

Chemical Analysis Report

CEN-DIST-2021-01-12-02

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Hourglass Lake/John's Lake Outlet**
Request ID: **RQ-2021-01-11-58**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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Date Certified: 02-FEB-2021 13:13



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical group are included in this report: Nutrients.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Johns Lake @ Conservation Area Dock

Collection Date/Time: 01/11/2021 11:29

Field ID: G1CE0111

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2218285	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P392277	
	EPA 300.0 Rev. 2.1	Chloride	31		mg Cl/L	P392553	
		Sulfate	7.4		mg SO4/L	P392558	
	SM 2120 B-2011	Color (true)	170		PCU	P392308	
	SM 2320 B-2011	Total Alkalinity	43	A	mg CaCO3/L	P392572	
	SM 2540 C-2011	TDS	121		mg/L	P392806	
	SM 2540 D-2011	TSS	2	U	mg/L	P392889	
	SM 4500 F-C-2011	Fluoride	0.10		mg F/L	P392578	
2218286	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P392496	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P392928	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.072		mg N/L	P392605	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P392493	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P392392	
2218287	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.096		mg P/L	P392286	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference and batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Hourglass Lake @ Center

Collection Date/Time: 01/11/2021 11:31

Field ID: G4CE0178

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2218282	EPA 180.1 Rev. 2.0	Turbidity	5.5		NTU	P392277	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P392553	
		Sulfate	20		mg SO4/L	P392558	
	SM 2120 B-2011	Color (true)	14		PCU	P392308	
	SM 2320 B-2011	Total Alkalinity	59		mg CaCO3/L	P392572	
	SM 2540 C-2011	TDS	144		mg/L	P392806	
	SM 2540 D-2011	TSS	7	I	mg/L	P392889	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P392578	
2218283	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P392496	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P392928	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P392605	
	EPA 365.1 Rev. 2.0	Total-P	0.075		mg P/L	P392493	
	SM 5310 B-2011	Organic Carbon	6.2		mg C/L	P392392	
2218284	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P392286	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference and batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P392277

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392553

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392558

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P392496

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P392928

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P392605

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P392493

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P392286

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: SM 2120 B-2011
Batch ID: P392308

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P392572

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P392806

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P392889

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P392578

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P392392

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392558

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P392496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	102		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P392928

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P392605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P392493

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P392286

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	103		P	90 - 110

Reference Method: SM 2120 B-2011
Batch ID: P392308

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P392572

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.9		P	93 - 104

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P392578

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.7		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P392392

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	103		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2218139	Chloride	101		P	90 - 110
2218192	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392558

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2218139	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P392496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2218283	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P392605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2218252	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P392493

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2218277	Total-P	108	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P392286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2218284	O-Phosphate-P	102	103	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P392578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2218285	Fluoride	96.3	96.9	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P392392

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2218283	Organic Carbon	107	106	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P392277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2220172	Turbidity	4.64	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218192	Chloride	0.553	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P392496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218283	Ammonia-N	1.09	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P392928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2217574	Kjeldahl Nitrogen	12.5	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P392605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218252	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P392493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218277	Total-P	3.28	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P392286

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218284	O-Phosphate-P	0.292	Spike	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P392308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218251	Color (true)	0.692	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P392572

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218285	Total Alkalinity	0.333	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P392806

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218251	TDS	3.01	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P392578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218285	Fluoride	0.477	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P392392

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2218283	Organic Carbon	0.837	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A103013

Included Lab Sample IDs: 2218282, 2218285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A103015

Included Lab Sample IDs: 2218284, 2218287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.8	98.8	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A103024

Included Lab Sample IDs: 2218282, 2218285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115
Color (true)	103	102	P/P	90 - 115

Reference Method: SM 5310 B-2011

Run ID: A103061

Included Lab Sample IDs: 2218283, 2218286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	104	P/P	90 - 110
Organic Carbon	102	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A103097

Included Lab Sample IDs: 2218283, 2218286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A103108

Included Lab Sample IDs: 2218283, 2218286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A103125

Included Lab Sample IDs: 2218282, 2218285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Sulfate	103	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A103127

Included Lab Sample IDs: 2218282, 2218285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	91.1	93.1	P/P	90 - 110
Total Alkalinity	97.3	91.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A103127

Included Lab Sample IDs: 2218282, 2218285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.6	98.6	P/P	90 - 110
Fluoride	98.6	97.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A103135

Included Lab Sample IDs: 2218283, 2218286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	101	P/P	90 - 110
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A103273

Included Lab Sample IDs: 2218283, 2218286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	97.2	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements. Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					4.64	
EPA 300.0 Rev. 2.1	Chloride	100	101	101		0.553	
	Sulfate	102	103				
EPA 350.1 Rev. 2.0	Ammonia-N	102	102	101			1.09
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.2					12.5
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	99.0	99.0			0.0
EPA 365.1 Rev. 2.0	Total-P	106	108	104			3.28
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	102	103			0.292
SM 2120 B-2011	Color (true)	102				0.692	
SM 2320 B-2011	Total Alkalinity	95.9				0.333	
SM 2540 C-2011	TDS					3.01	
SM 4500 F-C-2011	Fluoride	95.7	96.3	96.9			0.477
SM 5310 B-2011	Organic Carbon	103	107	106			0.837

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2218282, 2218285
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2218282, 2218285
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2218282, 2218285
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2218283, 2218286
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2218283, 2218286
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2218283, 2218286
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2218283, 2218286
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2218284, 2218287
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2218282, 2218285
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2218282, 2218285
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2218282, 2218285
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2218282, 2218285
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2218282, 2218285
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2218283, 2218286

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	01/12/2021			01/12/2021 16:44	Julia Storbeck	2218282, 2218285
EPA 300.0 Rev. 2.1	01/12/2021			01/15/2021 23:45	Julia Storbeck	2218282
	01/12/2021			01/15/2021 23:58	Julia Storbeck	2218285
EPA 350.1 Rev. 2.0	01/12/2021			01/16/2021 13:29	Ping Hua	2218283
	01/12/2021			01/16/2021 13:30	Ping Hua	2218286
EPA 351.2 Rev. 2.0	01/12/2021	01/26/2021 12:49	Yen Ta	01/27/2021 13:49	Julia Storbeck	2218283
	01/12/2021	01/26/2021 12:49	Yen Ta	01/27/2021 13:50	Julia Storbeck	2218286
EPA 353.2 Rev. 2.0	01/12/2021			01/20/2021 09:21	Beverly Y. Sanders	2218286
	01/12/2021			01/20/2021 10:31	Beverly Y. Sanders	2218283
EPA 365.1 Rev. 2.0	01/12/2021	01/15/2021 19:22	Madeline Gruver	01/19/2021 12:26	Lipi Saha	2218283
	01/12/2021	01/15/2021 19:22	Madeline Gruver	01/19/2021 12:27	Lipi Saha	2218286
EPA 365.1 Rev. 2.0 dissolved	01/12/2021			01/12/2021 17:55	Virginia P. Brown	2218284
	01/12/2021			01/12/2021 17:57	Virginia P. Brown	2218287
SM 2120 B-2011	01/12/2021			01/12/2021 17:58	Benjamin T. Nordmann	2218282
	01/12/2021			01/12/2021 18:21	Benjamin T. Nordmann	2218285
SM 2320 B-2011	01/12/2021			01/15/2021 05:07	Dale L. Simmons	2218285
	01/12/2021			01/15/2021 06:59	Dale L. Simmons	2218282
SM 2540 C-2011	01/12/2021			01/15/2021 15:02	Yijie Li	2218282, 2218285
SM 2540 D-2011	01/12/2021			01/15/2021 15:02	Yijie Li	2218282, 2218285
SM 4500 F-C-2011	01/12/2021			01/15/2021 04:57	Dale L. Simmons	2218285
	01/12/2021			01/15/2021 06:59	Dale L. Simmons	2218282
SM 5310 B-2011	01/12/2021			01/14/2021 01:46	Madeline Gruver	2218283
	01/12/2021			01/14/2021 03:24	Madeline Gruver	2218286