

Chemical Analysis Report

WTRSHD-MGT-2012-09-21-05

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

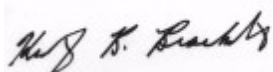
Event Description: **SPRG1207**
Request ID: **RQ-2012-08-27-13**
Customer: **WTRSHD-MGT**
Project ID: **SPG_QTR_WQ**

Send Reports to:
FDEP Ground Water Management Section
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Certified by: Kathryn Brackett, Environmental Administrator

Date Certified: 10-OCT-2012 13:29



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.

SUR - Surrogate; in the QC Failures column, this notation indicates a recovery failure for the associated surrogate.

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).

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.

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-2012-09-21-87

Group: Nutrients

Job: TLH-2012-09-21-88

Group: Metals

Job: TLH-2012-09-21-89

Group: Pesticides

Sample Location: 011463**Collection Date/Time: 09/21/2012 09:19 AM****Field ID: JUNIPER SPRING****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1456075	EPA 180.1 Rev. 2.0	Turbidity	1.1	A	NTU	P244501	
	EPA 300.0 Rev. 2.1	Chloride	4.4		mg Cl/L	P244777	
		Sulfate	5.7		mg SO4/L	P244784	
	SM 2120 B	Color (true)	2.5	U	PCU	P244482	
	SM 2320 B-97	Alkalinity	46		mg CaCO3/L	P244768	
	SM 2540 C-97	TDS	65		mg/L	P244806	
1456078	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U	mg N/L	P244570	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.12	I	mg N/L	P244691	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P244748	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P244846	
	SM 5310 B-00	Organic Carbon	0.40	U	mg C/L	P244837	
1456081	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030	J	mg P/L	P244428	MS
1456084	EPA 200.7 Rev. 4.4	Calcium	13.5		mg/L	P244761	
		Magnesium	4.72		mg/L	P244761	
		Potassium	0.30	U	mg/L	P244761	
		Sodium	2.6		mg/L	P244761	
	EPA 200.8 Rev. 5.4	Boron**	8.8		ug/L	P244858	
1456087	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P244694	MS

Ref. Method and Comment:

SM 2120 B: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: Quality control failure(s) observed.

Sample Location: 9720**Collection Date/Time: 09/20/2012 02:29 PM****Field ID: SILVER SPRINGS MAIN****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1456073	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P244501	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P244777	
		Sulfate	29		mg SO4/L	P244784	
	SM 2120 B	Color (true)	2.5	U	PCU	P244482	
	SM 2320 B-97	Alkalinity	195		mg CaCO3/L	P244768	
	SM 2540 C-97	TDS	252		mg/L	P244805	
1456076	EPA 350.1 Rev. 2.0	Ammonia-N	0.010	U	mg N/L	P244570	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.12	I	mg N/L	P244691	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.1		mg N/L	P244748	
	EPA 365.1 Rev. 2.0	Total-P	0.045		mg P/L	P244846	
	SM 5310 B-00	Organic Carbon	0.40	U	mg C/L	P244837	
1456079	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.045		mg P/L	P244428	MS
1456082	EPA 200.7 Rev. 4.4	Calcium	76.9		mg/L	P244761	
		Magnesium	9.70		mg/L	P244761	
		Potassium	0.51	I	mg/L	P244761	
		Sodium	6.9		mg/L	P244761	
	EPA 200.8 Rev. 5.4	Boron**	17.3		ug/L	P244858	

Field ID: SILVER SPRINGS MAIN

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1456085	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P244694	MS

Ref. Method and Comment:

SM 2120 B: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: 9721**Collection Date/Time: 09/20/2012 03:08 PM****Field ID: RECEPTION HALL**

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1456074	EPA 180.1 Rev. 2.0	Turbidity	0.95		NTU	P244501	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P244777	
		Sulfate	69		mg SO4/L	P244784	
	SM 2120 B	Color (true)	2.5	U	PCU	P244482	
	SM 2320 B-97	Alkalinity	168		mg CaCO3/L	P244768	
	SM 2540 C-97	TDS	300	A	mg/L	P244806	
1456077	EPA 350.1 Rev. 2.0	Ammonia-N	0.011	I	mg N/L	P244570	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.13	I	mg N/L	P244691	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.7		mg N/L	P244748	
	EPA 365.1 Rev. 2.0	Total-P	0.038		mg P/L	P244846	
	SM 5310 B-00	Organic Carbon	0.40	U	mg C/L	P244837	
1456080	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.038		mg P/L	P244428	MS
1456083	EPA 200.7 Rev. 4.4	Calcium	79.9		mg/L	P244761	
		Magnesium	12.9		mg/L	P244761	
		Potassium	0.72	I	mg/L	P244761	
		Sodium	7.2		mg/L	P244761	
	EPA 200.8 Rev. 5.4	Boron**	18.0		ug/L	P244858	
1456086	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.017	I	ug/L	P244694	MS

Ref. Method and Comment:

SM 2120 B: The precision data is unavailable due to the low analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Sucralose result confirmed in re-extraction.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)**Batch ID: P244694**

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0**Batch ID: P244501**

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4**Batch ID: P244761**

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P244761

Component	Result	Code	Units
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 200.8 Rev. 5.4

Batch ID: P244858

Component	Result	Code	Units
Boron	2.0	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P244777

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P244784

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P244570

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P244691

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P244748

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P244846

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P244428

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: P244482

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P244768

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

Reference Method: SM 2540 C-97

Batch ID: P244805

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97

Batch ID: P244806

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 5310 B-00

Batch ID: P244837

Component	Result	Code	Units
Organic Carbon	0.40	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

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

Batch ID: P244694

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	50.8	44.4	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P244761

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	103		P	85 - 115
Sodium	99.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P244858

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Boron	99.3		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P244777

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P244784

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P244570

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: P244691

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P244748

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P244846

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P244428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	95.9		P	90 - 110

Reference Method: SM 2320 B-97

Batch ID: P244768

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alkalinity	97.6		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P244837

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

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

Batch ID: P244694

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456111	Sucralose	41.6	38.1	P/F	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P244761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456064	Calcium	99.5		P	80 - 120
1456064	Magnesium	100		P	80 - 120
1456064	Potassium	103	102	P/P	80 - 120
1456064	Sodium	101		P	80 - 120
1456566	Calcium	102		P	80 - 120
1456566	Magnesium	107		P	80 - 120
1456566	Potassium	105		P	80 - 120
1456566	Sodium	99.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P244858

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456064	Boron	100	100	P/P	80 - 120
1456566	Boron	97.2		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P244777

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456075	Chloride	101	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P244784

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456075	Sulfate	96.5	97.3	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P244570

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456007	Ammonia-N	97.8	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P244691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456076	Kjeldahl Nitrogen	96.6	97.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P244748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456266	NO2NO3-N	100	100	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P244846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456266	Total-P	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P244428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456081	O-Phosphate-P	88.9	93.3	F/P	90 - 110

Reference Method: SM 5310 B-00

Batch ID: P244837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1456010	Organic Carbon	98.9	100	P/P	85 - 115

Quality Assurance Report Precision

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

Batch ID: P244694

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456111	Sucralose	8.84	Spike	P	0 - 30
LFB	Sucralose	13.4	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P244501

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456075	Turbidity	4.74	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P244761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456064	Calcium	0.440	Sample	P	0 - 20
1456064	Magnesium	0.365	Sample	P	0 - 20
1456064	Potassium	1.07	Spike	P	0 - 20
1456064	Sodium	0.161	Sample	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P244858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456064	Boron	0.252	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P244777

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456075	Chloride	0.432	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P244784

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456075	Sulfate	0.658	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P244570

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456007	Ammonia-N	2.97	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P244691

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456076	Kjeldahl Nitrogen	0.615	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P244748

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456266	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P244846

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456266	Total-P	0.873	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P244428

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456081	O-Phosphate-P	3.64	Spike	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P244768

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456043	Alkalinity	1.79	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2540 C-97

Batch ID: P244805

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1454829	TDS	0.766	Sample	P	0 - 10

Reference Method: SM 2540 C-97

Batch ID: P244806

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456074	TDS	1.00	Sample	P	0 - 10

Reference Method: SM 5310 B-00

Batch ID: P244837

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1456010	Organic Carbon	1.13	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

Lab Sample ID: 1456085

Field Sample ID: SILVER SPRINGS MAIN

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	44.7	P	40 - 150

Lab Sample ID: 1456086

Field Sample ID: RECEPTION HALL

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	41.3	P	40 - 150

Lab Sample ID: 1456087

Field Sample ID: JUNIPER SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	40.0	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A47079

Included Lab Sample IDs: 1456079, 1456080, 1456081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	93.2	95.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A47093

Included Lab Sample IDs: 1456073, 1456074, 1456075

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A47098

Included Lab Sample IDs: 1456073, 1456074, 1456075

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A47128

Included Lab Sample IDs: 1456076, 1456077, 1456078

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	103	P/P	90 - 110
Ammonia-N	103	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A47177

Included Lab Sample IDs: 1456076, 1456077, 1456078

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.4	92.2	P/P	90 - 110
Kjeldahl Nitrogen	98.0	98.5	P/P	90 - 110

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

Run ID: A47179

Included Lab Sample IDs: 1456085, 1456086, 1456087

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	78.0	102	P/P	70 - 140
Sucralose	94.4	91.2	P/P	70 - 140

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A47200

Included Lab Sample IDs: 1456076, 1456077, 1456078

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A47207

Included Lab Sample IDs: 1456082, 1456083, 1456084

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	99.5	P/P	90 - 110
Magnesium	100	100	P/P	90 - 110
Potassium	100	100	P/P	90 - 110
Sodium	100	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A47208

Included Lab Sample IDs: 1456073, 1456074, 1456075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	97.7	97.1	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A47212

Included Lab Sample IDs: 1456073, 1456074, 1456075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	100	P/P	90 - 110
Sulfate	96.1	98.5	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A47228

Included Lab Sample IDs: 1456076, 1456077, 1456078

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A47232

Included Lab Sample IDs: 1456076, 1456077, 1456078

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	97.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A47238

Included Lab Sample IDs: 1456082, 1456083, 1456084

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	95.2	94.7	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		LCS	Precision SMP	MS
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose	50.8	44.4	41.6	38.1	13.4		8.84
EPA 180.1 Rev. 2.0	Turbidity						4.74	
EPA 200.7 Rev. 4.4	Calcium	100		99.5	102		0.440	
	Magnesium	102		100	107		0.365	
	Potassium	103		103	102	105		1.07
	Sodium	99.9		101	99.4		0.161	
EPA 200.8 Rev. 5.4	Boron	99.3		100	100	97.2	0.252	
EPA 300.0 Rev. 2.1	Chloride	99.3		101	101			0.432
	Sulfate	96.6		96.5	97.3			0.658

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 350.1 Rev. 2.0	Ammonia-N	101	97.8	103			2.97
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.8	96.6	97.2			0.615
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0	100	100			0.0
EPA 365.1 Rev. 2.0	Total-P	102	100	102			0.873
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	95.9	88.9	93.3			3.64
SM 2320 B-97	Alkalinity	97.6				1.79	
SM 2540 C-97	TDS					0.766	
	TDS					1.00	
SM 5310 B-00	Organic Carbon	97.6	98.9	100			1.13

Reference Method Descriptions

Method / NELAC Cert. #	Description	Associated Samples
DEP SOP: LC-001-2 (based on EPA 8321B) / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1456085, 1456086, 1456087
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1456073, 1456074, 1456075
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1456082, 1456083, 1456084
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1456082, 1456083, 1456084
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1456073, 1456074, 1456075
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1456073, 1456074, 1456075
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1456076, 1456077, 1456078
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1456076, 1456077, 1456078
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1456076, 1456077, 1456078
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1456076, 1456077, 1456078
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1456079, 1456080, 1456081
SM 2120 B / E31780	True Color measured at 450 nm or Apparent Color	1456073, 1456074, 1456075
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1456073, 1456074, 1456075
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1456073, 1456074, 1456075
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1456076, 1456077, 1456078

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)	09/21/2012	09/25/2012	Fe-Val Siddell	09/26/2012	S. M. Reddy	1456086, 1456087
	09/21/2012	09/25/2012	Fe-Val Siddell	09/27/2012	S. M. Reddy	1456085
EPA 180.1 Rev. 2.0	09/21/2012			09/21/2012 17:15	Bryan A. Werth	1456073, 1456074, 1456075
EPA 200.7 Rev. 4.4	09/21/2012	09/26/2012	Diana M. Turner	09/28/2012	Joshua Ayres	1456082, 1456083, 1456084
EPA 200.8 Rev. 5.4	09/21/2012	09/26/2012	Diana M. Turner	10/01/2012	Charles J. Peterson	1456082, 1456083, 1456084
EPA 300.0 Rev. 2.1	09/21/2012			09/27/2012	Gary Dearman	1456073, 1456074, 1456075
EPA 350.1 Rev. 2.0	09/21/2012			09/25/2012	Peter D. Kaus	1456076, 1456077, 1456078
EPA 351.2 Rev. 2.0	09/21/2012	09/26/2012	Christopher Armour	09/27/2012	Bryan A. Werth	1456076, 1456077, 1456078
EPA 353.2 Rev. 2.0	09/21/2012			09/27/2012	Sima Feizi	1456076, 1456077, 1456078
EPA 365.1 Rev. 2.0	09/21/2012	09/28/2012	Megan E. Faircloth	10/01/2012	Megan E. Faircloth	1456076, 1456077, 1456078
EPA 365.1 Rev. 2.0 dissolved	09/21/2012			09/21/2012 16:32	Megan E. Faircloth	1456081
	09/21/2012			09/21/2012 16:35	Megan E. Faircloth	1456079
	09/21/2012			09/21/2012 16:38	Megan E. Faircloth	1456080
SM 2120 B	09/21/2012			09/21/2012 16:33	Blanca Fach	1456074
	09/21/2012			09/21/2012 16:34	Blanca Fach	1456075
	09/21/2012			09/21/2012 16:35	Blanca Fach	1456073
SM 2320 B-97	09/21/2012			09/29/2012	Dale L. Simmons	1456073, 1456074, 1456075
SM 2540 C-97	09/21/2012			09/25/2012	Yijie Li	1456073, 1456074, 1456075
SM 5310 B-00	09/21/2012			10/01/2012	Rochelle Y Jackson	1456076, 1456077, 1456078