Chemical Analysis Report

SO-DIST-2016-03-16-02

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

Event Description: **SMP: Telegraph, Roberts, Olga Creek**
Request ID: **RQ-2016-03-14-34**
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
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 05-APR-2016 13:11

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: TELEGRAPH SWAMP SOUTH SITE **Collection Date/Time: 03/15/2016 11:10**

Field ID: G3SD03152016-1 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780200	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P300515	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P300654	
		Sulfate	5.0		mg SO4/L	P300656	
	SM 2120 B	Color (true)	180		PCU	P300496	
	SM 2320 B-97	Total Alkalinity	58		mg CaCO3/L	P300688	
	SM 2540 C-97	TDS	168		mg/L	P301166	
	SM 2540 D-97	TSS	6	I	mg/L	P300950	
	SM 4500 F-C-97	Fluoride	0.099	I	mg F/L	P300691	
1780203	EPA 350.1 Rev. 2.0	Ammonia-N	0.056		mg N/L	P300975	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P300929	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P300736	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P300831	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P300877	
1780206	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P300512	

Ref. Method and Comment:
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: BANANA BRANCH @ FT. DENAUD RD. **Collection Date/Time: 03/15/2016 13:00**

Field ID: G3SD03152016-2 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780201	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P300515	
	EPA 300.0 Rev. 2.1	Chloride	46		mg Cl/L	P300654	
		Sulfate	16		mg SO4/L	P300656	
	SM 2120 B	Color (true)	100		PCU	P300496	
	SM 2320 B-97	Total Alkalinity	150	A	mg CaCO3/L	P300688	
	SM 2540 C-97	TDS	276	A	mg/L	P301166	
	SM 2540 D-97	TSS	5	I	mg/L	P300950	
	SM 4500 F-C-97	Fluoride	0.22		mg F/L	P300691	
1780204	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P300975	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P300929	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.071		mg N/L	P300736	
	EPA 365.1 Rev. 2.0	Total-P	0.082		mg P/L	P300831	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P300877	
1780207	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P300512	

Ref. Method and Comment:
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: OLGA CREEK @ SR 80 **Collection Date/Time: 03/15/2016 15:00**

Field ID: G3SD03152016-3 Matrix: W-SURF-FRH

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

Field ID: G3SD03152016-3 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1780202	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P300515	
	EPA 300.0 Rev. 2.1	Chloride	120		mg Cl/L	P300654	
		Sulfate	22		mg SO4/L	P300656	
	SM 2120 B	Color (true)	39		PCU	P300496	
	SM 2320 B-97	Total Alkalinity	335		mg CaCO3/L	P300688	
	SM 2540 C-97	TDS	529		mg/L	P301166	
	SM 2540 D-97	TSS	4	I	mg/L	P300950	
	SM 4500 F-C-97	Fluoride	0.43		mg F/L	P300691	
1780205	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P300975	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.63		mg N/L	P300929	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.086		mg N/L	P300736	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P300831	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P300877	
1780208	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P300512	

Ref. Method and Comment:
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P300515

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300654

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300656

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300975

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300929

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300736

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300831

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300512

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

Reference Method: SM 2120 B
Batch ID: P300496

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P300688

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

Reference Method: SM 2540 C-97
Batch ID: P301166

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P300950

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P300691

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P300877

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: P300654

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300656

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300975

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: P300929

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300736

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300831

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300512

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

Reference Method: SM 2320 B-97
Batch ID: P300688

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P300691

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	94 - 108

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P300877

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.7		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300654

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780179	Chloride	102		P	90 - 110
1780180	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300656

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780179	Sulfate	99.6		P	90 - 110
1780180	Sulfate	99.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780184	Kjeldahl Nitrogen	99.7	95.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780205	NO2NO3-N	91.8	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300512

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780302	O-Phosphate-P	98.6	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P300691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780201	Fluoride	99.6	101	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P300877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1780107	Organic Carbon	96.4	95.2	P/P	85 - 115

Quality Assurance Report
Precision

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P300515

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780179	Turbidity	1.53	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300654

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780179	Chloride	0.0791	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300656

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780179	Sulfate	0.628	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300975

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780182	Ammonia-N	0.0717	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300929

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780184	Kjeldahl Nitrogen	2.54	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300736

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780205	NO2NO3-N	6.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300831

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780183	Total-P	0.392	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300512

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780302	O-Phosphate-P	1.61	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B
Batch ID: P300496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780311	Color (true)	0.285	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P300688

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780201	Total Alkalinity	0.0829	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P301166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780201	TDS	2.17	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P300691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780201	Fluoride	0.979	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P300877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1780107	Organic Carbon	0.754	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 300.0 Rev. 2.1
Run ID: A68261
Included Lab Sample IDs: 1780200, 1780201, 1780202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	100	P/P	90 - 110
Sulfate	100	97.7	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A68263
Included Lab Sample IDs: 1780200, 1780201, 1780202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.1	98.1	P/P	85 - 115

Quality Assurance Report
Calibration Verification

Reference Method: SM 2120 B
Run ID: A68263
Included Lab Sample IDs: 1780200, 1780201, 1780202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.5	98.5	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A68269
Included Lab Sample IDs: 1780206, 1780207, 1780208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	99.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A68270
Included Lab Sample IDs: 1780200, 1780201, 1780202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.0	P/P	95 - 105

Reference Method: SM 2320 B-97
Run ID: A68331
Included Lab Sample IDs: 1780200, 1780201, 1780202

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

Reference Method: SM 4500 F-C-97
Run ID: A68331
Included Lab Sample IDs: 1780200, 1780201, 1780202

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A68345
Included Lab Sample IDs: 1780203, 1780204, 1780205

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

Reference Method: SM 5310 B-00
Run ID: A68400
Included Lab Sample IDs: 1780203, 1780204, 1780205

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A68408
Included Lab Sample IDs: 1780203, 1780204, 1780205

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A68434
Included Lab Sample IDs: 1780203, 1780204

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A68453
Included Lab Sample IDs: 1780203, 1780204, 1780205

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A68485
Included Lab Sample IDs: 1780205

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	98.2	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					1.53	
EPA 300.0 Rev. 2.1	Chloride	104	102	101		0.0791	
	Sulfate	101	99.6	99.1		0.628	
EPA 350.1 Rev. 2.0	Ammonia-N	100					0.0717
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.0	99.7	95.4			2.54
EPA 353.2 Rev. 2.0	NO2NO3-N	104	91.8	101			6.45
EPA 365.1 Rev. 2.0	Total-P	98.5					0.392
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	98.6	100			1.61
SM 2120 B	Color (true)					0.285	
SM 2320 B-97	Total Alkalinity	103				0.0829	
SM 2540 C-97	TDS					2.17	
SM 4500 F-C-97	Fluoride	99.8	99.6	101			0.979
SM 5310 B-00	Organic Carbon	96.7	96.4	95.2			0.754

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1780200, 1780201, 1780202
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1780200, 1780201, 1780202
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1780200, 1780201, 1780202
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1780203, 1780204, 1780205

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1780203, 1780204, 1780205
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1780203, 1780204, 1780205
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1780203, 1780204, 1780205
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1780206, 1780207, 1780208
SM 2120 B / E31780	True Color measured at 450 nm	1780200, 1780201, 1780202
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1780200, 1780201, 1780202
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1780200, 1780201, 1780202
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1780200, 1780201, 1780202
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1780200, 1780201, 1780202
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1780203, 1780204, 1780205

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	03/16/2016			03/16/2016 16:50	Sima Feizi	1780200, 1780201, 1780202
EPA 300.0 Rev. 2.1	03/16/2016			03/18/2016	Ping Hua	1780200, 1780201, 1780202
EPA 350.1 Rev. 2.0	03/16/2016			03/23/2016	Diana M. Turner	1780203, 1780204, 1780205
EPA 351.2 Rev. 2.0	03/16/2016	03/24/2016	Sofia Elnemr	03/27/2016	Rochelle Y Jackson	1780203, 1780204, 1780205
EPA 353.2 Rev. 2.0	03/16/2016			03/21/2016	Diana M. Turner	1780203, 1780204, 1780205
EPA 365.1 Rev. 2.0	03/16/2016	03/23/2016	Christopher Armour	03/24/2016	Lipi Saha	1780203, 1780204
	03/16/2016	03/23/2016	Christopher Armour	03/25/2016	Lipi Saha	1780205
EPA 365.1 Rev. 2.0 dissolved	03/16/2016			03/16/2016 16:44	Julia Storbeck	1780206
	03/16/2016			03/16/2016 16:45	Julia Storbeck	1780207
	03/16/2016			03/16/2016 16:46	Julia Storbeck	1780208
SM 2120 B	03/16/2016			03/16/2016 15:30	Blanca Fach	1780201, 1780202
	03/16/2016			03/16/2016 15:53	Blanca Fach	1780200
SM 2320 B-97	03/16/2016			03/18/2016	Dale L. Simmons	1780200, 1780201, 1780202
SM 2540 C-97	03/16/2016			03/21/2016	Yijie Li	1780200, 1780201, 1780202
SM 2540 D-97	03/16/2016			03/21/2016	Yijie Li	1780200, 1780201, 1780202
SM 4500 F-C-97	03/16/2016			03/18/2016	Dale L. Simmons	1780200, 1780201, 1780202
SM 5310 B-00	03/16/2016			03/21/2016	Sofia Elnemr	1780203, 1780204, 1780205