

Chemical Analysis Report

WAS-SECT-2020-08-10-01

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

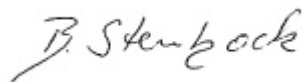
Event Description: **Little River**
Request ID: **RQ-2020-07-20-57**
Customer: **WAS-SECT**
Project ID: **SMP**

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

Date Certified: 02-SEP-2020 17:35



NON-CONFORMANCE REPORT INCLUDED

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 by the Florida Department of Health Environmental Laboratory Certification Program 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: Lewis Creek Upstream of 157

Collection Date/Time: 08/10/2020 12:59

Field ID: G1WA0075

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189365	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P385913	
	EPA 300.0 Rev. 2.1	Chloride	6.9		mg Cl/L	P386272	
		Sulfate	0.28	I	mg SO4/L	P386276	
	SM 2120 B-2011	Color (true)	57	A	PCU	P385921	
	SM 2320 B-2011	Total Alkalinity	27		mg CaCO3/L	P385989	
	SM 2540 C-2011	TDS	61		mg/L	P386181	
	SM 2540 D-2011	TSS	2	I	mg/L	P386222	
	SM 4500 F-C-2011	Fluoride	0.077	I	mg F/L	P385993	
2189371	EPA 350.1 Rev. 2.0	Ammonia-N	0.076	Y	mg N/L	P386084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46	Y	mg N/L	P386140	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P385936	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P385940	
	SM 5310 B-2011	Organic Carbon	7.7		mg C/L	P385979	
2189377	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.027		mg P/L	P385916	
2189398	EPA 8321B	2,4-D	0.013		ug/L	P385887	
		Acesulfame K**	0.10	U	ug/L	P385867	MS
		AMPA**	0.10	U	ug/L	P385867	
		Sucralose**	0.095		ug/L	P385867	
		Acetaminophen**	0.0080	U	ug/L	P385887	
		Acetamiprid**	0.0020	U	ug/L	P385887	
		Endothall**	0.25	U	ug/L	P385867	
		Glufosinate**	0.10	U	ug/L	P385867	
		Glyphosate**	0.10	U	ug/L	P385867	
		Afidopyropen**	0.0020	U	ug/L	P385887	
		Bentazon	8.0E-04	U	ug/L	P385887	
		Benzovindiflupyr**	0.0020	U	ug/L	P385887	
		Carbamazepine**	8.0E-04	U	ug/L	P385887	
		Clothianidin**	0.0020	U	ug/L	P385887	
		Dinotefuran**	0.0020	U	ug/L	P385887	
		Diuron	0.0020	U	ug/L	P385887	
		Fenuron	0.016	U	ug/L	P385887	
		Fluridone**	0.0018	I	ug/L	P385887	
		Imazapyr**	0.047		ug/L	P385887	
		Hydrocodone**	0.0020	U	ug/L	P385887	
		Ibuprofen**	0.020	U	ug/L	P385887	
		Imidacloprid	0.0020	U	ug/L	P385887	
		Linuron	0.0040	U	ug/L	P385887	
		Mandestrobin**	0.0020	U	ug/L	P385887	
		MCPD	0.0020	U	ug/L	P385887	
		Naproxen**	0.0080	U	ug/L	P385887	
		Primidone**	0.0040	U	ug/L	P385887	
		Pyraclostrobin**	0.0020	U	ug/L	P385887	
		Thiamethoxam**	0.0020	U	ug/L	P385887	

Field ID: G1WA0075

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189398	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P385887	
		Triclopyr**	0.0040	U	ug/L	P385887	
2189405	EPA 200.7 Rev. 4.4	Barium	12.5		ug/L	P385910	
		Calcium	8.11		mg/L	P385910	
		Iron	1.29E+03		ug/L	P385910	
		Magnesium	2.65		mg/L	P385910	
		Potassium	0.55	I	mg/L	P385910	
		Sodium	4.3		mg/L	P385910	
		Strontium	22.4		ug/L	P385910	
		Tin	3.0	U	ug/L	P385910	
		Titanium	1.1	I	ug/L	P385910	
		Vanadium	2.0	U	ug/L	P385910	
		Zinc	5.0	U	ug/L	P385910	
	EPA 200.8 Rev. 5.4	Aluminum	38		ug/L	P385910	
		Antimony	0.050	U	ug/L	P385910	
		Arsenic	1.06		ug/L	P385910	
		Beryllium	0.010	U	ug/L	P385910	
		Boron**	16.0		ug/L	P385910	
		Cadmium	0.020	U	ug/L	P385910	
		Chromium	0.40	U	ug/L	P385910	
		Cobalt	0.073	I	ug/L	P385910	
		Copper	0.40	U	ug/L	P385910	
		Lead	0.20	U	ug/L	P385910	
		Manganese	90.8		ug/L	P385910	
		Molybdenum	0.21	I	ug/L	P385910	
		Nickel	0.50	U	ug/L	P385910	
		Selenium	0.20	U	ug/L	P385910	
		Silver	0.010	U	ug/L	P385910	
		Thallium	0.10	U	ug/L	P385910	
	SM 2340B	Hardness	31.2		mg/L	P385910	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 8321B: MS accuracy for bentazon and 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Little River At Highbridge Road

Collection Date/Time: 08/10/2020 09:09

Field ID: G1WA0086

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189366	EPA 180.1 Rev. 2.0	Turbidity	8.8		NTU	P385913	
	EPA 300.0 Rev. 2.1	Chloride	8.3		mg Cl/L	P386272	
		Sulfate	4.5		mg SO4/L	P386276	
	SM 2120 B-2011	Color (true)	61		PCU	P385921	
	SM 2320 B-2011	Total Alkalinity	35		mg CaCO3/L	P385989	
	SM 2540 C-2011	TDS	100		mg/L	P386181	
	SM 2540 D-2011	TSS	4	I	mg/L	P386222	
	SM 4500 F-C-2011	Fluoride	0.13		mg F/L	P385993	
2189372	EPA 350.1 Rev. 2.0	Ammonia-N	0.030	Y	mg N/L	P386084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39	Y	mg N/L	P386140	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.3		mg N/L	P385936	
	EPA 365.1 Rev. 2.0	Total-P	0.097		mg P/L	P385940	
	SM 5310 B-2011	Organic Carbon	5.0		mg C/L	P385979	
2189378	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.052		mg P/L	P385916	
2189399	EPA 8321B	2,4-D	0.0020	U	ug/L	P385887	
		Acesulfame K**	0.10	U	ug/L	P385867	MS
		AMPA**	0.10	U	ug/L	P385867	
		Sucralose**	0.60		ug/L	P385867	
		Acetaminophen**	0.0080	U	ug/L	P385887	
		Acetamiprid**	0.0020	U	ug/L	P385887	
		Endothall**	0.25	U	ug/L	P385867	
		Glufosinate**	0.10	U	ug/L	P385867	
		Glyphosate**	0.10	U	ug/L	P385867	
		Afidopyropen**	0.0020	U	ug/L	P385887	
		Bentazon	0.0059		ug/L	P385887	
		Benzovindiflupyr**	0.0025	I	ug/L	P385887	
		Carbamazepine**	0.0018	I	ug/L	P385887	
		Clothianidin**	0.0025	I	ug/L	P385887	
		Dinotefuran**	0.045		ug/L	P385887	
		Diuron	0.0022	I	ug/L	P385887	
		Fenuron	0.016	U	ug/L	P385887	
		Fluridone**	0.0034		ug/L	P385887	
		Imazapyr**	0.011	I	ug/L	P385887	
		Hydrocodone**	0.0020	U	ug/L	P385887	
		Ibuprofen**	0.020	U	ug/L	P385887	
		Imidacloprid	0.0064	I	ug/L	P385887	
		Linuron	0.0040	U	ug/L	P385887	
		Mandestrobin**	0.0020	U	ug/L	P385887	
		MCPD	0.0020	U	ug/L	P385887	
		Naproxen**	0.0080	U	ug/L	P385887	
		Primidone**	0.0040	U	ug/L	P385887	
		Pyraclostrobin**	0.0020	U	ug/L	P385887	
		Thiamethoxam**	0.0020	U	ug/L	P385887	

Field ID: G1WA0086

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189399	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P385887	
		Triclopyr**	0.0040	U	ug/L	P385887	
2189406	EPA 200.7 Rev. 4.4	Barium	21.7		ug/L	P385910	
		Calcium	10.8		mg/L	P385910	
		Iron	1.27E+03		ug/L	P385910	
		Magnesium	3.77		mg/L	P385910	
		Potassium	1.4		mg/L	P385910	
		Sodium	9.7		mg/L	P385910	
		Strontium	38.1		ug/L	P385910	
		Tin	3.0	U	ug/L	P385910	
		Titanium	8.2		ug/L	P385910	
		Vanadium	3.1	I	ug/L	P385910	
		Zinc	5.0	U	ug/L	P385910	
	EPA 200.8 Rev. 5.4	Aluminum	188		ug/L	P385910	
		Antimony	0.051	I	ug/L	P385910	
		Arsenic	0.88		ug/L	P385910	
		Beryllium	0.012	I	ug/L	P385910	
		Boron**	18.0		ug/L	P385910	
		Cadmium	0.020	U	ug/L	P385910	
		Chromium	0.41	I	ug/L	P385910	
		Cobalt	0.123		ug/L	P385910	
		Copper	1.48		ug/L	P385910	
		Lead	0.26	I	ug/L	P385910	
		Manganese	45.8		ug/L	P385910	
		Molybdenum	0.59	I	ug/L	P385910	
		Nickel	0.50	U	ug/L	P385910	
		Selenium	0.20	U	ug/L	P385910	
		Silver	0.010	U	ug/L	P385910	
		Thallium	0.10	U	ug/L	P385910	
	SM 2340B	Hardness	42.4		mg/L	P385910	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 8321B: MS accuracy for bentazon and 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: FB080320

Collection Date/Time: 08/10/2020 09:31

Field ID: FB080320

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189383	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P385914	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P386273	
		Sulfate	0.20	U	mg SO4/L	P386277	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P385922	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P385989	
	SM 2540 C-2011	TDS	15	U	mg/L	P386178	
	SM 2540 D-2011	TSS	2	U	mg/L	P386219	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P385993	
2189384	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	UY	mg N/L	P386084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	UY	mg N/L	P386140	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P385937	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P385941	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P385980	
2189385	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P385918	
2189404	EPA 8321B	2,4-D	0.0020	U	ug/L	P386033	
		Acesulfame K**	0.10	U	ug/L	P385867	MS
		AMPA**	0.10	U	ug/L	P385867	
		Sucralose**	0.010	U	ug/L	P385867	
		Acetaminophen**	0.0080	U	ug/L	P386033	
		Acetamiprid**	0.0020	U	ug/L	P386033	
		Endothall**	0.25	U	ug/L	P385867	
		Glufosinate**	0.10	U	ug/L	P385867	
		Glyphosate**	0.10	U	ug/L	P385867	
		Afidopyropen**	0.0020	U	ug/L	P386033	
		Bentazon	8.0E-04	U	ug/L	P386033	
		Benzovindiflupyr**	0.0020	U	ug/L	P386033	
		Carbamazepine**	8.0E-04	U	ug/L	P386033	
		Clothianidin**	0.0020	U	ug/L	P386033	
		Dinotefuran**	0.0020	U	ug/L	P386033	
		Diuron	0.0020	U	ug/L	P386033	
		Fenuron	0.016	U	ug/L	P386033	
		Fluridone**	8.0E-04	U	ug/L	P386033	
		Imazapyr**	0.0040	U	ug/L	P386033	
		Hydrocodone**	0.0020	U	ug/L	P386033	
		Ibuprofen**	0.020	U	ug/L	P386033	
		Imidacloprid	0.0020	U	ug/L	P386033	
		Linuron	0.0040	U	ug/L	P386033	
		Mandestrobin**	0.0020	U	ug/L	P386033	
		MCPP	0.0020	U	ug/L	P386033	
		Naproxen**	0.0080	U	ug/L	P386033	
		Primidone**	0.0040	U	ug/L	P386033	
		Pyraclostrobin**	0.0020	U	ug/L	P386033	
		Thiamethoxam**	0.0020	U	ug/L	P386033	

Field ID: FB080320

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189404	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P386033	
		Triclopyr**	0.0040	U	ug/L	P386033	
2189411	EPA 200.7 Rev. 4.4	Barium	1.0	U	ug/L	P385910	
		Calcium	0.075	U	mg/L	P385910	
		Iron	30	U	ug/L	P385910	
		Magnesium	0.040	U	mg/L	P385910	
		Potassium	0.30	U	mg/L	P385910	
		Sodium	0.50	U	mg/L	P385910	
		Strontium	2.0	U	ug/L	P385910	
		Tin	3.0	U	ug/L	P385910	
		Titanium	0.75	U	ug/L	P385910	
		Vanadium	2.0	U	ug/L	P385910	
		Zinc	5.0	U	ug/L	P385910	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P385910	
		Antimony	0.050	U	ug/L	P385910	
		Arsenic	0.050	U	ug/L	P385910	
		Beryllium	0.010	U	ug/L	P385910	
		Boron**	2.0	U	ug/L	P385910	
		Cadmium	0.020	U	ug/L	P385910	
		Chromium	0.40	U	ug/L	P385910	
		Cobalt	0.020	U	ug/L	P385910	
		Copper	0.40	U	ug/L	P385910	
		Lead	0.20	U	ug/L	P385910	
		Manganese	0.10	U	ug/L	P385910	
		Molybdenum	0.15	U	ug/L	P385910	
		Nickel	0.50	U	ug/L	P385910	
		Selenium	0.20	U	ug/L	P385910	
		Silver	0.010	U	ug/L	P385910	
		Thallium	0.10	U	ug/L	P385910	
	SM 2340B	Hardness	0.35	U	mg/L	P385910	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 8321B: MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Willachoochee Creek At 161

Collection Date/Time: 08/10/2020 12:01

Field ID: G1WA0087

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189367	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P385914	
	EPA 300.0 Rev. 2.1	Chloride	6.0		mg Cl/L	P386272	
		Sulfate	0.49	I	mg SO4/L	P386276	
	SM 2120 B-2011	Color (true)	83		PCU	P385921	
	SM 2320 B-2011	Total Alkalinity	12		mg CaCO3/L	P385989	
	SM 2540 C-2011	TDS	52		mg/L	P386181	
	SM 2540 D-2011	TSS	8	I	mg/L	P386222	
	SM 4500 F-C-2011	Fluoride	0.063	I	mg F/L	P385993	
2189373	EPA 350.1 Rev. 2.0	Ammonia-N	0.017	Y	mg N/L	P386084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39	Y	mg N/L	P386140	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.82		mg N/L	P385936	
	EPA 365.1 Rev. 2.0	Total-P	0.083		mg P/L	P385940	
	SM 5310 B-2011	Organic Carbon	5.1		mg C/L	P385979	
2189379	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P385916	
2189400	EPA 8321B	2,4-D	0.0020	U	ug/L	P385887	
		Acesulfame K**	0.10	U	ug/L	P385867	MS
		AMPA**	0.10	U	ug/L	P385867	
		Sucralose**	0.018	I	ug/L	P385867	
		Acetaminophen**	0.0080	U	ug/L	P385887	
		Acetamiprid**	0.0020	U	ug/L	P385887	
		Endothall**	0.25	U	ug/L	P385867	
		Glufosinate**	0.10	U	ug/L	P385867	
		Glyphosate**	0.10	U	ug/L	P385867	
		Afidopyropen**	0.0020	U	ug/L	P385887	
		Bentazon	0.0091		ug/L	P385887	
		Benzovindiflupyr**	0.0088		ug/L	P385887	
		Carbamazepine**	8.0E-04	U	ug/L	P385887	
		Clothianidin**	0.0025	I	ug/L	P385887	
		Dinotefuran**	0.16		ug/L	P385887	
		Diuron	0.0020	U	ug/L	P385887	
		Fenuron	0.016	U	ug/L	P385887	
		Fluridone**	8.0E-04	U	ug/L	P385887	
		Imazapyr**	0.018		ug/L	P385887	
		Hydrocodone**	0.0020	U	ug/L	P385887	
		Ibuprofen**	0.020	U	ug/L	P385887	
		Imidacloprid	0.013		ug/L	P385887	
		Linuron	0.0040	U	ug/L	P385887	
		Mandestrobin**	0.0020	U	ug/L	P385887	
		MCP	0.0020	U	ug/L	P385887	
		Naproxen**	0.0080	U	ug/L	P385887	
		Primidone**	0.0040	U	ug/L	P385887	
		Pyraclostrobin**	0.0020	U	ug/L	P385887	
		Thiamethoxam**	0.0020	U	ug/L	P385887	

Field ID: G1WA0087

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189400	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P385887	
		Triclopyr**	0.0040	U	ug/L	P385887	
2189407	EPA 200.7 Rev. 4.4	Barium	26.1		ug/L	P385910	
		Calcium	4.70		mg/L	P385910	
		Iron	1.50E+03		ug/L	P385910	
		Magnesium	2.74		mg/L	P385910	
		Potassium	0.86	I	mg/L	P385910	
		Sodium	3.2		mg/L	P385910	
		Strontium	27.1		ug/L	P385910	
		Tin	3.0	U	ug/L	P385910	
		Titanium	16.9		ug/L	P385910	
		Vanadium	2.0	U	ug/L	P385910	
		Zinc	5.0	U	ug/L	P385910	
	EPA 200.8 Rev. 5.4	Aluminum	408		ug/L	P385910	
		Antimony	0.050	U	ug/L	P385910	
		Arsenic	0.90		ug/L	P385910	
		Beryllium	0.023	I	ug/L	P385910	
		Boron**	12.8		ug/L	P385910	
		Cadmium	0.020	U	ug/L	P385910	
		Chromium	0.60	I	ug/L	P385910	
		Cobalt	0.156		ug/L	P385910	
		Copper	0.95		ug/L	P385910	
		Lead	0.48		ug/L	P385910	
		Manganese	39.2		ug/L	P385910	
		Molybdenum	0.15	U	ug/L	P385910	
		Nickel	0.50	U	ug/L	P385910	
		Selenium	0.20	U	ug/L	P385910	
		Silver	0.010	U	ug/L	P385910	
		Thallium	0.10	U	ug/L	P385910	
	SM 2340B	Hardness	23.0		mg/L	P385910	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 8321B: MS accuracy for bentazon and 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Double Branch at CR 159

Collection Date/Time: 08/10/2020 13:56

Field ID: G1WA0091

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189368	EPA 180.1 Rev. 2.0	Turbidity	7.3	A	NTU	P385914	
	EPA 300.0 Rev. 2.1	Chloride	6.1		mg Cl/L	P386272	
		Sulfate	0.21	I	mg SO4/L	P386276	
	SM 2120 B-2011	Color (true)	73		PCU	P385922	
	SM 2320 B-2011	Total Alkalinity	22		mg CaCO3/L	P385989	
	SM 2540 C-2011	TDS	50		mg/L	P386181	
	SM 2540 D-2011	TSS	4	I	mg/L	P386222	
	SM 4500 F-C-2011	Fluoride	0.077	I	mg F/L	P385993	
2189374	EPA 350.1 Rev. 2.0	Ammonia-N	0.055	Y	mg N/L	P386084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38	Y	mg N/L	P386140	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P385936	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P385940	
	SM 5310 B-2011	Organic Carbon	4.5		mg C/L	P385979	
2189380	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.057		mg P/L	P385916	
2189401	EPA 8321B	2,4-D	0.0020	U	ug/L	P385887	
		Acesulfame K**	0.10	U	ug/L	P385867	MS
		AMPA**	0.10	U	ug/L	P385867	
		Sucralose**	0.071		ug/L	P385867	
		Acetaminophen**	0.0080	U	ug/L	P385887	
		Acetamiprid**	0.0020	U	ug/L	P385887	
		Endothall**	0.25	U	ug/L	P385867	
		Glufosinate**	0.10	U	ug/L	P385867	
		Glyphosate**	0.10	U	ug/L	P385867	
		Afidopyropen**	0.0020	U	ug/L	P385887	
		Bentazon	8.0E-04	U	ug/L	P385887	
		Benzovindiflupyr**	0.0020	U	ug/L	P385887	
		Carbamazepine**	8.0E-04	U	ug/L	P385887	
		Clothianidin**	0.0020	U	ug/L	P385887	
		Dinotefuran**	0.0020	U	ug/L	P385887	
		Diuron	0.0020	U	ug/L	P385887	
		Fenuron	0.016	U	ug/L	P385887	
		Fluridone**	8.0E-04	U	ug/L	P385887	
		Imazapyr**	0.0040	U	ug/L	P385887	
		Hydrocodone**	0.0020	U	ug/L	P385887	
		Ibuprofen**	0.020	U	ug/L	P385887	
		Imidacloprid	0.0020	U	ug/L	P385887	
		Linuron	0.0040	U	ug/L	P385887	
		Mandestrobin**	0.0020	U	ug/L	P385887	
		MCPD	0.0020	U	ug/L	P385887	
		Naproxen**	0.0080	U	ug/L	P385887	
		Primidone**	0.0040	U	ug/L	P385887	
		Pyraclostrobin**	0.0020	U	ug/L	P385887	
		Thiamethoxam**	0.0020	U	ug/L	P385887	

Field ID: G1WA0091

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189401	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P385887	
		Triclopyr**	0.0040	U	ug/L	P385887	
2189408	EPA 200.7 Rev. 4.4	Barium	18.8		ug/L	P385910	
		Calcium	6.92		mg/L	P385910	
		Iron	2.82E+03		ug/L	P385910	
		Magnesium	1.60		mg/L	P385910	
		Potassium	0.37	I	mg/L	P385910	
		Sodium	3.6		mg/L	P385910	
		Strontium	16.3		ug/L	P385910	
		Tin	3.0	U	ug/L	P385910	
		Titanium	2.2	I	ug/L	P385910	
		Vanadium	2.0	U	ug/L	P385910	
		Zinc	5.0	U	ug/L	P385910	
	EPA 200.8 Rev. 5.4	Aluminum	109		ug/L	P385910	
		Antimony	0.050	U	ug/L	P385910	
		Arsenic	1.68		ug/L	P385910	
		Beryllium	0.012	I	ug/L	P385910	
		Boron**	11.7		ug/L	P385910	
		Cadmium	0.020	U	ug/L	P385910	
		Chromium	0.43	I	ug/L	P385910	
		Cobalt	0.430		ug/L	P385910	
		Copper	0.40	U	ug/L	P385910	
		Lead	0.20	U	ug/L	P385910	
		Manganese	472		ug/L	P385910	
		Molybdenum	0.16	I	ug/L	P385910	
		Nickel	0.50	U	ug/L	P385910	
		Selenium	0.20	U	ug/L	P385910	
		Silver	0.010	U	ug/L	P385910	
		Thallium	0.10	U	ug/L	P385910	
	SM 2340B	Hardness	23.9		mg/L	P385910	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 8321B: MS accuracy for bentazon and 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Richlander Creek At CR 65b

Collection Date/Time: 08/10/2020 10:21

Field ID: G1WA0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189369	EPA 180.1 Rev. 2.0	Turbidity	6.3		NTU	P385914	
	EPA 300.0 Rev. 2.1	Chloride	6.7		mg Cl/L	P386272	
		Sulfate	0.66		mg SO4/L	P386276	
	SM 2120 B-2011	Color (true)	54	A	PCU	P385922	
	SM 2320 B-2011	Total Alkalinity	18		mg CaCO3/L	P385989	
	SM 2540 C-2011	TDS	47		mg/L	P386181	
	SM 2540 D-2011	TSS	2	U	mg/L	P386222	
	SM 4500 F-C-2011	Fluoride	0.082	I	mg F/L	P385993	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.026	Y	mg N/L	P386084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31	Y	mg N/L	P386140	
2189375	EPA 353.2 Rev. 2.0	NO2NO3-N	0.62		mg N/L	P385937	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P385941	
	SM 5310 B-2011	Organic Carbon	3.4		mg C/L	P385980	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.040		mg P/L	P385918	
	dissolved						
2189402	EPA 8321B	2,4-D	0.0020	U	ug/L	P385887	
		Acesulfame K**	0.10	U	ug/L	P385867	MS
		AMPA**	0.10	U	ug/L	P385867	
		Sucralose**	0.085		ug/L	P385867	
		Acetaminophen**	0.0080	U	ug/L	P385887	
		Acetamiprid**	0.0020	U	ug/L	P385887	
		Endothall**	0.25	U	ug/L	P385867	
		Glufosinate**	0.10	U	ug/L	P385867	
		Glyphosate**	0.10	U	ug/L	P385867	
		Afidopyropen**	0.0020	U	ug/L	P385887	
		Bentazon	0.0013	I	ug/L	P385887	
		Benzovindiflupyr**	0.0020	U	ug/L	P385887	
		Carbamazepine**	8.0E-04	U	ug/L	P385887	
		Clothianidin**	0.0020	U	ug/L	P385887	
		Dinotefuran**	0.0020	U	ug/L	P385887	
		Diuron	0.0020	U	ug/L	P385887	
		Fenuron	0.016	U	ug/L	P385887	
		Fluridone**	8.0E-04	U	ug/L	P385887	
		Imazapyr**	0.0058	I	ug/L	P385887	
		Hydrocodone**	0.0020	U	ug/L	P385887	
		Ibuprofen**	0.020	U	ug/L	P385887	
		Imidacloprid	0.0038	I	ug/L	P385887	
		Linuron	0.0040	U	ug/L	P385887	
		Mandestrobin**	0.0020	U	ug/L	P385887	
		MCP	0.0020	U	ug/L	P385887	
		Naproxen**	0.0080	U	ug/L	P385887	
		Primidone**	0.0040	U	ug/L	P385887	
		Pyraclostrobin**	0.0020	U	ug/L	P385887	
		Thiamethoxam**	0.0020	U	ug/L	P385887	

Field ID: G1WA0093

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189402	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P385887	
		Triclopyr**	0.0040	U	ug/L	P385887	
2189409	EPA 200.7 Rev. 4.4	Barium	14.5		ug/L	P385910	
		Calcium	6.35		mg/L	P385910	
		Iron	1.31E+03		ug/L	P385910	
		Magnesium	2.03		mg/L	P385910	
		Potassium	0.36	I	mg/L	P385910	
		Sodium	4.4		mg/L	P385910	
		Strontium	21.6		ug/L	P385910	
		Tin	3.0	U	ug/L	P385910	
		Titanium	4.8		ug/L	P385910	
		Vanadium	2.0	U	ug/L	P385910	
		Zinc	5.0	U	ug/L	P385910	
	EPA 200.8 Rev. 5.4	Aluminum	164		ug/L	P385910	
		Antimony	0.050	U	ug/L	P385910	
		Arsenic	0.69		ug/L	P385910	
		Beryllium	0.013	I	ug/L	P385910	
		Boron**	13.0		ug/L	P385910	
		Cadmium	0.020	U	ug/L	P385910	
		Chromium	0.46	I	ug/L	P385910	
		Cobalt	0.101		ug/L	P385910	
		Copper	0.40	U	ug/L	P385910	
		Lead	0.20	U	ug/L	P385910	
		Manganese	44.6		ug/L	P385910	
		Molybdenum	0.17	I	ug/L	P385910	
		Nickel	0.50	U	ug/L	P385910	
		Selenium	0.20	U	ug/L	P385910	
		Silver	0.010	U	ug/L	P385910	
		Thallium	0.10	U	ug/L	P385910	
	SM 2340B	Hardness	24.2		mg/L	P385910	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 8321B: MS accuracy for bentazon and 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Hurricane Creek At US 90

Collection Date/Time: 08/10/2020 14:34

Field ID: G1WA0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189370	EPA 180.1 Rev. 2.0	Turbidity	7.0		NTU	P385914	
	EPA 300.0 Rev. 2.1	Chloride	12	A	mg Cl/L	P386273	
		Sulfate	15	A	mg SO4/L	P386277	
	SM 2120 B-2011	Color (true)	45		PCU	P385922	
	SM 2320 B-2011	Total Alkalinity	56		mg CaCO3/L	P385989	
	SM 2540 C-2011	TDS	122		mg/L	P386181	
	SM 2540 D-2011	TSS	3	I	mg/L	P386222	
	SM 4500 F-C-2011	Fluoride	0.16		mg F/L	P385993	
2189376	EPA 350.1 Rev. 2.0	Ammonia-N	0.048	Y	mg N/L	P386084	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44	Y	mg N/L	P386140	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.35		mg N/L	P385937	
	EPA 365.1 Rev. 2.0	Total-P	0.29		mg P/L	P385941	
	SM 5310 B-2011	Organic Carbon	6.6		mg C/L	P385980	
2189382	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.22		mg P/L	P385918	
2189403	EPA 8321B	2,4-D	0.0020	U	ug/L	P386033	
		Acesulfame K**	0.10	U	ug/L	P385867	MS
		AMPA**	1.2		ug/L	P385867	
		Sucralose**	0.042		ug/L	P385867	
		Acetaminophen**	0.0080	U	ug/L	P386033	
		Acetamiprid**	0.0020	U	ug/L	P386033	
		Endothall**	0.25	U	ug/L	P385867	
		Glufosinate**	0.10	U	ug/L	P385867	
		Glyphosate**	0.10	U	ug/L	P385867	
		Afidopyropen**	0.0020	U	ug/L	P386033	
		Bentazon	0.11		ug/L	P386033	
		Benzovindiflupyr**	0.0020	U	ug/L	P386033	
		Carbamazepine**	8.0E-04	U	ug/L	P386033	
		Clothianidin**	0.0020	U	ug/L	P386033	
		Dinotefuran**	0.0020	U	ug/L	P386033	
		Diuron	0.0020	U	ug/L	P386033	
		Fenuron	0.016	U	ug/L	P386033	
		Fluridone**	9.3E-04	I	ug/L	P386033	
		Imazapyr**	0.0040	U	ug/L	P386033	
		Hydrocodone**	0.0020	U	ug/L	P386033	
		Ibuprofen**	0.020	U	ug/L	P386033	
		Imidacloprid	0.0026	I	ug/L	P386033	
		Linuron	0.0040	U	ug/L	P386033	
		Mandestrobin**	0.0020	U	ug/L	P386033	
		MCPD	0.0020	U	ug/L	P386033	
		Naproxen**	0.0080	U	ug/L	P386033	
		Primidone**	0.0040	U	ug/L	P386033	
		Pyraclostrobin**	0.0020	U	ug/L	P386033	
		Thiamethoxam**	0.0020	U	ug/L	P386033	

Field ID: G1WA0098

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2189403	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P386033	
		Triclopyr**	0.0040	U	ug/L	P386033	
2189410	EPA 200.7 Rev. 4.4	Barium	13.4		ug/L	P385910	
		Calcium	19.1		mg/L	P385910	
		Iron	620		ug/L	P385910	
		Magnesium	6.96		mg/L	P385910	
		Potassium	3.6		mg/L	P385910	
		Sodium	7.5		mg/L	P385910	
		Strontium	128		ug/L	P385910	
		Tin	3.0	U	ug/L	P385910	
		Titanium	3.0	I	ug/L	P385910	
		Vanadium	2.2	I	ug/L	P385910	
		Zinc	5.0	U	ug/L	P385910	
	EPA 200.8 Rev. 5.4	Aluminum	166		ug/L	P385910	
		Antimony	0.057	I	ug/L	P385910	
		Arsenic	1.47		ug/L	P385910	
		Beryllium	0.010	U	ug/L	P385910	
		Boron**	18.8		ug/L	P385910	
		Cadmium	0.020	U	ug/L	P385910	
		Chromium	0.40	U	ug/L	P385910	
		Cobalt	0.073	I	ug/L	P385910	
		Copper	0.40	U	ug/L	P385910	
		Lead	0.20	U	ug/L	P385910	
		Manganese	48.2		ug/L	P385910	
		Molybdenum	0.55	I	ug/L	P385910	
		Nickel	0.50	U	ug/L	P385910	
		Selenium	0.20	U	ug/L	P385910	
		Silver	0.010	U	ug/L	P385910	
		Thallium	0.10	U	ug/L	P385910	
	SM 2340B	Hardness	76.3		mg/L	P385910	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 351.2 Rev. 2.0: Sample was left out at room temperature overnight, should be stored below 6 degC.

EPA 8321B: MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Non-Conformance Report

NCR ID: 8379

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
WAS-SECT-2020-08-10-01	TLH-2020-08-10-10	2189371	
WAS-SECT-2020-08-10-01	TLH-2020-08-10-10	2189372	
WAS-SECT-2020-08-10-01	TLH-2020-08-10-10	2189373	
WAS-SECT-2020-08-10-01	TLH-2020-08-10-10	2189374	
WAS-SECT-2020-08-10-01	TLH-2020-08-10-10	2189375	
WAS-SECT-2020-08-10-01	TLH-2020-08-10-10	2189376	

NCR Type: CUSTODY

NCR Category: General

Observation: Samples were not stored in refrigerator overnight on 08/12/2020.

Resolution: Samples were returned to refrigerator at 10:15 am on 08/13/2020. Data will be qualified as appropriate.

Authorized by/Date: Irina Carbone 8/28/2020

NCR ID: 8380

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
WAS-SECT-2020-08-10-01	TLH-2020-08-10-10	2189384	

NCR Type: CUSTODY

NCR Category: General

Observation: Samples were not stored in refrigerator overnight on 08/12/2020.

Resolution: Samples were returned to refrigerator at 10:15 am on 08/13/2020. Data will be qualified as appropriate.

Authorized by/Date: Irina Carbone 8/28/2020

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P385913

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P385914

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P385910

Component	Result	Code	Units
Barium	1.0	U	ug/L
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
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P385910

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P386272

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386273

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386276

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386277

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386084

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386140

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385936

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385937

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385940

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385941

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385916

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385918

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

Reference Method: EPA 8321B
Batch ID: P385867

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P385887

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	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
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B**Batch ID: P386033**

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	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
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011**Batch ID: P385921**

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B-2011**Batch ID: P385922**

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011**Batch ID: P385989**

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

Reference Method: SM 2540 C-2011**Batch ID: P386178**

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P386181

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P386219

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P386222

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P385993

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P385979

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

Reference Method: SM 5310 B-2011
Batch ID: P385980

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: P385910

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	104		P	85 - 115
Iron	104		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	104		P	85 - 115
Sodium	102		P	85 - 115
Strontium	102		P	85 - 115
Tin	104		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P385910

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	105		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	104		P	85 - 115
Boron	100		P	85 - 115
Cadmium	106		P	85 - 115
Chromium	102		P	85 - 115
Cobalt	107		P	85 - 115
Copper	106		P	85 - 115
Lead	108		P	85 - 115
Manganese	106		P	85 - 115
Molybdenum	102		P	85 - 115
Nickel	105		P	85 - 115
Selenium	100		P	85 - 115
Silver	107		P	85 - 115
Thallium	107		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P386272

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P386273

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P386276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.2		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386084

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386140

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.7		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385936

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385937

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385940

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385941

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: P385916

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.2		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P385867

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	150		P	40 - 150
AMPA	89.0		P	40 - 150
Endothall	92.1		P	40 - 150
Glufosinate	93.4		P	40 - 150
Glyphosate	80.5		P	40 - 140
Sucralose	98.9		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P385887

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	113		P	30 - 160
Acetaminophen	76.4		P	30 - 160
Acetamiprid	72.8		P	30 - 160
Afidopyropen	50.6		P	30 - 160
Bentazon	44.1		P	30 - 160
Benzovindiflupyr	76.0		P	30 - 160
Carbamazepine	54.1		P	30 - 160
Clothianidin	67.3		P	30 - 160
Dinotefuran	90.8		P	30 - 160
Diuron	52.0		P	30 - 160
Fenuron	98.5		P	30 - 160
Fluridone	74.7		P	30 - 160
Hydrocodone	88.8		P	30 - 160
Ibuprofen	64.2		P	30 - 160
Imazapyr	68.3		P	30 - 160
Imidacloprid	81.3		P	30 - 160
Linuron	54.9		P	30 - 160
Mandestrobin	75.6		P	30 - 160
MCPP	105		P	30 - 160
Naproxen	68.5		P	30 - 160
Primidone	57.8		P	30 - 160
Pyraclostrobin	66.5		P	30 - 160
Thiamethoxam	71.7		P	30 - 160
Tolfenpyrad	52.0		P	30 - 160
Triclopyr	85.9		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P386033

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	106		P	30 - 160
Acetaminophen	79.6		P	30 - 160
Acetamiprid	75.6		P	30 - 160
Afidopyropen	56.3		P	30 - 160
Bentazon	70.3		P	30 - 160
Benzovindiflupyr	65.8		P	30 - 160
Carbamazepine	64.0		P	30 - 160
Clothianidin	74.9		P	30 - 160
Dinotefuran	84.9		P	30 - 160
Diuron	55.6		P	30 - 160
Fenuron	80.9		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P386033

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluridone	70.6		P	30 - 160
Hydrocodone	79.2		P	30 - 160
Ibuprofen	86.4		P	30 - 160
Imazapyr	77.3		P	30 - 160
Imidacloprid	88.3		P	30 - 160
Linuron	64.6		P	30 - 160
Mandestrobin	73.6		P	30 - 160
MCP	104		P	30 - 160
Naproxen	68.2		P	30 - 160
Primidone	78.2		P	30 - 160
Pyraclostrobin	60.4		P	30 - 160
Thiamethoxam	78.0		P	30 - 160
Tolfenpyrad	43.7		P	30 - 160
Triclopyr	95.8		P	30 - 160

Reference Method: SM 2120 B-2011

Batch ID: P385921

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: SM 2120 B-2011

Batch ID: P385922

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	104		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P385989

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.4		P	93 - 104

Reference Method: SM 4500 F-C-2011

Batch ID: P385993

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	90 - 106

Reference Method: SM 5310 B-2011

Batch ID: P385979

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.4		P	85 - 115

Reference Method: SM 5310 B-2011

Batch ID: P385980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P385910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189410	Barium	103	103	P/P	80 - 120
2189410	Calcium	104		P	80 - 120
2189410	Iron	104	106	P/P	80 - 120
2189410	Magnesium	106		P	80 - 120
2189410	Potassium	103	104	P/P	80 - 120
2189410	Sodium	103		P	80 - 120
2189410	Strontium	102	103	P/P	80 - 120
2189410	Tin	108	108	P/P	80 - 120
2189410	Titanium	103	113	P/P	80 - 120
2189410	Vanadium	105	105	P/P	80 - 120
2189410	Zinc	105	105	P/P	80 - 120
2189491	Barium	98.7		P	80 - 120
2189491	Calcium	105		P	80 - 120
2189491	Iron	103		P	80 - 120
2189491	Magnesium	102		P	80 - 120
2189491	Potassium	101		P	80 - 120
2189491	Sodium	103		P	80 - 120
2189491	Strontium	102		P	80 - 120
2189491	Tin	105		P	80 - 120
2189491	Titanium	99.9		P	80 - 120
2189491	Vanadium	100		P	80 - 120
2189491	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P385910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189410	Aluminum	97.0	100	P/P	80 - 120
2189410	Antimony	103	107	P/P	80 - 120
2189410	Arsenic	101	103	P/P	80 - 120
2189410	Beryllium	94.9	104	P/P	80 - 120
2189410	Boron	100	104	P/P	80 - 120
2189410	Cadmium	103	107	P/P	80 - 120
2189410	Chromium	104	106	P/P	80 - 120
2189410	Cobalt	104	107	P/P	80 - 120
2189410	Copper	103	104	P/P	80 - 120
2189410	Lead	108	111	P/P	80 - 120
2189410	Molybdenum	101	106	P/P	80 - 120
2189410	Nickel	100	105	P/P	80 - 120
2189410	Selenium	97.5	101	P/P	80 - 120
2189410	Silver	103	105	P/P	80 - 120
2189410	Thallium	108	112	P/P	80 - 120
2189491	Aluminum	101		P	80 - 120
2189491	Antimony	105		P	80 - 120
2189491	Arsenic	101		P	80 - 120
2189491	Beryllium	99.9		P	80 - 120
2189491	Boron	103		P	80 - 120
2189491	Cadmium	106		P	80 - 120
2189491	Chromium	105		P	80 - 120
2189491	Cobalt	107		P	80 - 120
2189491	Copper	104		P	80 - 120
2189491	Lead	110		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P385910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189491	Manganese	104		P	80 - 120
2189491	Molybdenum	105		P	80 - 120
2189491	Nickel	103		P	80 - 120
2189491	Selenium	96.5		P	80 - 120
2189491	Silver	107		P	80 - 120
2189491	Thallium	108		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189294	Chloride	96.6		P	90 - 110
2189367	Chloride	98.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189370	Chloride	98.8		P	90 - 110
2189507	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189294	Sulfate	98.3		P	90 - 110
2189367	Sulfate	99.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189370	Sulfate	100		P	90 - 110
2189507	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386084

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189372	Ammonia-N	100	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189373	Kjeldahl Nitrogen	110	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385936

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189298	NO2NO3-N	97.0	99.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385937

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189422	NO2NO3-N	97.4	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385940

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189298	Total-P	103	92.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189375	Total-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385916

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189379	O-Phosphate-P	99.5	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189430	O-Phosphate-P	97.8	99.0	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P385867

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189117	Acesulfame K	157	155	F/F	40 - 150
2189117	AMPA	75.8	80.7	P/P	40 - 150
2189117	Endothall	106	117	P/P	40 - 150
2189117	Glufosinate	97.1	100	P/P	40 - 150
2189117	Glyphosate	61.1	62.9	P/P	40 - 140
2189117	Sucralose	89.6	68.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P385887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189145	Acetaminophen	70.4	75.8	P/P	30 - 160
2189145	Acetamiprid	54.8	62.3	P/P	30 - 160
2189145	Afidopyropen	45.3	53.9	P/P	30 - 160
2189145	Benzovindiflupyr	66.6	73.1	P/P	30 - 160
2189145	Carbamazepine	43.3	46.0	P/P	30 - 160
2189145	Clothianidin	39.3	51.4	P/P	30 - 160
2189145	Dinotefuran	72.7	78.8	P/P	30 - 160
2189145	Diuron	38.1	39.3	P/P	30 - 160
2189145	Fenuron	71.9	74.2	P/P	30 - 160
2189145	Fluridone	67.5	74.0	P/P	30 - 160
2189145	Hydrocodone	60.9	68.4	P/P	30 - 160

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P385887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189145	Ibuprofen	58.9	58.4	P/P	30 - 160
2189145	Imazapyr	80.8	77.8	P/P	30 - 160
2189145	Imidacloprid	77.4	89.4	P/P	30 - 160
2189145	Linuron	46.1	50.2	P/P	30 - 160
2189145	Mandestrobin	68.9	75.6	P/P	30 - 160
2189145	MCP	92.5	98.6	P/P	30 - 160
2189145	Naproxen	70.0	69.8	P/P	30 - 160
2189145	Primidone	60.0	59.5	P/P	30 - 160
2189145	Pyraclostrobin	63.6	68.8	P/P	30 - 160
2189145	Thiamethoxam	58.4	63.7	P/P	30 - 160
2189145	Tolfenpyrad	47.1	56.6	P/P	30 - 160
2189145	Triclopyr	84.3	85.6	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P386033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189403	2,4-D	133	110	P/P	30 - 160
2189403	Acetaminophen	80.3	79.4	P/P	30 - 160
2189403	Acetamiprid	78.1	73.9	P/P	30 - 160
2189403	Afidopyropen	56.5	51.4	P/P	30 - 160
2189403	Benzovindiflupyr	68.9	63.8	P/P	30 - 160
2189403	Carbamazepine	56.3	53.7	P/P	30 - 160
2189403	Clothianidin	69.3	66.9	P/P	30 - 160
2189403	Dinotefuran	91.7	85.6	P/P	30 - 160
2189403	Diuron	46.1	49.2	P/P	30 - 160
2189403	Fenuron	70.0	67.5	P/P	30 - 160
2189403	Fluridone	75.9	68.4	P/P	30 - 160
2189403	Hydrocodone	64.5	63.9	P/P	30 - 160
2189403	Ibuprofen	69.0	63.8	P/P	30 - 160
2189403	Imazapyr	92.4	88.4	P/P	30 - 160
2189403	Imidacloprid	114	105	P/P	30 - 160
2189403	Linuron	57.4	58.3	P/P	30 - 160
2189403	Mandestrobin	71.4	66.1	P/P	30 - 160
2189403	MCP	117	97.7	P/P	30 - 160
2189403	Naproxen	68.4	73.8	P/P	30 - 160
2189403	Primidone	76.8	71.8	P/P	30 - 160
2189403	Pyraclostrobin	71.3	62.7	P/P	30 - 160
2189403	Thiamethoxam	79.4	78.1	P/P	30 - 160
2189403	Tolfenpyrad	42.2	43.1	P/P	30 - 160
2189403	Triclopyr	101	92.0	P/P	30 - 160

Reference Method: SM 4500 F-C-2011

Batch ID: P385993

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189294	Fluoride	101	99.0	P/P	94 - 107

Reference Method: SM 5310 B-2011

Batch ID: P385979

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

Reference Method: SM 5310 B-2011
Batch ID: P385979

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189372	Organic Carbon	98.0	98.3	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P385980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2189375	Organic Carbon	96.2	96.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P385913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189328	Turbidity	0.292	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P385914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189368	Turbidity	1.79	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P385910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189410	Barium	0.133	Spike	P	0 - 20
2189410	Calcium	0.259	Spike	P	0 - 20
2189410	Iron	1.75	Spike	P	0 - 20
2189410	Magnesium	0.858	Spike	P	0 - 20
2189410	Potassium	0.473	Spike	P	0 - 20
2189410	Sodium	2.32	Spike	P	0 - 20
2189410	Strontium	0.416	Spike	P	0 - 20
2189410	Tin	0.110	Spike	P	0 - 20
2189410	Titanium	8.69	Spike	P	0 - 20
2189410	Vanadium	0.207	Spike	P	0 - 20
2189410	Zinc	0.0947	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P385910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189410	Aluminum	2.49	Spike	P	0 - 20
2189410	Antimony	3.59	Spike	P	0 - 20
2189410	Arsenic	2.54	Spike	P	0 - 20
2189410	Beryllium	9.57	Spike	P	0 - 20
2189410	Boron	2.87	Spike	P	0 - 20
2189410	Cadmium	4.11	Spike	P	0 - 20
2189410	Chromium	2.29	Spike	P	0 - 20
2189410	Cobalt	2.68	Spike	P	0 - 20
2189410	Copper	1.30	Spike	P	0 - 20
2189410	Lead	3.20	Spike	P	0 - 20
2189410	Manganese	2.71	Spike	P	0 - 20
2189410	Molybdenum	4.71	Spike	P	0 - 20
2189410	Nickel	4.26	Spike	P	0 - 20
2189410	Selenium	3.79	Spike	P	0 - 20
2189410	Silver	2.01	Spike	P	0 - 20
2189410	Thallium	3.65	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189294	Chloride	2.56	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189370	Chloride	0.0877	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189294	Sulfate	0.128	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P386277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189370	Sulfate	0.332	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P386084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189372	Ammonia-N	0.872	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189373	Kjeldahl Nitrogen	1.89	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385936

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189298	NO2NO3-N	1.08	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P385937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189422	NO2NO3-N	0.917	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385940

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189298	Total-P	6.16	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P385941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189375	Total-P	0.0837	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385916

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189379	O-Phosphate-P	0.303	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P385918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189430	O-Phosphate-P	1.22	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P385867

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189117	Acesulfame K	0.965	Spike	P	0 - 30
2189117	AMPA	6.22	Spike	P	0 - 30
2189117	Endothall	9.79	Spike	P	0 - 30
2189117	Glufosinate	3.42	Spike	P	0 - 30
2189117	Glyphosate	2.91	Spike	P	0 - 30
2189117	Sucralose	27.1	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P385887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189145	2,4-D	0.323	Spike	P	0 - 30
2189145	Acetaminophen	7.50	Spike	P	0 - 30
2189145	Acetamiprid	12.9	Spike	P	0 - 30
2189145	Afidopyropen	17.3	Spike	P	0 - 30
2189145	Bentazon	2.07	Spike	P	0 - 30
2189145	Benzovindiflupyr	9.26	Spike	P	0 - 30
2189145	Carbamazepine	6.23	Spike	P	0 - 30
2189145	Clothianidin	21.8	Spike	P	0 - 30
2189145	Dinotefuran	8.10	Spike	P	0 - 30
2189145	Diuron	2.98	Spike	P	0 - 30
2189145	Fenuron	3.12	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P385887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189145	Fluridone	8.46	Spike	P	0 - 30
2189145	Hydrocodone	11.7	Spike	P	0 - 30
2189145	Ibuprofen	0.866	Spike	P	0 - 30
2189145	Imazapyr	2.59	Spike	P	0 - 30
2189145	Imidacloprid	10.6	Spike	P	0 - 30
2189145	Linuron	8.51	Spike	P	0 - 30
2189145	Mandestrobin	9.22	Spike	P	0 - 30
2189145	MCP	6.40	Spike	P	0 - 30
2189145	Naproxen	0.378	Spike	P	0 - 30
2189145	Primidone	0.716	Spike	P	0 - 30
2189145	Pyraclostrobin	7.84	Spike	P	0 - 30
2189145	Thiamethoxam	8.67	Spike	P	0 - 30
2189145	Tolfenpyrad	18.2	Spike	P	0 - 30
2189145	Triclopyr	1.55	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P386033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189403	2,4-D	18.4	Spike	P	0 - 30
2189403	Acetaminophen	1.20	Spike	P	0 - 30
2189403	Acetamiprid	5.51	Spike	P	0 - 30
2189403	Afidopyropen	9.43	Spike	P	0 - 30
2189403	Benzovindiflupyr	7.75	Spike	P	0 - 30
2189403	Carbamazepine	4.68	Spike	P	0 - 30
2189403	Clothianidin	3.50	Spike	P	0 - 30
2189403	Dinotefuran	6.95	Spike	P	0 - 30
2189403	Diuron	6.54	Spike	P	0 - 30
2189403	Fenuron	3.65	Spike	P	0 - 30
2189403	Fluridone	9.74	Spike	P	0 - 30
2189403	Hydrocodone	0.931	Spike	P	0 - 30
2189403	Ibuprofen	7.80	Spike	P	0 - 30
2189403	Imazapyr	4.49	Spike	P	0 - 30
2189403	Imidacloprid	7.93	Spike	P	0 - 30
2189403	Linuron	1.47	Spike	P	0 - 30
2189403	Mandestrobin	7.62	Spike	P	0 - 30
2189403	MCP	18.3	Spike	P	0 - 30
2189403	Naproxen	7.50	Spike	P	0 - 30
2189403	Primidone	6.68	Spike	P	0 - 30
2189403	Pyraclostrobin	12.8	Spike	P	0 - 30
2189403	Thiamethoxam	1.66	Spike	P	0 - 30
2189403	Tolfenpyrad	2.17	Spike	P	0 - 30
2189403	Triclopyr	9.32	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P385921

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189365	Color (true)	1.06	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
 Batch ID: P385922

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189369	Color (true)	0.725	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
 Batch ID: P385989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189294	Total Alkalinity	1.25	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
 Batch ID: P386178

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189163	TDS	4.26	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
 Batch ID: P386181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189337	TDS	3.69	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P385993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189294	Fluoride	0.972	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
 Batch ID: P385979

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189372	Organic Carbon	0.243	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
 Batch ID: P385980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2189375	Organic Carbon	0.0442	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2189398

Field Sample ID: G1WA0075

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	77.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	41.7	P	30 - 160
EPA 8321B	Diuron-d6	49.7	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	51.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	51.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.2	P	30 - 160
EPA 8321B	Primidone-d5	66.1	P	30 - 160
EPA 8321B	Sucralose-d6	54.7	P	30 - 160
EPA 8321B	Sucralose-d6	54.7	P	30 - 160

Lab Sample ID: 2189399

Field Sample ID: G1WA0086

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	114	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	53.3	P	30 - 160
EPA 8321B	Diuron-d6	54.8	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	52.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	52.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.9	P	30 - 160
EPA 8321B	Primidone-d5	78.2	P	30 - 160
EPA 8321B	Sucralose-d6	57.8	P	30 - 160
EPA 8321B	Sucralose-d6	57.8	P	30 - 160

Lab Sample ID: 2189400

Field Sample ID: G1WA0087

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	105	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	47.9	P	30 - 160
EPA 8321B	Diuron-d6	52.2	P	30 - 160
EPA 8321B	Endothall-d6	105	P	30 - 160
EPA 8321B	Endothall-d6	105	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	52.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	52.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	66.7	P	30 - 160
EPA 8321B	Primidone-d5	74.3	P	30 - 160
EPA 8321B	Sucralose-d6	58.1	P	30 - 160
EPA 8321B	Sucralose-d6	58.1	P	30 - 160

Lab Sample ID: 2189401

Field Sample ID: G1WA0091

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	113	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2189401

Field Sample ID: G1WA0091

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	96.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	52.8	P	30 - 160
EPA 8321B	Diuron-d6	57.0	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	49.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	49.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	68.6	P	30 - 160
EPA 8321B	Primidone-d5	73.5	P	30 - 160
EPA 8321B	Sucralose-d6	57.4	P	30 - 160
EPA 8321B	Sucralose-d6	57.4	P	30 - 160

Lab Sample ID: 2189402

Field Sample ID: G1WA0093

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	118	P	30 - 160
EPA 8321B	Acetaminophen-d4	86.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	53.5	P	30 - 160
EPA 8321B	Diuron-d6	53.3	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	51.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	51.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.0	P	30 - 160
EPA 8321B	Primidone-d5	83.0	P	30 - 160
EPA 8321B	Sucralose-d6	57.5	P	30 - 160
EPA 8321B	Sucralose-d6	57.5	P	30 - 160

Lab Sample ID: 2189403

Field Sample ID: G1WA0098

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	77.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	55.3	P	30 - 160
EPA 8321B	Diuron-d6	49.9	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	64.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	64.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.7	P	30 - 160
EPA 8321B	Primidone-d5	68.9	P	30 - 160
EPA 8321B	Sucralose-d6	82.3	P	30 - 160
EPA 8321B	Sucralose-d6	82.3	P	30 - 160

Lab Sample ID: 2189404

Field Sample ID: FB080320

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	71.1	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2189404

Field Sample ID: FB080320

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbamazepine-d10	70.3	P	30 - 160
EPA 8321B	Diuron-d6	66.0	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	60.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	60.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	76.9	P	30 - 160
EPA 8321B	Primidone-d5	82.3	P	30 - 160
EPA 8321B	Sucralose-d6	93.1	P	30 - 160
EPA 8321B	Sucralose-d6	93.1	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A100393

Included Lab Sample IDs: 2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A100394

Included Lab Sample IDs: 2189377, 2189378, 2189379, 2189380, 2189381, 2189382, 2189385

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.0	P/P	90 - 110
O-Phosphate-P	100	100	P/P	90 - 110
O-Phosphate-P	99.2	100	P/P	90 - 110
O-Phosphate-P	99.4	99.2	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A100395

Included Lab Sample IDs: 2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A100406

Included Lab Sample IDs: 2189371, 2189372, 2189373, 2189374, 2189375, 2189376, 2189384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110
NO2NO3-N	101	100	P/P	90 - 110
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100407

Included Lab Sample IDs: 2189398, 2189399, 2189400, 2189401, 2189402

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	116	95.7	P/P	50 - 150
Acetaminophen	134	130	P/P	60 - 160
Acetamiprid	121	121	P/P	50 - 150
Afidopyropen	102	107	P/P	50 - 150
Bentazon	142	96.1	P/P	50 - 160
Benzovindiflupyr	115	112	P/P	50 - 150
Carbamazepine	113	114	P/P	60 - 150
Clothianidin	108	112	P/P	60 - 150
Dinotefuran	107	108	P/P	50 - 150
Diuron	114	108	P/P	60 - 160
Fenuron	122	124	P/P	60 - 150
Fluridone	114	112	P/P	60 - 160
Hydrocodone	125	129	P/P	60 - 150
Ibuprofen	71.4	85.5	P/P	50 - 160
Imazapyr	98.4	110	P/P	50 - 150
Imidacloprid	107	118	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A100407

Included Lab Sample IDs: 2189398, 2189399, 2189400, 2189401, 2189402

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	106	122	P/P	60 - 150
Mandestrobin	111	109	P/P	50 - 150
MCPP	100	100	P/P	50 - 150
Naproxen	155	121	P/P	50 - 160
Primidone	99.5	101	P/P	60 - 150
Pyraclostrobin	98.5	91.8	P/P	60 - 150
Thiamethoxam	120	118	P/P	50 - 150
Tolfenpyrad	108	106	P/P	60 - 150
Triclopyr	88.8	93.7	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A100408

Included Lab Sample IDs: 2189398, 2189399, 2189400, 2189401, 2189402, 2189403, 2189404

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	91.7	98.9	P/P	60 - 160
Glufosinate	91.8	94.7	P/P	60 - 160
Glyphosate	91.2	92.3	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A100428

Included Lab Sample IDs: 2189405, 2189406, 2189407, 2189408, 2189409, 2189410, 2189411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	98.2	P/P	90 - 110
Barium	101	101	P/P	90 - 110
Calcium	101	101	P/P	90 - 110
Calcium	101	101	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Iron	103	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
Sodium	100	101	P/P	90 - 110
Sodium	101	100	P/P	90 - 110
Strontium	102	103	P/P	90 - 110
Strontium	103	103	P/P	90 - 110
Tin	101	103	P/P	90 - 110
Tin	103	101	P/P	90 - 110
Titanium	100	102	P/P	90 - 110
Titanium	102	100	P/P	90 - 110
Vanadium	100	103	P/P	90 - 110
Vanadium	103	101	P/P	90 - 110
Zinc	101	102	P/P	90 - 110
Zinc	102	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A100434

Included Lab Sample IDs: 2189398, 2189399, 2189400, 2189401, 2189402, 2189403, 2189404

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	158	152	P/P	60 - 160
Endothall	102	93.9	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A100436

Included Lab Sample IDs: 2189371, 2189372, 2189373, 2189374, 2189375, 2189376, 2189384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	96.7	P/P	90 - 110
Organic Carbon	101	98.3	P/P	90 - 110
Organic Carbon	96.7	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A100438

Included Lab Sample IDs: 2189372, 2189373, 2189374, 2189375, 2189376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	102	P/P	90 - 110
Total-P	102	102	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A100439

Included Lab Sample IDs: 2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	100	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A100439

Included Lab Sample IDs: 2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A100458

Included Lab Sample IDs: 2189371, 2189384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	97.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100461

Included Lab Sample IDs: 2189398, 2189399, 2189400, 2189401, 2189402, 2189403, 2189404

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	92.1	93.5	P/P	60 - 160
Sucralose	93.5	105	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A100478

Included Lab Sample IDs: 2189371, 2189372, 2189373, 2189374, 2189375, 2189376, 2189384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	99.7	P/P	90 - 110
Ammonia-N	99.4	98.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A100482

Included Lab Sample IDs: 2189405, 2189406, 2189407, 2189408, 2189409, 2189410, 2189411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	95.6	98.9	P/P	90 - 110
Beryllium	98.9	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A100483

Included Lab Sample IDs: 2189405, 2189406, 2189407, 2189408, 2189409, 2189410, 2189411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	102	P/P	90 - 110
Antimony	106	107	P/P	90 - 110
Arsenic	100	100	P/P	90 - 110
Boron	98.3	100	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	101	102	P/P	90 - 110
Cobalt	106	106	P/P	90 - 110
Copper	100	98.4	P/P	90 - 110
Lead	107	106	P/P	90 - 110
Manganese	103	104	P/P	90 - 110
Molybdenum	101	101	P/P	90 - 110
Nickel	100	101	P/P	90 - 110
Selenium	101	99.3	P/P	90 - 110
Silver	106	106	P/P	90 - 110
Thallium	103	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A100512

Included Lab Sample IDs: 2189371, 2189372, 2189373, 2189374, 2189375, 2189376, 2189384

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	99.4	P/P	90 - 110
Kjeldahl Nitrogen	104	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100543

Included Lab Sample IDs: 2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A100565

Included Lab Sample IDs: 2189403, 2189404

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	86.4	P/P	50 - 150
Acetaminophen	101	112	P/P	60 - 160
Acetamiprid	106	99.6	P/P	50 - 150
Afidopyropen	100	97.7	P/P	50 - 150
Bentazon	106	106	P/P	50 - 160
Bentazon	107	123	P/P	50 - 160
Benzovindiflupyr	104	106	P/P	50 - 150
Carbamazepine	93.0	93.5	P/P	60 - 150
Clothianidin	101	101	P/P	60 - 150
Dinotefuran	99.6	99.3	P/P	50 - 150
Diuron	103	97.6	P/P	60 - 160
Fenuron	105	109	P/P	60 - 150
Fluridone	99.9	104	P/P	60 - 160
Hydrocodone	102	109	P/P	60 - 150
Ibuprofen	84.6	87.3	P/P	50 - 160
Imazapyr	101	88.7	P/P	50 - 150
Imidacloprid	104	107	P/P	60 - 150
Linuron	107	108	P/P	60 - 150
Mandestrobin	110	113	P/P	50 - 150
MCPP	101	95.3	P/P	50 - 150
Naproxen	82.2	149	P/P	50 - 160
Primidone	103	96.0	P/P	60 - 150
Pyraclostrobin	96.0	96.1	P/P	60 - 150
Thiamethoxam	108	103	P/P	50 - 150
Tolfenpyrad	97.7	88.1	P/P	60 - 150
Triclopyr	104	104	P/P	50 - 150

* 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								0.292	
	Turbidity								1.79	
EPA 200.7 Rev. 4.4	Barium	101			103	103	98.7			0.133
	Calcium	104			104	105				0.259
	Iron	104			104	106	103			1.75
	Magnesium	104			106	102				0.858
	Potassium	104			103	104	101			0.473
	Sodium	102			103	103				2.32
	Strontium	102			102	103	102			0.416
	Tin	104			108	108	105			0.110
	Titanium	102			103	113	99.9			8.69
	Vanadium	101			105	105	100			0.207
	Zinc	103			105	105	102			0.0947
EPA 200.8 Rev. 5.4	Aluminum	100			97.0	100	101			2.49
	Antimony	105			103	107	105			3.59
	Arsenic	102			101	103	101			2.54
	Beryllium	104			94.9	104	99.9			9.57
	Boron	100			100	104	103			2.87
	Cadmium	106			103	107	106			4.11
	Chromium	102			104	106	105			2.29
	Cobalt	107			104	107	107			2.68
	Copper	106			103	104	104			1.30
	Lead	108			108	111	110			3.20
	Manganese	106			104					2.71
	Molybdenum	102			101	106	105			4.71
	Nickel	105			100	105	103			4.26
	Selenium	100			97.5	101	96.5			3.79
	Silver	107			103	105	107			2.01
	Thallium	107			108	112	108			3.65
EPA 300.0 Rev. 2.1	Chloride	97.7			96.6	98.0			2.56	
	Chloride	97.5			98.8	99.1			0.0877	
	Sulfate	99.2			98.3	99.6			0.128	
	Sulfate	99.2			100	101			0.332	
EPA 350.1 Rev. 2.0	Ammonia-N	98.2			100	98.8				0.872
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.7			110	107				1.89
EPA 353.2 Rev. 2.0	NO2NO3-N	100			97.0	99.0				1.08
	NO2NO3-N	101			97.4	98.4				0.917
EPA 365.1 Rev. 2.0	Total-P	103			103	92.4				6.16
	Total-P	103			102	102				0.0837
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.1			99.5	99.9				0.303
	O-Phosphate-P	99.2			97.8	99.0				1.22
EPA 8321B	2,4-D	113								0.323
	2,4-D	106			133	110				18.4
	Acesulfame K	150			157	155				0.965
	Acetaminophen	76.4			70.4	75.8				7.50
	Acetaminophen	79.6			80.3	79.4				1.20
	Acetamiprid	72.8			54.8	62.3				12.9
	Acetamiprid	75.6			78.1	73.9				5.51
	Afidopyropen	50.6			45.3	53.9				17.3
	Afidopyropen	56.3			56.5	51.4				9.43
	AMPA	89.0			75.8	80.7				6.22
	Bentazon	44.1								2.07
	Bentazon	70.3								
	Benzovindiflupyr	76.0			66.6	73.1				9.26

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Benzovindiflupyr	65.8	68.9	63.8			7.75
	Carbamazepine	54.1	43.3	46.0			6.23
	Carbamazepine	64.0	56.3	53.7			4.68
	Clothianidin	67.3	39.3	51.4			21.8
	Clothianidin	74.9	69.3	66.9			3.50
	Dinotefuran	90.8	72.7	78.8			8.10
	Dinotefuran	84.9	91.7	85.6			6.95
	Diuron	52.0	38.1	39.3			2.98
	Diuron	55.6	46.1	49.2			6.54
	Endothall	92.1	106	117			9.79
	Fenuron	98.5	71.9	74.2			3.12
	Fenuron	80.9	70.0	67.5			3.65
	Fluridone	74.7	67.5	74.0			8.46
	Fluridone	70.6	75.9	68.4			9.74
	Glufosinate	93.4	97.1	100			3.42
	Glyphosate	80.5	61.1	62.9			2.91
	Hydrocodone	88.8	60.9	68.4			11.7
	Hydrocodone	79.2	64.5	63.9			0.931
	Ibuprofen	64.2	58.9	58.4			0.866
	Ibuprofen	86.4	69.0	63.8			7.80
	Imazapyr	68.3	80.8	77.8			2.59
	Imazapyr	77.3	92.4	88.4			4.49
	Imidacloprid	81.3	77.4	89.4			10.6
	Imidacloprid	88.3	114	105			7.93
	Linuron	54.9	46.1	50.2			8.51
	Linuron	64.6	57.4	58.3			1.47
	Mandestrobin	75.6	68.9	75.6			9.22
	Mandestrobin	73.6	71.4	66.1			7.62
	MCPP	105	92.5	98.6			6.40
	MCPP	104	117	97.7			18.3
	Naproxen	68.5	70.0	69.8			0.378
	Naproxen	68.2	68.4	73.8			7.50
	Primidone	57.8	60.0	59.5			0.716
	Primidone	78.2	76.8	71.8			6.68
	Pyraclostrobin	66.5	63.6	68.8			7.84
	Pyraclostrobin	60.4	71.3	62.7			12.8
	Sucralose	98.9	89.6	68.3			27.1
	Thiamethoxam	71.7	58.4	63.7			8.67
	Thiamethoxam	78.0	79.4	78.1			1.66
	Tolfenpyrad	52.0	47.1	56.6			18.2
	Tolfenpyrad	43.7	42.2	43.1			2.17
	Triclopyr	85.9	84.3	85.6			1.55
	Triclopyr	95.8	101	92.0			9.32
SM 2120 B-2011	Color (true)	102				1.06	
	Color (true)	104				0.725	
SM 2320 B-2011	Total Alkalinity	99.4				1.25	
SM 2540 C-2011	TDS					4.26	
	TDS					3.69	
SM 4500 F-C-2011	Fluoride	98.0	99.0	101			0.972
SM 5310 B-2011	Organic Carbon	99.4	98.0	98.3			0.243
	Organic Carbon	97.4	96.2	96.2			0.0442

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2189405, 2189406, 2189407, 2189408, 2189409, 2189410, 2189411
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2189405, 2189406, 2189407, 2189408, 2189409, 2189410, 2189411
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2189371, 2189372, 2189373, 2189374, 2189375, 2189376, 2189384
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2189371, 2189372, 2189373, 2189374, 2189375, 2189376, 2189384
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2189371, 2189372, 2189373, 2189374, 2189375, 2189376, 2189384
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2189371, 2189372, 2189373, 2189374, 2189375, 2189376, 2189384
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2189377, 2189378, 2189379, 2189380, 2189381, 2189382, 2189385
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2189398, 2189399, 2189400, 2189401, 2189402, 2189403, 2189404
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2189398, 2189399, 2189400, 2189401, 2189402, 2189403, 2189404
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2189405, 2189406, 2189407, 2189408, 2189409, 2189410, 2189411
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2189371, 2189372, 2189373, 2189374, 2189375, 2189376, 2189384

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	08/10/2020			08/11/2020 15:24	Yen Ta	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
EPA 200.7 Rev. 4.4	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/12/2020 15:10	Betina Topolski	2189411
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/12/2020 15:43	Betina Topolski	2189405
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/12/2020 15:51	Betina Topolski	2189406
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/12/2020 15:59	Betina Topolski	2189407
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/12/2020 16:06	Betina Topolski	2189408
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/12/2020 16:42	Betina Topolski	2189409
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/12/2020 16:50	Betina Topolski	2189410
EPA 200.8 Rev. 5.4	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/15/2020 15:46	Alexander Thompson	2189411
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/15/2020 16:02	Alexander Thompson	2189405
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/15/2020 16:06	Alexander Thompson	2189406
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/15/2020 16:10	Alexander Thompson	2189410
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/15/2020 16:34	Alexander Thompson	2189407
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/15/2020 16:38	Alexander Thompson	2189408
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/15/2020 16:42	Alexander Thompson	2189409
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/16/2020 00:20	Alexander Thompson	2189411
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/16/2020 00:28	Alexander Thompson	2189405
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/16/2020 00:35	Alexander Thompson	2189406
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/16/2020 00:42	Alexander Thompson	2189407
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/16/2020 00:49	Alexander Thompson	2189408
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/16/2020 00:56	Alexander Thompson	2189409
	08/10/2020	08/11/2020 15:55	Elliott D. Healy	08/16/2020 01:04	Alexander Thompson	2189410
EPA 300.0 Rev. 2.1	08/10/2020			08/17/2020 19:39	Julia Storbeck	2189367
	08/10/2020			08/17/2020 23:40	Julia Storbeck	2189365
	08/10/2020			08/17/2020 23:52	Julia Storbeck	2189366
	08/10/2020			08/18/2020 00:04	Julia Storbeck	2189368
	08/10/2020			08/18/2020 00:16	Julia Storbeck	2189369
	08/10/2020			08/18/2020 01:29	Julia Storbeck	2189370
	08/10/2020			08/18/2020 02:17	Julia Storbeck	2189383
EPA 350.1 Rev. 2.0	08/10/2020			08/15/2020 14:07	Ping Hua	2189372
	08/10/2020			08/15/2020 14:11	Ping Hua	2189371
	08/10/2020			08/15/2020 14:21	Ping Hua	2189373
	08/10/2020			08/15/2020 14:22	Ping Hua	2189374
	08/10/2020			08/15/2020 14:23	Ping Hua	2189375
	08/10/2020			08/15/2020 14:25	Ping Hua	2189376
	08/10/2020			08/15/2020 14:29	Ping Hua	2189384
EPA 351.2 Rev. 2.0	08/10/2020	08/17/2020 09:42	David Boose	08/18/2020 12:44	Jhamieka S. Greenwood	2189373
	08/10/2020	08/17/2020 09:42	David Boose	08/18/2020 12:55	Jhamieka S. Greenwood	2189371
	08/10/2020	08/17/2020 09:42	David Boose	08/18/2020 12:57	Jhamieka S. Greenwood	2189372

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Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 351.2 Rev. 2.0	08/10/2020	08/17/2020 09:42	David Boose	08/18/2020 12:58	Jhamieka S. Greenwood	2189374
	08/10/2020	08/17/2020 09:42	David Boose	08/18/2020 13:00	Jhamieka S. Greenwood	2189375
	08/10/2020	08/17/2020 09:42	David Boose	08/18/2020 13:01	Jhamieka S. Greenwood	2189376
	08/10/2020	08/17/2020 09:42	David Boose	08/18/2020 13:03	Jhamieka S. Greenwood	2189384
EPA 353.2 Rev. 2.0	08/10/2020			08/12/2020 08:43	Beverly Y. Sanders	2189371
	08/10/2020			08/12/2020 08:54	Beverly Y. Sanders	2189375
	08/10/2020			08/12/2020 09:00	Beverly Y. Sanders	2189376
	08/10/2020			08/12/2020 09:01	Beverly Y. Sanders	2189384
	08/10/2020			08/12/2020 09:58	Beverly Y. Sanders	2189372
	08/10/2020			08/12/2020 10:00	Beverly Y. Sanders	2189373
	08/10/2020			08/12/2020 10:01	Beverly Y. Sanders	2189374
EPA 365.1 Rev. 2.0	08/10/2020	08/12/2020 11:41	Yen Ta	08/13/2020 09:21	Benjamin T. Nordmann	2189372
	08/10/2020	08/12/2020 11:41	Yen Ta	08/13/2020 09:22	Benjamin T. Nordmann	2189373
	08/10/2020	08/12/2020 11:41	Yen Ta	08/13/2020 09:23	Benjamin T. Nordmann	2189374
	08/10/2020	08/12/2020 11:41	Yen Ta	08/13/2020 09:26	Benjamin T. Nordmann	2189375
	08/10/2020	08/12/2020 11:41	Yen Ta	08/13/2020 09:31	Benjamin T. Nordmann	2189376
	08/10/2020	08/12/2020 11:41	Yen Ta	08/14/2020 08:24	Lipi Saha	2189371
	08/10/2020	08/12/2020 11:41	Yen Ta	08/14/2020 08:26	Lipi Saha	2189384
EPA 365.1 Rev. 2.0 dissolved	08/10/2020			08/11/2020 14:54	Jhamieka S. Greenwood	2189379
	08/10/2020			08/11/2020 15:06	Jhamieka S. Greenwood	2189377
	08/10/2020			08/11/2020 15:07	Jhamieka S. Greenwood	2189378
	08/10/2020			08/11/2020 15:08	Jhamieka S. Greenwood	2189380
	08/10/2020			08/11/2020 15:25	Jhamieka S. Greenwood	2189381
	08/10/2020			08/11/2020 15:31	Jhamieka S. Greenwood	2189385
	08/10/2020			08/11/2020 15:32	Jhamieka S. Greenwood	2189382
EPA 8321B	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/11/2020 14:29	Rebecca Ware	2189398
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/11/2020 14:39	Rebecca Ware	2189399
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/11/2020 14:50	Rebecca Ware	2189400
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/11/2020 15:01	Rebecca Ware	2189401
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/11/2020 15:12	Rebecca Ware	2189402
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/11/2020 15:22	Rebecca Ware	2189403
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/11/2020 15:33	Rebecca Ware	2189404
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/12/2020 16:05	Rebecca Ware	2189398
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/12/2020 16:19	Rebecca Ware	2189399
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/12/2020 16:32	Rebecca Ware	2189400
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/12/2020 16:46	Rebecca Ware	2189401
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/12/2020 17:00	Rebecca Ware	2189402
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/12/2020 17:14	Rebecca Ware	2189403
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/12/2020 17:28	Rebecca Ware	2189404
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/13/2020 13:24	Rebecca Ware	2189398

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EPA 8321B	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/13/2020 13:36	Rebecca Ware	2189399
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/13/2020 13:48	Rebecca Ware	2189400
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/13/2020 14:00	Rebecca Ware	2189401
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/13/2020 14:11	Rebecca Ware	2189402
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/13/2020 14:23	Rebecca Ware	2189403
	08/10/2020	08/11/2020 11:45	Rebecca Ware	08/13/2020 14:58	Rebecca Ware	2189404
	08/10/2020	08/12/2020 09:00	Hoor Shaik	08/13/2020 11:49	Juyoung Kim	2189398
	08/10/2020	08/12/2020 09:00	Hoor Shaik	08/13/2020 12:24	Juyoung Kim	2189399
	08/10/2020	08/12/2020 09:00	Hoor Shaik	08/13/2020 12:59	Juyoung Kim	2189400
	08/10/2020	08/12/2020 09:00	Hoor Shaik	08/13/2020 13:33	Juyoung Kim	2189401
	08/10/2020	08/12/2020 09:00	Hoor Shaik	08/13/2020 14:08	Juyoung Kim	2189402
	08/10/2020	08/17/2020 09:00	Hoor Shaik	08/18/2020 02:43	Juyoung Kim	2189403
	08/10/2020	08/17/2020 09:00	Hoor Shaik	08/18/2020 03:18	Juyoung Kim	2189404
	08/10/2020	08/17/2020 09:00	Hoor Shaik	08/19/2020 00:06	Juyoung Kim	2189403
SM 2120 B-2011	08/10/2020			08/11/2020 16:42	Benjamin T. Nordmann	2189365
	08/10/2020			08/11/2020 16:48	Benjamin T. Nordmann	2189366
	08/10/2020			08/11/2020 16:49	Benjamin T. Nordmann	2189367
	08/10/2020			08/11/2020 16:53	Benjamin T. Nordmann	2189369
	08/10/2020			08/11/2020 16:54	Benjamin T. Nordmann	2189368
	08/10/2020			08/11/2020 16:55	Benjamin T. Nordmann	2189370
SM 2320 B-2011	08/10/2020			08/11/2020 16:56	Benjamin T. Nordmann	2189383
	08/10/2020			08/12/2020 17:55	Dale L. Simmons	2189365
	08/10/2020			08/12/2020 18:07	Dale L. Simmons	2189366
	08/10/2020			08/12/2020 18:19	Dale L. Simmons	2189367
	08/10/2020			08/12/2020 18:32	Dale L. Simmons	2189368
	08/10/2020			08/12/2020 18:44	Dale L. Simmons	2189369
SM 2340B	08/10/2020			08/12/2020 18:57	Dale L. Simmons	2189370
	08/10/2020			08/12/2020 19:06	Dale L. Simmons	2189383
	08/10/2020			08/12/2020 15:10	Betina Topolski	2189411
	08/10/2020			08/12/2020 15:43	Betina Topolski	2189405
	08/10/2020			08/12/2020 15:51	Betina Topolski	2189406
	08/10/2020			08/12/2020 15:59	Betina Topolski	2189407
SM 2540 C-2011	08/10/2020			08/12/2020 16:06	Betina Topolski	2189408
	08/10/2020			08/12/2020 16:42	Betina Topolski	2189409
	08/10/2020			08/12/2020 16:50	Betina Topolski	2189410
	08/10/2020			08/12/2020 15:12	Yijie Li	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
	08/10/2020			08/12/2020 15:12	Yijie Li	2189365, 2189366, 2189367, 2189368, 2189369, 2189370, 2189383
	08/10/2020			08/12/2020 17:55	Dale L. Simmons	2189365

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Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	08/10/2020			08/12/2020 18:07	Dale L. Simmons	2189366
	08/10/2020			08/12/2020 18:19	Dale L. Simmons	2189367
	08/10/2020			08/12/2020 18:32	Dale L. Simmons	2189368
	08/10/2020			08/12/2020 18:44	Dale L. Simmons	2189369
	08/10/2020			08/12/2020 18:57	Dale L. Simmons	2189370
	08/10/2020			08/12/2020 19:06	Dale L. Simmons	2189383
SM 5310 B-2011	08/10/2020			08/12/2020 14:58	David Boose	2189372
	08/10/2020			08/12/2020 20:11	David Boose	2189371
	08/10/2020			08/12/2020 20:27	David Boose	2189373
	08/10/2020			08/12/2020 20:39	David Boose	2189374
	08/10/2020			08/12/2020 21:18	David Boose	2189375
	08/10/2020			08/12/2020 22:35	David Boose	2189376
	08/10/2020			08/12/2020 22:47	David Boose	2189384