Chemical Analysis Report

WQAP-2017-09-27-04

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

Event Description: **SMP 2016 Freshwater Kit A**
Request ID: **RQ-2017-06-26-38**
Customer: **WQAP**
Project ID: **SMP**

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FL Dept. of Environmental Protection
2600 Blair Stone Rd
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Tallahassee, FL 32399-2400
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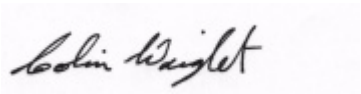
Certified by: Colin Wright, Program Administrator

Date Certified: 12-OCT-2017 10:34



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: WEAVER (MIDDLE) WARRIOR CREEK @ US 98 Collection Date/Time: 09/27/2017 13:30

Field ID: G1TLHR0007-2017-03 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932243	EPA 180.1 Rev. 2.0	Turbidity	8.0	A	NTU	P332346	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P332467	
	SM 2120 B	Color (true)	180		PCU	P332368	
	SM 2320 B-97	Total Alkalinity	168		mg CaCO3/L	P332667	
	SM 2540 C-97	TDS	201	A	mg/L	P332923	
	SM 2540 D-97	TSS	3	IA	mg/L	P332916	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P332670	
1932245	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P332809	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.90		mg N/L	P332533	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P332694	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P332529	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P332616	
1932247	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.053		mg P/L	P332410	

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: FENHOLLOWAY RIVER @ US 27 Collection Date/Time: 09/27/2017 14:15

Field ID: G1TLHR0002-2017-05 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1932244	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P332346	
	EPA 300.0 Rev. 2.1	Chloride	4.9		mg Cl/L	P332467	
	SM 2120 B	Color (true)	1.1E+03		PCU	P332369	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P332667	
	SM 2540 C-97	TDS	188		mg/L	P332923	
	SM 2540 D-97	TSS	9	I	mg/L	P332916	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P332670	
1932246	EPA 350.1 Rev. 2.0	Ammonia-N	0.049		mg N/L	P332809	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P332785	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	U	mg N/L	P332858	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P332529	
	SM 5310 B-00	Organic Carbon	98		mg C/L	P332616	
1932248	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.038		mg P/L	P332410	

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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 353.2 Rev. 2.0: NO2NO3-N: The MDL was elevated due to sample matrix interference.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P332346

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332467

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332809

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332533

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332785

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332694

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332858

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332529

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332410

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

Reference Method: SM 2120 B
Batch ID: P332368

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B
Batch ID: P332369

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P332667

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

Reference Method: SM 2540 C-97
Batch ID: P332923

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P332916

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P332670

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P332616

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: P332467

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	95.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332809

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332533

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332533

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332785

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332694

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332858

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332529

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332410

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

Reference Method: SM 2320 B-97
Batch ID: P332667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P332670

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P332616

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932183	Chloride	97.2		P	90 - 110
1932185	Chloride	92.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932189	Ammonia-N	99.6	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332533

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932245	Kjeldahl Nitrogen	92.5	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332694

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932194	NO2NO3-N	108	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332858

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932445	NO2NO3-N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332529

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932245	Total-P	97.5	97.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332410

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932200	O-Phosphate-P	96.3	98.2	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P332670

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932888	Fluoride	98.8	98.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P332616

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1932192	Organic Carbon	94.6	94.9	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P332346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932243	Turbidity	1.76	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932185	Chloride	0.960	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932189	Ammonia-N	0.289	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332533

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932245	Kjeldahl Nitrogen	3.51	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332785

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1933446	Kjeldahl Nitrogen	1.29	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332694

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932194	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932445	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932245	Total-P	0.311	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332410

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932200	O-Phosphate-P	1.95	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P332368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932183	Color (true)	13.8	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P332369

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932265	Color (true)	12.2	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P332667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932888	Total Alkalinity	0.00389	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P332923

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932243	TDS	2.99	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P332670

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932888	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P332616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1932192	Organic Carbon	0.243	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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A79197
Included Lab Sample IDs: 1932243, 1932244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A79203
Included Lab Sample IDs: 1932243, 1932244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.0	95.9	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A79204
Included Lab Sample IDs: 1932243, 1932244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	101	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A79216
Included Lab Sample IDs: 1932247, 1932248

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.3	P/P	90 - 110
O-Phosphate-P	98.3	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A79301
Included Lab Sample IDs: 1932245, 1932246

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

Reference Method: SM 5310 B-00
Run ID: A79302
Included Lab Sample IDs: 1932245, 1932246

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.1	97.0	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A79318
Included Lab Sample IDs: 1932243, 1932244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	98.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A79318
Included Lab Sample IDs: 1932243, 1932244

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A79318
Included Lab Sample IDs: 1932243, 1932244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A79325
Included Lab Sample IDs: 1932245

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A79332
Included Lab Sample IDs: 1932245

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.6	98.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A79361
Included Lab Sample IDs: 1932245, 1932246

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	99.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A79383
Included Lab Sample IDs: 1932246

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A79393
Included Lab Sample IDs: 1932246

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.6	101	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					1.76	
EPA 300.0 Rev. 2.1	Chloride	95.8	92.6	97.2		0.960	
EPA 350.1 Rev. 2.0	Ammonia-N	100	99.6	99.3			0.289
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	92.5	98.5			3.51

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104					1.29
EPA 353.2 Rev. 2.0	NO2NO3-N	104	108	108			0.0
	NO2NO3-N	102	101				0.0
EPA 365.1 Rev. 2.0	Total-P	97.9	97.5	97.9			0.311
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	96.3	98.2			1.95
SM 2120 B	Color (true)					13.8	
	Color (true)					12.2	
SM 2320 B-97	Total Alkalinity	103				0.0038	
SM 2540 C-97	TDS					2.99	
SM 4500 F-C-97	Fluoride	96.8	98.8	98.8			0.0
SM 5310 B-00	Organic Carbon	97.0	94.6	94.9			0.243

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1932243, 1932244
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1932243, 1932244
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1932245, 1932246
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1932245, 1932246
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1932245, 1932246
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1932245, 1932246
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1932247, 1932248
SM 2120 B / E31780	True Color measured at 450 nm	1932243, 1932244
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1932243, 1932244
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1932243, 1932244
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1932243, 1932244
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1932243, 1932244
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1932245, 1932246

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	09/27/2017			09/27/2017 17:33	Tanya Welborn	1932243, 1932244
EPA 300.0 Rev. 2.1	09/27/2017			09/28/2017	Julia Storbeck	1932243, 1932244
EPA 350.1 Rev. 2.0	09/27/2017			10/05/2017	Sofia Elnemr	1932245, 1932246
EPA 351.2 Rev. 2.0	09/27/2017	10/02/2017	Sofia Elnemr	10/03/2017	Joseph Suarez	1932245
	09/27/2017	10/05/2017	Adrian Shelby	10/06/2017	Virginia P. Brown	1932246
EPA 353.2 Rev. 2.0	09/27/2017			10/04/2017	Beverly Y. Sanders	1932245
	09/27/2017			10/06/2017	Beverly Y. Sanders	1932246
EPA 365.1 Rev. 2.0	09/27/2017	10/02/2017	Sima Feizi	10/03/2017	Lipi Saha	1932245, 1932246
EPA 365.1 Rev. 2.0 dissolved	09/27/2017			09/28/2017 13:21	Megan Treadwell	1932248
	09/27/2017			09/28/2017 13:37	Megan Treadwell	1932247
SM 2120 B	09/27/2017			09/28/2017 10:21	Tanya Welborn	1932243
	09/27/2017			09/28/2017 10:22	Tanya Welborn	1932244
SM 2320 B-97	09/27/2017			10/04/2017	Dale L. Simmons	1932243, 1932244
SM 2540 C-97	09/27/2017			09/29/2017	Yijie Li	1932243, 1932244
SM 2540 D-97	09/27/2017			09/29/2017	Yijie Li	1932243, 1932244
SM 4500 F-C-97	09/27/2017			10/04/2017	Dale L. Simmons	1932243, 1932244
SM 5310 B-00	09/27/2017			10/03/2017	Ping Hua	1932245, 1932246