Chemical Analysis Report

CEN-DIST-2019-03-12-01

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

Event Description: **Lil Haw / Deep / Haw**
Request ID: **RQ-2019-03-11-42**
Customer: **CEN-DIST**
Project ID: **SMP**

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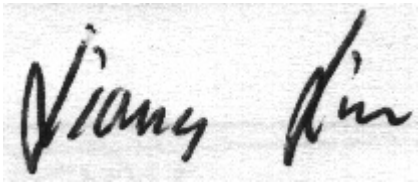

Case Narrative

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 by the Florida Department of Health Environmental Laboratory Certification Program 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: DEEP CREEK @ 400M S OF SR 40 **Collection Date/Time: 03/11/2019 11:05**

Field ID: G2CE0167 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2068783	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P360284	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P360718	
		Sulfate	0.22	I	mg SO4/L	P360720	
	SM 2120 B	Color (true)	580		PCU	P360324	
	SM 2320 B-97	Total Alkalinity	3.3		mg CaCO3/L	P360800	
	SM 2540 C-97	TDS	142		mg/L	P360682	
	SM 2540 D-97	TSS	2	I	mg/L	P360656	
	SM 4500 F-C-97	Fluoride	0.055	I	mg F/L	P360803	
2068785	EPA 350.1 Rev. 2.0	Ammonia-N	0.041		mg N/L	P360425	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P360466	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P360360	
	EPA 365.1 Rev. 2.0	Total-P	0.030		mg P/L	P360526	
	SM 5310 B-00	Organic Carbon	50		mg C/L	P360635	
2068787	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.015		mg P/L	P360298	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: LITTLE HAW CREEK @ 25M DS OF SR40 **Collection Date/Time: 03/11/2019 12:55**

Field ID: G2CE0128 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2068784	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P360284	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P360718	
		Sulfate	0.20	U	mg SO4/L	P360720	
	SM 2120 B	Color (true)	340		PCU	P360324	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P360894	
	SM 2540 C-97	TDS	106		mg/L	P360682	
	SM 2540 D-97	TSS	2	I	mg/L	P360656	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P360901	
2068786	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P360425	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P360466	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P360360	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P360526	
	SM 5310 B-00	Organic Carbon	37		mg C/L	P360635	
2068788	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P360298	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: 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: P360284

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360718

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360720

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360425

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360466

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360360

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360526

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360298

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

Reference Method: SM 2120 B
Batch ID: P360324

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P360800

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

Reference Method: SM 2320 B-97
Batch ID: P360894

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

Reference Method: SM 2540 C-97
Batch ID: P360682

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P360656

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P360803

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P360901

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P360635

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: P360718

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360720

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360425

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360466

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: P360360

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360526

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360298

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.3		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P360324

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

Reference Method: SM 2320 B-97
Batch ID: P360800

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P360894

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P360803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.0		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P360901

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P360635

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360718

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068543	Chloride	100		P	90 - 110
2068727	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068543	Sulfate	102		P	90 - 110
2068727	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360425

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068731	Ammonia-N	99.3	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068842	Kjeldahl Nitrogen	93.2	91.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068770	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360526

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068732	Total-P	99.8	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068863	O-Phosphate-P	94.2	96.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P360803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068696	Fluoride	96.1	96.1	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P360901

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2069322	Fluoride	96.4	95.8	P/P	91 - 105

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P360635

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2068733	Organic Carbon	97.8	99.1	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P360284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068772	Turbidity	1.46	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360718

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068543	Chloride	2.32	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360425

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068731	Ammonia-N	0.209	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068842	Kjeldahl Nitrogen	1.81	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068770	NO2NO3-N	0.299	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360526

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068732	Total-P	6.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068863	O-Phosphate-P	1.57	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P360324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068727	Color (true)	0.503	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2320 B-97
Batch ID: P360800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068696	Total Alkalinity	0.611	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P360894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069322	Total Alkalinity	0.900	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P360682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068769	TDS	4.38	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P360656

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068769	TSS	5.88	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P360803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068696	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P360901

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2069322	Fluoride	0.516	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P360635

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2068733	Organic Carbon	1.21	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: A89962
Included Lab Sample IDs: 2068783, 2068784

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A89964
Included Lab Sample IDs: 2068787, 2068788

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	97.6	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A89978
Included Lab Sample IDs: 2068783, 2068784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A89981
Included Lab Sample IDs: 2068785, 2068786

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A90011
Included Lab Sample IDs: 2068785, 2068786

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A90036
Included Lab Sample IDs: 2068785, 2068786

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	108	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A90071
Included Lab Sample IDs: 2068783, 2068784

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

Reference Method: SM 5310 B-00
Run ID: A90082
Included Lab Sample IDs: 2068785, 2068786

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-97
Run ID: A90132
Included Lab Sample IDs: 2068783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A90132
Included Lab Sample IDs: 2068783

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A90147
Included Lab Sample IDs: 2068785, 2068786

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

Reference Method: SM 2320 B-97
Run ID: A90183
Included Lab Sample IDs: 2068784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A90183
Included Lab Sample IDs: 2068784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	100	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					1.46	
EPA 300.0 Rev. 2.1	Chloride	100	100	101		2.32	
	Sulfate	102	102	102			
EPA 350.1 Rev. 2.0	Ammonia-N	98.7	99.3	99.1			0.209
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	93.2	91.2			1.81
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	101			0.299
EPA 365.1 Rev. 2.0	Total-P	97.8	99.8	107			6.45
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.3	94.2	96.1			1.57
SM 2120 B	Color (true)	102				0.503	
SM 2320 B-97	Total Alkalinity	101				0.611	
	Total Alkalinity	101				0.900	
SM 2540 C-97	TDS					4.38	
SM 2540 D-97	TSS					5.88	
SM 4500 F-C-97	Fluoride	96.0	96.1	96.1			0.0
	Fluoride	96.2	96.4	95.8			0.516
SM 5310 B-00	Organic Carbon	97.6	97.8	99.1			1.21

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2068783, 2068784
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2068783, 2068784
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2068783, 2068784
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2068785, 2068786
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2068785, 2068786
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2068785, 2068786
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2068785, 2068786
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2068787, 2068788
SM 2120 B / E31780	True Color measured at 450 nm	2068783, 2068784
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2068783, 2068784
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2068783, 2068784
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2068783, 2068784
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2068783, 2068784
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2068785, 2068786

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	03/12/2019			03/12/2019 16:50	Adrian Shelby	2068783, 2068784
EPA 300.0 Rev. 2.1	03/12/2019			03/20/2019 01:19	Lipi Saha	2068783
	03/12/2019			03/20/2019 01:31	Lipi Saha	2068784
EPA 350.1 Rev. 2.0	03/12/2019			03/13/2019 12:47	Ping Hua	2068785
	03/12/2019			03/13/2019 12:49	Ping Hua	2068786
EPA 351.2 Rev. 2.0	03/12/2019	03/14/2019 12:00	Adrian Shelby	03/15/2019 12:07	Joseph Suarez	2068785
	03/12/2019	03/14/2019 12:00	Adrian Shelby	03/15/2019 12:09	Joseph Suarez	2068786
EPA 353.2 Rev. 2.0	03/12/2019			03/13/2019 11:37	Beverly Y. Sanders	2068785
	03/12/2019			03/13/2019 11:38	Beverly Y. Sanders	2068786
EPA 365.1 Rev. 2.0	03/12/2019	03/15/2019 14:20	Sima Feizi	03/19/2019 13:18	Beverly Y. Sanders	2068785
	03/12/2019	03/15/2019 14:20	Sima Feizi	03/19/2019 13:19	Beverly Y. Sanders	2068786
EPA 365.1 Rev. 2.0 dissolved	03/12/2019			03/12/2019 16:15	Jhamieka S. Greenwood	2068787
	03/12/2019			03/12/2019 16:16	Jhamieka S. Greenwood	2068788
SM 2120 B	03/12/2019			03/12/2019 16:20	Mariam Hanna	2068783
	03/12/2019			03/12/2019 16:21	Mariam Hanna	2068784
SM 2320 B-97	03/12/2019			03/20/2019 00:27	Dale L. Simmons	2068783
	03/12/2019			03/21/2019 02:42	Dale L. Simmons	2068784
SM 2540 C-97	03/12/2019			03/13/2019 14:03	Yijie Li	2068783, 2068784
SM 2540 D-97	03/12/2019			03/13/2019 14:03	Yijie Li	2068783, 2068784
SM 4500 F-C-97	03/12/2019			03/20/2019 00:27	Dale L. Simmons	2068783
	03/12/2019			03/21/2019 02:42	Dale L. Simmons	2068784
SM 5310 B-00	03/12/2019			03/18/2019 11:12	Julia Storbeck	2068785
	03/12/2019			03/18/2019 11:26	Julia Storbeck	2068786