Chemical Analysis Report

NW-DIST-2020-03-03-03

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

Event Description: **Western Lakes**
Request ID: **RQ-2020-03-02-33**
Customer: **NW-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 20-MAR-2020 15:18

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 Karick (Center) **Collection Date/Time: 03/02/2020 10:15**

Field ID: G4NW0274 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2161711	EPA 180.1 Rev. 2.0	Turbidity	2.9	A	NTU	P380008	
	EPA 300.0 Rev. 2.1	Chloride	2.3		mg Cl/L	P380342	
		Sulfate	1.1		mg SO4/L	P380344	
	SM 2120 B-2011	Color (true)	26		PCU	P380002	
	SM 2320 B-2011	Total Alkalinity	3.0		mg CaCO3/L	P380270	
	SM 2540 C-2011	TDS	29		mg/L	P380542	
	SM 2540 D-2011	TSS	2	I	mg/L	P380423	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P380274	
2161714	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P380072	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P380117	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P380237	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P380305	
	SM 5310 B-2011	Organic Carbon	3.6		mg C/L	P380276	
2161717	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P379982	

Sample Location: Locklin Lake Center **Collection Date/Time: 03/02/2020 11:50**

Field ID: G4NW0437 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2161712	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P380008	
	EPA 300.0 Rev. 2.1	Chloride	5.6		mg Cl/L	P380342	
		Sulfate	1.5		mg SO4/L	P380344	
	SM 2120 B-2011	Color (true)	6.5		PCU	P380002	
	SM 2320 B-2011	Total Alkalinity	8.7		mg CaCO3/L	P380270	
	SM 2540 C-2011	TDS	22	I	mg/L	P380542	
	SM 2540 D-2011	TSS	2	I	mg/L	P380423	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P380274	
2161715	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P380072	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.15	I	mg N/L	P380117	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.57		mg N/L	P380237	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P380305	
	SM 5310 B-2011	Organic Carbon	1.2		mg C/L	P380276	
2161718	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P379982	

Sample Location: Lake Stone Center **Collection Date/Time: 03/02/2020 13:15**

Field ID: G4NW0426 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2161713	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P380008	
	EPA 300.0 Rev. 2.1	Chloride	3.1		mg Cl/L	P380342	
		Sulfate	2.6		mg SO4/L	P380344	
	SM 2120 B-2011	Color (true)	19		PCU	P380002	
	SM 2320 B-2011	Total Alkalinity	8.5		mg CaCO3/L	P380270	
	SM 2540 C-2011	TDS	26		mg/L	P380542	
	SM 2540 D-2011	TSS	2	I	mg/L	P380423	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P380274	
2161716	EPA 350.1 Rev. 2.0	Ammonia-N	0.052		mg N/L	P380072	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P380117	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.01	I	mg N/L	P380237	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P380305	
	SM 5310 B-2011	Organic Carbon	5.7		mg C/L	P380276	
2161719	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P379982	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380008

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380342

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380344

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380072

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380117

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380237

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380305

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379982

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

Reference Method: SM 2120 B-2011
Batch ID: P380002

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P380270

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

Reference Method: SM 2540 C-2011
Batch ID: P380542

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P380423

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P380274

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P380276

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: P380342

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380344

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380072

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380117

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380237

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380305

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379982

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.1		P	90 - 110

Reference Method: SM 2120 B-2011
Batch ID: P380002

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

Reference Method: SM 2320 B-2011
Batch ID: P380270

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.1		P	98 - 106

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P380274

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P380276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380342

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161390	Chloride	96.5		P	90 - 110
2161732	Chloride	95.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380344

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161390	Sulfate	98.0		P	90 - 110
2161732	Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380072

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161714	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161625	Kjeldahl Nitrogen	96.3	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380237

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161716	NO2NO3-N	95.2	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380305

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161615	Total-P	106	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379982

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161292	O-Phosphate-P	98.9	100	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P380274

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161886	Fluoride	103	105	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P380276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2161796	Organic Carbon	97.9	99.2	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380008

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161711	Turbidity	0.697	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161732	Chloride	0.0634	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161732	Sulfate	0.322	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161714	Ammonia-N	0.264	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161625	Kjeldahl Nitrogen	4.16	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380237

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161716	NO2NO3-N	0.995	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380305

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161615	Total-P	0.972	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379982

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161292	O-Phosphate-P	1.60	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B-2011
Batch ID: P380002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161244	Color (true)	0.652	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P380270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161886	Total Alkalinity	0.852	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P380542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161394	TDS	2.83	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P380423

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161394	TSS	6.06	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P380274

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161886	Fluoride	1.42	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P380276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2161796	Organic Carbon	0.989	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 dissolved
Run ID: A97966
Included Lab Sample IDs: 2161717, 2161718, 2161719

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.3	P/P	90 - 110
O-Phosphate-P	98.3	98.5	P/P	90 - 110

Reference Method: SM 2120 B-2011
Run ID: A97971
Included Lab Sample IDs: 2161711, 2161712, 2161713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.3	99.0	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A97975
Included Lab Sample IDs: 2161711, 2161712, 2161713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.5	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A97999
Included Lab Sample IDs: 2161714, 2161715, 2161716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	100	P/P	90 - 110
Ammonia-N	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A98035
Included Lab Sample IDs: 2161714, 2161715, 2161716

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A98046
Included Lab Sample IDs: 2161714, 2161715, 2161716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	106	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A98057
Included Lab Sample IDs: 2161714, 2161715, 2161716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	100	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A98059
Included Lab Sample IDs: 2161711, 2161712, 2161713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.7	98.8	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A98059
Included Lab Sample IDs: 2161711, 2161712, 2161713

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A98096
Included Lab Sample IDs: 2161711, 2161712, 2161713

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.7	98.8	P/P	90 - 110
Sulfate	97.5	98.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A98185
Included Lab Sample IDs: 2161714, 2161715, 2161716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	100	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					0.697	
EPA 300.0 Rev. 2.1	Chloride	98.2	95.9	96.5		0.0634	
	Sulfate	98.3	98.4	98.0		0.322	
EPA 350.1 Rev. 2.0	Ammonia-N	98.5	101	101			0.264
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	96.3	101			4.16
EPA 353.2 Rev. 2.0	NO2NO3-N	98.0	95.2	96.2			0.995
EPA 365.1 Rev. 2.0	Total-P	107	106	107			0.972
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.1	98.9	100			1.60
SM 2120 B-2011	Color (true)	100				0.652	
SM 2320 B-2011	Total Alkalinity	99.1				0.852	
SM 2540 C-2011	TDS					2.83	
SM 2540 D-2011	TSS					6.06	
SM 4500 F-C-2011	Fluoride	98.8	103	105			1.42
SM 5310 B-2011	Organic Carbon	96.8	97.9	99.2			0.989

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2161711, 2161712, 2161713
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2161711, 2161712, 2161713
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2161711, 2161712, 2161713
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2161714, 2161715, 2161716
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2161714, 2161715, 2161716
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2161714, 2161715, 2161716
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2161714, 2161715, 2161716
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2161717, 2161718, 2161719
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2161711, 2161712, 2161713
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2161711, 2161712, 2161713
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2161711, 2161712, 2161713
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2161711, 2161712, 2161713
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2161711, 2161712, 2161713
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2161714, 2161715, 2161716

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	03/03/2020			03/03/2020 18:12	Samantha Davila	2161711, 2161712, 2161713
EPA 300.0 Rev. 2.1	03/03/2020			03/09/2020 21:04	Lipi Saha	2161711
	03/03/2020			03/09/2020 21:17	Lipi Saha	2161712
	03/03/2020			03/09/2020 21:29	Lipi Saha	2161713
EPA 350.1 Rev. 2.0	03/03/2020			03/04/2020 14:11	Ping Hua	2161714
	03/03/2020			03/04/2020 14:26	Ping Hua	2161715
	03/03/2020			03/04/2020 14:27	Ping Hua	2161716
EPA 351.2 Rev. 2.0	03/03/2020	03/05/2020 12:27	Sima Feizi	03/06/2020 17:38	Julia Storbeck	2161714
	03/03/2020	03/05/2020 12:27	Sima Feizi	03/06/2020 17:40	Julia Storbeck	2161715
	03/03/2020	03/05/2020 12:27	Sima Feizi	03/06/2020 17:41	Julia Storbeck	2161716
EPA 353.2 Rev. 2.0	03/03/2020			03/06/2020 11:09	Beverly Y. Sanders	2161715
	03/03/2020			03/06/2020 11:10	Beverly Y. Sanders	2161716
	03/03/2020			03/06/2020 12:29	Beverly Y. Sanders	2161714
EPA 365.1 Rev. 2.0	03/03/2020	03/09/2020 14:56	Yen Ta	03/12/2020 13:22	Benjamin T. Nordmann	2161714
	03/03/2020	03/09/2020 14:56	Yen Ta	03/12/2020 13:23	Benjamin T. Nordmann	2161715
	03/03/2020	03/09/2020 14:56	Yen Ta	03/12/2020 13:24	Benjamin T. Nordmann	2161716
EPA 365.1 Rev. 2.0 dissolved	03/03/2020			03/03/2020 16:09	Carlos Miranda	2161717
	03/03/2020			03/03/2020 16:14	Carlos Miranda	2161718
	03/03/2020			03/03/2020 16:15	Carlos Miranda	2161719
SM 2120 B-2011	03/03/2020			03/03/2020 18:24		2161711, 2161712
	03/03/2020			03/03/2020 18:25		2161713
SM 2320 B-2011	03/03/2020			03/07/2020 14:25	Samantha Davila	2161711
	03/03/2020			03/07/2020 14:37	Samantha Davila	2161712
	03/03/2020			03/07/2020 14:49	Samantha Davila	2161713
SM 2540 C-2011	03/03/2020			03/05/2020 15:08	Yijie Li	2161711, 2161712, 2161713
SM 2540 D-2011	03/03/2020			03/05/2020 15:08	Yijie Li	2161711, 2161712, 2161713
SM 4500 F-C-2011	03/03/2020			03/07/2020 14:25	Samantha Davila	2161711
	03/03/2020			03/07/2020 14:37	Samantha Davila	2161712
	03/03/2020			03/07/2020 14:49	Samantha Davila	2161713
SM 5310 B-2011	03/03/2020			03/06/2020 18:22	Lauren Lees	2161714
	03/03/2020			03/06/2020 18:37	Lauren Lees	2161715
	03/03/2020			03/06/2020 18:49	Lauren Lees	2161716