Chemical Analysis Report

CEN-DIST-2020-07-14-01

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

Event Description: **Lake Otting / Little Lake Weir**
Request ID: **RQ-2020-07-13-41**
Customer: **CEN-DIST**
Project ID: **SMP**

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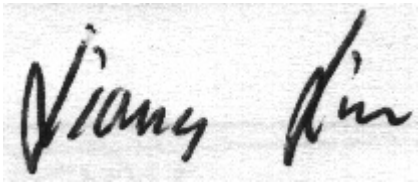
Date Certified: 30-JUL-2020 15:31



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: Lake Otting @ Center of Lake **Collection Date/Time: 07/13/2020 12:36**

Field ID: G4CE0176 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182836	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P384596	
	EPA 300.0 Rev. 2.1	Chloride	1.9		mg Cl/L	P385197	
		Sulfate	0.20	U	mg SO4/L	P385201	
	SM 2120 B-2011	Color (true)	22	A	PCU	P384603	
	SM 2320 B-2011	Total Alkalinity	49		mg CaCO3/L	P384849	
	SM 2540 C-2011	TDS	67		mg/L	P384946	
	SM 2540 D-2011	TSS	3	I A	mg/L	P385023	
	SM 4500 F-C-2011	Fluoride	0.060	I	mg F/L	P384854	
2182838	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P384818	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P384702	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P384768	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P384875	
	SM 5310 B-2011	Organic Carbon	8.8		mg C/L	P384700	
2182840	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P384589	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Sample Location: Little Lake Weir @ Center **Collection Date/Time: 07/13/2020 14:20**

Field ID: G1CE0014 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182837	EPA 180.1 Rev. 2.0	Turbidity	3.1	A	NTU	P384596	
	EPA 300.0 Rev. 2.1	Chloride	36		mg Cl/L	P385197	
		Sulfate	5.6		mg SO4/L	P385201	
	SM 2120 B-2011	Color (true)	14		PCU	P384603	
	SM 2320 B-2011	Total Alkalinity	21	A	mg CaCO3/L	P384849	
	SM 2540 C-2011	TDS	116	A	mg/L	P384946	
	SM 2540 D-2011	TSS	5	I	mg/L	P385023	
	SM 4500 F-C-2011	Fluoride	0.14		mg F/L	P384854	
2182839	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P384818	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P384702	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P384768	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P384875	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P384700	
2182841	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P384589	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P384596

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385197

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385201

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384818

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384702

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384768

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384875

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384589

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

Reference Method: SM 2120 B-2011
Batch ID: P384603

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P384849

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-2011
Batch ID: P384946

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P385023

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P384854

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P384700

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: P385197

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385201

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384818

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384702

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384768

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384875

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384589

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.0		P	90 - 110

Reference Method: SM 2120 B-2011
Batch ID: P384603

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P384849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.1		P	93 - 104

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P384854

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P384700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.7		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385197

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182765	Chloride	96.2		P	90 - 110
2182798	Chloride	96.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182765	Sulfate	95.4		P	90 - 110
2182798	Sulfate	95.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384818

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182859	Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182839	Kjeldahl Nitrogen	97.2	94.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182838	NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384875

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182817	Total-P	107	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182840	O-Phosphate-P	95.4	96.2	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P384854

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182837	Fluoride	101	100	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P384700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182774	Organic Carbon	97.2	97.2	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P384596

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182837	Turbidity	5.83	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385197

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182798	Chloride	1.02	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384818

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182859	Ammonia-N	0.636	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182839	Kjeldahl Nitrogen	1.49	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182838	NO2NO3-N	0.509	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384875

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182817	Total-P	0.567	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384589

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182840	O-Phosphate-P	0.835	Spike	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P384603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182836	Color (true)	3.70	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2320 B-2011
Batch ID: P384849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182837	Total Alkalinity	4.98	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P384946

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182837	TDS	3.45	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P384854

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182837	Fluoride	0.915	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P384700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182774	Organic Carbon	0.0	Spike	P	0 - 20

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A100008
Included Lab Sample IDs: 2182838, 2182839

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	97.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A100104
Included Lab Sample IDs: 2182836, 2182837

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.9	99.0	P/P	90 - 110
Sulfate	98.4	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A99861
Included Lab Sample IDs: 2182840, 2182841

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.6	96.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A99865
Included Lab Sample IDs: 2182836, 2182837

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	102	P/P	95 - 105

Reference Method: SM 2120 B-2011
Run ID: A99866
Included Lab Sample IDs: 2182836, 2182837

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	104	P/P	90 - 115

Reference Method: SM 5310 B-2011
Run ID: A99908
Included Lab Sample IDs: 2182838, 2182839

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.8	94.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A99931
Included Lab Sample IDs: 2182838, 2182839

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A99951
Included Lab Sample IDs: 2182838, 2182839

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.7	102	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A99951
Included Lab Sample IDs: 2182838, 2182839

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.5	96.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A99954
Included Lab Sample IDs: 2182838, 2182839

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	98.0	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A99965
Included Lab Sample IDs: 2182836, 2182837

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.6	102	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A99965
Included Lab Sample IDs: 2182836, 2182837

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	101	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		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					5.83	
EPA 300.0 Rev. 2.1	Chloride	96.8	96.6	96.2		1.02	
	Sulfate	95.9	95.0	95.4			
EPA 350.1 Rev. 2.0	Ammonia-N	100	103	102			0.636
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	97.2	94.4			1.49
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	98.0	98.5			0.509
EPA 365.1 Rev. 2.0	Total-P	105	107	108			0.567
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.0	95.4	96.2			0.835
SM 2120 B-2011	Color (true)	100				3.70	
SM 2320 B-2011	Total Alkalinity	99.1				4.98	
SM 2540 C-2011	TDS					3.45	
SM 4500 F-C-2011	Fluoride	98.9	101	100			0.915
SM 5310 B-2011	Organic Carbon	98.7	97.2	97.2			0.0

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2182836, 2182837
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2182836, 2182837
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2182836, 2182837
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2182838, 2182839
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2182838, 2182839
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2182838, 2182839
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2182838, 2182839
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2182840, 2182841
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2182836, 2182837
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2182836, 2182837
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2182836, 2182837
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2182836, 2182837
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2182836, 2182837
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2182838, 2182839

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	07/14/2020			07/14/2020 15:46	Yen Ta	2182836, 2182837
EPA 300.0 Rev. 2.1	07/14/2020			07/21/2020 17:37	Julia Storbeck	2182836
	07/14/2020			07/21/2020 17:49	Julia Storbeck	2182837
EPA 350.1 Rev. 2.0	07/14/2020			07/18/2020 11:23	Ping Hua	2182838
	07/14/2020			07/18/2020 11:25	Ping Hua	2182839
EPA 351.2 Rev. 2.0	07/14/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 15:30	Jhamieka S. Greenwood	2182839
	07/14/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 15:47	Jhamieka S. Greenwood	2182838
EPA 353.2 Rev. 2.0	07/14/2020			07/17/2020 08:32	Beverly Y. Sanders	2182838
	07/14/2020			07/17/2020 08:40	Beverly Y. Sanders	2182839
EPA 365.1 Rev. 2.0	07/14/2020	07/20/2020 13:21	Yen Ta	07/22/2020 09:22	Lipi Saha	2182838
	07/14/2020	07/20/2020 13:21	Yen Ta	07/22/2020 09:23	Lipi Saha	2182839
EPA 365.1 Rev. 2.0 dissolved	07/14/2020			07/14/2020 15:33	Carlos Miranda	2182840
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SM 5310 B-2011	07/14/2020			07/16/2020 03:13	David Boose	2182838
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