

Chemical Analysis Report

SO-DIST-2019-03-15-01

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

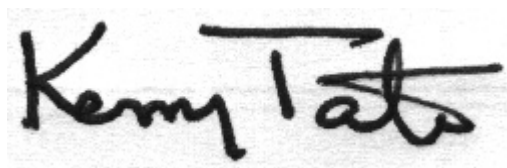
Event Description: **Caloosa Creeks**
Request ID: **RQ-2019-03-04-36**
Customer: **SO-DIST**
Project ID: **BMAP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Gary Snorek

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

Date Certified: 04-APR-2019 11:48

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: Orange River

Collection Date/Time: 03/13/2019 08:50

Field ID: G3SD0128

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2070435	SM 2120 B	Color (true)	30	AQ	PCU	P360521	
	SM 2320 B-97	Total Alkalinity	214		mg CaCO3/L	P360980	RPD
	SM 2540 D-97	TSS	3	I	mg/L	P360833	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P360993	
2070438	SM 5310 B-00 dissolved	Organic Carbon	8.6		mg C/L	P360898	
2070441	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P361064	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.67		mg N/L	P360873	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.026		mg N/L	P360782	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P360841	
	SM 5310 B-00	Organic Carbon	8.6		mg C/L	P360898	
2070444	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	IQ	mg P/L	P360531	

Ref. Method and Comment:

SM 2120 B: The sample expired prior to receipt.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired prior to receipt.

Sample Location: Telegraph Creek

Collection Date/Time: 03/13/2019 09:40

Field ID: G3SD0129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2070436	SM 2120 B	Color (true)	250	Q	PCU	P360521	
	SM 2320 B-97	Total Alkalinity	64		mg CaCO3/L	P360980	RPD
	SM 2540 D-97	TSS	3	I	mg/L	P360833	
	SM 4500 F-C-97	Fluoride	0.083	I	mg F/L	P360993	
2070439	SM 5310 B-00 dissolved	Organic Carbon	29		mg C/L	P360898	
2070442	EPA 350.1 Rev. 2.0	Ammonia-N	0.046		mg N/L	P361064	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P360874	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P360782	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P360841	
	SM 5310 B-00	Organic Carbon	30		mg C/L	P360898	
2070445	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.020	Q	mg P/L	P360531	

Ref. Method and Comment:

SM 2120 B: The sample expired prior to receipt.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired prior to receipt.

Sample Location: Hancock Creek

Collection Date/Time: 03/13/2019 10:30

Field ID: G3SD0130

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2070437	SM 2120 B	Color (true)	58	Q	PCU	P360521	
	SM 2320 B-97	Total Alkalinity	183		mg CaCO3/L	P360980	RPD
	SM 2540 D-97	TSS	8	I	mg/L	P360833	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P360993	
2070440	SM 5310 B-00 dissolved	Organic Carbon	14		mg C/L	P360898	
2070443	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P361064	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P360874	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013		mg N/L	P360782	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P360841	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P360898	
2070446	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.090	Q	mg P/L	P360531	

Ref. Method and Comment:

SM 2120 B: The sample expired upon receipt.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired upon receipt.

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361064

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360873

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360874

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360782

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360841

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360531

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

Reference Method: SM 2120 B
Batch ID: P360521

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P360980

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 D-97
Batch ID: P360833

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P360993

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P360898

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-00 dissolved
Batch ID: P360898

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361064

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360873

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360874

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360782

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360841

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: P360531

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.5		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P360521

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P360980

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

Reference Method: SM 4500 F-C-97
Batch ID: P360993

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	91 - 105

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P360898

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P360898

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361064

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070441	Ammonia-N	99.4	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070392	Kjeldahl Nitrogen	95.2	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070485	Kjeldahl Nitrogen	101	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070403	NO2NO3-N	97.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070443	Total-P	99.0	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360531

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070488	O-Phosphate-P	93.3	93.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P360993

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070482	Fluoride	96.6	96.0	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P360898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070485	Organic Carbon	96.4	100	P/P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P360898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2070485	Organic Carbon	96.4	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070441	Ammonia-N	1.17	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070392	Kjeldahl Nitrogen	1.96	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P360874

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070485	Kjeldahl Nitrogen	1.68	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P360782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070403	NO2NO3-N	2.53	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P360841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070443	Total-P	1.69	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P360531

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070488	O-Phosphate-P	0.107	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P360521

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070435	Color (true)	1.00	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P360980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070482	Total Alkalinity	3.01	Sample	F	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P360993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070482	Fluoride	0.514	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P360898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070485	Organic Carbon	3.17	Spike	P	0 - 20

Reference Method: SM 5310 B-00 dissolved
Batch ID: P360898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2070485	Organic Carbon	3.17	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: A90043

Included Lab Sample IDs: 2070435, 2070436, 2070437

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	85 - 115
Color (true)	101	103	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A90045

Included Lab Sample IDs: 2070444, 2070445, 2070446

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.9	96.6	P/P	90 - 110
O-Phosphate-P	98.0	97.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A90128

Included Lab Sample IDs: 2070441, 2070442, 2070443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A90184

Included Lab Sample IDs: 2070441, 2070442, 2070443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	99.0	P/P	90 - 110

Reference Method: SM 5310 B-00 dissolved

Run ID: A90184

Included Lab Sample IDs: 2070438, 2070439, 2070440

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.4	P/P	90 - 110
Organic Carbon	98.4	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A90199

Included Lab Sample IDs: 2070443

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A90201

Included Lab Sample IDs: 2070441, 2070442

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A90218

Included Lab Sample IDs: 2070435, 2070436, 2070437

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.7	P/P	90 - 110
Total Alkalinity	99.7	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A90218

Included Lab Sample IDs: 2070435, 2070436, 2070437

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A90221

Included Lab Sample IDs: 2070441, 2070442, 2070443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.2	99.0	P/P	90 - 110
Kjeldahl Nitrogen	99.0	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A90239

Included Lab Sample IDs: 2070441, 2070442, 2070443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	102	P/P	90 - 110
Ammonia-N	103	103	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	MS
EPA 350.1 Rev. 2.0	Ammonia-N	101	99.4	101		1.17
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	95.2	98.2		1.96
	Kjeldahl Nitrogen	100	101	98.4		1.68
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.5	97.5	100		2.53
EPA 365.1 Rev. 2.0	Total-P	101	99.0	101		1.69
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5	93.3	93.4		0.107
SM 2120 B	Color (true)	101			1.00	
SM 2320 B-97	Total Alkalinity	101			3.01	
SM 4500 F-C-97	Fluoride	98.2	96.6	96.0		0.514
SM 5310 B-00	Organic Carbon	100	96.4	100		3.17
SM 5310 B-00 dissolved	Organic Carbon	100	96.4	100		3.17

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2070441, 2070442, 2070443
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2070441, 2070442, 2070443
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2070441, 2070442, 2070443
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2070441, 2070442, 2070443
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2070444, 2070445, 2070446
SM 2120 B / E31780	True Color measured at 450 nm	2070435, 2070436, 2070437
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2070435, 2070436, 2070437
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2070435, 2070436, 2070437
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2070435, 2070436, 2070437
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2070441, 2070442, 2070443
SM 5310 B-00 dissolved / E31780	Dissolved Nonpurgeable Organic Carbon in filtered, aqueous matrices	2070438, 2070439, 2070440

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 350.1 Rev. 2.0	03/15/2019			03/26/2019 12:47	Julia Storbeck	2070441
	03/15/2019			03/26/2019 12:52	Julia Storbeck	2070442
	03/15/2019			03/26/2019 13:01	Julia Storbeck	2070443
EPA 351.2 Rev. 2.0	03/15/2019	03/21/2019 11:45	Adrian Shelby	03/22/2019 13:53	Joseph Suarez	2070441
	03/15/2019	03/21/2019 16:30	Adrian Shelby	03/22/2019 14:04	Joseph Suarez	2070442
	03/15/2019	03/21/2019 16:30	Adrian Shelby	03/22/2019 14:05	Joseph Suarez	2070443
EPA 353.2 Rev. 2.0	03/15/2019			03/20/2019 12:50	Lauren Lees	2070441
	03/15/2019			03/20/2019 12:51	Lauren Lees	2070442
	03/15/2019			03/20/2019 12:52	Lauren Lees	2070443
EPA 365.1 Rev. 2.0	03/15/2019	03/21/2019 12:46	Joseph Suarez	03/22/2019 15:05	Rosalyn Ballman	2070443
	03/15/2019	03/21/2019 12:46	Joseph Suarez	03/22/2019 16:53	Rosalyn Ballman	2070441
	03/15/2019	03/21/2019 12:46	Joseph Suarez	03/22/2019 16:54	Rosalyn Ballman	2070442
EPA 365.1 Rev. 2.0 dissolved	03/15/2019			03/15/2019 15:47	Jhamieka S. Greenwood	2070444
	03/15/2019			03/15/2019 15:59	Jhamieka S. Greenwood	2070446
	03/15/2019			03/15/2019 16:00	Jhamieka S. Greenwood	2070445
SM 2120 B	03/15/2019			03/15/2019 16:18	Blanca Fach	2070435
	03/15/2019			03/15/2019 16:19	Blanca Fach	2070437
	03/15/2019			03/15/2019 16:42	Blanca Fach	2070436
SM 2320 B-97	03/15/2019			03/25/2019 08:46	Dale L. Simmons	2070435
	03/15/2019			03/25/2019 08:59	Dale L. Simmons	2070436
	03/15/2019			03/25/2019 11:27	Dale L. Simmons	2070437
SM 2540 D-97	03/15/2019			03/18/2019 14:58	Yijie Li	2070435, 2070436, 2070437
SM 4500 F-C-97	03/15/2019			03/25/2019 08:46	Dale L. Simmons	2070435
	03/15/2019			03/25/2019 08:59	Dale L. Simmons	2070436
	03/15/2019			03/25/2019 11:27	Dale L. Simmons	2070437
SM 5310 B-00	03/15/2019			03/21/2019 18:55	Julia Storbeck	2070441
	03/15/2019			03/21/2019 19:08	Julia Storbeck	2070442
	03/15/2019			03/21/2019 19:20	Julia Storbeck	2070443
SM 5310 B-00 dissolved	03/15/2019			03/21/2019 17:55	Julia Storbeck	2070438
	03/15/2019			03/21/2019 18:07	Julia Storbeck	2070439
	03/15/2019			03/21/2019 18:43	Julia Storbeck	2070440