

Chemical Analysis Report

WTRSHD-MGT-2012-01-12-01

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

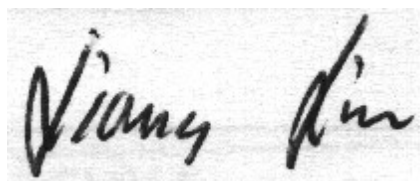
Event Description: **SPRG1201**
Request ID: **RQ-2012-01-09-31**
Customer: **WTRSHD-MGT**
Project ID: **SPG_QTR_WQ**

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 01-FEB-2012 17:51

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

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-2012-01-12-63

Group: Nutrients

Job: TLH-2012-01-12-64

Group: Metals

Job: TLH-2012-01-12-65

Group: Pesticides

Sample Location: 010786**Collection Date/Time: 01/11/2012 02:06 PM****Field ID: MILL POND SPRING****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1401644	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P234913	
	EPA 300.0 Rev. 2.1	Chloride	9.1		mg Cl/L	P235272	
		Sulfate	35		mg SO4/L	P235280	
	SM 2120 B	Color (true)	2.0	U	PCU	P234923	
	SM 2320 B-97	Alkalinity	151	A	mg CaCO3/L	P235317	
	SM 2540 C-97	TDS	236	A	mg/L	P235255	
1401646	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U	mg N/L	P234948	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.11	I	mg N/L	P235266	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P235029	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P235164	
	SM 5310 B-00	Organic Carbon	1.0	U	mg C/L	P235152	
1401648	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.058		mg P/L	P234936	
1401650	EPA 200.7 Rev. 4.4	Boron	19	I	ug/L	P235386	
		Calcium	56.6		mg/L	P235386	
		Magnesium	10.4		mg/L	P235386	
		Potassium	0.70	I	mg/L	P235386	
		Sodium	5.5		mg/L	P235386	
1401652	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P235264	

Ref. Method and Comment:

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.

Sample Location: 9714**Collection Date/Time: 01/11/2012 03:36 PM****Field ID: MISSION SPRING****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1401645	EPA 180.1 Rev. 2.0	Turbidity	0.80		NTU	P234913	
	EPA 300.0 Rev. 2.1	Chloride	6.9		mg Cl/L	P235272	
		Sulfate	11		mg SO4/L	P235280	
	SM 2120 B	Color (true)	2.0	U	PCU	P234924	
	SM 2320 B-97	Alkalinity	152	A	mg CaCO3/L	P235317	
	SM 2540 C-97	TDS	189		mg/L	P235255	
1401647	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U	mg N/L	P234948	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.10	I	mg N/L	P235266	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.46		mg N/L	P235029	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P235164	
	SM 5310 B-00	Organic Carbon	1.0	U	mg C/L	P235152	
1401649	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.060		mg P/L	P234936	
1401651	EPA 200.7 Rev. 4.4	Boron	16	I	ug/L	P235386	
		Calcium	52.1		mg/L	P235386	
		Magnesium	7.46		mg/L	P235386	
		Potassium	0.62	I	mg/L	P235386	
		Sodium	4.4		mg/L	P235386	

Field ID: MISSION SPRING

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1401653	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.011	U	ug/L	P235271	

Ref. Method and Comment:

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.

Quality Assurance Report Method Blank Results

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

Batch ID: P235264

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

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

Batch ID: P235271

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P234913

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: P235272

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235280

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P234948

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P235266

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P235029

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235164

Component	Result	Code	Units
Total-P	0.005	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P234936

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

Reference Method: SM 2120 B

Batch ID: P234923

Component	Result	Code	Units
Color (true)	2.0	U	PCU

Reference Method: SM 2120 B

Batch ID: P234924

Component	Result	Code	Units
Color (true)	2.0	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P235317

Component	Result	Code	Units
Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97

Batch ID: P235255

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 5310 B-00

Batch ID: P235152

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: P235264

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	76.5	70.2	P/P	40 - 130

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

Batch ID: P235271

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	75.9	75.5	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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235272

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235280

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	93.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P234948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	92.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P235266

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P235029

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235164

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235164

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P234936

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.9		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: P235152

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		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: P235272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401520	Chloride	97.1	105	P/P	90 - 110
1401594	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401520	Sulfate	90.9	100	P/P	90 - 110
1401594	Sulfate	92.0		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P234948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401635	Ammonia-N	99.3	95.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P235266

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401647	Kjeldahl Nitrogen	98.5	93.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P235029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401635	NO2NO3-N	105	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401673	Total-P	107	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P234936

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401648	O-Phosphate-P	98.8	99.6	P/P	90 - 110

Reference Method: SM 5310 B-00

Batch ID: P235152

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1401627	Organic Carbon	99.0	98.7	P/P	85 - 115

Quality Assurance Report Precision

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

Batch ID: P235264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401573	Sucralose	14.1	Spike	P	0 - 30
LFB	Sucralose	8.59	LCS	P	0 - 30

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

Batch ID: P235271

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401828	Sucralose	18.0	Spike	P	0 - 30
LFB	Sucralose	0.528	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P234913

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401669	Turbidity	3.64	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: P235272

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401520	Chloride	5.46	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P235280

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401520	Sulfate	7.71	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P234948

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401635	Ammonia-N	2.82	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P235266

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401647	Kjeldahl Nitrogen	4.55	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P235029

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401635	NO2NO3-N	3.33	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P235164

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401673	Total-P	0.258	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P234936

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401648	O-Phosphate-P	0.511	Spike	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P234923

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401594	Color (true)	1.71	Sample	P	0 - 20

Reference Method: SM 2120 B

Batch ID: P234924

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401669	Color (true)	1.51	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: P235255

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401644	TDS	5.08	Sample	P	0 - 10

Reference Method: SM 5310 B-00

Batch ID: P235152

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1401627	Organic Carbon	0.261	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 Surrogates

Quality Assurance Report Surrogates

Lab Sample ID: 1401652

Field Sample ID: MILL POND SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	56.3	P	40 - 150

Lab Sample ID: 1401653

Field Sample ID: MISSION SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	91.2	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A43053

Included Lab Sample IDs: 1401644, 1401645

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

Reference Method: SM 2120 B

Run ID: A43059

Included Lab Sample IDs: 1401644, 1401645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.1	96.2	P/P	90 - 115
Color (true)	96.2	94.9	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A43062

Included Lab Sample IDs: 1401648, 1401649

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A43067

Included Lab Sample IDs: 1401646, 1401647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	97.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A43091

Included Lab Sample IDs: 1401646, 1401647

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A43144

Included Lab Sample IDs: 1401646, 1401647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.5	96.8	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A43147

Included Lab Sample IDs: 1401646, 1401647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	105	P/P	90 - 110

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

Run ID: A43184

Included Lab Sample IDs: 1401652, 1401653

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	72.2	91.5	P/P	70 - 140
Sucralose	91.5	93.8	P/P	70 - 140

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A43191

Included Lab Sample IDs: 1401647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.9	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A43193

Included Lab Sample IDs: 1401646

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.4	99.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A43199

Included Lab Sample IDs: 1401644, 1401645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	101	P/P	90 - 110
Sulfate	94.0	95.8	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A43213

Included Lab Sample IDs: 1401644, 1401645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	102	98.2	P/P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A43245

Included Lab Sample IDs: 1401650, 1401651

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A43245

Included Lab Sample IDs: 1401650, 1401651

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	99.6	98.4	P/P	90 - 110
Calcium	98.7	98.3	P/P	90 - 110
Magnesium	99.0	99.0	P/P	90 - 110
Potassium	102	101	P/P	90 - 110
Sodium	96.7	95.4	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			LCS	Precision SMP	MS
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose	76.5	70.2				8.59		14.1
	Sucralose	75.9	75.5				0.528		18.0
EPA 180.1 Rev. 2.0	Turbidity							3.64	
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	98.2		97.1	105	102			5.46
	Sulfate	93.8		90.9	100	92.0			7.71
EPA 350.1 Rev. 2.0	Ammonia-N	92.7		99.3	95.2				2.82
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.5		98.5	93.8				4.55
EPA 353.2 Rev. 2.0	NO2NO3-N	105		105	101				3.33
EPA 365.1 Rev. 2.0	Total-P	104		107	107				0.258
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.9		98.8	99.6				0.511
SM 2120 B	Color (true)							1.71	
	Color (true)							1.51	
SM 2320 B-97	Alkalinity	99.0						3.93	
								0.223	
SM 2540 C-97	TDS							5.08	
SM 5310 B-00	Organic Carbon	96.0		99.0	98.7				0.261

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

Reference Method Descriptions

Method / NELAC Cert. #	Description
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)	01/12/2012	01/17/2012	Fe-Val Siddell	01/18/2012	S. M. Reddy	1401652
	01/12/2012	01/18/2012	Fe-Val Siddell	01/19/2012	S. M. Reddy	1401653
EPA 180.1 Rev. 2.0	01/12/2012			01/12/2012 16:14	Bryan A. Werth	1401644, 1401645
EPA 200.7 Rev. 4.4	01/12/2012	01/19/2012	Elliott D. Healy	01/23/2012	Elisa J Lutz	1401650
	01/12/2012	01/19/2012	Elliott D. Healy	01/24/2012	Elisa J Lutz	1401651
EPA 300.0 Rev. 2.1	01/12/2012			01/19/2012	Ping Hua	1401644, 1401645
EPA 350.1 Rev. 2.0	01/12/2012			01/13/2012	Diana M. Dunbar	1401646, 1401647
EPA 351.2 Rev. 2.0	01/12/2012	01/20/2012	Bryan A. Werth	01/23/2012	Pallavi R. Gadwal	1401646, 1401647
EPA 353.2 Rev. 2.0	01/12/2012			01/17/2012	Sima Feizi	1401646, 1401647
EPA 365.1 Rev. 2.0	01/12/2012	01/18/2012	Megan E. Faircloth	01/19/2012	Christopher Armour	1401646, 1401647
EPA 365.1 Rev. 2.0 dissolved	01/12/2012			01/12/2012 16:00	Pallavi R. Gadwal	1401648
	01/12/2012			01/12/2012 16:01	Pallavi R. Gadwal	1401649
SM 2120 B	01/12/2012			01/12/2012 16:18	Blanca Fach	1401645
	01/12/2012			01/12/2012 16:32	Blanca Fach	1401644
SM 2320 B-97	01/12/2012			01/24/2012	Dale L. Simmons	1401644, 1401645
SM 2540 C-97	01/12/2012			01/17/2012	Yijie Li	1401644, 1401645
SM 5310 B-00	01/12/2012			01/18/2012	Rochelle Y Jackson	1401646, 1401647