

Chemical Analysis Report

SW-DIST-2020-02-04-01

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

Event Description: **SCIs**
Request ID: **RQ-2019-12-16-05**
Customer: **SW-DIST**
Project ID: **SMP**

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 27-FEB-2020 12:52

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: 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: Hickey Branch Upstream of 664

Collection Date/Time: 02/03/2020 13:30

Field ID: G3SW0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2153895	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P378225	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P378376	
		Sulfate	20		mg SO4/L	P378377	
	SM 2120 B-2011	Color (true)	55		PCU	P378337	
	SM 2320 B-2011	Total Alkalinity	217		mg CaCO3/L	P378546	
	SM 2540 C-2011	TDS	283		mg/L	P379334	
	SM 2540 D-2011	TSS	2	U	mg/L	P378615	
	SM 4500 F-C-2011	Fluoride	1.2		mg F/L	P378549	
2153896	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P378607	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P378491	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P378589	
	EPA 365.1 Rev. 2.0	Total-P	0.68		mg P/L	P378388	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P378521	
2153897	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.56		mg P/L	P378259	
2153997	EPA 8321B	2,4-D	0.0020	U	ug/L	P378223	
		Acesulfame K**	0.10	U	ug/L	P378368	MS
		AMPA**	0.38	I	ug/L	P378368	
		Sucralose**	0.010	U	ug/L	P378368	MS
		Acetaminophen**	0.0080	U	ug/L	P378223	
		Acetamiprid**	0.0020	U	ug/L	P378223	
		Endothall**	0.25	U	ug/L	P378368	
		Glufosinate**	0.10	U	ug/L	P378368	MS
		Glyphosate**	0.10	U	ug/L	P378368	MS
		Afidopyrophen**	0.0020	UJ	ug/L	P378223	
		Bentazon	8.0E-04	U	ug/L	P378223	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P378223	
		Carbamazepine**	8.0E-04	U	ug/L	P378223	
		Clothianidin**	0.0020	U	ug/L	P378223	
		Dinotefuran**	0.0020	U	ug/L	P378223	
		Diuron	0.0020	U	ug/L	P378223	
		Fenuron	0.016	U	ug/L	P378223	
		Fluridone**	8.0E-04	U	ug/L	P378223	
		Imazapyr**	0.13		ug/L	P378223	
		Hydrocodone**	0.0020	U	ug/L	P378223	
		Ibuprofen**	0.020	U	ug/L	P378223	
		Imidacloprid	0.0020	U	ug/L	P378223	
		Linuron	0.0040	U	ug/L	P378223	
		Mandestrobin**	0.0020	UJ	ug/L	P378223	
		MCP	0.0020	U	ug/L	P378223	
		Naproxen**	0.0080	U	ug/L	P378223	
		Primidone**	0.0040	U	ug/L	P378223	
		Pyraclostrobin**	0.0020	U	ug/L	P378223	
		Thiamethoxam**	0.0020	U	ug/L	P378223	

Field ID: G3SW0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2153997	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P378223	
		Triclopyr**	0.0040	U	ug/L	P378223	
2153998	EPA 200.7 Rev. 4.4	Barium	1.0	I	ug/L	P378297	
		Calcium	46.9		mg/L	P378297	
		Iron	330		ug/L	P378297	
		Magnesium	29.2		mg/L	P378297	
		Potassium	0.88	I	mg/L	P378297	
		Sodium	16.0		mg/L	P378297	
		Zinc	5.0	U	ug/L	P378297	
	EPA 200.8 Rev. 5.4	Aluminum	69		ug/L	P378297	
		Antimony	0.12	I	ug/L	P378297	
		Arsenic	1.36		ug/L	P378297	
		Boron**	16.0		ug/L	P378297	
		Cadmium	0.020	U	ug/L	P378297	
		Chromium	0.45	I	ug/L	P378297	
		Copper	0.40	U	ug/L	P378297	
		Lead	0.20	U	ug/L	P378297	
		Nickel	0.58	I	ug/L	P378297	
		Selenium	0.38	I	ug/L	P378297	
		Silver	0.010	U	ug/L	P378297	
		Thallium	0.10	U	ug/L	P378297	
2153999	EPA 8270E	Acetochlor	0.24	U	ng/L	P378502	
		Alachlor	0.24	U	ng/L	P378502	
		Ametryn	0.57	U	ng/L	P378502	
		Atrazine	1.0		ng/L	P378502	MS
		Atrazine Desethyl	1.4	U	ng/L	P378502	
		Azinphos Methyl	1.9	U	ng/L	P378502	
		Bromacil	0.48	U	ng/L	P378502	
		Butylate	0.38	U	ng/L	P378502	
		Carbophenothion	0.48	U	ng/L	P378502	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P378502	
		Chlorpyrifos Methyl	0.048	U	ng/L	P378502	
		Cyanazine	3.1	UJ	ng/L	P378502	CCV
		Demeton	1.4	U	ng/L	P378502	
		Diazinon	0.12	U	ng/L	P378502	
		Dimethenamid**	0.095	U	ng/L	P378502	
		Disulfoton	0.48	U	ng/L	P378502	
		Dithiopyr**	0.095	U	ng/L	P378502	
		EPTC	1.2	U	ng/L	P378502	
		Ethion	0.14	U	ng/L	P378502	
		Ethoprop	0.095	U	ng/L	P378502	
		Fenamiphos	0.48	U	ng/L	P378502	
		Fipronil	0.24	U	ng/L	P378502	
		Fipronil Desulfinyl**	0.12	U	ng/L	P378502	MS
		Fipronil Sulfide	0.14	U	ng/L	P378502	MS

Field ID: G3SW0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2153999	EPA 8270E	Fipronil Sulfone	0.14	U	ng/L	P378502	
		Flumioxazin**	1.7	U	ng/L	P378502	MS
		Fonofos	0.19	U	ng/L	P378502	
		Hexazinone	4.0		ng/L	P378502	
		Imazalil**	0.71	U	ng/L	P378502	
		Malathion	0.33	U	ng/L	P378502	
		Metalaxyl	0.71	U	ng/L	P378502	MS, RPD
		Metolachlor	0.66	I	ng/L	P378502	
		Metribuzin	3.1	U	ng/L	P378502	
		Mevinphos	0.48	U	ng/L	P378502	
		Molinate	0.29	U	ng/L	P378502	MS
		Norflurazon	0.48	U	ng/L	P378502	
		Oxadiazon**	0.11	I	ng/L	P378502	
		Parathion Ethyl	0.24	U	ng/L	P378502	
		Parathion Methyl	0.52	U	ng/L	P378502	
		Pendimethalin	0.95	U	ng/L	P378502	
		Phorate	0.24	U	ng/L	P378502	
		Prodiamine**	0.17	UJ	ng/L	P378502	RPD
		Prometon	0.86	U	ng/L	P378502	
		Prometryn	0.19	U	ng/L	P378502	
		Pronamide**	0.14	U	ng/L	P378502	
		Propiconazole**	0.48	U	ng/L	P378502	
		Simazine	0.48	U	ng/L	P378502	
		Sulfentrazone**	0.48	U	ng/L	P378502	RPD
		Tebuconazole**	0.48	U	ng/L	P378502	
		Terbufos	0.095	U	ng/L	P378502	
		Terbutylazine	0.40	U	ng/L	P378502	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples and batch relative percent difference are unavailable because of high analyte concentration in the QC sample.

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P378225

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P378297

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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P378297

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	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: P378376

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P378377

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378607

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P378491

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P378589

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P378388

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P378259

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

Reference Method: EPA 8270E
 Batch ID: P378502

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Flumioxazin	1.8	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P378502

Component	Result	Code	Units
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P378223

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P378223

Component	Result	Code	Units
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P378368

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: SM 2120 B-2011
Batch ID: P378337

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P378546

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

Reference Method: SM 2540 C-2011
Batch ID: P379334

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P378615

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P378549

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P378521

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: P378297

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	101		P	85 - 115
Calcium	103		P	85 - 115
Iron	101		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	99.9		P	85 - 115
Sodium	101		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P378297

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	107		P	85 - 115
Arsenic	104		P	85 - 115
Boron	96.7		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	106		P	85 - 115
Copper	101		P	85 - 115
Lead	99.3		P	85 - 115
Nickel	99.0		P	85 - 115
Selenium	102		P	85 - 115
Silver	105		P	85 - 115
Thallium	93.4		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P378376

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P378377

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378607

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P378491

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P378589

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: P378388

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P378259

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

Reference Method: EPA 8270E
 Batch ID: P378502

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	93.2	92.0	P/P	71 - 122
Alachlor	98.5	93.3	P/P	70 - 121
Ametryn	103	96.2	P/P	49 - 137
Atrazine	95.7	93.1	P/P	76 - 125
Atrazine Desethyl	91.8	81.7	P/P	31 - 144
Azinphos Methyl	121	115	P/P	67 - 150
Bromacil	88.3	93.9	P/P	36 - 121
Butylate	70.1	73.3	P/P	33 - 88.0
Carbophenothion	88.1	91.1	P/P	50 - 150
Chlorpyrifos Ethyl	96.3	98.9	P/P	73 - 117
Chlorpyrifos Methyl	94.7	93.1	P/P	68 - 121
Cyanazine	116	105	P/P	20 - 250
Demeton	75.0	83.1	P/P	30 - 123
Diazinon	96.0	92.4	P/P	70 - 128
Dimethenamid	94.1	93.7	P/P	66 - 122
Disulfoton	72.9	89.4	P/P	46 - 124
Dithiopyr	88.7	88.7	P/P	69 - 122
EPTC	49.8	41.1	P/P	31 - 90.0
Ethion	87.9	87.2	P/P	45 - 135
Ethoprop	82.5	79.8	P/P	59 - 118
Fenamiphos	98.2	103	P/P	30 - 136
Fipronil	108	109	P/P	57 - 127
Fipronil Desulfinyl	92.2	96.4	P/P	51 - 122
Fipronil Sulfide	90.1	95.9	P/P	57 - 119
Fipronil Sulfone	86.9	93.8	P/P	51 - 119
Flumioxazin	116	127	P/P	70 - 200
Fonofos	83.3	86.4	P/P	60 - 120
Hexazinone	88.1	93.0	P/P	57 - 142
Imazalil	82.7	94.6	P/P	50 - 150
Malathion	97.2	82.0	P/P	67 - 128
Metalaxyl	89.0	91.7	P/P	21 - 148
Metolachlor	96.3	83.5	P/P	70 - 120
Metribuzin	173	156	P/P	20 - 253
Mevinphos	79.9	79.1	P/P	47 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P378502

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	61.6	58.1	P/P	41 - 99.0
Norflurazon	93.3	96.7	P/P	54 - 127
Oxadiazon	81.1	80.0	P/P	65 - 122
Parathion Ethyl	85.2	91.3	P/P	71 - 113
Parathion Methyl	92.8	92.5	P/P	73 - 129
Pendimethalin	87.5	82.9	P/P	63 - 130
Phorate	83.5	87.3	P/P	48 - 118
Prodiamine	55.4	85.6	P/P	20 - 144
Prometon	90.9	92.4	P/P	53 - 120
Prometryn	106	98.9	P/P	63 - 119
Pronamide	91.3	96.8	P/P	50 - 150
Propiconazole	101	103	P/P	50 - 150
Simazine	99.6	99.1	P/P	77 - 129
Sulfentrazone	86.2	78.3	P/P	50 - 150
Tebuconazole	69.7	83.4	P/P	20 - 118
Terbufos	83.3	89.8	P/P	61 - 119
Terbutylazine	87.8	93.6	P/P	75 - 119

Reference Method: EPA 8321B
Batch ID: P378223

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	121		P	30 - 160
Acetaminophen	85.2		P	30 - 160
Acetamiprid	83.5		P	30 - 160
Afidopyropen	86.4		P	30 - 160
Bentazon	68.5		P	30 - 160
Benzovindiflupyr	80.4		P	30 - 160
Carbamazepine	90.9		P	30 - 160
Clothianidin	83.3		P	30 - 160
Dinotefuran	87.9		P	30 - 160
Diuron	77.7		P	30 - 160
Fenuron	101		P	30 - 160
Fluridone	88.3		P	30 - 160
Hydrocodone	98.0		P	30 - 160
Ibuprofen	80.6		P	30 - 160
Imazapyr	91.5		P	30 - 160
Imidacloprid	95.6		P	30 - 160
Linuron	68.7		P	30 - 160
Mandestrobin	90.8		P	30 - 160
MCPP	126		P	30 - 160
Naproxen	66.8		P	30 - 160
Primidone	94.1		P	30 - 160
Pyraclostrobin	82.7		P	30 - 160
Thiamethoxam	92.6		P	30 - 160
Tolfenpyrad	49.0		P	30 - 160
Triclopyr	116		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P378368

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

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P378368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	129		P	40 - 150
AMPA	105		P	40 - 150
Endothall	92.4		P	40 - 150
Glufosinate	124		P	40 - 150
Glyphosate	129		P	40 - 140
Sucralose	96.5		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P378337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.1		P	90 - 110

Reference Method: SM 2320 B-2011
Batch ID: P378546

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P378549

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P378521

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	102		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P378297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2154590	Barium	97.1	98.8	P/P	80 - 120
2154590	Calcium	96.0		P	80 - 120
2154590	Iron	97.4	99.3	P/P	80 - 120
2154590	Magnesium	97.6		P	80 - 120
2154590	Potassium	100	102	P/P	80 - 120
2154590	Sodium	96.0		P	80 - 120
2154590	Zinc	98.5	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P378297

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2154590	Aluminum	102	101	P/P	80 - 120
2154590	Antimony	112	110	P/P	80 - 120
2154590	Arsenic	107	107	P/P	80 - 120
2154590	Boron	98.2	94.3	P/P	80 - 120
2154590	Cadmium	111	105	P/P	80 - 120
2154590	Chromium	110	109	P/P	80 - 120
2154590	Copper	100	109	P/P	80 - 120
2154590	Lead	103	102	P/P	80 - 120
2154590	Nickel	99.5	99.1	P/P	80 - 120
2154590	Selenium	106	106	P/P	80 - 120
2154590	Silver	107	109	P/P	80 - 120
2154590	Thallium	99.4	99.2	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P378376

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2153710	Chloride	98.7		P	90 - 110
2154056	Chloride	95.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P378377

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2153710	Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378607

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2154058	Ammonia-N	98.6	98.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P378491

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2153737	Kjeldahl Nitrogen	100	98.7	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P378589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2153736	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P378259

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2154155	O-Phosphate-P	95.2	91.0	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P378502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2155154	Acetochlor	93.0	118	P/P	68 - 126
2155154	Alachlor	88.1	116	P/P	66 - 125
2155154	Ametryn	93.7	121	P/P	31 - 182
2155154	Atrazine	101	142	P/F	68 - 137
2155154	Atrazine Desethyl	77.1	99.0	P/P	13 - 161
2155154	Azinphos Methyl	86.8	101	P/P	54 - 162
2155154	Bromacil	75.8	74.8	P/P	34 - 144
2155154	Butylate	17.3	18.7	P/P	16 - 92.0
2155154	Carbophenothion	86.8	109	P/P	50 - 150
2155154	Chlorpyrifos Ethyl	89.7	114	P/P	63 - 124
2155154	Chlorpyrifos Methyl	78.7	98.6	P/P	64 - 125
2155154	Cyanazine	97.7	124	P/P	13 - 245
2155154	Demeton	63.5	74.5	P/P	20 - 154
2155154	Diazinon	91.5	119	P/P	66 - 141
2155154	Dimethenamid	95.2	120	P/P	50 - 130
2155154	Disulfoton	69.9	85.9	P/P	55 - 130
2155154	Dithiopyr	92.0	121	P/P	66 - 122
2155154	EPTC	18.5	16.4	P/P	15 - 93.0
2155154	Ethion	95.2	120	P/P	15 - 148
2155154	Ethoprop	72.9	92.1	P/P	59 - 126
2155154	Fenamiphos	64.1	56.0	P/P	39 - 137
2155154	Fipronil Desulfinyl	99.8	131	P/F	43 - 121
2155154	Fipronil Sulfide	96.5	144	P/F	29 - 134
2155154	Flumioxazin	167	214	P/F	70 - 200
2155154	Fonofos	67.2	82.5	P/P	62 - 128
2155154	Hexazinone	99.3	133	P/P	58 - 154
2155154	Imazalil	105	101	P/P	50 - 150
2155154	Malathion	100	78.5	P/P	54 - 135
2155154	Metalaxyl	91.5	138	P/F	46 - 136
2155154	Metolachlor	93.3	119	P/P	62 - 126
2155154	Metribuzin	92.4	123	P/P	44 - 277
2155154	Mevinphos	61.2	69.2	P/P	44 - 135
2155154	Molinate	30.8	32.0	F/P	31 - 104
2155154	Norflurazon	89.6	111	P/P	32 - 134
2155154	Oxadiazon	90.2	116	P/P	55 - 123
2155154	Parathion Ethyl	89.6	118	P/P	67 - 120
2155154	Parathion Methyl	93.6	120	P/P	70 - 140
2155154	Pendimethalin	84.9	114	P/P	59 - 145
2155154	Phorate	74.1	91.9	P/P	52 - 127
2155154	Prodiamine	107	134	P/P	11 - 157

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P378502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2155154	Prometon	91.6	121	P/P	55 - 130
2155154	Prometryn	94.3	119	P/P	55 - 127
2155154	Pronamide	99.5	133	P/P	50 - 150
2155154	Propiconazole	86.6	111	P/P	50 - 150
2155154	Simazine	96.2	134	P/P	58 - 159
2155154	Sulfentrazone	83.5	135	P/P	50 - 150
2155154	Tebuconazole	62.4	81.7	P/P	10 - 122
2155154	Terbufos	75.9	92.1	P/P	65 - 131
2155154	Terbutylazine	95.9	122	P/P	63 - 131

Reference Method: EPA 8321B
Batch ID: P378223

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2153997	2,4-D	102	104	P/P	30 - 160
2153997	Acetaminophen	85.6	94.2	P/P	30 - 160
2153997	Acetamiprid	75.6	66.5	P/P	30 - 160
2153997	Afidopyropen	87.7	84.2	P/P	30 - 160
2153997	Bentazon	32.4	33.9	P/P	30 - 160
2153997	Benzovindiflupyr	72.5	73.1	P/P	30 - 160
2153997	Carbamazepine	68.0	60.4	P/P	30 - 160
2153997	Clothianidin	69.4	73.3	P/P	30 - 160
2153997	Dinotefuran	97.1	112	P/P	30 - 160
2153997	Diuron	57.8	61.8	P/P	30 - 160
2153997	Fenuron	63.2	64.8	P/P	30 - 160
2153997	Fluridone	73.9	73.4	P/P	30 - 160
2153997	Hydrocodone	82.3	87.1	P/P	30 - 160
2153997	Ibuprofen	64.7	70.3	P/P	30 - 160
2153997	Imidacloprid	134	130	P/P	30 - 160
2153997	Linuron	60.3	63.1	P/P	30 - 160
2153997	Mandestrobin	80.2	80.1	P/P	30 - 160
2153997	MCP	90.1	102	P/P	30 - 160
2153997	Naproxen	71.6	71.2	P/P	30 - 160
2153997	Primidone	78.7	80.2	P/P	30 - 160
2153997	Pyraclostrobin	79.1	84.5	P/P	30 - 160
2153997	Thiamethoxam	105	107	P/P	30 - 160
2153997	Tolfenpyrad	47.3	47.9	P/P	30 - 160
2153997	Triclopyr	88.0	98.9	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P378368

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2153795	Acesulfame K	36.7	39.0	F/F	40 - 150
2153795	AMPA	95.7	95.4	P/P	40 - 150
2153795	Endothall	118	126	P/P	40 - 150
2153795	Glufosinate	139	156	P/F	40 - 150
2153795	Glyphosate	185	200	F/F	40 - 140
2153795	Sucralose	33.3	34.0	F/F	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P378549

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2154054	Fluoride	96.3	97.0	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P378521

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2154059	Organic Carbon	103	104	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P378225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2153758	Turbidity	0.795	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P378297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2154590	Barium	1.69	Spike	P	0 - 20
2154590	Calcium	1.14	Spike	P	0 - 20
2154590	Iron	1.83	Spike	P	0 - 20
2154590	Magnesium	2.30	Spike	P	0 - 20
2154590	Potassium	1.50	Spike	P	0 - 20
2154590	Sodium	1.44	Spike	P	0 - 20
2154590	Zinc	1.54	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P378297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2154590	Aluminum	0.404	Spike	P	0 - 20
2154590	Antimony	1.40	Spike	P	0 - 20
2154590	Arsenic	0.213	Spike	P	0 - 20
2154590	Boron	3.49	Spike	P	0 - 20
2154590	Cadmium	4.95	Spike	P	0 - 20
2154590	Chromium	0.805	Spike	P	0 - 20
2154590	Copper	8.19	Spike	P	0 - 20
2154590	Lead	0.916	Spike	P	0 - 20
2154590	Nickel	0.351	Spike	P	0 - 20
2154590	Selenium	0.545	Spike	P	0 - 20
2154590	Silver	1.28	Spike	P	0 - 20
2154590	Thallium	0.196	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P378376

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2154056	Chloride	0.00253	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P378607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2154058	Ammonia-N	0.215	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P378491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2153737	Kjeldahl Nitrogen	1.50	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P378589

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2153736	NO2NO3-N	0.496	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P378388

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2153761	Total-P	0.789	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P378259

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2154155	O-Phosphate-P	3.87	Spike	P	0 - 20

Reference Method: EPA 8270E
 Batch ID: P378502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2155154	Acetochlor	23.7	Spike	P	0 - 30
2155154	Alachlor	27.1	Spike	P	0 - 30
2155154	Ametryn	25.2	Spike	P	0 - 30
2155154	Atrazine	23.2	Spike	P	0 - 30
2155154	Atrazine Desethyl	19.2	Spike	P	0 - 30
2155154	Azinphos Methyl	15.4	Spike	P	0 - 30
2155154	Bromacil	1.37	Spike	P	0 - 30
2155154	Butylate	7.64	Spike	P	0 - 30
2155154	Carbophenothion	22.3	Spike	P	0 - 30
2155154	Chlorpyrifos Ethyl	23.9	Spike	P	0 - 30
2155154	Chlorpyrifos Methyl	22.4	Spike	P	0 - 30
2155154	Cyanazine	23.5	Spike	P	0 - 30
2155154	Demeton	15.9	Spike	P	0 - 30
2155154	Diazinon	26.2	Spike	P	0 - 30
2155154	Dimethenamid	23.2	Spike	P	0 - 30
2155154	Disulfoton	20.5	Spike	P	0 - 30
2155154	Dithiopyr	26.2	Spike	P	0 - 30
2155154	EPTC	11.9	Spike	P	0 - 30
2155154	Ethion	23.2	Spike	P	0 - 30
2155154	Ethoprop	23.3	Spike	P	0 - 30
2155154	Fenamiphos	13.5	Spike	P	0 - 30
2155154	Fipronil	19.5	Spike	P	0 - 30
2155154	Fipronil Desulfinyl	27.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P378502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2155154	Fipronil Sulfide	22.4	Spike	P	0 - 30
2155154	Fipronil Sulfone	16.5	Spike	P	0 - 30
2155154	Flumioxazin	24.8	Spike	P	0 - 30
2155154	Fonofos	20.5	Spike	P	0 - 30
2155154	Hexazinone	28.9	Spike	P	0 - 30
2155154	Imazalil	4.20	Spike	P	0 - 30
2155154	Malathion	24.5	Spike	P	0 - 30
2155154	Metalaxyl	40.2	Spike	F	0 - 30
2155154	Metolachlor	24.6	Spike	P	0 - 30
2155154	Metribuzin	28.6	Spike	P	0 - 30
2155154	Mevinphos	12.3	Spike	P	0 - 30
2155154	Molinate	3.92	Spike	P	0 - 30
2155154	Norflurazon	21.1	Spike	P	0 - 30
2155154	Oxadiazon	24.9	Spike	P	0 - 30
2155154	Parathion Ethyl	27.7	Spike	P	0 - 30
2155154	Parathion Methyl	24.8	Spike	P	0 - 30
2155154	Pendimethalin	29.1	Spike	P	0 - 30
2155154	Phorate	21.4	Spike	P	0 - 30
2155154	Prodiamine	22.7	Spike	P	0 - 30
2155154	Prometon	27.4	Spike	P	0 - 30
2155154	Prometryn	22.9	Spike	P	0 - 30
2155154	Pronamide	28.5	Spike	P	0 - 30
2155154	Propiconazole	24.6	Spike	P	0 - 30
2155154	Simazine	26.3	Spike	P	0 - 30
2155154	Sulfentrazone	30.9	Spike	F	0 - 30
2155154	Tebuconazole	26.8	Spike	P	0 - 30
2155154	Terbufos	19.2	Spike	P	0 - 30
2155154	Terbutylazine	24.0	Spike	P	0 - 30
LFB	Acetochlor	1.34	LCS	P	0 - 30
LFB	Alachlor	5.46	LCS	P	0 - 30
LFB	Ametryn	6.55	LCS	P	0 - 30
LFB	Atrazine	2.75	LCS	P	0 - 30
LFB	Atrazine Desethyl	11.6	LCS	P	0 - 30
LFB	Azinphos Methyl	5.33	LCS	P	0 - 30
LFB	Bromacil	6.21	LCS	P	0 - 30
LFB	Butylate	4.45	LCS	P	0 - 30
LFB	Carbophenothion	3.35	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.63	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.71	LCS	P	0 - 30
LFB	Cyanazine	10.0	LCS	P	0 - 30
LFB	Demeton	10.2	LCS	P	0 - 30
LFB	Diazinon	3.76	LCS	P	0 - 30
LFB	Dimethenamid	0.370	LCS	P	0 - 30
LFB	Disulfoton	20.3	LCS	P	0 - 30
LFB	Dithiopyr	0.0683	LCS	P	0 - 30
LFB	EPTC	19.1	LCS	P	0 - 30
LFB	Ethion	0.830	LCS	P	0 - 30
LFB	Ethoprop	3.40	LCS	P	0 - 30
LFB	Fenamiphos	4.54	LCS	P	0 - 30
LFB	Fipronil	1.19	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	4.40	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P378502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	6.26	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.73	LCS	P	0 - 30
LFB	Flumioxazin	8.81	LCS	P	0 - 30
LFB	Fonofos	3.70	LCS	P	0 - 30
LFB	Hexazinone	5.44	LCS	P	0 - 30
LFB	Imazalil	13.5	LCS	P	0 - 30
LFB	Malathion	17.0	LCS	P	0 - 30
LFB	Metalaxyl	2.93	LCS	P	0 - 30
LFB	Metolachlor	14.2	LCS	P	0 - 30
LFB	Metribuzin	9.99	LCS	P	0 - 30
LFB	Mevinphos	1.08	LCS	P	0 - 30
LFB	Molinate	5.79	LCS	P	0 - 30
LFB	Norflurazon	3.57	LCS	P	0 - 30
LFB	Oxadiazon	1.36	LCS	P	0 - 30
LFB	Parathion Ethyl	7.01	LCS	P	0 - 30
LFB	Parathion Methyl	0.426	LCS	P	0 - 30
LFB	Pendimethalin	5.47	LCS	P	0 - 30
LFB	Phorate	4.46	LCS	P	0 - 30
LFB	Prodiamine	42.8	LCS	F	0 - 30
LFB	Prometon	1.71	LCS	P	0 - 30
LFB	Prometryn	7.05	LCS	P	0 - 30
LFB	Pronamide	5.88	LCS	P	0 - 30
LFB	Propiconazole	2.80	LCS	P	0 - 30
LFB	Simazine	0.498	LCS	P	0 - 30
LFB	Sulfentrazone	9.66	LCS	P	0 - 30
LFB	Tebuconazole	17.9	LCS	P	0 - 30
LFB	Terbufos	7.54	LCS	P	0 - 30
LFB	Terbutylazine	6.47	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P378223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2153997	2,4-D	1.98	Spike	P	0 - 30
2153997	Acetaminophen	9.58	Spike	P	0 - 30
2153997	Acetamiprid	12.8	Spike	P	0 - 30
2153997	Afidopyropen	4.01	Spike	P	0 - 30
2153997	Bentazon	4.42	Spike	P	0 - 30
2153997	Benzovindiflupyr	0.721	Spike	P	0 - 30
2153997	Carbamazepine	11.9	Spike	P	0 - 30
2153997	Clothianidin	5.42	Spike	P	0 - 30
2153997	Dinotefuran	14.0	Spike	P	0 - 30
2153997	Diuron	6.60	Spike	P	0 - 30
2153997	Fenuron	2.60	Spike	P	0 - 30
2153997	Fluridone	0.627	Spike	P	0 - 30
2153997	Hydrocodone	5.71	Spike	P	0 - 30
2153997	Ibuprofen	8.33	Spike	P	0 - 30
2153997	Imazapyr	9.08	Spike	P	0 - 30
2153997	Imidacloprid	3.33	Spike	P	0 - 30
2153997	Linuron	4.49	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P378223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2153997	Mandestrobin	0.0228	Spike	P	0 - 30
2153997	MCP	12.3	Spike	P	0 - 30
2153997	Naproxen	0.539	Spike	P	0 - 30
2153997	Primidone	1.90	Spike	P	0 - 30
2153997	Pyraclostrobin	6.61	Spike	P	0 - 30
2153997	Thiamethoxam	2.03	Spike	P	0 - 30
2153997	Tolfenpyrad	1.12	Spike	P	0 - 30
2153997	Triclopyr	11.6	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P378368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2153795	Acesulfame K	6.10	Spike	P	0 - 30
2153795	AMPA	0.234	Spike	P	0 - 30
2153795	Endothall	6.34	Spike	P	0 - 30
2153795	Glufosinate	11.1	Spike	P	0 - 30
2153795	Glyphosate	6.59	Spike	P	0 - 30
2153795	Sucralose	2.22	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P378337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2154051	Color (true)	1.64	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P378546

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2154054	Total Alkalinity	0.0221	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P379334

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2153756	TDS	0.414	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P378549

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2154054	Fluoride	0.470	Spike	P	0 - 2.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P378521

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2154059	Organic Carbon	0.668	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2153997
Field Sample ID: G3SW0085

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	123	P	30 - 160
EPA 8321B	Acetaminophen-d4	104	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.0	P	30 - 160
EPA 8321B	Diuron-d6	69.0	P	30 - 160
EPA 8321B	Endothall-d6	114	P	30 - 160
EPA 8321B	Endothall-d6	114	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.1	P	30 - 160
EPA 8321B	Primidone-d5	80.7	P	30 - 160
EPA 8321B	Sucralose-d6	88.6	P	30 - 160
EPA 8321B	Sucralose-d6	88.6	P	30 - 160

Lab Sample ID: 2153999
Field Sample ID: G3SW0085

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	91.0	P	72 - 135
EPA 8270E	Terbufos-d10	83.0	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A97299

Included Lab Sample IDs: 2153895

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A97311

Included Lab Sample IDs: 2153897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.0	96.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A97327

Included Lab Sample IDs: 2153895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	99.2	P/P	90 - 110
Sulfate	98.9	99.2	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A97334

Included Lab Sample IDs: 2153895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.9	100	P/P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A97360

Included Lab Sample IDs: 2153998

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.3	100	P/P	95 - 105
Calcium	101	99.2	P/P	95 - 105
Iron	102	99.5	P/P	95 - 105
Magnesium	102	100	P/P	95 - 105
Potassium	100	98.5	P/P	95 - 105
Sodium	99.6	97.7	P/P	95 - 105
Zinc	98.9	98.6	P/P	95 - 105

Reference Method: SM 5310 B-2011

Run ID: A97392

Included Lab Sample IDs: 2153896

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

Reference Method: SM 2320 B-2011

Run ID: A97403

Included Lab Sample IDs: 2153895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A97403

Included Lab Sample IDs: 2153895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97411

Included Lab Sample IDs: 2153896

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

Reference Method: EPA 8321B

Run ID: A97412

Included Lab Sample IDs: 2153997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	107	98.1	P/P	50 - 150
Acetaminophen	102	97.3	P/P	60 - 160
Acetamiprid	103	99.8	P/P	50 - 150
Afidopyropen	107	96.7	P/P	50 - 150
Bentazon	97.1	91.5	P/P	50 - 160
Benzovindiflupyr	101	96.2	P/P	50 - 150
Carbamazepine	96.3	93.8	P/P	60 - 150
Clothianidin	87.1	93.7	P/P	60 - 150
Dinotefuran	99.7	91.7	P/P	50 - 150
Diuron	115	83.6	P/P	60 - 150
Fenuron	107	102	P/P	60 - 150
Fluridone	102	103	P/P	60 - 160
Hydrocodone	106	97.2	P/P	60 - 150
Ibuprofen	97.7	91.4	P/P	50 - 160
Imazapyr	106	98.5	P/P	50 - 150
Imidacloprid	99.1	98.1	P/P	60 - 150
Linuron	94.1	83.0	P/P	60 - 150
Mandestrobin	104	105	P/P	50 - 150
MCPP	97.6	88.6	P/P	50 - 150
Naproxen	97.7	81.1	P/P	50 - 160
Primidone	99.3	100	P/P	60 - 150
Pyraclostrobin	107	111	P/P	60 - 150
Thiamethoxam	101	95.0	P/P	50 - 150
Tolfenpyrad	95.3	91.8	P/P	60 - 150
Triclopyr	101	84.6	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97416

Included Lab Sample IDs: 2153896

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A97436

Included Lab Sample IDs: 2153896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.8	99.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97442

Included Lab Sample IDs: 2153896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A97473

Included Lab Sample IDs: 2153997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	84.3	130	P/P	60 - 160
Endothall	97.4	95.7	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A97477

Included Lab Sample IDs: 2153997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	90.5	121	P/P	60 - 160
Glufosinate	109	132	P/P	60 - 160
Glyphosate	138	129	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A97560

Included Lab Sample IDs: 2153998

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	101	P/P	90 - 110
Antimony	105	107	P/P	90 - 110
Arsenic	104	103	P/P	90 - 110
Boron	103	98.9	P/P	90 - 110
Cadmium	100	101	P/P	90 - 110
Chromium	104	103	P/P	90 - 110
Copper	98.0	97.2	P/P	90 - 110
Lead	97.9	99.7	P/P	90 - 110
Nickel	98.4	97.1	P/P	90 - 110
Selenium	104	105	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	95.4	97.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A97575

Included Lab Sample IDs: 2153999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.9		P	80 - 120
Alachlor	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A97575

Included Lab Sample IDs: 2153999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ametryn	104		P	80 - 120
Atrazine	90.5		P	80 - 120
Atrazine Desethyl	87.0		P	80 - 120
Azinphos Methyl	109		P	80 - 120
Bromacil	97.5		P	80 - 120
Butylate	97.5		P	80 - 120
Carbophenothion	97.6		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	78.5*		F	80 - 120
Demeton	100		P	80 - 120
Diazinon	101		P	80 - 120
Dimethenamid	98.1		P	80 - 120
Disulfoton	85.7		P	80 - 120
Dithiopyr	97.3		P	80 - 120
EPTC	99.1		P	80 - 120
Ethion	100		P	80 - 120
Ethoprop	107		P	80 - 120
Fenamiphos	101		P	80 - 120
Fipronil	98.6		P	80 - 120
Fipronil Desulfinyl	100		P	80 - 120
Fipronil Sulfide	94.8		P	80 - 120
Fipronil Sulfone	94.6		P	80 - 120
Flumioxazin	91.2		P	80 - 120
Fonofos	94.9		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	92.7		P	80 - 120
Malathion	94.1		P	80 - 120
Metalaxyl	98.0		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	83.4		P	80 - 120
Mevinphos	93.6		P	80 - 120
Molinate	100		P	80 - 120
Norflurazon	92.1		P	80 - 120
Oxadiazon	105		P	80 - 120
Parathion Ethyl	92.7		P	80 - 120
Parathion Methyl	90.8		P	80 - 120
Pendimethalin	94.0		P	80 - 120
Phorate	98.6		P	80 - 120
Prodiamine	106		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	108		P	80 - 120
Pronamide	89.7		P	80 - 120
Propiconazole	101		P	80 - 120
Simazine	93.4		P	80 - 120
Sulfentrazone	97.1		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	101		P	80 - 120
Terbutylazine	97.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A97796

Included Lab Sample IDs: 2153997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	92.6	97.9	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.795	
EPA 200.7 Rev. 4.4	Barium	101		97.1	98.8			1.69
	Calcium	103		96.0				1.14
	Iron	101		97.4	99.3			1.83
	Magnesium	103		97.6				2.30
	Potassium	99.9		100	102			1.50
	Sodium	101		96.0				1.44
	Zinc	100		98.5	100			1.54
EPA 200.8 Rev. 5.4	Aluminum	101		102	101			0.404
	Antimony	107		112	110			1.40
	Arsenic	104		107	107			0.213
	Boron	96.7		98.2	94.3			3.49
	Cadmium	104		111	105			4.95
	Chromium	106		110	109			0.805
	Copper	101		100	109			8.19
	Lead	99.3		103	102			0.916
	Nickel	99.0		99.5	99.1			0.351
	Selenium	102		106	106			0.545
	Silver	105		107	109			1.28
	Thallium	93.4		99.4	99.2			0.196
EPA 300.0 Rev. 2.1	Chloride	98.9		95.4	98.7		0.0025	
	Sulfate	99.5		98.7				
EPA 350.1 Rev. 2.0	Ammonia-N	101		98.6	98.3			0.215
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.0		100	98.7			1.50
EPA 353.2 Rev. 2.0	NO2NO3-N	100		100	101			0.496
EPA 365.1 Rev. 2.0	Total-P	104						0.789
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		95.2	91.0			3.87
EPA 8270E	Acetochlor	93.2	92.0	93.0	118	1.34		23.7
	Alachlor	98.5	93.3	88.1	116	5.46		27.1
	Ametryn	103	96.2	93.7	121	6.55		25.2
	Atrazine	95.7	93.1	101	142	2.75		23.2
	Atrazine Desethyl	91.8	81.7	77.1	99.0	11.6		19.2
	Azinphos Methyl	121	115	86.8	101	5.33		15.4
	Bromacil	88.3	93.9	75.8	74.8	6.21		1.37
	Butylate	70.1	73.3	17.3	18.7	4.45		7.64
	Carbophenothion	88.1	91.1	86.8	109	3.35		22.3
	Chlorpyrifos Ethyl	96.3	98.9	89.7	114	2.63		23.9
	Chlorpyrifos Methyl	94.7	93.1	78.7	98.6	1.71		22.4
	Cyanazine	116	105	97.7	124	10.0		23.5
	Demeton	75.0	83.1	63.5	74.5	10.2		15.9
	Diazinon	96.0	92.4	91.5	119	3.76		26.2
	Dimethenamid	94.1	93.7	95.2	120	0.370		23.2
	Disulfoton	72.9	89.4	69.9	85.9	20.3		20.5
	Dithiopyr	88.7	88.7	92.0	121	0.0683		26.2
	EPTC	49.8	41.1	18.5	16.4	19.1		11.9
	Ethion	87.9	87.2	95.2	120	0.830		23.2
	Ethoprop	82.5	79.8	72.9	92.1	3.40		23.3
	Fenamiphos	98.2	103	64.1	56.0	4.54		13.5
	Fipronil	108	109			1.19		19.5
	Fipronil Desulfinyl	92.2	96.4	99.8	131	4.40		27.2
	Fipronil Sulfide	90.1	95.9	96.5	144	6.26		22.4
	Fipronil Sulfone	86.9	93.8			7.73		16.5
	Flumioxazin	116	127	167	214	8.81		24.8
	Fonofos	83.3	86.4	67.2	82.5	3.70		20.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Hexazinone	88.1	93.0	99.3	133	5.44	28.9
	Imazalil	82.7	94.6	105	101	13.5	4.20
	Malathion	97.2	82.0	100	78.5	17.0	24.5
	Metalaxyl	89.0	91.7	91.5	138	2.93	40.2
	Metolachlor	96.3	83.5	93.3	119	14.2	24.6
	Metribuzin	173	156	92.4	123	9.99	28.6
	Mevinphos	79.9	79.1	61.2	69.2	1.08	12.3
	Molinate	61.6	58.1	30.8	32.0	5.79	3.92
	Norflurazon	93.3	96.7	89.6	111	3.57	21.1
	Oxadiazon	81.1	80.0	90.2	116	1.36	24.9
	Parathion Ethyl	85.2	91.3	89.6	118	7.01	27.7
	Parathion Methyl	92.8	92.5	93.6	120	0.426	24.8
	Pendimethalin	87.5	82.9	84.9	114	5.47	29.1
	Phorate	83.5	87.3	74.1	91.9	4.46	21.4
	Prodiamine	55.4	85.6	107	134	42.8	22.7
	Prometon	90.9	92.4	91.6	121	1.71	27.4
	Prometryn	106	98.9	94.3	119	7.05	22.9
	Pronamide	91.3	96.8	99.5	133	5.88	28.5
	Propiconazole	101	103	86.6	111	2.80	24.6
	Simazine	99.6	99.1	96.2	134	0.498	26.3
	Sulfentrazone	86.2	78.3	83.5	135	9.66	30.9
	Tebuconazole	69.7	83.4	62.4	81.7	17.9	26.8
	Terbufos	83.3	89.8	75.9	92.1	7.54	19.2
	Terbutylazine	87.8	93.6	95.9	122	6.47	24.0
EPA 8321B	2,4-D	121		102	104		1.98
	Acesulfame K	129		36.7	39.0		6.10
	Acetaminophen	85.2		85.6	94.2		9.58
	Acetamiprid	83.5		75.6	66.5		12.8
	Afidopyropen	86.4		87.7	84.2		4.01
	AMPA	105		95.7	95.4		0.234
	Bentazon	68.5		32.4	33.9		4.42
	Benzovindiflupyr	80.4		72.5	73.1		0.721
	Carbamazepine	90.9		68.0	60.4		11.9
	Clothianidin	83.3		69.4	73.3		5.42
	Dinotefuran	87.9		97.1	112		14.0
	Diuron	77.7		57.8	61.8		6.60
	Endothall	92.4		118	126		6.34
	Fenuron	101		63.2	64.8		2.60
	Fluridone	88.3		73.9	73.4		0.627
	Glufosinate	124		139	156		11.1
	Glyphosate	129		185	200		6.59
	Hydrocodone	98.0		82.3	87.1		5.71
	Ibuprofen	80.6		64.7	70.3		8.33
	Imazapyr	91.5					9.08
	Imidacloprid	95.6		134	130		3.33
	Linuron	68.7		60.3	63.1		4.49
	Mandestrobin	90.8		80.2	80.1		0.0228
	MCPP	126		90.1	102		12.3
	Naproxen	66.8		71.6	71.2		0.539
	Primidone	94.1		78.7	80.2		1.90
	Pyraclostrobin	82.7		79.1	84.5		6.61
	Sucralose	96.5		33.3	34.0		2.22
	Thiamethoxam	92.6		105	107		2.03
	Tolfenpyrad	49.0		47.3	47.9		1.12

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Triclopyr	116	88.0	98.9			11.6
SM 2120 B-2011	Color (true)	98.1				1.64	
SM 2320 B-2011	Total Alkalinity	102				0.0221	
SM 2540 C-2011	TDS					0.414	
SM 4500 F-C-2011	Fluoride	96.2	96.3	97.0			0.470
SM 5310 B-2011	Organic Carbon	102	103	104			0.668

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2153895
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2153998
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2153998
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2153895
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2153895
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2153896
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2153896
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2153896
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2153896
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2153897
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2153999
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2153997
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2153997
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2153895
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2153895
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2153895
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2153895
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2153895
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2153896

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	02/04/2020			02/04/2020 14:36	Samantha Davila	2153895
EPA 200.7 Rev. 4.4	02/04/2020	02/05/2020 14:40	Elliott D. Healy	02/06/2020 13:18	Betina Topolski	2153998
EPA 200.8 Rev. 5.4	02/04/2020	02/05/2020 14:40	Elliott D. Healy	02/15/2020 05:36	Justin Cutchin	2153998
EPA 300.0 Rev. 2.1	02/04/2020			02/05/2020 13:56	Elliott Rodriguez	2153895
EPA 350.1 Rev. 2.0	02/04/2020			02/10/2020 12:36	Ping Hua	2153896
EPA 351.2 Rev. 2.0	02/04/2020	02/07/2020 11:00	Jhamieka S. Greenwood	02/10/2020 19:05	Jhamieka S. Greenwood	2153896
EPA 353.2 Rev. 2.0	02/04/2020			02/10/2020 10:51	Beverly Y. Sanders	2153896
EPA 365.1 Rev. 2.0	02/04/2020	02/05/2020 13:08	Yen Ta	02/06/2020 17:12	Benjamin T. Nordmann	2153896
EPA 365.1 Rev. 2.0 dissolved	02/04/2020			02/04/2020 17:53	Carlos Miranda	2153897
EPA 8270E	02/04/2020	02/07/2020 08:00	Fe-Val Siddell	02/11/2020 16:59	Vandana T. Nagar	2153999
EPA 8321B	02/04/2020	02/05/2020 12:10	Hoor Shaik	02/07/2020 20:00	Juyoung Kim	2153997
	02/04/2020	02/06/2020 11:00	Rebecca Ware	02/07/2020 13:43	Rebecca Ware	2153997
	02/04/2020	02/06/2020 11:00	Rebecca Ware	02/08/2020 13:00	Rebecca Ware	2153997
	02/04/2020	02/06/2020 11:00	Rebecca Ware	02/21/2020 17:41	Rebecca Ware	2153997
SM 2120 B-2011	02/04/2020			02/04/2020 16:20	Madeline Funaro	2153895
SM 2320 B-2011	02/04/2020			02/06/2020 21:11	Dale L. Simmons	2153895
SM 2540 C-2011	02/04/2020			02/06/2020 15:50	Sima Feizi	2153895
SM 2540 D-2011	02/04/2020			02/06/2020 15:50	Sima Feizi	2153895
SM 4500 F-C-2011	02/04/2020			02/06/2020 21:11	Dale L. Simmons	2153895
SM 5310 B-2011	02/04/2020			02/06/2020 22:08	Madeline Funaro	2153896