

Chemical Analysis Report

NW-DIST-2017-04-12-01

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

Event Description: **TMDL Bioassessment**

Request ID: **RQ-2017-04-03-73**

Customer: **NW-DIST**

Project ID: **SMP**

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Date Certified: 08-MAY-2017 12:57



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: DEER MOSS CREEK UPSTREAM COLLEGE BLVD

Collection Date/Time: 04/11/2017 13:55

Field ID: G3NW0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1887907	EPA 180.1 Rev. 2.0	Turbidity	0.75		NTU	P323267	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P323745	
		Sulfate	10		mg SO4/L	P323747	
	SM 2120 B	Color (true)	5.9	I	PCU	P323260	
	SM 2320 B-97	Total Alkalinity	25		mg CaCO3/L	P323889	
	SM 2540 C-97	TDS	71		mg/L	P323655	
	SM 2540 D-97	TSS	3	I	mg/L	P323887	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P324305	
1887909	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P323276	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P323499	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.0		mg N/L	P323399	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P323424	
	SM 5310 B-00	Organic Carbon	1.4		mg C/L	P323369	
1887911	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.043		mg P/L	P323295	

Ref. Method and Comment:

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

Sample Location: DEER MOSS CREEK DOWNSTREAM COLLEGE BLVD

Collection Date/Time: 04/11/2017 11:45

Field ID: G3NW0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1887908	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P323267	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P323745	
		Sulfate	9.8		mg SO4/L	P323747	
	SM 2120 B	Color (true)	7.5		PCU	P323260	
	SM 2320 B-97	Total Alkalinity	24		mg CaCO3/L	P323889	
	SM 2540 C-97	TDS	67		mg/L	P323656	
	SM 2540 D-97	TSS	3	I	mg/L	P323888	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P324305	
1887910	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P323276	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P323499	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.9		mg N/L	P323399	
	EPA 365.1 Rev. 2.0	Total-P	0.046		mg P/L	P323395	
	SM 5310 B-00	Organic Carbon	1.4		mg C/L	P323369	
1887912	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.041		mg P/L	P323295	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323267

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323745

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323747

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323276

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323499

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323399

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: P323395

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323424

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323295

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P323260

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P323889

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

Reference Method: SM 2540 C-97
Batch ID: P323655

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P323656

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P323887

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P323888

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P324305

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P323369

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: P323745

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: P323745

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323747

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323276

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: P323499

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: P323399

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323395

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323424

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: P323295

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

Reference Method: SM 2320 B-97
Batch ID: P323889

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	95 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
 Batch ID: P324305

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P323369

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	106		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P323745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887928	Chloride	100		P	90 - 110
1888029	Chloride	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P323747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887928	Sulfate	93.4		P	90 - 110
1888029	Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P323276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887909	Ammonia-N	99.0	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P323499

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887909	Kjeldahl Nitrogen	94.6	94.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P323399

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887867	NO2NO3-N	97.0	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P323395

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887910	Total-P	103	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323424

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887937	Total-P	98.7	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323295

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887692	O-Phosphate-P	95.8	97.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P324305

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887806	Fluoride	95.8	93.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P323369

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887685	Organic Carbon	104	105	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887847	Turbidity	9.77	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888029	Chloride	0.0975	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888029	Sulfate	0.113	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887909	Ammonia-N	1.06	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323499

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887909	Kjeldahl Nitrogen	0.0534	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887867	NO2NO3-N	1.04	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887910	Total-P	2.73	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323424

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887937	Total-P	4.99	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887692	O-Phosphate-P	1.08	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P323260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887927	Color (true)	2.96	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P323889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888726	Total Alkalinity	0.299	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P323655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887750	TDS	0.830	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P323656

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888364	TDS	1.03	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P324305

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887806	Fluoride	2.00	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P323369

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887685	Organic Carbon	0.381	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: A75747
Included Lab Sample IDs: 1887907, 1887908

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.7	101	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A75748
Included Lab Sample IDs: 1887907, 1887908

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	100	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A75750
Included Lab Sample IDs: 1887909, 1887910

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A75755
Included Lab Sample IDs: 1887911, 1887912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.6	97.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A75775

Included Lab Sample IDs: 1887909, 1887910

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75786

Included Lab Sample IDs: 1887909, 1887910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	92.5	92.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75826

Included Lab Sample IDs: 1887909, 1887910

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75842

Included Lab Sample IDs: 1887909, 1887910

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	99.1	P/P	90 - 110
Kjeldahl Nitrogen	102	98.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75903

Included Lab Sample IDs: 1887907, 1887908

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.4	100	P/P	90 - 110
Chloride	100	106	P/P	90 - 110
Sulfate	96.0	98.2	P/P	90 - 110
Sulfate	98.2	101	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A75952

Included Lab Sample IDs: 1887907, 1887908

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	105	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A76090

Included Lab Sample IDs: 1887907, 1887908

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.2	95.0	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					9.77	
EPA 300.0 Rev. 2.1	Chloride	100	99.5	100		0.0975	
	Sulfate	97.5	97.3	93.4		0.113	
EPA 350.1 Rev. 2.0	Ammonia-N	103	99.0	100			1.06
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	94.6	94.6			0.0534
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	97.0	97.0	96.0			1.04
EPA 365.1 Rev. 2.0	Total-P	101	103	106			2.73
	Total-P	101	98.7	105			4.99
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7	95.8	97.1			1.08
SM 2120 B	Color (true)					2.96	
SM 2320 B-97	Total Alkalinity	105				0.299	
SM 2540 C-97	TDS					0.830	
	TDS					1.03	
SM 4500 F-C-97	Fluoride	95.9	95.8	93.6			2.00
SM 5310 B-00	Organic Carbon	106	104	105			0.381

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1887907, 1887908
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1887907, 1887908
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1887907, 1887908
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1887909, 1887910
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1887909, 1887910
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1887909, 1887910
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1887909, 1887910
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1887911, 1887912
SM 2120 B / E31780	True Color measured at 450 nm	1887907, 1887908
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1887907, 1887908
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1887907, 1887908
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1887907, 1887908
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1887907, 1887908
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1887909, 1887910

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	04/12/2017			04/12/2017 15:06	Sima Feizi	1887907, 1887908
EPA 300.0 Rev. 2.1	04/12/2017			04/20/2017	Ping Hua	1887907, 1887908
EPA 350.1 Rev. 2.0	04/12/2017			04/12/2017	Julie Michelle Frank	1887909, 1887910
EPA 351.2 Rev. 2.0	04/12/2017	04/17/2017	Adrian Shelby	04/18/2017	Joseph Suarez	1887909, 1887910
EPA 353.2 Rev. 2.0	04/12/2017			04/14/2017	Beverly Y. Sanders	1887909, 1887910
EPA 365.1 Rev. 2.0	04/12/2017	04/14/2017	Vijayalakshmi Reddy	04/17/2017	Lipi Saha	1887909, 1887910
EPA 365.1 Rev. 2.0 dissolved	04/12/2017			04/12/2017 15:12	Anthony C. Onicha	1887911
	04/12/2017			04/12/2017 15:13	Anthony C. Onicha	1887912
SM 2120 B	04/12/2017			04/12/2017 15:11	Julia Storbeck	1887907
	04/12/2017			04/12/2017 15:12	Julia Storbeck	1887908
SM 2320 B-97	04/12/2017			04/22/2017	Dale L. Simmons	1887907, 1887908
SM 2540 C-97	04/12/2017			04/14/2017	Yijie Li	1887907, 1887908
SM 2540 D-97	04/12/2017			04/14/2017	Yijie Li	1887907, 1887908
SM 4500 F-C-97	04/12/2017			05/01/2017	Dale L. Simmons	1887907, 1887908
SM 5310 B-00	04/12/2017			04/13/2017	Julie Michelle Frank	1887909, 1887910