Chemical Analysis Report

CEN-DIST-2019-01-31-01

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

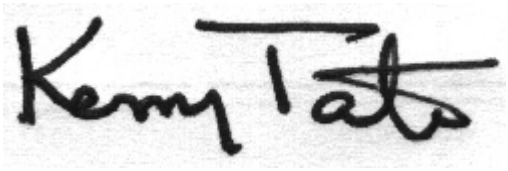
Event Description: **Haw / Deep / Lil Haw**
Request ID: **RQ-2019-01-28-41**
Customer: **CEN-DIST**
Project ID: **SMP**

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

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 15-FEB-2019 10:52



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 (2908) **Collection Date/Time: 01/30/2019 12:44**

Field ID: G2CE0167 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2058591	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P358139	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P358664	
		Sulfate	0.32	I	mg SO4/L	P358666	
	SM 2120 B	Color (true)	490		PCU	P358133	
	SM 2320 B-97	Total Alkalinity	1.7	I	mg CaCO3/L	P358651	
	SM 2540 C-97	TDS	120		mg/L	P358381	
	SM 2540 D-97	TSS	2	U	mg/L	P358291	
	SM 4500 F-C-97	Fluoride	0.044	I	mg F/L	P358655	
2058593	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P358468	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P358279	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P358304	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P358294	
	SM 5310 B-00	Organic Carbon	43		mg C/L	P358329	
2058595	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P358136	

Sample Location: LITTLE HAW CREEK @ 25M DS OF SR 40 (2630C)

Collection Date/Time: 01/30/2019 13:15

Field ID: G2CE0128

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2058592	EPA 180.1 Rev. 2.0	Turbidity	0.45		NTU	P358139	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P358664	
		Sulfate	0.50	I	mg SO4/L	P358666	
	SM 2120 B	Color (true)	270		PCU	P358133	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P358651	
	SM 2540 C-97	TDS	92		mg/L	P358381	
	SM 2540 D-97	TSS	2	U	mg/L	P358291	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P358655	
2058594	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P358468	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P358279	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P358304	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P358294	
	SM 5310 B-00	Organic Carbon	29		mg C/L	P358329	
2058596	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P358136	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P358139

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358664

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358666

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358468

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358279

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P358304

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P358294

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P358136

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

Reference Method: SM 2120 B
Batch ID: P358133

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P358651

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

Reference Method: SM 2540 C-97
Batch ID: P358381

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P358291

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P358655

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P358329

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: P358664

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358666

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358468

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358279

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P358304

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P358294

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P358136

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.4		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P358133

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.8		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P358651

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P358655

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.8		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P358329

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358664

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058536	Chloride	97.0		P	90 - 110
2058623	Chloride	98.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358666

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058536	Sulfate	99.1		P	90 - 110
2058623	Sulfate	98.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358468

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058593	Ammonia-N	97.8	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058625	Kjeldahl Nitrogen	110	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P358304

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058470	NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P358294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058625	Total-P	103	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P358136

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058611	O-Phosphate-P	95.2	97.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P358655

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2059451	Fluoride	97.4	97.4	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P358329

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2058610	Organic Carbon	98.4	98.1	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P358139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058580	Turbidity	3.21	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058536	Chloride	0.0678	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P358666

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058536	Sulfate	0.115	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P358468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058593	Ammonia-N	1.25	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P358279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058625	Kjeldahl Nitrogen	0.999	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P358304

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058470	NO2NO3-N	0.585	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P358294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058625	Total-P	3.09	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P358136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058611	O-Phosphate-P	2.69	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B
Batch ID: P358133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058620	Color (true)	4.26	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P358651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2059451	Total Alkalinity	0.465	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P358381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058580	TDS	1.01	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P358291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058580	TSS	3.12	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P358655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2059451	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P358329

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2058610	Organic Carbon	0.196	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: SM 2120 B
Run ID: A89126
Included Lab Sample IDs: 2058591, 2058592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A89127
Included Lab Sample IDs: 2058595, 2058596

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A89128
Included Lab Sample IDs: 2058591, 2058592

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A89167
Included Lab Sample IDs: 2058593, 2058594

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

Reference Method: SM 5310 B-00
Run ID: A89193
Included Lab Sample IDs: 2058593, 2058594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A89196
Included Lab Sample IDs: 2058593, 2058594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	106	P/P	90 - 110
Kjeldahl Nitrogen	106	108	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A89205
Included Lab Sample IDs: 2058591, 2058592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Chloride	101	101	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110
Sulfate	99.9	100	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A89209
Included Lab Sample IDs: 2058593, 2058594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A89234
Included Lab Sample IDs: 2058593, 2058594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	93.7	P/P	90 - 110
Ammonia-N	100	102	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A89314
Included Lab Sample IDs: 2058591, 2058592

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

Reference Method: SM 4500 F-C-97
Run ID: A89314
Included Lab Sample IDs: 2058591, 2058592

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					3.21	
EPA 300.0 Rev. 2.1	Chloride	101	97.0	98.3		0.0678	
	Sulfate	98.3	99.1	98.0		0.115	
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	97.8	99.2			1.25
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	110	108			0.999
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	99.5			0.585
EPA 365.1 Rev. 2.0	Total-P	101	103	99.2			3.09
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.4	95.2	97.8			2.69
SM 2120 B	Color (true)	99.8				4.26	
SM 2320 B-97	Total Alkalinity	102				0.465	
SM 2540 C-97	TDS					1.01	
SM 2540 D-97	TSS					3.12	
SM 4500 F-C-97	Fluoride	96.8	97.4	97.4			0.0
SM 5310 B-00	Organic Carbon	98.8	98.4	98.1			0.196

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2058591, 2058592
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2058591, 2058592
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2058591, 2058592
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2058593, 2058594
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2058593, 2058594
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2058593, 2058594
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2058593, 2058594
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2058595, 2058596
SM 2120 B / E31780	True Color measured at 450 nm	2058591, 2058592
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2058591, 2058592
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2058591, 2058592
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2058591, 2058592
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2058591, 2058592
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2058593, 2058594

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	01/31/2019			01/31/2019 16:32	Adrian Shelby	2058591, 2058592
EPA 300.0 Rev. 2.1	01/31/2019			02/07/2019 19:09	Lipi Saha	2058591
	01/31/2019			02/07/2019 19:54	Lipi Saha	2058592
EPA 350.1 Rev. 2.0	01/31/2019			02/04/2019 11:21	Ping Hua	2058593
	01/31/2019			02/04/2019 11:33	Ping Hua	2058594
EPA 351.2 Rev. 2.0	01/31/2019	02/04/2019 12:25	Adrian Shelby	02/05/2019 12:15	Joseph Suarez	2058593
	01/31/2019	02/04/2019 12:25	Adrian Shelby	02/05/2019 12:26	Joseph Suarez	2058594
EPA 353.2 Rev. 2.0	01/31/2019			02/04/2019 11:26	Beverly Y. Sanders	2058594
	01/31/2019			02/04/2019 12:11	Beverly Y. Sanders	2058593
EPA 365.1 Rev. 2.0	01/31/2019	02/04/2019 13:15	Sima Feizi	02/05/2019 16:41	Rosalyn Ballman	2058593
	01/31/2019	02/04/2019 13:15	Sima Feizi	02/05/2019 16:42	Rosalyn Ballman	2058594
EPA 365.1 Rev. 2.0 dissolved	01/31/2019			01/31/2019 15:49	Jhamieka S. Greenwood	2058595
	01/31/2019			01/31/2019 15:50	Jhamieka S. Greenwood	2058596
SM 2120 B	01/31/2019			01/31/2019 16:19	Julia Storbeck	2058591, 2058592
SM 2320 B-97	01/31/2019			02/09/2019 09:45	Dale L. Simmons	2058591
	01/31/2019			02/09/2019 09:54	Dale L. Simmons	2058592
SM 2540 C-97	01/31/2019			02/01/2019 15:25	Mariam Hanna	2058591, 2058592
SM 2540 D-97	01/31/2019			02/01/2019 16:00	Mariam Hanna	2058591, 2058592
SM 4500 F-C-97	01/31/2019			02/09/2019 09:45	Dale L. Simmons	2058591
	01/31/2019			02/09/2019 09:54	Dale L. Simmons	2058592
SM 5310 B-00	01/31/2019			02/05/2019 03:49	Julia Storbeck	2058593
	01/31/2019			02/05/2019 04:04	Julia Storbeck	2058594