

Chemical Analysis Report

SW-DIST-2016-03-22-01

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

Event Description: **1329G, 1435**
Request ID: **RQ-2016-03-21-50**
Customer: **SW-DIST**
Project ID: **SMP**

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 07-APR-2016 13:55



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: G4SW0099

Collection Date/Time: 03/21/2016 11:00

Field ID: G4SW0099

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1782074	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P300843	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P300933	
		Sulfate	0.20	U	mg SO4/L	P300935	
	SM 2120 B	Color (true)	580		PCU	P300820	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P301028	
	SM 2540 C-97	TDS	87		mg/L	P301223	
	SM 2540 D-97	TSS	3	I	mg/L	P301151	
	SM 4500 F-C-97	Fluoride	0.076	I	mg F/L	P301032	
1782076	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P301268	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P301326	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P301003	
	EPA 365.1 Rev. 2.0	Total-P	0.038		mg P/L	P301255	
	SM 5310 B-00	Organic Carbon	58		mg C/L	P301141	
1782078	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P300813	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: G4SW0093

Collection Date/Time: 03/21/2016 11:55

Field ID: G4SW0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1782075	EPA 180.1 Rev. 2.0	Turbidity	20	A	NTU	P300843	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P300933	
		Sulfate	1.1		mg SO4/L	P300935	
	SM 2120 B	Color (true)	520	A	PCU	P300821	
	SM 2320 B-97	Total Alkalinity	66		mg CaCO3/L	P301028	
	SM 2540 C-97	TDS	189		mg/L	P301223	
	SM 2540 D-97	TSS	47		mg/L	P301151	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P301032	
1782077	EPA 350.1 Rev. 2.0	Ammonia-N	0.15		mg N/L	P301268	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	4.6		mg N/L	P301326	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P301004	
	EPA 365.1 Rev. 2.0	Total-P	2.4		mg P/L	P301255	
	SM 5310 B-00	Organic Carbon	51		mg C/L	P301141	
1782079	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	1.7		mg P/L	P300813	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the 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: P300843

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300933

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300935

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301268

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301326

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P301003

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P301004

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301255

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300813

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P300820

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P300821

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P301028

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

Reference Method: SM 2540 C-97
Batch ID: P301223

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P301151

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P301032

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P301141

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: P300933

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300935

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301268

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301326

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.4		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P301003

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P301004

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: P301255

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300813

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

Reference Method: SM 2320 B-97
Batch ID: P301028

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

Reference Method: SM 4500 F-C-97
Batch ID: P301032

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	94 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P301141

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P300933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782004	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P300935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782004	Sulfate	97.7		P	90 - 110
1782114	Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P301268

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782076	Ammonia-N	100	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P301326

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782060	Kjeldahl Nitrogen	95.0	90.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P301003

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782040	NO2NO3-N	99.4	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P301004

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782094	NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P301255

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782064	Total-P	96.2	98.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782009	O-Phosphate-P	100	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P301032

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782005	Fluoride	95.8	97.5	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P301141

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1782040	Organic Carbon	98.7		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P300843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782075	Turbidity	0.509	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782004	Chloride	0.334	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782004	Sulfate	1.75	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P301268

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782076	Ammonia-N	0.882	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P301326

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782060	Kjeldahl Nitrogen	2.58	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P301003

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782040	NO2NO3-N	2.82	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P301004

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782094	NO2NO3-N	0.902	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P301255

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782064	Total-P	2.24	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782009	O-Phosphate-P	0.200	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P300820

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782058	Color (true)	1.29	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P300821

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782075	Color (true)	0.774	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P301028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782005	Total Alkalinity	0.385	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P301223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782044	TDS	7.44	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P301032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782005	Fluoride	1.49	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P301141

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1782040	Organic Carbon	2.28	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: A68375
Included Lab Sample IDs: 1782078, 1782079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.1	98.0	P/P	90 - 110
O-Phosphate-P	97.8	97.4	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A68378
Included Lab Sample IDs: 1782074, 1782075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	91.2	93.0	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A68388
Included Lab Sample IDs: 1782074, 1782075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A68401
Included Lab Sample IDs: 1782074, 1782075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	99.1	P/P	90 - 110
Sulfate	98.3	96.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A68424
Included Lab Sample IDs: 1782076, 1782077

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A68424

Included Lab Sample IDs: 1782076, 1782077

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110
NO2NO3-N	102	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A68432

Included Lab Sample IDs: 1782074, 1782075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A68432

Included Lab Sample IDs: 1782074, 1782075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	99.5	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A68477

Included Lab Sample IDs: 1782076, 1782077

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.9	98.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A68526

Included Lab Sample IDs: 1782076, 1782077

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A68579

Included Lab Sample IDs: 1782076, 1782077

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.0	93.9	P/P	90 - 110
Kjeldahl Nitrogen	96.6	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A68591

Included Lab Sample IDs: 1782076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	97.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A68672

Included Lab Sample IDs: 1782077

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.9	99.6	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	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				0.509	
EPA 300.0 Rev. 2.1	Chloride	101	102		0.334	
	Sulfate	98.9	97.7 97.6		1.75	
EPA 350.1 Rev. 2.0	Ammonia-N	101	100 99.0			0.882
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.4	95.0 90.1			2.58
EPA 353.2 Rev. 2.0	NO2NO3-N	102	99.4 102			2.82
	NO2NO3-N	104	102			0.902
EPA 365.1 Rev. 2.0	Total-P	102	96.2 98.5			2.24
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5	100 100			0.200
SM 2120 B	Color (true)				1.29	
	Color (true)				0.774	
SM 2320 B-97	Total Alkalinity	103			0.385	
SM 2540 C-97	TDS				7.44	
SM 4500 F-C-97	Fluoride	98.0	95.8 97.5			1.49
SM 5310 B-00	Organic Carbon	101	98.7			2.28

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1782074, 1782075
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1782074, 1782075
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1782074, 1782075
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1782076, 1782077
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1782076, 1782077
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1782076, 1782077
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1782076, 1782077
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1782078, 1782079
SM 2120 B / E31780	True Color measured at 450 nm	1782074, 1782075
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1782074, 1782075
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1782074, 1782075
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1782074, 1782075
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1782074, 1782075

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1782076, 1782077

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	03/22/2016			03/22/2016 15:57	Blanca Fach	1782074, 1782075
EPA 300.0 Rev. 2.1	03/22/2016			03/23/2016	Julia Storbeck	1782074, 1782075
EPA 350.1 Rev. 2.0	03/22/2016			03/29/2016	Diana M. Turner	1782076, 1782077
EPA 351.2 Rev. 2.0	03/22/2016	03/31/2016	Sofia Elnemr	04/01/2016	Christopher Armour	1782076, 1782077
EPA 353.2 Rev. 2.0	03/22/2016			03/24/2016	Peter D. Kaus	1782076, 1782077
EPA 365.1 Rev. 2.0	03/22/2016	03/30/2016	Christopher Armour	04/01/2016	Lipi Saha	1782076, 1782077
EPA 365.1 Rev. 2.0 dissolved	03/22/2016			03/22/2016 14:39	Ping Hua	1782078
	03/22/2016			03/22/2016 15:09	Ping Hua	1782079
SM 2120 B	03/22/2016			03/22/2016 15:44	Rochelle Y Jackson	1782074
	03/22/2016			03/22/2016 15:46	Rochelle Y Jackson	1782075
SM 2320 B-97	03/22/2016			03/24/2016	Dale L. Simmons	1782074, 1782075
SM 2540 C-97	03/22/2016			03/24/2016	Yijie Li	1782074, 1782075
SM 2540 D-97	03/22/2016			03/24/2016	Yijie Li	1782074, 1782075
SM 4500 F-C-97	03/22/2016			03/24/2016	Dale L. Simmons	1782074, 1782075
SM 5310 B-00	03/22/2016			03/25/2016	Sofia Elnemr	1782076, 1782077