

Chemical Analysis Report

SW-DIST-2017-01-26-01

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

Event Description: **SMP RUN 1**
Request ID: **RQ-2017-01-23-63**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
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FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 20-FEB-2017 10:09



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: ANCLOTE RIVER BAYOU COMPLEX (SPRING BAYOU) **Collection Date/Time: 01/25/2017 15:00**

Field ID: G5SW0078

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1866915	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P318846	
	SM 2320 B-97	Total Alkalinity	134		mg CaCO3/L	P318981	
	SM 2540 D-97	TSS	3	U	mg/L	P319306	
	SM 4500 F-C-97	Fluoride	0.93		mg F/L	P318986	
1866919	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P319036	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P318916	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P319161	
	EPA 365.1 Rev. 2.0	Total-P	0.031		mg P/L	P318957	
	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P318899	
1866923	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.013		mg P/L	P318808	

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: Pitt River

Collection Date/Time: 01/25/2017 13:00

Field ID: G5SW0029

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1866916	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P318846	
	SM 2320 B-97	Total Alkalinity	150		mg CaCO3/L	P318981	
	SM 2540 D-97	TSS	3	U	mg/L	P319306	
	SM 4500 F-C-97	Fluoride	0.83		mg F/L	P318986	
1866920	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P319036	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P318916	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.012		mg N/L	P319161	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P318957	
	SM 5310 B-00	Organic Carbon	5.2		mg C/L	P318899	
1866924	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P318808	

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: GOM SE

Collection Date/Time: 01/25/2017 13:30

Field ID: G5SW0061

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1866917	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P318846	
	SM 2320 B-97	Total Alkalinity	145		mg CaCO3/L	P318981	
	SM 2540 D-97	TSS	3	I	mg/L	P319306	
	SM 4500 F-C-97	Fluoride	0.93		mg F/L	P318986	
1866921	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P319036	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.50		mg N/L	P318923	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P319161	
	EPA 365.1 Rev. 2.0	Total-P	0.010		mg P/L	P318957	
	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P318899	
1866925	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P318808	

Field ID: G5SW0061

Matrix: W-SURF-SLT

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.							

Sample Location: GOM N

Collection Date/Time: 01/25/2017 11:25

Field ID: G5SW0120

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1866918	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P318846	
	SM 2320 B-97	Total Alkalinity	158		mg CaCO3/L	P318981	
	SM 2540 D-97	TSS	5	I	mg/L	P319307	
	SM 4500 F-C-97	Fluoride	0.71		mg F/L	P318986	
1866922	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P319036	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P318923	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P319162	
	EPA 365.1 Rev. 2.0	Total-P	0.008	I	mg P/L	P318957	
	SM 5310 B-00	Organic Carbon	5.1		mg C/L	P318929	
1866926	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P318808	

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: P318846

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P319036

Component	Result	Code	Units
Ammonia-N	0.002	U	

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P318916

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P318923

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P319161

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P319162

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318957

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318808

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

Reference Method: SM 2320 B-97
Batch ID: P318981

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

Reference Method: SM 2540 D-97
Batch ID: P319306

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P319307

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P318986

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P318899

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-00
Batch ID: P318929

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P319036

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: P318916

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318923

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P319161

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P319162

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318957

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318808

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

Reference Method: SM 2320 B-97
Batch ID: P318981

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

Reference Method: SM 4500 F-C-97
Batch ID: P318986

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.5		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P318899

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

Reference Method: SM 5310 B-00
Batch ID: P318929

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P319036

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1866919	Ammonia-N	108	108	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318916

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1866877	Kjeldahl Nitrogen	103	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P318923

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1867075	Kjeldahl Nitrogen	99.8	96.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P319161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1866817	NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P319162

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1866922	NO2NO3-N	103	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318957

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1866920	Total-P	92.6	95.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318808

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P318808

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1866926	O-Phosphate-P	96.8	99.3	P/P	90 - 110

Reference Method: SM 4500 F-C-97
 Batch ID: P318986

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1866884	Fluoride	96.7	99.0	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P318899

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1866303	Organic Carbon	97.2	97.7	P/P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P318929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1867074	Organic Carbon	91.3	93.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P318846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866874	Turbidity	3.26	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P319036

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866919	Ammonia-N	0.0277	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P318916

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866877	Kjeldahl Nitrogen	2.96	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P318923

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1867075	Kjeldahl Nitrogen	2.25	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P319161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866817	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P319162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866922	NO2NO3-N	3.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P318957

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866920	Total-P	2.94	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P318808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866926	O-Phosphate-P	2.55	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P318981

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866884	Total Alkalinity	0.624	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P318986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866884	Fluoride	1.48	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P318899

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1866303	Organic Carbon	0.366	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P318929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1867074	Organic Carbon	1.43	Spike	P	0 - 20

Quality Assurance Report Precision

* 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: A74133

Included Lab Sample IDs: 1866923, 1866924, 1866925, 1866926

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	98.8	P/P	90 - 110
O-Phosphate-P	99.7	99.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A74142

Included Lab Sample IDs: 1866915, 1866916, 1866917, 1866918

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

Reference Method: SM 5310 B-00

Run ID: A74153

Included Lab Sample IDs: 1866919, 1866920, 1866921

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.0	99.4	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A74160

Included Lab Sample IDs: 1866922

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.5	92.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A74180

Included Lab Sample IDs: 1866915, 1866916, 1866917, 1866918

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110
Total Alkalinity	104	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A74180

Included Lab Sample IDs: 1866915, 1866916, 1866917, 1866918

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74187

Included Lab Sample IDs: 1866919, 1866920

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A74187
Included Lab Sample IDs: 1866919, 1866920

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.9	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A74188
Included Lab Sample IDs: 1866919, 1866920, 1866921, 1866922

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A74196
Included Lab Sample IDs: 1866921, 1866922

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.4	99.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A74202
Included Lab Sample IDs: 1866919, 1866920, 1866921, 1866922

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A74232
Included Lab Sample IDs: 1866919, 1866920, 1866921, 1866922

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110
NO2NO3-N	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		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					3.26	
EPA 350.1 Rev. 2.0	Ammonia-N	104	108	108			0.0277
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	103	99.0			2.96
	Kjeldahl Nitrogen	98.8	99.8	96.4			2.25
EPA 353.2 Rev. 2.0	NO2NO3-N	104	105	105			0.0
	NO2NO3-N	99.5	103	107			3.46
EPA 365.1 Rev. 2.0	Total-P	96.3	92.6	95.4			2.94
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	96.8	99.3			2.55
SM 2320 B-97	Total Alkalinity	103				0.624	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 4500 F-C-97	Fluoride	98.5	96.7	99.0		1.48
SM 5310 B-00	Organic Carbon	101	97.2	97.7		0.366
	Organic Carbon	95.6	91.3	93.1		1.43

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1866915, 1866916, 1866917, 1866918
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1866919, 1866920, 1866921, 1866922
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1866919, 1866920, 1866921, 1866922
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1866919, 1866920, 1866921, 1866922
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1866919, 1866920, 1866921, 1866922
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1866923, 1866924, 1866925, 1866926
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1866915, 1866916, 1866917, 1866918
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1866915, 1866916, 1866917, 1866918
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1866915, 1866916, 1866917, 1866918
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1866919, 1866920, 1866921, 1866922

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	01/26/2017			01/26/2017 15:52	Sima Feizi	1866915, 1866916, 1866917, 1866918
EPA 350.1 Rev. 2.0	01/26/2017			01/31/2017	Sofia Elnemr	1866919, 1866920, 1866921, 1866922
EPA 351.2 Rev. 2.0	01/26/2017	01/30/2017	Adrian Shelby	01/31/2017	Joseph Suarez	1866919, 1866920, 1866921, 1866922
EPA 353.2 Rev. 2.0	01/26/2017			02/02/2017	Beverly Y. Sanders	1866919, 1866920, 1866921, 1866922
EPA 365.1 Rev. 2.0	01/26/2017	01/30/2017	Vijayalakshmi Reddy	01/31/2017	Lipi Saha	1866919, 1866920, 1866921, 1866922
EPA 365.1 Rev. 2.0 dissolved	01/26/2017			01/26/2017 15:33	Julie Michelle Frank	1866926
	01/26/2017			01/26/2017 16:14	Julie Michelle Frank	1866923
	01/26/2017			01/26/2017 16:15	Julie Michelle Frank	1866924, 1866925
SM 2320 B-97	01/26/2017			01/31/2017	Dale L. Simmons	1866915, 1866916, 1866917, 1866918
SM 2540 D-97	01/26/2017			01/30/2017	Sima Feizi	1866915, 1866916, 1866917, 1866918
SM 4500 F-C-97	01/26/2017			01/31/2017	Dale L. Simmons	1866915, 1866916, 1866917, 1866918
SM 5310 B-00	01/26/2017			01/27/2017	Jared I. Manley	1866919, 1866920, 1866921
	01/26/2017			01/28/2017	Julie Michelle Frank	1866922