Chemical Analysis Report

NE-DIST-2020-02-21-01

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

Event Description: **Palm Valley Boat**
Request ID: **RQ-2020-02-17-20**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
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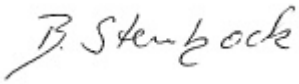
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 13-MAR-2020 16:43



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: Marshall Creek 450m above Mouth **Collection Date/Time: 02/20/2020 10:00**

Field ID: G5NE0588 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160029	EPA 180.1 Rev. 2.0	Turbidity	5.3	A	NTU	P379383	
	EPA 300.0 Rev. 2.1	Bromide	58		mg Br/L	P379838	
	SM 2320 B-2011	Total Alkalinity	121		mg CaCO3/L	P379903	
	SM 2540 D-2011	TSS	9	I	mg/L	P379829	
	SM 4500 F-C-2011	Fluoride	1.1		mg F/L	P380180	
2160032	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P379809	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P379751	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P380208	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P379987	
	SM 5310 B-2011	Organic Carbon	5.5		mg C/L	P379591	
2160035	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.020		mg P/L	P379440	

Sample Location: Capo Creek 300m Above Mouth **Collection Date/Time: 02/20/2020 10:25**

Field ID: 27010019 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160030	EPA 180.1 Rev. 2.0	Turbidity	6.4		NTU	P379383	
	EPA 300.0 Rev. 2.1	Bromide	61		mg Br/L	P379838	
	SM 2320 B-2011	Total Alkalinity	122		mg CaCO3/L	P379903	
	SM 2540 D-2011	TSS	20		mg/L	P379829	
	SM 4500 F-C-2011	Fluoride	1.0		mg F/L	P380180	
2160033	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P379809	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P379751	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P379698	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P379987	
	SM 5310 B-2011	Organic Carbon	5.0		mg C/L	P379591	
2160036	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.017		mg P/L	P379440	

Sample Location: Deep Creek 1st NE Bend From Mouth **Collection Date/Time: 02/20/2020 10:45**

Field ID: 27010069 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160031	EPA 180.1 Rev. 2.0	Turbidity	6.3		NTU	P379383	
	EPA 300.0 Rev. 2.1	Bromide	56		mg Br/L	P379838	
	SM 2320 B-2011	Total Alkalinity	121		mg CaCO3/L	P379903	
	SM 2540 D-2011	TSS	12	A	mg/L	P379829	
	SM 4500 F-C-2011	Fluoride	0.98		mg F/L	P380180	
2160034	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P379809	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P379751	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P379698	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P379987	
	SM 5310 B-2011	Organic Carbon	5.7		mg C/L	P379591	
2160037	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.020		mg P/L	P379440	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379383

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379838

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379809

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379751

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379698

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380208

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379987

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379440

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

Reference Method: SM 2320 B-2011
Batch ID: P379903

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P379829

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P380180

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P379591

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: P379838

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	98.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379809

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379751

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: P379698

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380208

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379987

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379440

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

Reference Method: SM 2320 B-2011
Batch ID: P379903

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

Reference Method: SM 4500 F-C-2011
Batch ID: P380180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P379591

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379838

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159821	Bromide	98.2	98.7	P/P	90 - 110
2159829	Bromide	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159442	Ammonia-N	99.6	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379751

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159767	Kjeldahl Nitrogen	96.2	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379698

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159529	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380208

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159067	NO2NO3-N	95.8	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159766	Total-P	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379440

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159910	O-Phosphate-P	98.8	97.0	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Batch ID: P380180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160182	Fluoride	100	100	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P379591

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160032	Organic Carbon	101	99.7	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379383

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160029	Turbidity	13.6	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379838

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159821	Bromide	0.428	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159442	Ammonia-N	0.464	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159767	Kjeldahl Nitrogen	8.72	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379698

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159529	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380208

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159067	NO2NO3-N	2.96	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159766	Total-P	0.994	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159910	O-Phosphate-P	1.32	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2320 B-2011
Batch ID: P379903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160182	Total Alkalinity	0.125	Sample	P	0 - 2.8

Reference Method: SM 2540 D-2011
Batch ID: P379829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160031	TSS	6.67	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P380180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160182	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P379591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160032	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 180.1 Rev. 2.0
Run ID: A97729
Included Lab Sample IDs: 2160029, 2160030, 2160031

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A97744
Included Lab Sample IDs: 2160035, 2160036, 2160037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.1	96.8	P/P	90 - 110
O-Phosphate-P	97.7	97.1	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A97799
Included Lab Sample IDs: 2160032, 2160033, 2160034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	103	P/P	90 - 110
Organic Carbon	104	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A97812
Included Lab Sample IDs: 2160033, 2160034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A97877
Included Lab Sample IDs: 2160032, 2160033, 2160034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A97886
Included Lab Sample IDs: 2160032, 2160033, 2160034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A97896
Included Lab Sample IDs: 2160029, 2160030, 2160031

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

Reference Method: SM 2320 B-2011
Run ID: A97924
Included Lab Sample IDs: 2160029, 2160030, 2160031

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A97924
Included Lab Sample IDs: 2160029, 2160030, 2160031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	103	P/P	90 - 110
Total Alkalinity	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A97992
Included Lab Sample IDs: 2160032, 2160033, 2160034

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

Reference Method: SM 4500 F-C-2011
Run ID: A98031
Included Lab Sample IDs: 2160029, 2160030, 2160031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	97.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A98039
Included Lab Sample IDs: 2160032

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	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						13.6	
EPA 300.0 Rev. 2.1	Bromide	98.8	98.2	98.7	100			0.428
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	99.6	99.0				0.464
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	96.2	106				8.72
EPA 353.2 Rev. 2.0	NO2NO3-N	102	102	102				0.0
	NO2NO3-N	99.5	95.8	98.8				2.96
EPA 365.1 Rev. 2.0	Total-P	107	100	101				0.994
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	98.8	97.0				1.32
SM 2320 B-2011	Total Alkalinity	102					0.125	
SM 2540 D-2011	TSS						6.67	
SM 4500 F-C-2011	Fluoride	99.3	100	100				0.0
SM 5310 B-2011	Organic Carbon	99.6	101	99.7				0.833

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2160029, 2160030, 2160031
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2160029, 2160030, 2160031
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2160032, 2160033, 2160034
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2160032, 2160033, 2160034
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2160032, 2160033, 2160034
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2160032, 2160033, 2160034
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2160035, 2160036, 2160037
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2160029, 2160030, 2160031
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2160029, 2160030, 2160031
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2160029, 2160030, 2160031
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2160032, 2160033, 2160034

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	02/21/2020			02/21/2020 16:26	Yen Ta	2160029, 2160030, 2160031
EPA 300.0 Rev. 2.1	02/21/2020			02/28/2020 07:23	Elliott Rodriguez	2160029
	02/21/2020			02/28/2020 07:41	Elliott Rodriguez	2160030
	02/21/2020			02/28/2020 07:58	Elliott Rodriguez	2160031
EPA 350.1 Rev. 2.0	02/21/2020			02/27/2020 15:12	Ping Hua	2160032
	02/21/2020			02/27/2020 15:14	Ping Hua	2160033
	02/21/2020			02/27/2020 15:15	Ping Hua	2160034
EPA 351.2 Rev. 2.0	02/21/2020	02/27/2020 12:00	Sima Feizi	02/28/2020 09:26	Jhamieka S. Greenwood	2160032
	02/21/2020	02/27/2020 12:00	Sima Feizi	02/28/2020 09:27	Jhamieka S. Greenwood	2160033
	02/21/2020	02/27/2020 12:00	Sima Feizi	02/28/2020 09:29	Jhamieka S. Greenwood	2160034
EPA 353.2 Rev. 2.0	02/21/2020			02/26/2020 10:33	Beverly Y. Sanders	2160033
	02/21/2020			02/26/2020 10:34	Beverly Y. Sanders	2160034
	02/21/2020			03/06/2020 10:23	Lauren Lees	2160032
EPA 365.1 Rev. 2.0	02/21/2020	03/03/2020 13:55	Yen Ta	03/04/2020 15:06	Benjamin T. Nordmann	2160032
	02/21/2020	03/03/2020 13:55	Yen Ta	03/04/2020 15:07	Benjamin T. Nordmann	2160033
	02/21/2020	03/03/2020 13:55	Yen Ta	03/04/2020 15:08	Benjamin T. Nordmann	2160034
EPA 365.1 Rev. 2.0 dissolved	02/21/2020			02/21/2020 19:25	Virginia P. Brown	2160035
	02/21/2020			02/21/2020 19:30	Virginia P. Brown	2160036
	02/21/2020			02/21/2020 19:31	Virginia P. Brown	2160037
SM 2320 B-2011	02/21/2020			02/29/2020 14:12	Dale L. Simmons	2160029
	02/21/2020			02/29/2020 14:24	Dale L. Simmons	2160030
	02/21/2020			02/29/2020 15:36	Dale L. Simmons	2160031
SM 2540 D-2011	02/21/2020			02/25/2020 13:41	Yijie Li	2160029, 2160030, 2160031
SM 4500 F-C-2011	02/21/2020			03/05/2020 15:08	Dale L. Simmons	2160029
	02/21/2020			03/05/2020 15:12	Dale L. Simmons	2160030
	02/21/2020			03/05/2020 15:16	Dale L. Simmons	2160031
SM 5310 B-2011	02/21/2020			02/25/2020 06:20	Madeline Funaro	2160032
	02/21/2020			02/25/2020 08:55	Madeline Funaro	2160033
	02/21/2020			02/25/2020 09:23	Madeline Funaro	2160034