

Chemical Analysis Report

NE-DIST-2020-10-23-02

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

Event Description: **LSJR South West Boat**
Request ID: **RQ-2020-10-19-35**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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8800 Baymeadows Way West
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 17-NOV-2020 12:58

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: 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: Swimming Pen Cr @ Sr 220

Collection Date/Time: 10/22/2020 09:05

Field ID: 20030191

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204497	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P389193	
	EPA 300.0 Rev. 2.1	Chloride	330		mg Cl/L	P389474	
		Sulfate	64		mg SO4/L	P389477	
		Color (true)	150		PCU	P389182	
	SM 2320 B-2011	Total Alkalinity	60		mg CaCO3/L	P389619	
	SM 2540 C-2011	TDS	694		mg/L	P389662	
	SM 2540 D-2011	TSS	5	I	mg/L	P389610	
	SM 4500 F-C-2011	Fluoride	0.12		mg F/L	P389456	
2204501	EPA 350.1 Rev. 2.0	Ammonia-N	0.094		mg N/L	P389214	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P389761	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P389305	
	EPA 365.1 Rev. 2.0	Total-P	0.084		mg P/L	P389404	MS
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P389296	
2204505	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.043		mg P/L	P389180	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Mill Log Cr Downstream of Test Site

Collection Date/Time: 10/22/2020 09:55

Field ID: 20030304

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204494	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P389193	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P389474	
		Sulfate	3.4		mg SO4/L	P389477	
	SM 2120 B-2011	Color (true)	280		PCU	P389182	
	SM 2320 B-2011	Total Alkalinity	17		mg CaCO3/L	P389451	
	SM 2540 C-2011	TDS	121		mg/L	P389661	
	SM 2540 D-2011	TSS	2	I	mg/L	P389609	
2204495	SM 4500 F-C-2011	Fluoride	0.099	I	mg F/L	P389455	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P389214	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.73		mg N/L	P389761	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P389305	
	EPA 365.1 Rev. 2.0	Total-P	0.15	J	mg P/L	P389404	MS
2204496	SM 5310 B-2011	Organic Carbon	25		mg C/L	P389296	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.094		mg P/L	P389180	
2204523	EPA 8321B	2,4-D	0.0020	U	ug/L	P389300	
		Acesulfame K**	0.10	U	ug/L	P389220	MS
		AMPA**	0.11	I	ug/L	P389220	
		Sucralose**	0.30		ug/L	P389220	
		Acetaminophen**	0.0080	U	ug/L	P389300	
		Acetamiprid**	0.0020	U	ug/L	P389300	
		Endothall**	0.25	U	ug/L	P389220	
		Glufosinate**	0.10	U	ug/L	P389220	
		Glyphosate**	0.10	U	ug/L	P389220	
		Afidopyropen**	0.0020	U	ug/L	P389300	
		Bentazon	0.0025	I	ug/L	P389300	
		Benzovindiflupyr**	0.0020	U	ug/L	P389300	
		Carbamazepine**	8.0E-04	U	ug/L	P389300	
		Clothianidin**	0.0020	U	ug/L	P389300	
		Dinotefuran**	0.0020	U	ug/L	P389300	
		Diuron	0.0020	U	ug/L	P389300	
		Fenuron	0.016	U	ug/L	P389300	
		Fluridone**	0.0015	I	ug/L	P389300	
		Imazapyr**	0.028		ug/L	P389300	
		Hydrocodone**	0.0020	U	ug/L	P389300	
		Ibuprofen**	0.020	U	ug/L	P389300	
		Imidacloprid	0.0020	U	ug/L	P389300	
		Linuron	0.0040	U	ug/L	P389300	
		Mandestrobin**	0.0020	U	ug/L	P389300	
		MCP	0.0020	U	ug/L	P389300	
		Naproxen**	0.0080	U	ug/L	P389300	
		Primidone**	0.0040	U	ug/L	P389300	RPD
		Pyraclostrobin**	0.0020	U	ug/L	P389300	
		Thiamethoxam**	0.0020	U	ug/L	P389300	

Field ID: 20030304

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204523	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P389300	
		Triclopyr**	0.0040	U	ug/L	P389300	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0: Total-P: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

Sample Location: Black Cr @ Rr Bridge Below Milllog Cr

Collection Date/Time: 10/22/2020 10:10

Field ID: 20030204

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204498	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P389193	
	EPA 300.0 Rev. 2.1	Chloride	13	A	mg Cl/L	P389474	
		Sulfate	3.8	A	mg SO4/L	P389477	
	SM 2120 B-2011	Color (true)	290		PCU	P389182	
	SM 2320 B-2011	Total Alkalinity	16		mg CaCO3/L	P389451	
	SM 2540 C-2011	TDS	102		mg/L	P389662	
	SM 2540 D-2011	TSS	2	I	mg/L	P389610	
	SM 4500 F-C-2011	Fluoride	0.065	I	mg F/L	P389455	
2204502	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P389214	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P389337	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P389305	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P389404	MS
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P389296	
2204506	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.054		mg P/L	P389180	

Ref. Method and Comment:

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

Sample Location: Little Black Creek 200m Above Mouth

Collection Date/Time: 10/22/2020 10:25

Field ID: G2NE1184

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204499	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P389193	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P389474	
		Sulfate	3.7		mg SO4/L	P389477	
		Color (true)	270		PCU	P389182	
	SM 2320 B-2011	Total Alkalinity	21		mg CaCO3/L	P389451	
	SM 2540 C-2011	TDS	93		mg/L	P389662	
	SM 2540 D-2011	TSS	2	I	mg/L	P389610	
	SM 4500 F-C-2011	Fluoride	0.063	I	mg F/L	P389455	
2204503	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P389214	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.72		mg N/L	P389337	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017		mg N/L	P389305	
	EPA 365.1 Rev. 2.0	Total-P	0.095		mg P/L	P389404	MS
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P389296	
2204507	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.051		mg P/L	P389180	

Ref. Method and Comment:

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

Sample Location: South Fork Black Creek Upstream of North Fork Black Cr

Collection Date/Time: 10/22/2020 11:15

Field ID: G2NE1127

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2204500	EPA 180.1 Rev. 2.0	Turbidity	4.9	A	NTU	P389194	
	EPA 300.0 Rev. 2.1	Chloride	9.6		mg Cl/L	P389474	
		Sulfate	3.3		mg SO4/L	P389477	
	SM 2120 B-2011	Color (true)	220		PCU	P389183	
	SM 2320 B-2011	Total Alkalinity	8.4		mg CaCO3/L	P389451	
	SM 2540 C-2011	TDS	81		mg/L	P389662	
	SM 2540 D-2011	TSS	2	I	mg/L	P389610	
	SM 4500 F-C-2011	Fluoride	0.078	I	mg F/L	P389455	
2204504	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P389214	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P389337	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.038		mg N/L	P389305	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P389404	MS
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P389296	
2204508	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.098		mg P/L	P389180	

Ref. Method and Comment:

SM 2540 D-2011: 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: P389193

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P389194

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389474

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389477

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389214

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389337

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389761

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389305

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389404

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389180

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

Reference Method: EPA 8321B
Batch ID: P389220

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: P389300

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: P389182

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P389183

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P389451

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

Reference Method: SM 2320 B-2011
Batch ID: P389619

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

Reference Method: SM 2540 C-2011
Batch ID: P389661

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P389662

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P389609

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P389610

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P389455

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P389456

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P389296

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389474

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389477

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389214

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	109		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389761

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389305

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: P389404

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.3		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P389220

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	136		P	40 - 150
AMPA	96.6		P	40 - 150
Endothall	83.5		P	40 - 150
Glufosinate	97.6		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P389220

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	99.4		P	40 - 140
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P389300

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	71.3	70.5	P/P	30 - 160
Acetaminophen	30.1	33.3	P/P	30 - 160
Acetamiprid	49.9	55.1	P/P	30 - 160
Afidopyropen	65.4	68.3	P/P	30 - 160
Bentazon	49.5	51.1	P/P	30 - 160
Benzovindiflupyr	69.3	72.7	P/P	30 - 160
Carbamazepine	59.4	61.6	P/P	30 - 160
Clothianidin	76.6	83.6	P/P	30 - 160
Dinotefuran	44.7	49.7	P/P	30 - 160
Diuron	62.7	65.5	P/P	30 - 160
Fenuron	95.9	99.6	P/P	30 - 160
Fluridone	80.9	89.6	P/P	30 - 160
Hydrocodone	85.0	83.0	P/P	30 - 160
Ibuprofen	67.5	67.3	P/P	30 - 160
Imazapyr	93.0	107	P/P	30 - 160
Imidacloprid	75.6	80.5	P/P	30 - 160
Linuron	75.7	73.4	P/P	30 - 160
Mandestrobin	79.3	82.5	P/P	30 - 160
MCPP	63.9	67.2	P/P	30 - 160
Naproxen	57.0	58.3	P/P	30 - 160
Primidone	85.9	98.5	P/P	30 - 160
Pyraclostrobin	49.4	51.2	P/P	30 - 160
Thiamethoxam	95.3	105	P/P	30 - 160
Tolfenpyrad	32.6	35.5	P/P	30 - 160
Triclopyr	70.0	60.6	P/P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P389182

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.0		P	85 - 115

Reference Method: SM 2120 B-2011
Batch ID: P389183

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

Reference Method: SM 2320 B-2011
Batch ID: P389451

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.3		P	93 - 104

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P389619

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.2		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P389455

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	90 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P389456

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P389296

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389474

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204421	Chloride	102		P	90 - 110
2204498	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389477

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204421	Sulfate	103		P	90 - 110
2204498	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204503	Ammonia-N	90.8	91.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204597	Kjeldahl Nitrogen	102	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389305

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204490	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389404

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204495	Total-P	106	111	P/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204477	O-Phosphate-P	99.2	99.5	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P389220

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204274	Acesulfame K	31.6	34.4	F/F	40 - 150
2204274	AMPA	92.5	97.1	P/P	40 - 150
2204274	Endothall	83.0	95.1	P/P	40 - 150
2204274	Glufosinate	90.6	92.1	P/P	40 - 150
2204274	Glyphosate	77.5	95.9	P/P	40 - 140
2204274	Sucralose	66.2	56.8	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P389300

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204450	2,4-D	59.8	49.4	P/P	30 - 160
2204450	Acetaminophen	35.8	42.0	P/P	30 - 160
2204450	Acetamiprid	50.4	39.4	P/P	30 - 160
2204450	Afidopyropen	53.1	47.8	P/P	30 - 160
2204450	Benzovindiflupyr	54.1	51.1	P/P	30 - 160
2204450	Carbamazepine	49.8	48.0	P/P	30 - 160
2204450	Clothianidin	66.4	51.0	P/P	30 - 160
2204450	Dinotefuran	38.5	42.5	P/P	30 - 160
2204450	Diuron	37.7	35.5	P/P	30 - 160
2204450	Fenuron	71.3	60.0	P/P	30 - 160
2204450	Hydrocodone	54.3	51.0	P/P	30 - 160
2204450	Ibuprofen	56.7	44.3	P/P	30 - 160
2204450	Imidacloprid	109	96.0	P/P	30 - 160
2204450	Linuron	53.2	68.8	P/P	30 - 160
2204450	Mandestrobin	69.0	64.1	P/P	30 - 160
2204450	MCCP	49.8	45.1	P/P	30 - 160
2204450	Naproxen	44.7	42.6	P/P	30 - 160
2204450	Primidone	87.3	61.1	P/P	30 - 160
2204450	Pyraclostrobin	52.8	46.8	P/P	30 - 160
2204450	Thiamethoxam	91.5	74.9	P/P	30 - 160
2204450	Tolfenpyrad	48.8	44.3	P/P	30 - 160
2204450	Triclopyr	46.3	46.5	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P389455

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204444	Fluoride	105	105	P/P	94 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P389456

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204595	Fluoride	103	102	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P389296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2204495	Organic Carbon	106		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P389193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204426	Turbidity	2.62	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P389194

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204500	Turbidity	0.612	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389474

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204498	Chloride	0.530	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389477

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204498	Sulfate	0.369	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204503	Ammonia-N	0.803	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204597	Kjeldahl Nitrogen	3.32	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2205133	Kjeldahl Nitrogen	6.88	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389305

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204490	NO2NO3-N	0.990	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389404

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204495	Total-P	3.54	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P389180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204477	O-Phosphate-P	0.176	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P389220

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204274	Acesulfame K	8.69	Spike	P	0 - 30
2204274	AMPA	3.48	Spike	P	0 - 30
2204274	Endothall	13.6	Spike	P	0 - 30
2204274	Glufosinate	1.62	Spike	P	0 - 30
2204274	Glyphosate	18.0	Spike	P	0 - 30
2204274	Sucralose	14.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P389300

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204450	2,4-D	13.9	Spike	P	0 - 30
2204450	Acetaminophen	15.8	Spike	P	0 - 30
2204450	Acetamiprid	24.5	Spike	P	0 - 30
2204450	Afidopyropen	10.6	Spike	P	0 - 30
2204450	Bentazon	12.7	Spike	P	0 - 30
2204450	Benzovindiflupyr	5.74	Spike	P	0 - 30
2204450	Carbamazepine	3.28	Spike	P	0 - 30
2204450	Clothianidin	20.1	Spike	P	0 - 30
2204450	Dinotefuran	9.70	Spike	P	0 - 30
2204450	Diuron	6.07	Spike	P	0 - 30
2204450	Fenuron	17.1	Spike	P	0 - 30
2204450	Fluridone	7.96	Spike	P	0 - 30
2204450	Hydrocodone	6.11	Spike	P	0 - 30
2204450	Ibuprofen	24.5	Spike	P	0 - 30
2204450	Imazapyr	4.82	Spike	P	0 - 30
2204450	Imidacloprid	6.81	Spike	P	0 - 30
2204450	Linuron	25.5	Spike	P	0 - 30
2204450	Mandestrobin	7.32	Spike	P	0 - 30
2204450	MCPP	9.30	Spike	P	0 - 30
2204450	Naproxen	4.82	Spike	P	0 - 30
2204450	Primidone	35.4	Spike	F	0 - 30
2204450	Pyraclostrobin	12.2	Spike	P	0 - 30
2204450	Thiamethoxam	19.9	Spike	P	0 - 30
2204450	Tolfenpyrad	9.62	Spike	P	0 - 30
2204450	Triclopyr	0.283	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P389300

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	2,4-D	1.17	LCS	P	0 - 30
LFB	Acetaminophen	9.97	LCS	P	0 - 30
LFB	Acetamiprid	9.90	LCS	P	0 - 30
LFB	Afidopyropen	4.38	LCS	P	0 - 30
LFB	Bentazon	3.26	LCS	P	0 - 30
LFB	Benzovindiflupyr	4.75	LCS	P	0 - 30
LFB	Carbamazepine	3.65	LCS	P	0 - 30
LFB	Clothianidin	8.76	LCS	P	0 - 30
LFB	Dinotefuran	10.6	LCS	P	0 - 30
LFB	Diuron	4.45	LCS	P	0 - 30
LFB	Fenuron	3.76	LCS	P	0 - 30
LFB	Fluridone	10.1	LCS	P	0 - 30
LFB	Hydrocodone	2.34	LCS	P	0 - 30
LFB	Ibuprofen	0.324	LCS	P	0 - 30
LFB	Imazapyr	13.7	LCS	P	0 - 30
LFB	Imidacloprid	6.26	LCS	P	0 - 30
LFB	Linuron	3.02	LCS	P	0 - 30
LFB	Mandestrobin	3.90	LCS	P	0 - 30
LFB	MCPP	5.06	LCS	P	0 - 30
LFB	Naproxen	2.30	LCS	P	0 - 30
LFB	Primidone	13.7	LCS	P	0 - 30
LFB	Pyraclostrobin	3.46	LCS	P	0 - 30
LFB	Thiamethoxam	9.76	LCS	P	0 - 30
LFB	Tolfenpyrad	8.52	LCS	P	0 - 30
LFB	Triclopyr	14.4	LCS	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P389182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204439	Color (true)	6.43	Sample	P	0 - 20

Reference Method: SM 2120 B-2011
Batch ID: P389183

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204509	Color (true)	1.56	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P389451

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204444	Total Alkalinity	1.90	Sample	P	0 - 8.1

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
 Batch ID: P389619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204776	Total Alkalinity	1.12	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
 Batch ID: P389661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203944	TDS	3.92	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
 Batch ID: P389662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203695	TDS	8.63	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P389455

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204444	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 4500 F-C-2011
 Batch ID: P389456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204595	Fluoride	0.995	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
 Batch ID: P389296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204495	Organic Carbon	1.42	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2204523
Field Sample ID: 20030304

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	51.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	33.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	46.5	P	30 - 160
EPA 8321B	Diuron-d6	35.1	P	30 - 160
EPA 8321B	Endothall-d6	99.3	P	30 - 160
EPA 8321B	Endothall-d6	99.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	53.0	P	30 - 160
EPA 8321B	Primidone-d5	54.8	P	30 - 160
EPA 8321B	Sucralose-d6	73.7	P	30 - 160
EPA 8321B	Sucralose-d6	73.7	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B-2011

Run ID: A101730

Included Lab Sample IDs: 2204494, 2204497, 2204498, 2204499, 2204500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A101731

Included Lab Sample IDs: 2204496, 2204505, 2204506, 2204507, 2204508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	97.5	P/P	90 - 110
O-Phosphate-P	99.8	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A101733

Included Lab Sample IDs: 2204494, 2204497, 2204498, 2204499, 2204500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.5	P/P	95 - 105
Turbidity	99.5	98.0	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A101740

Included Lab Sample IDs: 2204495, 2204501, 2204502, 2204503, 2204504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.1	98.3	P/P	90 - 110
Ammonia-N	97.5	97.1	P/P	90 - 110
Ammonia-N	98.2	97.5	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A101781

Included Lab Sample IDs: 2204495, 2204501, 2204502, 2204503, 2204504

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A101784

Included Lab Sample IDs: 2204495, 2204501, 2204502, 2204503, 2204504

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

Reference Method: EPA 8321B

Run ID: A101788

Included Lab Sample IDs: 2204523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	120	120	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A101798

Included Lab Sample IDs: 2204494, 2204497, 2204498, 2204499, 2204500

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

Reference Method: EPA 8321B

Run ID: A101810

Included Lab Sample IDs: 2204523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	108	107	P/P	50 - 160
Glufosinate	103	98.3	P/P	50 - 160
Glyphosate	103	99.5	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A101811

Included Lab Sample IDs: 2204523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	128	134	P/P	50 - 160
Endothall	93.3	100	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A101820

Included Lab Sample IDs: 2204502, 2204503, 2204504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	108	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A101841

Included Lab Sample IDs: 2204523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	85.9	71.2	P/P	50 - 150
Acetaminophen	146	140	P/P	60 - 160
Acetamiprid	115	106	P/P	50 - 150
Afidopyropen	107	106	P/P	50 - 150
Bentazon	68.8	66.4	P/P	50 - 160
Benzovindiflupyr	84.0	90.9	P/P	50 - 150
Carbamazepine	98.5	93.4	P/P	60 - 150
Clothianidin	105	94.2	P/P	60 - 150
Dinotefuran	100	101	P/P	50 - 150
Diuron	91.7	82.2	P/P	60 - 160
Fenuron	111	106	P/P	60 - 150
Fluridone	75.2	91.4	P/P	60 - 160
Hydrocodone	88.1	93.4	P/P	60 - 150
Ibuprofen	60.5	71.3	P/P	50 - 160
Imazapyr	70.1	82.3	P/P	50 - 160
Imidacloprid	94.7	110	P/P	60 - 150
Linuron	109	88.5	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A101841

Included Lab Sample IDs: 2204523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mandestrobin	128	123	P/P	50 - 150
MCPD	89.5	79.0	P/P	50 - 150
Naproxen	101	60.8	P/P	50 - 160
Primidone	96.1	98.5	P/P	60 - 150
Pyraclostrobin	102	95.4	P/P	60 - 150
Thiamethoxam	126	126	P/P	50 - 150
Tolfenpyrad	113	100	P/P	60 - 150
Triclopyr	77.0	71.2	P/P	50 - 150

Reference Method: SM 2320 B-2011

Run ID: A101852

Included Lab Sample IDs: 2204494, 2204498, 2204499, 2204500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.6	101	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A101852

Included Lab Sample IDs: 2204494, 2204497, 2204498, 2204499, 2204500

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A101879

Included Lab Sample IDs: 2204495, 2204501, 2204502, 2204503, 2204504

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

Reference Method: SM 2320 B-2011

Run ID: A101910

Included Lab Sample IDs: 2204497

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.1	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102025

Included Lab Sample IDs: 2204495, 2204501

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.7	104	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	MS
							SMP	
EPA 180.1 Rev. 2.0	Turbidity						2.62	
	Turbidity						0.612	
EPA 300.0 Rev. 2.1	Chloride	102		103	102		0.530	
	Sulfate	101		102	103		0.369	
EPA 350.1 Rev. 2.0	Ammonia-N	97.7		90.8	91.7			0.803
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109		102	107			3.32
	Kjeldahl Nitrogen	98.5						6.88
EPA 353.2 Rev. 2.0	NO2NO3-N	102		100	102			0.990
EPA 365.1 Rev. 2.0	Total-P	110		106	111			3.54
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.3		99.2	99.5			0.176
EPA 8321B	2,4-D	71.3	70.5	59.8	49.4	1.17		13.9
	Acesulfame K	136		31.6	34.4			8.69
	Acetaminophen	30.1	33.3	35.8	42.0	9.97		15.8
	Acetamiprid	49.9	55.1	50.4	39.4	9.90		24.5
	Afidopyropen	65.4	68.3	53.1	47.8	4.38		10.6
	AMPA	96.6		92.5	97.1			3.48
	Bentazon	49.5	51.1			3.26		12.7
	Benzovindiflupyr	69.3	72.7	54.1	51.1	4.75		5.74
	Carbamazepine	59.4	61.6	49.8	48.0	3.65		3.28
	Clothianidin	76.6	83.6	66.4	51.0	8.76		20.1
	Dinotefuran	44.7	49.7	38.5	42.5	10.6		9.70
	Diuron	62.7	65.5	37.7	35.5	4.45		6.07
	Endothall	83.5		83.0	95.1			13.6
	Fenuron	95.9	99.6	71.3	60.0	3.76		17.1
	Fluridone	80.9	89.6			10.1		7.96
	Glufosinate	97.6		90.6	92.1			1.62
	Glyphosate	99.4		77.5	95.9			18.0
	Hydrocodone	85.0	83.0	54.3	51.0	2.34		6.11
	Ibuprofen	67.5	67.3	56.7	44.3	0.324		24.5
	Imazapyr	93.0	107			13.7		4.82
	Imidacloprid	75.6	80.5	109	96.0	6.26		6.81
	Linuron	75.7	73.4	53.2	68.8	3.02		25.5
	Mandestrobin	79.3	82.5	69.0	64.1	3.90		7.32
	MCPP	63.9	67.2	49.8	45.1	5.06		9.30
	Naproxen	57.0	58.3	44.7	42.6	2.30		4.82
	Primidone	85.9	98.5	87.3	61.1	13.7		35.4
	Pyraclostrobin	49.4	51.2	52.8	46.8	3.46		12.2
	Sucralose	113		66.2	56.8			14.9
	Thiamethoxam	95.3	105	91.5	74.9	9.76		19.9
	Tolfenpyrad	32.6	35.5	48.8	44.3	8.52		9.62
	Triclopyr	70.0	60.6	46.3	46.5	14.4		0.283
SM 2120 B-2011	Color (true)	99.0					6.43	
	Color (true)	100					1.56	
SM 2320 B-2011	Total Alkalinity	99.3					1.90	
	Total Alkalinity	99.2					1.12	
SM 2540 C-2011	TDS						3.92	
	TDS						8.63	
SM 4500 F-C-2011	Fluoride	102		105	105			0.0
	Fluoride	100		103	102			0.995
SM 5310 B-2011	Organic Carbon	100		106				1.42

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2204494, 2204497, 2204498, 2204499, 2204500
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2204494, 2204497, 2204498, 2204499, 2204500
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2204494, 2204497, 2204498, 2204499, 2204500
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2204495, 2204501, 2204502, 2204503, 2204504
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2204495, 2204501, 2204502, 2204503, 2204504
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2204495, 2204501, 2204502, 2204503, 2204504
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2204495, 2204501, 2204502, 2204503, 2204504
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2204496, 2204505, 2204506, 2204507, 2204508
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2204523
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2204523
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2204494, 2204497, 2204498, 2204499, 2204500
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2204494, 2204497, 2204498, 2204499, 2204500
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2204494, 2204497, 2204498, 2204499, 2204500
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2204494, 2204497, 2204498, 2204499, 2204500
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2204494, 2204497, 2204498, 2204499, 2204500
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2204495, 2204501, 2204502, 2204503, 2204504

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	10/23/2020			10/23/2020 18:02	Samantha Davila	2204494, 2204497, 2204498, 2204499, 2204500
EPA 300.0 Rev. 2.1	10/23/2020			10/28/2020 21:35	Lipi Saha	2204498
	10/23/2020			10/29/2020 00:39	Lipi Saha	2204494
	10/23/2020			10/29/2020 00:52	Lipi Saha	2204497
	10/23/2020			10/29/2020 01:05	Lipi Saha	2204499
	10/23/2020			10/29/2020 01:18	Lipi Saha	2204500
EPA 350.1 Rev. 2.0	10/23/2020			10/25/2020 13:25	Ping Hua	2204501
	10/23/2020			10/25/2020 13:43	Ping Hua	2204495
	10/23/2020			10/25/2020 13:45	Ping Hua	2204502
	10/23/2020			10/25/2020 13:52	Ping Hua	2204503
	10/23/2020			10/25/2020 13:54	Ping Hua	2204504
EPA 351.2 Rev. 2.0	10/23/2020	10/27/2020 13:05	David Boose	10/28/2020 12:01	Elliott Rodriguez	2204502
	10/23/2020	10/27/2020 13:05	David Boose	10/28/2020 12:03	Elliott Rodriguez	2204503
	10/23/2020	10/27/2020 13:05	David Boose	10/28/2020 12:04	Elliott Rodriguez	2204504
	10/23/2020	11/04/2020 14:53	David Boose	11/05/2020 13:43	Elliott Rodriguez	2204495
	10/23/2020	11/04/2020 14:53	David Boose	11/05/2020 13:44	Elliott Rodriguez	2204501
EPA 353.2 Rev. 2.0	10/23/2020			10/27/2020 09:10	Beverly Y. Sanders	2204495
	10/23/2020			10/27/2020 09:11	Beverly Y. Sanders	2204501
	10/23/2020			10/27/2020 09:12	Beverly Y. Sanders	2204502
	10/23/2020			10/27/2020 09:13	Beverly Y. Sanders	2204503
	10/23/2020			10/27/2020 09:15	Beverly Y. Sanders	2204504
EPA 365.1 Rev. 2.0	10/23/2020	10/28/2020 13:34	Yen Ta	10/30/2020 13:05	Benjamin T. Nordmann	2204495
	10/23/2020	10/28/2020 13:34	Yen Ta	10/30/2020 13:10	Benjamin T. Nordmann	2204501
	10/23/2020	10/28/2020 13:34	Yen Ta	10/30/2020 13:11	Benjamin T. Nordmann	2204502
	10/23/2020	10/28/2020 13:34	Yen Ta	10/30/2020 13:12	Benjamin T. Nordmann	2204503
	10/23/2020	10/28/2020 13:34	Yen Ta	10/30/2020 13:13	Benjamin T. Nordmann	2204504
EPA 365.1 Rev. 2.0 dissolved	10/23/2020			10/23/2020 15:23	Blanca Fach	2204496
	10/23/2020			10/23/2020 15:24	Blanca Fach	2204505
	10/23/2020			10/23/2020 15:25	Blanca Fach	2204506
	10/23/2020			10/23/2020 15:30	Blanca Fach	2204507
	10/23/2020			10/23/2020 15:31	Blanca Fach	2204508
EPA 8321B	10/23/2020	10/26/2020 10:00	Rebecca Ware	10/26/2020 19:46	Rebecca Ware	2204523
	10/23/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 15:07	Rebecca Ware	2204523
	10/23/2020	10/26/2020 10:00	Rebecca Ware	10/27/2020 18:41	Rebecca Ware	2204523
	10/23/2020	10/27/2020 09:00	Hoor Shaik	10/28/2020 21:05	Juyoung Kim	2204523
SM 2120 B-2011	10/23/2020			10/23/2020 16:35	Benjamin T. Nordmann	2204494
	10/23/2020			10/23/2020 16:36	Benjamin T. Nordmann	2204497
	10/23/2020			10/23/2020 16:37	Benjamin T. Nordmann	2204498, 2204499
	10/23/2020			10/23/2020 16:38	Benjamin T. Nordmann	2204500

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-2011	10/23/2020			10/29/2020 01:37	Samantha Davila	2204494
	10/23/2020			10/29/2020 01:49	Samantha Davila	2204498
	10/23/2020			10/29/2020 02:01	Samantha Davila	2204499
	10/23/2020			10/29/2020 02:13	Samantha Davila	2204500
	10/23/2020			10/30/2020 23:48	Samantha Davila	2204497
SM 2540 C-2011	10/23/2020			10/26/2020 15:36	Yijie Li	2204494, 2204497, 2204498, 2204499, 2204500
SM 2540 D-2011	10/23/2020			10/26/2020 15:36	Yijie Li	2204494, 2204497, 2204498, 2204499, 2204500
SM 4500 F-C-2011	10/23/2020			10/29/2020 01:37	Samantha Davila	2204494
	10/23/2020			10/29/2020 01:49	Samantha Davila	2204498
	10/23/2020			10/29/2020 02:01	Samantha Davila	2204499
	10/23/2020			10/29/2020 02:13	Samantha Davila	2204500
	10/23/2020			10/29/2020 04:28	Samantha Davila	2204497
SM 5310 B-2011	10/23/2020			10/26/2020 15:38	Lauren Lees	2204495
	10/23/2020			10/26/2020 16:28	Lauren Lees	2204501
	10/23/2020			10/26/2020 20:46	Lauren Lees	2204502
	10/23/2020			10/26/2020 20:58	Lauren Lees	2204503
	10/23/2020			10/26/2020 21:10	Lauren Lees	2204504