

Chemical Analysis Report

SW-DIST-2016-11-23-01

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

Event Description: **Spring Bayour**
Request ID: **RQ-2016-11-21-48**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
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13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 19-DEC-2016 11:28



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: Spring Bayou

Collection Date/Time: 11/22/2016 10:25

Field ID: G5SW0079

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1852328	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P315716	
	SM 2320 B-97	Total Alkalinity	128		mg CaCO3/L	P315886	
	SM 2540 D-97	TSS	5	I	mg/L	P316224	
	SM 4500 F-C-97	Fluoride	0.83		mg F/L	P315888	
1852331	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P315959	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P316292	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P316217	
	EPA 365.1 Rev. 2.0	Total-P	0.032		mg P/L	P316149	
	SM 5310 B-00	Organic Carbon	5.5		mg C/L	P315822	
1852334	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P315703	

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: Spring Bayou

Collection Date/Time: 11/22/2016 10:50

Field ID: G5SW0078

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1852329	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P315716	
	SM 2320 B-97	Total Alkalinity	130		mg CaCO3/L	P315886	
	SM 2540 D-97	TSS	6	I	mg/L	P316224	
	SM 4500 F-C-97	Fluoride	0.78		mg F/L	P315888	
1852332	EPA 350.1 Rev. 2.0	Ammonia-N	0.023		mg N/L	P315959	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P316292	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P316217	
	EPA 365.1 Rev. 2.0	Total-P	0.042		mg P/L	P316149	
	SM 5310 B-00	Organic Carbon	5.6		mg C/L	P315822	
1852335	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.010	I	mg P/L	P315703	

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: Spring Bayou

Collection Date/Time: 11/22/2016 11:10

Field ID: G5SW0125

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1852330	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P315716	
	SM 2320 B-97	Total Alkalinity	130		mg CaCO3/L	P315886	
	SM 2540 D-97	TSS	6	I	mg/L	P316225	
	SM 4500 F-C-97	Fluoride	0.75		mg F/L	P315888	
1852333	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P316196	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P316363	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P316217	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P316149	
	SM 5310 B-00	Organic Carbon	6.1		mg C/L	P315822	
1852336	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.010		mg P/L	P315703	

Field ID: G5SW0125

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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: P315716

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P315959

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P316196

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316292

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316363

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P316217

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316149

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P315703

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P315886

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

Reference Method: SM 2540 D-97
Batch ID: P316224

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P316225

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P315888

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P315822

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P315959

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P316196

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316292

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316363

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316363

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: P316217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316149

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: P315703

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

Reference Method: SM 2320 B-97
Batch ID: P315886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P315888

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P315822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P315959

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852239	Ammonia-N	95.7	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P316196

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P316196

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852333	Ammonia-N	99.1	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316292

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852331	Kjeldahl Nitrogen	97.1	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316363

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1853069	Kjeldahl Nitrogen	97.7	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P316217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852290	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316149

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852333	Total-P	92.8	94.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P315703

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852243	O-Phosphate-P	96.8	98.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P315888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852235	Fluoride	96.4	97.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P315822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1850377	Organic Carbon	95.5	96.3	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P315716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852319	Turbidity	7.05	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P315959

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852239	Ammonia-N	2.94	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P316196

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852333	Ammonia-N	0.925	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316292

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852331	Kjeldahl Nitrogen	2.98	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1853069	Kjeldahl Nitrogen	1.45	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P316217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852290	NO2NO3-N	0.473	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316149

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852333	Total-P	1.24	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P315703

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852243	O-Phosphate-P	1.54	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P315886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852235	Total Alkalinity	0.690	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P315888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852235	Fluoride	0.986	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P315822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1850377	Organic Carbon	0.741	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: EPA 365.1 Rev. 2.0 dissolved
Run ID: A72994
Included Lab Sample IDs: 1852334, 1852335, 1852336

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.4	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A72997
Included Lab Sample IDs: 1852328, 1852329, 1852330

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

Reference Method: SM 5310 B-00
Run ID: A73041
Included Lab Sample IDs: 1852331, 1852332, 1852333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	96.8	P/P	90 - 110
Organic Carbon	97.0	96.4	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A73065
Included Lab Sample IDs: 1852328, 1852329, 1852330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.6	96.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A73065

Included Lab Sample IDs: 1852328, 1852329, 1852330

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.4	98.1	P/P	90 - 110
Fluoride	98.1	98.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A73098

Included Lab Sample IDs: 1852331, 1852332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A73172

Included Lab Sample IDs: 1852333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.4	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A73189

Included Lab Sample IDs: 1852331, 1852332, 1852333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A73202

Included Lab Sample IDs: 1852331, 1852332, 1852333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A73260

Included Lab Sample IDs: 1852331, 1852332

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	98.3	P/P	90 - 110
Kjeldahl Nitrogen	99.0	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A73267

Included Lab Sample IDs: 1852333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	104	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					7.05	
EPA 350.1 Rev. 2.0	Ammonia-N	98.6	95.7	101			2.94
	Ammonia-N	104	99.1	100			0.925
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	97.1	101			2.98
	Kjeldahl Nitrogen	101	97.7	99.3			1.45
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	105	106	106			0.473
EPA 365.1 Rev. 2.0	Total-P	101	92.8	94.0			1.24
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	96.8	98.3			1.54
SM 2320 B-97	Total Alkalinity	98.4				0.690	
SM 4500 F-C-97	Fluoride	96.5	96.4	97.8			0.986
SM 5310 B-00	Organic Carbon	98.8	95.5	96.3			0.741

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1852328, 1852329, 1852330
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1852331, 1852332, 1852333
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1852331, 1852332, 1852333
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1852331, 1852332, 1852333
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1852331, 1852332, 1852333
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1852334, 1852335, 1852336
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1852328, 1852329, 1852330
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1852328, 1852329, 1852330
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1852328, 1852329, 1852330
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1852331, 1852332, 1852333

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	11/23/2016			11/23/2016 14:00	Sima Feizi	1852328, 1852329, 1852330
EPA 350.1 Rev. 2.0	11/23/2016			11/30/2016	Sofia Elnemr	1852331, 1852332
	11/23/2016			12/02/2016	Sofia Elnemr	1852333
EPA 351.2 Rev. 2.0	11/23/2016	12/07/2016	Adrian Shelby	12/08/2016	Joseph Suarez	1852331, 1852332
	11/23/2016	12/08/2016	Adrian Shelby	12/09/2016	Joseph Suarez	1852333
EPA 353.2 Rev. 2.0	11/23/2016			12/06/2016	Beverly Y. Sanders	1852331, 1852332, 1852333
EPA 365.1 Rev. 2.0	11/23/2016	12/05/2016	Adrian Shelby	12/06/2016	Lipi Saha	1852331, 1852332, 1852333
EPA 365.1 Rev. 2.0 dissolved	11/23/2016			11/23/2016 14:18	Julia Storbeck	1852334, 1852335
	11/23/2016			11/23/2016 14:19	Julia Storbeck	1852336
SM 2320 B-97	11/23/2016			11/29/2016	Dale L. Simmons	1852328, 1852329, 1852330
SM 2540 D-97	11/23/2016			11/26/2016	Yijie Li	1852328, 1852329, 1852330
SM 4500 F-C-97	11/23/2016			11/29/2016	Dale L. Simmons	1852328, 1852329, 1852330
SM 5310 B-00	11/23/2016			11/29/2016	Julie Michelle Frank	1852331, 1852332, 1852333