

Chemical Analysis Report

NE-DIST-2020-01-24-01

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

Event Description: **Vilano Boat**
Request ID: **RQ-2020-01-20-18**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 14-FEB-2020 10:31



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: St. Augustine Inlet SE of Vilano Bt. Rmp.

Collection Date/Time: 01/23/2020 09:55

Field ID: G5NE0587

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2151522	EPA 180.1 Rev. 2.0	Turbidity	19		NTU	P377784	
	EPA 300.0 Rev. 2.1	Bromide	67		mg Br/L	P378843	
	SM 2320 B-2011	Total Alkalinity	116		mg CaCO3/L	P378051	
	SM 2540 D-2011	TSS	37		mg/L	P377865	
	SM 4500 F-C-2011	Fluoride	1.2		mg F/L	P378056	
2151523	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P378393	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P378168	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P378076	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P377860	
	SM 5310 B-2011	Organic Carbon	2.2		mg C/L	P377960	
2151524	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	I	mg P/L	P377761	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Ximanies Creek @ 1st SE Bend

Collection Date/Time: 01/23/2020 10:25

Field ID: 27010053

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2151516	EPA 180.1 Rev. 2.0	Turbidity	10	A	NTU	P377784	
	EPA 300.0 Rev. 2.1	Bromide	67		mg Br/L	P378843	
	SM 2320 B-2011	Total Alkalinity	118		mg CaCO3/L	P378051	
	SM 2540 D-2011	TSS	18		mg/L	P377865	
	SM 4500 F-C-2011	Fluoride	1.2		mg F/L	P378056	
2151518	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P378016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.34	I	mg N/L	P378168	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.01	I	mg N/L	P378076	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P377860	
	SM 5310 B-2011	Organic Carbon	2.7		mg C/L	P377960	
2151520	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.015		mg P/L	P377761	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Sombrero Creek @ 1st North Bend Above the ICW **Collection Date/Time: 01/23/2020 11:00**

Field ID: 27010010

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2151517	EPA 180.1 Rev. 2.0	Turbidity	4.8		NTU	P377784	
	EPA 300.0 Rev. 2.1	Bromide	64		mg Br/L	P378843	
	SM 2320 B-2011	Total Alkalinity	119		mg CaCO3/L	P378051	
	SM 2540 D-2011	TSS	13		mg/L	P377865	
	SM 4500 F-C-2011	Fluoride	1.2		mg F/L	P378056	
2151519	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P378016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.29	I	mg N/L	P378168	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P378076	
	EPA 365.1 Rev. 2.0	Total-P	0.036		mg P/L	P377860	
	SM 5310 B-2011	Organic Carbon	3.3		mg C/L	P377960	
2151521	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.013		mg P/L	P377761	

Ref. Method and Comment:

SM 2540 D-2011: 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: P377784

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P378843

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378016

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378393

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P378168

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P378076

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: P377860

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P377761

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

Reference Method: SM 2320 B-2011
Batch ID: P378051

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P377865

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P378056

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P377960

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: P378843

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378393

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P378168

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.4		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P378076

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P377860

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: P377761

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

Reference Method: SM 2320 B-2011
Batch ID: P378051

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P378056

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.7		P	92 - 103

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P377960

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P378843

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2151911	Bromide	98.7	98.1	P/P	90 - 110
2152919	Bromide	97.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2152281	Ammonia-N	96.6	97.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378393

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2151523	Ammonia-N	107	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P378168

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2151511	Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P378076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2151196	NO2NO3-N	99.4	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P377860

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2148986	Total-P	94.0	91.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P377761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2151520	O-Phosphate-P	97.8	96.5	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P378056

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2149240	Fluoride	97.5	99.0	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P377960

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2151519	Organic Carbon	99.4	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P377784

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2151516	Turbidity	1.94	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P378843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2151911	Bromide	0.320	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2152281	Ammonia-N	0.912	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2151523	Ammonia-N	0.556	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P378168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2151511	Kjeldahl Nitrogen	2.45	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P378076

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2151196	NO2NO3-N	0.475	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P377860

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2148986	Total-P	2.85	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P377761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2151520	O-Phosphate-P	1.16	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P378051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2151510	Total Alkalinity	0.240	Sample	P	0 - 2.8

Reference Method: SM 4500 F-C-2011
Batch ID: P378056

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2149240	Fluoride	0.953	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P377960

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2151519	Organic Carbon	0.833	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: A97136

Included Lab Sample IDs: 2151520, 2151521, 2151524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	96.2	P/P	90 - 110
O-Phosphate-P	98.6	99.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A97142

Included Lab Sample IDs: 2151516, 2151517, 2151522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: SM 5310 B-2011

Run ID: A97198

Included Lab Sample IDs: 2151518, 2151519, 2151523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	99.0	P/P	90 - 110
Organic Carbon	98.4	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97221

Included Lab Sample IDs: 2151518, 2151519

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	98.6	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A97228

Included Lab Sample IDs: 2151516, 2151517, 2151522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	101	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A97228

Included Lab Sample IDs: 2151516, 2151517, 2151522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97243

Included Lab Sample IDs: 2151518, 2151519, 2151523

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97256

Included Lab Sample IDs: 2151518, 2151519, 2151523

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97256

Included Lab Sample IDs: 2151518, 2151519, 2151523

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A97298

Included Lab Sample IDs: 2151518, 2151519, 2151523

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97349

Included Lab Sample IDs: 2151523

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A97501

Included Lab Sample IDs: 2151516, 2151517, 2151522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	101	99.5	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 SMP	MS
			LCS				
EPA 180.1 Rev. 2.0	Turbidity					1.94	
EPA 300.0 Rev. 2.1	Bromide	102	98.7	98.1	97.4		0.320
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	96.6	97.9			0.912
	Ammonia-N	102	107	108			0.556
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.4	101	104			2.45
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	101	99.4	99.9			0.475
EPA 365.1 Rev. 2.0	Total-P	101	94.0	91.2			2.85
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	97.8	96.5			1.16
SM 2320 B-2011	Total Alkalinity	102				0.240	
SM 4500 F-C-2011	Fluoride	97.7	97.5	99.0			0.953
SM 5310 B-2011	Organic Carbon	98.7	100	99.4			0.833

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2151516, 2151517, 2151522
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2151516, 2151517, 2151522
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2151518, 2151519, 2151523
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2151518, 2151519, 2151523
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2151518, 2151519, 2151523
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2151518, 2151519, 2151523
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2151520, 2151521, 2151524
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2151516, 2151517, 2151522
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2151516, 2151517, 2151522
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2151516, 2151517, 2151522
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2151518, 2151519, 2151523

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	01/24/2020			01/24/2020 16:34	Yen Ta	2151516, 2151517, 2151522
EPA 300.0 Rev. 2.1	01/24/2020			02/11/2020 23:52	Elliott Rodriguez	2151516
	01/24/2020			02/12/2020 00:10	Elliott Rodriguez	2151517
	01/24/2020			02/12/2020 00:27	Elliott Rodriguez	2151522
EPA 350.1 Rev. 2.0	01/24/2020			01/30/2020 13:11	Ping Hua	2151518
	01/24/2020			01/30/2020 13:12	Ping Hua	2151519
	01/24/2020			02/04/2020 13:01	Ping Hua	2151523
EPA 351.2 Rev. 2.0	01/24/2020	02/03/2020 11:45	Jhamieka S. Greenwood	02/04/2020 10:23	Jhamieka S. Greenwood	2151518
	01/24/2020	02/03/2020 11:45	Jhamieka S. Greenwood	02/04/2020 10:24	Jhamieka S. Greenwood	2151519
	01/24/2020	02/03/2020 11:45	Jhamieka S. Greenwood	02/04/2020 10:26	Jhamieka S. Greenwood	2151523
EPA 353.2 Rev. 2.0	01/24/2020			01/31/2020 09:31	Beverly Y. Sanders	2151518
	01/24/2020			01/31/2020 09:33	Beverly Y. Sanders	2151519
	01/24/2020			01/31/2020 09:34	Beverly Y. Sanders	2151523
EPA 365.1 Rev. 2.0	01/24/2020	01/29/2020 15:35	Yen Ta	01/31/2020 12:55	Benjamin T. Nordmann	2151518
	01/24/2020	01/29/2020 15:35	Yen Ta	01/31/2020 12:56	Benjamin T. Nordmann	2151519
	01/24/2020	01/29/2020 15:35	Yen Ta	01/31/2020 12:57	Benjamin T. Nordmann	2151523
EPA 365.1 Rev. 2.0 dissolved	01/24/2020			01/24/2020 16:33	Carlos Miranda	2151520
	01/24/2020			01/24/2020 17:12	Carlos Miranda	2151521
	01/24/2020			01/24/2020 17:13	Carlos Miranda	2151524
SM 2320 B-2011	01/24/2020			01/30/2020 02:49	Dale L. Simmons	2151516
	01/24/2020			01/30/2020 03:02	Dale L. Simmons	2151517
	01/24/2020			01/30/2020 03:14	Dale L. Simmons	2151522
SM 2540 D-2011	01/24/2020			01/27/2020 16:10	Sima Feizi	2151516, 2151517, 2151522
SM 4500 F-C-2011	01/24/2020			01/30/2020 02:17	Dale L. Simmons	2151516
	01/24/2020			01/30/2020 02:21	Dale L. Simmons	2151517
	01/24/2020			01/30/2020 02:25	Dale L. Simmons	2151522
SM 5310 B-2011	01/24/2020			01/30/2020 07:09	Madeline Funaro	2151519
	01/24/2020			01/30/2020 09:20	Madeline Funaro	2151518
	01/24/2020			01/30/2020 09:32	Madeline Funaro	2151523