Chemical Analysis Report

CEN-DIST-2017-01-13-03

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

Event Description: **Glencoe/Mizners/Little Haw**
Request ID: **RQ-2017-01-09-35**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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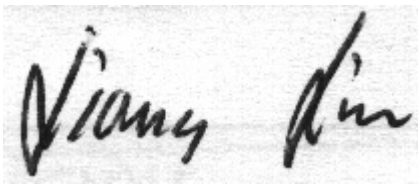
Date Certified: 09-FEB-2017 14:48



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical group are included in this report: Nutrients.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Glencoe Ditches @ 225m S of Turnbull Bay Rd Collection Date/Time: 01/12/2017 10:50

Field ID: G5CE0077 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864044	EPA 180.1 Rev. 2.0	Turbidity	5.7		NTU	P318251	
	EPA 300.0 Rev. 2.1	Chloride	93		mg Cl/L	P318667	
		Sulfate	5.3		mg SO4/L	P318669	
	SM 2120 B	Color (true)	18		PCU	P318249	
	SM 2320 B-97	Total Alkalinity	253		mg CaCO3/L	P318491	
	SM 2540 C-97	TDS	502		mg/L	P318517	
	SM 2540 D-97	TSS	3	I	mg/L	P318603	
	SM 4500 F-C-97	Fluoride	0.059	I	mg F/L	P318495	
1864046	EPA 350.1 Rev. 2.0	Ammonia-N	0.059		mg N/L	P318438	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P318323	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.040		mg N/L	P318607	
	EPA 365.1 Rev. 2.0	Total-P	0.087		mg P/L	P318400	
	SM 5310 B-00	Organic Carbon	7.6		mg C/L	P318332	
1864048	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P318255	

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: Mizner's Branch @ Walkway East of Horseshoe Falls Rd Collection Date/Time: 01/12/2017 11:35

Field ID: G5CE0079 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1864045	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P318251	
	EPA 300.0 Rev. 2.1	Chloride	61		mg Cl/L	P318667	
		Sulfate	8.8		mg SO4/L	P318669	
	SM 2120 B	Color (true)	73	A	PCU	P318249	
	SM 2320 B-97	Total Alkalinity	152		mg CaCO3/L	P318491	
	SM 2540 C-97	TDS	329		mg/L	P318517	
	SM 2540 D-97	TSS	2	I	mg/L	P318603	
	SM 4500 F-C-97	Fluoride	0.051	I	mg F/L	P318495	
1864047	EPA 350.1 Rev. 2.0	Ammonia-N	0.091		mg N/L	P318438	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P318323	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P318607	
	EPA 365.1 Rev. 2.0	Total-P	0.080		mg P/L	P318400	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P318332	
1864049	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.058		mg P/L	P318255	

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: P318251

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P318251

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318667

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318669

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318438

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318323

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318607

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318400

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318255

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

Reference Method: SM 2120 B
Batch ID: P318249

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P318491

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

Reference Method: SM 2540 C-97
Batch ID: P318517

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P318603

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P318495

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P318332

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: P318667

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318669

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	106		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318323

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318323

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318607

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318400

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318255

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.3		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P318491

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P318495

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P318332

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318667

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864385	Chloride	99.8		P	90 - 110
1864474	Chloride	100		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864385	Sulfate	97.4		P	90 - 110
1864474	Sulfate	97.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864022	Ammonia-N	97.8	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864046	Kjeldahl Nitrogen	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318607

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864023	NO2NO3-N	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864089	Total-P	98.2	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318255

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864048	O-Phosphate-P	97.5	99.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P318495

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1864627	Fluoride	98.4	99.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P318332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1863444	Organic Carbon	94.0	93.5	P/P	85 - 115

Quality Assurance Report
Precision

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P318251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864020	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864474	Chloride	0.429	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P318669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864474	Sulfate	0.369	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P318438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864022	Ammonia-N	0.402	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864046	Kjeldahl Nitrogen	0.812	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P318607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864023	NO2NO3-N	1.17	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864089	Total-P	3.92	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318255

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864048	O-Phosphate-P	1.43	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B
Batch ID: P318249

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864045	Color (true)	1.86	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P318491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864627	Total Alkalinity	0.382	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P318517

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864021	TDS	3.76	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P318495

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1864627	Fluoride	0.966	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P318332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1863444	Organic Carbon	0.456	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report
Calibration Verification

Reference Method: SM 2120 B
Run ID: A73924
Included Lab Sample IDs: 1864044, 1864045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.2	100	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A73925
Included Lab Sample IDs: 1864044, 1864045

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A73929
Included Lab Sample IDs: 1864048, 1864049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.8	96.3	P/P	90 - 110
O-Phosphate-P	98.2	97.2	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A73961
Included Lab Sample IDs: 1864046, 1864047

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	92.7	93.9	P/P	90 - 110
Organic Carbon	94.6	92.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A73986
Included Lab Sample IDs: 1864046, 1864047

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	101	P/P	90 - 110
Kjeldahl Nitrogen	104	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A74005
Included Lab Sample IDs: 1864046, 1864047

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A74019
Included Lab Sample IDs: 1864046, 1864047

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	104	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A74022
Included Lab Sample IDs: 1864044, 1864045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A74022
Included Lab Sample IDs: 1864044, 1864045

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A74070
Included Lab Sample IDs: 1864046, 1864047

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A74088
Included Lab Sample IDs: 1864044, 1864045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Sulfate	98.1	95.1	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	
EPA 300.0 Rev. 2.1	Chloride	101	100	99.8		0.429	
	Sulfate	97.8	97.1	97.4		0.369	
EPA 350.1 Rev. 2.0	Ammonia-N	106	97.8	97.2			0.402
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	101	102			0.812
EPA 353.2 Rev. 2.0	NO2NO3-N	110	104	102			1.17
EPA 365.1 Rev. 2.0	Total-P	98.8	98.2	102			3.92
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3	97.5	99.4			1.43
SM 2120 B	Color (true)					1.86	
SM 2320 B-97	Total Alkalinity	104				0.382	
SM 2540 C-97	TDS					3.76	
SM 4500 F-C-97	Fluoride	97.8	98.4	99.8			0.966
SM 5310 B-00	Organic Carbon	95.3	94.0	93.5			0.456

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1864044, 1864045
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1864044, 1864045
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1864044, 1864045
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1864046, 1864047
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1864046, 1864047
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1864046, 1864047
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1864046, 1864047

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1864048, 1864049
SM 2120 B / E31780	True Color measured at 450 nm	1864044, 1864045
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1864044, 1864045
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1864044, 1864045
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1864044, 1864045
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1864044, 1864045
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1864046, 1864047

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	01/13/2017			01/13/2017 14:25	Sima Feizi	1864044, 1864045
EPA 300.0 Rev. 2.1	01/13/2017			01/24/2017	Ping Hua	1864044, 1864045
EPA 350.1 Rev. 2.0	01/13/2017			01/18/2017	Sofia Elnemr	1864046, 1864047
EPA 351.2 Rev. 2.0	01/13/2017	01/18/2017	Adrian Shelby	01/18/2017	Joseph Suarez	1864046, 1864047
EPA 353.2 Rev. 2.0	01/13/2017			01/24/2017	Beverly Y. Sanders	1864046, 1864047
EPA 365.1 Rev. 2.0	01/13/2017	01/19/2017	Vijayalakshmi Reddy	01/20/2017	Lipi Saha	1864046, 1864047
EPA 365.1 Rev. 2.0 dissolved	01/13/2017			01/13/2017 14:43	Julia Storbeck	1864048
	01/13/2017			01/13/2017 15:22	Julia Storbeck	1864049
SM 2120 B	01/13/2017			01/13/2017 14:04	Jared I. Manley	1864045
	01/13/2017			01/13/2017 14:07	Jared I. Manley	1864044
SM 2320 B-97	01/13/2017			01/20/2017	Dale L. Simmons	1864044, 1864045
SM 2540 C-97	01/13/2017			01/18/2017	Yijie Li	1864044, 1864045
SM 2540 D-97	01/13/2017			01/18/2017	Yijie Li	1864044, 1864045
SM 4500 F-C-97	01/13/2017			01/20/2017	Dale L. Simmons	1864044, 1864045
SM 5310 B-00	01/13/2017			01/17/2017	Julie Michelle Frank	1864046, 1864047