

Chemical Analysis Report

NE-DIST-2017-06-07-01

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

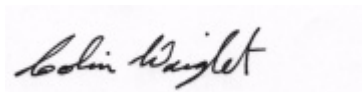
Event Description: **Biven Arm, and Lake**
Request ID: **RQ-2017-06-05-20**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
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Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 30-JUN-2017 13:25



NON-CONFORMANCE REPORT INCLUDED

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: Biven Arm Lake

Collection Date/Time: 06/06/2017 09:25

Field ID: G1NE0071 06062017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904162	EPA 180.1 Rev. 2.0	Turbidity	39		NTU	P326403	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P327031	
		Sulfate	9.6		mg SO4/L	P327035	
	SM 2120 B	Color (true)	18		PCU	P326393	
	SM 2320 B-97	Total Alkalinity	59		mg CaCO3/L	P326593	
	SM 2540 C-97	TDS	104		mg/L	P326795	
	SM 2540 D-97	TSS	62		mg/L	P327024	
	SM 4500 F-C-97	Fluoride	0.24		mg F/L	P326597	
1904164	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P326409	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	3.4		mg N/L	P326496	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P326520	
	EPA 365.1 Rev. 2.0	Total-P	0.34		mg P/L	P326531	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P326561	
1904166	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	IY	mg P/L	P326397	

Ref. Method and Comment:

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Sample was filtered imore than 15 minutes after collection.

Sample Location: Biven Arm Lake DUPLICATE

Collection Date/Time: 06/06/2017 09:30

Field ID: G1NE007106062017D

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904163	EPA 180.1 Rev. 2.0	Turbidity	38		NTU	P326403	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P327031	
		Sulfate	9.9		mg SO4/L	P327035	
	SM 2120 B	Color (true)	18	A	PCU	P326393	
	SM 2320 B-97	Total Alkalinity	59		mg CaCO3/L	P326593	
	SM 2540 C-97	TDS	100		mg/L	P326795	
	SM 2540 D-97	TSS	68		mg/L	P327024	
	SM 4500 F-C-97	Fluoride	0.24		mg F/L	P326597	
1904165	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P326409	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	3.4		mg N/L	P326496	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P326520	
	EPA 365.1 Rev. 2.0	Total-P	0.34		mg P/L	P326531	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P326561	

Ref. Method and Comment:

EPA 350.1 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Non-Conformance Report

NCR ID: 6481

Event(s)

NE-DIST-2017-06-07-01

Job(s)

Sample(s)

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Receiving

Observation: Missing Ortho sample for Biven Arm Lake Duplicate.

Non-Conformance Report

NCR ID: 6481

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
Resolution:	Customer (Jeremy Parrish) contacted, email attached to scan files. Ortho sample was never collected for this location.		

Authorized by/Date: Ramsey K. White 6/26/2017

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P326403

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327031

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327035

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326409

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326496

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326520

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326531

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326531

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326397

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

Reference Method: SM 2120 B
Batch ID: P326393

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P326593

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

Reference Method: SM 2540 C-97
Batch ID: P326795

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P327024

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P326597

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P326561

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: P327031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327031

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327035

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326409

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326496

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326520

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326531

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326397

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

Reference Method: SM 2320 B-97
Batch ID: P326593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P326597

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P326561

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.9		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P327031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904262	Chloride	103		P	90 - 110
1904265	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P327035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904262	Sulfate	100		P	90 - 110
1904265	Sulfate	103		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P326496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904171	Kjeldahl Nitrogen	98.1	98.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P326520

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904139	NO2NO3-N	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P326531

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904084	Total-P	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P326397

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904133	O-Phosphate-P	97.0	95.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Batch ID: P326597

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1903965	Fluoride	97.4	97.9	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P326561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1903968	Organic Carbon	99.4		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P326403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904110	Turbidity	1.51	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P327031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904262	Chloride	1.47	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P327035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904262	Sulfate	1.23	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P326409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904053	Ammonia-N	2.23	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P326496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904171	Kjeldahl Nitrogen	0.0362	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P326520

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904139	NO2NO3-N	0.855	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326531

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904084	Total-P	0.438	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904133	O-Phosphate-P	1.14	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P326393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904163	Color (true)	4.09	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P326593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903965	Total Alkalinity	0.722	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P326795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904052	TDS	1.89	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P327024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904052	TSS	6.19	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P326597

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903965	Fluoride	0.495	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P326561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903968	Organic Carbon	3.10	Spike	P	0 - 20

Quality Assurance Report Precision

* 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: A76929

Included Lab Sample IDs: 1904162, 1904163

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	105	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A76930

Included Lab Sample IDs: 1904166

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A76931

Included Lab Sample IDs: 1904162, 1904163

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A76933

Included Lab Sample IDs: 1904164, 1904165

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A76981

Included Lab Sample IDs: 1904164, 1904165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A76997

Included Lab Sample IDs: 1904164, 1904165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	92.9	92.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A77001

Included Lab Sample IDs: 1904162, 1904163

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A77001

Included Lab Sample IDs: 1904162, 1904163

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77007

Included Lab Sample IDs: 1904164, 1904165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77042

Included Lab Sample IDs: 1904164, 1904165

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.7	99.2	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77076

Included Lab Sample IDs: 1904162, 1904163

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	105	P/P	90 - 110
Sulfate	109	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					1.51	
EPA 300.0 Rev. 2.1	Chloride	103	103	104		1.47	
	Sulfate	103	100	103		1.23	
EPA 350.1 Rev. 2.0	Ammonia-N	96.6					2.23
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	98.1	98.1			0.0362
EPA 353.2 Rev. 2.0	NO2NO3-N	104	104	103			0.855
EPA 365.1 Rev. 2.0	Total-P	95.0	101	101			0.438
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	97.0	95.9			1.14
SM 2120 B	Color (true)					4.09	
SM 2320 B-97	Total Alkalinity	103				0.722	
SM 2540 C-97	TDS					1.89	
SM 2540 D-97	TSS					6.19	
SM 4500 F-C-97	Fluoride	98.2	97.4	97.9			0.495
SM 5310 B-00	Organic Carbon	92.9	99.4				3.10

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1904162, 1904163
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1904162, 1904163
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1904162, 1904163
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1904164, 1904165
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1904164, 1904165
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1904164, 1904165
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1904164, 1904165
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1904166
SM 2120 B / E31780	True Color measured at 450 nm	1904162, 1904163
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1904162, 1904163
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1904162, 1904163
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1904162, 1904163
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1904162, 1904163
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1904164, 1904165

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	06/07/2017			06/07/2017 16:15	Sima Feizi	1904162, 1904163
EPA 300.0 Rev. 2.1	06/07/2017			06/16/2017	Julia Storbeck	1904162, 1904163
EPA 350.1 Rev. 2.0	06/07/2017			06/07/2017	Julie Michelle Frank	1904164, 1904165
EPA 351.2 Rev. 2.0	06/07/2017	06/09/2017	Adrian Shelby	06/13/2017	Joseph Suarez	1904164, 1904165
EPA 353.2 Rev. 2.0	06/07/2017			06/09/2017	Beverly Y. Sanders	1904164, 1904165
EPA 365.1 Rev. 2.0	06/07/2017	06/09/2017	Vijayalakshmi Reddy	06/12/2017	Lipi Saha	1904164, 1904165
EPA 365.1 Rev. 2.0 dissolved	06/07/2017			06/07/2017 15:37	Virginia P. Brown	1904166
SM 2120 B	06/07/2017			06/07/2017 15:37	Tanya Welborn	1904162
	06/07/2017			06/07/2017 15:39	Tanya Welborn	1904163
SM 2320 B-97	06/07/2017			06/09/2017	Dale L. Simmons	1904162, 1904163
SM 2540 C-97	06/07/2017			06/09/2017	Yijie Li	1904162, 1904163
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