Chemical Analysis Report

SO-DIST-2016-12-20-02

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

Event Description: **SCI Kit Howard Creek**
Request ID: **RQ-2016-12-05-17**
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

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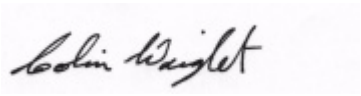
Certified by: Colin Wright, Program Administrator

Date Certified: 11-JAN-2017 10:59



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: Fence Line Drain at Blue Head Ranch SE **Collection Date/Time: 12/19/2016 10:45**

Field ID: G4SD121916-1 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1859097	EPA 180.1 Rev. 2.0	Turbidity	70		NTU	P317089	
	EPA 300.0 Rev. 2.1	Chloride	50		mg Cl/L	P317397	
		Sulfate	13		mg SO4/L	P317400	
	SM 2120 B	Color (true)	97		PCU	P317102	
	SM 2320 B-97	Hydroxide Alkalinity**	0		mg CaCO3/L	P317268	
		Carbonate Alkalinity**	0		mg CaCO3/L	P317268	
		Bicarbonate Alkalinity**	70		mg CaCO3/L	P317268	
		Total Alkalinity	70		mg CaCO3/L	P317268	
	SM 2540 C-97	TDS	190	A	mg/L	P317657	
	SM 2540 D-97	TSS	39		mg/L	P317635	
	SM 4500 F-C-97	Fluoride	0.33		mg F/L	P317273	
1859099	EPA 350.1 Rev. 2.0	Ammonia-N	0.29		mg N/L	P317460	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P317109	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P317370	
	EPA 365.1 Rev. 2.0	Total-P	0.25		mg P/L	P317341	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P317234	
1859101	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.056		mg P/L	P317098	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Little Charley Bowlegs Ck, HHSP **Collection Date/Time: 12/19/2016 13:10**

Field ID: G4SD121916-2 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1859098	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P317089	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P317397	
		Sulfate	2.0		mg SO4/L	P317400	
	SM 2120 B	Color (true)	300		PCU	P317101	
	SM 2320 B-97	Hydroxide Alkalinity**	0		mg CaCO3/L	P317268	
		Carbonate Alkalinity**	0		mg CaCO3/L	P317268	
		Bicarbonate Alkalinity**	13		mg CaCO3/L	P317268	
		Total Alkalinity	13		mg CaCO3/L	P317268	
	SM 2540 C-97	TDS	127		mg/L	P317657	
	SM 2540 D-97	TSS	4	I	mg/L	P317635	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P317273	
1859100	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P317460	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P317109	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.045		mg N/L	P317371	
	EPA 365.1 Rev. 2.0	Total-P	0.51		mg P/L	P317341	
	SM 5310 B-00	Organic Carbon	31		mg C/L	P317234	
1859102	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.47		mg P/L	P317098	

Field ID: G4SD121916-2 Matrix: W-SURF-FRH

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

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P317089

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P317397

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P317400

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P317460

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P317109

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P317370

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P317371

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P317341

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: P317098

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

Reference Method: SM 2120 B
Batch ID: P317101

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P317102

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P317268

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

Reference Method: SM 2540 C-97
Batch ID: P317657

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P317635

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P317273

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P317234

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: P317397

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: P317397

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P317400

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	92.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P317460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P317109

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: P317370

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P317371

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P317341

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P317098

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	103		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P317268

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.1		P	95 - 108

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P317273

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P317234

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P317397

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1859044	Chloride	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P317400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1859044	Sulfate	93.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P317460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1859073	Ammonia-N	95.2	90.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P317370

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1859045	NO2NO3-N	104	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P317371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1859100	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P317098

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1859055	O-Phosphate-P	99.5	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P317273

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P317273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1859068	Fluoride	97.9	101	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P317234

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1858998	Organic Carbon	94.0	94.5	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P317089

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859050	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P317397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859044	Chloride	0.838	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P317400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859044	Sulfate	1.15	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P317460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859073	Ammonia-N	4.22	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P317109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859100	Kjeldahl Nitrogen	3.37	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P317370

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P317370

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859045	NO2NO3-N	0.935	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P317371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859100	NO2NO3-N	0.401	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P317341

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859072	Total-P	17.7	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P317098

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859055	O-Phosphate-P	0.505	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P317101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859068	Color (true)	0.225	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P317102

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1858994	Color (true)	0.886	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P317268

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859068	Total Alkalinity	0.444	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P317657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859097	TDS	6.32	Sample	P	0 - 10

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-97
Batch ID: P317273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1859068	Fluoride	1.43	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P317234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1858998	Organic Carbon	0.390	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: A73489
Included Lab Sample IDs: 1859097, 1859098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A73491
Included Lab Sample IDs: 1859101, 1859102

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.9	97.1	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A73492
Included Lab Sample IDs: 1859097, 1859098

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

Reference Method: SM 5310 B-00
Run ID: A73539
Included Lab Sample IDs: 1859099, 1859100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	97.7	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A73550
Included Lab Sample IDs: 1859097, 1859098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.9	101	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A73550
Included Lab Sample IDs: 1859097, 1859098

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A73555
Included Lab Sample IDs: 1859099, 1859100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	106	P/P	90 - 110
Kjeldahl Nitrogen	108	105	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A73576
Included Lab Sample IDs: 1859097, 1859098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	99.8	P/P	90 - 110
Sulfate	90.5	94.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A73580
Included Lab Sample IDs: 1859099, 1859100

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A73601
Included Lab Sample IDs: 1859099, 1859100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.4	95.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A73608
Included Lab Sample IDs: 1859099, 1859100

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.6	99.4	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				0.0	

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 300.0 Rev. 2.1	Chloride	98.9	97.8			0.838	
	Sulfate	92.6	93.7			1.15	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	95.2	90.8			4.22
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104					3.37
EPA 353.2 Rev. 2.0	NO2NO3-N	106	104	105			0.935
	NO2NO3-N	106	102	102			0.401
EPA 365.1 Rev. 2.0	Total-P	98.4					17.7
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	99.5	100			0.505
SM 2120 B	Color (true)					0.225	
	Color (true)					0.886	
SM 2320 B-97	Total Alkalinity	99.1				0.444	
SM 2540 C-97	TDS					6.32	
SM 4500 F-C-97	Fluoride	98.7	97.9	101			1.43
SM 5310 B-00	Organic Carbon	95.8	94.0	94.5			0.390

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1859097, 1859098
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1859097, 1859098
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1859097, 1859098
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1859099, 1859100
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1859099, 1859100
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1859099, 1859100
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1859099, 1859100
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1859101, 1859102
SM 2120 B / E31780	True Color measured at 450 nm	1859097, 1859098
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1859097, 1859098
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1859097, 1859098
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1859097, 1859098
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1859097, 1859098
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1859099, 1859100

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	12/20/2016			12/20/2016 13:27	Julie Michelle Frank	1859097, 1859098
EPA 300.0 Rev. 2.1	12/20/2016			12/24/2016	Ping Hua	1859097, 1859098
EPA 350.1 Rev. 2.0	12/20/2016			12/27/2016	Julie Michelle Frank	1859099, 1859100
EPA 351.2 Rev. 2.0	12/20/2016	12/21/2016	Adrian Shelby	12/22/2016	Joseph Suarez	1859099, 1859100
EPA 353.2 Rev. 2.0	12/20/2016			12/23/2016	Beverly Y. Sanders	1859099, 1859100
EPA 365.1 Rev. 2.0	12/20/2016	12/23/2016	Vijayalakshmi Reddy	12/27/2016	Lipi Saha	1859099, 1859100
EPA 365.1 Rev. 2.0 dissolved	12/20/2016			12/20/2016 17:10	Julia Storbeck	1859101
	12/20/2016			12/20/2016 17:15	Julia Storbeck	1859102
SM 2120 B	12/20/2016			12/20/2016 16:41	Jared I. Manley	1859098
	12/20/2016			12/20/2016 16:42	Jared I. Manley	1859097
SM 2320 B-97	12/20/2016			12/22/2016	Dale L. Simmons	1859097, 1859098
SM 2540 C-97	12/20/2016			12/23/2016	Yijie Li	1859097, 1859098
SM 2540 D-97	12/20/2016			12/23/2016	Yijie Li	1859097, 1859098
SM 4500 F-C-97	12/20/2016			12/22/2016	Dale L. Simmons	1859097, 1859098
SM 5310 B-00	12/20/2016			12/21/2016	Julie Michelle Frank	1859099, 1859100