

Chemical Analysis Report

NW-DIST-2018-06-07-01

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

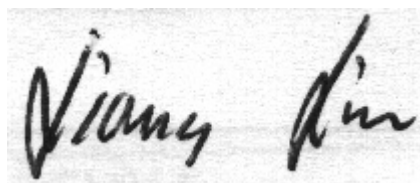
Event Description: **BIOASSESSMENT**
Request ID: **RQ-2018-05-28-23**
Customer: **NW-DIST**
Project ID: **SMP**

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

Date Certified: 27-JUN-2018 13:55

A handwritten signature in black ink, appearing to read "Liang Lin", is shown 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 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: Turkey Creek upstream of Eglin Road 232

Collection Date/Time: 06/06/2018 12:30

Field ID: G3NW0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998454	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P346574	
	EPA 300.0 Rev. 2.1	Chloride	2.8	A	mg Cl/L	P346700	
		Sulfate	0.53	A	mg SO4/L	P346702	
	SM 2120 B	Color (true)	17		PCU	P346558	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P346910	
	SM 2540 C-97	TDS	21	I	mg/L	P346823	
	SM 2540 D-97	TSS	2	I	mg/L	P346710	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346911	
1998456	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P347104	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.13	I	mg N/L	P347099	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P346687	
	EPA 365.1 Rev. 2.0	Total-P	0.003	I	mg P/L	P346972	
	SM 5310 B-00	Organic Carbon	1.6		mg C/L	P346717	
1998458	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P346572	

Ref. Method and Comment:

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

Sample Location: Juniper Creek above Hwy 85

Collection Date/Time: 06/06/2018 14:10

Field ID: G3NW0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1998455	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P346574	
	EPA 300.0 Rev. 2.1	Chloride	2.6		mg Cl/L	P346700	
		Sulfate	0.67		mg SO4/L	P346702	
	SM 2120 B	Color (true)	26		PCU	P346558	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P347034	RPD
	SM 2540 C-97	TDS	25		mg/L	P346823	
	SM 2540 D-97	TSS	3	I	mg/L	P346710	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P347038	
1998457	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P347104	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.15	I	mg N/L	P347099	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.063		mg N/L	P346687	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P346972	
	SM 5310 B-00	Organic Carbon	2.1		mg C/L	P346717	
1998459	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P346572	

Ref. Method and Comment:

SM 2540 D-97: 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: P346574

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346700

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346702

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347104

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347099

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346687

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346972

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346572

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

Reference Method: SM 2120 B
Batch ID: P346558

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P346910

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

Reference Method: SM 2320 B-97
Batch ID: P347034

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

Reference Method: SM 2540 C-97
Batch ID: P346823

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P346710

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P346911

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P347038

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P346717

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: P346700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P346702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P347104

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P347099

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P346687

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P346972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P346572

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

Reference Method: SM 2320 B-97
 Batch ID: P346910

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	98 - 107

Reference Method: SM 2320 B-97
 Batch ID: P347034

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	98 - 107

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P346911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P347038

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P346717

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998377	Chloride	95.7		P	90 - 110
1998454	Chloride	94.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998377	Sulfate	96.9		P	90 - 110
1998454	Sulfate	92.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347104

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998425	Ammonia-N	100	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347099

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998457	Kjeldahl Nitrogen	94.0	91.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998456	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998479	Total-P	98.8	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346572

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998426	O-Phosphate-P	94.8	94.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P346911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998168	Fluoride	98.2	97.5	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P347038

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2000390	Fluoride	93.8	93.8	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P346717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1998244	Organic Carbon	97.8		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998423	Turbidity	7.41	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998454	Chloride	0.402	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998454	Sulfate	0.0755	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P347104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998425	Ammonia-N	1.49	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347099

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998457	Kjeldahl Nitrogen	2.09	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998456	NO2NO3-N	0.304	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998479	Total-P	0.519	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346572

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998426	O-Phosphate-P	0.0670	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
 Batch ID: P346558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998477	Color (true)	0.608	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P346910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998168	Total Alkalinity	0.182	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
 Batch ID: P347034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000390	Total Alkalinity	9.16	Sample	F	0 - 1.6

Reference Method: SM 2540 C-97
 Batch ID: P346823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998478	TDS	0.353	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P346911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998168	Fluoride	0.506	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
 Batch ID: P347038

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2000390	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
 Batch ID: P346717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1998244	Organic Carbon	0.749	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: SM 2120 B

Run ID: A84433

Included Lab Sample IDs: 1998454, 1998455

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.9	98.7	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A84438

Included Lab Sample IDs: 1998458, 1998459

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	98.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A84439

Included Lab Sample IDs: 1998454, 1998455

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A84493

Included Lab Sample IDs: 1998456, 1998457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A84498

Included Lab Sample IDs: 1998454, 1998455

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	98.5	P/P	90 - 110
Chloride	97.3	100	P/P	90 - 110
Sulfate	102	96.1	P/P	90 - 110
Sulfate	95.5	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A84511

Included Lab Sample IDs: 1998456, 1998457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	97.0	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A84586

Included Lab Sample IDs: 1998454

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

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A84586

Included Lab Sample IDs: 1998454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.2	99.0	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A84646

Included Lab Sample IDs: 1998455

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

Reference Method: SM 4500 F-C-97

Run ID: A84646

Included Lab Sample IDs: 1998455

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A84675

Included Lab Sample IDs: 1998456, 1998457

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A84706

Included Lab Sample IDs: 1998456, 1998457

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A84816

Included Lab Sample IDs: 1998456, 1998457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.1	94.2	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					7.41	
EPA 300.0 Rev. 2.1	Chloride	99.4	94.6	95.7		0.402	
	Sulfate	97.6	92.8	96.9		0.0755	
EPA 350.1 Rev. 2.0	Ammonia-N	105	100	102			1.49
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.9	94.0	91.8			2.09
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	101	102	102			0.304
EPA 365.1 Rev. 2.0	Total-P	98.6	98.8	99.4			0.519
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.0	94.8	94.9			0.0670
SM 2120 B	Color (true)					0.608	
SM 2320 B-97	Total Alkalinity	100				0.182	
	Total Alkalinity	100				9.16	
SM 2540 C-97	TDS					0.353	
SM 4500 F-C-97	Fluoride	96.2	98.2	97.5			0.506
	Fluoride	98.1	93.8	93.8			0.0
SM 5310 B-00	Organic Carbon	98.1	97.8				0.749

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1998454, 1998455
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1998454, 1998455
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1998454, 1998455
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1998456, 1998457
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1998456, 1998457
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1998456, 1998457
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1998456, 1998457
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1998458, 1998459
SM 2120 B / E31780	True Color measured at 450 nm	1998454, 1998455
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1998454, 1998455
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1998454, 1998455
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	1998454, 1998455
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1998454, 1998455
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1998456, 1998457

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	06/07/2018			06/07/2018 16:41	William L. Brown IV	1998454, 1998455
EPA 300.0 Rev. 2.1	06/07/2018			06/11/2018 23:01	Lipi Saha	1998454
	06/07/2018			06/12/2018 02:01	Lipi Saha	1998455
EPA 350.1 Rev. 2.0	06/07/2018			06/18/2018 09:24	Ping Hua	1998456
	06/07/2018			06/18/2018 09:25	Ping Hua	1998457
EPA 351.2 Rev. 2.0	06/07/2018	06/19/2018 10:15	Adrian Shelby	06/22/2018 13:20	Tanya Welborn	1998456
	06/07/2018	06/19/2018 10:15	Adrian Shelby	06/22/2018 13:21	Tanya Welborn	1998457
EPA 353.2 Rev. 2.0	06/07/2018			06/11/2018 13:45	Lauren Bottorf	1998456
	06/07/2018			06/11/2018 13:46	Lauren Bottorf	1998457
EPA 365.1 Rev. 2.0	06/07/2018	06/14/2018 12:39	Sima Feizi	06/19/2018 12:12	Beverly Y. Sanders	1998456
	06/07/2018	06/14/2018 12:39	Sima Feizi	06/19/2018 12:13	Beverly Y. Sanders	1998457
EPA 365.1 Rev. 2.0 dissolved	06/07/2018			06/07/2018 16:39	Megan Treadwell	1998458
	06/07/2018			06/07/2018 16:40	Megan Treadwell	1998459
SM 2120 B	06/07/2018			06/07/2018 14:51	Julia Storbeck	1998454
	06/07/2018			06/07/2018 14:52	Julia Storbeck	1998455
SM 2320 B-97	06/07/2018			06/13/2018 23:29	Dale L. Simmons	1998454
	06/07/2018			06/16/2018 10:05	Dale L. Simmons	1998455
SM 2540 C-97	06/07/2018			06/08/2018 15:41	William L. Brown IV	1998454, 1998455
SM 2540 D-97	06/07/2018			06/08/2018 16:15	William L. Brown IV	1998454, 1998455
SM 4500 F-C-97	06/07/2018			06/13/2018 23:29	Dale L. Simmons	1998454
	06/07/2018			06/16/2018 10:05	Dale L. Simmons	1998455
SM 5310 B-00	06/07/2018			06/11/2018 17:33	Megan Treadwell	1998456
	06/07/2018			06/11/2018 17:45	Megan Treadwell	1998457