Chemical Analysis Report

SO-DIST-2016-11-22-01

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

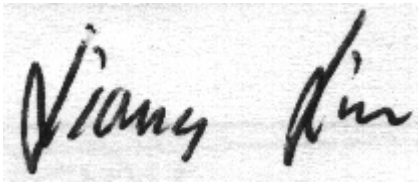
Event Description: **SCI Kit Chapel Creek**
Request ID: **RQ-2016-11-21-12**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Corey Anderson

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 20-DEC-2016 10:10



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: Chapel Creek South of SR78 **Collection Date/Time: 11/21/2016 08:30**

Field ID: G3SD112112-1 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1852038	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P315621	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P316120	
		Sulfate	12		mg SO4/L	P316116	
	SM 2120 B	Color (true)	69		PCU	P315641	
	SM 2320 B-97	Total Alkalinity	291		mg CaCO3/L	P315810	
	SM 2540 C-97	TDS	508		mg/L	P316227	
	SM 2540 D-97	TSS	7	I	mg/L	P316222	
	SM 4500 F-C-97	Fluoride	0.36		mg F/L	P315813	
1852040	EPA 350.1 Rev. 2.0	Ammonia-N	0.067		mg N/L	P315896	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P316246	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.46		mg N/L	P316024	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P316083	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P315820	
1852042	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.068		mg P/L	P315624	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Sample Location: Estero River @ E Broadway **Collection Date/Time: 11/21/2016 10:50**

Field ID: G3SD112112-2 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1852039	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P315621	
	EPA 300.0 Rev. 2.1	Chloride	58		mg Cl/L	P316120	
		Sulfate	8.9		mg SO4/L	P316116	
	SM 2120 B	Color (true)	36		PCU	P315641	
	SM 2320 B-97	Total Alkalinity	269		mg CaCO3/L	P315810	
	SM 2540 C-97	TDS	402	A	mg/L	P316227	
	SM 2540 D-97	TSS	3	I	mg/L	P316222	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P315813	
1852041	EPA 350.1 Rev. 2.0	Ammonia-N	0.072		mg N/L	P315896	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P316247	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.37		mg N/L	P316024	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P316085	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P315820	
1852043	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P315624	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Quality Assurance Report
Method Blank Results

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P315621

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316116

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316120

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P315896

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316246

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316247

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P316024

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316083

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316085

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P315624

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

Reference Method: SM 2120 B
Batch ID: P315641

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P315810

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

Reference Method: SM 2540 C-97
Batch ID: P316227

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P316222

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P315813

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P315820

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: P316116

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316120

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316120

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P315896

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: P316246

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316247

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P316024

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: P316083

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316085

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P315624

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

Reference Method: SM 2320 B-97
Batch ID: P315810

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P315813

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.4		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P315820

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.2		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316116

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852092	Sulfate	97.3		P	90 - 110
1852093	Sulfate	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316120

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852092	Chloride	102		P	90 - 110
1852093	Chloride	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P315896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1851944	Ammonia-N	98.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1851555	Kjeldahl Nitrogen	97.0	94.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316247

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852079	Kjeldahl Nitrogen	104	110	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P316024

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852051	NO2NO3-N	106	106	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852023	Total-P	103	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852041	Total-P	101	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P315624

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852043	O-Phosphate-P	97.2	98.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P315813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852076	Fluoride	98.8	99.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P315820

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1851897	Organic Carbon	94.2	95.8	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P315621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852017	Turbidity	0.873	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316120

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852092	Chloride	2.11	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P315896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1851944	Ammonia-N	1.60	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1851555	Kjeldahl Nitrogen	2.11	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852079	Kjeldahl Nitrogen	5.00	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P316024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852051	NO2NO3-N	0.943	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852023	Total-P	3.66	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852041	Total-P	3.19	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P315624

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852043	O-Phosphate-P	1.37	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P315641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1851939	Color (true)	0.213	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P315810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852076	Total Alkalinity	0.162	Sample	P	0 - 4.8

Quality Assurance Report
Precision

Reference Method: SM 2540 C-97
Batch ID: P316227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852039	TDS	4.22	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P315813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852076	Fluoride	0.490	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P315820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1851897	Organic Carbon	1.62	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 180.1 Rev. 2.0
Run ID: A72966
Included Lab Sample IDs: 1852038, 1852039

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A72967
Included Lab Sample IDs: 1852042, 1852043

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.5	99.4	P/P	90 - 110
O-Phosphate-P	99.9	99.0	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A72971
Included Lab Sample IDs: 1852038, 1852039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	104	P/P	85 - 115

Reference Method: SM 2320 B-97
Run ID: A73035
Included Lab Sample IDs: 1852038, 1852039

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A73035
Included Lab Sample IDs: 1852038, 1852039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.0	98.5	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A73041
Included Lab Sample IDs: 1852040, 1852041

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.7	95.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A73074
Included Lab Sample IDs: 1852040, 1852041

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A73117
Included Lab Sample IDs: 1852040, 1852041

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A73131
Included Lab Sample IDs: 1852038, 1852039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	100	P/P	90 - 110
Sulfate	98.3	95.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A73183
Included Lab Sample IDs: 1852040

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A73187
Included Lab Sample IDs: 1852041

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A73234
Included Lab Sample IDs: 1852040, 1852041

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	97.3	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A73234
Included Lab Sample IDs: 1852040, 1852041

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.3	95.5	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		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					0.873	
EPA 300.0 Rev. 2.1	Chloride	99.9	102	102		2.11	
	Sulfate	96.3	97.3	99.1			
EPA 350.1 Rev. 2.0	Ammonia-N	106	98.8	101			1.60
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	97.0	94.7			2.11
	Kjeldahl Nitrogen	104	104	110			5.00
EPA 353.2 Rev. 2.0	NO2NO3-N	105	106	106			0.943
EPA 365.1 Rev. 2.0	Total-P	105	103	107			3.66
	Total-P	104	101	104			3.19
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.6	97.2	98.6			1.37
SM 2120 B	Color (true)					0.213	
SM 2320 B-97	Total Alkalinity	103				0.162	
SM 2540 C-97	TDS					4.22	
SM 4500 F-C-97	Fluoride	96.4	98.8	99.5			0.490
SM 5310 B-00	Organic Carbon	99.2	94.2	95.8			1.62

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1852038, 1852039
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1852038, 1852039
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1852038, 1852039
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1852040, 1852041
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1852040, 1852041
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1852040, 1852041
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1852040, 1852041
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1852042, 1852043
SM 2120 B / E31780	True Color measured at 450 nm	1852038, 1852039
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1852038, 1852039
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1852038, 1852039
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1852038, 1852039
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1852038, 1852039

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1852040, 1852041

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	11/22/2016			11/22/2016 15:04	Sima Feizi	1852038, 1852039
EPA 300.0 Rev. 2.1	11/22/2016			12/02/2016	Ping Hua	1852038, 1852039
EPA 350.1 Rev. 2.0	11/22/2016			11/29/2016	Sofia Elnemr	1852040, 1852041
EPA 351.2 Rev. 2.0	11/22/2016	12/06/2016	Adrian Shelby	12/07/2016	Joseph Suarez	1852040, 1852041
EPA 353.2 Rev. 2.0	11/22/2016			12/01/2016	Beverly Y. Sanders	1852040, 1852041
EPA 365.1 Rev. 2.0	11/22/2016	12/02/2016	Adrian Shelby	12/05/2016	Lipi Saha	1852040, 1852041
EPA 365.1 Rev. 2.0 dissolved	11/22/2016			11/22/2016 14:50	Julia Storbeck	1852043
	11/22/2016			11/22/2016 15:25	Julia Storbeck	1852042
SM 2120 B	11/22/2016			11/22/2016 15:59	Jared I. Manley	1852038, 1852039
SM 2320 B-97	11/22/2016			11/29/2016	Dale L. Simmons	1852038, 1852039
SM 2540 C-97	11/22/2016			11/26/2016	Yijie Li	1852038, 1852039
SM 2540 D-97	11/22/2016			11/26/2016	Yijie Li	1852038, 1852039
SM 4500 F-C-97	11/22/2016			11/29/2016	Dale L. Simmons	1852038, 1852039
SM 5310 B-00	11/22/2016			11/28/2016	Julie Michelle Frank	1852040, 1852041