

Chemical Analysis Report

SO-DIST-2018-07-13-02

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-2018-07-09-37**
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

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: Colin Wright, Program Administrator

Date Certified: 31-JUL-2018 11:30



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: Telegraph Creek

Collection Date/Time: 07/12/2018 12:45

Field ID: G3SD0129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007206	SM 2120 B	Color (true)	380		PCU	P348422	
	SM 2320 B-97	Total Alkalinity	37		mg CaCO3/L	P348680	
	SM 2540 D-97	TSS	4	I	mg/L	P349045	
	SM 4500 F-C-97	Fluoride	0.075	I	mg F/L	P348684	
2007209	SM 5310 B-00 dissolved	Organic Carbon	32		mg C/L	P348654	
2007212	EPA 350.1 Rev. 2.0	Ammonia-N	0.043		mg N/L	P348871	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P348836	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P348493	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P348657	
	SM 5310 B-00	Organic Carbon	32		mg C/L	P348654	
2007215	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.079		mg P/L	P348425	

Ref. Method and Comment:

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Orange River

Collection Date/Time: 07/12/2018 13:40

Field ID: G3SD0128

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007207	SM 2120 B	Color (true)	55		PCU	P348422	
	SM 2320 B-97	Total Alkalinity	223		mg CaCO3/L	P348680	
	SM 2540 D-97	TSS	3	I	mg/L	P349045	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P348684	
2007210	SM 5310 B-00 dissolved	Organic Carbon	10		mg C/L	P348654	
2007213	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P348873	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P349181	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P348493	
	EPA 365.1 Rev. 2.0	Total-P	0.030		mg P/L	P348657	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P348654	
2007216	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P348425	

Sample Location: Hancock Creek

Collection Date/Time: 07/12/2018 15:10

Field ID: G3SD0130

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2007208	SM 2120 B	Color (true)	160		PCU	P348422	
	SM 2320 B-97	Total Alkalinity	145		mg CaCO3/L	P348680	
	SM 2540 D-97	TSS	9	I	mg/L	P349045	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P348684	
2007211	SM 5310 B-00 dissolved	Organic Carbon	19		mg C/L	P348654	
2007214	EPA 350.1 Rev. 2.0	Ammonia-N	0.039		mg N/L	P348873	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P349181	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.055		mg N/L	P348493	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P348657	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P348654	
2007217	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P348425	

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348871

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348873

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348836

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349181

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348493

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348657

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348425

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

Reference Method: SM 2120 B
Batch ID: P348422

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P348680

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P349045

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P348684

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P348654

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

Reference Method: SM 5310 B-00 dissolved
Batch ID: P348654

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: P348871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	106		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348873

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348836

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349181

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348493

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: P348657

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: P348425

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	95.7		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P348422

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.2		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P348680

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: P348684

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.6		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P348654

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P348654

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007155	Ammonia-N	105	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007213	Ammonia-N	98.6	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2009714	Kjeldahl Nitrogen	93.8	93.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348493

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007168	NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007213	Total-P	94.6	94.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348425

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007170	O-Phosphate-P	97.6	98.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P348684

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007096	Fluoride	96.6	97.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P348654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007067	Organic Carbon	101		P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P348654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2007067	Organic Carbon	101		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007155	Ammonia-N	5.37	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007213	Ammonia-N	2.40	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007213	Kjeldahl Nitrogen	0.494	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2009714	Kjeldahl Nitrogen	0.0548	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P348493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007168	NO2NO3-N	0.495	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007213	Total-P	0.0729	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P348425

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007170	O-Phosphate-P	0.715	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P348422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007153	Color (true)	1.40	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P348680

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007096	Total Alkalinity	0.457	Sample	P	0 - 1.6

Reference Method: SM 2540 D-97
Batch ID: P349045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007758	TSS	2.56	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P348684

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007096	Fluoride	0.516	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P348654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007067	Organic Carbon	0.860	Spike	P	0 - 20

Reference Method: SM 5310 B-00 dissolved
Batch ID: P348654

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2007067	Organic Carbon	0.860	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: A85221

Included Lab Sample IDs: 2007206, 2007207, 2007208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115
Color (true)	102	103	P/P	90 - 115
Color (true)	99.4	101	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A85222

Included Lab Sample IDs: 2007215, 2007216, 2007217

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.0	97.1	P/P	90 - 110
O-Phosphate-P	98.4	98.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A85247

Included Lab Sample IDs: 2007212, 2007213, 2007214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	103	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A85307

Included Lab Sample IDs: 2007212, 2007213, 2007214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	96.4	P/P	90 - 110

Reference Method: SM 5310 B-00 dissolved

Run ID: A85307

Included Lab Sample IDs: 2007209, 2007210, 2007211

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	96.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A85314

Included Lab Sample IDs: 2007206, 2007207, 2007208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A85314

Included Lab Sample IDs: 2007206, 2007207, 2007208

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85336

Included Lab Sample IDs: 2007212, 2007214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.9	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85367

Included Lab Sample IDs: 2007213

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A85375

Included Lab Sample IDs: 2007212, 2007213, 2007214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	102	P/P	90 - 110
Ammonia-N	105	103	P/P	90 - 110
Ammonia-N	105	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85405

Included Lab Sample IDs: 2007212

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85543

Included Lab Sample IDs: 2007213, 2007214

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.0	107	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		LCS	Precision	MS
						SMP	
EPA 350.1 Rev. 2.0	Ammonia-N	106	105	99.5			5.37
	Ammonia-N	105	98.6	102			2.40
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102					0.494
	Kjeldahl Nitrogen	110	93.8	93.7			0.0548
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	102				0.495
EPA 365.1 Rev. 2.0	Total-P	97.8	94.6	94.7			0.0729
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	95.7	97.6	98.3			0.715
SM 2120 B	Color (true)	98.2				1.40	
SM 2320 B-97	Total Alkalinity	102				0.457	
SM 2540 D-97	TSS					2.56	
SM 4500 F-C-97	Fluoride	98.6	96.6	97.2			0.516
SM 5310 B-00	Organic Carbon	95.2	101				0.860
SM 5310 B-00 dissolved	Organic Carbon	95.2	101				0.860

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2007212, 2007213, 2007214
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2007212, 2007213, 2007214
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2007212, 2007213, 2007214
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2007212, 2007213, 2007214
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2007215, 2007216, 2007217
SM 2120 B / E31780	True Color measured at 450 nm	2007206, 2007207, 2007208
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2007206, 2007207, 2007208
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2007206, 2007207, 2007208
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2007206, 2007207, 2007208
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2007212, 2007213, 2007214
SM 5310 B-00 dissolved / E31780	Dissolved Nonpurgeable Organic Carbon in filtered, aqueous matrices	2007209, 2007210, 2007211

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	07/13/2018			07/20/2018 11:51	Ping Hua	2007212
	07/13/2018			07/20/2018 12:54	Ping Hua	2007213
	07/13/2018			07/20/2018 13:09	Ping Hua	2007214
EPA 351.2 Rev. 2.0	07/13/2018	07/20/2018 11:00	Adrian Shelby	07/23/2018 09:45	Joseph Suarez	2007212
	07/13/2018	07/26/2018 11:30	Adrian Shelby	07/27/2018 14:38	Joseph Suarez	2007213
	07/13/2018	07/26/2018 11:30	Adrian Shelby	07/27/2018 14:40	Joseph Suarez	2007214
EPA 353.2 Rev. 2.0	07/13/2018			07/16/2018 13:53	Lauren Bottorf	2007212
	07/13/2018			07/16/2018 13:55	Lauren Bottorf	2007213
	07/13/2018			07/16/2018 13:56	Lauren Bottorf	2007214
EPA 365.1 Rev. 2.0	07/13/2018	07/18/2018 14:10	Sima Feizi	07/19/2018 09:32	Beverly Y. Sanders	2007212
	07/13/2018	07/18/2018 14:10	Sima Feizi	07/19/2018 09:33	Beverly Y. Sanders	2007214
	07/13/2018	07/18/2018 14:10	Sima Feizi	07/20/2018 11:29	Beverly Y. Sanders	2007213
EPA 365.1 Rev. 2.0 dissolved	07/13/2018			07/13/2018 16:00	Julia Storbeck	2007215
	07/13/2018			07/13/2018 16:01	Julia Storbeck	2007217
	07/13/2018			07/13/2018 16:22	Julia Storbeck	2007216
SM 2120 B	07/13/2018			07/13/2018 16:05	Tanya Welborn	2007207
	07/13/2018			07/13/2018 16:31	Tanya Welborn	2007206
	07/13/2018			07/13/2018 16:34	Tanya Welborn	2007208
SM 2320 B-97	07/13/2018			07/18/2018 02:33	Dale L. Simmons	2007206
	07/13/2018			07/18/2018 02:44	Dale L. Simmons	2007207
	07/13/2018			07/18/2018 02:55	Dale L. Simmons	2007208
SM 2540 D-97	07/13/2018			07/18/2018 16:21	Yijie Li	2007206, 2007207, 2007208
SM 4500 F-C-97	07/13/2018			07/18/2018 02:33	Dale L. Simmons	2007206
	07/13/2018			07/18/2018 02:44	Dale L. Simmons	2007207
	07/13/2018			07/18/2018 02:55	Dale L. Simmons	2007208
SM 5310 B-00	07/13/2018			07/18/2018 03:31	Megan Treadwell	2007212
	07/13/2018			07/18/2018 03:46	Megan Treadwell	2007213
	07/13/2018			07/18/2018 04:01	Megan Treadwell	2007214
SM 5310 B-00 dissolved	07/13/2018			07/18/2018 02:46	Megan Treadwell	2007209
	07/13/2018			07/18/2018 03:01	Megan Treadwell	2007210
	07/13/2018			07/18/2018 03:16	Megan Treadwell	2007211