Chemical Analysis Report

WQAP-2017-01-19-03

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

Event Description: **Suwannee 4**
Request ID: **RQ-2017-01-16-21**
Customer: **WQAP**
Project ID: **SMP**

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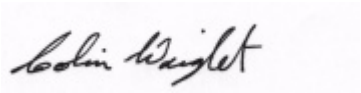
Certified by: Colin Wright, Program Administrator

Date Certified: 15-FEB-2017 10:00



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: Lake Alto Center **Collection Date/Time: 01/18/2017 10:25**

Field ID: G1NE0528 01182017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1865002	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P318443	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P318786	
		Sulfate	4.7		mg SO4/L	P318789	
	SM 2120 B	Color (true)	97		PCU	P318483	
	SM 2320 B-97	Total Alkalinity	3.0		mg CaCO3/L	P318537	
	SM 2540 C-97	TDS	55		mg/L	P319092	
	SM 2540 D-97	TSS	2	U	mg/L	P318758	
	SM 4500 F-C-97	Fluoride	0.050	I	mg F/L	P318539	
1865005	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P318741	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.68		mg N/L	P318463	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P318688	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P318499	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P318552	
1865008	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P318446	

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: Lake Sampson near E Shore **Collection Date/Time: 01/18/2017 11:35**

Field ID: G1NE0511 01182017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1865003	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P318443	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P318786	
		Sulfate	12		mg SO4/L	P318789	
	SM 2120 B	Color (true)	25		PCU	P318483	
	SM 2320 B-97	Total Alkalinity	32		mg CaCO3/L	P318537	
	SM 2540 C-97	TDS	98	A	mg/L	P319093	
	SM 2540 D-97	TSS	2	U	mg/L	P318759	
	SM 4500 F-C-97	Fluoride	0.075	I	mg F/L	P318539	
1865006	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P318741	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.63		mg N/L	P318463	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P318688	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P318499	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P318552	
1865009	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P318446	

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: Lake Alto Center Dup **Collection Date/Time: 01/18/2017 10:30**

Field ID: G1NE0528 01182017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1865004	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P318443	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P318786	
		Sulfate	4.6		mg SO4/L	P318789	

Field ID: G1NE0528 01182017 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1865004	SM 2120 B	Color (true)	96		PCU	P318483	
	SM 2320 B-97	Total Alkalinity	3.0		mg CaCO3/L	P318537	
	SM 2540 C-97	TDS	52		mg/L	P319092	
	SM 2540 D-97	TSS	2	U	mg/L	P318758	
	SM 4500 F-C-97	Fluoride	0.049	I	mg F/L	P318539	
1865007	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P318741	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P318463	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P318688	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P318499	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P318552	
1865010	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P318446	

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: P318443

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318786

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318789

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318741

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318463

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318688

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318499

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318446

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

Reference Method: SM 2120 B
Batch ID: P318483

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P318537

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

Reference Method: SM 2540 C-97
Batch ID: P319092

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P319093

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P318758

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P318759

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P318539

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P318552

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: P318786

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318789

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318741

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318463

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318688

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: P318499

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318446

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	103		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P318537

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P318537

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

Reference Method: SM 4500 F-C-97
Batch ID: P318539

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P318552

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864885	Chloride	99.8		P	90 - 110
1864983	Chloride	99.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864885	Sulfate	97.2		P	90 - 110
1864983	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318741

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1865005	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1865025	Kjeldahl Nitrogen	102	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318688

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1865007	NO2NO3-N	104	102	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318499

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1865006	Total-P	97.6	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318446

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1865009	O-Phosphate-P	102	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P318539

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1865023	Fluoride	98.1	98.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P318552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1865019	Organic Carbon	97.8	99.1	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P318443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864983	Turbidity	1.90	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864983	Chloride	0.150	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864983	Sulfate	0.235	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318741

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865005	Ammonia-N	0.471	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865025	Kjeldahl Nitrogen	2.51	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318688

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865007	NO2NO3-N	2.43	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318499

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865006	Total-P	2.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318446

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865009	O-Phosphate-P	1.27	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P318483

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865017	Color (true)	2.06	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P318537

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865023	Total Alkalinity	0.412	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P319092

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865023	TDS	2.57	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P319093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865003	TDS	1.02	Sample	P	0 - 10

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-97
Batch ID: P318539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865023	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P318552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1865019	Organic Carbon	0.798	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: EPA 180.1 Rev. 2.0
Run ID: A74008
Included Lab Sample IDs: 1865002, 1865003, 1865004

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A74009
Included Lab Sample IDs: 1865008, 1865009, 1865010

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	101	P/P	90 - 110
O-Phosphate-P	99.4	101	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A74020
Included Lab Sample IDs: 1865002, 1865003, 1865004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.6	102	P/P	85 - 115

Reference Method: SM 2320 B-97
Run ID: A74037
Included Lab Sample IDs: 1865002, 1865003, 1865004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A74037
Included Lab Sample IDs: 1865002, 1865003, 1865004

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A74044
Included Lab Sample IDs: 1865005, 1865006, 1865007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	96.2	P/P	90 - 110
Organic Carbon	99.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A74048
Included Lab Sample IDs: 1865005, 1865006, 1865007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	94.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A74087
Included Lab Sample IDs: 1865005, 1865006, 1865007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	95.5	96.2	P/P	90 - 110
Total-P	96.8	95.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A74088
Included Lab Sample IDs: 1865002, 1865003, 1865004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	103	P/P	90 - 110
Sulfate	97.2	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A74095
Included Lab Sample IDs: 1865005, 1865006, 1865007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	98.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A74111
Included Lab Sample IDs: 1865005, 1865006, 1865007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	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				1.90	

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 300.0 Rev. 2.1	Chloride	101	99.8	99.8		0.150	
	Sulfate	95.9	101	97.2		0.235	
EPA 350.1 Rev. 2.0	Ammonia-N	101	102	101			0.471
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	102	105			2.51
EPA 353.2 Rev. 2.0	NO2NO3-N	104	104	102			2.43
EPA 365.1 Rev. 2.0	Total-P	96.5	97.6	95.6			2.02
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	102	103			1.27
SM 2120 B	Color (true)					2.06	
SM 2320 B-97	Total Alkalinity	103				0.412	
SM 2540 C-97	TDS					2.57	
	TDS					1.02	
SM 4500 F-C-97	Fluoride	97.7	98.1	98.1			0.0
SM 5310 B-00	Organic Carbon	101	97.8	99.1			0.798

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1865002, 1865003, 1865004
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1865002, 1865003, 1865004
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1865002, 1865003, 1865004
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1865005, 1865006, 1865007
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1865005, 1865006, 1865007
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1865005, 1865006, 1865007
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1865005, 1865006, 1865007
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1865008, 1865009, 1865010
SM 2120 B / E31780	True Color measured at 450 nm	1865002, 1865003, 1865004
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1865002, 1865003, 1865004
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1865002, 1865003, 1865004
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1865002, 1865003, 1865004
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1865002, 1865003, 1865004
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1865005, 1865006, 1865007

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	01/19/2017			01/19/2017 15:40	Sima Feizi	1865002, 1865003, 1865004
EPA 300.0 Rev. 2.1	01/19/2017			01/26/2017	Ping Hua	1865002, 1865003, 1865004
EPA 350.1 Rev. 2.0	01/19/2017			01/24/2017	Sofia Elnemr	1865005, 1865006, 1865007
EPA 351.2 Rev. 2.0	01/19/2017	01/20/2017	Adrian Shelby	01/23/2017	Joseph Suarez	1865005, 1865006, 1865007
EPA 353.2 Rev. 2.0	01/19/2017			01/25/2017	Beverly Y. Sanders	1865005, 1865006, 1865007
EPA 365.1 Rev. 2.0	01/19/2017	01/20/2017	Vijayalakshmi Reddy	01/24/2017	Lipi Saha	1865005, 1865006, 1865007
EPA 365.1 Rev. 2.0 dissolved	01/19/2017			01/19/2017 15:43	Julie Michelle Frank	1865009
	01/19/2017			01/19/2017 15:58	Julie Michelle Frank	1865008, 1865010
SM 2120 B	01/19/2017			01/19/2017 16:53	Jared I. Manley	1865002
	01/19/2017			01/19/2017 16:54	Jared I. Manley	1865003
	01/19/2017			01/19/2017 16:55	Jared I. Manley	1865004
SM 2320 B-97	01/19/2017			01/21/2017	Dale L. Simmons	1865002, 1865003, 1865004
SM 2540 C-97	01/19/2017			01/23/2017	Sima Feizi	1865002, 1865003, 1865004
SM 2540 D-97	01/19/2017			01/23/2017	Sima Feizi	1865002, 1865003, 1865004
SM 4500 F-C-97	01/19/2017			01/21/2017	Dale L. Simmons	1865002, 1865003, 1865004
SM 5310 B-00	01/19/2017			01/20/2017	Julie Michelle Frank	1865005, 1865007
	01/19/2017			01/21/2017	Julie Michelle Frank	1865006