

Chemical Analysis Report

WTRSHD-MGT-2013-08-28-03

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

Event Description: **SPRS1305 - Santa Fe Springs/GW Restoration**
Request ID: **RQ-2013-08-19-37**
Customer: **WTRSHD-MGT**
Project ID: **TMDL**

Send Reports to:
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Date Certified: 16-SEP-2013 13:22



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-2013-08-28-86

Group: Nutrients

Job: TLH-2013-08-28-87

Group: Metals

Job: TLH-2013-08-28-88

Group: Pesticides

Sample Location: MSF FLD BLANK**Collection Date/Time: 08/27/2013 02:20 PM****Field ID: #2****Matrix: W-FIELD-BK**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529631	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257027	
	EPA 300.0	Bromide**	0.016	U	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P257156	
		Sulfate	0.20	U	mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257046	
	SM 2320 B-97	Alkalinity	0.65	U	mg CaCO3/L	P257179	
	SM 2540 C-97	TDS	15	U	mg/L	P257228	
	SM 2540 D-97	TSS	2	U	mg/L	P257337	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P257427	
1529640	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P257289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P257312	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P257236	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257197	
1529649	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P256997	
1529658	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P257235	
		Magnesium	0.040	U	mg/L	P257235	
		Potassium	0.30	U	mg/L	P257235	
		Sodium	0.50	U	mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	2.0	U	ug/L	P257134	
1529667	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.0099	U	ug/L	P257138	

Ref. Method and Comment:

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

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: MSFMW # 8**Collection Date/Time: 08/27/2013 12:15 PM****Field ID: MSFMW # 8****Matrix: W-SURF-FRH**

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529628	EPA 180.1 Rev. 2.0	Turbidity	0.30		NTU	P257027	
	EPA 300.0	Bromide**	0.39		mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	3.4		mg Cl/L	P257156	
		Sulfate	15		mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257046	
	SM 2320 B-97	Alkalinity	120		mg CaCO3/L	P257179	
	SM 2540 C-97	TDS	140		mg/L	P257230	
	SM 2540 D-97	TSS	2	I	mg/L	P257339	
	SM 4500 F-C-97	Fluoride	0.046	I	mg F/L	P257427	
1529637	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P257289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.045		mg N/L	P257310	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P257236	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257197	

Field ID: MSFMW # 8

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529646	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.049		mg P/L	P256997	
1529655	EPA 200.7 Rev. 4.4	Calcium	50.1		mg/L	P257235	
		Magnesium	1.46		mg/L	P257235	
		Potassium	2.5		mg/L	P257235	
		Sodium	6.9		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	7.5	I	ug/L	P257134	
1529664	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257137	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes. Sucralose result confirmed in re-extraction.

Sample Location: MSFMW #10**Collection Date/Time: 08/27/2013 04:26 PM****Field ID: MSFMW #10**

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529634	EPA 180.1 Rev. 2.0	Turbidity	0.50		NTU	P257027	
	EPA 300.0	Bromide**	0.036	I	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	7.4		mg Cl/L	P257156	
		Sulfate	1.7		mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257046	
	SM 2320 B-97	Alkalinity	173		mg CaCO3/L	P257179	
	SM 2540 C-97	TDS	253	A	mg/L	P257231	
	SM 2540 D-97	TSS	3	I	mg/L	P257340	
	SM 4500 F-C-97	Fluoride	0.071	I	mg F/L	P257427	
1529643	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.087	I	mg N/L	P257289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	5.3		mg N/L	P257312	
	EPA 365.1 Rev. 2.0	Total-P	0.042		mg P/L	P257236	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P257197	
1529652	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.038		mg P/L	P256997	
1529661	EPA 200.7 Rev. 4.4	Calcium	79.2		mg/L	P257235	
		Magnesium	1.93		mg/L	P257235	
		Potassium	0.86	I	mg/L	P257235	
		Sodium	3.6		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	9.3		ug/L	P257134	
1529670	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257138	

Ref. Method and Comment:

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

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: MSFMW #12**Collection Date/Time: 08/27/2013 02:02 PM****Field ID: MSFMW #12**

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
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Field ID: MSFMW #12

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529630	EPA 180.1 Rev. 2.0	Turbidity	0.25		NTU	P257027	
	EPA 300.0	Bromide**	0.090		mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P257156	
		Sulfate	4.8		mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257046	
	SM 2320 B-97	Alkalinity	341		mg CaCO3/L	P257179	
	SM 2540 C-97	TDS	770		mg/L	P257231	
	SM 2540 D-97	TSS	2	U	mg/L	P257340	
	SM 4500 F-C-97	Fluoride	0.067	I	mg F/L	P257427	
1529639	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40	U	mg N/L	P257501	
	EPA 353.2 Rev. 2.0	NO2NO3-N	42		mg N/L	P257310	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P257236	
	SM 5310 B-00	Organic Carbon	1.2		mg C/L	P257197	
1529648	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P256997	
1529657	EPA 200.7 Rev. 4.4	Calcium	194		mg/L	P257235	
		Magnesium	6.50		mg/L	P257235	
		Potassium	0.38	I	mg/L	P257235	
		Sodium	5.4		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	10.6		ug/L	P257134	
1529666	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257138	

Ref. Method and Comment:

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

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: The MDL was elevated due to high nitrate concentration in the sample.

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: MSFMW #5

Collection Date/Time: 08/27/2013 11:08 AM

Field ID: MSFMW #5

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529626	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257027	
	EPA 300.0	Bromide**	0.27		mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P257156	
		Sulfate	13		mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257046	
	SM 2320 B-97	Alkalinity	222		mg CaCO3/L	P257179	
	SM 2540 C-97	TDS	268		mg/L	P257230	
	SM 2540 D-97	TSS	2	I	mg/L	P257339	
	SM 4500 F-C-97	Fluoride	0.053	I	mg F/L	P257427	
1529635	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.15	I	mg N/L	P257289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.6		mg N/L	P257310	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P257236	
	SM 5310 B-00	Organic Carbon	0.56	I	mg C/L	P257197	

Field ID: MSFMW #5

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529644	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.048		mg P/L	P256997	
1529653	EPA 200.7 Rev. 4.4	Calcium	91.9		mg/L	P257235	
		Magnesium	2.09		mg/L	P257235	
		Potassium	7.5		mg/L	P257235	
		Sodium	9.7		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	18.2		ug/L	P257134	
1529662	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257137	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: MSFMW #9**Collection Date/Time: 08/27/2013 01:02 PM****Field ID: MSFMW #9**

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529629	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P257027	
	EPA 300.0	Bromide**	0.028	I	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	1.5		mg Cl/L	P257156	
		Sulfate	15		mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257046	
	SM 2320 B-97	Alkalinity	167		mg CaCO3/L	P257179	
	SM 2540 C-97	TDS	197		mg/L	P257230	
	SM 2540 D-97	TSS	2	I	mg/L	P257339	
	SM 4500 F-C-97	Fluoride	0.048	I	mg F/L	P257427	
1529638	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P257084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P257289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.3		mg N/L	P257310	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P257236	
	SM 5310 B-00	Organic Carbon	0.88	I	mg C/L	P257197	
1529647	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.051		mg P/L	P256997	
1529656	EPA 200.7 Rev. 4.4	Calcium	67.1		mg/L	P257235	
		Magnesium	1.57		mg/L	P257235	
		Potassium	3.0		mg/L	P257235	
		Sodium	8.4		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	21.3		ug/L	P257134	
1529665	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257137	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: MSFMW-EQ**Collection Date/Time: 08/27/2013 10:30 AM****Field ID: BLANK # 2**

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
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Field ID: BLANK # 2

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529627	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P257027	
	EPA 300.0	Bromide**	0.016	U	mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P257156	
		Sulfate	0.20	U	mg SO4/L	P257160	
	SM 2120 B	Color (true)	2.5	U	PCU	P257046	
	SM 2320 B-97	Alkalinity	0.65	U	mg CaCO3/L	P257179	
	SM 2540 C-97	TDS	15	U	mg/L	P257228	
	SM 2540 D-97	TSS	2	U	mg/L	P257337	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P257427	
1529636	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P257084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P257289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P257310	
	EPA 365.1 Rev. 2.0	Total-P	0.002	I	mg P/L	P257236	
	SM 5310 B-00	Organic Carbon	0.52	I	mg C/L	P257197	
1529645	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P256997	
1529654	EPA 200.7 Rev. 4.4	Calcium	0.15	I	mg/L	P257235	
		Magnesium	0.040	U	mg/L	P257235	
		Potassium	0.30	U	mg/L	P257235	
		Sodium	0.50	U	mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	2.0	U	ug/L	P257134	
1529663	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.010	U	ug/L	P257137	

Ref. Method and Comment:

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

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: The result was confirmed on 09/11/2013.

SM 5310 B-00: The result was confirmed on 09/05/2013.

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample. The presence of calcium was confirmed in the undigested sample on 9/04/2013.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: SFR-@ UP POE SPRING

Collection Date/Time: 08/27/2013 03:20 PM

Field ID: DUPLICATE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529633	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P257027	
	EPA 300.0	Bromide**	0.045		mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P257156	
		Sulfate	19		mg SO4/L	P257160	
	SM 2120 B	Color (true)	410		PCU	P257046	
	SM 2320 B-97	Alkalinity	45		mg CaCO3/L	P257179	
	SM 2540 C-97	TDS	174		mg/L	P257231	
	SM 2540 D-97	TSS	6	I	mg/L	P257340	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P257427	
1529642	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P257084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P257289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P257312	
	EPA 365.1 Rev. 2.0	Total-P	0.25		mg P/L	P257236	

Field ID: DUPLICATE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529642	SM 5310 B-00	Organic Carbon	33		mg C/L	P257197	
1529651	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.17		mg P/L	P256997	
1529660	EPA 200.7 Rev. 4.4	Calcium	26.2		mg/L	P257235	
		Magnesium	5.06		mg/L	P257235	
		Potassium	1.2	I	mg/L	P257235	
		Sodium	6.2		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	19.3		ug/L	P257134	
1529669	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.031	I	ug/L	P257138	

Ref. Method and Comment:

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

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes.

Sample Location: SFR-@ UP POE SPRING**Collection Date/Time: 08/27/2013 03:20 PM****Field ID: SFR-@ UP POE SPRING**

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1529632	EPA 180.1 Rev. 2.0	Turbidity	2.9	A	NTU	P257027	
	EPA 300.0	Bromide**	0.041		mg Br/L	P257162	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P257156	
		Sulfate	19		mg SO4/L	P257160	
	SM 2120 B	Color (true)	410		PCU	P257046	
	SM 2320 B-97	Alkalinity	46		mg CaCO3/L	P257179	
	SM 2540 C-97	TDS	179		mg/L	P257231	
	SM 2540 D-97	TSS	5	I	mg/L	P257340	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P257427	
1529641	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P257084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P257289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P257312	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P257236	
	SM 5310 B-00	Organic Carbon	33		mg C/L	P257197	
1529650	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.17		mg P/L	P256997	
1529659	EPA 200.7 Rev. 4.4	Calcium	26.0		mg/L	P257235	
		Magnesium	5.03		mg/L	P257235	
		Potassium	1.2	I	mg/L	P257235	
		Sodium	6.2		mg/L	P257235	
	EPA 200.8 Rev. 5.4	Boron**	19.6		ug/L	P257134	
1529668	DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose**	0.034	I	ug/L	P257138	

Ref. Method and Comment:

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

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: The calcium matrix spike recoveries are unavailable due to high analyte concentration in the QC sample.

DEP SOP: LC-001-2 (based on EPA 8321B): Insufficient sample to perform matrix spikes. Sucralose result confirmed in re-extraction.

Quality Assurance Report

Method Blank Results

Quality Assurance Report

Method Blank Results

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

Batch ID: P257137

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

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

Batch ID: P257138

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P257027

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257235

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: P257134

Component	Result	Code	Units
Boron	2.0	U	ug/L

Reference Method: EPA 300.0

Batch ID: P257162

Component	Result	Code	Units
Bromide	0.016	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257156

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257160

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257084

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257289

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257501

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257310

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257312

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257236

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256997

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

Reference Method: SM 2120 B

Batch ID: P257046

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97

Batch ID: P257179

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

Reference Method: SM 2540 C-97

Batch ID: P257228

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-97

Batch ID: P257230

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97

Batch ID: P257231

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97

Batch ID: P257337

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97

Batch ID: P257339

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97

Batch ID: P257340

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97

Batch ID: P257427

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00

Batch ID: P257197

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

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

Batch ID: P257137

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	60.0	57.6	P/P	40 - 130

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

Batch ID: P257138

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

Laboratory Control Sample Accuracy

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

Batch ID: P257138

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	60.4	64.8	P/P	40 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257235

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	104		P	85 - 115
Sodium	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257134

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

Reference Method: EPA 300.0

Batch ID: P257162

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257156

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257084

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257289

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	93.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257501

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257310

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257312

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257236

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256997

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

Reference Method: SM 2320 B-97

Batch ID: P257179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alkalinity	98.1		P	85 - 115

Reference Method: SM 4500 F-C-97

Batch ID: P257427

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.2		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P257197

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529181	Magnesium	104	104	P/P	80 - 120
1529181	Potassium	106	105	P/P	80 - 120
1529181	Sodium	100		P	80 - 120
1529657	Magnesium	99.7		P	80 - 120
1529657	Potassium	108		P	80 - 120
1529657	Sodium	103		P	80 - 120

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257134

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529181	Boron	93.0	94.3	P/P	80 - 120
1529657	Boron	93.4		P	80 - 120

Reference Method: EPA 300.0

Batch ID: P257162

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529628	Bromide	98.4		P	90 - 110
1529948	Bromide	93.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529628	Chloride	96.9		P	90 - 110
1529948	Chloride	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529628	Sulfate	94.2		P	90 - 110
1529948	Sulfate	97.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257084

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529637	Ammonia-N	97.6	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257289

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529635	Kjeldahl Nitrogen	106	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257501

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1532488	Kjeldahl Nitrogen	92.0	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529637	NO2NO3-N	100	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257312

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529796	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257236

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529639	Total-P	104	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256997

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529644	O-Phosphate-P	92.6	96.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Batch ID: P257427

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529628	Fluoride	98.8	98.8	P/P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P257197

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1529333	Organic Carbon	94.0	94.7	P/P	85 - 115

Quality Assurance Report Precision

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

Batch ID: P257137

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Sucralose	4.08	LCS	P	0 - 30

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

Batch ID: P257138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Sucralose	7.03	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P257027

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529632	Turbidity	8.76	Sample	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P257235

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529181	Calcium	1.23	Spike	P	0 - 20
1529181	Magnesium	0.171	Spike	P	0 - 20
1529181	Potassium	0.612	Spike	P	0 - 20
1529181	Sodium	0.940	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P257134

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529181	Boron	1.24	Spike	P	0 - 20

Reference Method: EPA 300.0

Batch ID: P257162

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529948	Bromide	5.50	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257156

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529948	Chloride	0.0194	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P257160

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529948	Sulfate	1.16	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P257084

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529637	Ammonia-N	0.419	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257289

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529635	Kjeldahl Nitrogen	2.08	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P257501

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1532488	Kjeldahl Nitrogen	5.79	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257310

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529637	NO2NO3-N	2.42	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P257312

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529796	NO2NO3-N	0.702	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P257236

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529639	Total-P	2.27	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P256997

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529644	O-Phosphate-P	2.87	Spike	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P257179

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529329	Alkalinity	0.379	Sample	P	0 - 20
1529330	Alkalinity	1.41	Sample	P	0 - 20

Reference Method: SM 2540 C-97

Batch ID: P257228

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529205	TDS	5.08	Sample	P	0 - 10

Reference Method: SM 2540 C-97

Batch ID: P257230

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529427	TDS	7.94	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-97

Batch ID: P257231

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529634	TDS	3.95	Sample	P	0 - 10

Reference Method: SM 2540 D-97

Batch ID: P257339

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529427	TSS	6.06	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97

Batch ID: P257427

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529628	Fluoride	0.0	Spike	P	0 - 20

Reference Method: SM 5310 B-00

Batch ID: P257197

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1529333	Organic Carbon	0.795	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: 1529662

Field Sample ID: MSFMW #5

Reference Method

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

Surrogate

Sucralose-d6

% Rec.

62.6

Pass/Fail

P

Control Limits

40 - 150

Lab Sample ID: 1529663

Field Sample ID: BLANK # 2

Reference Method

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

Surrogate

Sucralose-d6

% Rec.

65.9

Pass/Fail

P

Control Limits

40 - 150

Lab Sample ID: 1529664

Field Sample ID: MSFMW # 8

Reference Method

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

Surrogate

Sucralose-d6

% Rec.

55.4

Pass/Fail

P

Control Limits

40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1529665

Field Sample ID: MSFMW #9

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	76.1	P	40 - 150

Lab Sample ID: 1529666

Field Sample ID: MSFMW #12

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	56.5	P	40 - 150

Lab Sample ID: 1529667

Field Sample ID: #2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	66.4	P	40 - 150

Lab Sample ID: 1529668

Field Sample ID: SFR-@ UP POE SPRING

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	64.9	P	40 - 150

Lab Sample ID: 1529669

Field Sample ID: DUPLICATE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	58.7	P	40 - 150

Lab Sample ID: 1529670

Field Sample ID: MSFMW #10

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose-d6	71.2	P	40 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A52168

Included Lab Sample IDs: 1529644, 1529645, 1529646, 1529647, 1529648, 1529649, 1529650, 1529651, 1529652

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	94.5	94.6	P/P	90 - 110
O-Phosphate-P	98.9	94.5	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A52177

Included Lab Sample IDs: 1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A52189

Included Lab Sample IDs: 1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	98.6	P/P	85 - 115
Color (true)	98.6	100	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A52200

Included Lab Sample IDs: 1529635, 1529636, 1529637, 1529638, 1529639, 1529640, 1529641, 1529642, 1529643

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A52227

Included Lab Sample IDs: 1529653, 1529655, 1529656, 1529657, 1529659, 1529660, 1529661

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	92.5	95.7	P/P	90 - 110
Boron	95.7	96.2	P/P	90 - 110

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

Run ID: A52231

Included Lab Sample IDs: 1529662, 1529663, 1529664, 1529665, 1529666, 1529667, 1529668, 1529669, 1529670

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	104	P/P	70 - 150
Sucralose	104	98.8	P/P	70 - 150
Sucralose	91.6	105	P/P	70 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A52243

Included Lab Sample IDs: 1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.2	99.4	P/P	90 - 110
Chloride	99.4	98.7	P/P	90 - 110
Sulfate	96.9	98.3	P/P	90 - 110
Sulfate	98.3	95.5	P/P	90 - 110

Reference Method: EPA 300.0

Run ID: A52244

Included Lab Sample IDs: 1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	93.5	97.2	P/P	90 - 110
Bromide	97.2	92.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A52250

Included Lab Sample IDs: 1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634

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

Reference Method: SM 2320 B-97

Run ID: A52250

Included Lab Sample IDs: 1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alkalinity	96.8	97.3	P/P	85 - 115

Reference Method: SM 5310 B-00

Run ID: A52257

Included Lab Sample IDs: 1529635, 1529636, 1529637, 1529638, 1529639, 1529640, 1529641, 1529642, 1529643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.0	94.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A52258

Included Lab Sample IDs: 1529654, 1529658

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	93.9	95.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A52272

Included Lab Sample IDs: 1529653, 1529654, 1529655, 1529656, 1529657, 1529658, 1529659, 1529660, 1529661

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	101	P/P	90 - 110
Calcium	102	100	P/P	90 - 110
Calcium	99.3	99.8	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	101	99.9	P/P	90 - 110
Sodium	102	100	P/P	90 - 110
Sodium	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A52273

Included Lab Sample IDs: 1529635, 1529637, 1529638, 1529641, 1529642

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A52293

Included Lab Sample IDs: 1529635, 1529636, 1529637, 1529638, 1529640, 1529641, 1529642, 1529643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	103	P/P	90 - 110
Kjeldahl Nitrogen	107	105	P/P	90 - 110
Kjeldahl Nitrogen	95.7	107	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A52298

Included Lab Sample IDs: 1529635, 1529636, 1529637, 1529638, 1529640, 1529641, 1529642, 1529643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.8	P/P	90 - 110
NO2NO3-N	101	100	P/P	90 - 110
NO2NO3-N	98.4	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A52299

Included Lab Sample IDs: 1529636, 1529639, 1529640, 1529643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	96.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A52343

Included Lab Sample IDs: 1529639

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

Reference Method: SM 4500 F-C-97

Run ID: A52356

Included Lab Sample IDs: 1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	99.1	P/P	85 - 115
Fluoride	99.1	99.5	P/P	85 - 115

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A52397

Included Lab Sample IDs: 1529639

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.0	94.0	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 SMP	MS
				LCS				
DEP SOP: LC-001-2 (based on EPA 8321B)	Sucralose	60.0	57.6	4.08				
	Sucralose	60.4	64.8	7.03				
EPA 180.1 Rev. 2.0	Turbidity						8.76	
EPA 200.7 Rev. 4.4	Calcium	102						1.23
	Magnesium	104		104	104	99.7		0.171
	Potassium	104		106	105	108		0.612
	Sodium	102		100	103			0.940

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision		
			LCS	SMP	MS	LCS	SMP	MS
EPA 200.8 Rev. 5.4	Boron	98.3	93.0	94.3	93.4			1.24
EPA 300.0	Bromide	97.5	93.0	98.4			5.50	
EPA 300.0 Rev. 2.1	Chloride	97.4	96.8	96.9			0.0194	
	Sulfate	95.6	97.5	94.2			1.16	
EPA 350.1 Rev. 2.0	Ammonia-N	95.5	97.6	97.2				0.419
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	93.5	106	103				2.08
	Kjeldahl Nitrogen	98.0	92.0	103				5.79
EPA 353.2 Rev. 2.0	NO2NO3-N	104	100	103				2.42
	NO2NO3-N	102	101	102				0.702
EPA 365.1 Rev. 2.0	Total-P	103	104	107				2.27
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103	92.6	96.7				2.87
SM 2320 B-97	Alkalinity	98.1					1.41 0.379	
SM 2540 C-97	TDS						5.08	
	TDS						7.94	
	TDS						3.95	
SM 2540 D-97	TSS						6.06	
SM 4500 F-C-97	Fluoride	99.2	98.8	98.8				0.0
SM 5310 B-00	Organic Carbon	94.0	94.0	94.7				0.795

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	1529662, 1529663, 1529664, 1529665, 1529666, 1529667, 1529668, 1529669, 1529670
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1529653, 1529654, 1529655, 1529656, 1529657, 1529658, 1529659, 1529660, 1529661
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1529653, 1529654, 1529655, 1529656, 1529657, 1529658, 1529659, 1529660, 1529661
EPA 300.0 / E31780	Bromide in aqueous matrices	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1529635, 1529636, 1529637, 1529638, 1529639, 1529640, 1529641, 1529642, 1529643
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1529635, 1529636, 1529637, 1529638, 1529639, 1529640, 1529641, 1529642, 1529643
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1529635, 1529636, 1529637, 1529638, 1529639, 1529640, 1529641, 1529642, 1529643
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1529635, 1529636, 1529637, 1529638, 1529639, 1529640, 1529641, 1529642, 1529643

Reference Method Descriptions

Method / NELAC Cert. #	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1529644, 1529645, 1529646, 1529647, 1529648, 1529649, 1529650, 1529651, 1529652
SM 2120 B / E31780	True Color measured at 450 nm	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1529635, 1529636, 1529637, 1529638, 1529639, 1529640, 1529641, 1529642, 1529643

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)	08/28/2013	08/29/2013	Hoor Shaik	08/29/2013	S. M. Reddy	1529662, 1529663, 1529664
	08/28/2013	08/29/2013	Hoor Shaik	08/30/2013	S. M. Reddy	1529665
	08/28/2013	08/30/2013	Hoor Shaik	08/30/2013	S. M. Reddy	1529666, 1529667, 1529668, 1529669, 1529670
EPA 180.1 Rev. 2.0	08/28/2013			08/28/2013 16:48	Blanca Fach	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
EPA 200.7 Rev. 4.4	08/28/2013	08/29/2013	Elliott D. Healy	09/04/2013	Joshua Ayres	1529653, 1529654, 1529655, 1529656, 1529657, 1529658, 1529659, 1529660, 1529661
EPA 200.8 Rev. 5.4	08/28/2013	08/29/2013	Elliott D. Healy	08/30/2013	Charles J. Peterson	1529653
	08/28/2013	08/29/2013	Elliott D. Healy	08/31/2013	Charles J. Peterson	1529655, 1529656, 1529657, 1529659, 1529660, 1529661
EPA 300.0	08/28/2013	08/29/2013	Elliott D. Healy	09/03/2013	Charles J. Peterson	1529654, 1529658
	08/28/2013			08/30/2013	Gary Dearman	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
EPA 300.0 Rev. 2.1	08/28/2013			08/30/2013	Gary Dearman	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
EPA 350.1 Rev. 2.0	08/28/2013			08/29/2013	Diana M. Turner	1529635, 1529636, 1529637, 1529638, 1529639, 1529640, 1529641, 1529642, 1529643
EPA 351.2 Rev. 2.0	08/28/2013	09/04/2013	Christopher Armour	09/05/2013	Bryan A. Werth	1529635, 1529636, 1529637, 1529638, 1529640, 1529641, 1529642, 1529643
EPA 353.2 Rev. 2.0	08/28/2013	09/10/2013	Christopher Armour	09/11/2013	Bryan A. Werth	1529639
	08/28/2013			09/05/2013	Sima Feizi	1529635, 1529636, 1529637, 1529638, 1529640, 1529641, 1529642, 1529643
EPA 365.1 Rev. 2.0	08/28/2013			09/09/2013	Sima Feizi	1529639
	08/28/2013	09/04/2013	Christopher Armour	09/04/2013	Peter D. Kaus	1529635, 1529637, 1529638, 1529641, 1529642
EPA 365.1 Rev. 2.0 dissolved	08/28/2013	09/04/2013	Christopher Armour	09/05/2013	Pallavi R. Gadwal	1529636, 1529639, 1529640, 1529643
	08/28/2013			08/28/2013 16:39	Bryan A. Werth	1529644
	08/28/2013			08/28/2013 16:42	Bryan A. Werth	1529645
	08/28/2013			08/28/2013 16:43	Bryan A. Werth	1529646, 1529647
	08/28/2013			08/28/2013 16:44	Bryan A. Werth	1529648
	08/28/2013			08/28/2013 16:45	Bryan A. Werth	1529649
	08/28/2013			08/28/2013 16:49	Bryan A. Werth	1529650
	08/28/2013			08/28/2013 16:50	Bryan A. Werth	1529651
	08/28/2013			08/28/2013 16:51	Bryan A. Werth	1529652
SM 2120 B	08/28/2013			08/29/2013 08:44	Rochelle Y Jackson	1529626
	08/28/2013			08/29/2013 08:45	Rochelle Y Jackson	1529627

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	08/28/2013			08/29/2013 08:46	Rochelle Y Jackson	1529628
	08/28/2013			08/29/2013 08:47	Rochelle Y Jackson	1529629
	08/28/2013			08/29/2013 08:48	Rochelle Y Jackson	1529630
	08/28/2013			08/29/2013 08:49	Rochelle Y Jackson	1529631
	08/28/2013			08/29/2013 08:51	Rochelle Y Jackson	1529632
	08/28/2013			08/29/2013 08:52	Rochelle Y Jackson	1529633
	08/28/2013			08/29/2013 08:55	Rochelle Y Jackson	1529634
SM 2320 B-97	08/28/2013			09/03/2013	Dale L. Simmons	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
SM 2540 C-97	08/28/2013			08/30/2013	Yijie Li	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
SM 2540 D-97	08/28/2013			08/30/2013	Yijie Li	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
SM 4500 F-C-97	08/28/2013			09/06/2013	Dale L. Simmons	1529626, 1529627, 1529628, 1529629, 1529630, 1529631, 1529632, 1529633, 1529634
SM 5310 B-00	08/28/2013			09/04/2013	Rochelle Y Jackson	1529635, 1529636, 1529637, 1529638, 1529639, 1529640, 1529641, 1529642, 1529643