Chemical Analysis Report

TLH-ROC-2018-02-12-01

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

Event Description: **kit A w/ bacteria**
Request ID: **RQ-2018-01-01-24**
Customer: **TLH-ROC**
Project ID: **SMP**

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

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 05-MAR-2018 15:34

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical group are included in this report: Nutrients.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: ROCKY CREEK **Collection Date/Time: 02/12/2018 10:50**

Field ID: G1TLHR0004 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966457	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P339887	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P340015	
		Sulfate	0.20	U	mg SO4/L	P340018	
	SM 2120 B	Color (true)	110		PCU	P339867	
	SM 2320 B-97	Total Alkalinity	128		mg CaCO3/L	P340308	
	SM 2540 C-97	TDS	181		mg/L	P340329	
	SM 2540 D-97	TSS	2	U	mg/L	P340224	
	SM 4500 F-C-97	Fluoride	0.063	I	mg F/L	P340767	
1966459	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P340315	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.84		mg N/L	P339893	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P340238	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P340063	
	SM 5310 B-00	Organic Carbon	24		mg C/L	P340251	
1966461	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P339879	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: SANDHILL CREEK @ SW HWY 358 **Collection Date/Time: 02/12/2018 11:40**

Field ID: G1TLHR0060 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966458	EPA 180.1 Rev. 2.0	Turbidity	1.3	A	NTU	P339887	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P340015	
		Sulfate	0.57		mg SO4/L	P340018	
	SM 2120 B	Color (true)	93		PCU	P339867	
	SM 2320 B-97	Total Alkalinity	197		mg CaCO3/L	P340308	
	SM 2540 C-97	TDS	252	A	mg/L	P340329	
	SM 2540 D-97	TSS	2	UA	mg/L	P340224	
	SM 4500 F-C-97	Fluoride	0.057	I	mg F/L	P340766	
1966460	EPA 350.1 Rev. 2.0	Ammonia-N	0.053		mg N/L	P340315	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P339895	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.052		mg N/L	P340238	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P340063	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P340251	
1966462	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P339879	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 5310 B-00: Batch matrix spike recoveries are unavailable because of high 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: P339887

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340015

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340018

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340315

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339893

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339895

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340238

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340063

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339879

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: P339867

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P340308

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

Reference Method: SM 2540 C-97
Batch ID: P340329

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P340224

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P340766

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P340767

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P340251

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: P340015

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340018

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: P340018

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340315

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339893

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340238

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: P340063

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	107		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339879

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.8		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P340308

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.5		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P340766

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.9		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P340767

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P340251

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: P340015

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966508	Chloride	105		P	90 - 110
1966515	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966508	Sulfate	105		P	90 - 110
1966515	Sulfate	106		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966459	Ammonia-N	100	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339893

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966301	Kjeldahl Nitrogen	94.4	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966516	Kjeldahl Nitrogen	104	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340238

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966306	NO2NO3-N	101	102	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340063

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966460	Total-P	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339879

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966461	O-Phosphate-P	94.7	96.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P340766

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966458	Fluoride	95.4	94.9	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P340767

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966534	Fluoride	94.2	95.8	P/P	91 - 105

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P339887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966458	Turbidity	3.01	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966508	Chloride	0.188	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966508	Sulfate	0.184	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966459	Ammonia-N	0.781	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339893

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966301	Kjeldahl Nitrogen	5.11	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966516	Kjeldahl Nitrogen	0.257	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340238

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966306	NO2NO3-N	0.985	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340063

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966460	Total-P	2.30	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339879

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966461	O-Phosphate-P	1.89	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P339867

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966507	Color (true)	1.40	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P340308

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966515	Total Alkalinity	0.572	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P340329

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966458	TDS	0.794	Sample	P	0 - 10

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-97
Batch ID: P340766

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966458	Fluoride	0.479	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P340767

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966534	Fluoride	1.48	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P340251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965512	Organic Carbon	0.599	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 300.0 Rev. 2.1
Run ID: A82003
Included Lab Sample IDs: 1966457, 1966458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	104	P/P	90 - 110
Sulfate	103	103	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A82033
Included Lab Sample IDs: 1966457, 1966458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.6	99.5	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82036
Included Lab Sample IDs: 1966461, 1966462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	100	P/P	90 - 110
O-Phosphate-P	99.2	101	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82039
Included Lab Sample IDs: 1966457, 1966458

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82039
Included Lab Sample IDs: 1966457, 1966458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A82112
Included Lab Sample IDs: 1966459, 1966460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.2	96.9	P/P	90 - 110
Kjeldahl Nitrogen	99.3	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A82136
Included Lab Sample IDs: 1966459, 1966460

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A82148
Included Lab Sample IDs: 1966459, 1966460

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

Reference Method: SM 5310 B-00
Run ID: A82160
Included Lab Sample IDs: 1966459, 1966460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.9	98.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A82180
Included Lab Sample IDs: 1966459, 1966460

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

Reference Method: SM 2320 B-97
Run ID: A82186
Included Lab Sample IDs: 1966457, 1966458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	96.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A82351
Included Lab Sample IDs: 1966457, 1966458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	96.7	96.2	P/P	90 - 110

Quality Assurance Report
Calibration Verification

* 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					3.01	
EPA 300.0 Rev. 2.1	Chloride	104	105	105		0.188	
	Sulfate	105	105	106		0.184	
EPA 350.1 Rev. 2.0	Ammonia-N	103	100	99.6			0.781
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.4	94.4	102			5.11
	Kjeldahl Nitrogen	97.0	104	104			0.257
EPA 353.2 Rev. 2.0	NO2NO3-N	104	101	102			0.985
EPA 365.1 Rev. 2.0	Total-P	107	104	102			2.30
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.8	94.7	96.6			1.89
SM 2120 B	Color (true)					1.40	
SM 2320 B-97	Total Alkalinity	99.5				0.572	
SM 2540 C-97	TDS					0.794	
SM 4500 F-C-97	Fluoride	99.9	95.4	94.9			0.479
	Fluoride	95.1	94.2	95.8			1.48
SM 5310 B-00	Organic Carbon	101					0.599

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1966457, 1966458
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1966457, 1966458
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1966457, 1966458
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1966459, 1966460
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1966459, 1966460
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1966459, 1966460
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1966459, 1966460
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1966461, 1966462
SM 2120 B / E31780	True Color measured at 450 nm	1966457, 1966458
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1966457, 1966458
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1966457, 1966458
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1966457, 1966458
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1966457, 1966458
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1966459, 1966460

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	02/12/2018			02/13/2018 17:01	Sima Feizi	1966457, 1966458
EPA 300.0 Rev. 2.1	02/12/2018			02/15/2018	Julia Storbeck	1966457, 1966458
EPA 350.1 Rev. 2.0	02/12/2018			02/20/2018	Ping Hua	1966459, 1966460
EPA 351.2 Rev. 2.0	02/12/2018	02/14/2018	Adrian Shelby	02/15/2018	Joseph Suarez	1966459, 1966460
EPA 353.2 Rev. 2.0	02/12/2018			02/19/2018	Lauren Bottorf	1966459, 1966460
EPA 365.1 Rev. 2.0	02/12/2018	02/15/2018	Sima Feizi	02/19/2018	Beverly Y. Sanders	1966459, 1966460
EPA 365.1 Rev. 2.0 dissolved	02/12/2018			02/13/2018 16:55	Megan Treadwell	1966461
	02/12/2018			02/13/2018 17:23	Megan Treadwell	1966462
SM 2120 B	02/12/2018			02/13/2018 16:30	Tanya Welborn	1966457
	02/12/2018			02/13/2018 16:31	Tanya Welborn	1966458
SM 2320 B-97	02/12/2018			02/20/2018	Lauren Bottorf	1966457
	02/12/2018			02/21/2018	Lauren Bottorf	1966458
SM 2540 C-97	02/12/2018			02/14/2018	DeAsia Armster	1966457, 1966458
SM 2540 D-97	02/12/2018			02/14/2018	DeAsia Armster	1966457, 1966458
SM 4500 F-C-97	02/12/2018			02/28/2018	Dale L. Simmons	1966457, 1966458
SM 5310 B-00	02/12/2018			02/19/2018	Megan Treadwell	1966459, 1966460