Chemical Analysis Report

WQAP-2017-04-11-05

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

Event Description: **SMP 2017 Freshwater Kit A**
Request ID: **RQ-2017-02-20-28**
Customer: **WQAP**
Project ID: **SMP**

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2600 Blair Stone Rd
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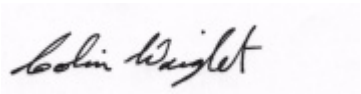
Certified by: Colin Wright, Program Administrator

Date Certified: 08-MAY-2017 15:54



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: EIGHTMILE CREEK @ JONES RD. **Collection Date/Time: 04/11/2017 11:05**

Field ID: G1TLHR0012-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1887329	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P323151	
	EPA 300.0 Rev. 2.1	Chloride	9.0		mg Cl/L	P323744	
	SM 2120 B	Color (true)	340		PCU	P323115	
	SM 2320 B-97	Total Alkalinity	104		mg CaCO3/L	P323886	
	SM 2540 C-97	TDS	181		mg/L	P323653	
	SM 2540 D-97	TSS	5	IA	mg/L	P323884	
	SM 4500 F-C-97	Fluoride	0.054	I	mg F/L	P324679	
1887332	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P323133	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P323288	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P323319	
	EPA 365.1 Rev. 2.0	Total-P	0.047		mg P/L	P323302	
	SM 5310 B-00	Organic Carbon	41		mg C/L	P323329	
1887335	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.022		mg P/L	P323108	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: OWL CREEK @ HWY 357 **Collection Date/Time: 04/11/2017 11:50**

Field ID: G1TLHR0010-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1887330	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P323150	
	EPA 300.0 Rev. 2.1	Chloride	5.6		mg Cl/L	P323744	
	SM 2120 B	Color (true)	610		PCU	P323115	
	SM 2320 B-97	Total Alkalinity	15		mg CaCO3/L	P323886	
	SM 2540 C-97	TDS	140		mg/L	P323653	
	SM 2540 D-97	TSS	2	I	mg/L	P323884	
	SM 4500 F-C-97	Fluoride	0.048	I	mg F/L	P324679	
1887333	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P323133	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P323288	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P323319	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P323302	
	SM 5310 B-00	Organic Carbon	53		mg C/L	P323329	
1887336	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P323109	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: MIDDLE WARRIOR CREEK @ US 98 **Collection Date/Time: 04/11/2017 12:35**

Field ID: G1TLHR0007-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1887331	EPA 180.1 Rev. 2.0	Turbidity	0.60		NTU	P323151	
	EPA 300.0 Rev. 2.1	Chloride	4.0		mg Cl/L	P323744	
	SM 2120 B	Color (true)	620		PCU	P323115	
	SM 2320 B-97	Total Alkalinity	5.5		mg CaCO3/L	P323886	
	SM 2540 C-97	TDS	123		mg/L	P323653	

Field ID: G1TLHR0007-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1887331	SM 2540 D-97	TSS	2	I	mg/L	P323884	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P324679	
1887334	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P323133	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P323288	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P323319	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P323302	
	SM 5310 B-00	Organic Carbon	51		mg C/L	P323329	
1887337	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.023		mg P/L	P323109	

Ref. Method and Comment:
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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323150

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323151

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323744

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323133

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323288

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323319

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323302

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323108

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323109

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

Reference Method: SM 2120 B
Batch ID: P323115

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P323886

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

Reference Method: SM 2540 C-97
Batch ID: P323653

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P323884

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P324679

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P323329

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: P323744

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323133

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323288

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323319

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323302

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323108

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323109

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: P323886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P324679

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P323329

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: P323744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887330	Chloride	101		P	90 - 110
1887605	Chloride	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887264	Ammonia-N	103	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887441	Kjeldahl Nitrogen	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323319

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887292	NO2NO3-N	99.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323302

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887323	Total-P	102	96.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887285	O-Phosphate-P	99.4	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323109

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887336	O-Phosphate-P	96.1	92.9	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P324679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1891234	Fluoride	98.4	99.0	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P323329

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1887224	Organic Carbon	103	102	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323150

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887280	Turbidity	1.24	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P323151

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887370	Turbidity	0.548	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P323744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887605	Chloride	0.0681	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P323133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887264	Ammonia-N	2.37	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P323288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887441	Kjeldahl Nitrogen	0.663	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P323319

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: P323319

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887292	NO2NO3-N	0.621	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P323302

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887323	Total-P	4.36	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887285	O-Phosphate-P	0.504	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P323109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887336	O-Phosphate-P	2.16	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P323115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887320	Color (true)	4.69	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P323886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887805	Total Alkalinity	1.58	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P323653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887320	TDS	3.77	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P324679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1891234	Fluoride	0.487	Spike	P	0 - 3.0

Quality Assurance Report
Precision

Reference Method: SM 5310 B-00
Batch ID: P323329

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1887224	Organic Carbon	0.537	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: A75721
Included Lab Sample IDs: 1887335, 1887336, 1887337

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.3	97.5	P/P	90 - 110
O-Phosphate-P	97.5	98.2	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A75722
Included Lab Sample IDs: 1887329, 1887330, 1887331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A75725
Included Lab Sample IDs: 1887332, 1887333, 1887334

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A75732
Included Lab Sample IDs: 1887329, 1887330, 1887331

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A75759
Included Lab Sample IDs: 1887332, 1887333, 1887334

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.5	94.5	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A75769
Included Lab Sample IDs: 1887332, 1887333, 1887334

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A75769
Included Lab Sample IDs: 1887332, 1887333, 1887334

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.6	98.2	P/P	90 - 110
Organic Carbon	97.9	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A75777
Included Lab Sample IDs: 1887333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A75781
Included Lab Sample IDs: 1887332, 1887333, 1887334

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A75787
Included Lab Sample IDs: 1887332, 1887334

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A75903
Included Lab Sample IDs: 1887329, 1887330, 1887331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Chloride	98.9	101	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A75952
Included Lab Sample IDs: 1887329, 1887330, 1887331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	105	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A76201
Included Lab Sample IDs: 1887329, 1887330, 1887331

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	100	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					1.24	
	Turbidity					0.548	
EPA 300.0 Rev. 2.1	Chloride	101	100	101		0.0681	
EPA 350.1 Rev. 2.0	Ammonia-N	104	103	106			2.37
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	102	102			0.663
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	99.5	98.5			0.621
EPA 365.1 Rev. 2.0	Total-P	100	102	96.4			4.36
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.9	99.4	98.9			0.504
	O-Phosphate-P	97.5	96.1	92.9			2.16
SM 2120 B	Color (true)					4.69	
SM 2320 B-97	Total Alkalinity	104				1.58	
SM 2540 C-97	TDS					3.77	
SM 4500 F-C-97	Fluoride	98.1	98.4	99.0			0.487
SM 5310 B-00	Organic Carbon	101	103	102			0.537

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1887329, 1887330, 1887331
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1887329, 1887330, 1887331
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1887332, 1887333, 1887334
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1887332, 1887333, 1887334
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1887332, 1887333, 1887334
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1887332, 1887333, 1887334
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1887335, 1887336, 1887337
SM 2120 B / E31780	True Color measured at 450 nm	1887329, 1887330, 1887331
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1887329, 1887330, 1887331
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1887329, 1887330, 1887331
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1887329, 1887330, 1887331
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1887329, 1887330, 1887331
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1887332, 1887333, 1887334

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/11/2017			04/11/2017 16:14	Blanca Fach	1887329, 1887330, 1887331
EPA 300.0 Rev. 2.1	04/11/2017			04/20/2017	Ping Hua	1887329, 1887330, 1887331
EPA 350.1 Rev. 2.0	04/11/2017			04/11/2017	Julie Michelle Frank	1887332, 1887333, 1887334
EPA 351.2 Rev. 2.0	04/11/2017	04/13/2017	Adrian Shelby	04/14/2017	Joseph Suarez	1887332, 1887333, 1887334
EPA 353.2 Rev. 2.0	04/11/2017			04/13/2017	Beverly Y. Sanders	1887332, 1887333, 1887334
EPA 365.1 Rev. 2.0	04/11/2017	04/13/2017	Adrian Shelby	04/13/2017	Lipi Saha	1887333
	04/11/2017	04/13/2017	Adrian Shelby	04/14/2017	Lipi Saha	1887332, 1887334
EPA 365.1 Rev. 2.0 dissolved	04/11/2017			04/11/2017 15:07	Lipi Saha	1887335
	04/11/2017			04/11/2017 15:14	Lipi Saha	1887336
	04/11/2017			04/11/2017 15:16	Lipi Saha	1887337
SM 2120 B	04/11/2017			04/11/2017 16:50	Julia Storbeck	1887329, 1887330
	04/11/2017			04/11/2017 16:51	Julia Storbeck	1887331
SM 2320 B-97	04/11/2017			04/22/2017	Dale L. Simmons	1887329, 1887330, 1887331
SM 2540 C-97	04/11/2017			04/14/2017	Yijie Li	1887329, 1887330, 1887331
SM 2540 D-97	04/11/2017			04/14/2017	Yijie Li	1887329, 1887330, 1887331
SM 4500 F-C-97	04/11/2017			05/02/2017	Dale L. Simmons	1887329, 1887330, 1887331
SM 5310 B-00	04/11/2017			04/12/2017	Julie Michelle Frank	1887332, 1887333, 1887334