Chemical Analysis Report

CEN-DIST-2017-03-01-01

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

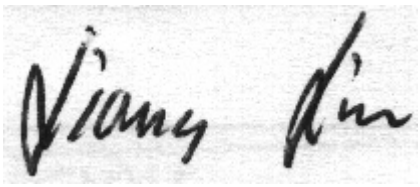
Event Description: **Lk Charles/Howey Height Run**
Request ID: **RQ-2017-02-27-55**
Customer: **CEN-DIST**
Project ID: **SMP**

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.
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 27-MAR-2017 14:14



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 Charles @ 400 m South of Center **Collection Date/Time: 02/28/2017 12:05**

Field ID: G1CE0030 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1876158	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P320743	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P321452	
		Sulfate	5.4		mg SO4/L	P321621	
	SM 2120 B	Color (true)	270		PCU	P320753	
	SM 2320 B-97	Total Alkalinity	26		mg CaCO3/L	P321207	
	SM 2540 C-97	TDS	133		mg/L	P321278	
	SM 2540 D-97	TSS	3	I	mg/L	P321215	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P321042	
1876160	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P321001	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P320812	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.026		mg N/L	P320988	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P320806	
	SM 5310 B-00	Organic Carbon	34		mg C/L	P320853	
1876162	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.011		mg P/L	P320760	

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: Double Run @ 800 m DS of Double Run Road **Collection Date/Time: 02/28/2017 14:10**

Field ID: G1CE0032 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1876159	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P320743	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P321452	
		Sulfate	6.7		mg SO4/L	P321621	
	SM 2120 B	Color (true)	82		PCU	P320753	
	SM 2320 B-97	Total Alkalinity	78		mg CaCO3/L	P321207	
	SM 2540 C-97	TDS	130	A	mg/L	P321277	
	SM 2540 D-97	TSS	3	I	mg/L	P321214	
	SM 4500 F-C-97	Fluoride	0.083	I	mg F/L	P321043	
1876161	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P321001	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P320812	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.28		mg N/L	P320988	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P320806	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P320853	
1876163	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P320760	

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: P320743

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321452

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321621

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321001

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320812

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320988

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320806

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320760

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

Reference Method: SM 2120 B
Batch ID: P320753

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P321207

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P321277

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P321278

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321214

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321215

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P321042

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P321043

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P320853

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: P321452

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	94.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321621

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321001

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: P320812

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: P320988

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320806

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320760

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.2		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P321207

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P321042

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.3		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P321043

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.3		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P320853

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.5		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321452

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875920	Chloride	94.9		P	90 - 110
1876124	Chloride	92.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875954	Sulfate	99.3		P	90 - 110
1876123	Sulfate	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321001

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876129	Ammonia-N	95.2	93.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320812

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876127	Kjeldahl Nitrogen	111	109	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876161	NO2NO3-N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320806

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876127	Total-P	93.0	91.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320760

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876131	O-Phosphate-P	98.2	99.4	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P321042

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875792	Fluoride	102	101	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P321043

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876211	Fluoride	104	105	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P320853

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875905	Organic Carbon	96.4	97.3	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876108	Turbidity	0.769	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321452

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875920	Chloride	0.899	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875954	Sulfate	0.136	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876129	Ammonia-N	1.07	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320812

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876127	Kjeldahl Nitrogen	1.90	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876161	NO2NO3-N	1.42	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320806

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876127	Total-P	1.73	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320760

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876131	O-Phosphate-P	1.21	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P320753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876126	Color (true)	9.10	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P321207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876211	Total Alkalinity	0.106	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P321277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876159	TDS	7.69	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P321278

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876170	TDS	6.75	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P321042

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875792	Fluoride	0.480	Spike	P	0 - 3.0

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-97
Batch ID: P321043

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876211	Fluoride	0.503	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P320853

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875905	Organic Carbon	0.638	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 180.1 Rev. 2.0
Run ID: A74813
Included Lab Sample IDs: 1876158, 1876159

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

Reference Method: SM 2120 B
Run ID: A74814
Included Lab Sample IDs: 1876158, 1876159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	92.3	94.9	P/P	85 - 115
Color (true)	95.0	97.8	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A74815
Included Lab Sample IDs: 1876162, 1876163

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

Reference Method: SM 5310 B-00
Run ID: A74852
Included Lab Sample IDs: 1876160, 1876161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A74875
Included Lab Sample IDs: 1876160, 1876161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A74875
Included Lab Sample IDs: 1876160, 1876161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A74877
Included Lab Sample IDs: 1876160, 1876161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A74901
Included Lab Sample IDs: 1876160, 1876161

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A74904
Included Lab Sample IDs: 1876160, 1876161

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

Reference Method: SM 4500 F-C-97
Run ID: A74917
Included Lab Sample IDs: 1876158, 1876159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	99.5	P/P	90 - 110
Fluoride	99.0	101	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A74976
Included Lab Sample IDs: 1876158, 1876159

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A74977
Included Lab Sample IDs: 1876158, 1876159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	93.0	93.4	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A75123
Included Lab Sample IDs: 1876158, 1876159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	101	99.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A75123
Included Lab Sample IDs: 1876158, 1876159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	98.4	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		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					0.769	
EPA 300.0 Rev. 2.1	Chloride	94.3	94.9	92.7		0.899	
	Sulfate	100	99.3	98.1		0.136	
EPA 350.1 Rev. 2.0	Ammonia-N	100	95.2	93.6			1.07
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	111	109			1.90
EPA 353.2 Rev. 2.0	NO2NO3-N	105	106				1.42
EPA 365.1 Rev. 2.0	Total-P	97.4	93.0	91.4			1.73
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2	98.2	99.4			1.21
SM 2120 B	Color (true)					9.10	
SM 2320 B-97	Total Alkalinity	103				0.106	
SM 2540 C-97	TDS					7.69	
	TDS					6.75	
SM 4500 F-C-97	Fluoride	97.3	102	101			0.480
	Fluoride	97.3	104	105			0.503
SM 5310 B-00	Organic Carbon	95.5	96.4	97.3			0.638

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1876158, 1876159
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1876158, 1876159
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1876158, 1876159
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1876160, 1876161
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1876160, 1876161
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1876160, 1876161
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1876160, 1876161
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1876162, 1876163
SM 2120 B / E31780	True Color measured at 450 nm	1876158, 1876159
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1876158, 1876159
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1876158, 1876159
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1876158, 1876159
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1876158, 1876159

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1876160, 1876161

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	03/01/2017			03/01/2017 15:14	Sima Feizi	1876158, 1876159
EPA 300.0 Rev. 2.1	03/01/2017			03/11/2017	Elisa J Lutz	1876158, 1876159
	03/01/2017			03/14/2017	Elisa J Lutz	1876158, 1876159
EPA 350.1 Rev. 2.0	03/01/2017			03/02/2017	Sofia Elnemr	1876160, 1876161
EPA 351.2 Rev. 2.0	03/01/2017	03/02/2017	Adrian Shelby	03/03/2017	Joseph Suarez	1876160, 1876161
EPA 353.2 Rev. 2.0	03/01/2017			03/06/2017	Beverly Y. Sanders	1876160, 1876161
EPA 365.1 Rev. 2.0	03/01/2017	03/02/2017	Adrian Shelby	03/03/2017	Lipi Saha	1876160, 1876161
EPA 365.1 Rev. 2.0 dissolved	03/01/2017			03/01/2017 14:59	Julia Storbeck	1876162
	03/01/2017			03/01/2017 15:07	Julia Storbeck	1876163
SM 2120 B	03/01/2017			03/01/2017 16:09	Julie Michelle Frank	1876159
	03/01/2017			03/01/2017 17:10	Julie Michelle Frank	1876158
SM 2320 B-97	03/01/2017			03/09/2017	Dale L. Simmons	1876158, 1876159
SM 2540 C-97	03/01/2017			03/03/2017	Yijie Li	1876158, 1876159
SM 2540 D-97	03/01/2017			03/03/2017	Yijie Li	1876158, 1876159
SM 4500 F-C-97	03/01/2017			03/04/2017	Dale L. Simmons	1876158, 1876159
SM 5310 B-00	03/01/2017			03/02/2017	Julie Michelle Frank	1876160, 1876161