

Chemical Analysis Report

CEN-DIST-2019-05-10-02

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

Event Description: **Lk Ann + LVI**
Request ID: **RQ-2019-05-06-53**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Mike Linger

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: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 30-MAY-2019 14:12



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: $1.3\text{E}+03$, 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: LAKE ANN @ CENTER

Collection Date/Time: 05/09/2019 09:56

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085483	EPA 180.1 Rev. 2.0	Turbidity	4.2	A	NTU	P363792	
	EPA 300.0 Rev. 2.1	Chloride	21	A	mg Cl/L	P364027	
		Sulfate	16	A	mg SO4/L	P364029	
	SM 2120 B	Color (true)	25	A	PCU	P363786	
	SM 2320 B-97	Total Alkalinity	26		mg CaCO3/L	P364260	
	SM 2540 C-97	TDS	104		mg/L	P364269	
	SM 2540 D-97	TSS	6	I	mg/L	P364255	
	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P364582	
2085486	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P364149	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P364231	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P364123	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P364353	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P364053	
2085489	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P363794	

Ref. Method and Comment:

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

Sample Location: LAKE ELLEN @ CENTER

Collection Date/Time: 05/09/2019 10:44

Field ID: G2CE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085484	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P363792	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P364027	
		Sulfate	13		mg SO4/L	P364029	
	SM 2120 B	Color (true)	26		PCU	P363786	
	SM 2320 B-97	Total Alkalinity	10		mg CaCO3/L	P364260	
	SM 2540 C-97	TDS	55		mg/L	P364269	
	SM 2540 D-97	TSS	3	I	mg/L	P364255	
	SM 4500 F-C-97	Fluoride	0.054	I	mg F/L	P364582	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P364149	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P364231	
2085487	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P364123	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P364353	
	SM 5310 B-00	Organic Carbon	6.4		mg C/L	P364053	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P363794	
	dissolved						
2085490	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P363794	

Ref. Method and Comment:

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

Sample Location: LAKE CONCORD AT CENTER

Collection Date/Time: 05/09/2019 11:05

Field ID: G2CE0059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2085485	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P363792	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P364027	
		Sulfate	7.7		mg SO4/L	P364029	
	SM 2120 B	Color (true)	12		PCU	P363786	
	SM 2320 B-97	Total Alkalinity	80	A	mg CaCO3/L	P364260	
	SM 2540 C-97	TDS	118		mg/L	P364269	
	SM 2540 D-97	TSS	6	I	mg/L	P364255	
	SM 4500 F-C-97	Fluoride	0.060	I	mg F/L	P364582	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P364149	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P364231	
2085488	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P364123	
	EPA 365.1 Rev. 2.0	Total-P	0.040		mg P/L	P364353	
	SM 5310 B-00	Organic Carbon	5.4		mg C/L	P364053	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P363794	
	dissolved						

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: P363792

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364027

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364029

Component	Result	Code	Units
Sulfate	0.20	U	mg SO ₄ /L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364149

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364231

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364123

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364353

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363794

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

Reference Method: SM 2120 B
Batch ID: P363786

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P364260

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

Reference Method: SM 2540 C-97
Batch ID: P364269

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P364255

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P364582

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P364053

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: P364027

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364029

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364149

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364231

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: P364123

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: P364353

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363794

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

Reference Method: SM 2120 B
Batch ID: P363786

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.0		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P364260

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P364582

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.0		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P364053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364027

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085483	Chloride	96.3		P	90 - 110
2085594	Chloride	96.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085483	Sulfate	97.0		P	90 - 110
2085594	Sulfate	96.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364149

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085488	Ammonia-N	104	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364231

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085486	Kjeldahl Nitrogen	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085486	NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364353

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085460	Total-P	93.6	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085490	O-Phosphate-P	93.2	94.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P364582

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085485	Fluoride	98.3	98.3	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P364053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085391	Organic Carbon	92.8	93.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P363792

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085483	Turbidity	0.720	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364027

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085483	Chloride	0.0395	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085483	Sulfate	0.810	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364149

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085488	Ammonia-N	1.05	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364231

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085486	Kjeldahl Nitrogen	0.525	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085486	NO2NO3-N	0.494	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364353

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085460	Total-P	2.66	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P363794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085490	O-Phosphate-P	1.49	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
 Batch ID: P363786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085483	Color (true)	1.14	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P364260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085485	Total Alkalinity	0.335	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P364269

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085184	TDS	1.10	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P364582

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085485	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P364053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085391	Organic Carbon	0.646	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: A91358

Included Lab Sample IDs: 2085483, 2085484, 2085485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.9	100	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A91361

Included Lab Sample IDs: 2085483, 2085484, 2085485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A91362

Included Lab Sample IDs: 2085489, 2085490, 2085491

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	97.5	P/P	90 - 110
O-Phosphate-P	97.5	98.3	P/P	90 - 110
O-Phosphate-P	98.3	98.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A91404

Included Lab Sample IDs: 2085483, 2085484, 2085485

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

Reference Method: SM 5310 B-00

Run ID: A91471

Included Lab Sample IDs: 2085486, 2085487, 2085488

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.4	94.4	P/P	90 - 110
Organic Carbon	95.6	94.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A91494

Included Lab Sample IDs: 2085486, 2085487, 2085488

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A91506

Included Lab Sample IDs: 2085486, 2085487, 2085488

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A91544

Included Lab Sample IDs: 2085483, 2085484, 2085485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.8	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A91560

Included Lab Sample IDs: 2085486, 2085487, 2085488

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A91621

Included Lab Sample IDs: 2085486, 2085487, 2085488

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.2	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A91689

Included Lab Sample IDs: 2085483, 2085484, 2085485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	100	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				0.720	
EPA 300.0 Rev. 2.1	Chloride	99.0	96.3	96.2	0.0395	
	Sulfate	97.7	97.0	96.5	0.810	
EPA 350.1 Rev. 2.0	Ammonia-N	101	104	105		1.05
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	102	102		0.525
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	102	101		0.494
EPA 365.1 Rev. 2.0	Total-P	102	93.6	98.4		2.66
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.3	93.2	94.6		1.49
SM 2120 B	Color (true)	99.0			1.14	
SM 2320 B-97	Total Alkalinity	103			0.335	
SM 2540 C-97	TDS				1.10	
SM 4500 F-C-97	Fluoride	97.0	98.3	98.3		0.0
SM 5310 B-00	Organic Carbon	92.8	92.8	93.5		0.646

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2085483, 2085484, 2085485
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2085483, 2085484, 2085485
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2085483, 2085484, 2085485
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2085486, 2085487, 2085488
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2085486, 2085487, 2085488
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2085486, 2085487, 2085488
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2085486, 2085487, 2085488
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2085489, 2085490, 2085491
SM 2120 B / E31780	True Color measured at 450 nm	2085483, 2085484, 2085485
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2085483, 2085484, 2085485
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2085483, 2085484, 2085485
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2085483, 2085484, 2085485
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2085483, 2085484, 2085485
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2085486, 2085487, 2085488

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	05/10/2019			05/10/2019 15:52	Sima Feizi	2085483, 2085484, 2085485
EPA 300.0 Rev. 2.1	05/10/2019			05/15/2019 14:51	Lipi Saha	2085483
	05/10/2019			05/15/2019 16:16	Lipi Saha	2085484
	05/10/2019			05/15/2019 16:52	Lipi Saha	2085485
EPA 350.1 Rev. 2.0	05/10/2019			05/16/2019 10:46	Ping Hua	2085486
	05/10/2019			05/16/2019 10:47	Ping Hua	2085487
	05/10/2019			05/16/2019 10:55	Ping Hua	2085488
EPA 351.2 Rev. 2.0	05/10/2019	05/20/2019 11:40	Jhamieka S. Greenwood	05/21/2019 10:42	Joseph Suarez	2085486
	05/10/2019	05/20/2019 11:40	Jhamieka S. Greenwood	05/21/2019 10:47	Joseph Suarez	2085487
	05/10/2019	05/20/2019 11:40	Jhamieka S. Greenwood	05/21/2019 10:49	Joseph Suarez	2085488
EPA 353.2 Rev. 2.0	05/10/2019			05/17/2019 10:46	Beverly Y. Sanders	2085486
	05/10/2019			05/17/2019 10:52	Beverly Y. Sanders	2085487
	05/10/2019			05/17/2019 10:53	Beverly Y. Sanders	2085488
EPA 365.1 Rev. 2.0	05/10/2019	05/22/2019 02:01	Lipi Saha	05/23/2019 12:58	Rosalyn Ballman	2085486
	05/10/2019	05/22/2019 02:01	Lipi Saha	05/23/2019 12:59	Rosalyn Ballman	2085487
	05/10/2019	05/22/2019 02:01	Lipi Saha	05/23/2019 13:00	Rosalyn Ballman	2085488
EPA 365.1 Rev. 2.0 dissolved	05/10/2019			05/10/2019 14:19	Jhamieka S. Greenwood	2085490
	05/10/2019			05/10/2019 14:37	Jhamieka S. Greenwood	2085491
	05/10/2019			05/10/2019 14:45	Jhamieka S. Greenwood	2085489
SM 2120 B	05/10/2019			05/10/2019 15:01	Blanca Fach	2085483, 2085484
	05/10/2019			05/10/2019 15:02	Blanca Fach	2085485
SM 2320 B-97	05/10/2019			05/18/2019 10:51	Dale L. Simmons	2085485
	05/10/2019			05/18/2019 11:27	Dale L. Simmons	2085483
	05/10/2019			05/18/2019 11:37	Dale L. Simmons	2085484
SM 2540 C-97	05/10/2019			05/14/2019 14:06	Yijie Li	2085483, 2085484, 2085485
SM 2540 D-97	05/10/2019			05/14/2019 14:06	Yijie Li	2085483, 2085484, 2085485
SM 4500 F-C-97	05/10/2019			05/24/2019 21:05	Dale L. Simmons	2085485
	05/10/2019			05/24/2019 21:26	Dale L. Simmons	2085483
	05/10/2019			05/24/2019 21:30	Dale L. Simmons	2085484
SM 5310 B-00	05/10/2019			05/15/2019 06:58	Julia Storbeck	2085486
	05/10/2019			05/15/2019 11:27	Julia Storbeck	2085487
	05/10/2019			05/15/2019 11:40	Julia Storbeck	2085488