

Chemical Analysis Report

SE-DIST-2019-07-24-01

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

Event Description: **SMP-Kevin Run**
Request ID: **RQ-2019-07-22-62**
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.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 09-AUG-2019 11:20

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored 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 by the Florida Department of Health Environmental Laboratory Certification Program 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: Popash Slough @ 67th Dr.

Collection Date/Time: 07/23/2019 13:10

Field ID: G1SE0027

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105405	EPA 180.1 Rev. 2.0	Turbidity	5.9	A	NTU	P367855	
	EPA 300.0 Rev. 2.1	Chloride	150		mg Cl/L	P367958	
		Sulfate	40		mg SO4/L	P367960	
	SM 2120 B	Color (true)	390		PCU	P367907	
	SM 2320 B-97	Total Alkalinity	70		mg CaCO3/L	P367975	
	SM 2540 C-97	TDS	477		mg/L	P368344	
	SM 2540 D-97	TSS	6	I	mg/L	P368001	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P367977	
2105406	EPA 350.1 Rev. 2.0	Ammonia-N	0.099		mg N/L	P368533	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P368012	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P367986	
	EPA 365.1 Rev. 2.0	Total-P	0.61		mg P/L	P367889	
	SM 5310 B-00	Organic Carbon	30		mg C/L	P367968	
2105407	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.49		mg P/L	P367843	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Taylor Creek @ 441

Collection Date/Time: 07/23/2019 13:30

Field ID: G1SE0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105408	EPA 180.1 Rev. 2.0	Turbidity	4.1		NTU	P367855	
	EPA 300.0 Rev. 2.1	Chloride	81		mg Cl/L	P367958	
		Sulfate	83		mg SO4/L	P367960	
	SM 2120 B	Color (true)	81		PCU	P367907	
	SM 2320 B-97	Total Alkalinity	68		mg CaCO3/L	P367975	
	SM 2540 C-97	TDS	366		mg/L	P368344	
	SM 2540 D-97	TSS	10	I	mg/L	P368001	
	SM 4500 F-C-97	Fluoride	0.077	I	mg F/L	P367977	
2105410	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P368533	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P368012	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P367986	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P367889	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P367968	
2105412	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.058		mg P/L	P367843	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: L-63N canal @ SR 70

Collection Date/Time: 07/23/2019 13:45

Field ID: G1SE0023

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105409	EPA 180.1 Rev. 2.0	Turbidity	5.0		NTU	P367855	
	EPA 300.0 Rev. 2.1	Chloride	85		mg Cl/L	P367958	
		Sulfate	53		mg SO4/L	P367960	
	SM 2120 B	Color (true)	150		PCU	P367907	
	SM 2320 B-97	Total Alkalinity	74		mg CaCO3/L	P367975	
	SM 2540 C-97	TDS	349		mg/L	P368344	
	SM 2540 D-97	TSS	11		mg/L	P368001	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P367977	
2105411	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P368533	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P368012	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P367986	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P367889	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P367968	
2105413	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P367843	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500 F-C-97: 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: P367855

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367958

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367960

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368533

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368012

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367986

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P367889

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367843

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

Reference Method: SM 2120 B
Batch ID: P367907

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P367975

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

Reference Method: SM 2540 C-97
Batch ID: P368344

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P368001

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P367977

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P367968

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: P367958

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367960

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368533

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368012

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367986

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: P367889

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.1		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367843

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

Reference Method: SM 2120 B
Batch ID: P367907

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

Reference Method: SM 2320 B-97
Batch ID: P367975

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P367977

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.6		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P367968

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105365	Chloride	100	99.2	P/P	90 - 110
2105582	Chloride	95.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367960

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105365	Sulfate	101	100	P/P	90 - 110
2105582	Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368533

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105366	Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105424	Kjeldahl Nitrogen	98.6	90.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367986

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105350	NO2NO3-N	98.4	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P367889

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105350	Total-P	105	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367843

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105591	O-Phosphate-P	96.8	97.9	P/P	90 - 110

Reference Method: SM 5310 B-00
Batch ID: P367968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105137	Organic Carbon	98.6	98.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P367855

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105405	Turbidity	3.74	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105365	Chloride	0.783	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P367960

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105365	Sulfate	0.825	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P368533

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105366	Ammonia-N	0.890	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P368012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105424	Kjeldahl Nitrogen	4.23	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105350	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P367889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105350	Total-P	4.39	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105591	O-Phosphate-P	1.13	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P367907

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105513	Color (true)	0.158	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P367975

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105288	Total Alkalinity	0.922	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P368344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105513	TDS	0.332	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P367977

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105288	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P367968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105137	Organic Carbon	0.139	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 300.0 Rev. 2.1

Run ID: A92954

Included Lab Sample IDs: 2105405, 2105408, 2105409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	101	P/P	90 - 110
Sulfate	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A92997

Included Lab Sample IDs: 2105407, 2105412, 2105413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.3	96.4	P/P	90 - 110
O-Phosphate-P	99.3	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A93008

Included Lab Sample IDs: 2105405, 2105408, 2105409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	102	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A93029

Included Lab Sample IDs: 2105405, 2105408, 2105409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	90 - 115
Color (true)	100	102	P/P	90 - 115

Reference Method: SM 5310 B-00

Run ID: A93042

Included Lab Sample IDs: 2105406, 2105410, 2105411

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

Reference Method: SM 2320 B-97

Run ID: A93046

Included Lab Sample IDs: 2105405, 2105408, 2105409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	104	P/P	90 - 110
Total Alkalinity	104	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A93046

Included Lab Sample IDs: 2105405, 2105408, 2105409

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A93048

Included Lab Sample IDs: 2105406, 2105410, 2105411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A93050

Included Lab Sample IDs: 2105406, 2105410, 2105411

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A93116

Included Lab Sample IDs: 2105406, 2105410, 2105411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	95.2	P/P	90 - 110
Kjeldahl Nitrogen	94.5	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A93301

Included Lab Sample IDs: 2105406, 2105410, 2105411

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

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision	
						LCS	MS
EPA 180.1 Rev. 2.0	Turbidity					3.74	
EPA 300.0 Rev. 2.1	Chloride	100	100	99.2	95.4		0.783
	Sulfate	101	101	100	98.4		0.825
EPA 350.1 Rev. 2.0	Ammonia-N	103	103	102			0.890
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	90.7	98.6			4.23
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.5	98.4	98.4			0.0
EPA 365.1 Rev. 2.0	Total-P	98.1	105	98.6			4.39
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.1	96.8	97.9			1.13
SM 2120 B	Color (true)	102				0.158	
SM 2320 B-97	Total Alkalinity	104				0.922	
SM 2540 C-97	TDS					0.332	
SM 4500 F-C-97	Fluoride	97.6					0.0
SM 5310 B-00	Organic Carbon	102	98.6	98.8			0.139

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2105405, 2105408, 2105409
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2105405, 2105408, 2105409
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2105405, 2105408, 2105409
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2105406, 2105410, 2105411
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2105406, 2105410, 2105411
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2105406, 2105410, 2105411
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2105406, 2105410, 2105411
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2105407, 2105412, 2105413
SM 2120 B / E31780	True Color measured at 450 nm	2105405, 2105408, 2105409
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2105405, 2105408, 2105409
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2105405, 2105408, 2105409
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2105405, 2105408, 2105409
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2105405, 2105408, 2105409
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2105406, 2105410, 2105411

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	07/24/2019			07/24/2019 17:04	Adrian Shelby	2105405, 2105408, 2105409
EPA 300.0 Rev. 2.1	07/24/2019			07/25/2019 16:44	Jhamieka S. Greenwood	2105405
	07/24/2019			07/25/2019 16:57	Jhamieka S. Greenwood	2105408
	07/24/2019			07/25/2019 17:09	Jhamieka S. Greenwood	2105409
EPA 350.1 Rev. 2.0	07/24/2019			08/06/2019 16:32	Virginia P. Brown	2105406
	07/24/2019			08/06/2019 16:33	Virginia P. Brown	2105410
	07/24/2019			08/06/2019 16:35	Virginia P. Brown	2105411
EPA 351.2 Rev. 2.0	07/24/2019	07/26/2019 13:00	Adrian Shelby	07/29/2019 14:50	Joseph Suarez	2105406
	07/24/2019	07/26/2019 13:00	Adrian Shelby	07/29/2019 14:55	Joseph Suarez	2105410
	07/24/2019	07/26/2019 13:00	Adrian Shelby	07/29/2019 14:57	Joseph Suarez	2105411
EPA 353.2 Rev. 2.0	07/24/2019			07/26/2019 09:36	Beverly Y. Sanders	2105406
	07/24/2019			07/26/2019 09:37	Beverly Y. Sanders	2105410
	07/24/2019			07/26/2019 09:38	Beverly Y. Sanders	2105411
EPA 365.1 Rev. 2.0	07/24/2019	07/25/2019 12:40	Vijayalakshmi Reddy	07/26/2019 11:15	Lipi Saha	2105406
	07/24/2019	07/25/2019 12:40	Vijayalakshmi Reddy	07/26/2019 11:16	Lipi Saha	2105410
	07/24/2019	07/25/2019 12:40	Vijayalakshmi Reddy	07/26/2019 11:18	Lipi Saha	2105411
EPA 365.1 Rev. 2.0 dissolved	07/24/2019			07/24/2019 16:46	Jhamieka S. Greenwood	2105413
	07/24/2019			07/24/2019 17:20	Jhamieka S. Greenwood	2105412
	07/24/2019			07/24/2019 17:22	Jhamieka S. Greenwood	2105407
SM 2120 B	07/24/2019			07/24/2019 17:33	Madeline Funaro	2105408
	07/24/2019			07/24/2019 18:09	Madeline Funaro	2105405, 2105409
SM 2320 B-97	07/24/2019			07/26/2019 05:13	Dale L. Simmons	2105405
	07/24/2019			07/26/2019 06:08	Dale L. Simmons	2105408
	07/24/2019			07/26/2019 06:20	Dale L. Simmons	2105409
SM 2540 C-97	07/24/2019			07/25/2019 13:30	Sima Feizi	2105405, 2105408, 2105409
SM 2540 D-97	07/24/2019			07/25/2019 13:30	Sima Feizi	2105405, 2105408, 2105409
SM 4500 F-C-97	07/24/2019			07/26/2019 05:13	Dale L. Simmons	2105405
	07/24/2019			07/26/2019 06:08	Dale L. Simmons	2105408
	07/24/2019			07/26/2019 06:20	Dale L. Simmons	2105409
SM 5310 B-00	07/24/2019			07/25/2019 21:18	Madeline Funaro	2105406
	07/24/2019			07/25/2019 21:30	Madeline Funaro	2105410
	07/24/2019			07/25/2019 21:43	Madeline Funaro	2105411