Chemical Analysis Report

NW-DIST-2018-02-16-01

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

Event Description: **Eglin Run West**
Request ID: **RQ-2018-02-12-66**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
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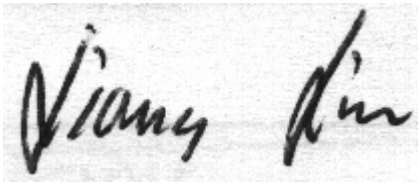
Certified by: Liang Lin, Environmental Administrator

Date Certified: 08-MAR-2018 15:13



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: Shaw Still Branch upstream E College Blvd **Collection Date/Time: 02/15/2018 11:15**

Field ID: G3NW0162 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968557	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P340111	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P340401	
		Sulfate	14		mg SO4/L	P340402	
	SM 2120 B	Color (true)	14		PCU	P340108	
	SM 2320 B-97	Total Alkalinity	41		mg CaCO3/L	P340616	
	SM 2540 C-97	TDS	119		mg/L	P340777	
	SM 2540 D-97	TSS	2	U	mg/L	P340761	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P340618	
1968558	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P340678	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P340404	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.6		mg N/L	P340496	
	EPA 365.1 Rev. 2.0	Total-P	0.005	I	mg P/L	P340417	
	SM 5310 B-00	Organic Carbon	2.4		mg C/L	P340534	
1968559	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P340155	

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: Eagle Creek upstream of Hwy 20 **Collection Date/Time: 02/15/2018 11:50**

Field ID: G3NW0151 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968551	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P340111	
	SM 2320 B-97	Total Alkalinity	0.79	I	mg CaCO3/L	P340616	
	SM 2540 D-97	TSS	2	I	mg/L	P340762	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P340618	
1968553	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P340678	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	3.5		mg N/L	P340404	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P340496	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P340417	
	SM 5310 B-00	Organic Carbon	6.1		mg C/L	P340534	
1968555	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P340155	

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: Mouth of Mullet Creek @ Hwy 20 **Collection Date/Time: 02/15/2018 12:10**

Field ID: G3NW0137 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968552	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P340111	
	SM 2320 B-97	Total Alkalinity	2.8		mg CaCO3/L	P340616	
	SM 2540 D-97	TSS	2	U	mg/L	P340762	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P340618	
1968554	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P340678	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P340404	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P340496	

Field ID: G3NW0137 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968554	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P340417	
	SM 5310 B-00	Organic Carbon	3.6		mg C/L	P340534	
1968556	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P340155	

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: P340111

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340401

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340402

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340678

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340404

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340496

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340417

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340155

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340155

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

Reference Method: SM 2120 B
Batch ID: P340108

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P340616

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

Reference Method: SM 2540 C-97
Batch ID: P340777

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P340761

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P340762

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P340618

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P340534

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: P340401

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340401

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340402

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	94.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340678

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: P340404

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: P340496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340417

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340155

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

Reference Method: SM 2320 B-97
Batch ID: P340616

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.8		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P340618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.7		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P340534

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340401

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968604	Chloride	92.9		P	90 - 110
1968711	Chloride	94.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340402

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968604	Sulfate	92.3		P	90 - 110
1968711	Sulfate	93.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340678

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968547	Ammonia-N	96.9	95.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340404

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968554	Kjeldahl Nitrogen	98.8	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968547	NO2NO3-N	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340417

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968558	Total-P	104	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340155

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968555	O-Phosphate-P	98.7	99.0	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P340618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968284	Fluoride	92.3	94.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P340534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967818	Organic Carbon	98.2	99.1	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P340111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968451	Turbidity	1.25	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340401

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968711	Chloride	1.05	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340402

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968711	Sulfate	0.691	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968547	Ammonia-N	1.42	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968554	Kjeldahl Nitrogen	4.56	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968547	NO2NO3-N	0.456	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340417

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968558	Total-P	6.79	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340155

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968555	O-Phosphate-P	0.303	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P340108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968393	Color (true)	0.885	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P340616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968284	Total Alkalinity	0.00798	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P340777

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968388	TDS	5.65	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P340618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968284	Fluoride	1.47	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P340534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967818	Organic Carbon	0.621	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: SM 2120 B
Run ID: A82119
Included Lab Sample IDs: 1968557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	104	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82120
Included Lab Sample IDs: 1968551, 1968552, 1968557

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: A82129
Included Lab Sample IDs: 1968555, 1968556, 1968559

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	98.5	99.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A82190
Included Lab Sample IDs: 1968557

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A82249
Included Lab Sample IDs: 1968553, 1968554, 1968558

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A82255
Included Lab Sample IDs: 1968553

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A82256
Included Lab Sample IDs: 1968553, 1968554, 1968558

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A82256
Included Lab Sample IDs: 1968553, 1968554, 1968558

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A82258
Included Lab Sample IDs: 1968554, 1968558

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

Reference Method: SM 5310 B-00
Run ID: A82268
Included Lab Sample IDs: 1968553, 1968554, 1968558

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	95.4	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A82295
Included Lab Sample IDs: 1968551, 1968552, 1968557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	96.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A82295
Included Lab Sample IDs: 1968551, 1968552, 1968557

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.1	97.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A82317
Included Lab Sample IDs: 1968553, 1968554, 1968558

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	101	P/P	90 - 110
Ammonia-N	103	102	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					1.25	
EPA 300.0 Rev. 2.1	Chloride	96.5	94.6	92.9		1.05	

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 300.0 Rev. 2.1	Sulfate	94.2	93.5	92.3		0.691	
EPA 350.1 Rev. 2.0	Ammonia-N	102	96.9	95.4			1.42
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	98.8	104			4.56
EPA 353.2 Rev. 2.0	NO2NO3-N	105	105	106			0.456
EPA 365.1 Rev. 2.0	Total-P	103	104	97.5			6.79
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	98.7	99.0			0.303
SM 2120 B	Color (true)					0.885	
SM 2320 B-97	Total Alkalinity	98.8				0.0079	
SM 2540 C-97	TDS					5.65	
SM 4500 F-C-97	Fluoride	94.7	92.3	94.5			1.47
SM 5310 B-00	Organic Carbon	95.8	98.2	99.1			0.621

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1968551, 1968552, 1968557
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1968557
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1968557
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1968553, 1968554, 1968558
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1968553, 1968554, 1968558
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1968553, 1968554, 1968558
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1968553, 1968554, 1968558
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1968555, 1968556, 1968559
SM 2120 B / E31780	True Color measured at 450 nm	1968557
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1968551, 1968552, 1968557
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1968557
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1968551, 1968552, 1968557
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1968551, 1968552, 1968557
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1968553, 1968554, 1968558

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	02/16/2018			02/16/2018 15:13	Tanya Welborn	1968551, 1968552, 1968557
EPA 300.0 Rev. 2.1	02/16/2018			02/21/2018	Julia Storbeck	1968557
EPA 350.1 Rev. 2.0	02/16/2018			02/27/2018	Ping Hua	1968553, 1968554, 1968558
EPA 351.2 Rev. 2.0	02/16/2018	02/22/2018	Adrian Shelby	02/23/2018	Joseph Suarez	1968553, 1968554, 1968558
EPA 353.2 Rev. 2.0	02/16/2018			02/23/2018	Lauren Bottorf	1968553, 1968554, 1968558
EPA 365.1 Rev. 2.0	02/16/2018	02/22/2018	Sima Feizi	02/23/2018	Lipi Saha	1968553, 1968554, 1968558
EPA 365.1 Rev. 2.0 dissolved	02/16/2018			02/16/2018 15:41	Megan Treadwell	1968555
	02/16/2018			02/16/2018 16:18	Megan Treadwell	1968556
	02/16/2018			02/16/2018 16:19	Megan Treadwell	1968559
SM 2120 B	02/16/2018			02/16/2018 15:57	Tanya Welborn	1968557
SM 2320 B-97	02/16/2018			02/26/2018	Dale L. Simmons	1968551, 1968552, 1968557
SM 2540 C-97	02/16/2018			02/19/2018	Ping Hua	1968557
SM 2540 D-97	02/16/2018			02/19/2018	Yijie Li	1968551, 1968552, 1968557
SM 4500 F-C-97	02/16/2018			02/26/2018	Dale L. Simmons	1968551, 1968552, 1968557
SM 5310 B-00	02/16/2018			02/23/2018	Megan Treadwell	1968553, 1968554, 1968558