

Chemical Analysis Report

SO-DIST-2018-06-29-02

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

Event Description: **Lake Pythias, Huckleberry Lake, Pearl Lake, Lake Henry**
Request ID: **RQ-2018-04-02-73**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
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FLDEP South District Office
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Date Certified: 23-JUL-2018 11:30



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: Lake Pythias @ Middle

Collection Date/Time: 06/28/2018 10:00

Field ID: G4SD0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2004379	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P347783	
	EPA 300.0 Rev. 2.1	Chloride	18	A	mg Cl/L	P348363	
		Sulfate	30	A	mg SO4/L	P348367	
	SM 2120 B	Color (true)	12	A	PCU	P347778	
	SM 2320 B-97	Total Alkalinity	3.4	AJ	mg CaCO3/L	P348196	RPD
	SM 2540 C-97	TDS	88		mg/L	P348156	
	SM 2540 D-97	TSS	4	I	mg/L	P348064	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P348103	
2004381	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P348353	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P348139	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P347833	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P348077	
	SM 5310 B-00	Organic Carbon	4.6		mg C/L	P348328	
2004383	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P347922	

Ref. Method and Comment:

SM 2320 B-97: Refer to the narrative for an explanation of QC Codes.

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

Sample Location: LakeHuckleberry-2Middle

Collection Date/Time: 06/28/2018 11:45

Field ID: G4SD0166

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2004380	EPA 180.1 Rev. 2.0	Turbidity	19	A	NTU	P347783	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P348363	
		Sulfate	3.8		mg SO4/L	P348367	
	SM 2120 B	Color (true)	90	A	PCU	P347779	
	SM 2320 B-97	Total Alkalinity	14		mg CaCO3/L	P348196	RPD
	SM 2540 C-97	TDS	88		mg/L	P348156	
	SM 2540 D-97	TSS	8	I	mg/L	P348064	
	SM 4500 F-C-97	Fluoride	0.083	I	mg F/L	P348103	
2004382	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P348353	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P348139	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P347833	
	EPA 365.1 Rev. 2.0	Total-P	0.046		mg P/L	P348077	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P348373	
2004384	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	I	mg P/L	P347922	

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: P347783

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348363

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348367

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348353

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348139

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P347833

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348077

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P347922

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

Reference Method: SM 2120 B
Batch ID: P347778

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P347779

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P348196

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

Reference Method: SM 2540 C-97
Batch ID: P348156

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P348064

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P348103

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P348328

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

Reference Method: SM 5310 B-00
Batch ID: P348373

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: P348363

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348367

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348353

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348139

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P347833

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P347922

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

Reference Method: SM 2120 B
Batch ID: P347778

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.5		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P347779

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P348196

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P348103

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

Reference Method: SM 5310 B-00
Batch ID: P348328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.6		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P348373

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348363

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2004379	Chloride	98.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348367

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2004379	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348353

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2004381	Ammonia-N	98.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348139

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2004381	Kjeldahl Nitrogen	102	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P347833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2004381	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2004312	Total-P	98.8	92.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P347922

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2003957	O-Phosphate-P	90.6	91.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P348103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2004379	Fluoride	98.4	97.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P348328

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2003948	Organic Carbon	100	102	P/P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P348373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2004306	Organic Carbon	101		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P347783

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004380	Turbidity	1.59	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004379	Chloride	0.758	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P348367

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004379	Sulfate	0.888	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P348353

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004381	Ammonia-N	1.77	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P348139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004381	Kjeldahl Nitrogen	1.26	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P347833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004381	NO2NO3-N	0.980	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P348077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004312	Total-P	5.24	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P347922

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2003957	O-Phosphate-P	1.32	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P347778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004379	Color (true)	1.59	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P347779

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004380	Color (true)	1.22	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P348196

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004379	Total Alkalinity	3.62	Sample	F	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P348156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004302	TDS	3.51	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P348103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004379	Fluoride	0.509	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P348328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2003948	Organic Carbon	0.975	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P348373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2004306	Organic Carbon	1.70	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: SM 2120 B

Run ID: A84943

Included Lab Sample IDs: 2004379, 2004380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 115
Color (true)	102	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A84944

Included Lab Sample IDs: 2004379, 2004380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.0	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A84966

Included Lab Sample IDs: 2004381, 2004382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A85002

Included Lab Sample IDs: 2004383, 2004384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.2	99.4	P/P	90 - 110
O-Phosphate-P	99.4	97.0	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A85091

Included Lab Sample IDs: 2004379, 2004380

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85110

Included Lab Sample IDs: 2004381, 2004382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	101	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A85129

Included Lab Sample IDs: 2004379, 2004380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	107	P/P	90 - 110
Total Alkalinity	107	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A85182
Included Lab Sample IDs: 2004381

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A85187
Included Lab Sample IDs: 2004379, 2004380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.3	98.6	P/P	90 - 110
Sulfate	98.6	96.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A85188
Included Lab Sample IDs: 2004381, 2004382

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A85189
Included Lab Sample IDs: 2004381, 2004382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	102	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A85195
Included Lab Sample IDs: 2004382

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.9	99.8	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	MS
						SMP	
EPA 180.1 Rev. 2.0	Turbidity					1.59	
EPA 300.0 Rev. 2.1	Chloride	99.5	98.4			0.758	
	Sulfate	97.1	101			0.888	
EPA 350.1 Rev. 2.0	Ammonia-N	100	98.5	100			1.77
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	102	100			1.26
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	102	102			0.980
EPA 365.1 Rev. 2.0	Total-P	97.8	98.8	92.5			5.24
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	90.6	91.8			1.32
SM 2120 B	Color (true)	99.5				1.59	
	Color (true)	102				1.22	
SM 2320 B-97	Total Alkalinity	104				3.62	
SM 2540 C-97	TDS					3.51	
SM 4500 F-C-97	Fluoride	101	98.4	97.8			0.509
SM 5310 B-00	Organic Carbon	99.6	100	102			0.975
	Organic Carbon	95.1	101				1.70

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2004379, 2004380
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2004379, 2004380
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2004379, 2004380
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2004381, 2004382
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2004381, 2004382
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2004381, 2004382
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2004381, 2004382
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2004383, 2004384
SM 2120 B / E31780	True Color measured at 450 nm	2004379, 2004380
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2004379, 2004380
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2004379, 2004380
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2004379, 2004380
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2004379, 2004380
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2004381, 2004382

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	06/29/2018			06/29/2018 16:25	William L. Brown IV	2004379, 2004380
EPA 300.0 Rev. 2.1	06/29/2018			07/10/2018 21:52	Lipi Saha	2004379
	06/29/2018			07/10/2018 22:40	Lipi Saha	2004380
EPA 350.1 Rev. 2.0	06/29/2018			07/12/2018 11:31	Ping Hua	2004381
	06/29/2018			07/12/2018 11:32	Ping Hua	2004382
EPA 351.2 Rev. 2.0	06/29/2018	07/10/2018 15:30	Adrian Shelby	07/12/2018 13:57	Joseph Suarez	2004381
	06/29/2018	07/10/2018 15:30	Adrian Shelby	07/12/2018 14:01	Joseph Suarez	2004382
EPA 353.2 Rev. 2.0	06/29/2018			07/02/2018 12:47	Lauren Bottorf	2004381
	06/29/2018			07/02/2018 12:57	Lauren Bottorf	2004382
EPA 365.1 Rev. 2.0	06/29/2018	07/09/2018 12:30	Lipi Saha	07/10/2018 11:45	Beverly Y. Sanders	2004381
	06/29/2018	07/09/2018 12:30	Lipi Saha	07/10/2018 11:46	Beverly Y. Sanders	2004382
EPA 365.1 Rev. 2.0 dissolved	06/29/2018			06/29/2018 15:00	Megan Treadwell	2004383
	06/29/2018			06/29/2018 15:05	Megan Treadwell	2004384
SM 2120 B	06/29/2018			06/29/2018 15:46	Tanya Welborn	2004379
	06/29/2018			06/29/2018 15:56	Tanya Welborn	2004380
SM 2320 B-97	06/29/2018			07/10/2018 19:25	Dale L. Simmons	2004379
	06/29/2018			07/10/2018 21:01	Dale L. Simmons	2004380
SM 2540 C-97	06/29/2018			07/03/2018 14:08	Yijie Li	2004379, 2004380
SM 2540 D-97	06/29/2018			07/03/2018 14:08	Yijie Li	2004379, 2004380
SM 4500 F-C-97	06/29/2018			07/07/2018 12:21	Dale L. Simmons	2004379
	06/29/2018			07/07/2018 14:45	Dale L. Simmons	2004380
SM 5310 B-00	06/29/2018			07/11/2018 23:49	Megan Treadwell	2004381
	06/29/2018			07/12/2018 00:35	Megan Treadwell	2004382