

Chemical Analysis Report

CEN-DIST-2019-08-14-01

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

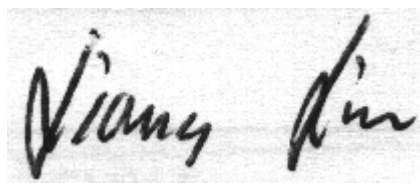
Event Description: **Minnie / Searcy / Silver / Jane + D&B**
Request ID: **RQ-2019-08-12-40**
Customer: **CEN-DIST**
Project ID: **SMP**

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 06-SEP-2019 17:26

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

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: Lake Jane @ Center

Collection Date/Time: 08/13/2019 10:18

Field ID: G4CE0152

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2111539	EPA 180.1 Rev. 2.0	Turbidity	14		NTU	P369078	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P369494	
		Sulfate	15		mg SO4/L	P369497	
	SM 2120 B	Color (true)	36		PCU	P369048	
	SM 2320 B-97	Total Alkalinity	68		mg CaCO3/L	P369443	
	SM 2540 C-97	TDS	126		mg/L	P369724	
	SM 2540 D-97	TSS	13		mg/L	P369478	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P369446	
2111540	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P369466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P369279	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.060		mg N/L	P369322	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P369685	
	SM 5310 B-00	Organic Carbon	9.5		mg C/L	P369233	
2111541	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	I	mg P/L	P369093	

Ref. Method and Comment:

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

Sample Location: Lake Jane @ Center

Collection Date/Time: 08/13/2019 10:21

Field ID: G4CE0152_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2111548	EPA 180.1 Rev. 2.0	Turbidity	15		NTU	P369078	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P369494	
		Sulfate	15		mg SO4/L	P369497	
	SM 2120 B	Color (true)	36		PCU	P369048	
	SM 2320 B-97	Total Alkalinity	69		mg CaCO3/L	P369443	
	SM 2540 C-97	TDS	124		mg/L	P369724	
	SM 2540 D-97	TSS	12		mg/L	P369478	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P369446	
2111549	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P369466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P369279	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.058		mg N/L	P369322	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P369685	
	SM 5310 B-00	Organic Carbon	9.4		mg C/L	P369233	
2111550	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P369093	

Ref. Method and Comment:

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

Sample Location: FB_08132019

Collection Date/Time: 08/13/2019 10:30

Field ID: FB_08132019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2111551	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P369078	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P369494	
		Sulfate	0.20	U	mg SO4/L	P369497	
	SM 2120 B	Color (true)	2.5	U	PCU	P369048	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P369443	
	SM 2540 C-97	TDS	15	U	mg/L	P369722	
	SM 2540 D-97	TSS	2	U	mg/L	P369476	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P369446	
2111552	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P369466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P369279	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P369322	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P369181	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P369233	
2111553	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P369093	

Ref. Method and Comment:

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

Sample Location: Lake Minnie @ Center

Collection Date/Time: 08/13/2019 12:14

Field ID: G2CE0108

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2111536	EPA 180.1 Rev. 2.0	Turbidity	6.5	A	NTU	P369077	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P369494	
		Sulfate	1.9		mg SO4/L	P369497	
	SM 2120 B	Color (true)	220		PCU	P369048	
	SM 2320 B-97	Total Alkalinity	28		mg CaCO3/L	P369443	
	SM 2540 C-97	TDS	138	A	mg/L	P369724	
	SM 2540 D-97	TSS	9	IA	mg/L	P369478	
	SM 4500 F-C-97	Fluoride	0.052	I	mg F/L	P369446	
2111537	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P369466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P369279	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P369322	
	EPA 365.1 Rev. 2.0	Total-P	0.061		mg P/L	P369180	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P369233	
2111538	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P369093	
2111567	EPA 8321B	2,4-D	0.76	J	ug/L	P369089	
		Acesulfame K**	0.10	U	ug/L	P369116	
		AMPA**	0.64		ug/L	P369116	
		Sucralose**	0.18		ug/L	P369116	
		Acetaminophen**	0.0080	U	ug/L	P369089	
		Endothall**	0.25	U	ug/L	P369116	
		Acetamiprid**	0.0020	U	ug/L	P369089	
		Glufosinate**	0.10	U	ug/L	P369116	
		Glyphosate**	1.7		ug/L	P369116	
		Afidopyropen**	0.0020	UJ	ug/L	P369089	
		Bentazon	0.020	J	ug/L	P369089	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P369089	RPD
		Carbamazepine**	8.0E-04	U	ug/L	P369089	
		Clothianidin**	0.0020	U	ug/L	P369089	
		Dinotefuran**	0.0020	U	ug/L	P369089	
		Diuron	0.0052	I	ug/L	P369089	
		Fenuron	0.016	U	ug/L	P369089	
		Fluridone**	0.015		ug/L	P369089	
		Imazapyr**	0.093		ug/L	P369089	
		Hydrocodone**	0.0020	U	ug/L	P369089	
		Ibuprofen**	0.020	U	ug/L	P369089	
		Imidacloprid	0.011		ug/L	P369089	
		Linuron	0.0040	U	ug/L	P369089	
		Mandestrobin**	0.0020	UJ	ug/L	P369089	
		MCP	0.0025	IJ	ug/L	P369089	
		Naproxen**	0.0080	U	ug/L	P369089	RPD
		Primidone**	0.0040	U	ug/L	P369089	
		Pyraclostrobin**	0.0020	U	ug/L	P369089	RPD
		Thiamethoxam**	0.0084		ug/L	P369089	

Field ID: G2CE0108

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2111567	EPA 8321B	Tolfenpyrad**	0.0020	UJ	ug/L	P369089	LCS, MS
		Triclopyr**	0.0040	UJ	ug/L	P369089	

Ref. Method and Comment:

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

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for imidacloprid could not be assessed due to high concentration of parameter in the spiked sample. Matrix spike precision for tolfenpyrad is not available due to low analyte recoveries. Refer to the narrative for an explanation of QC Codes.

Sample Location: Silver Lake @ Center

Collection Date/Time: 08/13/2019 11:40

Field ID: G2CE0122

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2111542	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P369078	
	EPA 300.0 Rev. 2.1	Chloride	47		mg Cl/L	P369494	
		Sulfate	21		mg SO4/L	P369497	
	SM 2120 B	Color (true)	7.3		PCU	P369048	
	SM 2320 B-97	Total Alkalinity	10		mg CaCO3/L	P369443	
	SM 2540 C-97	TDS	113		mg/L	P369724	
	SM 2540 D-97	TSS	2	U	mg/L	P369478	
	SM 4500 F-C-97	Fluoride	0.041	I	mg F/L	P369446	
2111544	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P369466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38		mg N/L	P369279	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P369322	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P369180	
	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P369233	
2111546	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P369093	

Ref. Method and Comment:

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

Sample Location: Lake Searcy @ Center

Collection Date/Time: 08/13/2019 13:05

Field ID: G2CE0137

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2111543	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P369078	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P369494	
		Sulfate	3.6		mg SO4/L	P369497	
	SM 2120 B	Color (true)	79	A	PCU	P369048	
	SM 2320 B-97	Total Alkalinity	28		mg CaCO3/L	P369443	
	SM 2540 C-97	TDS	92		mg/L	P369724	
	SM 2540 D-97	TSS	7	I	mg/L	P369478	
	SM 4500 F-C-97	Fluoride	0.078	I	mg F/L	P369446	
2111545	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P369466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.98		mg N/L	P369279	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P369322	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P369181	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P369233	
2111547	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P369093	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P369077

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P369078

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369494

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369497

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P369466

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369279

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369322

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369180

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369181

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
Batch ID: P369685

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P369093

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

Reference Method: EPA 8321B
Batch ID: P369089

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: EPA 8321B
Batch ID: P369116

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P369048

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P369443

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

Reference Method: SM 2540 C-97
Batch ID: P369722

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P369724

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P369476

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P369478

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P369446

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P369233

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: P369494

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369497

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P369466

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369279

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369322

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369181

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369685

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	93.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P369093

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P369089

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	75.3		P	40 - 160
Acetaminophen	68.2		P	30 - 160
Acetamiprid	76.8		P	40 - 160
Afidopyropen	58.1		P	40 - 160
Bentazon	90.0		P	30 - 160
Benzovindiflupyr	80.4		P	40 - 160
Carbamazepine	80.0		P	40 - 160
Clothianidin	77.5		P	40 - 160
Dinotefuran	78.6		P	40 - 160
Diuron	84.1		P	40 - 160
Fenuron	87.2		P	40 - 160
Fluridone	80.9		P	40 - 160
Hydrocodone	86.3		P	40 - 160
Ibuprofen	65.9		P	30 - 160
Imazapyr	91.3		P	40 - 160
Imidacloprid	82.8		P	40 - 160
Linuron	69.4		P	40 - 160
Mandestrobin	75.8		P	40 - 160
MCPP	70.2		P	40 - 160
Naproxen	66.0		P	40 - 160
Primidone	79.3		P	40 - 160
Pyraclostrobin	56.0		P	30 - 160
Thiamethoxam	85.5		P	40 - 160
Tolfenpyrad	32.2		F	40 - 160
Triclopyr	46.6		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P369116

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	98.7		P	40 - 150
AMPA	88.1		P	40 - 150
Endothall	98.1		P	40 - 150
Glufosinate	106		P	40 - 150
Glyphosate	106		P	40 - 140
Sucralose	82.9		P	40 - 150

Reference Method: SM 2120 B

Batch ID: P369048

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

Reference Method: SM 2320 B-97

Batch ID: P369443

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P369446

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P369233

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369494

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111407	Chloride	99.8		P	90 - 110
2111608	Chloride	99.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369497

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111407	Sulfate	102		P	90 - 110
2111608	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P369466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111544	Ammonia-N	98.9	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111544	Kjeldahl Nitrogen	93.7	95.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369322

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111549	NO2NO3-N	99.2	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111544	Total-P	106	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369181

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111627	Total-P	107	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369685

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2113202	Total-P	97.2	92.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P369093

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111538	O-Phosphate-P	94.7	96.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P369089

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111008	2,4-D	160	140	P/P	40 - 160
2111008	Acetaminophen	79.6	74.0	P/P	30 - 160
2111008	Acetamiprid	96.9	85.2	P/P	40 - 160
2111008	Afidopyropen	79.2	68.1	P/P	40 - 160
2111008	Bentazon	63.4	50.6	P/P	30 - 160
2111008	Benzovindiflupyr	46.4	90.4	P/P	40 - 160
2111008	Carbamazepine	93.6	76.7	P/P	40 - 160
2111008	Clothianidin	96.2	74.9	P/P	40 - 160
2111008	Dinotefuran	104	94.2	P/P	40 - 160
2111008	Diuron	91.6	81.2	P/P	40 - 160
2111008	Fenuron	89.0	82.8	P/P	40 - 160
2111008	Fluridone	75.5	76.1	P/P	40 - 160
2111008	Hydrocodone	101	97.9	P/P	40 - 160
2111008	Ibuprofen	82.8	83.5	P/P	30 - 160
2111008	Imazapyr	103	83.9	P/P	40 - 160
2111008	Linuron	71.3	64.7	P/P	40 - 160
2111008	Mandestrobin	80.7	76.4	P/P	40 - 160
2111008	MCP	160	152	P/P	40 - 160
2111008	Naproxen	110	74.4	P/P	40 - 160
2111008	Primidone	105	86.6	P/P	40 - 160
2111008	Pyraclostrobin	32.7	72.5	P/P	30 - 160
2111008	Thiamethoxam	140	133	P/P	40 - 160
2111008	Tolfenpyrad	0.0	54.8	F/P	40 - 160
2111008	Triclopyr	119	114	P/P	30 - 160

Reference Method: EPA 8321B
 Batch ID: P369116

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110859	Acesulfame K	85.1	93.2	P/P	40 - 150
2110859	AMPA	90.6	85.8	P/P	40 - 150
2110859	Endothall	58.5	59.3	P/P	40 - 150
2110859	Glufosinate	103	98.0	P/P	40 - 150
2110859	Glyphosate	114	103	P/P	40 - 140
2110859	Sucralose	52.4	55.9	P/P	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P369446

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111696	Fluoride	98.2	96.5	P/P	89 - 106

Reference Method: SM 5310 B-00
 Batch ID: P369233

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111621	Organic Carbon	100	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P369077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111536	Turbidity	4.77	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P369078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111595	Turbidity	6.43	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369494

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111407	Chloride	1.45	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369497

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111407	Sulfate	1.75	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P369466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111544	Ammonia-N	1.63	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111544	Kjeldahl Nitrogen	1.09	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369322

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111549	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P369180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111544	Total-P	2.28	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P369181

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111627	Total-P	2.03	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P369685

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2113202	Total-P	4.55	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P369093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111538	O-Phosphate-P	1.68	Spike	P	0 - 20

Reference Method: EPA 8321B
 Batch ID: P369089

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111008	2,4-D	10.3	Spike	P	0 - 30
2111008	Acetaminophen	7.26	Spike	P	0 - 30
2111008	Acetamiprid	12.4	Spike	P	0 - 30
2111008	Afidopyrophen	15.0	Spike	P	0 - 30
2111008	Bentazon	9.63	Spike	P	0 - 30
2111008	Benzovindiflupyr	64.4	Spike	F	0 - 30
2111008	Carbamazepine	13.1	Spike	P	0 - 30
2111008	Clothianidin	19.3	Spike	P	0 - 30
2111008	Dinotefuran	9.46	Spike	P	0 - 30
2111008	Diuron	11.5	Spike	P	0 - 30
2111008	Fenuron	7.24	Spike	P	0 - 30
2111008	Fluridone	0.503	Spike	P	0 - 30
2111008	Hydrocodone	2.95	Spike	P	0 - 30
2111008	Ibuprofen	0.847	Spike	P	0 - 30
2111008	Imazapyr	10.9	Spike	P	0 - 30
2111008	Imidacloprid	8.13	Spike	P	0 - 30
2111008	Linuron	9.59	Spike	P	0 - 30
2111008	Mandestrobin	5.46	Spike	P	0 - 30
2111008	MCPP	4.55	Spike	P	0 - 30
2111008	Naproxen	38.9	Spike	F	0 - 30
2111008	Primidone	16.5	Spike	P	0 - 30
2111008	Pyraclostrobin	75.7	Spike	F	0 - 30
2111008	Thiamethoxam	3.76	Spike	P	0 - 30
2111008	Triclopyr	4.21	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P369116

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

Reference Method: EPA 8321B
Batch ID: P369116

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110859	Acesulfame K	9.11	Spike	P	0 - 30
2110859	AMPA	2.48	Spike	P	0 - 30
2110859	Endothall	1.28	Spike	P	0 - 30
2110859	Glufosinate	5.12	Spike	P	0 - 30
2110859	Glyphosate	2.93	Spike	P	0 - 30
2110859	Sucralose	5.99	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P369048

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111543	Color (true)	0.432	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P369443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111696	Total Alkalinity	0.565	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P369722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111191	TDS	7.67	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P369724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111536	TDS	3.64	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P369446

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111696	Fluoride	1.48	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P369233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111621	Organic Carbon	0.203	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2111567
Field Sample ID: G2CE0108

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	84.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	69.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.9	P	30 - 160
EPA 8321B	Diuron-d6	78.0	P	30 - 160
EPA 8321B	Endothall-d6	96.0	P	30 - 160
EPA 8321B	Endothall-d6	96.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	96.7	P	30 - 160
EPA 8321B	Primidone-d5	98.9	P	30 - 160
EPA 8321B	Sucralose-d6	83.8	P	30 - 160
EPA 8321B	Sucralose-d6	83.8	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A93516

Included Lab Sample IDs: 2111536, 2111539, 2111542, 2111543, 2111548, 2111551

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 115
Color (true)	102	103	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A93525

Included Lab Sample IDs: 2111536, 2111539, 2111542, 2111543, 2111548, 2111551

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A93535

Included Lab Sample IDs: 2111538, 2111541, 2111546, 2111547, 2111550, 2111553

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	100	P/P	90 - 110
O-Phosphate-P	99.9	100	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A93586

Included Lab Sample IDs: 2111537, 2111540, 2111544, 2111545, 2111549, 2111552

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	102	P/P	90 - 110
Organic Carbon	102	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A93591

Included Lab Sample IDs: 2111537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	103	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A93592

Included Lab Sample IDs: 2111567

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	97.8	P/P	50 - 150
Acetaminophen	86.4	83.0	P/P	60 - 160
Acetamiprid	106	106	P/P	50 - 150
Afidopyropen	89.6	84.5	P/P	50 - 150
Bentazon	105	103	P/P	50 - 160
Benzovindiflupyr	108	108	P/P	50 - 150
Carbamazepine	96.6	93.5	P/P	60 - 150
Clothianidin	92.7	101	P/P	60 - 150
Dinotefuran	86.9	81.0	P/P	50 - 150
Diuron	101	100	P/P	60 - 150
Fenuron	71.8	70.6	P/P	60 - 150
Fluridone	98.3	96.6	P/P	60 - 160
Hydrocodone	99.5	96.3	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A93592

Included Lab Sample IDs: 2111567

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	94.4	90.5	P/P	50 - 160
Imazapyr	117	108	P/P	50 - 150
Imidacloprid	85.5	85.5	P/P	60 - 150
Linuron	86.0	85.3	P/P	60 - 150
Mandestrobin	99.2	96.8	P/P	50 - 150
MCPP	87.5	93.8	P/P	50 - 150
Naproxen	123	116	P/P	50 - 160
Primidone	89.3	82.4	P/P	60 - 150
Pyraclostrobin	93.8	94.5	P/P	60 - 150
Thiamethoxam	93.7	94.9	P/P	50 - 150
Tolfenpyrad	97.0	94.7	P/P	60 - 150
Triclopyr	91.1	85.9	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A93599

Included Lab Sample IDs: 2111544, 2111545, 2111552

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	98.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A93618

Included Lab Sample IDs: 2111567

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	86.9	82.5	P/P	60 - 160
Endothall	105	106	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A93621

Included Lab Sample IDs: 2111567

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	91.3	84.9	P/P	60 - 160
Glufosinate	112	99.8	P/P	60 - 160
Glyphosate	102	120	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A93635

Included Lab Sample IDs: 2111537, 2111540, 2111544, 2111545, 2111549, 2111552

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A93647

Included Lab Sample IDs: 2111537, 2111540, 2111544, 2111545, 2111549, 2111552

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	92.0	97.0	P/P	90 - 110
Kjeldahl Nitrogen	95.0	92.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A93694

Included Lab Sample IDs: 2111536, 2111539, 2111542, 2111543, 2111548, 2111551

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A93694

Included Lab Sample IDs: 2111536, 2111539, 2111542, 2111543, 2111548, 2111551

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A93709

Included Lab Sample IDs: 2111537, 2111540, 2111544, 2111545, 2111549, 2111552

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	103	P/P	90 - 110
Ammonia-N	101	100	P/P	90 - 110
Ammonia-N	101	99.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A93717

Included Lab Sample IDs: 2111536, 2111539, 2111542, 2111543, 2111548, 2111551

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	100	P/P	90 - 110
Chloride	101	101	P/P	90 - 110
Sulfate	105	105	P/P	90 - 110
Sulfate	106	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A93831

Included Lab Sample IDs: 2111540, 2111549

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	98.6	P/P	90 - 110
Total-P	98.6	99.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A93859

Included Lab Sample IDs: 2111567

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	83.8	82.4	P/P	60 - 160

* 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					4.77	
	Turbidity					6.43	
EPA 300.0 Rev. 2.1	Chloride	100	99.8	99.8		1.45	
	Sulfate	104	102	104		1.75	
EPA 350.1 Rev. 2.0	Ammonia-N	99.0	98.9	101			1.63
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5	93.7	95.1			1.09
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.2	99.2			0.0
EPA 365.1 Rev. 2.0	Total-P	106	106	103			2.28
	Total-P	109	107	104			2.03
	Total-P	93.2	97.2	92.1			4.55
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5	94.7	96.4			1.68
EPA 8321B	2,4-D	75.3	160	140			10.3
	Acesulfame K	98.7	85.1	93.2			9.11
	Acetaminophen	68.2	79.6	74.0			7.26
	Acetamiprid	76.8	96.9	85.2			12.4
	Afidopyropen	58.1	79.2	68.1			15.0
	AMPA	88.1	90.6	85.8			2.48
	Bentazon	90.0	63.4	50.6			9.63
	Benzovindiflupyr	80.4	46.4	90.4			64.4
	Carbamazepine	80.0	93.6	76.7			13.1
	Clothianidin	77.5	96.2	74.9			19.3
	Dinotefuran	78.6	104	94.2			9.46
	Diuron	84.1	91.6	81.2			11.5
	Endothall	98.1	58.5	59.3			1.28
	Fenuron	87.2	89.0	82.8			7.24
	Fluridone	80.9	75.5	76.1			0.503
	Glufosinate	106	103	98.0			5.12
	Glyphosate	106	114	103			2.93
	Hydrocodone	86.3	101	97.9			2.95
	Ibuprofen	65.9	82.8	83.5			0.847
	Imazapyr	91.3	103	83.9			10.9
	Imidacloprid	82.8					8.13
	Linuron	69.4	71.3	64.7			9.59
	Mandestrobin	75.8	80.7	76.4			5.46
	MCPP	70.2	160	152			4.55
	Naproxen	66.0	110	74.4			38.9
	Primidone	79.3	105	86.6			16.5
	Pyraclostrobin	56.0	32.7	72.5			75.7
	Sucralose	82.9	52.4	55.9			5.99
	Thiamethoxam	85.5	140	133			3.76
	Tolfenpyrad	32.2	0.0	54.8			
	Triclopyr	46.6	119	114			4.21
SM 2120 B	Color (true)	101				0.432	
SM 2320 B-97	Total Alkalinity	103				0.565	
SM 2540 C-97	TDS					7.67	
	TDS					3.64	
SM 4500 F-C-97	Fluoride	100	98.2	96.5			1.48
SM 5310 B-00	Organic Carbon	101	100	100			0.203

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
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Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2111537, 2111540, 2111544, 2111545, 2111549, 2111552
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2111537, 2111540, 2111544, 2111545, 2111549, 2111552
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2111537, 2111540, 2111544, 2111545, 2111549, 2111552
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2111537, 2111540, 2111544, 2111545, 2111549, 2111552
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2111538, 2111541, 2111546, 2111547, 2111550, 2111553
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2111567
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2111567
SM 2120 B / E31780	True Color measured at 450 nm	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2111537, 2111540, 2111544, 2111545, 2111549, 2111552

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	08/14/2019			08/14/2019 19:08	Rosalyn Ballman	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
EPA 300.0 Rev. 2.1	08/14/2019			08/21/2019 08:23	Jhamieka S. Greenwood	2111536
	08/14/2019			08/21/2019 08:59	Jhamieka S. Greenwood	2111539
	08/14/2019			08/21/2019 09:11	Jhamieka S. Greenwood	2111542
	08/14/2019			08/21/2019 09:23	Jhamieka S. Greenwood	2111543
	08/14/2019			08/21/2019 09:35	Jhamieka S. Greenwood	2111548
	08/14/2019			08/21/2019 09:48	Jhamieka S. Greenwood	2111551
EPA 350.1 Rev. 2.0	08/14/2019			08/21/2019 12:51	Ping Hua	2111544
	08/14/2019			08/21/2019 13:09	Ping Hua	2111540
	08/14/2019			08/21/2019 13:11	Ping Hua	2111545
	08/14/2019			08/21/2019 13:12	Ping Hua	2111549
	08/14/2019			08/21/2019 13:14	Ping Hua	2111552
	08/14/2019			08/21/2019 14:50	Ping Hua	2111537
EPA 351.2 Rev. 2.0	08/14/2019	08/19/2019 13:30	Sima Feizi	08/20/2019 13:50	Joseph Suarez	2111537
	08/14/2019	08/19/2019 13:30	Sima Feizi	08/20/2019 13:52	Joseph Suarez	2111540
	08/14/2019	08/19/2019 13:30	Sima Feizi	08/20/2019 13:57	Joseph Suarez	2111544
	08/14/2019	08/19/2019 13:30	Sima Feizi	08/20/2019 14:01	Joseph Suarez	2111545
	08/14/2019	08/19/2019 13:30	Sima Feizi	08/20/2019 14:03	Joseph Suarez	2111549
	08/14/2019	08/19/2019 13:30	Sima Feizi	08/20/2019 14:04	Joseph Suarez	2111552
EPA 353.2 Rev. 2.0	08/14/2019			08/20/2019 09:47	Beverly Y. Sanders	2111549
	08/14/2019			08/20/2019 09:57	Beverly Y. Sanders	2111537
	08/14/2019			08/20/2019 09:58	Beverly Y. Sanders	2111540
	08/14/2019			08/20/2019 09:59	Beverly Y. Sanders	2111544
	08/14/2019			08/20/2019 10:00	Beverly Y. Sanders	2111545
	08/14/2019			08/20/2019 10:01	Beverly Y. Sanders	2111552
EPA 365.1 Rev. 2.0	08/14/2019	08/16/2019 13:30	Vijayalakshmi Reddy	08/19/2019 10:08	Lipi Saha	2111537
	08/14/2019	08/16/2019 13:30	Vijayalakshmi Reddy	08/19/2019 12:59	Lipi Saha	2111544
	08/14/2019	08/16/2019 13:30	Vijayalakshmi Reddy	08/19/2019 13:06	Lipi Saha	2111545
	08/14/2019	08/16/2019 13:30	Vijayalakshmi Reddy	08/19/2019 13:07	Lipi Saha	2111552
	08/14/2019	08/27/2019 13:00	Lipi Saha	08/28/2019 09:40	Lipi Saha	2111540
	08/14/2019	08/27/2019 13:00	Lipi Saha	08/28/2019 09:44	Lipi Saha	2111549
EPA 365.1 Rev. 2.0 dissolved	08/14/2019			08/14/2019 17:15	Jhamieka S. Greenwood	2111538
	08/14/2019			08/14/2019 17:52	Jhamieka S. Greenwood	2111553
	08/14/2019			08/14/2019 17:55	Jhamieka S. Greenwood	2111546
	08/14/2019			08/14/2019 17:56	Jhamieka S. Greenwood	2111547
	08/14/2019			08/14/2019 17:57	Jhamieka S. Greenwood	2111541
	08/14/2019			08/14/2019 17:58	Jhamieka S. Greenwood	2111550
EPA 8321B	08/14/2019	08/15/2019 14:45	Rebecca Ware	08/16/2019 17:28	Rebecca Ware	2111567
	08/14/2019	08/15/2019 14:45	Rebecca Ware	08/19/2019 11:12	Rebecca Ware	2111567

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	08/14/2019	08/15/2019 14:45	Rebecca Ware	08/22/2019 17:22	Rebecca Ware	2111567
	08/14/2019	08/16/2019 09:30	Fe-Val Siddell	08/18/2019 11:22	Juyoung Kim	2111567
SM 2120 B	08/14/2019			08/14/2019 17:41	Madeline Funaro	2111539
	08/14/2019			08/14/2019 17:42	Madeline Funaro	2111542
	08/14/2019			08/14/2019 17:43	Madeline Funaro	2111543
	08/14/2019			08/14/2019 17:44	Madeline Funaro	2111548
	08/14/2019			08/14/2019 17:45	Madeline Funaro	2111551
	08/14/2019			08/14/2019 18:20	Madeline Funaro	2111536
SM 2320 B-97	08/14/2019			08/21/2019 04:33	Dale L. Simmons	2111536
	08/14/2019			08/21/2019 04:46	Dale L. Simmons	2111539
	08/14/2019			08/21/2019 04:57	Dale L. Simmons	2111542
	08/14/2019			08/21/2019 05:09	Dale L. Simmons	2111543
	08/14/2019			08/21/2019 05:21	Dale L. Simmons	2111548
	08/14/2019			08/21/2019 05:36	Dale L. Simmons	2111551
SM 2540 C-97	08/14/2019			08/19/2019 15:20	Yijie Li	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
SM 2540 D-97	08/14/2019			08/19/2019 15:20	Yijie Li	2111536, 2111539, 2111542, 2111543, 2111548, 2111551
SM 4500 F-C-97	08/14/2019			08/21/2019 04:33	Dale L. Simmons	2111536
	08/14/2019			08/21/2019 04:46	Dale L. Simmons	2111539
	08/14/2019			08/21/2019 04:57	Dale L. Simmons	2111542
	08/14/2019			08/21/2019 05:09	Dale L. Simmons	2111543
	08/14/2019			08/21/2019 05:21	Dale L. Simmons	2111548
	08/14/2019			08/21/2019 05:36	Dale L. Simmons	2111551
SM 5310 B-00	08/14/2019			08/17/2019 03:33	Madeline Funaro	2111537
	08/14/2019			08/17/2019 03:45	Madeline Funaro	2111540
	08/14/2019			08/17/2019 04:21	Madeline Funaro	2111544
	08/14/2019			08/17/2019 04:34	Madeline Funaro	2111545
	08/14/2019			08/17/2019 04:46	Madeline Funaro	2111549
	08/14/2019			08/17/2019 04:58	Madeline Funaro	2111552