Chemical Analysis Report

SE-DIST-2020-03-06-01

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

Event Description: **Broward West Updated**
Request ID: **RQ-2020-03-02-77**
Customer: **SE-DIST**
Project ID: **SMP**

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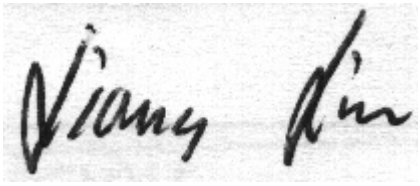
Date Certified: 24-MAR-2020 17:43



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: C-42 @ Broward **Collection Date/Time: 03/05/2020 11:00**

Field ID: G4SE0057 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2162881	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P380218	
	EPA 300.0 Rev. 2.1	Chloride	79		mg Cl/L	P380495	
		Sulfate	1.9		mg SO4/L	P380497	
	SM 2120 B-2011	Color (true)	44	A	PCU	P380215	
	SM 2320 B-2011	Total Alkalinity	227		mg CaCO3/L	P380749	
	SM 2540 C-2011	TDS	379		mg/L	P380816	
	SM 2540 D-2011	TSS	2	I	mg/L	P380805	
	SM 4500 F-C-2011	Fluoride	0.31		mg F/L	P380714	
2162883	EPA 350.1 Rev. 2.0	Ammonia-N	0.36		mg N/L	P380611	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P380340	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.082		mg N/L	P380600	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P380492	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P380350	
2162885	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P380221	

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: Holloway @ Peters **Collection Date/Time: 03/05/2020 11:30**

Field ID: G4SE0107 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2162882	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P380218	
	EPA 300.0 Rev. 2.1	Chloride	75		mg Cl/L	P380495	
		Sulfate	2.5		mg SO4/L	P380497	
	SM 2120 B-2011	Color (true)	39		PCU	P380215	
	SM 2320 B-2011	Total Alkalinity	206		mg CaCO3/L	P380749	
	SM 2540 C-2011	TDS	358		mg/L	P380816	
	SM 2540 D-2011	TSS	2	U	mg/L	P380805	
	SM 4500 F-C-2011	Fluoride	0.29		mg F/L	P380714	
2162884	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P380638	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P380340	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P380623	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P380492	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P380350	
2162886	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P380221	

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: P380218

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380495

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380497

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380611

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380638

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380340

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380600

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380623

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380492

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380221

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

Reference Method: SM 2120 B-2011
Batch ID: P380215

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P380749

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

Reference Method: SM 2540 C-2011
Batch ID: P380816

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P380805

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P380714

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P380350

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: P380495

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380497

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380611

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380638

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380340

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380600

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380623

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380492

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: P380221

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.4		P	90 - 110

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P380215

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

Reference Method: SM 2320 B-2011
Batch ID: P380749

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P380714

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.7		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P380350

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380495

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162902	Chloride	96.5		P	90 - 110
2163042	Chloride	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380497

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162902	Sulfate	98.2		P	90 - 110
2163042	Sulfate	97.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380611

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162626	Ammonia-N	97.7	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380638

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162884	Ammonia-N	102	95.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380340

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162883	Kjeldahl Nitrogen	96.3	93.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380600

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162906	NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380623

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162440	NO2NO3-N	98.9	97.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380492

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162871	Total-P	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380221

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162885	O-Phosphate-P	96.9	93.7	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P380714

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162882	Fluoride	101	102	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P380350

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2162626	Organic Carbon	99.9	102	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P380218

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162911	Turbidity	3.81	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380495

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162902	Chloride	0.397	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380497

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162902	Sulfate	0.0556	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380611

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162626	Ammonia-N	3.48	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P380638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162884	Ammonia-N	3.74	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P380340

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162883	Kjeldahl Nitrogen	1.56	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162906	NO2NO3-N	0.501	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162440	NO2NO3-N	0.948	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P380492

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162871	Total-P	1.25	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P380221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162885	O-Phosphate-P	3.22	Spike	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P380215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162881	Color (true)	0.497	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P380749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2163041	Total Alkalinity	0.206	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P380816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162870	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P380714

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162882	Fluoride	0.516	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P380350

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2162626	Organic Carbon	1.33	Spike	P	0 - 20

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 2120 B-2011
Run ID: A98042
Included Lab Sample IDs: 2162881, 2162882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	103	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A98043
Included Lab Sample IDs: 2162885, 2162886

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A98044
Included Lab Sample IDs: 2162881, 2162882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	98.5	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A98096
Included Lab Sample IDs: 2162881, 2162882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	99.5	P/P	90 - 110
Sulfate	99.5	100	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A98099
Included Lab Sample IDs: 2162883, 2162884

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A98141
Included Lab Sample IDs: 2162883, 2162884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	96.6	P/P	90 - 110
Kjeldahl Nitrogen	99.3	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A98157
Included Lab Sample IDs: 2162884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	102	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A98176
Included Lab Sample IDs: 2162883

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A98179
Included Lab Sample IDs: 2162883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A98182
Included Lab Sample IDs: 2162884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A98211
Included Lab Sample IDs: 2162883, 2162884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	99.2	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A98215
Included Lab Sample IDs: 2162881, 2162882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	101	P/P	90 - 110
Fluoride	99.5	102	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A98231
Included Lab Sample IDs: 2162881, 2162882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	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					3.81	
EPA 300.0 Rev. 2.1	Chloride	98.8	96.5	97.9		0.397	
	Sulfate	99.1	98.2	97.2		0.0556	
EPA 350.1 Rev. 2.0	Ammonia-N	101	97.7	101			3.48
	Ammonia-N	98.4	102	95.7			3.74
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.0	96.3	93.2			1.56
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	100	99.5			0.501
	NO2NO3-N	100	98.9	97.9			0.948
EPA 365.1 Rev. 2.0	Total-P	103	102	104			1.25
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.4	96.9	93.7			3.22
SM 2120 B-2011	Color (true)	100				0.497	
SM 2320 B-2011	Total Alkalinity	103				0.206	
SM 2540 C-2011	TDS					0.0	
SM 4500 F-C-2011	Fluoride	96.7	101	102			0.516
SM 5310 B-2011	Organic Carbon	98.9	99.9	102			1.33

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2162881, 2162882
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2162881, 2162882
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2162881, 2162882
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2162883, 2162884
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2162883, 2162884
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2162883, 2162884
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2162883, 2162884
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2162885, 2162886
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2162881, 2162882
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2162881, 2162882
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2162881, 2162882
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2162881, 2162882
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2162881, 2162882
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2162883, 2162884

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	03/06/2020			03/06/2020 15:29	Yen Ta	2162881, 2162882
EPA 300.0 Rev. 2.1	03/06/2020			03/11/2020 20:59	Lipi Saha	2162881
	03/06/2020			03/11/2020 21:11	Lipi Saha	2162882
EPA 350.1 Rev. 2.0	03/06/2020			03/10/2020 15:29	Ping Hua	2162883
	03/06/2020			03/11/2020 14:38	Ping Hua	2162884
EPA 351.2 Rev. 2.0	03/06/2020	03/10/2020 12:43	Sima Feizi	03/11/2020 17:58	Jhamieka S. Greenwood	2162883
	03/06/2020	03/10/2020 12:43	Sima Feizi	03/11/2020 18:17	Jhamieka S. Greenwood	2162884
EPA 353.2 Rev. 2.0	03/06/2020			03/11/2020 11:02	Beverly Y. Sanders	2162883
	03/06/2020			03/12/2020 13:36	Beverly Y. Sanders	2162884
EPA 365.1 Rev. 2.0	03/06/2020	03/11/2020 14:54	Yen Ta	03/13/2020 15:51	Benjamin T. Nordmann	2162883
	03/06/2020	03/11/2020 14:54	Yen Ta	03/13/2020 15:52	Benjamin T. Nordmann	2162884
EPA 365.1 Rev. 2.0 dissolved	03/06/2020			03/06/2020 16:07	Carlos Miranda	2162885
	03/06/2020			03/06/2020 16:10	Carlos Miranda	2162886
SM 2120 B-2011	03/06/2020			03/06/2020 15:57	Madeline Gruver	2162881
	03/06/2020			03/06/2020 15:58	Madeline Gruver	2162882
SM 2320 B-2011	03/06/2020			03/16/2020 22:43	Dale L. Simmons	2162881
	03/06/2020			03/16/2020 22:54	Dale L. Simmons	2162882
SM 2540 C-2011	03/06/2020			03/10/2020 15:32	Yijie Li	2162881, 2162882
SM 2540 D-2011	03/06/2020			03/10/2020 15:32	Yijie Li	2162881, 2162882
SM 4500 F-C-2011	03/06/2020			03/12/2020 23:08	Dale L. Simmons	2162882
	03/06/2020			03/13/2020 00:54	Dale L. Simmons	2162881
SM 5310 B-2011	03/06/2020			03/09/2020 16:01	Lauren Lees	2162883
	03/06/2020			03/09/2020 20:34	Lauren Lees	2162884