

Chemical Analysis Report

SE-DIST-2017-09-01-02

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

Event Description: **SMP-Biscayne bay Run**
Request ID: **RQ-2017-08-28-33**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 22-SEP-2017 13:54

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light-colored rectangular background.

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: WBID 8089 ENR7

Collection Date/Time: 08/31/2017 10:00

Field ID: G4SE0104

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1927213	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P331210	
	SM 2320 B-97	Total Alkalinity	119		mg CaCO3/L	P331538	
	SM 2540 D-97	TSS	3	U	mg/L	P331582	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P331745	
1927217	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P331456	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35	I	mg N/L	P331305	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P331418	
	EPA 365.1 Rev. 2.0	Total-P	0.006	IJ	mg P/L	P331260	MS
	SM 5310 B-00	Organic Carbon	2.2		mg C/L	P331765	
1927221	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331207	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Refer to the narrative for an explanation of QC Codes.

Sample Location: WBID 8089 ENR6

Collection Date/Time: 08/31/2017 10:25

Field ID: G4SE0105

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1927214	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P331210	
	SM 2320 B-97	Total Alkalinity	121		mg CaCO3/L	P331538	
	SM 2540 D-97	TSS	3	U	mg/L	P331582	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P331745	
1927218	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P331456	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	I	mg N/L	P331305	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P331418	
	EPA 365.1 Rev. 2.0	Total-P	0.007	I	mg P/L	P331260	MS
	SM 5310 B-00	Organic Carbon	1.6	I	mg C/L	P331337	
1927222	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331207	

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: WBID 8088 ENR7

Collection Date/Time: 08/31/2017 11:15

Field ID: G4SE0103

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1927215	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P331210	
	SM 2320 B-97	Total Alkalinity	124	A	mg CaCO3/L	P331538	
	SM 2540 D-97	TSS	3	U	mg/L	P331582	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P331745	
1927219	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P331456	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39	I	mg N/L	P331305	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P331418	
	EPA 365.1 Rev. 2.0	Total-P	0.005	I	mg P/L	P331260	MS
	SM 5310 B-00	Organic Carbon	2.5		mg C/L	P331337	
1927223	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331207	

Field ID: G4SE0103

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: WBID 8088 ENR6

Collection Date/Time: 08/31/2017 11:40

Field ID: G4SE0102

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1927216	EPA 180.1 Rev. 2.0	Turbidity	0.25		NTU	P331210	
	SM 2320 B-97	Total Alkalinity	121		mg CaCO3/L	P331538	
	SM 2540 D-97	TSS	3	UA	mg/L	P331582	
	SM 4500 F-C-97	Fluoride	1.3		mg F/L	P331745	
1927220	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P331456	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27	I	mg N/L	P331305	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P331418	
	EPA 365.1 Rev. 2.0	Total-P	0.005	I	mg P/L	P331260	MS
	SM 5310 B-00	Organic Carbon	1.6	I	mg C/L	P331765	
1927224	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331207	

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: P331210

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P331456

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P331305

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P331418

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P331260

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: P331207

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

Reference Method: SM 2320 B-97
Batch ID: P331538

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

Reference Method: SM 2540 D-97
Batch ID: P331582

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P331745

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P331337

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

Reference Method: SM 5310 B-00
Batch ID: P331765

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: P331456

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331305

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331418

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331418

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: P331260

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P331207

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

Reference Method: SM 2320 B-97
Batch ID: P331538

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

Reference Method: SM 4500 F-C-97
Batch ID: P331745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P331337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	104		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P331765

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 350.1 Rev. 2.0
Batch ID: P331456

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1927217	Ammonia-N	96.7	95.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331305

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331305

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1926713	Kjeldahl Nitrogen	101	95.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331418

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1926711	NO2NO3-N	106	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P331260

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1927217	Total-P	84.3	87.0	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P331207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1927222	O-Phosphate-P	99.3	99.4	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P331745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1927215	Fluoride	93.5	93.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P331337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1926633	Organic Carbon	104	104	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P331765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1927217	Organic Carbon	95.3	94.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P331210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1927107	Turbidity	0.0	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1927217	Ammonia-N	0.858	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331305

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1926713	Kjeldahl Nitrogen	4.20	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1926711	NO2NO3-N	0.475	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P331260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1927217	Total-P	3.24	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P331207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1927222	O-Phosphate-P	0.101	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P331538

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1927215	Total Alkalinity	0.608	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P331745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1927215	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P331337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1926633	Organic Carbon	0.139	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P331765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1927217	Organic Carbon	0.497	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: A78758
Included Lab Sample IDs: 1927221, 1927222, 1927223, 1927224

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A78760
Included Lab Sample IDs: 1927213, 1927214, 1927215, 1927216

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

Reference Method: SM 5310 B-00
Run ID: A78811
Included Lab Sample IDs: 1927218, 1927219

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A78843
Included Lab Sample IDs: 1927217, 1927218, 1927219, 1927220

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	103	P/P	90 - 110
Kjeldahl Nitrogen	103	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A78844
Included Lab Sample IDs: 1927217, 1927218, 1927219, 1927220

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A78849
Included Lab Sample IDs: 1927217, 1927218, 1927219, 1927220

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A78849

Included Lab Sample IDs: 1927217, 1927218, 1927219, 1927220

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A78858

Included Lab Sample IDs: 1927217, 1927218, 1927219, 1927220

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.5	98.3	P/P	90 - 110
Ammonia-N	98.2	97.5	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A78874

Included Lab Sample IDs: 1927213, 1927214, 1927215, 1927216

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

Reference Method: SM 4500 F-C-97

Run ID: A78959

Included Lab Sample IDs: 1927213, 1927214, 1927215, 1927216

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

Reference Method: SM 5310 B-00

Run ID: A78968

Included Lab Sample IDs: 1927217, 1927220

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.3	95.8	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				0.0	
EPA 350.1 Rev. 2.0	Ammonia-N	98.0	96.7	95.7		0.858
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	101	95.3		4.20
EPA 353.2 Rev. 2.0	NO2NO3-N	104	106	105		0.475
EPA 365.1 Rev. 2.0	Total-P	95.0	84.3	87.0		3.24
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104	99.3	99.4		0.101
SM 2320 B-97	Total Alkalinity	103			0.608	
SM 4500 F-C-97	Fluoride	98.3	93.5	93.5		0.0
SM 5310 B-00	Organic Carbon	104	104	104		0.139

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision	MS
				LCS SMP	
SM 5310 B-00	Organic Carbon	95.8	95.3 94.8		0.497

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1927213, 1927214, 1927215, 1927216
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1927217, 1927218, 1927219, 1927220
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1927217, 1927218, 1927219, 1927220
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1927217, 1927218, 1927219, 1927220
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1927217, 1927218, 1927219, 1927220
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1927221, 1927222, 1927223, 1927224
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1927213, 1927214, 1927215, 1927216
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1927213, 1927214, 1927215, 1927216
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1927213, 1927214, 1927215, 1927216
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1927217, 1927218, 1927219, 1927220

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	09/01/2017			09/01/2017 16:50	Tanya Welborn	1927213, 1927214, 1927215, 1927216
EPA 350.1 Rev. 2.0	09/01/2017			09/06/2017	Sofia Elnemr	1927217, 1927218, 1927219, 1927220
EPA 351.2 Rev. 2.0	09/01/2017	09/06/2017	Adrian Shelby	09/07/2017	Joseph Suarez	1927217, 1927218, 1927219, 1927220
EPA 353.2 Rev. 2.0	09/01/2017			09/07/2017	Beverly Y. Sanders	1927217, 1927218, 1927219, 1927220
EPA 365.1 Rev. 2.0	09/01/2017	09/05/2017	Sima Feizi	09/07/2017	Lipi Saha	1927217, 1927218, 1927219, 1927220
EPA 365.1 Rev. 2.0 dissolved	09/01/2017			09/01/2017 14:39	Megan Treadwell	1927222
	09/01/2017			09/01/2017 15:04	Megan Treadwell	1927224
	09/01/2017			09/01/2017 15:05	Megan Treadwell	1927221
	09/01/2017			09/01/2017 15:06	Megan Treadwell	1927223
SM 2320 B-97	09/01/2017			09/08/2017	Dale L. Simmons	1927213, 1927214, 1927215, 1927216
SM 2540 D-97	09/01/2017			09/06/2017	Yijie Li	1927213, 1927214, 1927215, 1927216
SM 4500 F-C-97	09/01/2017			09/16/2017	Dale L. Simmons	1927213, 1927214, 1927215, 1927216
SM 5310 B-00	09/01/2017			09/06/2017	Ping Hua	1927218, 1927219
	09/01/2017			09/16/2017	Sofia Elnemr	1927217, 1927220