

Chemical Analysis Report

NE-DIST-2018-07-25-02

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

Event Description: **bmap tribs 2**
Request ID: **RQ-2018-07-16-19**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 16-AUG-2018 13:52



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: OPEN CREEK AT SAN PABLO ROAD

Collection Date/Time: 07/24/2018 08:55

Field ID: 20030695

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010629	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P349131	
	SM 2320 B-97	Total Alkalinity	60		mg CaCO3/L	P349352	
	SM 2540 D-97	TSS	3	I	mg/L	P349370	
	SM 4500 F-C-97	Fluoride	0.080	I	mg F/L	P349356	
2010631	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P349324	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P349379	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P349333	
	EPA 365.1 Rev. 2.0	Total-P	0.046		mg P/L	P349384	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P349457	
2010633	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.01	I	mg P/L	P349141	
2010661	EPA 8321B	2,4-D	0.043		ug/L	P349092	
		Sucralose**	0.21		ug/L	P349176	
		Bentazon	0.032		ug/L	P349092	
		MCP	0.0029	I	ug/L	P349092	
		Triclopyr**	0.0040	U	ug/L	P349092	MS
		Imidacloprid	0.079		ug/L	P349092	
		Diuron	0.0033	I	ug/L	P349092	
		Pyraclostrobin**	0.0020	U	ug/L	P349092	
		Primidone**	0.0040	U	ug/L	P349092	
		Linuron	0.0040	U	ug/L	P349092	
		Acetaminophen**	0.0080	U	ug/L	P349092	
		Fenuron	0.016	U	ug/L	P349092	
		Imazapyr**	0.63		ug/L	P349092	
		Carbamazepine**	8.0E-04	U	ug/L	P349092	
		Fluridone**	0.14		ug/L	P349092	
		Hydrocodone**	8.0E-04	U	ug/L	P349092	
		Naproxen**	0.0080	U	ug/L	P349092	
		Ibuprofen**	0.020	U	ug/L	P349092	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: NW TRIBUTARY TO OPEN CR AT HODGES

Collection Date/Time: 07/24/2018 09:25

Field ID: 20030848

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010614	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P349130	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P349410	
		Sulfate	57		mg SO4/L	P349412	
	SM 2120 B	Color (true)	65		PCU	P349165	
	SM 2320 B-97	Total Alkalinity	58		mg CaCO3/L	P349352	
	SM 2540 C-97	TDS	225	A	mg/L	P349673	
	SM 2540 D-97	TSS	5	IA	mg/L	P349366	
	SM 4500 F-C-97	Fluoride	0.090	I	mg F/L	P349356	
2010617	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P349324	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P349378	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P349332	
	EPA 365.1 Rev. 2.0	Total-P	0.070		mg P/L	P349382	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P349297	
2010620	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.019		mg P/L	P349140	
2010656	EPA 8321B	2,4-D	0.048		ug/L	P349092	
		Sucralose**	0.39		ug/L	P349176	
		Bentazon	0.038		ug/L	P349092	
		MCP	0.0058	I	ug/L	P349092	
		Triclopyr**	0.0040	U	ug/L	P349092	MS
		Imidacloprid	0.11		ug/L	P349092	
		Diuron	0.0028	I	ug/L	P349092	
		Pyraclostrobin**	0.0020	U	ug/L	P349092	
		Primidone**	0.0040	U	ug/L	P349092	
		Linuron	0.0040	U	ug/L	P349092	
		Acetaminophen**	0.0080	U	ug/L	P349092	
		Fenuron	0.016	U	ug/L	P349092	
		Imazapyr**	0.74		ug/L	P349092	
		Carbamazepine**	8.0E-04	U	ug/L	P349092	
		Fluridone**	0.22		ug/L	P349092	
		Hydrocodone**	8.0E-04	U	ug/L	P349092	
		Naproxen**	0.0080	U	ug/L	P349092	
		Ibuprofen**	0.020	U	ug/L	P349092	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: TERRAPIN CREEK AT FAYE ROAD

Collection Date/Time: 07/24/2018 10:25

Field ID: 20030653

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010615	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P349130	
	EPA 300.0 Rev. 2.1	Chloride	12		mg Cl/L	P349410	
		Sulfate	18		mg SO4/L	P349412	
	SM 2120 B	Color (true)	80	A	PCU	P349166	
	SM 2320 B-97	Total Alkalinity	22		mg CaCO3/L	P349352	
	SM 2540 C-97	TDS	85		mg/L	P349673	
	SM 2540 D-97	TSS	3	I	mg/L	P349366	
	SM 4500 F-C-97	Fluoride	0.044	I	mg F/L	P349356	
2010618	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P349324	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P349378	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P349332	
	EPA 365.1 Rev. 2.0	Total-P	0.068		mg P/L	P349382	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P349297	
2010621	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.031		mg P/L	P349140	
2010657	EPA 8321B	2,4-D	0.77		ug/L	P349092	
		Sucralose**	0.010	U	ug/L	P349176	
		Bentazon	8.0E-04	U	ug/L	P349092	
		MCP	0.0020	U	ug/L	P349092	
		Triclopyr**	0.0040	U	ug/L	P349092	MS
		Imidacloprid	0.0020	U	ug/L	P349092	
		Diuron	0.0020	U	ug/L	P349092	
		Pyraclostrobin**	0.0020	U	ug/L	P349092	
		Primidone**	0.0040	U	ug/L	P349092	
		Linuron	0.0040	U	ug/L	P349092	
		Acetaminophen**	0.0080	U	ug/L	P349092	
		Fenuron	0.016	U	ug/L	P349092	
		Imazapyr**	0.090		ug/L	P349092	
		Carbamazepine**	8.0E-04	U	ug/L	P349092	
		Fluridone**	0.053		ug/L	P349092	
		Hydrocodone**	8.0E-04	U	ug/L	P349092	
		Naproxen**	0.0080	U	ug/L	P349092	
		Ibuprofen**	0.020	U	ug/L	P349092	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

**Sample Location: TROUT R @ DINSMORE BOAT RAMP DOCK
NR US 1**

Collection Date/Time: 07/24/2018 11:05

Field ID: 20030123

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010630	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P349131	
	SM 2320 B-97	Total Alkalinity	25		mg CaCO3/L	P349352	
	SM 2540 D-97	TSS	4	IA	mg/L	P349370	
	SM 4500 F-C-97	Fluoride	0.057	I	mg F/L	P349356	
2010632	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P349324	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P349379	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.043		mg N/L	P349333	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P349384	
	SM 5310 B-00	Organic Carbon	32		mg C/L	P349457	
2010634	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.076		mg P/L	P349141	
2010662	EPA 8321B	2,4-D	0.0049	I	ug/L	P349092	
		Sucralose**	0.010	U	ug/L	P349176	
		Bentazon	0.0025	I	ug/L	P349092	
		MCP	0.0021	I	ug/L	P349092	
		Triclopyr**	0.0040	U	ug/L	P349092	MS
		Imidacloprid	0.0029	I	ug/L	P349092	
		Diuron	0.0022	I	ug/L	P349092	
		Pyraclostrobin**	0.0020	U	ug/L	P349092	
		Primidone**	0.0040	U	ug/L	P349092	
		Linuron	0.0040	U	ug/L	P349092	
		Acetaminophen**	0.0080	U	ug/L	P349092	
		Fenuron	0.016	U	ug/L	P349092	
		Imazapyr**	0.038		ug/L	P349092	
		Carbamazepine**	8.0E-04	U	ug/L	P349092	
		Fluridone**	0.0028		ug/L	P349092	
		Hydrocodone**	8.0E-04	U	ug/L	P349092	
		Naproxen**	0.0080	U	ug/L	P349092	
		Ibuprofen**	0.020	U	ug/L	P349092	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: TROUT RIVER AT OLD KINGS RD

Collection Date/Time: 07/24/2018 11:35

Field ID: 20030753

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010616	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P349130	
	EPA 300.0 Rev. 2.1	Chloride	12	A	mg Cl/L	P349411	
		Sulfate	3.9	A	mg SO4/L	P349413	
	SM 2120 B	Color (true)	390		PCU	P349166	
	SM 2320 B-97	Total Alkalinity	22		mg CaCO3/L	P349352	
	SM 2540 C-97	TDS	130		mg/L	P349674	
	SM 2540 D-97	TSS	4	I	mg/L	P349367	
	SM 4500 F-C-97	Fluoride	0.052	I	mg F/L	P349356	
2010619	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P349324	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P349379	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.042		mg N/L	P349332	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P349384	
	SM 5310 B-00	Organic Carbon	31		mg C/L	P349297	
2010622	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.099		mg P/L	P349141	
2010658	EPA 8321B	2,4-D	0.0020	U	ug/L	P349092	
		Sucralose**	0.010	U	ug/L	P349176	
		Bentazon	0.0017	I	ug/L	P349092	
		MCP	0.0020	U	ug/L	P349092	
		Triclopyr**	0.0040	U	ug/L	P349092	MS
		Imidacloprid	0.0020	U	ug/L	P349092	
		Diuron	0.0030	I	ug/L	P349092	
		Pyraclostrobin**	0.0020	U	ug/L	P349092	
		Primidone**	0.0040	U	ug/L	P349092	
		Linuron	0.0040	U	ug/L	P349092	
		Acetaminophen**	0.0080	U	ug/L	P349092	
		Fenuron	0.016	U	ug/L	P349092	
		Imazapyr**	0.020		ug/L	P349092	
		Carbamazepine**	8.0E-04	U	ug/L	P349092	
		Fluridone**	0.0018		ug/L	P349092	
		Hydrocodone**	8.0E-04	U	ug/L	P349092	
		Naproxen**	0.0080	U	ug/L	P349092	
		Ibuprofen**	0.020	U	ug/L	P349092	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: MONCRIEF CR N OF 33RD ST BRID

Collection Date/Time: 07/24/2018 12:55

Field ID: 20030316

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010623	EPA 180.1 Rev. 2.0	Turbidity	5.2		NTU	P349130	
	EPA 300.0 Rev. 2.1	Chloride	9.9		mg Cl/L	P349411	
		Sulfate	18		mg SO4/L	P349413	
	SM 2120 B	Color (true)	35		PCU	P349166	
	SM 2320 B-97	Total Alkalinity	100		mg CaCO3/L	P349352	
	SM 2540 C-97	TDS	149		mg/L	P349674	
	SM 2540 D-97	TSS	4	I	mg/L	P349367	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P349356	
2010625	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P349324	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.50		mg N/L	P349379	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P349332	
	EPA 365.1 Rev. 2.0	Total-P	0.063		mg P/L	P349384	
	SM 5310 B-00	Organic Carbon	6.3		mg C/L	P349297	
2010627	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P349141	
2010659	EPA 8321B	2,4-D	0.23		ug/L	P349092	
		Sucralose**	0.026	I	ug/L	P349176	
		Bentazon	0.0056		ug/L	P349092	
		MCP	0.0065	I	ug/L	P349092	
		Triclopyr**	0.0040	U	ug/L	P349092	MS
		Imidacloprid	0.014		ug/L	P349092	
		Diuron	0.0045	I	ug/L	P349092	
		Pyraclostrobin**	0.0020	U	ug/L	P349092	
		Primidone**	0.0040	U	ug/L	P349092	
		Linuron	0.0040	U	ug/L	P349092	
		Acetaminophen**	0.024	I	ug/L	P349092	
		Fenuron	0.016	U	ug/L	P349092	
		Imazapyr**	0.23		ug/L	P349092	
		Carbamazepine**	8.0E-04	U	ug/L	P349092	
		Fluridone**	0.11		ug/L	P349092	
		Hydrocodone**	8.0E-04	U	ug/L	P349092	
		Naproxen**	0.0095	I	ug/L	P349092	
		Ibuprofen**	0.020	U	ug/L	P349092	
2010663	EPA 200.7 Rev. 4.4	Calcium	40.9		mg/L	P349205	
		Iron	940		ug/L	P349205	
		Magnesium	4.06		mg/L	P349205	
		Potassium	1.9		mg/L	P349205	
		Sodium	8.3		mg/L	P349205	
		Zinc	5.8	I	ug/L	P349205	
	EPA 200.8 Rev. 5.4	Arsenic	2.16		ug/L	P349205	
		Cadmium	0.020	U	ug/L	P349205	
		Chromium	0.40	U	ug/L	P349205	
		Copper	1.46		ug/L	P349205	
		Lead	0.62		ug/L	P349205	

Field ID: 20030316

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010663	EPA 200.8 Rev. 5.4	Nickel	0.69	I	ug/L	P349205	
		Silver	0.010	U	ug/L	P349205	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: MONCRIEF CR @ 21ST ST

Collection Date/Time: 07/24/2018 12:25

Field ID: 20030897

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010624	EPA 180.1 Rev. 2.0	Turbidity	12	A	NTU	P349131	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P349411	
		Sulfate	40		mg SO4/L	P349413	
	SM 2120 B	Color (true)	55		PCU	P349166	
	SM 2320 B-97	Total Alkalinity	165		mg CaCO3/L	P349352	
	SM 2540 C-97	TDS	286	A	mg/L	P349674	
	SM 2540 D-97	TSS	2	IA	mg/L	P349367	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P349356	
2010626	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P349324	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P349379	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P349332	
	EPA 365.1 Rev. 2.0	Total-P	0.088		mg P/L	P349384	
	SM 5310 B-00	Organic Carbon	6.6		mg C/L	P349297	
2010628	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.017		mg P/L	P349141	
2010660	EPA 8321B	2,4-D	0.39		ug/L	P349092	
		Sucralose**	0.010	U	ug/L	P349176	
		Bentazon	0.013		ug/L	P349092	
		MCP	0.0038	I	ug/L	P349092	
		Triclopyr**	0.0040	U	ug/L	P349092	MS
		Imidacloprid	0.022		ug/L	P349092	
		Diuron	0.0034	I	ug/L	P349092	
		Pyraclostrobin**	0.0020	U	ug/L	P349092	
		Primidone**	0.0040	U	ug/L	P349092	
		Linuron	0.0040	U	ug/L	P349092	
		Acetaminophen**	0.0080	U	ug/L	P349092	
		Fenuron	0.016	U	ug/L	P349092	
		Imazapyr**	0.24		ug/L	P349092	
		Carbamazepine**	8.0E-04	U	ug/L	P349092	
		Fluridone**	0.013		ug/L	P349092	
		Hydrocodone**	8.0E-04	U	ug/L	P349092	
		Naproxen**	0.0080	U	ug/L	P349092	
		Ibuprofen**	0.020	U	ug/L	P349092	
2010664	EPA 200.7 Rev. 4.4	Calcium	66.5		mg/L	P349205	
		Iron	1.60E+03		ug/L	P349205	
		Magnesium	7.47		mg/L	P349205	
		Potassium	2.5		mg/L	P349205	
		Sodium	15.7		mg/L	P349205	
		Zinc	6.9	I	ug/L	P349205	
	EPA 200.8 Rev. 5.4	Arsenic	2.50		ug/L	P349205	
		Cadmium	0.020	U	ug/L	P349205	
		Chromium	0.40	U	ug/L	P349205	
		Copper	0.97		ug/L	P349205	
		Lead	0.29		ug/L	P349205	

Field ID: 20030897

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2010664	EPA 200.8 Rev. 5.4	Nickel	0.84		ug/L	P349205	
		Silver	0.010	U	ug/L	P349205	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P349130

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P349131

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P349205

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P349205

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349410

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349411

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349412

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349413

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349324

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349378

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349379

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349332

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349333

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349382

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349384

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349140

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349141

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

Reference Method: EPA 8321B
Batch ID: P349092

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P349176

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P349165

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P349166

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P349352

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

Reference Method: SM 2540 C-97
Batch ID: P349673

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P349673

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P349674

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P349366

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P349367

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P349370

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P349356

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P349297

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

Reference Method: SM 5310 B-00
Batch ID: P349457

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P349205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	104		P	85 - 115
Magnesium	101		P	85 - 115
Potassium	101		P	85 - 115
Sodium	98.3		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P349205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.3		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	95.7		P	85 - 115
Copper	98.0		P	85 - 115
Lead	94.5		P	85 - 115
Nickel	100		P	85 - 115
Silver	97.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349410

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349411

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349412

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349413

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349324

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.9		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349378

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349379

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349332

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349333

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: P349382

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349384

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349140

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349141

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.4		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P349092

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	91.9		P	40 - 150
Acetaminophen	87.4		P	30 - 150
Bentazon	96.2		P	30 - 150
Carbamazepine	81.8		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P349092

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	62.4		P	40 - 150
Fenuron	96.0		P	40 - 150
Fluridone	78.7		P	40 - 150
Hydrocodone	84.3		P	40 - 150
Ibuprofen	58.9		P	40 - 150
Imazapyr	98.7		P	40 - 150
Imidacloprid	104		P	40 - 160
Linuron	69.0		P	40 - 150
MCPP	93.3		P	40 - 150
Naproxen	84.9		P	40 - 150
Primidone	107		P	40 - 150
Pyraclostrobin	70.2		P	40 - 150
Triclopyr	95.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P349176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	106		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P349165

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P349166

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

Reference Method: SM 2320 B-97
Batch ID: P349352

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P349356

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P349297

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.8		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P349457

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P349205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010488	Calcium	101		P	80 - 120
2010488	Iron	101		P	80 - 120
2010488	Magnesium	99.5		P	80 - 120
2010488	Potassium	97.2		P	80 - 120
2010488	Sodium	96.5		P	80 - 120
2010488	Zinc	104		P	80 - 120
2010664	Calcium	101		P	80 - 120
2010664	Iron	99.7	101	P/P	80 - 120
2010664	Magnesium	99.2		P	80 - 120
2010664	Potassium	100	100	P/P	80 - 120
2010664	Sodium	99.3		P	80 - 120
2010664	Zinc	99.0	98.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P349205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010488	Arsenic	104		P	80 - 120
2010488	Cadmium	102		P	80 - 120
2010488	Chromium	95.3		P	80 - 120
2010488	Copper	99.6		P	80 - 120
2010488	Lead	97.8		P	80 - 120
2010488	Nickel	101		P	80 - 120
2010488	Silver	98.0		P	80 - 120
2010664	Arsenic	102	102	P/P	80 - 120
2010664	Cadmium	99.6	102	P/P	80 - 120
2010664	Chromium	96.1	96.0	P/P	80 - 120
2010664	Copper	95.0	95.8	P/P	80 - 120
2010664	Lead	95.4	95.2	P/P	80 - 120
2010664	Nickel	96.7	98.1	P/P	80 - 120
2010664	Silver	96.4	96.1	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349410

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010201	Chloride	103		P	90 - 110
2010534	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010616	Chloride	109		P	90 - 110
2010787	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010201	Sulfate	103		P	90 - 110
2010534	Sulfate	99.5		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349413

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010616	Sulfate	108		P	90 - 110
2010787	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010619	Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349378

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010618	Kjeldahl Nitrogen	94.7	96.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349379

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010631	Kjeldahl Nitrogen	99.7	98.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010582	NO2NO3-N	100		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349333

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010682	NO2NO3-N	99.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349382

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010617	Total-P	93.1	92.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349384

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010626	Total-P	94.4	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010620	O-Phosphate-P	97.3	97.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P349141

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010627	O-Phosphate-P	97.3	97.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P349092

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010342	2,4-D	136	120	P/P	40 - 150
2010342	Acetaminophen	74.0	75.0	P/P	30 - 150
2010342	Bentazon	65.3	58.1	P/P	30 - 150
2010342	Carbamazepine	56.9	51.6	P/P	40 - 150
2010342	Diuron	53.2	52.3	P/P	40 - 150
2010342	Fenuron	69.4	74.3	P/P	40 - 150
2010342	Fluridone	65.7	60.8	P/P	40 - 150
2010342	Hydrocodone	80.2	71.5	P/P	40 - 150
2010342	Ibuprofen	81.6	70.5	P/P	40 - 150
2010342	Imazapyr	79.3	97.1	P/P	40 - 150
2010342	Imidacloprid	128	117	P/P	40 - 160
2010342	Linuron	65.5	60.5	P/P	40 - 150
2010342	MCP	143	136	P/P	40 - 150
2010342	Naproxen	95.6	98.2	P/P	40 - 150
2010342	Primidone	75.4	74.7	P/P	40 - 150
2010342	Pyraclostrobin	71.3	68.6	P/P	40 - 150
2010342	Triclopyr	161	154	F/F	40 - 150

Reference Method: EPA 8321B
Batch ID: P349176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010469	Sucralose	60.6	73.9	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P349356

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010817	Fluoride	96.7	96.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P349297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010579	Organic Carbon	100		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P349457

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2010631	Organic Carbon	94.6	92.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P349130

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010503	Turbidity	7.10	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P349131

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010624	Turbidity	6.56	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P349205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010664	Calcium	0.497	Spike	P	0 - 20
2010664	Iron	0.980	Spike	P	0 - 20
2010664	Magnesium	0.562	Spike	P	0 - 20
2010664	Potassium	0.223	Spike	P	0 - 20
2010664	Sodium	0.833	Spike	P	0 - 20
2010664	Zinc	0.688	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P349205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010664	Arsenic	0.0953	Spike	P	0 - 20
2010664	Cadmium	2.66	Spike	P	0 - 20
2010664	Chromium	0.193	Spike	P	0 - 20
2010664	Copper	0.799	Spike	P	0 - 20
2010664	Lead	0.195	Spike	P	0 - 20
2010664	Nickel	1.41	Spike	P	0 - 20
2010664	Silver	0.379	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349410

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010201	Chloride	3.66	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010616	Chloride	0.338	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010201	Sulfate	5.18	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P349413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010616	Sulfate	0.344	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P349324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010619	Ammonia-N	0.0976	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349378

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010618	Kjeldahl Nitrogen	1.11	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P349379

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010631	Kjeldahl Nitrogen	0.558	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010582	NO2NO3-N	0.204	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P349333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010682	NO2NO3-N	0.437	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P349382

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010617	Total-P	0.770	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P349384

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010626	Total-P	1.81	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P349140

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010620	O-Phosphate-P	0.258	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P349141

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010627	O-Phosphate-P	0.358	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P349092

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010342	2,4-D	12.6	Spike	P	0 - 30
2010342	Acetaminophen	1.31	Spike	P	0 - 30
2010342	Bentazon	10.8	Spike	P	0 - 30
2010342	Carbamazepine	9.90	Spike	P	0 - 30
2010342	Diuron	1.71	Spike	P	0 - 30
2010342	Fenuron	6.74	Spike	P	0 - 30
2010342	Fluridone	7.85	Spike	P	0 - 30
2010342	Hydrocodone	11.5	Spike	P	0 - 30
2010342	Ibuprofen	14.5	Spike	P	0 - 30
2010342	Imazapyr	9.50	Spike	P	0 - 30
2010342	Imidacloprid	8.02	Spike	P	0 - 30
2010342	Linuron	7.94	Spike	P	0 - 30
2010342	MCP	5.05	Spike	P	0 - 30
2010342	Naproxen	2.67	Spike	P	0 - 30
2010342	Primidone	0.991	Spike	P	0 - 30
2010342	Pyraclostrobin	3.92	Spike	P	0 - 30
2010342	Triclopyr	4.33	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P349176

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010469	Sucralose	19.7	Spike	P	0 - 30

Reference Method: SM 2120 B

Batch ID: P349165

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P349165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010264	Color (true)	3.12	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P349166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010615	Color (true)	0.931	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P349352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010817	Total Alkalinity	0.574	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P349673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010614	TDS	3.56	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P349674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010624	TDS	3.50	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P349356

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010817	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P349297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010579	Organic Carbon	0.383	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P349457

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2010631	Organic Carbon	1.58	Spike	P	0 - 20

Quality Assurance Report

Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2010656
Field Sample ID: 20030848

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	131	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.7	P	30 - 160
EPA 8321B	Diuron-d6	65.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.1	P	40 - 160
EPA 8321B	Primidone-d5	95.7	P	30 - 160
EPA 8321B	Sucralose-d6	136	P	40 - 160

Lab Sample ID: 2010657
Field Sample ID: 20030653

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	147	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.1	P	30 - 160
EPA 8321B	Diuron-d6	86.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	88.8	P	40 - 160
EPA 8321B	Primidone-d5	134	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	40 - 160

Lab Sample ID: 2010658
Field Sample ID: 20030753

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	122	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	71.5	P	30 - 160
EPA 8321B	Diuron-d6	55.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	76.8	P	40 - 160
EPA 8321B	Primidone-d5	84.3	P	30 - 160
EPA 8321B	Sucralose-d6	131	P	40 - 160

Lab Sample ID: 2010659
Field Sample ID: 20030316

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	121	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.4	P	30 - 160
EPA 8321B	Diuron-d6	70.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.1	P	40 - 160
EPA 8321B	Primidone-d5	124	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	40 - 160

Lab Sample ID: 2010660
Field Sample ID: 20030897

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	121	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.9	P	30 - 160
EPA 8321B	Diuron-d6	78.2	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2010660
Field Sample ID: 20030897

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Ibuprofen-d3	78.7	P	40 - 160
EPA 8321B	Primidone-d5	121	P	30 - 160
EPA 8321B	Sucralose-d6	94.6	P	40 - 160

Lab Sample ID: 2010661
Field Sample ID: 20030695

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	79.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.3	P	30 - 160
EPA 8321B	Diuron-d6	73.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	63.3	P	40 - 160
EPA 8321B	Primidone-d5	100	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	40 - 160

Lab Sample ID: 2010662
Field Sample ID: 20030123

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	131	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.9	P	30 - 160
EPA 8321B	Diuron-d6	60.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	65.5	P	40 - 160
EPA 8321B	Primidone-d5	71.9	P	30 - 160
EPA 8321B	Sucralose-d6	87.6	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A85472

Included Lab Sample IDs: 2010614, 2010615, 2010616, 2010623, 2010624, 2010629, 2010630

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A85473

Included Lab Sample IDs: 2010620, 2010621, 2010622, 2010627, 2010628, 2010633, 2010634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.0	97.6	P/P	90 - 110
O-Phosphate-P	97.6	98.1	P/P	90 - 110
O-Phosphate-P	98.1	96.1	P/P	90 - 110
O-Phosphate-P	98.6	98.7	P/P	90 - 110
O-Phosphate-P	98.8	97.0	P/P	90 - 110
O-Phosphate-P	99.4	98.6	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A85480

Included Lab Sample IDs: 2010614, 2010615, 2010616, 2010623, 2010624

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	104	P/P	90 - 115
Color (true)	104	104	P/P	90 - 115
Color (true)	104	105	P/P	90 - 115

Reference Method: SM 5310 B-00

Run ID: A85527

Included Lab Sample IDs: 2010617, 2010618, 2010619, 2010625, 2010626

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	96.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A85536

Included Lab Sample IDs: 2010617, 2010618, 2010619, 2010625, 2010626, 2010631, 2010632

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.3	P/P	90 - 110
Ammonia-N	99.3	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A85538

Included Lab Sample IDs: 2010617, 2010618, 2010619, 2010625, 2010626, 2010631, 2010632

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A85544

Included Lab Sample IDs: 2010663, 2010664

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: A85544

Included Lab Sample IDs: 2010663, 2010664

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.6	99.3	P/P	90 - 110
Iron	98.7	99.7	P/P	90 - 110
Magnesium	98.2	99.0	P/P	90 - 110
Potassium	98.8	99.2	P/P	90 - 110
Sodium	97.4	98.3	P/P	90 - 110
Zinc	99.3	99.8	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A85546

Included Lab Sample IDs: 2010614, 2010615, 2010616, 2010623, 2010624, 2010629, 2010630

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A85546

Included Lab Sample IDs: 2010614, 2010615, 2010616, 2010623, 2010624, 2010629, 2010630

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A85560

Included Lab Sample IDs: 2010614, 2010615, 2010616, 2010623, 2010624

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	105	P/P	90 - 110
Chloride	104	104	P/P	90 - 110
Sulfate	101	105	P/P	90 - 110
Sulfate	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85574

Included Lab Sample IDs: 2010617, 2010618, 2010619, 2010625, 2010626, 2010632

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	93.4	97.9	P/P	90 - 110
Total-P	97.9	96.6	P/P	90 - 110
Total-P	99.8	93.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85579

Included Lab Sample IDs: 2010617, 2010618

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.4	92.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A85584

Included Lab Sample IDs: 2010631

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

Reference Method: SM 5310 B-00

Run ID: A85590

Included Lab Sample IDs: 2010631, 2010632

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A85594

Included Lab Sample IDs: 2010619, 2010625, 2010626, 2010631, 2010632

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.5	96.9	P/P	90 - 110
Kjeldahl Nitrogen	95.7	91.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A85602

Included Lab Sample IDs: 2010656, 2010657, 2010658, 2010659, 2010660, 2010661, 2010662

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	118	122	P/P	60 - 160
Sucralose	122	110	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A85609

Included Lab Sample IDs: 2010661, 2010662

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	78.6	86.8	P/P	50 - 150
Bentazon	117	123	P/P	50 - 150
Ibuprofen	119	75.5	P/P	50 - 150
MCP	83.0	86.7	P/P	50 - 150
Naproxen	83.1	94.6	P/P	60 - 150
Triclopyr	95.0	90.0	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A85629

Included Lab Sample IDs: 2010656, 2010657, 2010658, 2010659, 2010660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	128	106	P/P	50 - 150
Bentazon	102	115	P/P	50 - 150
Ibuprofen	82.4	74.3	P/P	50 - 150
MCP	100	98.3	P/P	50 - 150
Naproxen	112	118	P/P	60 - 150
Triclopyr	98.7	74.1	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A85635

Included Lab Sample IDs: 2010656, 2010657, 2010658, 2010659, 2010660, 2010661, 2010662

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	84.4	87.9	P/P	60 - 150
Acetaminophen	87.9	64.7	P/P	60 - 150
Carbamazepine	95.5	96.1	P/P	60 - 150
Carbamazepine	96.1	87.8	P/P	60 - 150
Diuron	88.3	93.6	P/P	60 - 150
Diuron	93.6	85.2	P/P	60 - 150
Fenuron	77.4	72.0	P/P	60 - 150
Fenuron	79.9	77.4	P/P	60 - 150
Fluridone	90.9	91.4	P/P	60 - 160
Fluridone	91.4	92.9	P/P	60 - 160
Hydrocodone	88.4	80.7	P/P	60 - 150
Hydrocodone	91.2	88.4	P/P	60 - 150
Imazapyr	94.1	98.7	P/P	50 - 150
Imazapyr	98.7	108	P/P	50 - 150
Imidacloprid	76.4	72.5	P/P	60 - 150
Imidacloprid	85.1	76.4	P/P	60 - 150
Linuron	86.2	84.8	P/P	60 - 150
Linuron	91.8	86.2	P/P	60 - 150
Primidone	107	97.4	P/P	60 - 150
Primidone	87.2	107	P/P	60 - 150
Pyraclostrobin	85.0	88.7	P/P	60 - 150
Pyraclostrobin	88.7	89.0	P/P	60 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A85664

Included Lab Sample IDs: 2010663, 2010664

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	99.7	P/P	90 - 110
Arsenic	100	100	P/P	90 - 110
Cadmium	98.5	99.5	P/P	90 - 110
Cadmium	99.5	98.6	P/P	90 - 110
Chromium	95.6	97.0	P/P	90 - 110
Chromium	97.0	95.6	P/P	90 - 110
Copper	100	99.8	P/P	90 - 110
Copper	99.8	99.1	P/P	90 - 110
Lead	96.3	95.2	P/P	90 - 110
Lead	96.9	96.3	P/P	90 - 110
Nickel	101	99.5	P/P	90 - 110
Nickel	99.5	99.1	P/P	90 - 110
Silver	94.6	94.6	P/P	90 - 110
Silver	95.0	94.6	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
EPA 180.1 Rev. 2.0	Turbidity						7.10	
	Turbidity						6.56	
EPA 200.7 Rev. 4.4	Calcium	101	101	101				0.497
	Iron	104	101	99.7	101			0.980
	Magnesium	101	99.5	99.2				0.562
	Potassium	101	97.2	100	100			0.223
	Sodium	98.3	96.5	99.3				0.833
	Zinc	102	104	99.0	98.3			0.688
EPA 200.8 Rev. 5.4	Arsenic	99.3	104	102	102			0.0953
	Cadmium	101	102	99.6	102			2.66
	Chromium	95.7	95.3	96.1	96.0			0.193
	Copper	98.0	99.6	95.0	95.8			0.799
	Lead	94.5	97.8	95.4	95.2			0.195
	Nickel	100	101	96.7	98.1			1.41
	Silver	97.3	98.0	96.4	96.1			0.379
EPA 300.0 Rev. 2.1	Chloride	100	103	101			3.66	
	Chloride	105	109	103			0.338	
	Sulfate	99.8	103	99.5			5.18	
	Sulfate	105	108	101			0.344	
EPA 350.1 Rev. 2.0	Ammonia-N	99.9	102	102				0.0976
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	94.7	96.2				1.11
	Kjeldahl Nitrogen	99.8	99.7	98.8				0.558
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	100					0.204
	NO2NO3-N	102	99.8					0.437
EPA 365.1 Rev. 2.0	Total-P	97.4	93.1	92.3				0.770
	Total-P	97.8	94.4	96.5				1.81
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	97.3	97.0				0.258
	O-Phosphate-P	99.4	97.3	97.7				0.358
EPA 8321B	2,4-D	91.9	136	120				12.6
	Acetaminophen	87.4	74.0	75.0				1.31
	Bentazon	96.2	65.3	58.1				10.8
	Carbamazepine	81.8	56.9	51.6				9.90
	Diuron	62.4	53.2	52.3				1.71
	Fenuron	96.0	69.4	74.3				6.74
	Fluridone	78.7	65.7	60.8				7.85
	Hydrocodone	84.3	80.2	71.5				11.5
	Ibuprofen	58.9	81.6	70.5				14.5
	Imazapyr	98.7	79.3	97.1				9.50
	Imidacloprid	104	128	117				8.02
	Linuron	69.0	65.5	60.5				7.94
	MCP	93.3	143	136				5.05
	Naproxen	84.9	95.6	98.2				2.67
	Primidone	107	75.4	74.7				0.991
	Pyraclostrobin	70.2	71.3	68.6				3.92
	Sucralose	106	60.6	73.9				19.7
	Triclopyr	95.3	161	154				4.33
SM 2120 B	Color (true)	101					3.12	
	Color (true)	103					0.931	
SM 2320 B-97	Total Alkalinity	103					0.574	
SM 2540 C-97	TDS						3.56	
	TDS						3.50	
SM 4500 F-C-97	Fluoride	96.5	96.7	96.7				0.0
SM 5310 B-00	Organic Carbon	92.8	100					0.383
	Organic Carbon	92.8	94.6	92.2				1.58

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2010614, 2010615, 2010616, 2010623, 2010624, 2010629, 2010630
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2010663, 2010664
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2010663, 2010664
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2010614, 2010615, 2010616, 2010623, 2010624
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2010614, 2010615, 2010616, 2010623, 2010624
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2010617, 2010618, 2010619, 2010625, 2010626, 2010631, 2010632
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2010617, 2010618, 2010619, 2010625, 2010626, 2010631, 2010632
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2010617, 2010618, 2010619, 2010625, 2010626, 2010631, 2010632
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2010617, 2010618, 2010619, 2010625, 2010626, 2010631, 2010632
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2010620, 2010621, 2010622, 2010627, 2010628, 2010633, 2010634
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2010656, 2010657, 2010658, 2010659, 2010660, 2010661, 2010662
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2010656, 2010657, 2010658, 2010659, 2010660, 2010661, 2010662
SM 2120 B / E31780	True Color measured at 450 nm	2010614, 2010615, 2010616, 2010623, 2010624
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2010614, 2010615, 2010616, 2010623, 2010624, 2010629, 2010630
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2010614, 2010615, 2010616, 2010623, 2010624
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2010614, 2010615, 2010616, 2010623, 2010624, 2010629, 2010630
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2010614, 2010615, 2010616, 2010623, 2010624, 2010629, 2010630
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2010617, 2010618, 2010619, 2010625, 2010626, 2010631, 2010632

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	07/25/2018			07/25/2018 16:44	William L. Brown IV	2010614, 2010615, 2010616, 2010623, 2010624, 2010629, 2010630
EPA 200.7 Rev. 4.4	07/25/2018	07/26/2018 14:30	Elliott D. Healy	07/27/2018 15:49	Betina Topolski	2010663
	07/25/2018	07/26/2018 14:30	Elliott D. Healy	07/27/2018 15:57	Betina Topolski	2010664
EPA 200.8 Rev. 5.4	07/25/2018	07/26/2018 14:30	Elliott D. Healy	08/02/2018 22:21	Allison Taylor	2010663
	07/25/2018	07/26/2018 14:30	Elliott D. Healy	08/02/2018 23:00	Allison Taylor	2010664
EPA 300.0 Rev. 2.1	07/25/2018			07/30/2018 16:10	Lipi Saha	2010614
	07/25/2018			07/30/2018 16:22	Lipi Saha	2010615
	07/25/2018			07/30/2018 19:22	Lipi Saha	2010616
	07/25/2018			07/30/2018 20:10	Lipi Saha	2010623
	07/25/2018			07/30/2018 20:22	Lipi Saha	2010624
EPA 350.1 Rev. 2.0	07/25/2018			07/27/2018 14:29	Ping Hua	2010617
	07/25/2018			07/27/2018 14:34	Ping Hua	2010618
	07/25/2018			07/27/2018 14:35	Ping Hua	2010619
	07/25/2018			07/27/2018 14:37	Ping Hua	2010625
	07/25/2018			07/27/2018 14:38	Ping Hua	2010626
	07/25/2018			07/27/2018 14:46	Ping Hua	2010631
	07/25/2018			07/27/2018 14:47	Ping Hua	2010632
EPA 351.2 Rev. 2.0	07/25/2018	07/30/2018 10:15	Adrian Shelby	07/31/2018 11:19	Joseph Suarez	2010617
	07/25/2018	07/30/2018 10:15	Adrian Shelby	07/31/2018 11:20	Joseph Suarez	2010618
	07/25/2018	07/30/2018 10:15	Adrian Shelby	07/31/2018 14:25	Joseph Suarez	2010619
	07/25/2018	07/30/2018 10:15	Adrian Shelby	07/31/2018 14:26	Joseph Suarez	2010625
	07/25/2018	07/30/2018 10:15	Adrian Shelby	07/31/2018 14:28	Joseph Suarez	2010626
	07/25/2018	07/30/2018 10:15	Adrian Shelby	07/31/2018 14:29	Joseph Suarez	2010631
	07/25/2018	07/30/2018 10:15	Adrian Shelby	07/31/2018 14:37	Joseph Suarez	2010632
EPA 353.2 Rev. 2.0	07/25/2018			07/27/2018 13:17	Lauren Bottorf	2010617
	07/25/2018			07/27/2018 13:18	Lauren Bottorf	2010618
	07/25/2018			07/27/2018 13:19	Lauren Bottorf	2010619
	07/25/2018			07/27/2018 13:20	Lauren Bottorf	2010625
	07/25/2018			07/27/2018 13:21	Lauren Bottorf	2010626
	07/25/2018			07/27/2018 13:36	Lauren Bottorf	2010631
	07/25/2018			07/27/2018 13:37	Lauren Bottorf	2010632
EPA 365.1 Rev. 2.0	07/25/2018	07/30/2018 11:20	Sima Feizi	07/31/2018 09:03	Beverly Y. Sanders	2010617
	07/25/2018	07/30/2018 11:20	Sima Feizi	07/31/2018 09:18	Beverly Y. Sanders	2010618
	07/25/2018	07/30/2018 11:20	Sima Feizi	07/31/2018 09:21	Beverly Y. Sanders	2010626
	07/25/2018	07/30/2018 11:20	Sima Feizi	07/31/2018 09:24	Beverly Y. Sanders	2010619
	07/25/2018	07/30/2018 11:20	Sima Feizi	07/31/2018 09:28	Beverly Y. Sanders	2010625
	07/25/2018	07/30/2018 11:20	Sima Feizi	07/31/2018 09:30	Beverly Y. Sanders	2010632
	07/25/2018	07/30/2018 11:20	Sima Feizi	07/31/2018 13:59	Beverly Y. Sanders	2010631
EPA 365.1 Rev. 2.0 dissolved	07/25/2018			07/25/2018 16:34	Julia Storbeck	2010620

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Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0 dissolved	07/25/2018			07/25/2018 16:43	Julia Storbeck	2010627
	07/25/2018			07/25/2018 17:20	Julia Storbeck	2010622
	07/25/2018			07/25/2018 17:36	Julia Storbeck	2010634
	07/25/2018			07/25/2018 17:52	Julia Storbeck	2010628
	07/25/2018			07/25/2018 17:53	Julia Storbeck	2010633
	07/25/2018			07/25/2018 17:59	Julia Storbeck	2010621
EPA 8321B	07/25/2018	07/27/2018 11:00	Hoor Shaik	07/28/2018 21:16	Juyoung Kim	2010656
	07/25/2018	07/27/2018 11:00	Hoor Shaik	07/28/2018 21:51	Juyoung Kim	2010657
	07/25/2018	07/27/2018 11:00	Hoor Shaik	07/28/2018 22:25	Juyoung Kim	2010658
	07/25/2018	07/27/2018 11:00	Hoor Shaik	07/28/2018 23:00	Juyoung Kim	2010659
	07/25/2018	07/27/2018 11:00	Hoor Shaik	07/28/2018 23:35	Juyoung Kim	2010660
	07/25/2018	07/27/2018 11:00	Hoor Shaik	07/29/2018 00:44	Juyoung Kim	2010661
	07/25/2018	07/27/2018 11:00	Hoor Shaik	07/29/2018 01:19	Juyoung Kim	2010662
	07/25/2018	07/27/2018 11:00	Hoor Shaik	08/01/2018 04:39	Juyoung Kim	2010661
	07/25/2018	07/27/2018 11:00	Hoor Shaik	08/01/2018 05:14	Juyoung Kim	2010662
	07/25/2018	07/27/2018 11:00	Hoor Shaik	08/02/2018 09:45	Juyoung Kim	2010656
	07/25/2018	07/27/2018 11:00	Hoor Shaik	08/02/2018 10:20	Juyoung Kim	2010657
	07/25/2018	07/27/2018 11:00	Hoor Shaik	08/02/2018 10:54	Juyoung Kim	2010658
	07/25/2018	07/27/2018 11:00	Hoor Shaik	08/02/2018 11:29	Juyoung Kim	2010659
	07/25/2018	07/27/2018 11:00	Hoor Shaik	08/02/2018 12:03	Juyoung Kim	2010660
	07/25/2018	07/27/2018 14:50	Hoor Shaik	08/01/2018 02:26	Mohammad Ghaffari	2010656
	07/25/2018	07/27/2018 14:50	Hoor Shaik	08/01/2018 02:40	Mohammad Ghaffari	2010657
	07/25/2018	07/27/2018 14:50	Hoor Shaik	08/01/2018 02:55	Mohammad Ghaffari	2010658
	07/25/2018	07/27/2018 14:50	Hoor Shaik	08/01/2018 03:09	Mohammad Ghaffari	2010659
	07/25/2018	07/27/2018 14:50	Hoor Shaik	08/01/2018 03:24	Mohammad Ghaffari	2010660
	07/25/2018	07/27/2018 14:50	Hoor Shaik	08/01/2018 03:39	Mohammad Ghaffari	2010661
SM 2120 B	07/25/2018	07/27/2018 14:50	Hoor Shaik	08/01/2018 04:08	Mohammad Ghaffari	2010662
	07/25/2018			07/25/2018 17:01	Tanya Welborn	2010614
	07/25/2018			07/25/2018 17:06	Tanya Welborn	2010615
	07/25/2018			07/25/2018 17:07	Tanya Welborn	2010623
	07/25/2018			07/25/2018 17:08	Tanya Welborn	2010624
SM 2320 B-97	07/25/2018			07/25/2018 17:21	Tanya Welborn	2010616
	07/25/2018			07/26/2018 23:52	Dale L. Simmons	2010614
	07/25/2018			07/27/2018 00:03	Dale L. Simmons	2010615
	07/25/2018			07/27/2018 00:13	Dale L. Simmons	2010616
	07/25/2018			07/27/2018 00:23	Dale L. Simmons	2010623
	07/25/2018			07/27/2018 00:33	Dale L. Simmons	2010624
	07/25/2018			07/27/2018 00:44	Dale L. Simmons	2010629
	07/25/2018			07/27/2018 00:54	Dale L. Simmons	2010630

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Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 C-97	07/25/2018			07/28/2018 20:08	Yijie Li	2010614, 2010615, 2010616, 2010623, 2010624
SM 2540 D-97	07/25/2018			07/28/2018 23:02	Yijie Li	2010614, 2010615, 2010616, 2010623, 2010624, 2010629, 2010630
SM 4500 F-C-97	07/25/2018			07/26/2018 23:52	Dale L. Simmons	2010614
	07/25/2018			07/27/2018 00:03	Dale L. Simmons	2010615
	07/25/2018			07/27/2018 00:13	Dale L. Simmons	2010616
	07/25/2018			07/27/2018 00:23	Dale L. Simmons	2010623
	07/25/2018			07/27/2018 00:33	Dale L. Simmons	2010624
	07/25/2018			07/27/2018 00:44	Dale L. Simmons	2010629
	07/25/2018			07/27/2018 00:54	Dale L. Simmons	2010630
SM 5310 B-00	07/25/2018			07/27/2018 02:30	Megan Treadwell	2010617
	07/25/2018			07/27/2018 02:43	Megan Treadwell	2010618
	07/25/2018			07/27/2018 02:56	Megan Treadwell	2010619
	07/25/2018			07/27/2018 03:10	Megan Treadwell	2010625
	07/25/2018			07/27/2018 03:23	Megan Treadwell	2010626
	07/25/2018			07/30/2018 15:51	Megan Treadwell	2010631
	07/25/2018			07/30/2018 16:48	Megan Treadwell	2010632