

Chemical Analysis Report

SO-DIST-2019-08-28-01

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

Event Description: **SMP:Highland Lakes (county)**

Request ID: **RQ-2019-07-01-03**

Customer: **SO-DIST**

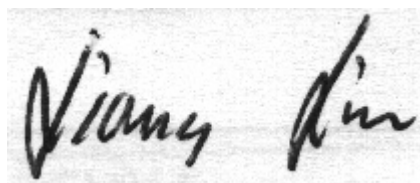
Project ID: **SMP**

Send Reports to:
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 12-SEP-2019 10:00

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

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: Little Bonnett

Collection Date/Time: 08/27/2019 12:00

Field ID: G4SD0169

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2115144	EPA 180.1 Rev. 2.0	Turbidity	8.1		NTU	P369859	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P370213	
		Sulfate	27		mg SO4/L	P370216	
	SM 2120 B	Color (true)	19	A	PCU	P369852	
	SM 2320 B-97	Total Alkalinity	36		mg CaCO3/L	P370196	
	SM 2540 C-97	TDS	129		mg/L	P370381	
	SM 2540 D-97	TSS	5	I	mg/L	P370247	
	SM 4500 F-C-97	Fluoride	0.071	I	mg F/L	P370201	
2115146	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P370157	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0	J	mg N/L	P370129	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.051		mg N/L	P369998	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P369876	
	SM 5310 B-00	Organic Carbon	7.9		mg C/L	P370223	
2115148	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P369845	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Refer to the narrative for an explanation of QC Codes.

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Bonnet

Collection Date/Time: 08/27/2019 10:30

Field ID: G4SD0170

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2115145	EPA 180.1 Rev. 2.0	Turbidity	12	A	NTU	P369860	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P370213	
		Sulfate	28		mg SO4/L	P370216	
	SM 2120 B	Color (true)	38		PCU	P369852	
	SM 2320 B-97	Total Alkalinity	31		mg CaCO3/L	P370196	
	SM 2540 C-97	TDS	131		mg/L	P370382	
	SM 2540 D-97	TSS	9	I	mg/L	P370248	
	SM 4500 F-C-97	Fluoride	0.072	I	mg F/L	P370201	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P370157	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P370129	MS
2115147	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P369998	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P369876	
	SM 5310 B-00	Organic Carbon	9.7		mg C/L	P370223	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P369845	
	dissolved						

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: 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: P369859

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P369860

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370213

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370216

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370157

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370129

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369998

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369876

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P369845

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P369852

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P370196

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

Reference Method: SM 2540 C-97
Batch ID: P370381

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P370382

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P370247

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P370248

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P370201

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P370223

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: P370213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370216

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370157

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370129

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	91.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369998

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369876

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.7		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P369845

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.1		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P369852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.2		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P370196

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P370201

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P370223

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: P370213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2115024	Chloride	101		P	90 - 110
2115145	Chloride	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370216

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2115024	Sulfate	99.9		P	90 - 110
2115145	Sulfate	97.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370157

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2115146	Ammonia-N	97.4	98.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370129

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2115146	Kjeldahl Nitrogen	86.7	93.1	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369998

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2115129	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P369845

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2115193	O-Phosphate-P	97.3	98.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P370201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2115625	Fluoride	95.2	94.2	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P370223

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2114895	Organic Carbon	98.9	98.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P369859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115123	Turbidity	1.94	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P369860

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115145	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115024	Chloride	0.0963	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370216

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115024	Sulfate	0.120	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370157

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115146	Ammonia-N	1.19	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P370129

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115146	Kjeldahl Nitrogen	3.68	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369998

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115129	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115128	Total-P	1.70	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P369845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115193	O-Phosphate-P	1.02	Spike	P	0 - 20

Reference Method: SM 2120 B
 Batch ID: P369852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115144	Color (true)	0.556	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P370196

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115625	Total Alkalinity	0.509	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P370381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115024	TDS	2.71	Sample	P	0 - 10

Reference Method: SM 2540 C-97
 Batch ID: P370382

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115182	TDS	4.62	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P370201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2115625	Fluoride	0.953	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P370223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2114895	Organic Carbon	0.221	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
 Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A93839

Included Lab Sample IDs: 2115148, 2115149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	98.6	P/P	90 - 110
O-Phosphate-P	99.6	99.3	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A93842

Included Lab Sample IDs: 2115144, 2115145

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A93844

Included Lab Sample IDs: 2115144, 2115145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	102	P/P	95 - 105
Turbidity	102	101	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A93923

Included Lab Sample IDs: 2115146, 2115147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A93978

Included Lab Sample IDs: 2115146, 2115147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A93986

Included Lab Sample IDs: 2115146, 2115147

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

Reference Method: SM 2320 B-97

Run ID: A94004

Included Lab Sample IDs: 2115144, 2115145

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

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A94004

Included Lab Sample IDs: 2115144, 2115145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	98.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94010

Included Lab Sample IDs: 2115146, 2115147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.9	96.8	P/P	90 - 110
Kjeldahl Nitrogen	96.8	98.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A94012

Included Lab Sample IDs: 2115144, 2115145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Chloride	99.6	100	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A94014

Included Lab Sample IDs: 2115146, 2115147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	109	109	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					1.94	
	Turbidity					0.0	
EPA 300.0 Rev. 2.1	Chloride	99.6	101	99.5		0.0963	
	Sulfate	100	99.9	97.2		0.120	
EPA 350.1 Rev. 2.0	Ammonia-N	98.2	97.4	98.7			1.19
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	91.0	86.7	93.1			3.68
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	103	101	101			0.0
EPA 365.1 Rev. 2.0	Total-P	95.7					1.70
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.1	97.3	98.3			1.02
SM 2120 B	Color (true)	98.2				0.556	
SM 2320 B-97	Total Alkalinity	104				0.509	
SM 2540 C-97	TDS					2.71	
	TDS					4.62	
SM 4500 F-C-97	Fluoride	95.3	95.2	94.2			0.953
SM 5310 B-00	Organic Carbon	103	98.9	98.5			0.221

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2115144, 2115145
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2115144, 2115145
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2115144, 2115145
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2115146, 2115147
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2115146, 2115147
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2115146, 2115147
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2115146, 2115147
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2115148, 2115149
SM 2120 B / E31780	True Color measured at 450 nm	2115144, 2115145
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2115144, 2115145
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2115144, 2115145
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2115144, 2115145
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2115144, 2115145
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2115146, 2115147

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	08/28/2019			08/28/2019 17:22	Rosalyn Ballman	2115144, 2115145
EPA 300.0 Rev. 2.1	08/28/2019			09/04/2019 16:57	Jhamieka S. Greenwood	2115145
	08/28/2019			09/04/2019 19:23	Jhamieka S. Greenwood	2115144
EPA 350.1 Rev. 2.0	08/28/2019			09/04/2019 13:43	Ping Hua	2115146
	08/28/2019			09/04/2019 14:02	Ping Hua	2115147
EPA 351.2 Rev. 2.0	08/28/2019	09/04/2019 11:58	Sima Feizi	09/05/2019 10:01	Joseph Suarez	2115146
	08/28/2019	09/04/2019 11:58	Sima Feizi	09/05/2019 10:09	Joseph Suarez	2115147
EPA 353.2 Rev. 2.0	08/28/2019			08/30/2019 11:12	Beverly Y. Sanders	2115146
	08/28/2019			08/30/2019 11:13	Beverly Y. Sanders	2115147
EPA 365.1 Rev. 2.0	08/28/2019	08/29/2019 07:30	Joseph Suarez	08/30/2019 13:20	Lipi Saha	2115146
	08/28/2019	08/29/2019 07:30	Joseph Suarez	08/30/2019 13:21	Lipi Saha	2115147
EPA 365.1 Rev. 2.0 dissolved	08/28/2019			08/28/2019 15:20	Jhamieka S. Greenwood	2115148
	08/28/2019			08/28/2019 15:27	Jhamieka S. Greenwood	2115149
SM 2120 B	08/28/2019			08/28/2019 16:27	Madeline Funaro	2115144
	08/28/2019			08/28/2019 16:28	Madeline Funaro	2115145
SM 2320 B-97	08/28/2019			09/03/2019 20:33	Dale L. Simmons	2115144
	08/28/2019			09/03/2019 20:45	Dale L. Simmons	2115145
SM 2540 C-97	08/28/2019			08/30/2019 15:41	Yijie Li	2115144, 2115145
SM 2540 D-97	08/28/2019			08/30/2019 15:41	Yijie Li	2115144, 2115145
SM 4500 F-C-97	08/28/2019			09/03/2019 20:33	Dale L. Simmons	2115144
	08/28/2019			09/03/2019 20:45	Dale L. Simmons	2115145
SM 5310 B-00	08/28/2019			09/05/2019 01:56	Madeline Funaro	2115146
	08/28/2019			09/05/2019 02:08	Madeline Funaro	2115147