

Chemical Analysis Report

CEN-DIST-2018-03-14-02

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

Event Description: **Louise / Silver (SemCo)**

Request ID: **RQ-2018-03-12-57**

Customer: **CEN-DIST**

Project ID: **SMP**

Send Reports to:

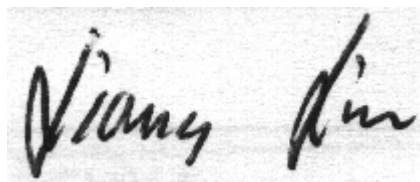
FL Dept. of Environmental Protection
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Orlando, FL 32803-3767
Attn: Mike Linger

For additional information please contact

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 02-APR-2018 15:21

A handwritten signature in black ink, appearing to read "Liang Lin", 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 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 Louise @ Center of South Lobe (2902)

Collection Date/Time: 03/13/2018 12:34

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1974587	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P341552	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P341902	
		Sulfate	24		mg SO4/L	P341905	
	SM 2120 B	Color (true)	40		PCU	P341559	
	SM 2320 B-97	Total Alkalinity	11		mg CaCO3/L	P341929	
	SM 2540 C-97	TDS	109		mg/L	P342011	
	SM 2540 D-97	TSS	3	I	mg/L	P341864	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P342153	
1974589	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P341947	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P341753	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341680	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P341668	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P342180	
1974591	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	UJ	mg P/L	P341843	MS

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: Refer to the narrative for an explanation of QC Codes.

Sample Location: Silver Lake @ Center (2982A)

Collection Date/Time: 03/13/2018 14:44

Field ID: G2CE0122

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1974588	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P341553	
	EPA 300.0 Rev. 2.1	Chloride	50		mg Cl/L	P341902	
		Sulfate	27		mg SO4/L	P341905	
	SM 2120 B	Color (true)	7.0		PCU	P341559	
	SM 2320 B-97	Total Alkalinity	7.8		mg CaCO3/L	P341929	
	SM 2540 C-97	TDS	138	A	mg/L	P342011	
	SM 2540 D-97	TSS	3	IA	mg/L	P341864	
	SM 4500 F-C-97	Fluoride	0.041	I	mg F/L	P342153	
1974590	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P341947	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38		mg N/L	P341753	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341680	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P341668	
	SM 5310 B-00	Organic Carbon	4.9		mg C/L	P342180	
1974592	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P341843	MS

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: P341552

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341552

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341553

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341902

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341905

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341947

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341753

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341680

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341668

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341843

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: P341559

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P341929

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

Reference Method: SM 2540 C-97
Batch ID: P342011

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341864

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P342153

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P342180

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: P341902

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341905

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341947

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P341947

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P341753

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P341680

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: P341668

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P341843

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.2		P	90 - 110

Reference Method: SM 2320 B-97
 Batch ID: P341929

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.6		P	98 - 107

Reference Method: SM 4500 F-C-97
 Batch ID: P342153

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.3		P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P342180

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: P341902

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: P341902

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974404	Chloride	101		P	90 - 110
1974574	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341905

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974404	Sulfate	104		P	90 - 110
1974574	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974481	Ammonia-N	97.1	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341753

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974583	Kjeldahl Nitrogen	97.7	98.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341680

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974589	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341668

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974481	Total-P	101	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341843

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974591	O-Phosphate-P	88.6	88.4	F/F	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P342153

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974477	Fluoride	96.2	98.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P342180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1974420	Organic Carbon	107	108	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974500	Turbidity	2.31	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974603	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341902

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974404	Chloride	0.567	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341905

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974404	Sulfate	1.01	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974481	Ammonia-N	1.55	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974583	Kjeldahl Nitrogen	0.362	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341680

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974589	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974481	Total-P	3.46	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974591	O-Phosphate-P	0.226	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P341559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974631	Color (true)	17.1	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P341929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974477	Total Alkalinity	0.129	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P342011

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974588	TDS	2.90	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P342153

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974477	Fluoride	1.91	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P342180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1974420	Organic Carbon	0.934	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: A82608
Included Lab Sample IDs: 1974587, 1974588

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.7	100	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A82609

Included Lab Sample IDs: 1974587, 1974588

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105
Turbidity	99.5	99.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A82614

Included Lab Sample IDs: 1974591, 1974592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	94.9	93.7	P/P	90 - 110
O-Phosphate-P	99.3	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82633

Included Lab Sample IDs: 1974589, 1974590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82701

Included Lab Sample IDs: 1974589, 1974590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.8	P/P	90 - 110
Total-P	99.8	99.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A82750

Included Lab Sample IDs: 1974587, 1974588

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.5	98.9	P/P	90 - 110
Sulfate	98.4	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82757

Included Lab Sample IDs: 1974589, 1974590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.1	98.1	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A82760

Included Lab Sample IDs: 1974587, 1974588

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.3	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A82762
Included Lab Sample IDs: 1974589, 1974590

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

Reference Method: SM 4500 F-C-97
Run ID: A82826
Included Lab Sample IDs: 1974587, 1974588

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	101	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A82841
Included Lab Sample IDs: 1974589, 1974590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	101	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				2.31	
	Turbidity				0.0	
EPA 300.0 Rev. 2.1	Chloride	101	101 101		0.567	
	Sulfate	104	104 103		1.01	
EPA 350.1 Rev. 2.0	Ammonia-N	96.1	97.1 98.6			1.55
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	97.7 98.1			0.362
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.0 99.0			0.0
EPA 365.1 Rev. 2.0	Total-P	98.6	101 105			3.46
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.2	88.6 88.4			0.226
SM 2120 B	Color (true)				17.1	
SM 2320 B-97	Total Alkalinity	99.6			0.129	
SM 2540 C-97	TDS				2.90	
SM 4500 F-C-97	Fluoride	96.3	96.2 98.7			1.91
SM 5310 B-00	Organic Carbon	102	107 108			0.934

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1974587, 1974588
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1974587, 1974588
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1974587, 1974588

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1974589, 1974590
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1974589, 1974590
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1974589, 1974590
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1974589, 1974590
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1974591, 1974592
SM 2120 B / E31780	True Color measured at 450 nm	1974587, 1974588
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1974587, 1974588
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1974587, 1974588
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1974587, 1974588
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1974587, 1974588
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1974589, 1974590

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	03/14/2018			03/14/2018 16:12	DeAsia Armster	1974587, 1974588
EPA 300.0 Rev. 2.1	03/14/2018			03/21/2018	Julia Storbeck	1974587, 1974588
EPA 350.1 Rev. 2.0	03/14/2018			03/21/2018	Ping Hua	1974589, 1974590
EPA 351.2 Rev. 2.0	03/14/2018	03/19/2018	Adrian Shelby	03/21/2018	Joseph Suarez	1974589, 1974590
EPA 353.2 Rev. 2.0	03/14/2018			03/15/2018	Beverly Y. Sanders	1974589, 1974590
EPA 365.1 Rev. 2.0	03/14/2018	03/15/2018	Lipi Saha	03/19/2018	Lipi Saha	1974589, 1974590
EPA 365.1 Rev. 2.0 dissolved	03/14/2018			03/14/2018 15:39	Lipi Saha	1974591
	03/14/2018			03/14/2018 16:25	Lipi Saha	1974592
SM 2120 B	03/14/2018			03/14/2018 15:57	Tanya Welborn	1974587
	03/14/2018			03/14/2018 15:58	Tanya Welborn	1974588
SM 2320 B-97	03/14/2018			03/21/2018	Dale L. Simmons	1974587, 1974588
SM 2540 C-97	03/14/2018			03/17/2018	Yijie Li	1974587, 1974588
SM 2540 D-97	03/14/2018			03/17/2018	Yijie Li	1974587, 1974588
SM 4500 F-C-97	03/14/2018			03/24/2018	Dale L. Simmons	1974587, 1974588
SM 5310 B-00	03/14/2018			03/24/2018	Julia Storbeck	1974589, 1974590