Chemical Analysis Report

WQAP-2017-04-13-08

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

Event Description: **SMP 2016 Freshwater Kit A**
Request ID: **RQ-2017-03-20-29**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
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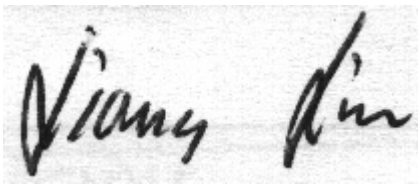
Certified by: Liang Lin, Environmental Administrator

Date Certified: 10-MAY-2017 16:45



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: G2TLHR0607-2017-01 Marshall Creek **Collection Date/Time: 04/13/2017 11:25**

Field ID: G2TLHR0607-2017-01 Marshall C Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888964	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P323530	
	EPA 300.0 Rev. 2.1	Chloride	5.0		mg Cl/L	P324108	
	SM 2120 B	Color (true)	44		PCU	P323339	
	SM 2320 B-97	Total Alkalinity	77		mg CaCO3/L	P324011	
	SM 2540 C-97	TDS	101		mg/L	P324101	
	SM 2540 D-97	TSS	12		mg/L	P323934	
	SM 4500 F-C-97	Fluoride	0.036	I	mg F/L	P324403	
1888966	EPA 350.1 Rev. 2.0	Ammonia-N	0.045		mg N/L	P323352	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P323557	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.66		mg N/L	P323706	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P323518	
	SM 5310 B-00	Organic Carbon	3.7		mg C/L	P323467	
1888968	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.015		mg P/L	P323345	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 353.2 Rev. 2.0: NO2NO3-N: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: G2TLHR0009-2017-01 Blue Hole Spring **Collection Date/Time: 04/13/2017 12:05**

Field ID: G2TLHR0009-2017-01 Blue Hole Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1888965	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P323530	
	EPA 300.0 Rev. 2.1	Chloride	4.4		mg Cl/L	P324108	
	SM 2120 B	Color (true)	19		PCU	P323339	
	SM 2320 B-97	Total Alkalinity	124		mg CaCO3/L	P324011	
	SM 2540 C-97	TDS	138	A	mg/L	P324101	
	SM 2540 D-97	TSS	2	IA	mg/L	P323934	
	SM 4500 F-C-97	Fluoride	0.045	I	mg F/L	P324403	
1888967	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P323352	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P323559	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.59		mg N/L	P323706	
	EPA 365.1 Rev. 2.0	Total-P	0.029		mg P/L	P323518	
	SM 5310 B-00	Organic Carbon	2.2		mg C/L	P323467	
1888969	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P323345	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 353.2 Rev. 2.0: NO2NO3-N: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323530

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324108

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323352

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323557

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323559

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323706

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323518

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323345

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

Reference Method: SM 2120 B
Batch ID: P323339

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P324011

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

Reference Method: SM 2540 C-97
Batch ID: P324101

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P323934

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P324403

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P323467

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: P324108

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323352

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323557

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323559

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: P323559

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	95.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323518

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323345

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

Reference Method: SM 2320 B-97
Batch ID: P324011

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P324403

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P323467

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888893	Chloride	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323352

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888895	Ammonia-N	101	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888897	Kjeldahl Nitrogen	92.0	97.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323559

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888988	Kjeldahl Nitrogen	95.5	96.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323518

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888897	Total-P	109	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323345

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888968	O-Phosphate-P	96.0	97.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P324403

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888726	Fluoride	104	103	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P323467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1888966	Organic Carbon	97.8	98.6	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888891	Turbidity	12.1	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1889031	Chloride	0.258	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888895	Ammonia-N	1.65	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888897	Kjeldahl Nitrogen	4.66	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888988	Kjeldahl Nitrogen	0.832	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888832	NO2NO3-N	0.139	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323518

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888897	Total-P	5.10	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323345

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888968	O-Phosphate-P	1.52	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P323339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888927	Color (true)	5.62	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2320 B-97
Batch ID: P324011

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1889036	Total Alkalinity	0.750	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P324101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888965	TDS	1.45	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P324403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888726	Fluoride	0.558	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P323467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1888966	Organic Carbon	0.687	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: A75770
Included Lab Sample IDs: 1888964, 1888965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.9	101	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A75771
Included Lab Sample IDs: 1888968, 1888969

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.9	96.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A75772
Included Lab Sample IDs: 1888966, 1888967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	100	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A75801
Included Lab Sample IDs: 1888966, 1888967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	93.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A75831
Included Lab Sample IDs: 1888964, 1888965

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A75872
Included Lab Sample IDs: 1888966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A75873
Included Lab Sample IDs: 1888966, 1888967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A75875
Included Lab Sample IDs: 1888966, 1888967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	92.5	91.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A75877
Included Lab Sample IDs: 1888967

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

Reference Method: SM 2320 B-97
Run ID: A75995
Included Lab Sample IDs: 1888964, 1888965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A75999
Included Lab Sample IDs: 1888964, 1888965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	100	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A76126
Included Lab Sample IDs: 1888964, 1888965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	98.6	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					12.1	
EPA 300.0 Rev. 2.1	Chloride	102	102			0.258	
EPA 350.1 Rev. 2.0	Ammonia-N	100	101	99.2			1.65
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.7	92.0	97.5			4.66
	Kjeldahl Nitrogen	96.0	95.5	96.4			0.832
EPA 353.2 Rev. 2.0	NO2NO3-N	95.5					0.139
EPA 365.1 Rev. 2.0	Total-P	105	109	103			5.10
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.4	96.0	97.7			1.52
SM 2120 B	Color (true)					5.62	
SM 2320 B-97	Total Alkalinity	102				0.750	
SM 2540 C-97	TDS					1.45	
SM 4500 F-C-97	Fluoride	94.7	104	103			0.558
SM 5310 B-00	Organic Carbon	100	97.8	98.6			0.687

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1888964, 1888965
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1888964, 1888965
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1888966, 1888967
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1888966, 1888967
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1888966, 1888967
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1888966, 1888967
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1888968, 1888969
SM 2120 B / E31780	True Color measured at 450 nm	1888964, 1888965
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1888964, 1888965
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1888964, 1888965
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1888964, 1888965
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1888964, 1888965
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1888966, 1888967

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	04/13/2017			04/13/2017 16:21	Sima Feizi	1888964, 1888965
EPA 300.0 Rev. 2.1	04/13/2017			04/26/2017	Ping Hua	1888964, 1888965
EPA 350.1 Rev. 2.0	04/13/2017			04/13/2017	Julie Michelle Frank	1888966, 1888967
EPA 351.2 Rev. 2.0	04/13/2017	04/18/2017	Adrian Shelby	04/19/2017	Joseph Suarez	1888966, 1888967
EPA 353.2 Rev. 2.0	04/13/2017			04/19/2017	Beverly Y. Sanders	1888966, 1888967
EPA 365.1 Rev. 2.0	04/13/2017	04/17/2017	Vijayalakshmi Reddy	04/19/2017	Lipi Saha	1888966, 1888967
EPA 365.1 Rev. 2.0 dissolved	04/13/2017			04/13/2017 14:54	Anthony C. Onicha	1888968
	04/13/2017			04/13/2017 14:56	Anthony C. Onicha	1888969
SM 2120 B	04/13/2017			04/13/2017 15:30	Julia Storbeck	1888964
	04/13/2017			04/13/2017 15:31	Julia Storbeck	1888965
SM 2320 B-97	04/13/2017			04/26/2017	Dale L. Simmons	1888964, 1888965
SM 2540 C-97	04/13/2017			04/17/2017	Sima Feizi	1888964, 1888965
SM 2540 D-97	04/13/2017			04/17/2017	Sima Feizi	1888964, 1888965
SM 4500 F-C-97	04/13/2017			05/01/2017	Dale L. Simmons	1888964, 1888965
SM 5310 B-00	04/13/2017			04/14/2017	Julie Michelle Frank	1888966, 1888967