

Chemical Analysis Report

SW-DIST-2020-06-19-01

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

Event Description: **Lakes; Lindsay and Spring**

Request ID: **RQ-2020-06-15-56**

Customer: **SW-DIST**

Project ID: **SMP**

Send Reports to:

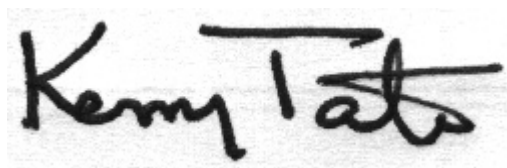
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Ben Paswater

For additional information please contact

Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 07-JUL-2020 15:34

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the "T" and a long horizontal stroke at the end.

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 Lindsay @ Center

Collection Date/Time: 06/18/2020 12:20

Field ID: G4SW0124

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2177821	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P383461	
	EPA 300.0 Rev. 2.1	Chloride	3.6		mg Cl/L	P383738	
	SM 2120 B-2011	Color (true)	32		PCU	P383463	
	SM 2320 B-2011	Total Alkalinity	6.2		mg CaCO3/L	P383553	
	SM 2540 C-2011	TDS	24	I	mg/L	P383859	
	SM 2540 D-2011	TSS	2	U	mg/L	P383822	
	SM 4500 F-C-2011	Fluoride	0.045	I	mg F/L	P383557	
2177823	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P383477	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P383565	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P383497	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P383604	
	SM 5310 B-2011	Organic Carbon	9.5		mg C/L	P383709	
2177825	EPA 300.0 Rev. 2.1 dissolved	Sulfate	0.20	U	mg SO4/L	P383741	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P383489	

Ref. Method and Comment:

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

Sample Location: Spring Lake @ Center

Collection Date/Time: 06/18/2020 10:35

Field ID: G4SW0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2177822	EPA 180.1 Rev. 2.0	Turbidity	1.2	A	NTU	P383461	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P383738	
	SM 2120 B-2011	Color (true)	8.8	A	PCU	P383464	
	SM 2320 B-2011	Total Alkalinity	37	A	mg CaCO3/L	P383553	
	SM 2540 C-2011	TDS	98	A	mg/L	P383859	
	SM 2540 D-2011	TSS	3	IA	mg/L	P383822	
	SM 4500 F-C-2011	Fluoride	0.13		mg F/L	P383557	
2177824	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P383478	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P383565	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P383497	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P383604	
	SM 5310 B-2011	Organic Carbon	7.7		mg C/L	P383709	
2177826	EPA 300.0 Rev. 2.1 dissolved	Sulfate	18		mg SO4/L	P383741	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P383489	

Ref. Method and Comment:

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: P383461

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383738

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1 dissolved
Batch ID: P383741

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383477

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383478

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P383565

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P383497

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P383604

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P383489

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P383463

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B-2011
Batch ID: P383464

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P383553

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

Reference Method: SM 2540 C-2011
Batch ID: P383859

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P383822

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P383557

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P383709

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: P383738

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

Reference Method: EPA 300.0 Rev. 2.1 dissolved
Batch ID: P383741

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383477

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383478

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	104		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P383565

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P383497

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P383604

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P383489

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	92.6		P	90 - 110

Reference Method: SM 2120 B-2011
Batch ID: P383463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.8		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P383464

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.9		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P383553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P383557

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.5		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P383709

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383738

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177725	Chloride	103		P	90 - 110
2177789	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1 dissolved
Batch ID: P383741

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177725	Sulfate	103		P	90 - 110
2177789	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383477

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177784	Ammonia-N	104	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383478

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177824	Ammonia-N	104	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P383565

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177824	Kjeldahl Nitrogen	95.1	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P383497

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177823	NO2NO3-N	100	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P383604

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177490	Total-P	103	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P383489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177799	O-Phosphate-P	92.3	93.8	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P383557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177822	Fluoride	99.8	99.8	P/P	94 - 107

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P383709

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2177932	Organic Carbon	95.6	95.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P383461

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177822	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P383738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177725	Chloride	0.216	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1 dissolved
Batch ID: P383741

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177725	Sulfate	0.110	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383477

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177784	Ammonia-N	0.236	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P383478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177824	Ammonia-N	1.80	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P383565

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177824	Kjeldahl Nitrogen	6.96	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P383497

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177823	NO2NO3-N	1.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P383604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177490	Total-P	1.92	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P383489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177799	O-Phosphate-P	1.61	Spike	P	0 - 20

Reference Method: SM 2120 B-2011
 Batch ID: P383463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177752	Color (true)	1.78	Sample	P	0 - 20

Reference Method: SM 2120 B-2011
 Batch ID: P383464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177822	Color (true)	6.35	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
 Batch ID: P383553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177822	Total Alkalinity	1.69	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
 Batch ID: P383859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177822	TDS	7.18	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P383557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177822	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
 Batch ID: P383709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2177932	Organic Carbon	0.214	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: A99430

Included Lab Sample IDs: 2177821, 2177822

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

Reference Method: SM 2120 B-2011

Run ID: A99431

Included Lab Sample IDs: 2177821, 2177822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	90 - 115
Color (true)	99.5	100	P/P	90 - 115

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A99435

Included Lab Sample IDs: 2177823, 2177824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	106	P/P	90 - 110
Ammonia-N	106	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A99441

Included Lab Sample IDs: 2177825, 2177826

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	91.6	90.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A99442

Included Lab Sample IDs: 2177823, 2177824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A99462

Included Lab Sample IDs: 2177821, 2177822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.6	99.2	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A99462

Included Lab Sample IDs: 2177821, 2177822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A99488

Included Lab Sample IDs: 2177823, 2177824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A99488

Included Lab Sample IDs: 2177823, 2177824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.1	95.3	P/P	90 - 110
Kjeldahl Nitrogen	95.3	99.5	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A99535

Included Lab Sample IDs: 2177823, 2177824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.1	99.2	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A99546

Included Lab Sample IDs: 2177821, 2177822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.2	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1 dissolved

Run ID: A99546

Included Lab Sample IDs: 2177825, 2177826

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A99561

Included Lab Sample IDs: 2177823, 2177824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	97.0	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					0.0	
EPA 300.0 Rev. 2.1	Chloride	102	103	103		0.216	
EPA 300.0 Rev. 2.1 dissolved	Sulfate	103	103	102		0.110	
EPA 350.1 Rev. 2.0	Ammonia-N	104	104	104			0.236
	Ammonia-N	104	104	102			1.80
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	95.1	106			6.96
EPA 353.2 Rev. 2.0	NO2NO3-N	101	100	99.0			1.01
EPA 365.1 Rev. 2.0	Total-P	103	103	101			1.92
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	92.6	92.3	93.8			1.61
SM 2120 B-2011	Color (true)	98.8				1.78	
	Color (true)	99.9				6.35	
SM 2320 B-2011	Total Alkalinity	101				1.69	
SM 2540 C-2011	TDS					7.18	
SM 4500 F-C-2011	Fluoride	97.5	99.8	99.8			0.0
SM 5310 B-2011	Organic Carbon	97.6	95.6	95.8			0.214

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2177821, 2177822
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2177821, 2177822
EPA 300.0 Rev. 2.1 dissolved	Sulfate, dissolved, in filtered, aqueous matrices	2177825, 2177826
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2177823, 2177824
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2177823, 2177824
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2177823, 2177824
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2177823, 2177824
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2177825, 2177826
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2177821, 2177822
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2177821, 2177822
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2177821, 2177822
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2177821, 2177822
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2177821, 2177822
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2177823, 2177824

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	06/19/2020			06/19/2020 15:56	Yen Ta	2177821, 2177822
EPA 300.0 Rev. 2.1	06/19/2020			06/24/2020 09:24	Elliott Rodriguez	2177821
	06/19/2020			06/24/2020 09:37	Elliott Rodriguez	2177822
EPA 300.0 Rev. 2.1 dissolved	06/19/2020			06/24/2020 10:17	Elliott Rodriguez	2177825
	06/19/2020			06/24/2020 10:30	Elliott Rodriguez	2177826
EPA 350.1 Rev. 2.0	06/19/2020			06/21/2020 12:36	Ping Hua	2177823
	06/19/2020			06/21/2020 12:48	Ping Hua	2177824
EPA 351.2 Rev. 2.0	06/19/2020	06/23/2020 10:10	Sima Feizi	06/24/2020 10:57	Jhamieka S. Greenwood	2177824
	06/19/2020	06/23/2020 10:10	Sima Feizi	06/24/2020 11:13	Jhamieka S. Greenwood	2177823
EPA 353.2 Rev. 2.0	06/19/2020			06/22/2020 10:08	Beverly Y. Sanders	2177823
	06/19/2020			06/22/2020 10:14	Beverly Y. Sanders	2177824
EPA 365.1 Rev. 2.0	06/19/2020	06/24/2020 11:09	Yen Ta	06/29/2020 08:02	Lipi Saha	2177823
	06/19/2020	06/24/2020 11:09	Yen Ta	06/29/2020 08:03	Lipi Saha	2177824
EPA 365.1 Rev. 2.0 dissolved	06/19/2020			06/19/2020 18:59	Carlos Miranda	2177825, 2177826
SM 2120 B-2011	06/19/2020			06/19/2020 17:14	Benjamin T. Nordmann	2177821
	06/19/2020			06/19/2020 17:18	Benjamin T. Nordmann	2177822
SM 2320 B-2011	06/19/2020			06/23/2020 05:44	Dale L. Simmons	2177822
	06/19/2020			06/23/2020 06:15	Dale L. Simmons	2177821
SM 2540 C-2011	06/19/2020			06/24/2020 13:02	Yijie Li	2177821, 2177822
SM 2540 D-2011	06/19/2020			06/24/2020 13:02	Yijie Li	2177821, 2177822
SM 4500 F-C-2011	06/19/2020			06/23/2020 05:35	Dale L. Simmons	2177822
	06/19/2020			06/23/2020 06:15	Dale L. Simmons	2177821
SM 5310 B-2011	06/19/2020			06/25/2020 23:03	David Boose	2177823
	06/19/2020			06/25/2020 23:15	David Boose	2177824