

Chemical Analysis Report

NW-DIST-2019-10-10-02

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

Event Description: **Defuniak Run**
Request ID: **RQ-2019-09-30-56**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 29-OCT-2019 14:58

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

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: Eightmile Creek upstream of CR 181 (South of) Collection Date/Time: 10/09/2019 10:20

Field ID: G3NW0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127019	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P372281	
	EPA 300.0 Rev. 2.1	Chloride	2.9		mg Cl/L	P372760	
		Sulfate	1.3		mg SO4/L	P372764	
	SM 2120 B	Color (true)	13	A	PCU	P372311	
	SM 2320 B-97	Total Alkalinity	66		mg CaCO3/L	P372639	
	SM 2540 C-97	TDS	87		mg/L	P372892	
	SM 2540 D-97	TSS	2	U	mg/L	P372497	
	SM 4500 F-C-97	Fluoride	0.043	I	mg F/L	P372642	
2127020	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P372691	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.088	I	mg N/L	P372395	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P372442	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P372462	
	SM 5310 B-00	Organic Carbon	1.3		mg C/L	P372572	
2127021	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P372288	

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: GUM CREEK

Collection Date/Time: 10/09/2019 11:27

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2127022	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P372281	
	EPA 300.0 Rev. 2.1	Chloride	3.8		mg Cl/L	P372760	
		Sulfate	0.70		mg SO4/L	P372764	
	SM 2120 B	Color (true)	20		PCU	P372311	
	SM 2320 B-97	Total Alkalinity	1.6	I	mg CaCO3/L	P372639	
	SM 2540 C-97	TDS	22	I	mg/L	P372892	
	SM 2540 D-97	TSS	2	U	mg/L	P372497	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P372642	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P372692	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.14	I	mg N/L	P372395	
2127023	EPA 353.2 Rev. 2.0	NO2NO3-N	0.96		mg N/L	P372442	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P372462	
	SM 5310 B-00	Organic Carbon	1.7		mg C/L	P372572	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P372288	
2127024	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P372288	

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372281

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372760

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372764

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372691

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372692

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372395

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372442

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: P372462

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372288

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: P372311

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P372639

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

Reference Method: SM 2540 C-97
Batch ID: P372892

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P372497

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P372642

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P372572

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: P372760

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372764

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372691

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372692

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372395

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: P372442

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372462

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372288

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

Reference Method: SM 2120 B
Batch ID: P372311

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P372639

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P372642

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P372572

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372760

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126745	Chloride	99.1		P	90 - 110
2126954	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372764

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126745	Sulfate	99.6		P	90 - 110
2126954	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127020	Ammonia-N	99.0	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127023	Ammonia-N	100	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372395

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127132	Kjeldahl Nitrogen	102	98.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372442

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126913	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126935	Total-P	93.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P372288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2127021	O-Phosphate-P	100	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P372642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126771	Fluoride	94.5	93.4	P/P	89 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P372572

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2126911	Organic Carbon	97.7	103	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P372281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126966	Turbidity	3.11	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372760

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126745	Chloride	0.640	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372764

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126745	Sulfate	0.826	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127020	Ammonia-N	1.74	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127023	Ammonia-N	0.326	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P372395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127132	Kjeldahl Nitrogen	2.46	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372442

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126913	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P372462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126935	Total-P	6.51	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P372288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127021	O-Phosphate-P	1.39	Spike	P	0 - 20

Reference Method: SM 2120 B
 Batch ID: P372311

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127019	Color (true)	6.63	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P372639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126771	Total Alkalinity	0.605	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P372892

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2127130	TDS	4.85	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P372642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126771	Fluoride	0.958	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P372572

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2126911	Organic Carbon	4.07	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94862

Included Lab Sample IDs: 2127019, 2127022

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94863

Included Lab Sample IDs: 2127021, 2127024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.7	101	P/P	90 - 110
O-Phosphate-P	99.8	99.7	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A94874

Included Lab Sample IDs: 2127019, 2127022

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94918

Included Lab Sample IDs: 2127020, 2127023

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94982

Included Lab Sample IDs: 2127020, 2127023

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.3	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A94999

Included Lab Sample IDs: 2127020, 2127023

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.9	94.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A95003

Included Lab Sample IDs: 2127019, 2127022

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	100	P/P	90 - 110
Chloride	100	99.9	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110
Sulfate	101	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A95020

Included Lab Sample IDs: 2127020, 2127023

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

Reference Method: SM 2320 B-97

Run ID: A95021

Included Lab Sample IDs: 2127019, 2127022

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A95021

Included Lab Sample IDs: 2127019, 2127022

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A95045

Included Lab Sample IDs: 2127020, 2127023

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	102	P/P	90 - 110
Ammonia-N	102	101	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 180.1 Rev. 2.0	Turbidity					3.11	
EPA 300.0 Rev. 2.1	Chloride	100	99.1	100		0.640	
	Sulfate	100	99.6	102		0.826	
EPA 350.1 Rev. 2.0	Ammonia-N	99.9	99.0	101			1.74
	Ammonia-N	99.1	100	100			0.326
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	102	98.6			2.46
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	100			0.0
EPA 365.1 Rev. 2.0	Total-P	97.0	93.8	100			6.51
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104	100	102			1.39
SM 2120 B	Color (true)	101				6.63	
SM 2320 B-97	Total Alkalinity	105				0.605	
SM 2540 C-97	TDS					4.85	
SM 4500 F-C-97	Fluoride	96.1	94.5	93.4			0.958
SM 5310 B-00	Organic Carbon	101	97.7	103			4.07

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2127019, 2127022
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2127019, 2127022
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2127019, 2127022
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2127020, 2127023
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2127020, 2127023
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2127020, 2127023
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2127020, 2127023
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2127021, 2127024
SM 2120 B / E31780	True Color measured at 450 nm	2127019, 2127022
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2127019, 2127022
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2127019, 2127022
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2127019, 2127022
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2127019, 2127022
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2127020, 2127023

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	10/10/2019			10/10/2019 14:53	Rosalyn Ballman	2127019, 2127022
EPA 300.0 Rev. 2.1	10/10/2019			10/17/2019 06:29	Jhamieka S. Greenwood	2127019
	10/10/2019			10/17/2019 07:05	Jhamieka S. Greenwood	2127022
EPA 350.1 Rev. 2.0	10/10/2019			10/17/2019 11:47	Ping Hua	2127020
	10/10/2019			10/17/2019 12:14	Ping Hua	2127023
EPA 351.2 Rev. 2.0	10/10/2019	10/14/2019 11:32	Sima Feizi	10/15/2019 17:04	Jhamieka S. Greenwood	2127020
	10/10/2019	10/14/2019 11:32	Sima Feizi	10/15/2019 17:06	Jhamieka S. Greenwood	2127023
EPA 353.2 Rev. 2.0	10/10/2019			10/14/2019 10:17	Beverly Y. Sanders	2127020
	10/10/2019			10/14/2019 11:16	Beverly Y. Sanders	2127023
EPA 365.1 Rev. 2.0	10/10/2019	10/15/2019 13:09	Lipi Saha	10/16/2019 12:24	Rosalyn Ballman	2127020
	10/10/2019	10/15/2019 13:09	Lipi Saha	10/16/2019 12:25	Rosalyn Ballman	2127023
EPA 365.1 Rev. 2.0 dissolved	10/10/2019			10/10/2019 16:11	Julia Storbeck	2127021
	10/10/2019			10/10/2019 16:49	Julia Storbeck	2127024
SM 2120 B	10/10/2019			10/10/2019 17:07	Madeline Funaro	2127019
	10/10/2019			10/10/2019 17:08	Madeline Funaro	2127022
SM 2320 B-97	10/10/2019			10/15/2019 10:54	Dale L. Simmons	2127019
	10/10/2019			10/15/2019 11:06	Dale L. Simmons	2127022
SM 2540 C-97	10/10/2019			10/11/2019 16:16	Rosalyn Ballman	2127019, 2127022
SM 2540 D-97	10/10/2019			10/11/2019 16:16	Rosalyn Ballman	2127019, 2127022
SM 4500 F-C-97	10/10/2019			10/15/2019 10:54	Dale L. Simmons	2127019
	10/10/2019			10/15/2019 11:06	Dale L. Simmons	2127022
SM 5310 B-00	10/10/2019			10/16/2019 02:26	Madeline Funaro	2127020
	10/10/2019			10/16/2019 02:38	Madeline Funaro	2127023