Chemical Analysis Report

SW-DIST-2018-04-24-01

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

Event Description: **SMP - DO Monitoring Retrieval**
Request ID: **RQ-2018-04-23-29**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Sarah Meyer

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: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 11-MAY-2018 11:32

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: WOODS CREEK @ SLOW SPREED SIGN **Collection Date/Time: 04/23/2018 09:45**

Field ID: G1SW0087 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986705	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P344000	
	SM 2320 B-97	Total Alkalinity	126		mg CaCO3/L	P344174	RPD
	SM 2540 D-97	TSS	11		mg/L	P344680	
	SM 4500 F-C-97	Fluoride	1.0		mg F/L	P344178	
1986707	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P344190	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P34990	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P344031	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P344039	
	SM 5310 B-00	Organic Carbon	5.7		mg C/L	P344291	
1986709	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.064		mg P/L	P343972	

Sample Location: DOUBLE BRANCH @ STATE ST. **Collection Date/Time: 04/23/2018 11:17**

Field ID: G1SW0088 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1986706	EPA 180.1 Rev. 2.0	Turbidity	4.6	A	NTU	P344001	
	SM 2320 B-97	Total Alkalinity	133		mg CaCO3/L	P344176	RPD
	SM 2540 D-97	TSS	11		mg/L	P344680	
	SM 4500 F-C-97	Fluoride	0.75		mg F/L	P344179	
1986708	EPA 350.1 Rev. 2.0	Ammonia-N	0.059		mg N/L	P344190	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.96		mg N/L	P344087	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P344031	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P344139	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P344291	
1986710	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.072		mg P/L	P343972	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P344000

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P344001

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344190

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P344087

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P34990

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344031

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344039

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344139

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343972

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

Reference Method: SM 2320 B-97
Batch ID: P344174

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

Reference Method: SM 2320 B-97
Batch ID: P344176

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

Reference Method: SM 2540 D-97
Batch ID: P344680

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P344178

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P344179

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P344291

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: P344190

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P344087

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P34990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.6		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344039

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344139

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344139

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343972

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

Reference Method: SM 2320 B-97
Batch ID: P344174

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

Reference Method: SM 2320 B-97
Batch ID: P344176

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

Reference Method: SM 4500 F-C-97
Batch ID: P344178

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.3		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P344179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.7		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P344291

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986707	Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P344087

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P344087

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1985153	Kjeldahl Nitrogen	104	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P34990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986624	Kjeldahl Nitrogen	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986630	NO2NO3-N	97.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986624	Total-P	93.8	94.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344139

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1987130	Total-P	93.5	95.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986710	O-Phosphate-P	98.7	98.2	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P344178

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986386	Fluoride	94.7	96.2	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P344179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1987127	Fluoride	92.4	92.4	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P344291

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1986430	Organic Carbon	93.6	94.0	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P344000

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986634	Turbidity	1.94	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P344001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986706	Turbidity	6.48	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P344190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986707	Ammonia-N	0.530	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P344087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1985153	Kjeldahl Nitrogen	0.622	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P34990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986624	Kjeldahl Nitrogen	0.0316	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P344031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986630	NO2NO3-N	1.53	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986624	Total-P	0.676	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P344139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1987130	Total-P	1.67	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P343972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986710	O-Phosphate-P	0.294	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P344174

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986386	Total Alkalinity	1.95	Sample	F	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P344176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1987127	Total Alkalinity	1.73	Sample	F	0 - 1.6

Reference Method: SM 2540 D-97
Batch ID: P344680

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986622	TSS	7.09	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P344178

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986386	Fluoride	0.953	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P344179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1987127	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P344291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1986430	Organic Carbon	0.318	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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A83428
Included Lab Sample IDs: 1986709, 1986710

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.2	97.8	P/P	90 - 110
O-Phosphate-P	99.4	98.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A83437
Included Lab Sample IDs: 1986705, 1986706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.0	P/P	95 - 105
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A83453
Included Lab Sample IDs: 1986707, 1986708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A83467
Included Lab Sample IDs: 1986707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.2	99.2	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A83492
Included Lab Sample IDs: 1986705, 1986706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.3	P/P	90 - 110
Total Alkalinity	99.9	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A83492
Included Lab Sample IDs: 1986705, 1986706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	99.1	P/P	90 - 110
Fluoride	99.1	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A83494
Included Lab Sample IDs: 1986707, 1986708

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A83510
Included Lab Sample IDs: 1986708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A83513
Included Lab Sample IDs: 1986707

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	100	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A83539
Included Lab Sample IDs: 1986707, 1986708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.8	98.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A83544
Included Lab Sample IDs: 1986708

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	105	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					1.94	
	Turbidity					6.48	
EPA 350.1 Rev. 2.0	Ammonia-N	103	103	103			0.530
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	104	104			0.622
	Kjeldahl Nitrogen	98.6	103	103			0.0316
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	97.0	98.5			1.53
EPA 365.1 Rev. 2.0	Total-P	105	93.8	94.6			0.676
	Total-P	103	93.5	95.2			1.67
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	98.7	98.2			0.294
SM 2320 B-97	Total Alkalinity	101				1.95	
	Total Alkalinity	102				1.73	
SM 2540 D-97	TSS					7.09	
SM 4500 F-C-97	Fluoride	95.3	94.7	96.2			0.953
	Fluoride	95.7	92.4	92.4			0.0
SM 5310 B-00	Organic Carbon	96.4	93.6	94.0			0.318

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1986705, 1986706
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1986707, 1986708
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1986707, 1986708
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1986707, 1986708
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1986707, 1986708
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1986709, 1986710
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1986705, 1986706
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1986705, 1986706
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1986705, 1986706
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1986707, 1986708

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	04/24/2018			04/24/2018 16:04	William L. Brown IV	1986705, 1986706
EPA 350.1 Rev. 2.0	04/24/2018			04/25/2018 13:32	Ping Hua	1986707
	04/24/2018			04/25/2018 13:37	Ping Hua	1986708
EPA 351.2 Rev. 2.0	04/24/2018	04/25/2018 10:20	Adrian Shelby	04/25/2018 16:49	Tanya Welborn	1986707
	04/24/2018	04/26/2018 10:20	Adrian Shelby	04/27/2018 13:38	Joseph Suarez	1986708
EPA 353.2 Rev. 2.0	04/24/2018			04/25/2018 12:24	Lauren Bottorf	1986707
	04/24/2018			04/25/2018 12:25	Lauren Bottorf	1986708
EPA 365.1 Rev. 2.0	04/24/2018	04/25/2018 13:20	Sima Feizi	04/27/2018 12:56	Beverly Y. Sanders	1986707
	04/24/2018	04/26/2018 12:50	Sima Feizi	04/30/2018 12:33	Beverly Y. Sanders	1986708
EPA 365.1 Rev. 2.0 dissolved	04/24/2018			04/24/2018 14:42	Megan Treadwell	1986710
	04/24/2018			04/24/2018 15:05	Megan Treadwell	1986709
SM 2320 B-97	04/24/2018			04/27/2018 03:23	Dale L. Simmons	1986705
	04/24/2018			04/27/2018 05:46	Dale L. Simmons	1986706
SM 2540 D-97	04/24/2018			04/27/2018 16:08	Yijie Li	1986705, 1986706
SM 4500 F-C-97	04/24/2018			04/26/2018 23:52	Dale L. Simmons	1986705
	04/24/2018			04/27/2018 04:18	Dale L. Simmons	1986706
SM 5310 B-00	04/24/2018			04/28/2018 12:42	Julia Storbeck	1986707
	04/24/2018			04/28/2018 12:59	Julia Storbeck	1986708