

Chemical Analysis Report

TLH-ROC-2017-09-06-01

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

Event Description: **SMP 2016 Freshwater Kit A**
Request ID: **RQ-2017-07-17-36**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Curtis Musson

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Certified by: Colin Wright, Program Administrator

Date Certified: 29-SEP-2017 10:46

A handwritten signature in black ink, appearing to read "Colin Wright", is written 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: Ellaville Spring Vent

Collection Date/Time: 09/06/2017 10:35

Field ID: G1TLHR0027-2017-03

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928377	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P331393	
	EPA 300.0 Rev. 2.1	Chloride	5.3		mg Cl/L	P331761	
	SM 2120 B	Color (true)	8.5		PCU	P331397	
	SM 2320 B-97	Total Alkalinity	202	A	mg CaCO3/L	P331732	
	SM 2540 C-97	TDS	260	A	mg/L	P331700	
	SM 2540 D-97	TSS	2	IA	mg/L	P331827	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P331736	
1928379	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P331767	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.11	I	mg N/L	P331781	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.5		mg N/L	P331615	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P331623	MS
	SM 5310 B-00	Organic Carbon	1.3		mg C/L	P331896	
1928381	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.040		mg P/L	P331382	

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 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Middle of Lake Francis

Collection Date/Time: 09/06/2017 11:40

Field ID: G1TLHR0045-2017-03

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1928378	EPA 180.1 Rev. 2.0	Turbidity	9.5	A	NTU	P331394	
	EPA 300.0 Rev. 2.1	Chloride	2.4		mg Cl/L	P331761	
	SM 2120 B	Color (true)	19		PCU	P331397	
	SM 2320 B-97	Total Alkalinity	60		mg CaCO3/L	P331732	
	SM 2540 C-97	TDS	86		mg/L	P331700	
	SM 2540 D-97	TSS	9	I	mg/L	P331827	
	SM 4500 F-C-97	Fluoride	0.073	I	mg F/L	P331736	
1928380	EPA 350.1 Rev. 2.0	Ammonia-N	0.023		mg N/L	P331767	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P331781	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P331616	
	EPA 365.1 Rev. 2.0	Total-P	0.085		mg P/L	P331623	MS
	SM 5310 B-00	Organic Carbon	10		mg C/L	P331896	
1928382	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P331382	

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 dissolved: O-Phosphate-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: P331393

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P331393

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P331394

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331761

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331767

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331781

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331615

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331616

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P331623

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P331382

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P331397

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P331732

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

Reference Method: SM 2540 C-97
Batch ID: P331700

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P331827

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P331736

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P331896

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: P331761

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331767

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: P331781

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P331781

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P331615

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: P331616

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: P331623

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	91.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P331382

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

Reference Method: SM 2320 B-97
 Batch ID: P331732

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	95 - 108

Reference Method: SM 4500 F-C-97
 Batch ID: P331736

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.9		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P331896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P331761

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928350	Chloride	96.7		P	90 - 110
1928389	Chloride	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331767

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928379	Ammonia-N	97.4	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928351	Kjeldahl Nitrogen	95.9	95.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331615

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928241	NO2NO3-N	105		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331616

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928392	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P331623

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928352	Total-P	88.1	87.8	F/F	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P331736

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928377	Fluoride	97.5	97.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P331896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1928217	Organic Carbon	95.8	96.8	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P331393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928000	Turbidity	4.41	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P331394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928378	Turbidity	1.79	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P331761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928350	Chloride	3.14	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331767

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928379	Ammonia-N	1.00	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P331781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928351	Kjeldahl Nitrogen	0.429	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331615

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928241	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P331616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928392	NO2NO3-N	0.273	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P331623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928352	Total-P	0.211	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P331382

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928355	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P331397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928213	Color (true)	2.36	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P331732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928377	Total Alkalinity	0.595	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P331700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928377	TDS	6.53	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P331736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928377	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P331896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1928217	Organic Carbon	0.793	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: A78827
Included Lab Sample IDs: 1928381, 1928382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	102	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A78829

Included Lab Sample IDs: 1928377, 1928378

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

Reference Method: SM 2120 B

Run ID: A78831

Included Lab Sample IDs: 1928377, 1928378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	104	106	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A78906

Included Lab Sample IDs: 1928379, 1928380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110
NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A78935

Included Lab Sample IDs: 1928380

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A78940

Included Lab Sample IDs: 1928377, 1928378

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

Reference Method: SM 2320 B-97

Run ID: A78958

Included Lab Sample IDs: 1928377, 1928378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	98.2	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A78958

Included Lab Sample IDs: 1928377, 1928378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.6	98.5	P/P	90 - 110
Fluoride	98.5	98.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A78970

Included Lab Sample IDs: 1928379, 1928380

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A78970
Included Lab Sample IDs: 1928379, 1928380

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A78979
Included Lab Sample IDs: 1928379

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A79016
Included Lab Sample IDs: 1928379, 1928380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.9	103	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A79031
Included Lab Sample IDs: 1928379, 1928380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	94.2	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				4.41	
	Turbidity				1.79	
EPA 300.0 Rev. 2.1	Chloride	101	96.7 98.5		3.14	
EPA 350.1 Rev. 2.0	Ammonia-N	104	97.4 98.4			1.00
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	95.9 95.3			0.429
EPA 353.2 Rev. 2.0	NO2NO3-N	106	105			0.0
	NO2NO3-N	106	106 106			0.273
EPA 365.1 Rev. 2.0	Total-P	91.4	88.1 87.8			0.211
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.9				0.0
SM 2120 B	Color (true)				2.36	
SM 2320 B-97	Total Alkalinity	100			0.595	
SM 2540 C-97	TDS				6.53	
SM 4500 F-C-97	Fluoride	95.9	97.5 97.5			0.0
SM 5310 B-00	Organic Carbon	96.0	95.8 96.8			0.793

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1928377, 1928378
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1928377, 1928378
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1928379, 1928380
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1928379, 1928380
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1928379, 1928380
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1928379, 1928380
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1928381, 1928382
SM 2120 B / E31780	True Color measured at 450 nm	1928377, 1928378
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1928377, 1928378
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1928377, 1928378
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1928377, 1928378
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1928377, 1928378
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1928379, 1928380

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	09/06/2017			09/06/2017 17:24	DeAsia Armster	1928377, 1928378
EPA 300.0 Rev. 2.1	09/06/2017			09/15/2017	Julia Storbeck	1928377, 1928378
EPA 350.1 Rev. 2.0	09/06/2017			09/15/2017	Sofia Elnemr	1928379, 1928380
EPA 351.2 Rev. 2.0	09/06/2017	09/18/2017	Adrian Shelby	09/19/2017	Joseph Suarez	1928379, 1928380
EPA 353.2 Rev. 2.0	09/06/2017			09/14/2017	Beverly Y. Sanders	1928379, 1928380
EPA 365.1 Rev. 2.0	09/06/2017	09/14/2017	Sima Feizi	09/15/2017	Lipi Saha	1928380
	09/06/2017	09/14/2017	Sima Feizi	09/18/2017	Lipi Saha	1928379
EPA 365.1 Rev. 2.0 dissolved	09/06/2017			09/06/2017 18:22	Megan Treadwell	1928381
	09/06/2017			09/06/2017 18:23	Megan Treadwell	1928382
SM 2120 B	09/06/2017			09/06/2017 17:36	Tanya Welborn	1928377
	09/06/2017			09/06/2017 17:37	Tanya Welborn	1928378
SM 2320 B-97	09/06/2017			09/15/2017	Dale L. Simmons	1928377, 1928378
SM 2540 C-97	09/06/2017			09/08/2017	Yijie Li	1928377, 1928378
SM 2540 D-97	09/06/2017			09/08/2017	Yijie Li	1928377, 1928378
SM 4500 F-C-97	09/06/2017			09/15/2017	Dale L. Simmons	1928377, 1928378
SM 5310 B-00	09/06/2017			09/19/2017	Ping Hua	1928379, 1928380