

Chemical Analysis Report

WTRSHD-MGT-2012-01-13-01

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

Event Description: **SPRG1201**
Request ID: **RQ-2012-01-09-31**
Customer: **WTRSHD-MGT**
Project ID: **SPG_QTR_WQ**

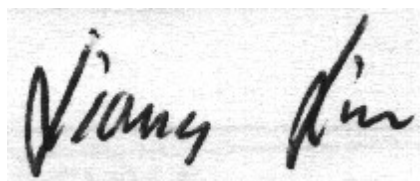
Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400
Attn: Kathryn Holland

For additional information please contact
Timothy W. Fitzpatrick
Liang-Tsair Lin, Ph.D.
Colin Wright, Ph.D.
Kathryn Brackett
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

This Report replaces the previous Report Serial Number: 0059555

Revision certified by: Liang Lin, Environmental Administrator

Date Certified: 10-FEB-2012 17:03

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

NON-CONFORMANCE REPORT INCLUDED

Report Comments:

Reported missing precision data for sucralose and edited test comment.

Abbreviations and data remark codes

CERT # - NELAP (National Environmental Laboratory Accreditation Program) Certification Number of the laboratory that performed the analysis.

LCS – Laboratory Control Sample; in the QC Failures column, this notation indicates a batch recovery failure.

MS – Matrix Spike; in the QC Failures column, this notation indicates a batch recovery failure.

RPD – Relative Percent Difference; in the QC Failures column, this notation indicates a batch failure for precision.

CCV – Continuing Calibration Verification; in the QC Failures column, this notation indicates a failure of the calibration verification check sample.

RSD – Relative Standard Deviation expressed as a percentage.

SMP – Sample.

** - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

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

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).

Precision is reported as relative percent difference unless otherwise noted.

Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published test performance acceptance criteria.

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.

All sample collection performed by Bureau of Laboratories staff followed the field Standard Operating Procedures adopted by reference in Rule 62-160 FAC unless otherwise noted.

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.

Results for NELAP accredited tests contained in this report meet the requirements specified by the National Environmental Laboratory Accreditation Conference (NELAC). All samples received were in acceptable condition and met NELAC requirements unless otherwise noted. Results generated in this report pertain to the samples collected and submitted for analysis.

Job: TLH-2012-01-13-27

Group: Nutrients

Job: TLH-2012-01-13-28

Group: Metals

Job: TLH-2012-01-13-29

Group: Pesticides

Sample Location: 9743**Collection Date/Time: 01/12/2012 01:06 PM****Field ID: BLUE HOLE SPRING VENT****Matrix: W-OTHER**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1401912	EPA 180.1 Rev. 2.0	Turbidity	0.30		NTU	P234956	
	EPA 300.0 Rev. 2.1	Chloride	5.4		mg Cl/L	P235274	
		Sulfate	5.4		mg SO4/L	P235283	
	SM 2120 B	Color (true)	2.5	U	PCU	P235034	
	SM 2320 B-97	Alkalinity	146		mg CaCO3/L	P235317	
	SM 2540 C-97	TDS	175		mg/L	P235256	
1401913	EPA 350.1 Rev. 2.0	Ammonia-N	0.011	IY	mg N/L	P234994	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	UY	mg N/L	P235269	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.63	Y	mg N/L	P235111	
	EPA 365.1 Rev. 2.0	Total-P	0.047	Y	mg P/L	P235329	
	SM 5310 B-00	Organic Carbon	1.0	UY	mg C/L	P235153	
1401914	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.047		mg P/L	P234971	
1401915	EPA 200.7 Rev. 4.4	Boron	15	U	ug/L	P235386	
		Calcium	51.7		mg/L	P235386	
		Magnesium	5.40		mg/L	P235386	
		Potassium	0.43	I	mg/L	P235386	
		Sodium	3.2		mg/L	P235386	
1401916	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P235527	RPD

Ref. Method and Comment:

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample. Sample was stored at room temperature in the laboratory, should be stored at 4 degC. Please see NCR.

EPA 351.2 Rev. 2.0: Sample was stored at room temperature in the laboratory, should be stored at 4 degC. Please see NCR.

EPA 353.2 Rev. 2.0: Sample was stored at room temperature in the laboratory, should be stored at 4 degC. Please see NCR.

EPA 365.1 Rev. 2.0: Total-P: Sample was stored at room temperature in the laboratory, should be stored at 4 degC. Please see NCR.

SM 5310 B-00: Sample was stored at room temperature in the laboratory, should be stored at 4 degC. Please see NCR.

DEP SOP: LC-001-2 (based on EPA 8321B): Matrix spike accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.

Non-Conformance Report**NCR ID: 4021****Event(s)**

WTRSHD-MGT-2012-01-13-01

Job(s)

TLH-2012-01-13-27

Sample(s)

1401913

Test(s)**NCR Type: SHIPPING/RECEIVING****NCR Category: Preservation Not Intact**

Observation: Sample 1401913 requires refrigeration but was stored on a metals shelf over the weekend (1/14/12-1/17/12) by mistake.

Field ID: Blue Hole Vent

Test IDs: NH3, NO2NO3, TKN, TP, TOC

Resolution: Customer was notified, Kathryn Holland. Nutrients staff notified.

Authorised by/Date: Kathryn Brackett 1/20/2012

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 David D. Whiting (850) 245-8177

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P235527

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P234956

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P235386

Component	Result	Code	Units
Boron	15	U	ug/L
Calcium	0.075	U	mg/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235274

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235283

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P234994

Component	Result	Code	Units
Ammonia-N	0.010	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P235269

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P235111

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235329

Component	Result	Code	Units
-----------	--------	------	-------

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235329

Component	Result	Code	Units
Total-P	0.004	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P234971

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

Reference Method: SM 2120 B

Batch ID: P235034

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P235317

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

Reference Method: SM 2540 C-97

Batch ID: P235256

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 5310 B-00

Batch ID: P235153

Component	Result	Code	Units
Organic Carbon	1.0	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P235527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	76.6	68.9	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P235386

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Boron	103		P	85 - 115
Calcium	98.8		P	85 - 115
Magnesium	98.7		P	85 - 115
Potassium	103		P	85 - 115
Sodium	96.8		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235274

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P234994

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P235269

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P235111

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235329

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P234971

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

Reference Method: SM 2320 B-97

Batch ID: P235317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alkalinity	99.0		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P235153

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P235386

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401529	Boron	107	107	P/P	80 - 120
1401529	Calcium	101		P	80 - 120
1401529	Magnesium	101		P	80 - 120
1401529	Potassium	101	103	P/P	80 - 120
1401529	Sodium	98.7		P	80 - 120
1401679	Boron	106		P	80 - 120
1401679	Calcium	98.2		P	80 - 120
1401679	Magnesium	95.2		P	80 - 120
1401679	Potassium	102		P	80 - 120
1401679	Sodium	96.0		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235274

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401669	Chloride	100	102	P/P	90 - 110
1401848	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401669	Sulfate	93.2	99.1	P/P	90 - 110
1401848	Sulfate	98.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P235269

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1402556	Kjeldahl Nitrogen	97.3	93.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P235111

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401940	NO2NO3-N	97.7	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235329

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401851	Total-P	97.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P234971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401914	O-Phosphate-P	98.3	97.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00

Batch ID: P235153

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401850	Organic Carbon	98.1	98.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P235527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401930	Sucralose	41.6	Spike	F	0 - 30
LFB	Sucralose	10.6	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P234956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401880	Turbidity	7.03	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P235386

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401529	Boron	0.789	Spike	P	0 - 20
1401529	Calcium	1.50	Sample	P	0 - 20
1401529	Magnesium	2.27	Sample	P	0 - 20
1401529	Potassium	0.643	Sample	P	0 - 20
1401529	Sodium	1.47	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235274

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401669	Chloride	1.51	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401669	Sulfate	5.35	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P234994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401940	Ammonia-N	2.12	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P235269

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1402556	Kjeldahl Nitrogen	4.24	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P235111

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401940	NO2NO3-N	0.501	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235329

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401851	Total-P	1.50	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P234971

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401914	O-Phosphate-P	0.483	Spike	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P235034

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401905	Color (true)	0.817	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P235317

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401600	Alkalinity	3.93	Sample	P	0 - 20
1401644	Alkalinity	0.223	Sample	P	0 - 20

Reference Method: SM 2540 C-97

Batch ID: P235256

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401748	TDS	7.21	Sample	P	0 - 10

Reference Method: SM 5310 B-00

Batch ID: P235153

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401850	Organic Carbon	0.628	Spike	P	0 - 20

Quality Assurance Report Precision

* 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 Surrogates

Lab Sample ID: 1401916

Field Sample ID: BLUE HOLE SPRING VENT

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	47.9	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A43069

Included Lab Sample IDs: 1401912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A43076

Included Lab Sample IDs: 1401914

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.7	97.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A43083

Included Lab Sample IDs: 1401913

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	94.7	92.5	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A43095

Included Lab Sample IDs: 1401912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.0	95.6	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A43126

Included Lab Sample IDs: 1401913

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

Reference Method: SM 5310 B-00

Run ID: A43144

Included Lab Sample IDs: 1401913

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

Quality Assurance Report

Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A43144

Included Lab Sample IDs: 1401913

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.9	98.4	P/P	85 - 115

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Run ID: A43184

Included Lab Sample IDs: 1401916

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	91.2	108	P/P	70 - 140

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A43191

Included Lab Sample IDs: 1401913

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.5	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A43199

Included Lab Sample IDs: 1401912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	101	P/P	90 - 110
Sulfate	97.9	91.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A43213

Included Lab Sample IDs: 1401912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	98.2	98.3	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A43217

Included Lab Sample IDs: 1401913

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.2	96.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A43245

Included Lab Sample IDs: 1401915

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	98.4	97.2	P/P	90 - 110
Calcium	98.3	99.0	P/P	90 - 110
Magnesium	99.0	99.0	P/P	90 - 110
Potassium	101	100	P/P	90 - 110
Sodium	95.4	95.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

* 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
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose	76.6	68.9				10.6	41.6
EPA 180.1 Rev. 2.0	Turbidity						7.03	
EPA 200.7 Rev. 4.4	Boron	103		107	107	106		0.789
	Calcium	98.8		101	98.2		1.50	
	Magnesium	98.7		101	95.2		2.27	
	Potassium	103		101	103	102	0.643	
	Sodium	96.8		98.7	96.0		1.47	
EPA 300.0 Rev. 2.1	Chloride	102		100	102	102		1.51
	Sulfate	98.1		93.2	99.1	98.4		5.35
EPA 350.1 Rev. 2.0	Ammonia-N	94.0						2.12
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.1		97.3	93.2			4.24
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	106		97.7	97.2			0.501
EPA 365.1 Rev. 2.0	Total-P	100		97.5	100			1.50
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		98.3	97.6			0.483
SM 2120 B	Color (true)						0.817	
SM 2320 B-97	Alkalinity	99.0					3.93	
							0.223	
SM 2540 C-97	TDS						7.21	
SM 5310 B-00	Organic Carbon	96.4		98.1	98.8			0.628

Reference Method Descriptions

Method / NELAC Cert. #	Description
DEP SOP: LC-001-2 (based on EPA 8321B) / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L
SM 2120 B / E31780	True Color measured at 450 nm or Apparent Color
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: LC-001-2 (based on EPA 8321B)	01/13/2012	01/18/2012	Hoor Shaik	01/19/2012	S. M. Reddy	1401916
EPA 180.1 Rev. 2.0	01/13/2012			01/13/2012 14:39	Bryan A. Werth	1401912
EPA 200.7 Rev. 4.4	01/13/2012	01/19/2012	Elliott D. Healy	01/24/2012	Elisa J Lutz	1401915
EPA 300.0 Rev. 2.1	01/13/2012			01/20/2012	Ping Hua	1401912
EPA 350.1 Rev. 2.0	01/13/2012			01/17/2012	Diana M. Dunbar	1401913
EPA 351.2 Rev. 2.0	01/13/2012	01/20/2012	Bryan A. Werth	01/23/2012	Pallavi R. Gadwal	1401913
EPA 353.2 Rev. 2.0	01/13/2012			01/19/2012	Sima Feizi	1401913
EPA 365.1 Rev. 2.0	01/13/2012	01/19/2012	Pallavi R. Gadwal	01/25/2012	Pallavi R. Gadwal	1401913
EPA 365.1 Rev. 2.0 dissolved	01/13/2012			01/13/2012 15:25	Pallavi R. Gadwal	1401914
SM 2120 B	01/13/2012			01/13/2012 13:53	Blanca Fach	1401912
SM 2320 B-97	01/13/2012			01/24/2012	Dale L. Simmons	1401912
SM 2540 C-97	01/13/2012			01/17/2012	Yijie Li	1401912
SM 5310 B-00	01/13/2012			01/19/2012	Rochelle Y Jackson	1401913