

Chemical Analysis Report

WQAP-2017-07-18-05

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**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
Attn: Michael Eckles

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Certified by: Colin Wright, Program Administrator

Date Certified: 03-AUG-2017 12:11

A handwritten signature in black ink, appearing to read "Colin Wright", is placed over a light gray rectangular 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: Sandhill Creek @ SW HWY 358

Collection Date/Time: 07/18/2017 11:00

Field ID: G1TLHR0060-2017-02

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1914196	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P328795	
	EPA 300.0 Rev. 2.1	Chloride	6.8		mg Cl/L	P328740	
	SM 2120 B	Color (true)	250		PCU	P328801	
	SM 2320 B-97	Total Alkalinity	129		mg CaCO3/L	P328941	
	SM 2540 C-97	TDS	205		mg/L	P329278	
	SM 2540 D-97	TSS	3	I	mg/L	P329294	
	SM 4500 F-C-97	Fluoride	0.051	I	mg F/L	P328943	
1914198	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P328886	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P328827	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.012		mg N/L	P328916	
	EPA 365.1 Rev. 2.0	Total-P	0.031		mg P/L	P328832	
	SM 5310 B-00	Organic Carbon	29		mg C/L	P328976	
1914200	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	I	mg P/L	P328748	

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: Fishbone Creek @ 212th

Collection Date/Time: 07/18/2017 12:25

Field ID: G1TLHR0015-2017-02

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1914197	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P328795	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P328740	
	SM 2120 B	Color (true)	140		PCU	P328801	
	SM 2320 B-97	Total Alkalinity	197		mg CaCO3/L	P328941	
	SM 2540 C-97	TDS	250		mg/L	P329278	
	SM 2540 D-97	TSS	2	I	mg/L	P329294	
	SM 4500 F-C-97	Fluoride	0.063	I	mg F/L	P328943	
1914199	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P328886	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P328827	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P328916	
	EPA 365.1 Rev. 2.0	Total-P	0.01		mg P/L	P328833	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P328976	
1914201	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P328751	

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: P328795

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: P328740

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328886

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328827

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328916

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: P328832

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328833

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328748

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328751

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

Reference Method: SM 2120 B
Batch ID: P328801

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P328941

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

Reference Method: SM 2540 C-97
Batch ID: P329278

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P329294

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P328943

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P328976

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: P328740

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328886

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328827

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328916

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328916

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	95.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328832

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328833

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: P328748

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328751

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

Reference Method: SM 2320 B-97
Batch ID: P328941

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

Reference Method: SM 4500 F-C-97
Batch ID: P328943

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P328976

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.5		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328740

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P328740

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914149	Chloride	94.3		P	90 - 110
1914152	Chloride	94.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P328886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914154	Ammonia-N	97.6	97.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P328827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914155	Kjeldahl Nitrogen	108	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P328916

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914153	NO2NO3-N	96.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328832

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1913124	Total-P	99.8	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P328833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914246	Total-P	97.4	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914200	O-Phosphate-P	91.7	94.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P328751

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914201	O-Phosphate-P	93.9	99.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P328943

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914077	Fluoride	98.6	101	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P328976

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1914008	Organic Carbon	94.7	96.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P328795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914213	Turbidity	5.75	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P328740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914149	Chloride	5.32	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P328886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914154	Ammonia-N	0.447	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P328827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914155	Kjeldahl Nitrogen	3.96	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P328916

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914153	NO2NO3-N	2.04	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P328832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1913124	Total-P	0.339	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P328833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914246	Total-P	0.717	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P328748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914200	O-Phosphate-P	2.84	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P328751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914201	O-Phosphate-P	5.69	Spike	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P328801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914252	Color (true)	1.10	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P328941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914077	Total Alkalinity	0.199	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97

Batch ID: P329278

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914077	TDS	6.09	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97

Batch ID: P328943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914077	Fluoride	1.44	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00

Batch ID: P328976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1914008	Organic Carbon	0.681	Spike	P	0 - 20

Quality Assurance Report Precision

* 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 300.0 Rev. 2.1
Run ID: A77800
Included Lab Sample IDs: 1914196, 1914197

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A77804
Included Lab Sample IDs: 1914200, 1914201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	102	P/P	90 - 110
O-Phosphate-P	99.8	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A77821
Included Lab Sample IDs: 1914196, 1914197

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.5	P/P	95 - 105

Reference Method: SM 2120 B
Run ID: A77822
Included Lab Sample IDs: 1914196, 1914197

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	105	P/P	85 - 115
Color (true)	104	102	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A77856
Included Lab Sample IDs: 1914198, 1914199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.0	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A77862
Included Lab Sample IDs: 1914198, 1914199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.9	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A77864
Included Lab Sample IDs: 1914198, 1914199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A77864
Included Lab Sample IDs: 1914198, 1914199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A77865
Included Lab Sample IDs: 1914198, 1914199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	97.8	P/P	90 - 110
Total-P	98.5	98.5	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A77869
Included Lab Sample IDs: 1914196, 1914197

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A77869
Included Lab Sample IDs: 1914196, 1914197

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

Reference Method: SM 5310 B-00
Run ID: A77885
Included Lab Sample IDs: 1914198, 1914199

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	98.8	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				5.75	
EPA 300.0 Rev. 2.1	Chloride	99.1	94.3 94.2		5.32	
EPA 350.1 Rev. 2.0	Ammonia-N	102	97.6 97.1			0.447
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.2	108 104			3.96
EPA 353.2 Rev. 2.0	NO2NO3-N	95.5	96.5			2.04
EPA 365.1 Rev. 2.0	Total-P	95.6	99.8 99.3			0.339
	Total-P	97.9	97.4 96.3			0.717
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104	91.7 94.6			2.84
	O-Phosphate-P	101	93.9 99.4			5.69
SM 2120 B	Color (true)				1.10	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 2320 B-97	Total Alkalinity	103			0.199	
SM 2540 C-97	TDS				6.09	
SM 4500 F-C-97	Fluoride	95.8	98.6 101			1.44
SM 5310 B-00	Organic Carbon	97.5	94.7 96.0			0.681

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1914196, 1914197
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1914196, 1914197
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1914198, 1914199
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1914198, 1914199
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1914198, 1914199
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1914198, 1914199
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1914200, 1914201
SM 2120 B / E31780	True Color measured at 450 nm	1914196, 1914197
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1914196, 1914197
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1914196, 1914197
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1914196, 1914197
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1914196, 1914197
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1914198, 1914199

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	07/18/2017			07/19/2017 16:03	DeAsia Armster	1914196, 1914197
EPA 300.0 Rev. 2.1	07/18/2017			07/18/2017	Julia Storbeck	1914196, 1914197
EPA 350.1 Rev. 2.0	07/18/2017			07/20/2017	Sofia Elnemr	1914198, 1914199
EPA 351.2 Rev. 2.0	07/18/2017	07/20/2017	Adrian Shelby	07/21/2017	Joseph Suarez	1914198, 1914199
EPA 353.2 Rev. 2.0	07/18/2017			07/21/2017	Beverly Y. Sanders	1914198, 1914199
EPA 365.1 Rev. 2.0	07/18/2017	07/20/2017	Adrian Shelby	07/21/2017	Lipi Saha	1914198, 1914199
EPA 365.1 Rev. 2.0 dissolved	07/18/2017			07/19/2017 11:01	Ping Hua	1914200
	07/18/2017			07/19/2017 11:14	Ping Hua	1914201
SM 2120 B	07/18/2017			07/19/2017 15:45	Tanya Welborn	1914197
	07/18/2017			07/19/2017 16:53	Tanya Welborn	1914196
SM 2320 B-97	07/18/2017			07/21/2017	Dale L. Simmons	1914196, 1914197
SM 2540 C-97	07/18/2017			07/21/2017	Yijie Li	1914196, 1914197
SM 2540 D-97	07/18/2017			07/21/2017	Yijie Li	1914196, 1914197
SM 4500 F-C-97	07/18/2017			07/21/2017	Dale L. Simmons	1914196, 1914197
SM 5310 B-00	07/18/2017			07/22/2017	Ping Hua	1914198, 1914199