Chemical Analysis Report

NW-DIST-2021-04-28-01

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

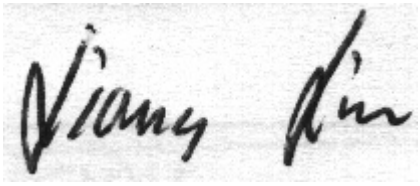
Event Description: **Milton East Run**
Request ID: **RQ-2021-04-26-52**
Customer: **NW-DIST**
Project ID: **SMP**

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

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: Liang Lin, Environmental Administrator

Date Certified: 18-MAY-2021 10:55



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 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: Manning Creek upstream of Manning Creek Rd Collection Date/Time: 04/26/2021 12:29

Field ID: G4NW0435 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2243135	EPA 180.1 Rev. 2.0	Turbidity	14	A	NTU	P397318	
	EPA 300.0 Rev. 2.1	Chloride	3.3		mg Cl/L	P398189	
		Sulfate	1.2		mg SO4/L	P398193	
	SM 2120 B-2011	Color (true)	84	AQ	PCU	P397335	
	SM 2320 B-2011	Total Alkalinity	1.9	I	mg CaCO3/L	P397862	
	SM 2540 C-2011	TDS	37		mg/L	P397784	
	SM 2540 D-2011	TSS	8	I	mg/L	P397592	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P397524	
2243137	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P397900	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P397469	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.34		mg N/L	P397543	
	EPA 365.1 Rev. 2.0	Total-P	0.029		mg P/L	P397436	
	SM 5310 B-2011	Organic Carbon	6.4		mg C/L	P397750	
2243139	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P397307	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2120 B-2011: The sample expired upon receipt.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Big Coldwater Creek West Fork upstream of Walling rd **Collection Date/Time: 04/26/2021 12:05**

Field ID: G4NW0436 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2243136	EPA 180.1 Rev. 2.0	Turbidity	12	A	NTU	P397325	
	EPA 300.0 Rev. 2.1	Chloride	5.1		mg Cl/L	P398189	
		Sulfate	1.7		mg SO4/L	P398193	
	SM 2120 B-2011	Color (true)	51	Q	PCU	P397335	
	SM 2320 B-2011	Total Alkalinity	3.3		mg CaCO3/L	P397862	
	SM 2540 C-2011	TDS	46		mg/L	P397784	
	SM 2540 D-2011	TSS	8	I	mg/L	P397592	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P397524	
2243138	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P397900	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.29		mg N/L	P397469	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.87		mg N/L	P397543	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P397436	
	SM 5310 B-2011	Organic Carbon	3.8		mg C/L	P397750	
2243140	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P397307	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2120 B-2011: The sample expired upon receipt.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Non-Conformance Report

NCR ID: 8802

Event(s)	Job(s)	Sample(s)	Test(s)
NW-DIST-2021-04-28-01			

NCR Type: SHIPPING/RECEIVING **NCR Category: Samples arrived late**

Observation: One of two coolers arrived a day late by UPS, samples received within the acceptable temperature range.

Resolution: Customer contacted, email correspondence attached to sample submittal forms.
Biology and Chemistry supervisors were notified by email.
Data will be qualified as appropriate

Authorized by/Date: Joshua Ayres 5/3/2021

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: P397318

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P397325

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398189

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398193

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397900

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397469

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397543

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397436

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397307

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P397335

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P397862

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

Reference Method: SM 2540 C-2011
Batch ID: P397784

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P397592

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P397524

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P397750

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: P398189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398193

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397900

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397469

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397543

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: P397436

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397307

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	96.4		P	90 - 110

Reference Method: SM 2120 B-2011
Batch ID: P397335

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P397862

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.2		P	93 - 104

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P397524

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.6		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P397750

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.4		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242699	Chloride	98.5		P	90 - 110
2243040	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398193

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243040	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243137	Ammonia-N	97.2	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243058	Kjeldahl Nitrogen	102	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397543

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243137	NO2NO3-N	96.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397436

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243059	Total-P	107	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397307

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243140	O-Phosphate-P	97.8	97.0	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P397524

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243503	Fluoride	97.4	98.5	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P397750

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243138	Organic Carbon	92.7	95.9	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P397318

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243135	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P397325

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243136	Turbidity	0.866	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242699	Chloride	0.266	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P398193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242699	Sulfate	0.564	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243137	Ammonia-N	0.516	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243058	Kjeldahl Nitrogen	3.28	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397543

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243137	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243059	Total-P	2.49	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243140	O-Phosphate-P	0.821	Spike	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P397335

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243135	Color (true)	0.0308	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P397862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243252	Total Alkalinity	3.39	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P397784

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243124	TDS	4.96	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P397524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243503	Fluoride	0.929	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P397750

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243138	Organic Carbon	2.82	Spike	P	0 - 20

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A105044
Included Lab Sample IDs: 2243139, 2243140

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A105050
Included Lab Sample IDs: 2243135

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.0	P/P	95 - 105

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A105052
Included Lab Sample IDs: 2243136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.5	98.5	P/P	95 - 105

Reference Method: SM 2120 B-2011
Run ID: A105056
Included Lab Sample IDs: 2243135, 2243136

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A105112
Included Lab Sample IDs: 2243137, 2243138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	98.2	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A105119
Included Lab Sample IDs: 2243135, 2243136

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A105129
Included Lab Sample IDs: 2243137, 2243138

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105136
Included Lab Sample IDs: 2243137, 2243138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.8	94.1	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105136
Included Lab Sample IDs: 2243137, 2243138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.9	95.8	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A105220
Included Lab Sample IDs: 2243137, 2243138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	96.7	P/P	90 - 110
Organic Carbon	96.7	98.2	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A105263
Included Lab Sample IDs: 2243135, 2243136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	105	96.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A105291
Included Lab Sample IDs: 2243137, 2243138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.2	97.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A105392
Included Lab Sample IDs: 2243135, 2243136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Sulfate	102	102	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					0.0	
	Turbidity					0.866	
EPA 300.0 Rev. 2.1	Chloride	99.2	98.5	100		0.266	
	Sulfate	100	101			0.564	
EPA 350.1 Rev. 2.0	Ammonia-N	98.2	97.2	97.8			0.516
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	102	106			3.28
EPA 353.2 Rev. 2.0	NO2NO3-N	102	96.8				0.0
EPA 365.1 Rev. 2.0	Total-P	104	107	104			2.49
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.4	97.8	97.0			0.821
SM 2120 B-2011	Color (true)	100				0.0308	
SM 2320 B-2011	Total Alkalinity	99.2				3.39	
SM 2540 C-2011	TDS					4.96	
SM 4500 F-C-2011	Fluoride	99.6	97.4	98.5			0.929
SM 5310 B-2011	Organic Carbon	92.4	92.7	95.9			2.82

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2243135, 2243136
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2243135, 2243136
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2243135, 2243136
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2243137, 2243138
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2243137, 2243138
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2243137, 2243138
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2243137, 2243138
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2243139, 2243140
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2243135, 2243136
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2243135, 2243136
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2243135, 2243136
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2243135, 2243136
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2243135, 2243136
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2243137, 2243138

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	04/28/2021			04/28/2021 11:42	Yen Ta	2243136
	04/28/2021			04/28/2021 12:18	Yen Ta	2243135
EPA 300.0 Rev. 2.1	04/28/2021			05/14/2021 01:15	Lipi Saha	2243135
	04/28/2021			05/14/2021 01:27	Lipi Saha	2243136
EPA 350.1 Rev. 2.0	04/28/2021			05/10/2021 13:14	Ping Hua	2243137
	04/28/2021			05/10/2021 13:18	Ping Hua	2243138
EPA 351.2 Rev. 2.0	04/28/2021	04/30/2021 13:52	Benjamin T. Nordmann	05/03/2021 12:56	Virginia P. Brown	2243137
	04/28/2021	04/30/2021 13:52	Benjamin T. Nordmann	05/03/2021 13:01	Virginia P. Brown	2243138
EPA 353.2 Rev. 2.0	04/28/2021			05/03/2021 10:23	Beverly Y. Sanders	2243137
	04/28/2021			05/03/2021 11:54	Beverly Y. Sanders	2243138
EPA 365.1 Rev. 2.0	04/28/2021	04/29/2021 15:25	Yen Ta	04/30/2021 15:37	Shengyu Ding	2243137
	04/28/2021	04/29/2021 15:25	Yen Ta	04/30/2021 15:38	Shengyu Ding	2243138
EPA 365.1 Rev. 2.0 dissolved	04/28/2021			04/28/2021 12:04	Patrick M. Roche	2243140
	04/28/2021			04/28/2021 12:07	Patrick M. Roche	2243139
SM 2120 B-2011	04/28/2021			04/28/2021 12:30	Madeline Gruver	2243135
	04/28/2021			04/28/2021 12:37	Madeline Gruver	2243136
SM 2320 B-2011	04/28/2021			05/09/2021 13:41	Dale L. Simmons	2243135
	04/28/2021			05/09/2021 13:47	Dale L. Simmons	2243136
SM 2540 C-2011	04/28/2021			04/30/2021 15:21	Yijie Li	2243135, 2243136
SM 2540 D-2011	04/28/2021			04/30/2021 15:17	Yijie Li	2243135, 2243136
SM 4500 F-C-2011	04/28/2021			05/02/2021 06:14	Dale L. Simmons	2243135
	04/28/2021			05/02/2021 06:24	Dale L. Simmons	2243136
SM 5310 B-2011	04/28/2021			05/05/2021 23:54	Madeline Gruver	2243138
	04/28/2021			05/06/2021 02:14	Madeline Gruver	2243137