

Chemical Analysis Report

CEN-DIST-2017-11-09-02

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

Event Description: **Tiger / Kiss River**
Request ID: **RQ-2017-11-06-54**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Mike Linger

For additional information please contact
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 04-DEC-2017 11:49

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: Kissimmee River @ 1.15miles upstream of Lake Kissimmee

Collection Date/Time: 11/08/2017 11:56

Field ID: G4CE0055

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945016	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P335051	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P335093	
		Sulfate	5.5		mg SO4/L	P335096	
	SM 2120 B	Color (true)	220		PCU	P335043	
	SM 2320 B-97	Total Alkalinity	26		mg CaCO3/L	P335401	
	SM 2540 C-97	TDS	112		mg/L	P335487	
	SM 2540 D-97	TSS	3	I	mg/L	P335272	
	SM 4500 F-C-97	Fluoride	0.072	I	mg F/L	P335403	
1945018	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P335893	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P335758	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.028		mg N/L	P335650	
	EPA 365.1 Rev. 2.0	Total-P	0.060		mg P/L	P335354	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P335609	
1945020	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P335081	

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: Tiger Creek 1.45km downstream of Lake Kissimmee

Collection Date/Time: 11/08/2017 11:23

Field ID: G4CE0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1945017	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P335051	
	EPA 300.0 Rev. 2.1	Chloride	14	A	mg Cl/L	P335093	
		Sulfate	9.9	A	mg SO4/L	P335096	
	SM 2120 B	Color (true)	110		PCU	P335043	
	SM 2320 B-97	Total Alkalinity	14		mg CaCO3/L	P335401	
	SM 2540 C-97	TDS	89		mg/L	P335487	
	SM 2540 D-97	TSS	3	I	mg/L	P335272	
	SM 4500 F-C-97	Fluoride	0.083	I	mg F/L	P335403	
1945019	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P335893	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.97		mg N/L	P335808	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.023		mg N/L	P335650	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P335354	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P335609	
1945021	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.095		mg P/L	P335081	

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P335051

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335093

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335096

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335893

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335758

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335808

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335650

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: P335354

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335081

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P335043

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P335401

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

Reference Method: SM 2540 C-97
Batch ID: P335487

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P335272

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P335403

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P335609

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: P335093

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335096

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335893

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335893

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335758

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335808

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335650

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335354

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335081

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

Reference Method: SM 2320 B-97
Batch ID: P335401

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P335403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P335609

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335093

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945017	Chloride	98.9		P	90 - 110
1945174	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945017	Sulfate	99.0		P	90 - 110
1945174	Sulfate	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335893

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944980	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335758

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944980	Kjeldahl Nitrogen	98.7	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335808

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945171	Kjeldahl Nitrogen	86.4	88.6	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335650

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944978	NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335354

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944980	Total-P	99.7	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335081

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944983	O-Phosphate-P	92.3	91.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P335403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944926	Fluoride	101	97.8	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P335609

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945182	Organic Carbon	100	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P335051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944953	Turbidity	1.65	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P335093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945017	Chloride	0.126	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P335096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945017	Sulfate	0.292	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P335893

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944980	Ammonia-N	1.31	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P335758

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944980	Kjeldahl Nitrogen	0.418	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P335808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945171	Kjeldahl Nitrogen	2.17	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944978	NO2NO3-N	0.214	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944980	Total-P	0.492	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P335081

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944983	O-Phosphate-P	0.652	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P335043

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944954	Color (true)	2.28	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P335401

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944926	Total Alkalinity	0.0239	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P335487

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944954	TDS	0.583	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P335403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944926	Fluoride	1.93	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P335609

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945182	Organic Carbon	0.0455	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: A80134

Included Lab Sample IDs: 1945016, 1945017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Chloride	103	102	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110
Sulfate	101	100	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A80175

Included Lab Sample IDs: 1945016, 1945017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	85 - 115
Color (true)	99.7	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A80181

Included Lab Sample IDs: 1945016, 1945017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A80192

Included Lab Sample IDs: 1945020, 1945021

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	102	P/P	90 - 110
O-Phosphate-P	93.4	99.0	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A80300

Included Lab Sample IDs: 1945016, 1945017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.7	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A80300

Included Lab Sample IDs: 1945016, 1945017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	98.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
 Run ID: A80313
 Included Lab Sample IDs: 1945018, 1945019

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

Reference Method: SM 5310 B-00
 Run ID: A80378
 Included Lab Sample IDs: 1945018, 1945019

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

Reference Method: EPA 353.2 Rev. 2.0
 Run ID: A80390
 Included Lab Sample IDs: 1945018, 1945019

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

Reference Method: EPA 350.1 Rev. 2.0
 Run ID: A80513
 Included Lab Sample IDs: 1945018, 1945019

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Run ID: A80551
 Included Lab Sample IDs: 1945018

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Run ID: A80559
 Included Lab Sample IDs: 1945019

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	91.0	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
 Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
 Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				1.65	
EPA 300.0 Rev. 2.1	Chloride	99.9	98.9	100	0.126	
	Sulfate	99.2	99.0	99.6	0.292	
EPA 350.1 Rev. 2.0	Ammonia-N	104	101	100		1.31

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.6	98.7	99.3		0.418
	Kjeldahl Nitrogen	99.0	86.4	88.6		2.17
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	104	102			0.214
EPA 365.1 Rev. 2.0	Total-P	102	99.7	99.2		0.492
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	93.7	92.3	91.7		0.652
SM 2120 B	Color (true)				2.28	
SM 2320 B-97	Total Alkalinity	102			0.0239	
SM 2540 C-97	TDS				0.583	
SM 4500 F-C-97	Fluoride	95.2	101	97.8		1.93
SM 5310 B-00	Organic Carbon	99.0	100	100		0.0455

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1945016, 1945017
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1945016, 1945017
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1945016, 1945017
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1945018, 1945019
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1945018, 1945019
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1945018, 1945019
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1945018, 1945019
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1945020, 1945021
SM 2120 B / E31780	True Color measured at 450 nm	1945016, 1945017
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1945016, 1945017
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1945016, 1945017
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1945016, 1945017
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1945016, 1945017
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1945018, 1945019

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	11/09/2017			11/09/2017 14:56	DeAsia Armster	1945016, 1945017
EPA 300.0 Rev. 2.1	11/09/2017			11/10/2017	Julia Storbeck	1945016, 1945017
EPA 350.1 Rev. 2.0	11/09/2017			11/22/2017	Sofia Elnemr	1945018, 1945019
EPA 351.2 Rev. 2.0	11/09/2017	11/22/2017	Adrian Shelby	11/27/2017	Joseph Suarez	1945018
	11/09/2017	11/22/2017	Adrian Shelby	11/28/2017	Joseph Suarez	1945019
EPA 353.2 Rev. 2.0	11/09/2017			11/20/2017	Beverly Y. Sanders	1945018, 1945019
EPA 365.1 Rev. 2.0	11/09/2017	11/15/2017	Sima Feizi	11/16/2017	Lipi Saha	1945018, 1945019
EPA 365.1 Rev. 2.0 dissolved	11/09/2017			11/09/2017 14:55	Megan Treadwell	1945020
	11/09/2017			11/09/2017 15:20	Megan Treadwell	1945021
SM 2120 B	11/09/2017			11/09/2017 14:50	Tanya Welborn	1945017
	11/09/2017			11/09/2017 15:08	Tanya Welborn	1945016
SM 2320 B-97	11/09/2017			11/15/2017	Dale L. Simmons	1945016, 1945017
SM 2540 C-97	11/09/2017			11/13/2017	DeAsia Armster	1945016, 1945017
SM 2540 D-97	11/09/2017			11/13/2017	DeAsia Armster	1945016, 1945017
SM 4500 F-C-97	11/09/2017			11/15/2017	Dale L. Simmons	1945016, 1945017
SM 5310 B-00	11/09/2017			11/17/2017	Ping Hua	1945018, 1945019