Chemical Analysis Report

NE-DIST-2016-08-31-02

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

Event Description: **Nass Mid West**
Request ID: **RQ-2016-08-29-08**
Customer: **NE-DIST**
Project ID: **SMP**

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Jacksonville, FL 32256-7577
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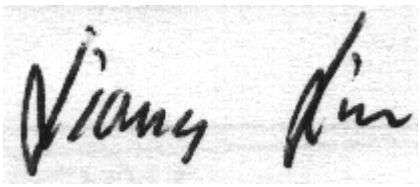
Date Certified: 26-SEP-2016 15:53



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: Thomas Creek at Lem Turner Rd **Collection Date/Time: 08/30/2016 09:25**

Field ID: G4NE0249 08302016 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1828414	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P310648	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P311212	
		Sulfate	66		mg SO4/L	P311216	
	SM 2120 B	Color (true)	390		PCU	P310637	
	SM 2320 B-97	Total Alkalinity	15		mg CaCO3/L	P310790	
	SM 2540 C-97	TDS	303	AQ	mg/L	P311051	
	SM 2540 D-97	TSS	14	AQ	mg/L	P310862	
	SM 4500 F-C-97	Fluoride	0.052	I	mg F/L	P310792	
1828416	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P310655	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P310797	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.065		mg N/L	P310891	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P310900	
	SM 5310 B-00	Organic Carbon	54		mg C/L	P311047	
1828418	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.051		mg P/L	P310643	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 C-97: Sample analyzed beyond holding time due to a protracted power outage caused by hurricane Hermine.
SM 2540 D-97: Sample analyzed beyond routine holding time due to a protracted power outage caused by hurricane Hermine.

Sample Location: Calkins trib at Hamp Register Rd **Collection Date/Time: 08/30/2016 10:50**

Field ID: G4NE0050 08302016 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1828415	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P310648	
	EPA 300.0 Rev. 2.1	Chloride	8.6	A	mg Cl/L	P311212	
		Sulfate	1.1	A	mg SO4/L	P311216	
	SM 2120 B	Color (true)	220		PCU	P310637	
	SM 2320 B-97	Total Alkalinity	27		mg CaCO3/L	P310790	
	SM 2540 C-97	TDS	100	Q	mg/L	P311051	
	SM 2540 D-97	TSS	4	IQ	mg/L	P310862	
	SM 4500 F-C-97	Fluoride	0.062	I	mg F/L	P310792	
1828417	EPA 350.1 Rev. 2.0	Ammonia-N	0.53		mg N/L	P310633	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P310797	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.030		mg N/L	P310891	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P310900	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P311047	
1828419	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.015		mg P/L	P310643	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 C-97: Sample analyzed beyond holding time due to a protracted power outage caused by hurricane Hermine.
SM 2540 D-97: Sample analyzed beyond routine holding time due to a protracted power outage caused by hurricane Hermine.

Quality Assurance Report
Method Blank Results

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P310648

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P311212

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P311216

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P310633

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P310655

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P310797

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P310891

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P310900

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P310643

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: P310637

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P310790

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

Reference Method: SM 2540 C-97
Batch ID: P311051

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P310862

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P310792

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P311047

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: P311212

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P311216

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P310633

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P310633

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P310655

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	106		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P310797

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: P310891

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P310900

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P310643

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.7		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P310790

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

Reference Method: SM 4500 F-C-97
Batch ID: P310792

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

Reference Method: SM 5310 B-00
Batch ID: P311047

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.7		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P311212

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828414	Chloride	98.6		P	90 - 110
1828415	Chloride	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P311216

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828415	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P310633

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828365	Ammonia-N	104	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P310655

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828338	Ammonia-N	107	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P310797

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828381	Kjeldahl Nitrogen	93.8	98.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P310891

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828379	NO2NO3-N	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P310900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828379	Total-P	106	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P310643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828388	O-Phosphate-P	99.4	99.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P310792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828489	Fluoride	101	99.7	P/P	91 - 105

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P311047

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1828365	Organic Carbon	99.2	99.5	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P310648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828374	Turbidity	2.47	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P311212

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828415	Chloride	0.0740	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P311216

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828415	Sulfate	6.57	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P310633

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828365	Ammonia-N	0.452	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P310655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828338	Ammonia-N	0.917	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P310797

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828381	Kjeldahl Nitrogen	4.54	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P310891

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828379	NO2NO3-N	0.963	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P310900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828379	Total-P	3.57	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P310643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828388	O-Phosphate-P	0.402	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P310637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828407	Color (true)	5.96	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P310790

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828489	Total Alkalinity	0.277	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P311051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828414	TDS	9.24	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P310862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828414	TSS	5.71	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P310792

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828489	Fluoride	0.986	Spike	P	0 - 3.0

Quality Assurance Report
Precision

Reference Method: SM 5310 B-00
Batch ID: P311047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1828365	Organic Carbon	0.287	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 350.1 Rev. 2.0
Run ID: A71431
Included Lab Sample IDs: 1828417

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

Reference Method: SM 2120 B
Run ID: A71432
Included Lab Sample IDs: 1828414, 1828415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.7	95.0	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A71433
Included Lab Sample IDs: 1828418, 1828419

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A71435
Included Lab Sample IDs: 1828414, 1828415

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A71438
Included Lab Sample IDs: 1828416

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

Reference Method: SM 2320 B-97
Run ID: A71480
Included Lab Sample IDs: 1828414, 1828415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	103	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A71480
Included Lab Sample IDs: 1828414, 1828415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A71504
Included Lab Sample IDs: 1828416, 1828417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	96.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A71546
Included Lab Sample IDs: 1828416, 1828417

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A71567
Included Lab Sample IDs: 1828416, 1828417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.8	93.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A71576
Included Lab Sample IDs: 1828414, 1828415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Sulfate	101	99.7	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A71583
Included Lab Sample IDs: 1828416, 1828417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	102	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					2.47	
EPA 300.0 Rev. 2.1	Chloride	102	99.2	98.6		0.0740	
	Sulfate	101	101			6.57	

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 350.1 Rev. 2.0	Ammonia-N	104	104	105			0.452
	Ammonia-N	106	107	106			0.917
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	93.8	98.8			4.54
EPA 353.2 Rev. 2.0	NO2NO3-N	104	105	104			0.963
EPA 365.1 Rev. 2.0	Total-P	103	106	102			3.57
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.7	99.4	99.8			0.402
SM 2120 B	Color (true)					5.96	
SM 2320 B-97	Total Alkalinity	103				0.277	
SM 2540 C-97	TDS					9.24	
SM 2540 D-97	TSS					5.71	
SM 4500 F-C-97	Fluoride	97.3	101	99.7			0.986
SM 5310 B-00	Organic Carbon	99.7	99.2	99.5			0.287

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1828414, 1828415
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1828414, 1828415
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1828414, 1828415
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1828416, 1828417
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1828416, 1828417
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1828416, 1828417
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1828416, 1828417
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1828418, 1828419
SM 2120 B / E31780	True Color measured at 450 nm	1828414, 1828415
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1828414, 1828415
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1828414, 1828415
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1828414, 1828415
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1828414, 1828415
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1828416, 1828417

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	08/31/2016			08/31/2016 16:44	Sima Feizi	1828414, 1828415
EPA 300.0 Rev. 2.1	08/31/2016			09/15/2016	Ping Hua	1828414, 1828415
EPA 350.1 Rev. 2.0	08/31/2016			08/31/2016	Joseph Suarez	1828416
	08/31/2016			08/31/2016	Julie Michelle Frank	1828417
EPA 351.2 Rev. 2.0	08/31/2016	09/08/2016	Adrian Shelby	09/10/2016	Virginia P. Brown	1828416, 1828417
EPA 353.2 Rev. 2.0	08/31/2016			09/09/2016	Beverly Y. Sanders	1828416, 1828417
EPA 365.1 Rev. 2.0	08/31/2016	09/09/2016	Vijayalakshmi Reddy	09/12/2016	Lipi Saha	1828416, 1828417
EPA 365.1 Rev. 2.0 dissolved	08/31/2016			08/31/2016 15:59	Julia Storbeck	1828418, 1828419
SM 2120 B	08/31/2016			08/31/2016 15:32	Blanca Fach	1828414
	08/31/2016			08/31/2016 15:33	Blanca Fach	1828415
SM 2320 B-97	08/31/2016			09/08/2016	Dale L. Simmons	1828414, 1828415
SM 2540 C-97	08/31/2016			09/07/2016	Yijie Li	1828414, 1828415
SM 2540 D-97	08/31/2016			09/07/2016	Yijie Li	1828414, 1828415
SM 4500 F-C-97	08/31/2016			09/08/2016	Dale L. Simmons	1828414, 1828415
SM 5310 B-00	08/31/2016			09/13/2016	Sofia Elnemr	1828416, 1828417