVF	TAL SAV
	Instrument ID: SEAL 2									
Total/NA	Analysis	410.4-1993 R2.0		1	2 mL	2 mL	711050	03/16/22 09:58	ALG	TAL SAV
	Instrument ID: SPC7									
Total/NA	Analysis	5210B-2011		1			710133	03/10/22 13:57	OLB	TAL SAV
	Instrument ID: BOD 2									
Total/NA	Analysis	Total Nitrogen		1			710290	03/15/22 16:30	TJW	TAL SAV
	Instrument ID: NOEQUIP									

Laboratory References:

TAL SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404
Phone 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Jon Wilson	Lab PM: Hoffman Sheila B	Carrier Tracking No(s): 817393617778	COC No: 680-132653-48815 1
Client Contact: Randall Kiser	Phone: 704-202 2457	E-Mail: Sheila Hoffman@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Alcoa Badin Works	PWSID:			Job #:
Address: 293 Highway 740	Due Date Requested			
City: Badin	TAT Requested (days)			
State, Zip: NC 28009	Compliance Project: Δ Yes Δ No			
Phone: 704-562-6138(Tel)	PO #: 270557150TRF			
Email: randall kiser@alcoa com	WO #:			
Project Name:	Project #: 68000358			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D - (MOD) Fluoride	351 2, 353.2_Pres, 365.4, 410.4, Nitrogen,Total	6010D - (MOD) Aluminum	1664B - Oil and Grease	5210B - BOD	2540D - Solids, Total Suspended (TSS)	Total Number of containers	Special Instructions/Note.
			Preservation Code:				N	S	D	S	N	N		
Outfall CDC	03-09-2022	947	G	Water			X	X	X	X	X	X		

680-212367 Chain of Custody

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

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

Deliverable Requested I II III IV, Other (specify)

Special Instructions/QC Requirements.

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				3/10 0820	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No. 1675075	Cooler Temperature(s) °C and Other Remarks: 1.4-2.0

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Alcoa Badin Works

Job Number: 680-212367-1

Login Number: 212367
List Number: 1
Creator: Padayao, Abigail

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alcoa Badin Works
Project/Site: Outfall CDC

Job ID: 680-212367-1

Laboratory: Eurofins Savannah

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

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	269	12-31-22

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-218341-1
Client Project/Site: 06010-1805-001/Outfalls SW & CDC

For:
Alcoa Badin Works
293 Highway 740
Badin, North Carolina 28009

Attn: Randall Kiser

Authorized for release by:
7/25/2022 2:38:35 PM

Sheila Hoffman, Project Manager II
(912)250-0279
Sheila.Hoffman@et.eurofinsus.com

Sample Summary

Client: Alcoa Badin Works
Job ID: 680-218341-1
Project/Site: 06010-1805-001/Outfalls SW & CDC

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-218341-1	Outfall 002 - SW	Water	07/13/22 18:57	07/15/22 08:50
680-218341-2	Outfall 004 - SW	Water	07/13/22 18:04	07/15/22 08:50
680-218341-3	Outfall 017 - SW	Water	07/13/22 17:55	07/15/22 08:50
680-218341-4	Outfall 018 - SW	Water	07/13/22 18:30	07/15/22 08:50
680-218341-5	Outfall 022 - SW	Water	07/13/22 18:13	07/15/22 08:50
680-218341-6	Outfall - CDC	Water	07/13/22 18:20	07/15/22 08:50

Method Summary

Client: Alcoa Badin Works
Project/Site: 06010-1805-001/Outfalls SW & CDC

Job ID: 680-218341-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
6010D	Metals (ICP)	SW846	TAL SAV
2540 D-2011	Total Suspended Solids (Dried at 103-105°C)	SM	TAL SAV
410.4-1993 R2.0	COD	MCAWW	TAL SAV
3010A	Preparation, Total Metals	SW846	TAL SAV

Protocol References:

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 SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Glossary

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

Client Sample ID: Outfall 002 - SW
Lab Sample ID: 680-218341-1

Date Collected: 07/13/22 18:57
Matrix: Water
Date Received: 07/15/22 08:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.1		0.10		mg/L			07/22/22 11:28	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	200		200		ug/L		07/18/22 07:48	07/18/22 18:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	10		10		mg/L			07/22/22 10:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	2.5		2.5		mg/L			07/15/22 11:31	1

Client Sample ID: Outfall 004 - SW
Lab Sample ID: 680-218341-2

Date Collected: 07/13/22 18:04
Matrix: Water
Date Received: 07/15/22 08:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	2.1		0.10		mg/L			07/22/22 12:06	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	410		200		ug/L		07/18/22 07:48	07/18/22 18:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<10		10		mg/L			07/22/22 10:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<2.5		2.5		mg/L			07/15/22 11:31	1

Client Sample ID: Outfall 017 - SW
Lab Sample ID: 680-218341-3

Date Collected: 07/13/22 17:55
Matrix: Water
Date Received: 07/15/22 08:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.26		0.10		mg/L			07/22/22 12:19	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<200		200		ug/L		07/18/22 07:48	07/18/22 18:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	23		10		mg/L			07/22/22 10:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<2.5		2.5		mg/L			07/15/22 11:31	1

Client Sample ID: Outfall 018 - SW
Lab Sample ID: 680-218341-4

Date Collected: 07/13/22 18:30
Matrix: Water
Date Received: 07/15/22 08:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/22/22 12:32	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**280**		200		ug/L		07/18/22 07:48	07/18/22 18:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	**31**		10		mg/L			07/22/22 10:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**3.4**		2.5		mg/L			07/15/22 11:31	1

Client Sample ID: Outfall 022 - SW
Lab Sample ID: 680-218341-5

Date Collected: 07/13/22 18:13
Matrix: Water
Date Received: 07/15/22 08:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/22/22 12:44	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<200		200		ug/L		07/18/22 07:48	07/18/22 18:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	**18**		10		mg/L			07/22/22 10:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<2.5		2.5		mg/L			07/15/22 11:31	1

Client Sample ID: Outfall - CDC
Lab Sample ID: 680-218341-6

Date Collected: 07/13/22 18:20
Matrix: Water
Date Received: 07/15/22 08:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.98**		0.10		mg/L			07/22/22 12:57	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**800**		200		ug/L		07/18/22 07:48	07/18/22 18:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	**18**		10		mg/L			07/22/22 10:45	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**16**		2.5		mg/L			07/18/22 11:27	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-732116/2
Matrix: Water
Analysis Batch: 732116

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/22/22 09:50	1

Lab Sample ID: LCS 680-732116/3
Matrix: Water
Analysis Batch: 732116

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.00	1.92		mg/L		96	90 - 110		

Lab Sample ID: LCSD 680-732116/4
Matrix: Water
Analysis Batch: 732116

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
Fluoride			2.00	2.02		mg/L		101	90 - 110	5	15

Lab Sample ID: LLCS 680-732116/5
Matrix: Water
Analysis Batch: 732116

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

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			0.100	0.119		mg/L		119	50 - 150		

Lab Sample ID: 680-218341-1 MS
Matrix: Water
Analysis Batch: 732116

Client Sample ID: Outfall 002 - SW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	1.1		2.00	3.38		mg/L		112	80 - 120		

Lab Sample ID: 680-218341-1 MSD
Matrix: Water
Analysis Batch: 732116

Client Sample ID: Outfall 002 - SW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	1.1		2.00	3.34		mg/L		110	80 - 120	1	15

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 680-731127/1-A
Matrix: Water
Analysis Batch: 731387

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 731127

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<200		200		ug/L		07/18/22 07:48	07/18/22 18:01	1

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

Lab Sample ID: LCS 680-731127/2-A
Matrix: Water
Analysis Batch: 731387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 731127

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum			5000	5050		ug/L		101	80 - 120		

Method: 2540 D-2011 - Total Suspended Solids (Dried at 103-105°C)

Lab Sample ID: MB 680-730904/1
Matrix: Water
Analysis Batch: 730904

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<2.5		2.5		mg/L			07/15/22 11:31	1

Lab Sample ID: LCS 680-730904/2
Matrix: Water
Analysis Batch: 730904

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			951	810		mg/L		85	80 - 120		

Lab Sample ID: LCSD 680-730904/3
Matrix: Water
Analysis Batch: 730904

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
Total Suspended Solids			951	796		mg/L		84	80 - 120	2	25

Lab Sample ID: MB 680-731215/1
Matrix: Water
Analysis Batch: 731215

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<2.5		2.5		mg/L			07/18/22 11:27	1

Lab Sample ID: LCS 680-731215/2
Matrix: Water
Analysis Batch: 731215

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			951	804		mg/L		85	80 - 120		

Lab Sample ID: LCSD 680-731215/3
Matrix: Water
Analysis Batch: 731215

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
Total Suspended Solids			951	784		mg/L		82	80 - 120	3	25

Client: Alcoa Badin Works
Job ID: 680-218341-1
Project/Site: 06010-1805-001/Outfalls SW & CDC

Method: 410.4-1993 R2.0 - COD

Lab Sample ID: MB 680-732175/3
Matrix: Water
Analysis Batch: 732175

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	<10		10		mg/L			07/22/22 10:45	1

Lab Sample ID: LCS 680-732175/4
Matrix: Water
Analysis Batch: 732175

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			50.0	53.0		mg/L		106	90 - 110		

HPLC/IC

Analysis Batch: 732116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-218341-1	Outfall 002 - SW	Total/NA	Water	300.0	
680-218341-2	Outfall 004 - SW	Total/NA	Water	300.0	
680-218341-3	Outfall 017 - SW	Total/NA	Water	300.0	
680-218341-4	Outfall 018 - SW	Total/NA	Water	300.0	
680-218341-5	Outfall 022 - SW	Total/NA	Water	300.0	
680-218341-6	Outfall - CDC	Total/NA	Water	300.0	
MB 680-732116/2	Method Blank	Total/NA	Water	300.0	
LCS 680-732116/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-732116/4	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 680-732116/5	Lab Control Sample	Total/NA	Water	300.0	
680-218341-1 MS	Outfall 002 - SW	Total/NA	Water	300.0	
680-218341-1 MSD	Outfall 002 - SW	Total/NA	Water	300.0	

Metals

Prep Batch: 731127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-218341-1	Outfall 002 - SW	Total/NA	Water	3010A	
680-218341-2	Outfall 004 - SW	Total/NA	Water	3010A	
680-218341-3	Outfall 017 - SW	Total/NA	Water	3010A	
680-218341-4	Outfall 018 - SW	Total/NA	Water	3010A	
680-218341-5	Outfall 022 - SW	Total/NA	Water	3010A	
680-218341-6	Outfall - CDC	Total/NA	Water	3010A	
MB 680-731127/1-A	Method Blank	Total/NA	Water	3010A	
LCS 680-731127/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 731387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-218341-1	Outfall 002 - SW	Total/NA	Water	6010D	731127
680-218341-2	Outfall 004 - SW	Total/NA	Water	6010D	731127
680-218341-3	Outfall 017 - SW	Total/NA	Water	6010D	731127
680-218341-4	Outfall 018 - SW	Total/NA	Water	6010D	731127
680-218341-5	Outfall 022 - SW	Total/NA	Water	6010D	731127
680-218341-6	Outfall - CDC	Total/NA	Water	6010D	731127
MB 680-731127/1-A	Method Blank	Total/NA	Water	6010D	731127
LCS 680-731127/2-A	Lab Control Sample	Total/NA	Water	6010D	731127

General Chemistry

Analysis Batch: 730904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-218341-1	Outfall 002 - SW	Total/NA	Water	2540 D-2011	
680-218341-2	Outfall 004 - SW	Total/NA	Water	2540 D-2011	
680-218341-3	Outfall 017 - SW	Total/NA	Water	2540 D-2011	
680-218341-4	Outfall 018 - SW	Total/NA	Water	2540 D-2011	
680-218341-5	Outfall 022 - SW	Total/NA	Water	2540 D-2011	
MB 680-730904/1	Method Blank	Total/NA	Water	2540 D-2011	
LCS 680-730904/2	Lab Control Sample	Total/NA	Water	2540 D-2011	
LCSD 680-730904/3	Lab Control Sample Dup	Total/NA	Water	2540 D-2011	

General Chemistry

Analysis Batch: 731215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-218341-6	Outfall - CDC	Total/NA	Water	2540 D-2011	
MB 680-731215/1	Method Blank	Total/NA	Water	2540 D-2011	
LCS 680-731215/2	Lab Control Sample	Total/NA	Water	2540 D-2011	
LCSD 680-731215/3	Lab Control Sample Dup	Total/NA	Water	2540 D-2011	

Analysis Batch: 732175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-218341-1	Outfall 002 - SW	Total/NA	Water	410.4-1993 R2.0	
680-218341-2	Outfall 004 - SW	Total/NA	Water	410.4-1993 R2.0	
680-218341-3	Outfall 017 - SW	Total/NA	Water	410.4-1993 R2.0	
680-218341-4	Outfall 018 - SW	Total/NA	Water	410.4-1993 R2.0	
680-218341-5	Outfall 022 - SW	Total/NA	Water	410.4-1993 R2.0	
680-218341-6	Outfall - CDC	Total/NA	Water	410.4-1993 R2.0	
MB 680-732175/3	Method Blank	Total/NA	Water	410.4-1993 R2.0	
LCS 680-732175/4	Lab Control Sample	Total/NA	Water	410.4-1993 R2.0	

Client Sample ID: Outfall 002 - SW
Lab Sample ID: 680-218341-1

Date Collected: 07/13/22 18:57
Matrix: Water
Date Received: 07/15/22 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	732116	07/22/22 11:28	AF	TAL SAV
	Instrument ID: CICK									
Total/NA	Prep	3010A			50 mL	50 mL	731127	07/18/22 07:48	RR	TAL SAV
Total/NA	Analysis	6010D		1			731387	07/18/22 18:19	BJB	TAL SAV
	Instrument ID: ICPH									
Total/NA	Analysis	2540 D-2011		1	1000 mL	1000 mL	730904	07/15/22 11:31	PG	TAL SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	410.4-1993 R2.0		1	2 mL	2 mL	732175	07/22/22 10:45	ALG	TAL SAV
	Instrument ID: SPC7									

Client Sample ID: Outfall 004 - SW
Lab Sample ID: 680-218341-2

Date Collected: 07/13/22 18:04
Matrix: Water
Date Received: 07/15/22 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	732116	07/22/22 12:06	AF	TAL SAV
	Instrument ID: CICK									
Total/NA	Prep	3010A			50 mL	50 mL	731127	07/18/22 07:48	RR	TAL SAV
Total/NA	Analysis	6010D		1			731387	07/18/22 18:27	BJB	TAL SAV
	Instrument ID: ICPH									
Total/NA	Analysis	2540 D-2011		1	1000 mL	1000 mL	730904	07/15/22 11:31	PG	TAL SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	410.4-1993 R2.0		1	2 mL	2 mL	732175	07/22/22 10:45	ALG	TAL SAV
	Instrument ID: SPC7									

Client Sample ID: Outfall 017 - SW
Lab Sample ID: 680-218341-3

Date Collected: 07/13/22 17:55
Matrix: Water
Date Received: 07/15/22 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	732116	07/22/22 12:19	AF	TAL SAV
	Instrument ID: CICK									
Total/NA	Prep	3010A			50 mL	50 mL	731127	07/18/22 07:48	RR	TAL SAV
Total/NA	Analysis	6010D		1			731387	07/18/22 18:30	BJB	TAL SAV
	Instrument ID: ICPH									
Total/NA	Analysis	2540 D-2011		1	1000 mL	1000 mL	730904	07/15/22 11:31	PG	TAL SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	410.4-1993 R2.0		1	2 mL	2 mL	732175	07/22/22 10:45	ALG	TAL SAV
	Instrument ID: SPC7									

Lab Chronicle

Client: Alcoa Badin Works
Job ID: 680-218341-1
Project/Site: 06010-1805-001/Outfalls SW & CDC

Client Sample ID: Outfall 018 - SW
Lab Sample ID: 680-218341-4
Date Collected: 07/13/22 18:30
Matrix: Water
Date Received: 07/15/22 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	732116	07/22/22 12:32	AF	TAL SAV
	Instrument ID: CICK									
Total/NA	Prep	3010A			50 mL	50 mL	731127	07/18/22 07:48	RR	TAL SAV
Total/NA	Analysis	6010D		1			731387	07/18/22 18:33	BJB	TAL SAV
	Instrument ID: ICPH									
Total/NA	Analysis	2540 D-2011		1	1000 mL	1000 mL	730904	07/15/22 11:31	PG	TAL SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	410.4-1993 R2.0		1	2 mL	2 mL	732175	07/22/22 10:45	ALG	TAL SAV
	Instrument ID: SPC7									

Client Sample ID: Outfall 022 - SW
Lab Sample ID: 680-218341-5
Date Collected: 07/13/22 18:13
Matrix: Water
Date Received: 07/15/22 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	732116	07/22/22 12:44	AF	TAL SAV
	Instrument ID: CICK									
Total/NA	Prep	3010A			50 mL	50 mL	731127	07/18/22 07:48	RR	TAL SAV
Total/NA	Analysis	6010D		1			731387	07/18/22 18:35	BJB	TAL SAV
	Instrument ID: ICPH									
Total/NA	Analysis	2540 D-2011		1	1000 mL	1000 mL	730904	07/15/22 11:31	PG	TAL SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	410.4-1993 R2.0		1	2 mL	2 mL	732175	07/22/22 10:45	ALG	TAL SAV
	Instrument ID: SPC7									

Client Sample ID: Outfall - CDC
Lab Sample ID: 680-218341-6
Date Collected: 07/13/22 18:20
Matrix: Water
Date Received: 07/15/22 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	732116	07/22/22 12:57	AF	TAL SAV
	Instrument ID: CICK									
Total/NA	Prep	3010A			50 mL	50 mL	731127	07/18/22 07:48	RR	TAL SAV
Total/NA	Analysis	6010D		1			731387	07/18/22 18:38	BJB	TAL SAV
	Instrument ID: ICPH									
Total/NA	Analysis	2540 D-2011		1	1000 mL	1000 mL	731215	07/18/22 11:27	PG	TAL SAV
	Instrument ID: NOEQUIP									
Total/NA	Analysis	410.4-1993 R2.0		1	2 mL	2 mL	732175	07/22/22 10:45	ALG	TAL SAV
	Instrument ID: SPC7									

Laboratory References:

TAL SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ftn

Date	Project Name	Project No	Project Manager (Print)	Page 1 of 1
7-14-22	Badin Business Park - Stormwater	06010-1805-001	Jon Wilson	

Laboratory Name: **Eurofins - Savannah**

Submitted by:
Jon Wilson
Badin Business Park LLC
293 Highway 740
Badin, North Carolina 28009
704-562-6138
jon wilson@Alcoa.com

Sampler Signature(s): Jon Wilson

Recorded By (Print): Jon Wilson

Lab Turn-Around-Time:
24 Hours
48 Hours
Normal
Other
Due: __/__/__

Sample Identification	Date	Time	Matrix* W	Matrix* S	Matrix* O	No. of Containers	Comp	Grab	TSS (DL 10 mg/L)	Total Fluoride (EPA 300 - DL 1.0 mg/L)	COD	Total Aluminum	Laboratory Notes
Outfall 002 - SW	7-13-22	1857	X			4		X	X	X	X	X	
Outfall 004 - SW	7-13-22	1804	X			4		X	X	X	X	X	
Outfall 017 - SW	7-13-22	1755	X			4		X	X	X	X	X	
Outfall 018 - SW	7-13-22	1830	X			4		X	X	X	X	X	
~~**Outfall 020 - SW**~~			~~X~~			~~4~~		~~X~~	~~X~~	~~X~~	~~X~~	X	
Outfall 022 - SW	7-13-22	1813	X			4		X	X	X	X	X	
outfall cdc	7-13-22	1820	X			4		X	X	X 2/year	X	X	
									P	P	P	P	
									NO	NO	S	N	

680-218341 Chain of Custody

W = Water S = Soil
O = Other

G=Glass P=Plastic V=VOA vials H=HCl to pH2
NO=None S=Sulfuric acid pH2 N=Nitric acid pH2
B=NaOH to pH12 Z=Zinc acetate

Relinquished By (Signature)	Print Name	Date	Time	Received By (Signature)	Print Name	Date	Time
Jon Wilson	Jon Wilson	07-14-22	1406	cup		7/15	18:30
Relinquished By (Signature)	Print Name	Date	Time	Received By Laboratory (Signature)	Print Name	Date	Time

Please send results to:
Robyn Gross@alcoa.com, mmv@ftn-assoc.com
jon wilson@alcoa com

Laboratory Remarks: 4.0/2

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7/25/2022

Login Sample Receipt Checklist

Client: Alcoa Badin Works

Job Number: 680-218341-1

Login Number: 218341

List Source: Eurofins Savannah

List Number: 1

Creator: Padayao, Abigail

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alcoa Badin Works
Job ID: 680-218341-1
Project/Site: 06010-1805-001/Outfalls SW & CDC

Laboratory: Eurofins Savannah

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

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	269	12-31-22

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-91283-1
Client Project/Site: Badin Business Park - Stormwater CN

For:
FTN Associates
3 Innwood Circle
Suite 220
Little Rock, Arkansas 72211

Attn: Melissa Vaught

Authorized for release by:
7/19/2022 10:23:35 AM

Kelly Bauer, Project Manager
(717)556-7262
Kelly.Bauer@et.eurofinsus.com

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Kelly Bauer
Project Manager
7/19/2022 10:23:35 AM

Table of Contents

Client: FTN Associates
Job ID: 410-91283-1
Project/Site: Badin Business Park - Stormwater CN

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
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: FTN Associates
Job ID: 410-91283-1
Project/Site: Badin Business Park - Stormwater CN

Job ID: 410-91283-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Narrative

Job Narrative
410-91283-1

Receipt
The samples were received on 7/15/2022 6:53 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C

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

Detection Summary

Client: FTN Associates
Job ID: 410-91283-1
Project/Site: Badin Business Park - Stormwater CN

Client Sample ID: Outfall 002 - SW
Lab Sample ID: 410-91283-1

No Detections.

Client Sample ID: Outfall 004 - SW
Lab Sample ID: 410-91283-2

No Detections.

Client Sample ID: Outfall 017 - SW
Lab Sample ID: 410-91283-3

No Detections.

Client Sample ID: Outfall 018 - SW
Lab Sample ID: 410-91283-4

No Detections.

Client Sample ID: Outfall 022 - SW
Lab Sample ID: 410-91283-5

No Detections.

Client Sample ID: Outfall CDC - SW
Lab Sample ID: 410-91283-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: FTN Associates
Job ID: 410-91283-1
Project/Site: Badin Business Park - Stormwater CN

Client Sample ID: Outfall 002 - SW
Lab Sample ID: 410-91283-1
Date Collected: 07/13/22 18:57
Matrix: Water
Date Received: 07/15/22 18:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/19/22 09:54	1

Client Sample ID: Outfall 004 - SW
Lab Sample ID: 410-91283-2
Date Collected: 07/13/22 18:04
Matrix: Water
Date Received: 07/15/22 18:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/19/22 09:56	1

Client Sample ID: Outfall 017 - SW
Lab Sample ID: 410-91283-3
Date Collected: 07/13/22 17:55
Matrix: Water
Date Received: 07/15/22 18:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/19/22 09:58	1

Client Sample ID: Outfall 018 - SW
Lab Sample ID: 410-91283-4
Date Collected: 07/13/22 18:30
Matrix: Water
Date Received: 07/15/22 18:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/19/22 10:00	1

Client Sample ID: Outfall 022 - SW
Lab Sample ID: 410-91283-5
Date Collected: 07/13/22 18:13
Matrix: Water
Date Received: 07/15/22 18:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/19/22 10:02	1

Client Sample ID: Outfall CDC - SW
Lab Sample ID: 410-91283-6
Date Collected: 07/13/22 18:20
Matrix: Water
Date Received: 07/15/22 18:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/19/22 10:09	1

Client: FTN Associates
Project/Site: Badin Business Park - Stormwater CN

Job ID: 410-91283-1

Method: D7511-12 - Total Cyanide

Lab Sample ID: MB 410-277057/18
Matrix: Water
Analysis Batch: 277057

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/19/22 08:30	1

Lab Sample ID: LCS 410-277057/16
Matrix: Water
Analysis Batch: 277057

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.0500	0.0472		mg/L		94	84 - 116		

Lab Sample ID: LCSD 410-277057/17
Matrix: Water
Analysis Batch: 277057

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
Cyanide, Total			0.0500	0.0478		mg/L		96	84 - 116	1	20

Lab Sample ID: 410-91283-5 MS
Matrix: Water
Analysis Batch: 277057

Client Sample ID: Outfall 022 - SW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	<0.0060		0.0500	0.0526		mg/L		105	84 - 116		

Lab Sample ID: 410-91283-5 DU
Matrix: Water
Analysis Batch: 277057

Client Sample ID: Outfall 022 - SW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cyanide, Total	<0.0060			<0.0060		mg/L				NC	20

QC Association Summary

Client: FTN Associates
Job ID: 410-91283-1
Project/Site: Badin Business Park - Stormwater CN

General Chemistry

Analysis Batch: 277057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-91283-1	Outfall 002 - SW	Total/NA	Water	D7511-12	
410-91283-2	Outfall 004 - SW	Total/NA	Water	D7511-12	
410-91283-3	Outfall 017 - SW	Total/NA	Water	D7511-12	
410-91283-4	Outfall 018 - SW	Total/NA	Water	D7511-12	
410-91283-5	Outfall 022 - SW	Total/NA	Water	D7511-12	
410-91283-6	Outfall CDC - SW	Total/NA	Water	D7511-12	
MB 410-277057/18	Method Blank	Total/NA	Water	D7511-12	
LCS 410-277057/16	Lab Control Sample	Total/NA	Water	D7511-12	
LCSD 410-277057/17	Lab Control Sample Dup	Total/NA	Water	D7511-12	
410-91283-5 MS	Outfall 022 - SW	Total/NA	Water	D7511-12	
410-91283-5 DU	Outfall 022 - SW	Total/NA	Water	D7511-12	

Lab Chronicle

Client: FTN Associates
Job ID: 410-91283-1
Project/Site: Badin Business Park - Stormwater CN

Client Sample ID: Outfall 002 - SW
Lab Sample ID: 410-91283-1
Date Collected: 07/13/22 18:57
Matrix: Water
Date Received: 07/15/22 18:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7511-12		1	277057	07/19/22 09:54	CBM8	ELLE

Client Sample ID: Outfall 004 - SW
Lab Sample ID: 410-91283-2
Date Collected: 07/13/22 18:04
Matrix: Water
Date Received: 07/15/22 18:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7511-12		1	277057	07/19/22 09:56	CBM8	ELLE

Client Sample ID: Outfall 017 - SW
Lab Sample ID: 410-91283-3
Date Collected: 07/13/22 17:55
Matrix: Water
Date Received: 07/15/22 18:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7511-12		1	277057	07/19/22 09:58	CBM8	ELLE

Client Sample ID: Outfall 018 - SW
Lab Sample ID: 410-91283-4
Date Collected: 07/13/22 18:30
Matrix: Water
Date Received: 07/15/22 18:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7511-12		1	277057	07/19/22 10:00	CBM8	ELLE

Client Sample ID: Outfall 022 - SW
Lab Sample ID: 410-91283-5
Date Collected: 07/13/22 18:13
Matrix: Water
Date Received: 07/15/22 18:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7511-12		1	277057	07/19/22 10:02	CBM8	ELLE

Client Sample ID: Outfall CDC - SW
Lab Sample ID: 410-91283-6
Date Collected: 07/13/22 18:20
Matrix: Water
Date Received: 07/15/22 18:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7511-12		1	277057	07/19/22 10:09	CBM8	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: FTN Associates
Job ID: 410-91283-1
Project/Site: Badin Business Park - Stormwater CN

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
North Carolina (DW)	State	42705	07-31-23

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

Analysis Method	Prep Method	Matrix	Analyte	
D7511-12		Water	Cyanide, Total	
North Carolina (WW/SW)	State		521	12-31-22

Method	Method Description	Protocol	Laboratory
t 75FFNFs	0l 43JaeM3Ddbl	9S0y	ELLE

Protocol References:

9S0y e6e9S0y enD4 rD34b D3J

Laboratory References:

ELLEe6eEurl =bD2eL3D8324 reL3i l r34 rb 2eEDf br l DmI D4e0l 24bDvgeLLa ges s5e- l we, l JBDdePtkl geL3D8324 rgeP9eF7HTFge0ELe(7F7)H5HNscTT

Sample Summary

Client: FTN Associates
Job ID: 410-91283-1
Project/Site: Badin Business Park - Stormwater CN

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-91283-1	Outfall 002 - SW	Water	07/13/22 18:57	07/15/22 18:53
410-91283-2	Outfall 004 - SW	Water	07/13/22 18:04	07/15/22 18:53
410-91283-3	Outfall 017 - SW	Water	07/13/22 17:55	07/15/22 18:53
410-91283-4	Outfall 018 - SW	Water	07/13/22 18:30	07/15/22 18:53
410-91283-5	Outfall 022 - SW	Water	07/13/22 18:13	07/15/22 18:53
410-91283-6	Outfall CDC - SW	Water	07/13/22 18:20	07/15/22 18:53

410-91283 Chain of Custody

ftn

Date:	Project Name	Project No.	Project Manager (Print)
7-14-22	Badin Business Park - Stormwater CN	06010-1805-001	Jon Wilson

Laboratory Name:	Submitted by:
Eurofins Lancaster Laboratories	Jon Wilson Badin Business Park LLC 293 Highway 740 Badin, North Carolina 28009 704-562-6138 jon.wilson@alcoa.com
Sampler Signature(s): Jon Wilson	Recorded By (Print): Jon Wilson

SAMPLE DESCRIPTION

Sample Identification	Date	Time	Matrix* W	Matrix* S	Matrix* O	No. of Containers	Comp	Grab	Parameters (Method Number): Total Cyanide (ASTM D 7511 - DL 6.0 ug/L)	Lab	Other:
Outfall 002 - SW	7-13-22	1857	X			1		X	X		
Outfall 004 - SW	7-13-22	1804	X			1		X	X		
Outfall 017 - SW	7-13-22	1755	X			1		X	X		
Outfall 018 - SW	7-13-22	1830	X			1		X	X		
~~Outfall 020 - SW~~			X			1		X	X		
Outfall 022 - SW	7-13-22	1813	X			1		X	X		
Outfall CDC - SW	7-13-22	1820	X			1		X	X		
									2/year		
									Container Type: P		
									Preservative: B		

W = Water S = Soil O = Other

G=Glass P=Plastic V=VOA vials H=HCl to pH2 T=Sodium NO=None S=Sulfuric acid pH2 N=Nitric acid pH2 B=NaOH to pH12 Z=Zinc acetate

Relinquished By (Signature)	Print Name	Date	Time	Received By (Signature)	Print Name
Jon Wilson	Jon Wilson	07-14-22	1400		
Relinquished By (Signature)	Print Name	Date	Time	Received By Laboratory (Signature)	Print Name
				[illegible]	Anna Hess 7/15

Please send results to:
Robyn.Gross@alcoa.com; mmv@ftn-assoc.com
jon.wilson@alcoa.com

Laboratory Remarks:

C7

Login Sample Receipt Checklist

Client: FTN Associates

Job Number: 410-91283-1

Login Number: 91283
List Number: 1
Creator: Jeremiah, Cory T

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal 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 (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Randall Kiser
Alcoa Badin Works
293 Highway 740
Badin, North Carolina 28009

Generated 1/10/2023 11:00:52 AM Revision 1

JOB DESCRIPTION

BBP

JOB NUMBER

680-227879-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

Job Notes

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

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

Authorization

Generated
1/10/2023 11:00:52 AM
Revision 1

Authorized for release by
Sheila Hoffman, Project Manager II
Sheila.Hoffman@et.eurofinsus.com
(912)250-0279

Sample Summary

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-227879-1	Outfall CDC	Water	12/15/22 12:03	12/16/22 08:15
680-227879-2	Trip Blank	Water	12/15/22 12:00	12/16/22 08:15

Method Summary

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	EET SAV
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	EET SAV
608.3	Organochlorine Pesticides/PCBs in Water	40CFR136A	EET SAV
615	Herbicides (GC)	EPA-01	EET SAV
200.8-1994 R5.4	Metals (ICP/MS)	EPA	EET SAV
245.1	Mercury (CVAA)	EPA	EET SAV
1664B	HEM and SGT-HEM	1664B	EET SAV
2540 D-2011	Total Suspended Solids (Dried at 103-105°C)	SM	EET SAV
420.1-1978	Phenolics, Total Recoverable	MCAWW	EET SAV
4500 NH3 G-2011	Ammonia	SM	EET SAV
5210B-2011	BOD, 5-Day	SM	EET SAV
7196A	Chromium, Hexavalent	SW846	EET SAV
D7511-12	Total Cyanide	ASTM	ELLE
1664B	HEM and SGT-HEM (Aqueous)	1664B	EET SAV
200.8-1994 R5.4	Preparation, Total Recoverable Metals	EPA	EET SAV
245.1	Preparation, Mercury	EPA	EET SAV
4500 NH3 B-2011	Ammonia, Distillation	SM	EET SAV
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	EET SAV
615	Liquid-Liquid Extraction	EPA-01	EET SAV
625	Liquid-Liquid Extraction	40CFR136A	EET SAV
Distill/Phenol	Distillation, Phenolics	None	EET SAV

Protocol References:

1664B = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

ASTM = ASTM International

EPA = US Environmental Protection Agency

EPA-01 = "Methods For The Determination Of Nonconventional Pesticides In Municipal And Industrial Wastewater", EPA/821/R/92/002, April 1992.

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

None = None

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

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

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
b	Result Detected in the Unseeded Control blank (USB).
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 680-227879-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-227879-1

Revision
The report has been revised to report results to the MDL.

Receipt
The samples were received on 12/16/2022 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

GC/MS VOA
Method 624.1_PREC: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-755835 recovered outside control limits for the following analytes: Chloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 624.1_PREC: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-755835.

Method 624.1_PREC: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: Outfall CDC (680-227879-1) and Trip Blank (680-227879-2).

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

GC/MS Semi VOA
Method 625.1_PREC: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: Outfall CDC (680-227879-1). These results have been reported and qualified.

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

Herbicides
Method 615: The laboratory control sample (LCS) for preparation batch 680-756560 and analytical batch 680-758203 recovered outside control limits for the following analytes: MCPP. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Pesticides/PCBs
Method 608.3_PREC: The closing continuing calibration verification (CCV) standard associated with batch 680-757158 failed to meet acceptance limits. Sample matrix is adversely affecting the instrument and causing the failures.

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

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

General Chemistry
Method 5210B: The method blank result associated with batch 680-755653 was higher than the method-required limit of 0.2 mg/L.

Method 7196A: The following samples were received outside of holding time: Outfall CDC (680-227879-1) and (680-228508-A-2).

Job ID: 680-227879-1 (Continued)

Laboratory: Eurofins Savannah (Continued)

Method D7511_12: 11 injections in a bracket. All adjacent QC are passing.Outfall CDC (680-227879-1), (LCS 410-330378/15), (LCSD 410-330378/16), (MB 410-330378/17), (410-110047-A-1), (410-110047-A-1 DU), (410-110047-A-1 MS) and (410-110047-A-1 MSD)

Method SM4500NH3_G: The reference method requires samples to be preserved to a pH of <pH_value>. The following sample was received with insufficient preservation at a pH of <pH_Value>: Outfall CDC (680-227879-1). The sample(s) was preserved to the appropriate pH in the laboratory.

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

Client Sample ID: Outfall CDC

Date Collected: 12/15/22 12:03
Date Received: 12/16/22 08:15

Lab Sample ID: 680-227879-1

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	<15	H	50	15	ug/L			12/19/22 20:37	1
Acrylonitrile	<5.5	H	50	5.5	ug/L			12/19/22 20:37	1
Benzene	<0.27		2.0	0.27	ug/L			12/19/22 20:37	1
Dichlorobromomethane	<0.25		10	0.25	ug/L			12/19/22 20:37	1
Bromoform	<0.59		10	0.59	ug/L			12/19/22 20:37	1
Bromomethane	<3.7		10	3.7	ug/L			12/19/22 20:37	1
Carbon tetrachloride	<0.30		2.0	0.30	ug/L			12/19/22 20:37	1
Chlorobenzene	<0.15		10	0.15	ug/L			12/19/22 20:37	1
Chloroethane	<4.6	*+	5.0	4.6	ug/L			12/19/22 20:37	1
2-Chloroethyl vinyl ether	<0.59	H	10	0.59	ug/L			12/19/22 20:37	1
Chloroform	<0.27		2.0	0.27	ug/L			12/19/22 20:37	1
Chloromethane	**0.87**	**J**	10	0.54	ug/L			12/19/22 20:37	1
Chlorodibromomethane	<0.39		10	0.39	ug/L			12/19/22 20:37	1
1,2-Dichlorobenzene	<0.31		1.0	0.31	ug/L			12/19/22 20:37	1
1,3-Dichlorobenzene	<0.31		1.0	0.31	ug/L			12/19/22 20:37	1
1,4-Dichlorobenzene	<0.31		1.0	0.31	ug/L			12/19/22 20:37	1
1,1-Dichloroethane	<0.33		2.0	0.33	ug/L			12/19/22 20:37	1
1,2-Dichloroethane	<0.25		2.0	0.25	ug/L			12/19/22 20:37	1
1,1-Dichloroethene	<0.33		2.0	0.33	ug/L			12/19/22 20:37	1
trans-1,2-Dichloroethene	<0.34		2.0	0.34	ug/L			12/19/22 20:37	1
1,2-Dichloropropane	<0.22		2.0	0.22	ug/L			12/19/22 20:37	1
cis-1,3-Dichloropropene	<0.26		2.0	0.26	ug/L			12/19/22 20:37	1
trans-1,3-Dichloropropene	<0.23		2.0	0.23	ug/L			12/19/22 20:37	1
Ethylbenzene	<0.20		2.0	0.20	ug/L			12/19/22 20:37	1
Methylene Chloride	<3.2		10	3.2	ug/L			12/19/22 20:37	1
1,1,2,2-Tetrachloroethane	<0.40		2.0	0.40	ug/L			12/19/22 20:37	1
Tetrachloroethene	<0.35		2.0	0.35	ug/L			12/19/22 20:37	1
Toluene	<0.25		2.0	0.25	ug/L			12/19/22 20:37	1
1,1,1-Trichloroethane	<0.21		2.0	0.21	ug/L			12/19/22 20:37	1
1,1,2-Trichloroethane	<0.32		2.0	0.32	ug/L			12/19/22 20:37	1
Trichloroethene	<0.20		2.0	0.20	ug/L			12/19/22 20:37	1
Trichlorofluoromethane	<0.33		1.0	0.33	ug/L			12/19/22 20:37	1
Vinyl chloride	<0.40		10	0.40	ug/L			12/19/22 20:37	1
Dichlorodifluoromethane	<0.36		1.0	0.36	ug/L			12/19/22 20:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*60 - 140*		*12/19/22 20:37*	*1*
Toluene-d8 (Surr)	*109*		*60 - 140*		*12/19/22 20:37*	*1*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*12/19/22 20:37*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 140*		*12/19/22 20:37*	*1*

Method: 40CFR136A 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.54		9.6	0.54	ug/L		12/20/22 15:35	12/28/22 18:25	1
1,2-Diphenylhydrazine	<0.83		9.6	0.83	ug/L		12/20/22 15:35	12/28/22 18:25	1
1,4-Dioxane	<12		24	12	ug/L		12/20/22 15:35	12/28/22 18:25	1
2,2'-oxybis[1-chloropropane]	<0.82		9.6	0.82	ug/L		12/20/22 15:35	12/28/22 18:25	1
2,4,6-Trichlorophenol	<0.79		9.6	0.79	ug/L		12/20/22 15:35	12/28/22 18:25	1
2,4-Dichlorophenol	<1.1		9.6	1.1	ug/L		12/20/22 15:35	12/28/22 18:25	1
2,4-Dimethylphenol	<3.8		9.6	3.8	ug/L		12/20/22 15:35	12/28/22 18:25	1

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-1

Client Sample ID: Outfall CDC

Date Collected: 12/15/22 12:03
Date Received: 12/16/22 08:15

Lab Sample ID: 680-227879-1

Matrix: Water

Method: 40CFR136A 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	<9.6		48	9.6	ug/L		12/20/22 15:35	12/28/22 18:25	1
2,4-Dinitrotoluene	<1.2		9.6	1.2	ug/L		12/20/22 15:35	12/28/22 18:25	1
2,6-Dinitrotoluene	<1.1		9.6	1.1	ug/L		12/20/22 15:35	12/28/22 18:25	1
2-Chloronaphthalene	<0.75		9.6	0.75	ug/L		12/20/22 15:35	12/28/22 18:25	1
2-Chlorophenol	<0.87		9.6	0.87	ug/L		12/20/22 15:35	12/28/22 18:25	1
2-Methylphenol	<0.88		9.6	0.88	ug/L		12/20/22 15:35	12/28/22 18:25	1
2-Nitrophenol	<0.71		9.6	0.71	ug/L		12/20/22 15:35	12/28/22 18:25	1
3 & 4 Methylphenol	<1.3		9.6	1.3	ug/L		12/20/22 15:35	12/28/22 18:25	1
3,3'-Dichlorobenzidine	<29		58	29	ug/L		12/20/22 15:35	12/28/22 18:25	1
4,6-Dinitro-2-methylphenol	<4.8		48	4.8	ug/L		12/20/22 15:35	12/28/22 18:25	1
4-Bromophenyl phenyl ether	<0.77		9.6	0.77	ug/L		12/20/22 15:35	12/28/22 18:25	1
4-Chloro-3-methylphenol	<1.1		9.6	1.1	ug/L		12/20/22 15:35	12/28/22 18:25	1
4-Chlorophenyl phenyl ether	<0.78		9.6	0.78	ug/L		12/20/22 15:35	12/28/22 18:25	1
4-Nitrophenol	<9.6		48	9.6	ug/L		12/20/22 15:35	12/28/22 18:25	1
Acenaphthene	<0.72		9.6	0.72	ug/L		12/20/22 15:35	12/28/22 18:25	1
Acenaphthylene	<0.77		9.6	0.77	ug/L		12/20/22 15:35	12/28/22 18:25	1
Anthracene	<0.70		9.6	0.70	ug/L		12/20/22 15:35	12/28/22 18:25	1
Benzidine	<40		77	40	ug/L		12/20/22 15:35	12/28/22 18:25	1
Benzo[a]anthracene	<0.90		9.6	0.90	ug/L		12/20/22 15:35	12/28/22 18:25	1
Benzo[a]pyrene	<0.71		9.6	0.71	ug/L		12/20/22 15:35	12/28/22 18:25	1
Benzo[b]fluoranthene	<2.4		9.6	2.4	ug/L		12/20/22 15:35	12/28/22 18:25	1
Benzo[g,h,i]perylene	<0.86		9.6	0.86	ug/L		12/20/22 15:35	12/28/22 18:25	1
Benzo[k]fluoranthene	<0.87		9.6	0.87	ug/L		12/20/22 15:35	12/28/22 18:25	1
1,2-Dichlorobenzene	<0.54		9.6	0.54	ug/L		12/20/22 15:35	12/28/22 18:25	1
Bis(2-chloroethoxy)methane	<1.1		9.6	1.1	ug/L		12/20/22 15:35	12/28/22 18:25	1
Bis(2-chloroethyl)ether	<1.1		9.6	1.1	ug/L		12/20/22 15:35	12/28/22 18:25	1
1,3-Dichlorobenzene	<0.63		9.6	0.63	ug/L		12/20/22 15:35	12/28/22 18:25	1
Bis(2-ethylhexyl) phthalate	<1.5		9.6	1.5	ug/L		12/20/22 15:35	12/28/22 18:25	1
Butyl benzyl phthalate	<1.2		9.6	1.2	ug/L		12/20/22 15:35	12/28/22 18:25	1
1,4-Dichlorobenzene	<0.56		9.6	0.56	ug/L		12/20/22 15:35	12/28/22 18:25	1
Carbazole	<0.64		9.6	0.64	ug/L		12/20/22 15:35	12/28/22 18:25	1
Chrysene	<0.50		9.6	0.50	ug/L		12/20/22 15:35	12/28/22 18:25	1
Dibenz(a,h)anthracene	<0.73		9.6	0.73	ug/L		12/20/22 15:35	12/28/22 18:25	1
Diethyl phthalate	<0.83		9.6	0.83	ug/L		12/20/22 15:35	12/28/22 18:25	1
Dimethyl phthalate	<0.93		9.6	0.93	ug/L		12/20/22 15:35	12/28/22 18:25	1
Di-n-butyl phthalate	<0.85		9.6	0.85	ug/L		12/20/22 15:35	12/28/22 18:25	1
Di-n-octyl phthalate	<1.3		9.6	1.3	ug/L		12/20/22 15:35	12/28/22 18:25	1
Fluoranthene	<0.68		9.6	0.68	ug/L		12/20/22 15:35	12/28/22 18:25	1
Fluorene	<0.89		9.6	0.89	ug/L		12/20/22 15:35	12/28/22 18:25	1
Hexachlorobenzene	<0.78		9.6	0.78	ug/L		12/20/22 15:35	12/28/22 18:25	1
Hexachlorobutadiene	<0.60		9.6	0.60	ug/L		12/20/22 15:35	12/28/22 18:25	1
Hexachlorocyclopentadiene	<9.6		19	9.6	ug/L		12/20/22 15:35	12/28/22 18:25	1
Hexachloroethane	<0.78		9.6	0.78	ug/L		12/20/22 15:35	12/28/22 18:25	1
Indeno[1,2,3-cd]pyrene	<1.1		9.6	1.1	ug/L		12/20/22 15:35	12/28/22 18:25	1
Isophorone	<0.87		9.6	0.87	ug/L		12/20/22 15:35	12/28/22 18:25	1
Naphthalene	<0.67		9.6	0.67	ug/L		12/20/22 15:35	12/28/22 18:25	1
Nitrobenzene	<0.56		9.6	0.56	ug/L		12/20/22 15:35	12/28/22 18:25	1
N-Nitrosodimethylamine	<9.6		19	9.6	ug/L		12/20/22 15:35	12/28/22 18:25	1
N-Nitrosodi-n-propylamine	<0.71		9.6	0.71	ug/L		12/20/22 15:35	12/28/22 18:25	1

Client Sample ID: Outfall CDC
Date Collected: 12/15/22 12:03
Date Received: 12/16/22 08:15

Lab Sample ID: 680-227879-1
Matrix: Water

Method: 40CFR136A 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	<0.88		9.6	0.88	ug/L		12/20/22 15:35	12/28/22 18:25	1
Pentachlorophenol	<1.7		48	1.7	ug/L		12/20/22 15:35	12/28/22 18:25	1
Phenanthrene	<0.78		9.6	0.78	ug/L		12/20/22 15:35	12/28/22 18:25	1
Phenol	<1.1		9.6	1.1	ug/L		12/20/22 15:35	12/28/22 18:25	1
Phthalates, Total	<0.83		9.6	0.83	ug/L		12/20/22 15:35	12/28/22 18:25	1
Pyrene	<0.62		9.6	0.62	ug/L		12/20/22 15:35	12/28/22 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*78*		*53 - 111*	*12/20/22 15:35*	*12/28/22 18:25*	*1*
2-Fluorobiphenyl	*63*		*44 - 98*	*12/20/22 15:35*	*12/28/22 18:25*	*1*
2-Fluorophenol	*47*		*31 - 90*	*12/20/22 15:35*	*12/28/22 18:25*	*1*
Nitrobenzene-d5	*60*		*15 - 314*	*12/20/22 15:35*	*12/28/22 18:25*	*1*
Phenol-d5	*52*		*8 - 424*	*12/20/22 15:35*	*12/28/22 18:25*	*1*
Terphenyl-d14	*32*	*S1-*	*51 - 113*	*12/20/22 15:35*	*12/28/22 18:25*	*1*

Method: 40CFR136A 608.3 - Organochlorine Pesticides/PCBs in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
alpha-BHC	<0.00096		0.048	0.00096	ug/L		12/22/22 21:19	12/28/22 19:52	1
beta-BHC	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
gamma-BHC (Lindane)	<0.00096		0.048	0.00096	ug/L		12/22/22 21:19	12/28/22 19:52	1
delta-BHC	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
Chlordane (technical)	<0.15		0.48	0.15	ug/L		12/22/22 21:19	12/28/22 19:52	1
4,4'-DDT	<0.00096		0.048	0.00096	ug/L		12/22/22 21:19	12/28/22 19:52	1
4,4'-DDE	<0.00096		0.048	0.00096	ug/L		12/22/22 21:19	12/28/22 19:52	1
4,4'-DDD	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
Dieldrin	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
Endosulfan I	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
Endosulfan II	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
Endosulfan sulfate	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
Endrin	<0.00096		0.048	0.00096	ug/L		12/22/22 21:19	12/28/22 19:52	1
Endrin aldehyde	<0.0038		0.048	0.0038	ug/L		12/22/22 21:19	12/28/22 19:52	1
Heptachlor	<0.00096		0.048	0.00096	ug/L		12/22/22 21:19	12/28/22 19:52	1
Heptachlor epoxide	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
PCB-1242	<0.33		0.96	0.33	ug/L		12/22/22 21:19	12/28/22 19:52	1
PCB-1254	<0.33		0.96	0.33	ug/L		12/22/22 21:19	12/28/22 19:52	1
PCB-1221	<0.33		0.96	0.33	ug/L		12/22/22 21:19	12/28/22 19:52	1
PCB-1232	<0.33		0.96	0.33	ug/L		12/22/22 21:19	12/28/22 19:52	1
PCB-1248	<0.33		0.96	0.33	ug/L		12/22/22 21:19	12/28/22 19:52	1
PCB-1260	<0.33		0.96	0.33	ug/L		12/22/22 21:19	12/28/22 19:52	1
Toxaphene	<0.30		4.8	0.30	ug/L		12/22/22 21:19	12/28/22 19:52	1
Methoxychlor	<0.0019		0.048	0.0019	ug/L		12/22/22 21:19	12/28/22 19:52	1
PCB-1016	<0.31		0.96	0.31	ug/L		12/22/22 21:19	12/28/22 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*26 - 140*	*12/22/22 21:19*	*12/28/22 19:52*	*1*
DCB Decachlorobiphenyl	*82*		*10 - 131*	*12/22/22 21:19*	*12/28/22 19:52*	*1*

Client Sample ID: Outfall CDC

Date Collected: 12/15/22 12:03
Date Received: 12/16/22 08:15

Lab Sample ID: 680-227879-1

Matrix: Water

Method: EPA-01 615 - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	**0.57**	**J p**	1.0	0.17	ug/L		12/22/22 14:08	01/06/23 21:22	1
2,4-DB	<0.60		2.5	0.60	ug/L		12/22/22 14:08	01/06/23 21:22	1
2,4,5-T	<0.13		0.81	0.13	ug/L		12/22/22 14:08	01/06/23 21:22	1
Silvex (2,4,5-TP)	<0.091		0.81	0.091	ug/L		12/22/22 14:08	01/06/23 21:22	1
Dalapon	<0.94		5.2	0.94	ug/L		12/22/22 14:08	01/06/23 21:22	1
Dicamba	**1.1**		0.48	0.044	ug/L		12/22/22 14:08	01/06/23 21:22	1
Dichlorprop	<0.11		0.81	0.11	ug/L		12/22/22 14:08	01/06/23 21:22	1
Dinoseb	<0.095		0.48	0.095	ug/L		12/22/22 14:08	01/06/23 21:22	1
MCPA	<86		570	86	ug/L		12/22/22 14:08	01/06/23 21:22	1
MCPP	<30	*+	190	30	ug/L		12/22/22 14:08	01/06/23 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*89*	*p*	*26 - 137*	*12/22/22 14:08*	*01/06/23 21:22*	*1*

Method: EPA 200.8-1994 R5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**5.4**		5.0	0.90	ug/L		12/19/22 14:04	12/21/22 06:12	1
Cadmium	<0.078		0.70	0.078	ug/L		12/19/22 14:04	12/21/22 06:12	1
Silver	<0.39		5.0	0.39	ug/L		12/19/22 14:04	12/21/22 06:12	1
Arsenic	<0.86		5.0	0.86	ug/L		12/19/22 14:04	12/21/22 06:12	1
Beryllium	<0.20		1.0	0.20	ug/L		12/19/22 14:04	12/21/22 06:12	1
Chromium	<2.6		5.0	2.6	ug/L		12/19/22 14:04	12/21/22 06:12	1
Nickel	**4.1**	**J**	5.0	1.8	ug/L		12/19/22 14:04	12/21/22 06:12	1
Lead	**0.87**	**J**	1.0	0.34	ug/L		12/19/22 14:04	12/21/22 06:12	1
Antimony	<0.52		5.0	0.52	ug/L		12/19/22 14:04	12/21/22 06:12	1
Selenium	<1.2		5.0	1.2	ug/L		12/19/22 14:04	12/21/22 06:12	1
Thallium	<0.26		1.0	0.26	ug/L		12/19/22 14:04	12/21/22 06:12	1
Zinc	<10		10	10	ug/L		12/19/22 14:04	12/21/22 06:12	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	<0.080		0.50	0.080	ug/L		12/20/22 08:20	12/21/22 10:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease) (1664B)	<0.66		2.4	0.66	mg/L		01/04/23 13:29	01/04/23 21:06	1
Phenolics, Total Recoverable (MCAWW 420.1-1978)	<0.025		0.050	0.025	mg/L		12/28/22 11:16	12/28/22 15:23	1
Ammonia (SM 4500 NH3 G-2011)	<0.10		0.25	0.10	mg/L		12/21/22 13:01	12/21/22 15:09	1
Chromium (hexavalent) (SW846 7196A)	<3.0	H	10	3.0	ug/L			12/31/22 13:24	1
Cyanide, Total (ASTM D7511-12)	<0.0020		0.0060	0.0020	mg/L			12/27/22 08:44	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540 D-2011)	**21**		2.5	2.5	mg/L			12/22/22 15:39	1
Biochemical Oxygen Demand (SM 5210B-2011)	**8.5**	**H b**	2.0	2.0	mg/L			12/17/22 16:33	1

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-1

Client Sample ID: Trip Blank

Date Collected: 12/15/22 12:00
Date Received: 12/16/22 08:15

Lab Sample ID: 680-227879-2

Matrix: Water

Method: 40CFR136A 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	<15	H	50	15	ug/L			12/19/22 14:16	1
Acrylonitrile	<5.5	H	50	5.5	ug/L			12/19/22 14:16	1
Benzene	<0.27		2.0	0.27	ug/L			12/19/22 14:16	1
Dichlorobromomethane	<0.25		10	0.25	ug/L			12/19/22 14:16	1
Bromoform	<0.59		10	0.59	ug/L			12/19/22 14:16	1
Bromomethane	<3.7		10	3.7	ug/L			12/19/22 14:16	1
Carbon tetrachloride	<0.30		2.0	0.30	ug/L			12/19/22 14:16	1
Chlorobenzene	<0.15		10	0.15	ug/L			12/19/22 14:16	1
Chloroethane	<4.6	*+	5.0	4.6	ug/L			12/19/22 14:16	1
2-Chloroethyl vinyl ether	<0.59	H	10	0.59	ug/L			12/19/22 14:16	1
Chloroform	<0.27		2.0	0.27	ug/L			12/19/22 14:16	1
Chloromethane	<0.54		10	0.54	ug/L			12/19/22 14:16	1
Chlorodibromomethane	<0.39		10	0.39	ug/L			12/19/22 14:16	1
1,2-Dichlorobenzene	<0.31		1.0	0.31	ug/L			12/19/22 14:16	1
1,3-Dichlorobenzene	<0.31		1.0	0.31	ug/L			12/19/22 14:16	1
1,4-Dichlorobenzene	<0.31		1.0	0.31	ug/L			12/19/22 14:16	1
1,1-Dichloroethane	<0.33		2.0	0.33	ug/L			12/19/22 14:16	1
1,2-Dichloroethane	<0.25		2.0	0.25	ug/L			12/19/22 14:16	1
1,1-Dichloroethene	<0.33		2.0	0.33	ug/L			12/19/22 14:16	1
trans-1,2-Dichloroethene	<0.34		2.0	0.34	ug/L			12/19/22 14:16	1
1,2-Dichloropropane	<0.22		2.0	0.22	ug/L			12/19/22 14:16	1
cis-1,3-Dichloropropene	<0.26		2.0	0.26	ug/L			12/19/22 14:16	1
trans-1,3-Dichloropropene	<0.23		2.0	0.23	ug/L			12/19/22 14:16	1
Ethylbenzene	<0.20		2.0	0.20	ug/L			12/19/22 14:16	1
Methylene Chloride	<3.2		10	3.2	ug/L			12/19/22 14:16	1
1,1,2,2-Tetrachloroethane	<0.40		2.0	0.40	ug/L			12/19/22 14:16	1
Tetrachloroethene	<0.35		2.0	0.35	ug/L			12/19/22 14:16	1
Toluene	<0.25		2.0	0.25	ug/L			12/19/22 14:16	1
1,1,1-Trichloroethane	<0.21		2.0	0.21	ug/L			12/19/22 14:16	1
1,1,2-Trichloroethane	<0.32		2.0	0.32	ug/L			12/19/22 14:16	1
Trichloroethene	<0.20		2.0	0.20	ug/L			12/19/22 14:16	1
Trichlorofluoromethane	<0.33		1.0	0.33	ug/L			12/19/22 14:16	1
Vinyl chloride	<0.40		10	0.40	ug/L			12/19/22 14:16	1
Dichlorodifluoromethane	<0.36		1.0	0.36	ug/L			12/19/22 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*60 - 140*		*12/19/22 14:16*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*12/19/22 14:16*	*1*
4-Bromofluorobenzene (Surr)	*81*		*60 - 140*		*12/19/22 14:16*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 140*		*12/19/22 14:16*	*1*

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-755835/8
Matrix: Water
Analysis Batch: 755835

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	<15		50	15	Hu/g			12/19/22 1L:06	1
Acr. lonitrile	<535		50	535	Hu/g			12/19/22 1L:06	1
Benyene	<0327		230	0327	Hu/g			12/19/22 1L:06	1
Diczlorobroh oh etzane	<0325		10	0325	Hu/g			12/19/22 1L:06	1
Broh ororh	<0359		10	0359	Hu/g			12/19/22 1L:06	1
Broh oh etzane	<L37		10	L37	Hu/g			12/19/22 1L:06	1
Carbon tetraczloride	<031.0		230	031.0	Hu/g			12/19/22 1L:06	1
Czlorobenyene	<0315		10	0315	Hu/g			12/19/22 1L:06	1
Czloroetzane	<f 36		530	f 36	Hu/g			12/19/22 1L:06	1
2-Czloroetz. l 4in. l etzer	<0359		10	0359	Hu/g			12/19/22 1L:06	1
Czlorororh	<0327		230	0327	Hu/g			12/19/22 1L:06	1
Czloroh etzane	<035f		10	035f	Hu/g			12/19/22 1L:06	1
Czlorodibroh oh etzane	<031.9		10	031.9	Hu/g			12/19/22 1L:06	1
1*2-Diczlorobenyene	<031.1		130	031.1	Hu/g			12/19/22 1L:06	1
1*L-Diczlorobenyene	<031.1		130	031.1	Hu/g			12/19/22 1L:06	1
1*f -Diczlorobenyene	<031.1		130	031.1	Hu/g			12/19/22 1L:06	1
1*1-Diczloroetzane	<031.L		230	031.L	Hu/g			12/19/22 1L:06	1
1*2-Diczloroetzane	<0325		230	0325	Hu/g			12/19/22 1L:06	1
1*1-Diczloroetzene	<031.L		230	031.L	Hu/g			12/19/22 1L:06	1
trans-1*2-Diczloroetzene	<031.f		230	031.f	Hu/g			12/19/22 1L:06	1
1*2-Diczloro+ro+ane	<0322		230	0322	Hu/g			12/19/22 1L:06	1
cis-1*L-Diczloro+ro+ene	<0326		230	0326	Hu/g			12/19/22 1L:06	1
trans-1*L-Diczloro+ro+ene	<032L		230	032L	Hu/g			12/19/22 1L:06	1
v tz. lbenyene	<0320		230	0320	Hu/g			12/19/22 1L:06	1
, etz. lene Czloride	<L32		10	L32	Hu/g			12/19/22 1L:06	1
1*1*2*2-petraczloroetzane	<03f 0		230	03f 0	Hu/g			12/19/22 1L:06	1
petraczloroetzene	<031.5		230	031.5	Hu/g			12/19/22 1L:06	1
polHene	<0325		230	0325	Hu/g			12/19/22 1L:06	1
1*1*1-priczloroetzane	<0321		230	0321	Hu/g			12/19/22 1L:06	1
1*1*2-priczloroetzane	<031.2		230	031.2	Hu/g			12/19/22 1L:06	1
priczloroetzene	<0320		230	0320	Hu/g			12/19/22 1L:06	1
priczlororlHbroh etzane	<031.L		130	031.L	Hu/g			12/19/22 1L:06	1
Ein. l czloride	<03f 0		10	03f 0	Hu/g			12/19/22 1L:06	1
DiczlorodirlHbroh etzane	<031.6		130	031.6	Hu/g			12/19/22 1L:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*60 - 140*		*12/19/22 1: 306*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*12/19/22 1: 306*	*1*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*12/19/22 1: 306*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 140*		*12/19/22 1: 306*	*1*

Lab Sample ID: LCS 680-755835/4
Matrix: Water
Analysis Batch: 755835

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acrolein	1000	1260		Hu/g		126	60 - 1f 0
Acr. lonitrile	500	f 2f		Hu/g		85	60 - 1f 0

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Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-755835/4
Matrix: Water
Analysis Batch: 755835

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benyene	5030	f 73		Hu/g		95	65 - 1L5
Diczlorobroh oh etzane	5030	f 83		Hu/g		97	65 - 1L5
Broh ororh	5030	f 635		Hu/g		9L	70 - 1L0
Broh oh etzane	5030	593		Hu/g		120	15 - 185
Carbon tetraczloride	5030	507		Hu/g		101	70 - 1L0
Czlorobenyene	5030	f 839		Hu/g		98	65 - 1L5
Czloroetzane	5030	122	M	Hu/g		2f f	f 0 - 160
2-Czloroetz. l 4in. l etzer	5030	f L3	L	Hu/g		87	1 - 225
Czlorororh	5030	f 730		Hu/g		9f	70 - 1L5
Czloroh etzane	5030	613	5	Hu/g		12L	1 - 205
Czlorodibroh oh etzane	5030	f 93	6	Hu/g		99	70 - 1L5
1*2-Diczlorobenyene	5030	f 730		Hu/g		9f	65 - 1L5
1*L-Diczlorobenyene	5030	f 638		Hu/g		9f	70 - 1L0
1*f -Diczlorobenyene	5030	f 636		Hu/g		9L	65 - 1L5
1*1-Diczloroetzane	5030	f 73		Hu/g		95	70 - 1L0
1*2-Diczloroetzane	5030	f 83	I	Hu/g		96	81 - 121
1*1-Diczloroetzene	5030	f 83	I	Hu/g		96	50 - 150
trans-1*2-Diczloroetzene	5030	f 835		Hu/g		97	70 - 1L0
1*2-Diczloro+ro+ane	5030	f 735		Hu/g		95	L5 - 165
cis-1*L-Diczloro+ro+ene	5030	f 738		Hu/g		96	25 - 175
trans-1*L-Diczloro+ro+ene	5030	f 835		Hu/g		97	50 - 150
v tz. lbenyene	5030	f 738		Hu/g		96	60 - 1f 0
, etz. lene Czloride	5030	503	5	Hu/g		101	60 - 1f 0
1*1*2*2-petraczloroetzane	5030	f L3	6	Hu/g		87	60 - 1f 0
petraczloroetzene	5030	f 737		Hu/g		95	70 - 1L0
polHene	5030	f 83	I	Hu/g		96	70 - 1L0
1*1*1-priczloroetzane	5030	f 735		Hu/g		95	70 - 1L0
1*1*2-priczloroetzane	5030	f f 3	I	Hu/g		88	70 - 1L0
priczloroetzene	5030	503	I	Hu/g		100	65 - 1L5
priczlororHbroh etzane	5030	713	L	Hu/g		1f L	50 - 150
Ein. l czloride	5030	603	L	Hu/g		121	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*60 - 140*
Toluene-d8 (Surr)	*102*		*60 - 140*
4-Bromofluorobenzene (Surr)	*9:*		*60 - 140*
Dibromofluoromethane (Surr)	*101*		*60 - 140*

Lab Sample ID: LCSD 680-755835/5
Matrix: Water
Analysis Batch: 755835

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
Acrolein	1000	976		Hu/g		98	60 - 1f 0	25	60
Acr. lonitrile	500	L29		Hu/g		66	60 - 1f 0	25	60
Benyene	5030	f 832		Hu/g		96	65 - 1L5	2	61
Diczlorobroh oh etzane	5030	f 932		Hu/g		98	65 - 1L5	2	56
Broh ororh	5030	f 63	L	Hu/g		9L	70 - 1L0	1	f 2

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Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-755835/5
Matrix: Water
Analysis Batch: 755835

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
Broh oh etzane			5030	5936		Hu/g		119	15 - 185	0	61
Carbon tetraczloride			5030	5037		Hu/g		101	70 - 1L0	0	f 1
Czlorobenyene			5030	f 83L		Hu/g		97	65 - 1L5	1	5L
Czloroetzane			5030	1f 0	MT	Hu/g		280	f 0 - 160	1L	78
2-Czloroetz. l 4in. l etzer			5030	f 63f		Hu/g		9L	1 - 225	7	71
Czlorom rh			5030	f 732		Hu/g		9f	70 - 1L5	0	5f
Czloroh etzane			5030	6L32		Hu/g		126	1 - 205	L	60
Czlorodibroh oh etzane			5030	f 93f		Hu/g		99	70 - 1L5	0	50
1*2-Diczlorobenyene			5030	f 732		Hu/g		9f	65 - 1L5	1	57
1*L-Diczlorobenyene			5030	f 731		Hu/g		9f	70 - 1L0	1	f L
1*f -Diczlorobenyene			5030	f 631		Hu/g		92	65 - 1L5	1	57
1*1-Diczloroetzane			5030	f f 3L		Hu/g		89	70 - 1L0	7	f 0
1*2-Diczloroetzane			5030	f 930		Hu/g		98	81 - 121	2	f 9
1*1-Diczloroetzene			5030	f 037		Hu/g		81	50 - 150	17	L2
trans-1*2-Diczloroetzene			5030	f 13f		Hu/g		8L	70 - 1L0	16	f 5
1*2-Diczloro+ro+ane			5030	f 930		Hu/g		98	L5 - 165	L	55
cis-1*L-Diczloro+ro+ene			5030	f 937		Hu/g		99	25 - 175	f	58
trans-1*L-Diczloro+ro+ene			5030	f 939		Hu/g		100	50 - 150	L	86
v tz. lbenyene			5030	f 83l		Hu/g		96	60 - 1f 0	1	6L
, etz. lene Czloride			5030	f 03f		Hu/g		81	60 - 1f 0	22	28
1*1*2*2-petraczloroetzane			5030	f 53L		Hu/g		91	60 - 1f 0	f	61
petraczloroetzene			5030	f 639		Hu/g		9f	70 - 1L0	2	L9
polHene			5030	f 838		Hu/g		98	70 - 1L0	1	f 1
1*1*1-priczloroetzane			5030	f 738		Hu/g		96	70 - 1L0	1	L6
1*1*2-priczloroetzane			5030	f 538		Hu/g		92	70 - 1L0	f	f 5
priczloroetzene			5030	f 93f		Hu/g		99	65 - 1L5	1	f 8
priczlorom Hroh etzane			5030	7037		Hu/g		1f 1	50 - 150	1	8f
Ein. l czloride			5030	603f		Hu/g		121	5 - 195	0	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*60 - 140*
Toluene-d8 (Surr)	*102*		*60 - 140*
4-Bromofluorobenzene (Surr)	*9p*		*60 - 140*
Dibromofluoromethane (Surr)	*100*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-756148/6-A
Matrix: Water
Analysis Batch: 757062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756148

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1*2*f -priczlorobenyene	<0356		10	0356	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
1*2-Di+zen. lz. drayine	<0386		10	0386	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
1*f -DioVane	<12		25	12	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2*2xoV. bis' 1-czloro+ro+ane[	<0385		10	0385	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2*f *6-priczloro+zenol	<0382		10	0382	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2*f -Diczloro+zenol	<131		10	131	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2*f -Dih etz. l+zenol	<L39		10	L39	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1

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Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-756148/6-A
Matrix: Water
Analysis Batch: 757062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756148

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2*f -Dinitro+zenol	<10		50	10	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2*f -DinitrotolHene	<132		10	132	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2*6-DinitrotolHene	<131		10	131	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2-Czlorona+ztzalene	<0378		10	0378	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2-Czloro+zenol	<0390		10	0390	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2-, etz. l+zenol	<0391		10	0391	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
2-] itro+zenol	<037f		10	037f	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
L N f , etz. l+zenol	<13f		10	13f	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
L*LxDiczlorobenyidine	<L0		60	L0	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
f *6-Dinitro-2-h etz. l+zenol	<530		50	530	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
f -Broh o+zen. l +zen. l etzer	<0380		10	0380	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
f -Czloro-L-h etz. l+zenol	<131		10	131	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
f -Czloro+zen. l +zen. l etzer	<0381		10	0381	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
f -] itro+zenol	<10		50	10	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Acena+ztzene	<0375		10	0375	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Acena+ztz. lene	<0380		10	0380	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Antzracene	<037L		10	037L	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Benyidine	<f 2		80	f 2	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Benyo'a[antzracene	<039f		10	039f	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Benyo'a[+. rene	<037f		10	037f	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Benyo'b[rlHbrantzene	<235		10	235	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Benyo'u*z*i[+er. lene	<0389		10	0389	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Benyo'k[rlHbrantzene	<0390		10	0390	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
1*2-Diczlorobenyene	<0356		10	0356	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Bis&2-czloroetzoV. (h etzane	<131		10	131	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Bis&2-czloroetz. l(etzer	<131		10	131	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
1*L-Diczlorobenyene	<0366		10	0366	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Bis&2-etz. lzeV. l(+ztzalate	<136		10	136	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
BHt. l beny. l +ztzalate	<132		10	132	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
1*f -Diczlorobenyene	<0358		10	0358	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Carbayole	<0367		10	0367	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Czr. sene	<0352		10	0352	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Dibeny&a*z(antzracene	<0376		10	0376	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Dietz. l +ztzalate	<0386		10	0386	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Dih etz. l +ztzalate	<0397		10	0397	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Di-n-bHt. l +ztzalate	<0388		10	0388	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Di-n-oct. l +ztzalate	<13L		10	13L	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
) lHbrantzene	<0371		10	0371	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
) lHbrene	<039L		10	039L	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
FeVaczlorobenyene	<0381		10	0381	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
FeVaczlorobHtadiene	<0362		10	0362	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
FeVaczloroc. clo+entadiene	<10		20	10	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
FeVaczloroetzane	<0381		10	0381	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Indeno'1*2*L-cd[+. rene	<131		10	131	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Iso+zorone	<0390		10	0390	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
] a+ztzalene	<0370		10	0370	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
] itrobenyene	<0358		10	0358	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
] -] itrosodih etz. lah ine	<10		20	10	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
] -] itrosodi-n-+ro+. lah ine	<037f		10	037f	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-756148/6-A
Matrix: Water
Analysis Batch: 757062

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756148

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
] -] itrosodi+zen. lah ine	<0391		10	0391	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Pentaczloro+zenol	<138		50	138	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Pzenantzrene	<0381		10	0381	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Pzenol	<131		10	131	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
Pztzalates* potal	<0386		10	0386	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1
P. rene	<036f		10	036f	Hu/g		12/20/22 15:L5	12/28/22 1L:f 5	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromo5henol	*80*		*p: - 111*	*12/20/22 1p3 p*	*12/28/22 1: 34p*	*1*
2-Fluorobi5henyl	*7p*		*44 - 98*	*12/20/22 1p3 p*	*12/28/22 1: 34p*	*1*
2-Fluoro5henol	*pp*		*: 1 - 90*	*12/20/22 1p3 p*	*12/28/22 1: 34p*	*1*
Nitrobenzene-dp	*70*		*1p - : 14*	*12/20/22 1p3 p*	*12/28/22 1: 34p*	*1*
Phenol-dp	*p8*		*8 - 424*	*12/20/22 1p3 p*	*12/28/22 1: 34p*	*1*
Ter5henyl-d14	*7p*		*p1 - 11:*	*12/20/22 1p3 p*	*12/28/22 1: 34p*	*1*

Lab Sample ID: LCS 680-756148/7-A
Matrix: Water
Analysis Batch: 757062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 756148

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1*2*f -pricz1orobenyene	100	6235		Hu/g		6L	f f - 1f 2
1*2-Di+zen. lz. drayine	100	7938		Hu/g		80	f 8 - 112
1*f -DioVane	100	523f		Hu/g		52	12 - 91
2*2xoV. bis' 1-cz1oro+ro+ane[	100	7930		Hu/g		79	L0 - 10f
2*f *6-pricz1oro+zenol	100	8235		Hu/g		82	L7 - 1f f
2*f -Dicz1oro+zenol	100	7L36		Hu/g		7f	L9 - 1L5
2*f -Dih etz. l+zenol	100	6238		Hu/g		6L	L2 - 120
2*f -Dinitro+zenol	200	176		Hu/g		88	1 - 191
2*f -DinitrotolHene	100	8039		Hu/g		81	L9 - 1L9
2*6-DinitrotolHene	100	773f		Hu/g		77	50 - 158
2-Cz1orona+ztzalene	100	6938		Hu/g		70	60 - 120
2-Cz1oro+zenol	100	6f 3L		Hu/g		6f	2L - 1Lf
2-, etz. l+zenol	100	6831		Hu/g		68	f L - 97
2-] itro+zenol	100	7L37		Hu/g		7f	29 - 182
L N f , etz. l+zenol	100	673f		Hu/g		67	f f - 99
L*LxDicz1orobenyidine	100	7L31		Hu/g		7L	1 - 262
f *6-Dinitro-2-h etz. l+zenol	200	18f		Hu/g		92	1 - 181
f -Broh o+zen. l +zen. l etzer	100	7832		Hu/g		78	5L - 127
f -Cz1oro-L-h etz. l+zenol	100	7935		Hu/g		80	22 - 1f 7
f -Cz1oro+zen. l +zen. l etzer	100	7631		Hu/g		76	25 - 158
f -] itro+zenol	200	175		Hu/g		88	1 - 1L2
Acena+ztzene	100	7f 36		Hu/g		75	f 7 - 1f 5
Acena+ztz. lene	100	753L		Hu/g		75	LL - 1f 5
Antzracene	100	7832		Hu/g		78	27 - 1LL
Benyidine	100	f 637	J	Hu/g		f 7	1 - 122
Benyo'a[antzracene	100	823f		Hu/g		82	LL - 1f L
Benyo'a[+. rene	100	7838		Hu/g		79	17 - 16L
Benyo'b[rlHbrantzene	100	783f		Hu/g		78	2f - 159

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Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-756148/7-A
Matrix: Water
Analysis Batch: 757062

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 756148

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benyo'u*z*i[+er. lene	100	853I		Hu/g		85	1 - 219
Benyo'k[nH-brantzene	100	823 5		Hu/g		8L	11 - 162
1*2-Diczlorobenyene	100	563 5		Hu/g		56	L9 - 88
Bis&2-czloroetzoV. (h etzane	100	753 7		Hu/g		76	LL - 18f
Bis&2-czloroetz. l(etzer	100	7f 3 7		Hu/g		75	12 - 158
1*L-Diczlorobenyene	100	5L3 0		Hu/g		5L	L7 - 87
Bis&2-etz. lzeV. l(+ztzalate	100	823 6		Hu/g		8L	8 - 158
BHt. l beny. l +ztzalate	100	8L3 9		Hu/g		8f	1 - 152
1*f -Diczlorobenyene	100	5f 3 8		Hu/g		55	L8 - 87
Carbayole	100	793 8		Hu/g		80	58 - 109
Czr. sene	100	753 5		Hu/g		76	17 - 168
Dibeny&a*z(antzracene	100	823 5		Hu/g		8L	1 - 227
Dietz. l +ztzalate	100	763 5		Hu/g		76	1 - 120
Dih etz. l +ztzalate	100	763 7		Hu/g		77	1 - 120
Di-n-bHt. l +ztzalate	100	8L3 L		Hu/g		8L	1 - 120
Di-n-oct. l +ztzalate	100	873 9		Hu/g		88	f - 1f 6
) lH-brantzene	100	8L3 f		Hu/g		8L	26 - 1L7
) lH-brene	100	753 0		Hu/g		75	59 - 121
FeVaczlorobenyene	100	773 9		Hu/g		78	1 - 152
FeVaczlorobHtadiene	100	583 L		Hu/g		58	2f - 120
FeVaczloroc. clo+entadiene	100	L03 2		Hu/g		L0	1 - 5L
FeVaczloroetzane	100	513 8		Hu/g		52	f 0 - 120
Indeno'1*2*L-cd[+. rene	100	873 9		Hu/g		88	1 - 171
Iso+zorone	100	773 L		Hu/g		77	21 - 196
] a+ztzalene	100	673 2		Hu/g		67	21 - 1LL
] itrobenyene	100	723 7		Hu/g		7L	L5 - 180
] -] itrosodih etz. lah ine	100	773 2		Hu/g		77	25 - 111
] -] itrosodi-n-+ro+. lah ine	100	753 L		Hu/g		75	1 - 2L0
] -] itrosodi+zen. lah ine	100	7f 3 7		Hu/g		75	5f - 10f
Pentaczloro+zenol	200	178		Hu/g		89	1f - 176
Pzenantzrene	100	793 2		Hu/g		79	5f - 120
Pzenol	100	653 I		Hu/g		65	5 - 120
P. rene	100	793 5		Hu/g		79	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromo5henol	*82*		*p: - 111*
2-Fluorobi5henyl	*68*		*44 - 98*
2-Fluoro5henol	*p6*		*: 1 - 90*
Nitrobenzene-dp	*68*		*1p - : 14*
Phenol-dp	*62*		*8 - 424*
Ter5henyl-d14	*76*		*p1 - 11:*

Lab Sample ID: LCSD 680-756148/8-A
Matrix: Water
Analysis Batch: 757062

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 756148

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1*2*f -priczlorobenyene	100	673 8		Hu/g		68	f f - 1f 2	8	50

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Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-756148/8-A
Matrix: Water
Analysis Batch: 757062

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 756148

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1*2-Di+zen. lz. drayine	100	853	0	Hu/g		85	f 8 - 112	6	f 1
1*f -DioVane	100	593	L	Hu/g		59	12 - 91	12	57
2*2xoV. bis' 1-czloro+ro+ane[	100	903	2	Hu/g		90	L0 - 10f	1L	f 2
2*f *6-priczloro+zenol	100	863	2	Hu/g		86	L7 - 1f f	f	58
2*f -Diczloro+zenol	100	813	8	Hu/g		82	L9 - 1L5	11	50
2*f -Dih etz. l+zenol	100	683	L	Hu/g		68	L2 - 120	8	58
2*f -Dinitro+zenol	200	199		Hu/g		100	1 - 191	12	1L2
2*f -DinitrotolHene	100	893	8	Hu/g		90	L9 - 1L9	10	f 2
2*6-DinitrotolHene	100	8L3	9	Hu/g		8f	50 - 158	8	5L
2-Czlorona+ztzalene	100	753	8	Hu/g		76	60 - 120	8	2f
2-Czloro+zenol	100	723	7	Hu/g		7L	2L - 1Lf	12	61
2-, etz. l+zenol	100	7f 3	7	Hu/g		75	f L - 97	9	f L
2-] itro+zenol	100	8L3	0	Hu/g		8L	29 - 182	12	55
L N f , etz. l+zenol	100	7L3	2	Hu/g		7L	f f - 99	8	f L
L*LxDiczlorobenyidine	100	863	2	Hu/g		86	1 - 262	16	108
f *6-Dinitro-2-h etz. l+zenol	200	207		Hu/g		10f	1 - 181	12	20L
f -Broh o+zen. l +zen. l etzer	100	853	6	Hu/g		86	5L - 127	9	f L
f -Czloro-L-h etz. l+zenol	100	863	f	Hu/g		86	22 - 1f 7	8	7L
f -Czloro+zen. l +zen. l etzer	100	813	5	Hu/g		81	25 - 158	7	61
f -] itro+zenol	200	191		Hu/g		96	1 - 1L2	9	1L1
Acena+ztzene	100	813	L	Hu/g		81	f 7 - 1f 5	9	f 8
Acena+ztz. lene	100	813	5	Hu/g		82	LL - 1f 5	8	7f
Antzracene	100	823	6	Hu/g		8L	27 - 1LL	6	66
Benyidine	100	583	8 J	Hu/g		59	1 - 122	2L	1L1
Benyo'a[antzracene	100	903	0	Hu/g		90	LL - 1f L	9	5L
Benyo'a[+. rene	100	853	f	Hu/g		85	17 - 16L	8	72
Benyo'b[rlHbrantzene	100	853	0	Hu/g		85	2f - 159	8	71
Benyo'u*z*[+er. lene	100	903	l	Hu/g		90	1 - 219	6	97
Benyo'k[rlHbrantzene	100	8f 3	5	Hu/g		8f	11 - 162	2	6L
1*2-Diczlorobenyene	100	623	6	Hu/g		6L	L9 - 88	10	f 6
Bis&2-czloroetzoV. (h etzane	100	823	7	Hu/g		8L	LL - 18f	9	5f
Bis&2-czloroetz. l(etzer	100	823	0	Hu/g		82	12 - 158	9	108
1*L-Diczlorobenyene	100	583	5	Hu/g		59	L7 - 87	10	f 9
Bis&2-etz. lzeV. l(+ztzalate	100	893	7	Hu/g		90	8 - 158	8	82
BHt. l beny. l +ztzalate	100	923	8	Hu/g		9L	1 - 152	10	60
1*f -Diczlorobenyene	100	593	8	Hu/g		60	L8 - 87	9	f 6
Carbayole	100	853	7	Hu/g		86	58 - 109	7	L9
Czr. sene	100	813	9	Hu/g		82	17 - 168	8	87
Dibeny&a*z(antzracene	100	873	6	Hu/g		88	1 - 227	6	126
Dietz. l +ztzalate	100	8f 3	l	Hu/g		8f	1 - 120	10	100
Dih etz. l +ztzalate	100	8L3	f	Hu/g		8L	1 - 120	8	18L
Di-n-bHt. l +ztzalate	100	903	7	Hu/g		91	1 - 120	9	f 7
Di-n-oct. l +ztzalate	100	963	f	Hu/g		96	f - 1f 6	9	69
) lHbrantzene	100	893	f	Hu/g		89	26 - 1L7	7	66
) lHbrene	100	793	9	Hu/g		80	59 - 121	6	L8
FeVaczlorobenyene	100	8f 3	0	Hu/g		8f	1 - 152	8	55
FeVaczlorobHtadiene	100	6L3	f	Hu/g		6L	2f - 120	8	62
FeVaczloroc. clo+entadiene	100	LL3	2	Hu/g		LL	1 - 5L	9	f 7
FeVaczloroetzane	100	563	L	Hu/g		56	f 0 - 120	8	52

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Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-756148/8-A
Matrix: Water
Analysis Batch: 757062

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 756148

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno'1*2*L-cd[+. rene			100	923	9	Hu/g		9L	1 - 171	6	99
Iso+zorone			100	873	6	Hu/g		88	21 - 196	1L	9L
] a+ztzalene			100	723	2	Hu/g		72	21 - 1LL	7	65
] itrobenyene			100	813	3	Hu/g		81	L5 - 180	11	62
] -] itrosodih etz. lah ine			100	853	7	Hu/g		86	25 - 111	10	50
] -] itrosodi-n-+ro+. lah ine			100	8L	35	Hu/g		8L	1 - 2L0	10	87
] -] itrosodi+zen. lah ine			100	793	L	Hu/g		79	5f - 10f	6	L9
Pentaczloro+zenol			200	195		Hu/g		97	1f - 176	9	86
Pzenantzrene			100	8f	35	Hu/g		85	5f - 120	6	L9
Pzenol			100	713	0	Hu/g		71	5 - 120	9	6f
P. rene			100	863	L	Hu/g		86	52 - 120	8	f 9

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromo5henol	*87*		*p: - 111*
2-Fluorobi5henyl	*7:*		*44 - 98*
2-Fluoro5henol	*62*		*: 1 - 90*
Nitrobenzene-dp	*77*		*1p - : 14*
Phenol-dp	*67*		*8 - 424*
Ter5henyl-d14	*8:*		*p1 - 11:*

Method: 608.3 - Organochlorine Pesticides/PCBs in Water

Lab Sample ID: MB 680-756643/1-A
Matrix: Water
Analysis Batch: 757018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756643

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<030020		03050	030020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
al+za-BF C	<030010		03050	030010	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
beta-BF C	<030020		03050	030020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
uah h a-BF C &gindane(	<030010		03050	030010	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
delta-BF C	<030020		03050	030020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
Czlordane &ecznical(	<0316		0350	0316	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
f *f xDDp	<030010		03050	030010	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
f *f xDDv	<030010		03050	030010	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
f *f xDDD	<030020		03050	030020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
Dieldrin	<030020		03050	030020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
v ndosHran I	<030020		03050	030020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
v ndosHran II	<030020		03050	030020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
v ndosHran sHrate	<030020		03050	030020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
v ndrin	<030010		03050	030010	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
v ndrin aldez. de	<030f 0		03050	030f 0	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
F e+taczlor	<030010		03050	030010	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
F e+taczlor e+oVde	<030020		03050	030020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
PCB-12f 2	<03.f		130	03.f	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
PCB-125f	<03.f		130	03.f	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
PCB-1221	<03.f		130	03.f	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
PCB-12L2	<03.f		130	03.f	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
PCB-12f 8	<03.f		130	03.f	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1

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Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

Lab Sample ID: MB 680-756643/1-A
Matrix: Water
Analysis Batch: 757018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756643

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1260	<03.f		130	03.f	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
poVa+zene	<03.1		530	03.1	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
, etzoV. czlor	<03020		03050	03020	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1
PCB-1016	<03.2		130	03.2	Hu/g		12/22/22 21:19	12/28/22 11:f 6	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*26 - 140*	*12/22/22 213I9*	*12/28/22 113:6*	*1*
DCB Decachlorobi5henyl	*100*		*10 - 1: 1*	*12/22/22 213I9*	*12/28/22 113:6*	*1*

Lab Sample ID: LCS 680-756643/2-A
Matrix: Water
Analysis Batch: 757018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 756643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aldrin	03f 00	03Lf 7	J	Hu/g		87	f 2 - 1f 0
al+za-BF C	03f 00	03Lf 7	J	Hu/g		87	L7 - 1f 0
beta-BF C	03f 00	03Lf 8	J	Hu/g		87	17 - 1f 7
uah h a-BF C &gindane(	03f 00	03L66	J	Hu/g		91	L2 - 1f 0
delta-BF C	03f 00	03f 6f	J	Hu/g		116	19 - 1f 0
f *f xDDp	03f 00	03f 79	J	Hu/g		120	25 - 160
f *f xDDv	03f 00	03L80	J	Hu/g		95	L0 - 1f 5
f *f xDDD	03f 00	03L96	J	Hu/g		99	L1 - 1f 0
Dieldrin	03f 00	03L99	J	Hu/g		100	L6 - 1f 6
v ndosHran I	03f 00	03LL5	J	Hu/g		8f	f 5 - 15L
v ndosHran II	03f 00	03L58	J	Hu/g		89	1 - 202
v ndosHran sHrate	03f 00	03f f 2	J	Hu/g		111	26 - 1f f
v ndrin	03f 00	03f 51	J	Hu/g		11L	L0 - 1f 7
v ndrin aldez. de	03f 00	03L81	J	Hu/g		95	f 9 - 169
F e+taczlor	03f 00	03L91	J	Hu/g		98	Lf - 1f 0
F e+taczlor e+oVide	03f 00	03L65	J	Hu/g		91	L7 - 167
, etzoV. czlor	03f 00	03f 90	J	Hu/g		12L	28 - 167

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*77*		*26 - 140*
DCB Decachlorobi5henyl	*114*		*10 - 1: 1*

Lab Sample ID: LCS 680-756643/6-A
Matrix: Water
Analysis Batch: 757018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 756643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1260	23f 0	2327		Hu/g		95	8 - 1f 0
PCB-1016	23f 0	2322		Hu/g		92	50 - 1f 0

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*72*		*26 - 140*
DCB Decachlorobi5henyl	*109*		*10 - 1: 1*

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Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

Lab Sample ID: LCSD 680-756643/7-A
Matrix: Water
Analysis Batch: 757018

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 756643

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1260			23f 0	23L1		Hu/g		96	8 - 1f 0	2	L8
PCB-1016			23f 0	2328		Hu/g		95	50 - 1f 0	L	L6

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*77*		*26 - 140*
DCB Decachlorobi5henyl	*108*		*10 - 1: 1*

Method: 615 - Herbicides (GC)

Lab Sample ID: MB 680-756560/1-A
Matrix: Water
Analysis Batch: 758203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756560

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2*f -D	<0318		131	0318	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1
2*f -DB	<036L		236	036L	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1
2*f *5-p	<031f		0385	031f	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1
Sil4eV &2*f *5-pP(	<03096		0385	03096	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1
Dala+on	<0399		535	0399	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1
Dicah ba	<030f 6		0350	030f 6	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1
Diczlor+ro+	<0312		0385	0312	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1
Dinoseb	<0310		0350	0310	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1
, CPA	<90		600	90	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1
, CPP	<L2		200	L2	Hu/g		12/22/22 1f :08	01/06/2L 16:f 1	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichloro5henylacetic acid	*10p*	*5*	*26 - 1: 7*	*12/22/22 1430 8*	*01/06/2: 1634 1*	*1*

Lab Sample ID: LCS 680-756560/2-A
Matrix: Water
Analysis Batch: 758203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 756560

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2*f -D			63f 0	737 9		Hu/g		122	21 - 1f 7		
2*f -DB			163 0	183L		Hu/g		11f	20 - 1L8		
2*f *5-p			136 0	139 7		Hu/g		12L	11 - 1L0		
Sil4eV &2*f *5-pP(			136 0	138 8		Hu/g		118	L1 - 1f f		
Dala+on			63f 0	530 7	J +	Hu/g		79	10 - 165		
Dicah ba			L320	L378		Hu/g		118	29 - 1L0		
Diczlor+ro+			63f 0	731 6		Hu/g		112	22 - 1L0		
Dinoseb			63f 0	f 328		Hu/g		67	10 - 1f 1		
, CPA			1600	1620	+	Hu/g		101	10 - 1L0		
, CPP			1600	2580	M	Hu/g		161	10 - 1LL		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichloro5henylacetic acid	*12:*		*26 - 1: 7*

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Method: 200.8-1994 R5.4 - Metals (ICP/MS)

Lab Sample ID: MB 680-755919/1-A
Matrix: Water
Analysis Batch: 756301

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 755919

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Co++er	<0390		530	0390	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
Cadh iHh	<03078		0370	03078	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
Sil4er	<031.9		530	031.9	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
Arsenic	<0386		530	0386	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
Ber. lliHh	<0320		130	0320	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
Czroh iHh	<236		530	236	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
] ickel	<138		530	138	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
gead	<031.f		130	031.f	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
Antih on.	<0352		530	0352	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
SeleniHh	<132		530	132	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
pzalliHh	<0326		130	0326	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1
Zinc	<10		10	10	Hu/g		12/19/22 1L:L5	12/21/22 05:25	1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 680-756015/1-A
Matrix: Water
Analysis Batch: 756338

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fu	<03080		0350	03080	Hu/g		12/20/22 08:20	12/21/22 09:f 8	1

Lab Sample ID: LCS 680-756015/3-A
Matrix: Water
Analysis Batch: 756338

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 756015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fu	2350	23f f		Hu/g		98	85 - 115

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 680-757835/1-A
Matrix: Water
Analysis Batch: 757910

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 757835

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fv , &Oil N Grease(	<13f		530	13f	h u/g		01/0f /2L 1L:29	01/0f /2L 21:06	1

Lab Sample ID: LCS 680-757835/2-A
Matrix: Water
Analysis Batch: 757910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 757835

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fv , &Oil N Grease(	f 030	L6320		h u/g		90	78 - 11f

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Method: 1664B - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 680-757835/3-A
Matrix: Water
Analysis Batch: 757910

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 757835

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fv , &Oil N Grease(	f 030	L6300		h u/g		90	78 - 11f	1	18

Method: 2540 D-2011 - Total Suspended Solids (Dried at 103-105°C)

Lab Sample ID: MB 680-756601/1
Matrix: Water
Analysis Batch: 756601

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
potal SHs+ended Solids	<235		235	235	h u/g			12/22/22 15:L9	1

Lab Sample ID: LCS 680-756601/2
Matrix: Water
Analysis Batch: 756601

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
potal SHs+ended Solids	987	988		h u/g		100	80 - 120

Lab Sample ID: LCSD 680-756601/3
Matrix: Water
Analysis Batch: 756601

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
potal SHs+ended Solids	987	1020		h u/g		10L	80 - 120	L	25

Method: 420.1-1978 - Phenolics, Total Recoverable

Lab Sample ID: MB 680-757065/1-A
Matrix: Water
Analysis Batch: 757149

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 757065

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pzenolics* potal Reco4erable	<03025		03050	03025	h u/g		12/28/22 11:16	12/28/22 15:15	1

Lab Sample ID: LCS 680-757065/2-A
Matrix: Water
Analysis Batch: 757149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 757065

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Pzenolics* potal Reco4erable	03100	0308L7		h u/g		8f	75 - 125

Method: 4500 NH3 G-2011 - Ammonia

Lab Sample ID: MB 680-756310/1-A
Matrix: Water
Analysis Batch: 756518

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 756310

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ah h onia	<0310		0325	0310	h u/g		12/21/22 1L:01	12/21/22 15:19	1

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Method: 4500 NH3 G-2011 - Ammonia (Continued)

Lab Sample ID: LCS 680-756310/3-A
Matrix: Water
Analysis Batch: 756518

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 756310

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ah h onia	1300	1306		h u/g		106	90 - 110

Method: 5210B-2011 - BOD, 5-Day

Lab Sample ID: USB 680-755653/4
Matrix: Water
Analysis Batch: 755653

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

Analyte	USB Result	USB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bioczeh ical OV. uen Deh and	<230		230	230	h u/g			12/17/22 1f :07	1

Lab Sample ID: LCS 680-755653/5
Matrix: Water
Analysis Batch: 755653

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bioczeh ical OV. uen Deh and	198	189		h u/g		96	85 - 115

Lab Sample ID: LCSD 680-755653/6
Matrix: Water
Analysis Batch: 755653

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
Bioczeh ical OV. uen Deh and	198	199		h u/g		100	85 - 115	5	L0

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 680-757549/10
Matrix: Water
Analysis Batch: 757549

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Czroh iHh &zeVa4alent(	<L30		10	L30	Hu/g			12/L1/22 1L:2L	1

Lab Sample ID: LCS 680-757549/11
Matrix: Water
Analysis Batch: 757549

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Czroh iHh &zeVa4alent(	200	20L		Hu/g		102	85 - 115

Method: D7511-12 - Total Cyanide

Lab Sample ID: MB 410-330378/17
Matrix: Water
Analysis Batch: 330378

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C. anide* potal	<030020		030060	030020	h u/g			12/27/22 08:27	1

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Method: D7511-12 - Total Cyanide (Continued)

Lab Sample ID: LCS 410-330378/15
Matrix: Water
Analysis Batch: 330378

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
C. anide* potal			03 0500	03 f L9		h u/g		88	8f - 116		

Lab Sample ID: LCSD 410-330378/16
Matrix: Water
Analysis Batch: 330378

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
C. anide* potal			03 0500	03 f 85		h u/g		97	8f - 116	10	20

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GC/MS VOA

Analysis Batch: 755835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	624.1	
680-227879-2	Trip Blank	Total/NA	Water	624.1	
MB 680-755835/8	Method Blank	Total/NA	Water	624.1	
LCS 680-755835/4	Lab Control Sample	Total/NA	Water	624.1	
LCSD 680-755835/5	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 756148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	625	
MB 680-756148/6-A	Method Blank	Total/NA	Water	625	
LCS 680-756148/7-A	Lab Control Sample	Total/NA	Water	625	
LCSD 680-756148/8-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 757062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	625.1	756148
MB 680-756148/6-A	Method Blank	Total/NA	Water	625.1	756148
LCS 680-756148/7-A	Lab Control Sample	Total/NA	Water	625.1	756148
LCSD 680-756148/8-A	Lab Control Sample Dup	Total/NA	Water	625.1	756148

GC Semi VOA

Prep Batch: 756560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	615	
MB 680-756560/1-A	Method Blank	Total/NA	Water	615	
LCS 680-756560/2-A	Lab Control Sample	Total/NA	Water	615	

Prep Batch: 756643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	608	
MB 680-756643/1-A	Method Blank	Total/NA	Water	608	
LCS 680-756643/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 680-756643/6-A	Lab Control Sample	Total/NA	Water	608	
LCSD 680-756643/7-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 757018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-756643/1-A	Method Blank	Total/NA	Water	608.3	756643
LCS 680-756643/2-A	Lab Control Sample	Total/NA	Water	608.3	756643
LCS 680-756643/6-A	Lab Control Sample	Total/NA	Water	608.3	756643
LCSD 680-756643/7-A	Lab Control Sample Dup	Total/NA	Water	608.3	756643

Analysis Batch: 757158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	608.3	756643

Analysis Batch: 758203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	615	756560

GC Semi VOA (Continued)

Analysis Batch: 758203 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-756560/1-A	Method Blank	Total/NA	Water	615	756560
LCS 680-756560/2-A	Lab Control Sample	Total/NA	Water	615	756560

Metals

Prep Batch: 755919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total Recoverable	Water	200.8-1994 R5.4	
MB 680-755919/1-A	Method Blank	Total Recoverable	Water	200.8-1994 R5.4	
LCS 680-755919/2-A	Lab Control Sample	Total Recoverable	Water	200.8-1994 R5.4	

Prep Batch: 756015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	245.1	
MB 680-756015/1-A	Method Blank	Total/NA	Water	245.1	
LCS 680-756015/3-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 756301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total Recoverable	Water	200.8-1994 R5.4	755919
MB 680-755919/1-A	Method Blank	Total Recoverable	Water	200.8-1994 R5.4	755919
LCS 680-755919/2-A	Lab Control Sample	Total Recoverable	Water	200.8-1994 R5.4	755919

Analysis Batch: 756338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	245.1	756015
MB 680-756015/1-A	Method Blank	Total/NA	Water	245.1	756015
LCS 680-756015/3-A	Lab Control Sample	Total/NA	Water	245.1	756015

General Chemistry

Analysis Batch: 330378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	D7511-12	
MB 410-330378/17	Method Blank	Total/NA	Water	D7511-12	
LCS 410-330378/15	Lab Control Sample	Total/NA	Water	D7511-12	
LCSD 410-330378/16	Lab Control Sample Dup	Total/NA	Water	D7511-12	

Analysis Batch: 755653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	5210B-2011	
USB 680-755653/4	Method Blank	Total/NA	Water	5210B-2011	
LCS 680-755653/5	Lab Control Sample	Total/NA	Water	5210B-2011	
LCSD 680-755653/6	Lab Control Sample Dup	Total/NA	Water	5210B-2011	

Prep Batch: 756310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	4500 NH3 B-2011	
MB 680-756310/1-A	Method Blank	Total/NA	Water	4500 NH3 B-2011	

General Chemistry (Continued)

Prep Batch: 756310 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-756310/3-A	Lab Control Sample	Total/NA	Water	4500 NH3 B-2011	

Analysis Batch: 756518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	4500 NH3 G-2011	756310
MB 680-756310/1-A	Method Blank	Total/NA	Water	4500 NH3 G-2011	756310
LCS 680-756310/3-A	Lab Control Sample	Total/NA	Water	4500 NH3 G-2011	756310

Analysis Batch: 756601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	2540 D-2011	
MB 680-756601/1	Method Blank	Total/NA	Water	2540 D-2011	
LCS 680-756601/2	Lab Control Sample	Total/NA	Water	2540 D-2011	
LCSD 680-756601/3	Lab Control Sample Dup	Total/NA	Water	2540 D-2011	

Prep Batch: 757065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	Distill/Phenol	
MB 680-757065/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 680-757065/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 757149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	420.1-1978	757065
MB 680-757065/1-A	Method Blank	Total/NA	Water	420.1-1978	757065
LCS 680-757065/2-A	Lab Control Sample	Total/NA	Water	420.1-1978	757065

Analysis Batch: 757549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	7196A	
MB 680-757549/10	Method Blank	Total/NA	Water	7196A	
LCS 680-757549/11	Lab Control Sample	Total/NA	Water	7196A	

Prep Batch: 757835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	1664B	
MB 680-757835/1-A	Method Blank	Total/NA	Water	1664B	
LCS 680-757835/2-A	Lab Control Sample	Total/NA	Water	1664B	
LCSD 680-757835/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	

Analysis Batch: 757910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	1664B	757835
MB 680-757835/1-A	Method Blank	Total/NA	Water	1664B	757835
LCS 680-757835/2-A	Lab Control Sample	Total/NA	Water	1664B	757835
LCSD 680-757835/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	757835

Lab Chronicle

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-1

Client Sample ID: Outfall CDC

Date Collected: 12/15/22 12:03
Date Received: 12/16/22 08:15

Lab Sample ID: 680-227879-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	755835	12/19/22 20:37	P1C	EET SAV
	Instrument ID: CMSU									
Total/NA	Prep	625			1039.5 mL	1 mL	756148	12/20/22 15:35	IR	EET SAV
Total/NA	Analysis	625.1		1	1 mL	1 mL	757062	12/28/22 18:25	T1C	EET SAV
	Instrument ID: CMSG									
Total/NA	Prep	608			261.3 mL	1 mL	756643	12/22/22 21:19	MR	EET SAV
Total/NA	Analysis	608.3		1	1 mL	1 mL	757158	12/28/22 19:52	JCK	EET SAV
	Instrument ID: CSGAA									
Total/NA	Prep	615			131.2 mL	5 mL	756560	12/22/22 14:08	KD	EET SAV
Total/NA	Analysis	615		1	1 mL	1 mL	758203	01/06/23 21:22	JCK	EET SAV
	Instrument ID: CSGS									
Total Recoverable	Prep	200.8-1994 R5.4			50 mL	250 mL	755919	12/19/22 14:04	RR	EET SAV
Total Recoverable	Analysis	200.8-1994 R5.4		1			756301	12/21/22 06:12	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Prep	245.1			50 mL	50 mL	756015	12/20/22 08:20	BCB	EET SAV
Total/NA	Analysis	245.1		1			756338	12/21/22 10:00	BCB	EET SAV
	Instrument ID: LEEMAN2									
Total/NA	Prep	1664B			1054 mL	500 mL	757835	01/04/23 13:29	TD	EET SAV
Total/NA	Analysis	1664B		1			757910	01/04/23 21:06	TD	EET SAV
	Instrument ID: NoEquip									
Total/NA	Analysis	2540 D-2011		1	1000 mL	1000 mL	756601	12/22/22 15:39	PG	EET SAV
	Instrument ID: NOEQUIP									
Total/NA	Prep	Distill/Phenol			6 mL	6 mL	757065	12/28/22 11:16	SM	EET SAV
Total/NA	Analysis	420.1-1978		1	6 mL	6 mL	757149	12/28/22 15:23	SM	EET SAV
	Instrument ID: KONELAB3									
Total/NA	Prep	4500 NH3 B-2011			6 mL	6 mL	756310	12/21/22 13:01	PB	EET SAV
Total/NA	Analysis	4500 NH3 G-2011		1	2 mL	2 mL	756518	12/21/22 15:09	PB	EET SAV
	Instrument ID: KONELAB1									
Total/NA	Analysis	5210B-2011		1			755653	12/17/22 16:33	JE	EET SAV
	Instrument ID: BOD 2									
Total/NA	Analysis	7196A		1	2 mL	2 mL	757549	12/31/22 13:24	EO	EET SAV
	Instrument ID: KONELAB4									
Total/NA	Analysis	D7511-12		1			330378	12/27/22 08:44	CBM8	ELLE
	Instrument ID: 19369									

Client Sample ID: Trip Blank

Date Collected: 12/15/22 12:00
Date Received: 12/16/22 08:15

Lab Sample ID: 680-227879-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	755835	12/19/22 14:16	P1C	EET SAV
	Instrument ID: CMSU									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Savannah

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

244- ATLANTA

eurofins Environment Testing

Client Information	Sampler: Jon Wilson	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s): 8176 1111 1480	COC No: 680-140665-49181 1
Client Contact: ~~Randall Kiser~~ MELISSA Vaught	Phone: 210-219-2335 704-202-2757	E-Mail: Sheila Hoffman@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Alcoa Badin Works	PWSID:			Job #:
Address: 293 Highway 740	Due Date Requested: 12-30-22			
City: Badin	TAT Requested (days):			
State Zip: NC, 28009	Compliance Project: Δ Yes Δ No			
Phone: 704-562-6138(Tel)	PO #: 270557150TRF			
Email: MMVOfficeASSOC.com ~~randall.kiser@alcoa.com~~	WO #:			
Project Name:	Project #: 68000358			
Site: BBP	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.8_CWA, 245.1	625.1_PREC - SVocs - PP	624.1_PREC - Vocs - PP	420.1 - TRP	7196A - CR-6	5210B - BOD	2540D - Solids, Total Suspended (TSS)	1664B - Oil and Grease	SM4500NH3_G - Ammonia	D7511_12 - Cyanide	1613B - 2,3,7,8-TCDD	615 - Herbs - PP	608.3_PREC - Pest - PP	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	S	N	N	N	S	S	B	N	N	N		
Outfall CDC	12-15-22	0003	G	Water			1	111	3	1	1	1	1	11	1	1	11	1	11		
				Water																	

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

Sample Disposal (A fee may be assessed if samp
☐ Return To Client ☒ Disposal By Lab

680-227879 Chain of Custody

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
Jon Wilson	12-15-22 1400	BBP		12-16-22 815	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No. 2054774	Cooler Temperature(s) °C and Other Remarks:	3.6/3.6

Ver: 06/08/2021

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 680-721476.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sheila.Hoffman@et.eurofinsus.com	State of Origin: North Carolina	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State Program - North Carolina (WW/SW)		Job #: 680-227879-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 12/28/2022			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: BBP	Project #: 68000358			
Site:	SSOW#:			

Analysis Requested

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

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_P_Sep 2,3,7,8-TCDD	D7511_12/ Total Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall CDC (680-227879-1)	12/15/22	00:03 Eastern		Water			X	X	3	

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

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

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

Relinquished by: Kristina Flores	Date/Time: 12/20/22 10:21 AM	Company	Received by:		Date/Time:		Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:		Company
Relinquished by:	Date/Time:	Company	Received by: Lo Flores		Date/Time: 12-21-22	1140	Company EUL

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.7

MB

Login Sample Receipt Checklist

Client: Alcoa Badin Works

Job Number: 680-227879-1

Login Number: 227879
List Number: 1
Creator: Sims, Robert D

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alcoa Badin Works

Job Number: 680-227879-1

Login Number: 227879
List Number: 2
Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 12/21/22 01:09 PM

Question	Answer	Comment
The cooler's custody seal 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 (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Accreditation/Certification Summary

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-1

Laboratory: Eurofins Savannah

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

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	269	12-31-23

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alaska	State	PA00009	06-30-23
Alaska (UST)	State	17-027	02-28-23
Arizona	State	AZ0780	03-12-23
Arkansas DEQ	State	88-00660	08-09-23
California	State	2792	11-30-22 *
Colorado	State	PA00009	06-30-23
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-23
Georgia (DW)	State	C048	01-31-23
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-01-24
Kansas	NELAP	E-10151	10-31-23
Kentucky (DW)	State	KY90088	12-31-22
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-22
Louisiana (All)	NELAP	02055	06-30-23
Maine	State	2019012	03-12-23
Maryland	State	100	06-30-23
Massachusetts	State	M-PA009	01-14-23
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-23
Mississippi	State	022	01-31-23
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-23
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-23
New York	NELAP	10670	04-01-23
North Carolina (DW)	State	42705	07-31-23
North Carolina (WW/SW)	State	521	12-31-22
North Dakota	State	R-205	01-31-23
Oklahoma	NELAP	R-205	08-31-23
Oregon	NELAP	PA200001	09-11-23
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
Rhode Island	State	LAO00338	12-30-22
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-23

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

Accreditation/Certification Summary

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704194-22-45	08-31-23
USDA	US Federal Programs	P330-19-00197	08-09-23
Vermont	State	VT - 36037	10-28-23
Virginia	NELAP	460182	06-14-23
Washington	State	C457	04-11-23
West Virginia (DW)	State	9906 C	12-31-22
West Virginia DEP	State	055	07-31-23
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	0001.01	11-30-24

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ANALYTICAL REPORT

PREPARED FOR

Attn: Randall Kiser
Alcoa Badin Works
293 Highway 740
Badin, North Carolina 28009

Generated 1/6/2023 2:58:00 PM

JOB DESCRIPTION

BBP

JOB NUMBER

680-227879-2

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

Job Notes

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

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

Authorization

Generated
1/6/2023 2:58:00 PM

Authorized for release by
Sheila Hoffman, Project Manager II
Sheila.Hoffman@et.eurofinsus.com
(912)250-0279

Sample Summary

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-227879-1	Outfall CDC	Water	12/15/22 00:03	12/16/22 08:15

Method Summary

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-2

Method	Method Description	Protocol	Laboratory
1613B	Dioxins and Furans (HRGC/HRMS)	EPA	ELLE
1613B	Separatory Funnel (Liquid-Liquid) Extraction	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-2

Glossary

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

Job ID: 680-227879-2

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-227879-2

Receipt

The samples were received on 12/16/2022 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

Dioxin

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

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-2

Client Sample ID: Outfall CDC
Date Collected: 12/15/22 00:03
Date Received: 12/16/22 08:15

Lab Sample ID: 680-227879-1
Matrix: Water

Method: EPA 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<3.8		3.8		pg/L		01/04/23 12:52	01/05/23 17:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*42*		*25 - 164*	*01/04/23 12:52*	*01/05/23 17:54*	*1*

Isotope Dilution Summary

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-2

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		TCDD							
Lab Sample ID	Client Sample ID	(25-164)							
680-227879-1	Outfall CDC	42							
MB 410-332516/1-A	Method Blank	42							

Surrogate Legend

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

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		TCDD							
Lab Sample ID	Client Sample ID	(20-175)							
LCS 410-332516/2-A	Lab Control Sample	95							

Surrogate Legend

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

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 410-332516/1-A
Matrix: Water
Analysis Batch: 332462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 332516

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2-3-7-8-. CDD	pgl0		gl0		14/5		0, /0g/23 , 2:T2	0, /0g/23 , 7:T9	,

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*42*		*25 - 164*	*01/04/23 12:52*	*01/04/23 17:59*	*1*

Lab Sample ID: LCS 410-332516/2-A
Matrix: Water
Analysis Batch: 332462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 332516

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2-3-7-8-. CDD			200	, 86		14/5		93	67 - , T8		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*95*		*20 - 175*

QC Association Summary

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-2

Specialty Organics

Analysis Batch: 332462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-332516/1-A	Method Blank	Total/NA	Water	1613B	332516
LCS 410-332516/2-A	Lab Control Sample	Total/NA	Water	1613B	332516

Prep Batch: 332516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	1613B	
MB 410-332516/1-A	Method Blank	Total/NA	Water	1613B	
LCS 410-332516/2-A	Lab Control Sample	Total/NA	Water	1613B	

Analysis Batch: 332652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-227879-1	Outfall CDC	Total/NA	Water	1613B	332516

Lab Chronicle

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-2

Client Sample ID: Outfall CDC

Date Collected: 12/15/22 00:03
Date Received: 12/16/22 08:15

Lab Sample ID: 680-227879-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1613B			1042.6 mL	20 uL	332516	01/04/23 12:52	UJSZ	ELLE
Total/NA	Analysis	1613B		1	20 uL	20 uL	332652	01/05/23 17:54	DZ6A	ELLE
	Instrument ID: DF18471									

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Eurofins Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

244- ATLANTA

eurofins Environment Testing

Client Information	Sampler: Jon Wilson	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s): 8176 1111 1480	COC No: 680-140665-49181 1
Client Contact: ~~Randall Kiser~~ MELISSA Vaught	Phone: 210-219-2335 704-202-2757	E-Mail: Sheila Hoffman@et.eurofinsus.com	State of Origin: NC	Page: Page 1 of 1
Company: Alcoa Badin Works	PWSID:			Job #:
Address: 293 Highway 740	Due Date Requested: 12-30-22			
City: Badin	TAT Requested (days):			
State Zip: NC, 28009	Compliance Project: Δ Yes Δ No			
Phone: 704-562-6138(Tel)	PO #: 270557150TRF			
Email: MMVOfficeASSOC.com ~~randall.kiser@alcoa.com~~	WO #:			
Project Name:	Project #: 68000358			
Site: BBP	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.8_CWA, 245.1	625.1_PREC - SVocs - PP	624.1_PREC - Vocs - PP	420.1 - TRP	7196A - CR-6	5210B - BOD	2540D - Solids, Total Suspended (TSS)	1664B - Oil and Grease	SM4500NH3_G - Ammonia	D7511_12 - Cyanide	1613B - 2,3,7,8-TCDD	615 - Herbs - PP	608.3_PREC - Pest - PP	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	S	N	N	N	S	S	B	N	N	N		
Outfall CDC	12-15-22	0003	G	Water			1	111	3	1	1	1	1	11	1	1	11	1	11		
				Water																	

680-227879 Chain of Custody

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

Sample Disposal (A fee may be assessed if samp
☐ Return To Client ☒ Disposal By Lab

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
Jon Wilson	12-15-22 1400	BBP		12-16-22 815	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No. 2054774	Cooler Temperature(s) °C and Other Remarks:	3.6/3.6

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Alcoa Badin Works

Job Number: 680-227879-2

Login Number: 227879

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alcoa Badin Works

Job Number: 680-227879-2

Login Number: 227879
List Number: 2
Creator: Ballard, Megan

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 12/21/22 01:09 PM

Question	Answer	Comment
The cooler's custody seal 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 (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Accreditation/Certification Summary

Client: Alcoa Badin Works
Project/Site: BBP

Job ID: 680-227879-2

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alaska	State	PA00009	06-30-23
Alaska (UST)	State	17-027	02-28-23
Arizona	State	AZ0780	03-12-23
Arkansas DEQ	State	88-00660	08-09-23
California	State	2792	11-30-22 *
Colorado	State	PA00009	06-30-23
Connecticut	State	PH-0746	06-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-23
Delaware (DW)	State	N/A	01-31-23
Florida	NELAP	E87997	06-30-23
Georgia (DW)	State	C048	01-31-23
Hawaii	State	N/A	01-31-23
Illinois	NELAP	200027	01-31-23
Iowa	State	361	03-01-24
Kansas	NELAP	E-10151	10-31-23
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-23
Louisiana (All)	NELAP	02055	06-30-23
Maine	State	2019012	03-12-23
Maryland	State	100	06-30-23
Massachusetts	State	M-PA009	06-30-23
Michigan	State	9930	01-31-23
Minnesota	NELAP	042-999-487	12-31-23
Mississippi	State	022	01-31-23
Missouri	State	450	01-31-25
Montana (UST)	State	<cert No.>	02-01-23
Nebraska	State	NE-OS-32-17	01-31-23
New Hampshire	NELAP	2730	01-10-23
New Jersey	NELAP	PA011	06-30-23
New York	NELAP	10670	04-01-23
North Carolina (DW)	State	42705	07-31-23
North Carolina (WW/SW)	State	521	12-31-23
North Dakota	State	R-205	01-31-23
Oklahoma	NELAP	R-205	08-31-23
Oregon	NELAP	PA200001	09-11-23
PALA	Canada	1978	09-16-24
Pennsylvania	NELAP	36-00037	01-31-23
South Carolina	State	89002	01-31-23
Tennessee	State	02838	01-31-23
Texas	NELAP	T104704194-22-45	08-31-23
USDA	US Federal Programs	P330-19-00197	08-09-23
Vermont	State	VT - 36037	10-28-23
Virginia	NELAP	460182	06-14-23
Washington	State	C457	04-11-23
West Virginia DEP	State	055	07-31-23
Wyoming	State	8TMS-L	01-31-23
Wyoming (UST)	A2LA	0001.01	11-30-24

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