Chemical Analysis Report

CEN-DIST-2016-04-06-01

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

Event Description: **Hatchineha**
Request ID: **RQ-2016-04-04-68**
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
Timothy W. Fitzpatrick
Liang-Tsair Lin, Ph.D.
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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 25-APR-2016 17:06

NON-CONFORMANCE REPORT INCLUDED

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: HATCHINEHA CANAL 50 YDS S OF CYPRESS **Collection Date/Time: 04/05/2016 11:54**

Field ID: G4CE0056 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787001	EPA 180.1 Rev. 2.0	Turbidity	4.8		NTU	P301754	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P301956	
		Sulfate	7.0		mg SO4/L	P301958	
	SM 2120 B	Color (true)	100		PCU	P301749	
	SM 2320 B-97	Total Alkalinity	32	A	mg CaCO3/L	P301981	
	SM 2540 C-97	TDS	101		mg/L	P302481	
	SM 2540 D-97	TSS	9	I	mg/L	P302396	
	SM 4500 F-C-97	Fluoride	0.081	I	mg F/L	P301991	
1787003	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P302271	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P302388	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P302012	
	EPA 365.1 Rev. 2.0	Total-P	0.039		mg P/L	P302222	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P301989	
1787005	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301718	

Sample Location: HATCHINEHA CANAL 2100FT S OF CYPRESS LK **Collection Date/Time: 04/05/2016 12:08**

Field ID: G4CE0064 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787002	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P301754	
	EPA 300.0 Rev. 2.1	Chloride	22	A	mg Cl/L	P301956	
		Sulfate	7.0	A	mg SO4/L	P301958	
	SM 2120 B	Color (true)	100		PCU	P301749	
	SM 2320 B-97	Total Alkalinity	31		mg CaCO3/L	P301981	
	SM 2540 C-97	TDS	98	A	mg/L	P302481	
	SM 2540 D-97	TSS	10	A	mg/L	P302396	
	SM 4500 F-C-97	Fluoride	0.080	I	mg F/L	P301991	
1787004	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P302271	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P302388	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P302012	
	EPA 365.1 Rev. 2.0	Total-P	0.040		mg P/L	P302222	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P301989	
1787006	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301718	

Non-Conformance Report

NCR ID: 5801

Event(s)	Job(s)	Sample(s)	Test(s)
CEN-DIST-2016-04-06-01			

NCR Type: SHIPPING/RECEIVING **NCR Category: Receiving**

Observation: It appears that the sampler wrote the wrong collection date on the submittal form. The collection date was taken from the container which had a collection date of the 5th.

Non-Conformance Report

NCR ID: 5801

Event(s) **Job(s)** **Sample(s)** **Test(s)**

Resolution: Sample logged in according to information on container. Sampler (Katie Williams) was contacted on 4/8/2016 via phone. She informed me that the samples were collected on 4/5/2016.

Authorised by/Date: Kathryn Holland 4/11/2016

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry Tim Fitzpatrick (850) 245-8085
Biology Lori Wolfe (850) 245-8177

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P301754

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P301956

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P301958

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302271

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302388

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302012

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302222

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302222

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301718

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

Reference Method: SM 2120 B
Batch ID: P301749

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P301981

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

Reference Method: SM 2540 C-97
Batch ID: P302481

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P302396

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P301991

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P301989

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: P301956

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: P301956

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P301958

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302271

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: P302388

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.1		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	97.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302222

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301718

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

Reference Method: SM 2320 B-97
Batch ID: P301981

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P301991

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	92 - 103

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P301989

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P301956

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787002	Chloride	99.2		P	90 - 110
1787055	Chloride	99.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P301958

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787002	Sulfate	98.5		P	90 - 110
1787055	Sulfate	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302271

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1786971	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302388

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1786949	Kjeldahl Nitrogen	107	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787004	NO2NO3-N	95.0	94.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1786971	Total-P	100	96.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301718

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787005	O-Phosphate-P	100	102	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P301991

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787001	Fluoride	98.7	98.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P301989

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1786942	Organic Carbon	95.4	95.4	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P301754

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1786937	Turbidity	5.77	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P301956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787002	Chloride	0.111	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P301958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787002	Sulfate	3.44	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302271

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1786971	Ammonia-N	1.04	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302388

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1786949	Kjeldahl Nitrogen	5.82	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302012

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787004	NO2NO3-N	1.06	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302222

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1786971	Total-P	2.70	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301718

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787005	O-Phosphate-P	1.29	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P301749

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1786938	Color (true)	1.37	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P301981

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787001	Total Alkalinity	0.523	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P302481

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787002	TDS	5.08	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P302396

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787002	TSS	8.00	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P301991

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787001	Fluoride	0.0	Spike	P	0 - 3.0

Quality Assurance Report
Precision

Reference Method: SM 5310 B-00
Batch ID: P301989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1786942	Organic Carbon	0.0454	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A68637
Included Lab Sample IDs: 1787001, 1787002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	103	P/P	90 - 110
Chloride	101	102	P/P	90 - 110
Sulfate	100	99.8	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A68691
Included Lab Sample IDs: 1787005, 1787006

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	101	P/P	90 - 110
O-Phosphate-P	101	99.2	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A68703
Included Lab Sample IDs: 1787001, 1787002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A68705
Included Lab Sample IDs: 1787001, 1787002

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

Reference Method: SM 2320 B-97
Run ID: A68783
Included Lab Sample IDs: 1787001, 1787002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110
Total Alkalinity	104	100	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A68783
Included Lab Sample IDs: 1787001, 1787002

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

Reference Method: SM 5310 B-00
Run ID: A68790
Included Lab Sample IDs: 1787003, 1787004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.0	98.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A68799
Included Lab Sample IDs: 1787003, 1787004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.0	96.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A68885
Included Lab Sample IDs: 1787003, 1787004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A68904
Included Lab Sample IDs: 1787003, 1787004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A68945
Included Lab Sample IDs: 1787003, 1787004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.6	98.7	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					5.77	
EPA 300.0 Rev. 2.1	Chloride	101	99.2	99.9		0.111	
	Sulfate	99.5	98.5	98.9		3.44	

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 350.1 Rev. 2.0	Ammonia-N	101	101	103			1.04
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	94.1	107	99.8			5.82
EPA 353.2 Rev. 2.0	NO2NO3-N	97.0	95.0	94.0			1.06
EPA 365.1 Rev. 2.0	Total-P	97.7	100	96.9			2.70
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	100	102			1.29
SM 2120 B	Color (true)					1.37	
SM 2320 B-97	Total Alkalinity	104				0.523	
SM 2540 C-97	TDS					5.08	
SM 2540 D-97	TSS					8.00	
SM 4500 F-C-97	Fluoride	100	98.7	98.7			0.0
SM 5310 B-00	Organic Carbon	100	95.4	95.4			0.0454

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1787001, 1787002
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1787001, 1787002
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1787001, 1787002
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1787003, 1787004
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1787003, 1787004
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1787003, 1787004
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1787003, 1787004
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1787005, 1787006
SM 2120 B / E31780	True Color measured at 450 nm	1787001, 1787002
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1787001, 1787002
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1787001, 1787002
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1787001, 1787002
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1787001, 1787002
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1787003, 1787004

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	04/06/2016			04/06/2016 16:24	Sima Feizi	1787001, 1787002
EPA 300.0 Rev. 2.1	04/06/2016			04/08/2016	Julia Storbeck	1787002
	04/06/2016			04/09/2016	Julia Storbeck	1787001
EPA 350.1 Rev. 2.0	04/06/2016			04/14/2016	Diana M. Turner	1787003, 1787004
EPA 351.2 Rev. 2.0	04/06/2016	04/18/2016	Sofia Elnemr	04/19/2016	Rochelle Y Jackson	1787003, 1787004
EPA 353.2 Rev. 2.0	04/06/2016			04/11/2016	Diana M. Turner	1787003, 1787004
EPA 365.1 Rev. 2.0	04/06/2016	04/14/2016	Christopher Armour	04/15/2016	Lipi Saha	1787003, 1787004
EPA 365.1 Rev. 2.0 dissolved	04/06/2016			04/06/2016 13:57	Julia Storbeck	1787005
	04/06/2016			04/06/2016 14:59	Julia Storbeck	1787006
SM 2120 B	04/06/2016			04/06/2016 17:40	Blanca Fach	1787001
	04/06/2016			04/06/2016 17:41	Blanca Fach	1787002
SM 2320 B-97	04/06/2016			04/09/2016	Dale L. Simmons	1787001, 1787002
SM 2540 C-97	04/06/2016			04/11/2016	Yijie Li	1787001, 1787002
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SM 5310 B-00	04/06/2016			04/09/2016	Sofia Elnemr	1787003, 1787004