

Chemical Analysis Report

SW-DIST-2020-08-26-01

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

Event Description: **Run 8**
Request ID: **RQ-2020-07-20-09**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
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13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 15-SEP-2020 12:17

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: Lake Harvey Center

Collection Date/Time: 08/25/2020 10:30

Field ID: G1SW0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192150	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P386580	
	EPA 300.0 Rev. 2.1	Chloride	27	A	mg Cl/L	P387060	
		Sulfate	2.8	A	mg SO4/L	P387065	
	SM 2120 B-2011	Color (true)	53		PCU	P386582	
	SM 2320 B-2011	Total Alkalinity	25		mg CaCO3/L	P386667	
	SM 2540 C-2011	TDS	106		mg/L	P386994	
	SM 2540 D-2011	TSS	2	I	mg/L	P386987	
	SM 4500 F-C-2011	Fluoride	0.072	I	mg F/L	P386901	
2192152	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P387016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P386806	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P386671	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P386615	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P386725	
2192154	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P386587	

Ref. Method and Comment:

SM 2120 B-2011: Batch relative percent difference is unavailable because of low 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.

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Starvation Lake @ Center

Collection Date/Time: 08/25/2020 11:00

Field ID: G1SW0110

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192151	EPA 180.1 Rev. 2.0	Turbidity	0.85		NTU	P386580	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P387060	
		Sulfate	1.9		mg SO4/L	P387065	
	SM 2120 B-2011	Color (true)	47		PCU	P386582	
	SM 2320 B-2011	Total Alkalinity	27		mg CaCO3/L	P386667	
	SM 2540 C-2011	TDS	88		mg/L	P386994	
	SM 2540 D-2011	TSS	2	U	mg/L	P386987	
	SM 4500 F-C-2011	Fluoride	0.098	I	mg F/L	P386901	
2192153	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P387016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P386806	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P386671	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P386615	
	SM 5310 B-2011	Organic Carbon	9.3		mg C/L	P386725	
2192155	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P386587	

Ref. Method and Comment:

SM 2120 B-2011: Batch relative percent difference is unavailable because of low 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.

SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Little Lake Wilson Center

Collection Date/Time: 08/25/2020 09:50

Field ID: G1SW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192156	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P386580	
	EPA 300.0 Rev. 2.1	Chloride	61		mg Cl/L	P387060	
		Sulfate	1.6		mg SO4/L	P387065	
	SM 2120 B-2011	Color (true)	42		PCU	P386582	
	SM 2320 B-2011	Total Alkalinity	66		mg CaCO3/L	P386667	
	SM 2540 C-2011	TDS	186		mg/L	P386994	
	SM 2540 D-2011	TSS	2	I	mg/L	P386987	
	SM 4500 F-C-2011	Fluoride	0.072	I	mg F/L	P386901	
2192157	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P387018	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P386806	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P386671	
	EPA 365.1 Rev. 2.0	Total-P	0.038		mg P/L	P386615	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P386725	
2192158	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P386588	
2192178	EPA 8321B	Aldicarb	0.020	U	ug/L	P386554	
		Aldicarb Sulfone	0.0020	U	ug/L	P386554	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P386554	MS
		Carbaryl	0.0020	U	ug/L	P386554	
		Carbofuran	0.0020	U	ug/L	P386554	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P386554	
		Methiocarb	0.0020	U	ug/L	P386554	
		Methomyl	0.0020	U	ug/L	P386554	
		Oxamyl	0.0020	U	ug/L	P386554	
		Propoxur	0.0020	U	ug/L	P386554	
		2,4-D	0.0024	I	ug/L	P386554	
		Acesulfame K**	0.37	I	ug/L	P386539	MS
		AMPA**	0.10	U	ug/L	P386539	
2192179		Sucralose**	0.90		ug/L	P386539	RPD
		Acetaminophen**	0.0080	U	ug/L	P386554	
		Acetamiprid**	0.0020	U	ug/L	P386554	
		Endothall**	0.25	U	ug/L	P386539	
		Glufosinate**	0.10	U	ug/L	P386539	
		Glyphosate**	0.10	U	ug/L	P386539	
		Afidopyropen**	0.0020	U	ug/L	P386554	
		Bentazon	0.015		ug/L	P386554	
		Benzovindiflupyr**	0.0020	U	ug/L	P386554	
		Carbamazepine**	8.0E-04	U	ug/L	P386554	
		Clothianidin**	0.0083		ug/L	P386554	
		Dinotefuran**	0.0020	U	ug/L	P386554	
		Diuron	0.026		ug/L	P386554	
		Fenuron	0.016	U	ug/L	P386554	
		Fluridone**	0.0042		ug/L	P386554	
		Imazapyr**	0.0040	U	ug/L	P386554	

Field ID: G1SW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192179	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P386554	
		Ibuprofen**	0.020	U	ug/L	P386554	
		Imidacloprid	0.023		ug/L	P386554	
		Linuron	0.0040	U	ug/L	P386554	
		Mandestrobin**	0.0020	U	ug/L	P386554	
		MCP	0.0020	U	ug/L	P386554	
		Naproxen**	0.0080	U	ug/L	P386554	
		Primidone**	0.015	I	ug/L	P386554	
		Pyraclostrobin**	0.0020	U	ug/L	P386554	
		Thiamethoxam**	0.0020	U	ug/L	P386554	
		Tolfenpyrad**	0.0020	U	ug/L	P386554	
		Triclopyr**	0.0040	U	ug/L	P386554	
2192184	EPA 8270E	Aldrin	4.2	U	ng/L	P386636	
		Alpha-BHC	2.1	U	ng/L	P386636	
		Alpha-Chlordane	1.1	U	ng/L	P386636	
		Beta-BHC	8.4	U	ng/L	P386636	
		Beta-Cyfluthrin**	16	U	ng/L	P386636	
		Bifenthrin**	4.2	U	ng/L	P386636	
		Delta-BHC	8.4	U	ng/L	P386636	
		Gamma-BHC	8.4	U	ng/L	P386636	
		Chlorothalonil	2.1	U	ng/L	P386636	
		Cis-Nonachlor**	1.1	U	ng/L	P386636	
		Cypermethrin	21	U	ng/L	P386636	
		Dacthal**	1.1	U	ng/L	P386636	
		DDD-p,p'	5.3	U	ng/L	P386636	
		DDE-p,p'	5.3	U	ng/L	P386636	
		DDT-p,p'	6.3	U	ng/L	P386636	
		Deltamethrin**	21	U	ng/L	P386636	
		Dicofol	32	U	ng/L	P386636	
		Dieldrin	4.2	U	ng/L	P386636	
		Endosulfan I	4.2	U	ng/L	P386636	
		Endosulfan II	4.2	U	ng/L	P386636	
		Endosulfan Sulfate	2.1	U	ng/L	P386636	
		Endrin	2.1	U	ng/L	P386636	
		Endrin Aldehyde	2.1	U	ng/L	P386636	
		Endrin Ketone	2.1	U	ng/L	P386636	
		Ethalfuralin**	3.2	U	ng/L	P386636	
		Gamma-Chlordane	1.1	U	ng/L	P386636	
		Heptachlor	1.6	U	ng/L	P386636	
		Heptachlor Epoxide	2.1	U	ng/L	P386636	
		Hexachlorobenzene	2.1	U	ng/L	P386636	
		Lambda-Cyhalothrin**	16	U	ng/L	P386636	
		Methoxychlor	4.2	U	ng/L	P386636	
		Mirex	2.1	U	ng/L	P386636	
		Permethrin	11	U	ng/L	P386636	

Field ID: G1SW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192184	EPA 8270E	Phenothrin**	32	U	ng/L	P386636	
		Prallethrin**	26	U	ng/L	P386636	
		Trans-Nonachlor**	1.1	U	ng/L	P386636	
		Trifluralin	2.6	U	ng/L	P386636	
		Chlordane	5.5	I	ng/L	P386636	
2192185	EPA 8270E	Toxaphene	32	U	ng/L	P386636	
		Acetochlor	0.24	U	ng/L	P386604	
		Alachlor	0.24	U	ng/L	P386604	MS
		Ametryn	0.58	U	ng/L	P386604	
		Atrazine	230		ng/L	P386604	
		Atrazine Desethyl	25		ng/L	P386604	
		Azinphos Methyl	1.9	U	ng/L	P386604	
		Bromacil	0.48	U	ng/L	P386604	
		Butylate	0.38	U	ng/L	P386604	RPD
		Carbophenothion	0.48	U	ng/L	P386604	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P386604	
		Chlorpyrifos Methyl	0.048	U	ng/L	P386604	
		Cyanazine	3.1	U	ng/L	P386604	
		Demeton	1.4	U	ng/L	P386604	
		Diazinon	0.12	U	ng/L	P386604	
		Dimethenamid**	0.096	U	ng/L	P386604	
		Disulfoton	0.48	U	ng/L	P386604	
		Dithiopyr**	0.35	I	ng/L	P386604	
		EPTC	1.2	U	ng/L	P386604	
		Ethion	0.14	U	ng/L	P386604	
		Ethoprop	0.096	U	ng/L	P386604	
		Fenamiphos	0.48	U	ng/L	P386604	
		Fipronil	0.32	I	ng/L	P386604	
		Fipronil Desulfinyl**	1.1		ng/L	P386604	
		Fipronil Sulfide	0.61		ng/L	P386604	
		Fipronil Sulfone	1.9		ng/L	P386604	
		Flumioxazin**	1.7	U	ng/L	P386604	
		Fonofos	0.19	U	ng/L	P386604	
		Hexazinone	0.63	I	ng/L	P386604	
		Imazalil**	0.72	U	ng/L	P386604	
		Malathion	0.34	U	ng/L	P386604	
		Metalaxyl	0.72	U	ng/L	P386604	
		Metolachlor	0.48	U	ng/L	P386604	
		Metribuzin	3.1	U	ng/L	P386604	
		Mevinphos	0.48	U	ng/L	P386604	
		Molinate	0.29	U	ng/L	P386604	
		Naled**	1.4	U	ng/L	P386604	
		Norflurazon	0.48	U	ng/L	P386604	
		Oxadiazon	0.20	I	ng/L	P386604	
		Parathion Ethyl	0.24	U	ng/L	P386604	

Field ID: G1SW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192185	EPA 8270E	Parathion Methyl	0.53	U	ng/L	P386604	RPD
		Pendimethalin	0.96	U	ng/L	P386604	
		Phorate	0.24	U	ng/L	P386604	
		Prodiamine**	0.17	U	ng/L	P386604	
		Prometon	0.87	U	ng/L	P386604	
		Prometryn	0.19	U	ng/L	P386604	
		Pronamide**	0.14	U	ng/L	P386604	
		Propiconazole**	5.7		ng/L	P386604	
		Simazine	8.7		ng/L	P386604	
		Sulfentrazone**	8.6		ng/L	P386604	
		Tebuconazole**	4.8		ng/L	P386604	
		Terbufos	0.096	U	ng/L	P386604	
		Terbutylazine	0.41	U	ng/L	P386604	
2192198	EPA 200.7 Rev. 4.4	Barium	4.9		ug/L	P386647	
		Calcium	27.3		mg/L	P386647	
		Iron	140		ug/L	P386647	
		Magnesium	1.99		mg/L	P386647	
		Potassium	3.1		mg/L	P386647	
		Sodium	40.3		mg/L	P386647	
		Zinc	5.0	U	ug/L	P386647	
	EPA 200.8 Rev. 5.4	Aluminum	24		ug/L	P386647	
		Antimony	0.10	I	ug/L	P386647	
		Arsenic	6.35		ug/L	P386647	
		Boron**	54.3		ug/L	P386647	
		Cadmium	0.020	U	ug/L	P386647	
		Chromium	0.66	I	ug/L	P386647	
		Copper	5.19		ug/L	P386647	
		Lead	0.20	U	ug/L	P386647	
		Nickel	0.50	U	ug/L	P386647	
		Selenium	0.20	U	ug/L	P386647	
		Silver	0.010	U	ug/L	P386647	
		Thallium	0.10	U	ug/L	P386647	

Ref. Method and Comment:

SM 2120 B-2011: Batch relative percent difference is unavailable because of low 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.
SM 4500 F-C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P386580

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P386647

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: P386647

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: P387060

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387065

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387016

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387018

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386806

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386671

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386615

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386587

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386588

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

Reference Method: EPA 8270E
Batch ID: P386604

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P386604

Component	Result	Code	Units
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
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
Naled	1.5	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
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
 Batch ID: P386636

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P386636

Component	Result	Code	Units
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Prallethrin	25	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P386636

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P386539

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

Reference Method: EPA 8321B
Batch ID: P386554

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P386554

Component	Result	Code	Units
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	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
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	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
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P386582

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P386667

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

Reference Method: SM 2540 C-2011
Batch ID: P386994

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P386987

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P386901

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P386725

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: P386647

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	101		P	85 - 115
Iron	101		P	85 - 115
Magnesium	100		P	85 - 115
Potassium	98.4		P	85 - 115
Sodium	98.3		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P386647

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.9		P	85 - 115
Antimony	100		P	85 - 115
Arsenic	105		P	85 - 115
Boron	100		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	103		P	85 - 115
Copper	100		P	85 - 115
Lead	104		P	85 - 115
Nickel	101		P	85 - 115
Selenium	100		P	85 - 115
Silver	104		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387060

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387065

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387016

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387018

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386806

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386671

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386615

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386587

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386588

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

Reference Method: EPA 8270E
Batch ID: P386604

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	85.5	94.2	P/P	71 - 122
Alachlor	87.7	93.0	P/P	70 - 121
Ametryn	93.1	116	P/P	49 - 137
Atrazine	94.5	104	P/P	76 - 125
Atrazine Desethyl	89.9	97.7	P/P	31 - 144
Azinphos Methyl	104	109	P/P	67 - 150
Bromacil	91.4	99.9	P/P	36 - 121
Butylate	43.7	49.0	P/P	33 - 88.0
Carbophenothion	100	104	P/P	66 - 116
Chlorpyrifos Ethyl	90.1	95.7	P/P	73 - 117
Chlorpyrifos Methyl	81.0	88.3	P/P	68 - 121
Cyanazine	101	96.6	P/P	20 - 250
Demeton	73.9	73.5	P/P	30 - 123
Diazinon	87.3	93.8	P/P	70 - 128
Dimethenamid	86.4	95.1	P/P	66 - 122
Disulfoton	74.8	72.3	P/P	46 - 124
Dithiopyr	91.3	98.5	P/P	69 - 122
EPTC	44.3	49.1	P/P	31 - 90.0
Ethion	102	106	P/P	45 - 135
Ethoprop	75.3	72.4	P/P	59 - 118
Fenamiphos	96.6	92.9	P/P	30 - 136
Fipronil	95.8	104	P/P	57 - 127

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P386604

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fipronil Desulfinyl	97.1	106	P/P	51 - 122
Fipronil Sulfide	98.0	102	P/P	57 - 119
Fipronil Sulfone	95.3	102	P/P	51 - 119
Flumioxazin	119	130	P/P	20 - 250
Fonofos	70.4	71.3	P/P	60 - 120
Hexazinone	102	108	P/P	57 - 142
Imazalil	130	106	P/P	30 - 139
Malathion	93.5	91.6	P/P	67 - 128
Metalaxyl	93.6	100	P/P	21 - 148
Metolachlor	90.8	97.8	P/P	70 - 120
Metribuzin	103	110	P/P	20 - 250
Mevinphos	66.4	60.2	P/P	47 - 116
Molinate	51.8	54.6	P/P	41 - 99.0
Naled	53.3	50.0	P/P	38 - 97.0
Norflurazon	93.7	105	P/P	54 - 127
Oxadiazon	92.7	101	P/P	65 - 122
Parathion Ethyl	89.8	90.4	P/P	71 - 113
Parathion Methyl	89.6	97.6	P/P	73 - 129
Pendimethalin	103	101	P/P	63 - 130
Phorate	60.1	62.6	P/P	48 - 118
Prodiamine	141	127	P/P	20 - 144
Prometon	83.3	98.4	P/P	53 - 120
Prometryn	93.3	105	P/P	63 - 119
Pronamide	88.6	114	P/P	81 - 122
Propiconazole	94.0	104	P/P	62 - 124
Simazine	105	121	P/P	77 - 129
Sulfentrazone	65.0	69.5	P/P	20 - 137
Tebuconazole	94.2	102	P/P	20 - 118
Terbufos	75.2	78.5	P/P	61 - 119
Terbutylazine	92.3	97.1	P/P	75 - 119

Reference Method: EPA 8270E
Batch ID: P386636

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.2	52.2	P/P	20 - 87.0
Alpha-BHC	82.2	80.7	P/P	65 - 142
Alpha-Chlordane	86.1	84.0	P/P	58 - 106
Beta-BHC	106	104	P/P	65 - 179
Beta-Cyfluthrin	75.9	74.5	P/P	39 - 153
Bifenthrin	86.1	86.0	P/P	38 - 128
Chlorothalonil	50.8	47.0	P/P	20 - 214
Cis-Nonachlor	91.3	89.4	P/P	56 - 113
Cypermethrin	94.7	91.2	P/P	37 - 130
Dacthal	93.5	92.1	P/P	75 - 109
DDD-p,p'	94.9	93.4	P/P	66 - 119
DDE-p,p'	83.6	83.6	P/P	53 - 108
DDT-p,p'	83.0	82.2	P/P	57 - 133
Delta-BHC	118	112	P/P	68 - 187
Deltamethrin	103	101	P/P	50 - 200
Dicofol	95.6	98.9	P/P	66 - 123
Dieldrin	88.1	89.4	P/P	65 - 111

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P386636

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endosulfan I	86.3	84.2	P/P	65 - 115
Endosulfan II	103	103	P/P	68 - 133
Endosulfan Sulfate	94.2	89.1	P/P	62 - 127
Endrin	82.7	76.8	P/P	64 - 122
Endrin Aldehyde	114	112	P/P	61 - 132
Endrin Ketone	91.5	91.0	P/P	66 - 120
Ethalfuralin	76.2	76.5	P/P	57 - 127
Gamma-BHC	98.3	95.1	P/P	71 - 158
Gamma-Chlordane	84.3	83.3	P/P	53 - 106
Heptachlor	72.4	70.1	P/P	45 - 96.0
Heptachlor Epoxide	88.4	87.5	P/P	64 - 109
Hexachlorobenzene	71.3	73.2	P/P	46 - 103
Lambda-Cyhalothrin	79.6	77.1	P/P	38 - 145
Methoxychlor	79.9	79.0	P/P	69 - 149
Mirex	68.5	68.8	P/P	31 - 90.0
Permethrin	81.9	82.6	P/P	41 - 108
Phenothrin	60.1	60.4	P/P	22 - 91.0
Prallethrin	57.3	56.1	P/P	32 - 92.0
Trans-Nonachlor	86.1	84.4	P/P	50 - 107
Trifluralin	77.6	78.1	P/P	58 - 119

Reference Method: EPA 8276
Batch ID: P386636

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	92.4	91.2	P/P	47 - 119
Toxaphene	88.3	85.2	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P386539

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	77.3		P	40 - 150
AMPA	92.1		P	40 - 150
Endothall	85.0		P	40 - 150
Glufosinate	89.5		P	40 - 150
Glyphosate	78.3		P	40 - 140
Sucralose	97.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P386554

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	128		P	30 - 160
3-Hydroxycarbofuran	85.3		P	40 - 150
Acetaminophen	85.6		P	30 - 160
Acetamiprid	77.4		P	30 - 160
Afidopyropen	55.8		P	30 - 160
Aldicarb	64.5		P	30 - 150
Aldicarb Sulfone	94.4		P	40 - 150
Aldicarb Sulfoxide	105		P	40 - 150
Bentazon	74.7		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P386554

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Benzovindiflupyr	76.5		P	30 - 160
Carbamazepine	63.3		P	30 - 160
Carbaryl	67.5		P	40 - 150
Carbofuran	56.2		P	40 - 150
Clothianidin	79.6		P	30 - 160
Dinotefuran	97.3		P	30 - 160
Diuron	67.4		P	30 - 160
Fenuron	94.2		P	30 - 160
Fluridone	77.8		P	30 - 160
Hydrocodone	84.2		P	30 - 160
Ibuprofen	95.3		P	30 - 160
Imazapyr	92.1		P	30 - 160
Imidacloprid	95.7		P	30 - 160
Linuron	72.0		P	30 - 160
Mandestrobin	78.2		P	30 - 160
MCPP	135		P	30 - 160
Methiocarb	58.0		P	40 - 150
Methomyl	103		P	40 - 150
Naproxen	89.5		P	30 - 160
Oxamyl	93.5		P	40 - 150
Primidone	86.4		P	30 - 160
Propoxur	60.7		P	40 - 150
Pyraclostrobin	62.6		P	30 - 160
Thiamethoxam	97.2		P	30 - 160
Tolfenpyrad	45.9		P	30 - 160
Triclopyr	114		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P386582

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.7		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P386667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P386901

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P386725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P386647

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192198	Barium	101		P	80 - 120
2192198	Calcium	99.8		P	80 - 120
2192198	Iron	103		P	80 - 120
2192198	Magnesium	97.7		P	80 - 120
2192198	Potassium	97.7		P	80 - 120
2192198	Sodium	96.6		P	80 - 120
2192198	Zinc	104		P	80 - 120
2192473	Barium	100	102	P/P	80 - 120
2192473	Calcium	102	101	P/P	80 - 120
2192473	Iron	103	103	P/P	80 - 120
2192473	Magnesium	103	102	P/P	80 - 120
2192473	Potassium	104	103	P/P	80 - 120
2192473	Sodium	98.9	99.3	P/P	80 - 120
2192473	Zinc	100	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P386647

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192198	Aluminum	95.6		P	80 - 120
2192198	Antimony	105		P	80 - 120
2192198	Arsenic	110		P	80 - 120
2192198	Boron	99.1		P	80 - 120
2192198	Cadmium	104		P	80 - 120
2192198	Chromium	104		P	80 - 120
2192198	Copper	100		P	80 - 120
2192198	Lead	109		P	80 - 120
2192198	Nickel	104		P	80 - 120
2192198	Selenium	102		P	80 - 120
2192198	Silver	103		P	80 - 120
2192198	Thallium	108		P	80 - 120
2192473	Aluminum	95.2	98.5	P/P	80 - 120
2192473	Antimony	100	101	P/P	80 - 120
2192473	Arsenic	100	102	P/P	80 - 120
2192473	Boron	98.4	102	P/P	80 - 120
2192473	Cadmium	102	104	P/P	80 - 120
2192473	Chromium	103	103	P/P	80 - 120
2192473	Copper	101	102	P/P	80 - 120
2192473	Lead	104	106	P/P	80 - 120
2192473	Nickel	100	101	P/P	80 - 120
2192473	Selenium	97.4	96.2	P/P	80 - 120
2192473	Silver	102	103	P/P	80 - 120
2192473	Thallium	103	107	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387060

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192150	Chloride	98.2		P	90 - 110
2192431	Chloride	99.0		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192150	Sulfate	96.8		P	90 - 110
2192431	Sulfate	96.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192152	Ammonia-N	98.5	97.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192157	Ammonia-N	99.4	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386806

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192157	Kjeldahl Nitrogen	99.7	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386671

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192144	NO2NO3-N	97.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386615

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192127	Total-P	105	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386587

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192121	O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386588

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192209	O-Phosphate-P	91.1	91.9	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P386604

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192191	Acetochlor	78.3	71.1	P/P	68 - 126
2192191	Alachlor	71.0	63.6	P/F	66 - 125
2192191	Azinphos Methyl	148	130	P/P	54 - 162

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P386604

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192191	Bromacil	98.3	89.4	P/P	34 - 144
2192191	Butylate	59.5	41.6	P/P	16 - 92.0
2192191	Carbophenothion	89.8	87.1	P/P	30 - 131
2192191	Chlorpyrifos Ethyl	85.3	88.8	P/P	63 - 124
2192191	Chlorpyrifos Methyl	85.8	85.3	P/P	64 - 125
2192191	Cyanazine	98.9	90.7	P/P	13 - 245
2192191	Demeton	86.5	103	P/P	20 - 154
2192191	Diazinon	88.9	82.7	P/P	66 - 141
2192191	Dimethenamid	81.2	75.4	P/P	50 - 130
2192191	Disulfoton	80.0	73.6	P/P	55 - 130
2192191	Dithiopyr	78.6	72.8	P/P	66 - 122
2192191	EPTC	51.6	46.7	P/P	15 - 93.0
2192191	Ethion	88.6	79.4	P/P	15 - 148
2192191	Ethoprop	83.5	80.8	P/P	59 - 126
2192191	Fenamiphos	75.0	76.5	P/P	39 - 137
2192191	Fipronil	103	95.4	P/P	47 - 131
2192191	Fipronil Desulfinyl	93.7	86.0	P/P	43 - 121
2192191	Fipronil Sulfide	96.7	97.5	P/P	29 - 134
2192191	Fipronil Sulfone	115	110	P/P	19 - 131
2192191	Flumioxazin	188	187	P/P	10 - 300
2192191	Fonofos	81.8	77.3	P/P	62 - 128
2192191	Hexazinone	89.1	94.2	P/P	58 - 154
2192191	Imazalil	58.0	53.4	P/P	10 - 215
2192191	Malathion	95.2	92.6	P/P	54 - 135
2192191	Metalaxyl	85.0	77.6	P/P	46 - 136
2192191	Metribuzin	118	118	P/P	44 - 277
2192191	Mevinphos	77.4	79.5	P/P	44 - 135
2192191	Molinate	68.4	65.3	P/P	31 - 104
2192191	Naled	64.0	55.9	P/P	33 - 113
2192191	Norflurazon	78.8	74.1	P/P	32 - 134
2192191	Oxadiazon	75.6	66.9	P/P	55 - 123
2192191	Parathion Ethyl	86.8	93.8	P/P	67 - 120
2192191	Parathion Methyl	93.4	92.1	P/P	70 - 140
2192191	Pendimethalin	109	110	P/P	59 - 145
2192191	Phorate	89.6	99.9	P/P	52 - 127
2192191	Prodiamine	134	93.3	P/P	11 - 157
2192191	Prometon	79.6	77.4	P/P	55 - 130
2192191	Prometryn	89.0	81.8	P/P	55 - 127
2192191	Pronamide	81.4	85.3	P/P	66 - 150
2192191	Propiconazole	94.3	81.0	P/P	14 - 178
2192191	Tebuconazole	31.1	41.8	P/P	10 - 122
2192191	Terbufos	90.8	89.1	P/P	65 - 131
2192191	Terbuthylazine	88.9	80.2	P/P	63 - 131

Reference Method: EPA 8270E
Batch ID: P386636

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193123	Aldrin	52.1	50.9	P/P	32 - 82.0
2193123	Alpha-BHC	78.9	78.1	P/P	68 - 157
2193123	Alpha-Chlordane	80.5	79.2	P/P	54 - 108
2193123	Beta-BHC	88.3	89.1	P/P	54 - 200

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P386636

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193123	Beta-Cyfluthrin	82.1	79.5	P/P	50 - 154
2193123	Bifenthrin	87.8	87.6	P/P	49 - 124
2193123	Chlorothalonil	58.0	58.3	P/P	10 - 289
2193123	Cis-Nonachlor	85.1	83.4	P/P	53 - 112
2193123	Cypermethrin	89.9	89.8	P/P	43 - 141
2193123	Dacthal	86.2	84.6	P/P	75 - 112
2193123	DDD-p,p'	86.9	86.6	P/P	58 - 125
2193123	DDE-p,p'	80.5	80.1	P/P	50 - 108
2193123	DDT-p,p'	80.2	81.2	P/P	52 - 140
2193123	Delta-BHC	111	111	P/P	61 - 228
2193123	Deltamethrin	104	105	P/P	50 - 200
2193123	Dicofol	94.9	93.7	P/P	59 - 130
2193123	Dieldrin	83.0	83.1	P/P	57 - 121
2193123	Endosulfan I	81.4	82.1	P/P	62 - 123
2193123	Endosulfan II	87.0	93.8	P/P	48 - 163
2193123	Endosulfan Sulfate	86.9	84.4	P/P	63 - 132
2193123	Endrin	81.6	81.7	P/P	58 - 128
2193123	Endrin Aldehyde	92.6	87.5	P/P	44 - 126
2193123	Endrin Ketone	83.9	83.8	P/P	68 - 127
2193123	Ethalfuralin	72.4	75.1	P/P	55 - 131
2193123	Gamma-BHC	87.9	88.0	P/P	54 - 206
2193123	Gamma-Chlordane	78.3	76.8	P/P	52 - 105
2193123	Heptachlor	69.1	67.9	P/P	47 - 94.0
2193123	Heptachlor Epoxide	81.8	80.5	P/P	61 - 113
2193123	Hexachlorobenzene	66.4	67.3	P/P	45 - 100
2193123	Lambda-Cyhalothrin	81.9	81.3	P/P	37 - 165
2193123	Methoxychlor	77.0	76.7	P/P	63 - 153
2193123	Mirex	68.4	68.5	P/P	38 - 90.0
2193123	Permethrin	82.1	82.1	P/P	45 - 112
2193123	Phenothrin	61.7	61.9	P/P	22 - 118
2193123	Prallethrin	55.1	52.1	P/P	21 - 114
2193123	Trans-Nonachlor	80.0	77.8	P/P	50 - 103
2193123	Trifluralin	73.8	74.4	P/P	57 - 122

Reference Method: EPA 8276
Batch ID: P386636

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2193099	Chlordane	90.9	94.9	P/P	34 - 129
2193099	Toxaphene	95.1	103	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P386539

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192007	Acesulfame K	31.4	31.9	F/F	40 - 150
2192007	AMPA	85.1	88.8	P/P	40 - 150
2192007	Endothall	114	101	P/P	40 - 150
2192007	Glufosinate	85.9	89.9	P/P	40 - 150
2192007	Glyphosate	74.3	81.8	P/P	40 - 140
2192007	Sucralose	41.7	70.3	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P386554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191680	3-Hydroxycarbofuran	52.9	56.1	P/P	40 - 150
2191680	Aldicarb	58.6	50.4	P/P	30 - 150
2191680	Aldicarb Sulfone	65.5	73.1	P/P	40 - 150
2191680	Aldicarb Sulfoxide	36.6	40.7	F/P	40 - 150
2191680	Carbaryl	46.5	47.7	P/P	40 - 150
2191680	Carbofuran	41.9	43.6	P/P	40 - 150
2191680	Methiocarb	50.0	51.6	P/P	40 - 150
2191680	Methomyl	67.4	71.0	P/P	40 - 150
2191680	Oxamyl	65.1	74.7	P/P	40 - 150
2191680	Propoxur	42.0	42.2	P/P	40 - 150
2191761	2,4-D	121	128	P/P	30 - 160
2191761	Acetaminophen	103	106	P/P	30 - 160
2191761	Acetamiprid	83.4	85.8	P/P	30 - 160
2191761	Afidopyropen	55.4	56.4	P/P	30 - 160
2191761	Bentazon	70.3	81.2	P/P	30 - 160
2191761	Benzovindiflupyr	73.1	73.1	P/P	30 - 160
2191761	Carbamazepine	59.1	60.4	P/P	30 - 160
2191761	Clothianidin	95.7	92.8	P/P	30 - 160
2191761	Dinotefuran	112	113	P/P	30 - 160
2191761	Diuron	60.4	64.9	P/P	30 - 160
2191761	Fenuron	86.6	90.1	P/P	30 - 160
2191761	Fluridone	78.0	73.2	P/P	30 - 160
2191761	Hydrocodone	88.7	90.3	P/P	30 - 160
2191761	Ibuprofen	75.0	88.3	P/P	30 - 160
2191761	Imazapyr	103	132	P/P	30 - 160
2191761	Imidacloprid	142	132	P/P	30 - 160
2191761	Linuron	69.0	70.5	P/P	30 - 160
2191761	Mandestrobin	75.3	76.5	P/P	30 - 160
2191761	MCPP	134	132	P/P	30 - 160
2191761	Naproxen	89.4	76.4	P/P	30 - 160
2191761	Primidone	107	108	P/P	30 - 160
2191761	Pyraclostrobin	62.4	61.4	P/P	30 - 160
2191761	Thiamethoxam	128	127	P/P	30 - 160
2191761	Tolfenpyrad	47.8	58.3	P/P	30 - 160
2191761	Triclopyr	103	120	P/P	30 - 160

Reference Method: SM 5310 B-2011
Batch ID: P386725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192127	Organic Carbon	91.6	93.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P386580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192207	Turbidity	4.48	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P386647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192473	Barium	2.02	Spike	P	0 - 20
2192473	Calcium	1.18	Spike	P	0 - 20
2192473	Iron	0.717	Spike	P	0 - 20
2192473	Magnesium	0.274	Spike	P	0 - 20
2192473	Potassium	0.726	Spike	P	0 - 20
2192473	Sodium	0.291	Spike	P	0 - 20
2192473	Zinc	2.09	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P386647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192473	Aluminum	3.17	Spike	P	0 - 20
2192473	Antimony	1.25	Spike	P	0 - 20
2192473	Arsenic	1.54	Spike	P	0 - 20
2192473	Boron	2.88	Spike	P	0 - 20
2192473	Cadmium	1.38	Spike	P	0 - 20
2192473	Chromium	0.666	Spike	P	0 - 20
2192473	Copper	1.36	Spike	P	0 - 20
2192473	Lead	1.95	Spike	P	0 - 20
2192473	Nickel	1.22	Spike	P	0 - 20
2192473	Selenium	1.28	Spike	P	0 - 20
2192473	Silver	0.911	Spike	P	0 - 20
2192473	Thallium	3.60	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387060

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192150	Chloride	0.0899	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192150	Sulfate	0.458	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192152	Ammonia-N	0.614	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192157	Ammonia-N	1.35	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386806

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192157	Kjeldahl Nitrogen	0.862	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386671

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192144	NO2NO3-N	0.207	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386615

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192127	Total-P	2.76	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386587

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192121	O-Phosphate-P	0.938	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192209	O-Phosphate-P	0.874	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P386604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192191	Acetochlor	9.55	Spike	P	0 - 30
2192191	Alachlor	11.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P386604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192191	Ametryn	3.61	Spike	P	0 - 30
2192191	Atrazine	22.0	Spike	P	0 - 30
2192191	Atrazine Desethyl	10.8	Spike	P	0 - 30
2192191	Azinphos Methyl	12.8	Spike	P	0 - 30
2192191	Bromacil	9.47	Spike	P	0 - 30
2192191	Butylate	35.5	Spike	F	0 - 30
2192191	Carbophenothion	3.02	Spike	P	0 - 30
2192191	Chlorpyrifos Ethyl	4.11	Spike	P	0 - 30
2192191	Chlorpyrifos Methyl	0.679	Spike	P	0 - 30
2192191	Cyanazine	8.65	Spike	P	0 - 30
2192191	Demeton	17.0	Spike	P	0 - 30
2192191	Diazinon	7.17	Spike	P	0 - 30
2192191	Dimethenamid	7.49	Spike	P	0 - 30
2192191	Disulfoton	8.24	Spike	P	0 - 30
2192191	Dithiopyr	7.25	Spike	P	0 - 30
2192191	EPTC	9.94	Spike	P	0 - 30
2192191	Ethion	11.0	Spike	P	0 - 30
2192191	Ethoprop	3.36	Spike	P	0 - 30
2192191	Fenamiphos	2.03	Spike	P	0 - 30
2192191	Fipronil	7.61	Spike	P	0 - 30
2192191	Fipronil Desulfinyl	6.48	Spike	P	0 - 30
2192191	Fipronil Sulfide	0.656	Spike	P	0 - 30
2192191	Fipronil Sulfone	1.96	Spike	P	0 - 30
2192191	Flumioxazin	0.601	Spike	P	0 - 30
2192191	Fonofos	5.73	Spike	P	0 - 30
2192191	Hexazinone	5.03	Spike	P	0 - 30
2192191	Imazalil	8.20	Spike	P	0 - 30
2192191	Malathion	2.72	Spike	P	0 - 30
2192191	Metalaxyl	9.16	Spike	P	0 - 30
2192191	Metolachlor	8.14	Spike	P	0 - 30
2192191	Metribuzin	0.344	Spike	P	0 - 30
2192191	Mevinphos	2.67	Spike	P	0 - 30
2192191	Molinate	4.73	Spike	P	0 - 30
2192191	Naled	13.4	Spike	P	0 - 30
2192191	Norflurazon	6.09	Spike	P	0 - 30
2192191	Oxadiazon	8.55	Spike	P	0 - 30
2192191	Parathion Ethyl	7.81	Spike	P	0 - 30
2192191	Parathion Methyl	1.40	Spike	P	0 - 30
2192191	Pendimethalin	0.634	Spike	P	0 - 30
2192191	Phorate	11.0	Spike	P	0 - 30
2192191	Prodiamine	36.2	Spike	F	0 - 30
2192191	Prometon	2.78	Spike	P	0 - 30
2192191	Prometryn	8.38	Spike	P	0 - 30
2192191	Pronamide	4.63	Spike	P	0 - 30
2192191	Propiconazole	12.3	Spike	P	0 - 30
2192191	Simazine	7.45	Spike	P	0 - 30
2192191	Sulfentrazone	1.33	Spike	P	0 - 30
2192191	Tebuconazole	29.6	Spike	P	0 - 30
2192191	Terbufos	1.86	Spike	P	0 - 30
2192191	Terbuthylazine	10.3	Spike	P	0 - 30
LFB	Acetochlor	9.71	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
 Batch ID: P386604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Alachlor	5.82	LCS	P	0 - 30
LFB	Ametryn	21.5	LCS	P	0 - 30
LFB	Atrazine	9.48	LCS	P	0 - 30
LFB	Atrazine Desethyl	8.34	LCS	P	0 - 30
LFB	Azinphos Methyl	5.09	LCS	P	0 - 30
LFB	Bromacil	8.87	LCS	P	0 - 30
LFB	Butylate	11.3	LCS	P	0 - 30
LFB	Carbophenothion	4.00	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	6.01	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	8.67	LCS	P	0 - 30
LFB	Cyanazine	3.99	LCS	P	0 - 30
LFB	Demeton	0.558	LCS	P	0 - 30
LFB	Diazinon	7.17	LCS	P	0 - 30
LFB	Dimethenamid	9.60	LCS	P	0 - 30
LFB	Disulfoton	3.42	LCS	P	0 - 30
LFB	Dithiopyr	7.58	LCS	P	0 - 30
LFB	EPTC	10.4	LCS	P	0 - 30
LFB	Ethion	3.54	LCS	P	0 - 30
LFB	Ethoprop	3.84	LCS	P	0 - 30
LFB	Fenamiphos	3.90	LCS	P	0 - 30
LFB	Fipronil	8.38	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	8.64	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.17	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.74	LCS	P	0 - 30
LFB	Flumioxazin	9.35	LCS	P	0 - 30
LFB	Fonofos	1.18	LCS	P	0 - 30
LFB	Hexazinone	6.20	LCS	P	0 - 30
LFB	Imazalil	20.3	LCS	P	0 - 30
LFB	Malathion	2.07	LCS	P	0 - 30
LFB	Metalaxyl	6.82	LCS	P	0 - 30
LFB	Metolachlor	7.44	LCS	P	0 - 30
LFB	Metribuzin	6.08	LCS	P	0 - 30
LFB	Mevinphos	9.73	LCS	P	0 - 30
LFB	Molinate	5.31	LCS	P	0 - 30
LFB	Naled	6.41	LCS	P	0 - 30
LFB	Norflurazon	11.6	LCS	P	0 - 30
LFB	Oxadiazon	8.70	LCS	P	0 - 30
LFB	Parathion Ethyl	0.720	LCS	P	0 - 30
LFB	Parathion Methyl	8.51	LCS	P	0 - 30
LFB	Pendimethalin	2.27	LCS	P	0 - 30
LFB	Phorate	4.15	LCS	P	0 - 30
LFB	Prodiamine	10.0	LCS	P	0 - 30
LFB	Prometon	16.6	LCS	P	0 - 30
LFB	Prometryn	11.6	LCS	P	0 - 30
LFB	Pronamide	25.4	LCS	P	0 - 30
LFB	Propiconazole	9.93	LCS	P	0 - 30
LFB	Simazine	14.7	LCS	P	0 - 30
LFB	Sulfentrazone	6.75	LCS	P	0 - 30
LFB	Tebuconazole	7.79	LCS	P	0 - 30
LFB	Terbufos	4.34	LCS	P	0 - 30
LFB	Terbutylazine	5.03	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E
Batch ID: P386636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193123	Aldrin	2.28	Spike	P	0 - 30
2193123	Alpha-BHC	0.993	Spike	P	0 - 30
2193123	Alpha-Chlordane	1.65	Spike	P	0 - 30
2193123	Beta-BHC	0.855	Spike	P	0 - 30
2193123	Beta-Cyfluthrin	3.29	Spike	P	0 - 30
2193123	Bifenthrin	0.264	Spike	P	0 - 30
2193123	Chlorothalonil	0.572	Spike	P	0 - 30
2193123	Cis-Nonachlor	2.02	Spike	P	0 - 30
2193123	Cypermethrin	0.116	Spike	P	0 - 30
2193123	Dacthal	1.84	Spike	P	0 - 30
2193123	DDD-p,p'	0.405	Spike	P	0 - 30
2193123	DDE-p,p'	0.564	Spike	P	0 - 30
2193123	DDT-p,p'	1.19	Spike	P	0 - 30
2193123	Delta-BHC	0.149	Spike	P	0 - 30
2193123	Deltamethrin	1.12	Spike	P	0 - 30
2193123	Dicofol	1.34	Spike	P	0 - 30
2193123	Dieldrin	0.0275	Spike	P	0 - 30
2193123	Endosulfan I	0.885	Spike	P	0 - 30
2193123	Endosulfan II	7.53	Spike	P	0 - 30
2193123	Endosulfan Sulfate	2.94	Spike	P	0 - 30
2193123	Endrin	0.231	Spike	P	0 - 30
2193123	Endrin Aldehyde	5.62	Spike	P	0 - 30
2193123	Endrin Ketone	0.111	Spike	P	0 - 30
2193123	Ethalfuralin	3.68	Spike	P	0 - 30
2193123	Gamma-BHC	0.183	Spike	P	0 - 30
2193123	Gamma-Chlordane	1.94	Spike	P	0 - 30
2193123	Heptachlor	1.67	Spike	P	0 - 30
2193123	Heptachlor Epoxide	1.54	Spike	P	0 - 30
2193123	Hexachlorobenzene	1.46	Spike	P	0 - 30
2193123	Lambda-Cyhalothrin	0.748	Spike	P	0 - 30
2193123	Methoxychlor	0.505	Spike	P	0 - 30
2193123	Mirex	0.147	Spike	P	0 - 30
2193123	Permethrin	0.0103	Spike	P	0 - 30
2193123	Phenothrin	0.264	Spike	P	0 - 30
2193123	Prallethrin	5.44	Spike	P	0 - 30
2193123	Trans-Nonachlor	2.77	Spike	P	0 - 30
2193123	Trifluralin	0.739	Spike	P	0 - 30
LFB	Aldrin	0.0131	LCS	P	0 - 30
LFB	Alpha-BHC	1.88	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.39	LCS	P	0 - 30
LFB	Beta-BHC	1.68	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	1.88	LCS	P	0 - 30
LFB	Bifenthrin	0.0773	LCS	P	0 - 30
LFB	Chlorothalonil	7.74	LCS	P	0 - 30
LFB	Cis-Nonachlor	2.09	LCS	P	0 - 30
LFB	Cypermethrin	3.76	LCS	P	0 - 30
LFB	Dacthal	1.56	LCS	P	0 - 30
LFB	DDD-p,p'	1.66	LCS	P	0 - 30
LFB	DDE-p,p'	0.0658	LCS	P	0 - 30
LFB	DDT-p,p'	0.853	LCS	P	0 - 30
LFB	Delta-BHC	5.58	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P386636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Deltamethrin	1.77	LCS	P	0 - 30
LFB	Dicofol	3.43	LCS	P	0 - 30
LFB	Dieldrin	1.44	LCS	P	0 - 30
LFB	Endosulfan I	2.54	LCS	P	0 - 30
LFB	Endosulfan II	0.0736	LCS	P	0 - 30
LFB	Endosulfan Sulfate	5.57	LCS	P	0 - 30
LFB	Endrin	7.37	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.91	LCS	P	0 - 30
LFB	Endrin Ketone	0.487	LCS	P	0 - 30
LFB	Ethalfuralin	0.428	LCS	P	0 - 30
LFB	Gamma-BHC	3.34	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.25	LCS	P	0 - 30
LFB	Heptachlor	3.29	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.00	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.68	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	3.10	LCS	P	0 - 30
LFB	Methoxychlor	1.22	LCS	P	0 - 30
LFB	Mirex	0.493	LCS	P	0 - 30
LFB	Permethrin	0.892	LCS	P	0 - 30
LFB	Phenothrin	0.505	LCS	P	0 - 30
LFB	Prallethrin	2.10	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.06	LCS	P	0 - 30
LFB	Trifluralin	0.681	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P386636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2193099	Chlordane	4.34	Spike	P	0 - 30
2193099	Toxaphene	7.63	Spike	P	0 - 30
LFB	Chlordane	1.31	LCS	P	0 - 30
LFB	Toxaphene	3.59	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P386539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192007	Acesulfame K	1.69	Spike	P	0 - 30
2192007	AMPA	3.43	Spike	P	0 - 30
2192007	Endothall	12.2	Spike	P	0 - 30
2192007	Glufosinate	4.58	Spike	P	0 - 30
2192007	Glyphosate	5.36	Spike	P	0 - 30
2192007	Sucralose	38.6	Spike	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P386554

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: P386554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191680	3-Hydroxycarbofuran	5.82	Spike	P	0 - 30
2191680	Aldicarb	14.9	Spike	P	0 - 30
2191680	Aldicarb Sulfone	10.9	Spike	P	0 - 30
2191680	Aldicarb Sulfoxide	10.6	Spike	P	0 - 30
2191680	Carbaryl	2.54	Spike	P	0 - 30
2191680	Carbofuran	3.93	Spike	P	0 - 30
2191680	Methiocarb	3.26	Spike	P	0 - 30
2191680	Methomyl	5.23	Spike	P	0 - 30
2191680	Oxamyl	9.93	Spike	P	0 - 30
2191680	Propoxur	0.505	Spike	P	0 - 30
2191761	2,4-D	5.72	Spike	P	0 - 30
2191761	Acetaminophen	3.22	Spike	P	0 - 30
2191761	Acetamiprid	2.87	Spike	P	0 - 30
2191761	Afidopyropen	1.87	Spike	P	0 - 30
2191761	Bentazon	14.5	Spike	P	0 - 30
2191761	Benzovindiflupyr	0.00820	Spike	P	0 - 30
2191761	Carbamazepine	2.21	Spike	P	0 - 30
2191761	Clothianidin	3.07	Spike	P	0 - 30
2191761	Dinotefuran	0.801	Spike	P	0 - 30
2191761	Diuron	7.21	Spike	P	0 - 30
2191761	Fenuron	3.97	Spike	P	0 - 30
2191761	Fluridone	5.15	Spike	P	0 - 30
2191761	Hydrocodone	1.83	Spike	P	0 - 30
2191761	Ibuprofen	16.3	Spike	P	0 - 30
2191761	Imazapyr	25.2	Spike	P	0 - 30
2191761	Imidacloprid	6.80	Spike	P	0 - 30
2191761	Linuron	2.18	Spike	P	0 - 30
2191761	Mandestrobin	1.53	Spike	P	0 - 30
2191761	MCP	1.37	Spike	P	0 - 30
2191761	Naproxen	15.7	Spike	P	0 - 30
2191761	Primidone	0.789	Spike	P	0 - 30
2191761	Pyraclostrobin	1.70	Spike	P	0 - 30
2191761	Thiamethoxam	0.828	Spike	P	0 - 30
2191761	Tolfenpyrad	19.6	Spike	P	0 - 30
2191761	Triclopyr	14.8	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P386667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192072	Total Alkalinity	0.538	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P386994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192073	TDS	4.83	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P386901

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192072	Fluoride	1.37	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P386725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192127	Organic Carbon	0.891	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2192178
Field Sample ID: G1SW0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	35.6	P	30 - 160

Lab Sample ID: 2192179
Field Sample ID: G1SW0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	68.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	48.2	P	30 - 160
EPA 8321B	Diuron-d6	53.7	P	30 - 160
EPA 8321B	Endothall-d6	97.4	P	30 - 160
EPA 8321B	Endothall-d6	97.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	94.7	P	30 - 160
EPA 8321B	Primidone-d5	81.3	P	30 - 160
EPA 8321B	Sucralose-d6	80.3	P	30 - 160
EPA 8321B	Sucralose-d6	80.3	P	30 - 160

Lab Sample ID: 2192184
Field Sample ID: G1SW0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	81.9	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	53.0	P	34 - 106
EPA 8276	Decachlorobiphenyl	57.1	P	26 - 97.0
EPA 8276	PCNB	83.9	P	38 - 141

Lab Sample ID: 2192185
Field Sample ID: G1SW0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	91.8	P	72 - 135
EPA 8270E	Terbufos-d10	102	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A100660

Included Lab Sample IDs: 2192150, 2192151, 2192156

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

Reference Method: SM 2120 B-2011

Run ID: A100661

Included Lab Sample IDs: 2192150, 2192151, 2192156

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.9	100	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A100663

Included Lab Sample IDs: 2192154, 2192155, 2192158

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.0	95.7	P/P	90 - 110
O-Phosphate-P	96.9	96.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100670

Included Lab Sample IDs: 2192179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.2	95.2	P/P	60 - 160
Glufosinate	93.0	90.5	P/P	60 - 160
Glyphosate	87.0	85.4	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A100671

Included Lab Sample IDs: 2192179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	84.0	71.8	P/P	60 - 160
Endothall	102	97.2	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A100697

Included Lab Sample IDs: 2192150, 2192151, 2192156

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.3	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A100698

Included Lab Sample IDs: 2192152, 2192153, 2192157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	104	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8321B

Run ID: A100703

Included Lab Sample IDs: 2192179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	97.3	104	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A100718

Included Lab Sample IDs: 2192152, 2192153, 2192157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.2	93.6	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A100733

Included Lab Sample IDs: 2192198

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	97.8	P/P	90 - 110
Calcium	99.8	97.0	P/P	90 - 110
Iron	101	98.1	P/P	90 - 110
Magnesium	99.8	96.9	P/P	90 - 110
Potassium	98.5	95.7	P/P	90 - 110
Sodium	98.7	95.9	P/P	90 - 110
Zinc	102	97.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100758

Included Lab Sample IDs: 2192179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	115	141	P/P	50 - 150
3-Hydroxycarbofuran	108	107	P/P	60 - 150
Acetaminophen	125	124	P/P	60 - 160
Acetamiprid	127	126	P/P	50 - 150
Afidopyropen	94.8	96.8	P/P	50 - 150
Aldicarb	96.8	101	P/P	60 - 150
Aldicarb Sulfone	114	116	P/P	50 - 150
Aldicarb Sulfoxide	115	112	P/P	50 - 150
Benzovindiflupyr	122	121	P/P	50 - 150
Carbamazepine	112	111	P/P	60 - 150
Carbaryl	104	117	P/P	60 - 150
Carbofuran	112	117	P/P	50 - 150
Clothianidin	109	112	P/P	60 - 150
Dinotefuran	111	108	P/P	50 - 150
Diuron	112	111	P/P	60 - 160
Fenuron	129	128	P/P	60 - 150
Hydrocodone	118	120	P/P	60 - 150
Ibuprofen	71.1	119	P/P	50 - 160
Imidacloprid	115	112	P/P	60 - 150
Linuron	124	116	P/P	60 - 150
Mandestrobin	127	120	P/P	50 - 150
MCPP	140	132	P/P	50 - 150
Methiocarb	113	114	P/P	50 - 150
Methomyl	114	119	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A100758

Included Lab Sample IDs: 2192179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naproxen	138	65.1	P/P	50 - 160
Oxamyl	118	118	P/P	50 - 150
Primidone	124	120	P/P	60 - 150
Propoxur	111	115	P/P	50 - 150
Pyraclostrobin	119	116	P/P	60 - 150
Thiamethoxam	131	133	P/P	50 - 150
Tolfenpyrad	115	119	P/P	60 - 150
Triclopyr	118	126	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A100762

Included Lab Sample IDs: 2192198

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.6	100	P/P	90 - 110
Antimony	102	103	P/P	90 - 110
Arsenic	103	102	P/P	90 - 110
Boron	97.3	101	P/P	90 - 110
Cadmium	99.9	101	P/P	90 - 110
Chromium	97.9	100	P/P	90 - 110
Copper	98.8	98.9	P/P	90 - 110
Lead	104	104	P/P	90 - 110
Nickel	98.5	99.7	P/P	90 - 110
Selenium	101	101	P/P	90 - 110
Silver	103	104	P/P	90 - 110
Thallium	99.7	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A100780

Included Lab Sample IDs: 2192152, 2192153, 2192157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	94.1	P/P	90 - 110
Kjeldahl Nitrogen	94.1	96.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100781

Included Lab Sample IDs: 2192179

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	129	158	P/P	50 - 160
Fluridone	110	110	P/P	60 - 160
Imazapyr	111	138	P/P	50 - 160

Reference Method: EPA 8276

Run ID: A100791

Included Lab Sample IDs: 2192184

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	89.2		P	80 - 120
Toxaphene	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A100799

Included Lab Sample IDs: 2192152, 2192153, 2192157

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

Reference Method: SM 4500 F-C-2011

Run ID: A100801

Included Lab Sample IDs: 2192150, 2192151, 2192156

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

Reference Method: EPA 8270E

Run ID: A100804

Included Lab Sample IDs: 2192184

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.8		P	80 - 120
Alpha-BHC	99.8		P	80 - 120
Alpha-Chlordane	98.1		P	80 - 120
Beta-BHC	84.2		P	80 - 120
Beta-Cyfluthrin	87.6		P	80 - 120
Bifenthrin	97.9		P	80 - 120
Chlorothalonil	111		P	80 - 120
Cis-Nonachlor	96.2		P	80 - 120
Cypermethrin	93.2		P	80 - 120
Dacthal	98.0		P	80 - 120
DDD-p,p'	97.7		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	106		P	80 - 120
Delta-BHC	98.5		P	80 - 120
Deltamethrin	103		P	80 - 120
Dicofol	104		P	80 - 120
Dieldrin	104		P	80 - 120
Endosulfan I	98.2		P	80 - 120
Endosulfan II	87.3		P	80 - 120
Endosulfan Sulfate	100		P	80 - 120
Endrin	92.8		P	80 - 120
Endrin Aldehyde	108		P	80 - 120
Endrin Ketone	94.8		P	80 - 120
Ethalfuralin	101		P	80 - 120
Gamma-BHC	93.1		P	80 - 120
Gamma-Chlordane	97.6		P	80 - 120
Heptachlor	98.6		P	80 - 120
Heptachlor Epoxide	98.9		P	80 - 120
Hexachlorobenzene	96.9		P	80 - 120
Lambda-Cyhalothrin	85.8		P	80 - 120
Methoxychlor	99.6		P	80 - 120
Mirex	98.8		P	80 - 120
Permethrin	92.1		P	80 - 120
Phenothrin	90.7		P	80 - 120
Prallethrin	87.8		P	80 - 120
Trans-Nonachlor	98.0		P	80 - 120
Trifluralin	98.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A100832

Included Lab Sample IDs: 2192152, 2192153, 2192157

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	101	P/P	90 - 110
Ammonia-N	98.9	99.6	P/P	90 - 110
Ammonia-N	99.1	98.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100843

Included Lab Sample IDs: 2192150, 2192151, 2192156

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

Reference Method: EPA 8270E

Run ID: A100919

Included Lab Sample IDs: 2192185

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.5		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine Desethyl	96.1		P	80 - 120
Azinphos Methyl	102		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	92.9		P	80 - 120
Carbophenothion	100		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	99.4		P	80 - 120
Cyanazine	97.3		P	80 - 120
Demeton	95.1		P	80 - 120
Diazinon	96.8		P	80 - 120
Dimethenamid	98.7		P	80 - 120
Disulfoton	96.3		P	80 - 120
Dithiopyr	99.5		P	80 - 120
EPTC	94.5		P	80 - 120
Ethion	100		P	80 - 120
Ethoprop	99.2		P	80 - 120
Fenamiphos	106		P	80 - 120
Fipronil	99.6		P	80 - 120
Fipronil Desulfinyl	100		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fipronil Sulfone	97.3		P	80 - 120
Flumioxazin	93.4		P	80 - 120
Fonofos	96.4		P	80 - 120
Hexazinone	107		P	80 - 120
Imazalil	108		P	80 - 120
Malathion	100		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	96.7		P	80 - 120
Metribuzin	97.0		P	80 - 120
Mevinphos	97.1		P	80 - 120
Molinate	94.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A100919
 Included Lab Sample IDs: 2192185

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naled	92.8		P	80 - 120
Norflurazon	98.7		P	80 - 120
Oxadiazon	97.7		P	80 - 120
Parathion Ethyl	92.5		P	80 - 120
Parathion Methyl	103		P	80 - 120
Pendimethalin	92.7		P	80 - 120
Phorate	99.8		P	80 - 120
Prodiamine	90.7		P	80 - 120
Prometon	97.1		P	80 - 120
Prometryn	98.1		P	80 - 120
Pronamide	99.4		P	80 - 120
Propiconazole	99.5		P	80 - 120
Simazine	113		P	80 - 120
Sulfentrazone	101		P	80 - 120
Tebuconazole	99.4		P	80 - 120
Terbufos	98.8		P	80 - 120
Terbuthylazine	99.8		P	80 - 120

Reference Method: EPA 8270E
 Run ID: A100924
 Included Lab Sample IDs: 2192185

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	98.0		P	80 - 120

* 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						4.48	
EPA 200.7 Rev. 4.4	Barium	102		101	100	102		2.02
	Calcium	101		99.8	102	101		1.18
	Iron	101		103	103	103		0.717
	Magnesium	100		97.7	103	102		0.274
	Potassium	98.4		97.7	104	103		0.726
	Sodium	98.3		96.6	98.9	99.3		0.291
	Zinc	102		104	100	102		2.09
EPA 200.8 Rev. 5.4	Aluminum	96.9		95.6	95.2	98.5		3.17
	Antimony	100		105	100	101		1.25
	Arsenic	105		110	100	102		1.54
	Boron	100		99.1	98.4	102		2.88
	Cadmium	101		104	102	104		1.38
	Chromium	103		104	103	103		0.666
	Copper	100		100	101	102		1.36
	Lead	104		109	104	106		1.95
	Nickel	101		104	100	101		1.22
	Selenium	100		102	97.4	96.2		1.28
	Silver	104		103	102	103		0.911
	Thallium	104		108	103	107		3.60
EPA 300.0 Rev. 2.1	Chloride	97.7		98.2	99.0		0.0899	
	Sulfate	96.4		96.8	96.9		0.458	
EPA 350.1 Rev. 2.0	Ammonia-N	99.5		98.5	97.8			0.614
	Ammonia-N	99.9		99.4	101			1.35
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107		99.7	101			0.862
EPA 353.2 Rev. 2.0	NO2NO3-N	102		97.8				0.207
EPA 365.1 Rev. 2.0	Total-P	108		105	108			2.76
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		102	102			0.938
	O-Phosphate-P	98.9		91.1	91.9			0.874
EPA 8270E	Acetochlor	85.5	94.2	78.3	71.1	9.71		9.55
	Alachlor	87.7	93.0	71.0	63.6	5.82		11.0
	Aldrin	52.2	52.2	52.1	50.9	0.0131		2.28
	Alpha-BHC	82.2	80.7	78.9	78.1	1.88		0.993
	Alpha-Chlordane	86.1	84.0	80.5	79.2	2.39		1.65
	Ametryn	93.1	116			21.5		3.61
	Atrazine	94.5	104			9.48		22.0
	Atrazine Desethyl	89.9	97.7			8.34		10.8
	Azinphos Methyl	104	109	148	130	5.09		12.8
	Beta-BHC	106	104	88.3	89.1	1.68		0.855
	Beta-Cyfluthrin	75.9	74.5	82.1	79.5	1.88		3.29
	Bifenthrin	86.1	86.0	87.8	87.6	0.0773		0.264
	Bromacil	91.4	99.9	98.3	89.4	8.87		9.47
	Butylate	43.7	49.0	59.5	41.6	11.3		35.5
	Carbophenothion	100	104	89.8	87.1	4.00		3.02
	Chlorothalonil	50.8	47.0	58.0	58.3	7.74		0.572
	Chlorpyrifos Ethyl	90.1	95.7	85.3	88.8	6.01		4.11
	Chlorpyrifos Methyl	81.0	88.3	85.8	85.3	8.67		0.679
	Cis-Nonachlor	91.3	89.4	85.1	83.4	2.09		2.02
	Cyanazine	101	96.6	98.9	90.7	3.99		8.65
	Cypermethrin	94.7	91.2	89.9	89.8	3.76		0.116
	Dacthal	93.5	92.1	86.2	84.6	1.56		1.84
	DDD-p,p'	94.9	93.4	86.9	86.6	1.66		0.405
	DDE-p,p'	83.6	83.6	80.5	80.1	0.0658		0.564
	DDT-p,p'	83.0	82.2	80.2	81.2	0.853		1.19

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Delta-BHC	118	112	111	111	5.58		0.149
	Deltamethrin	103	101	104	105	1.77		1.12
	Demeton	73.9	73.5	86.5	103	0.558		17.0
	Diazinon	87.3	93.8	88.9	82.7	7.17		7.17
	Dicofol	95.6	98.9	94.9	93.7	3.43		1.34
	Dieldrin	88.1	89.4	83.0	83.1	1.44		0.0275
	Dimethenamid	86.4	95.1	81.2	75.4	9.60		7.49
	Disulfoton	74.8	72.3	80.0	73.6	3.42		8.24
	Dithiopyr	91.3	98.5	78.6	72.8	7.58		7.25
	Endosulfan I	86.3	84.2	81.4	82.1	2.54		0.885
	Endosulfan II	103	103	87.0	93.8	0.0736		7.53
	Endosulfan Sulfate	94.2	89.1	86.9	84.4	5.57		2.94
	Endrin	82.7	76.8	81.6	81.7	7.37		0.231
	Endrin Aldehyde	114	112	92.6	87.5	1.91		5.62
	Endrin Ketone	91.5	91.0	83.9	83.8	0.487		0.111
	EPTC	44.3	49.1	51.6	46.7	10.4		9.94
	Ethalfuralin	76.2	76.5	72.4	75.1	0.428		3.68
	Ethion	102	106	88.6	79.4	3.54		11.0
	Ethoprop	75.3	72.4	83.5	80.8	3.84		3.36
	Fenamiphos	96.6	92.9	75.0	76.5	3.90		2.03
	Fipronil	95.8	104	103	95.4	8.38		7.61
	Fipronil Desulfinyl	97.1	106	93.7	86.0	8.64		6.48
	Fipronil Sulfide	98.0	102	96.7	97.5	4.17		0.656
	Fipronil Sulfone	95.3	102	115	110	6.74		1.96
	Flumioxazin	119	130	188	187	9.35		0.601
	Fonofos	70.4	71.3	81.8	77.3	1.18		5.73
	Gamma-BHC	98.3	95.1	87.9	88.0	3.34		0.183
	Gamma-Chlordane	84.3	83.3	78.3	76.8	1.25		1.94
	Heptachlor	72.4	70.1	69.1	67.9	3.29		1.67
	Heptachlor Epoxide	88.4	87.5	81.8	80.5	1.00		1.54
	Hexachlorobenzene	71.3	73.2	66.4	67.3	2.68		1.46
	Hexazinone	102	108	89.1	94.2	6.20		5.03
	Imazalil	130	106	58.0	53.4	20.3		8.20
	Lambda-Cyhalothrin	79.6	77.1	81.9	81.3	3.10		0.748
	Malathion	93.5	91.6	95.2	92.6	2.07		2.72
	Metalaxyl	93.6	100	85.0	77.6	6.82		9.16
	Methoxychlor	79.9	79.0	77.0	76.7	1.22		0.505
	Metolachlor	90.8	97.8			7.44		8.14
	Metribuzin	103	110	118	118	6.08		0.344
	Mevinphos	66.4	60.2	77.4	79.5	9.73		2.67
	Mirex	68.5	68.8	68.4	68.5	0.493		0.147
	Molinate	51.8	54.6	68.4	65.3	5.31		4.73
	Naled	53.3	50.0	64.0	55.9	6.41		13.4
	Norflurazon	93.7	105	78.8	74.1	11.6		6.09
	Oxadiazon	92.7	101	75.6	66.9	8.70		8.55
	Parathion Ethyl	89.8	90.4	86.8	93.8	0.720		7.81
	Parathion Methyl	89.6	97.6	93.4	92.1	8.51		1.40
	Pendimethalin	103	101	109	110	2.27		0.634
	Permethrin	81.9	82.6	82.1	82.1	0.892		0.0103
	Phenothrin	60.1	60.4	61.7	61.9	0.505		0.264
	Phorate	60.1	62.6	89.6	99.9	4.15		11.0
	Prallethrin	57.3	56.1	55.1	52.1	2.10		5.44
	Prodimamine	141	127	134	93.3	10.0		36.2
	Prometon	83.3	98.4	79.6	77.4	16.6		2.78

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Prometryn	93.3	105	89.0	81.8	11.6	8.38
	Pronamide	88.6	114	81.4	85.3	25.4	4.63
	Propiconazole	94.0	104	94.3	81.0	9.93	12.3
	Simazine	105	121			14.7	7.45
	Sulfentrazone	65.0	69.5			6.75	1.33
	Tebuconazole	94.2	102	31.1	41.8	7.79	29.6
	Terbufos	75.2	78.5	90.8	89.1	4.34	1.86
	Terbutylazine	92.3	97.1	88.9	80.2	5.03	10.3
	Trans-Nonachlor	86.1	84.4	80.0	77.8	2.06	2.77
	Trifluralin	77.6	78.1	73.8	74.4	0.681	0.739
EPA 8276	Chlordane	92.4	91.2	90.9	94.9	1.31	4.34
	Toxaphene	88.3	85.2	95.1	103	3.59	7.63
EPA 8321B	2,4-D	128		121	128		5.72
	3-Hydroxycarbofuran	85.3		52.9	56.1		5.82
	Acesulfame K	77.3		31.4	31.9		1.69
	Acetaminophen	85.6		103	106		3.22
	Acetamiprid	77.4		83.4	85.8		2.87
	Afidopyropen	55.8		55.4	56.4		1.87
	Aldicarb	64.5		58.6	50.4		14.9
	Aldicarb Sulfone	94.4		65.5	73.1		10.9
	Aldicarb Sulfoxide	105		36.6	40.7		10.6
	AMPA	92.1		85.1	88.8		3.43
	Bentazon	74.7		70.3	81.2		14.5
	Benzovindiflupyr	76.5		73.1	73.1		0.0082
	Carbamazepine	63.3		59.1	60.4		2.21
	Carbaryl	67.5		46.5	47.7		2.54
	Carbofuran	56.2		41.9	43.6		3.93
	Clothianidin	79.6		95.7	92.8		3.07
	Dinotefuran	97.3		112	113		0.801
	Diuron	67.4		60.4	64.9		7.21
	Endothall	85.0		114	101		12.2
	Fenuron	94.2		86.6	90.1		3.97
	Fluridone	77.8		78.0	73.2		5.15
	Glufosinate	89.5		85.9	89.9		4.58
	Glyphosate	78.3		74.3	81.8		5.36
	Hydrocodone	84.2		88.7	90.3		1.83
	Ibuprofen	95.3		75.0	88.3		16.3
	Imazapyr	92.1		103	132		25.2
	Imidacloprid	95.7		142	132		6.80
	Linuron	72.0		69.0	70.5		2.18
	Mandestrobin	78.2		75.3	76.5		1.53
	MCPP	135		134	132		1.37
	Methiocarb	58.0		50.0	51.6		3.26
	Methomyl	103		67.4	71.0		5.23
	Naproxen	89.5		89.4	76.4		15.7
	Oxamyl	93.5		65.1	74.7		9.93
	Primidone	86.4		107	108		0.789
	Propoxur	60.7		42.0	42.2		0.505
	Pyraclostrobin	62.6		62.4	61.4		1.70
	Sucralose	97.0		41.7	70.3		38.6
	Thiamethoxam	97.2		128	127		0.828
	Tolfenpyrad	45.9		47.8	58.3		19.6
	Triclopyr	114		103	120		14.8
	Color (true)	98.7					
SM 2120 B-2011							

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision		
				LCS	SMP	MS
SM 2320 B-2011	Total Alkalinity	102			0.538	
SM 2540 C-2011	TDS				4.83	
SM 4500 F-C-2011	Fluoride	101				1.37
SM 5310 B-2011	Organic Carbon	94.0	91.6 93.4			0.891

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2192150, 2192151, 2192156
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2192198
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2192198
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2192150, 2192151, 2192156
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2192150, 2192151, 2192156
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2192152, 2192153, 2192157
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2192152, 2192153, 2192157
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2192152, 2192153, 2192157
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2192152, 2192153, 2192157
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2192154, 2192155, 2192158
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2192184
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2192185
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2192184
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2192178
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2192179
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2192179
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2192150, 2192151, 2192156
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2192150, 2192151, 2192156
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2192150, 2192151, 2192156
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2192150, 2192151, 2192156
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2192150, 2192151, 2192156
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2192152, 2192153, 2192157

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	08/26/2020			08/26/2020 15:10	Yen Ta	2192150, 2192151, 2192156
EPA 200.7 Rev. 4.4	08/26/2020	08/27/2020 17:00	Elliott D. Healy	08/31/2020 14:17	Betina Topolski	2192198
EPA 200.8 Rev. 5.4	08/26/2020	08/27/2020 17:00	Elliott D. Healy	09/01/2020 15:51	Alexander Thompson	2192198
EPA 300.0 Rev. 2.1	08/26/2020			09/04/2020 23:12	Julia Storbeck	2192150
	08/26/2020			09/05/2020 00:25	Julia Storbeck	2192151
	08/26/2020			09/05/2020 00:37	Julia Storbeck	2192156
EPA 350.1 Rev. 2.0	08/26/2020			09/05/2020 11:17	Ping Hua	2192152
	08/26/2020			09/05/2020 11:27	Ping Hua	2192153
	08/26/2020			09/05/2020 12:17	Ping Hua	2192157
EPA 351.2 Rev. 2.0	08/26/2020	09/01/2020 11:35	Sima Feizi	09/02/2020 10:45	Virginia P. Brown	2192157
	08/26/2020	09/01/2020 11:35	Sima Feizi	09/02/2020 10:53	Virginia P. Brown	2192152
	08/26/2020	09/01/2020 11:35	Sima Feizi	09/02/2020 10:55	Virginia P. Brown	2192153
EPA 353.2 Rev. 2.0	08/26/2020			08/28/2020 09:14	Beverly Y. Sanders	2192152
	08/26/2020			08/28/2020 09:15	Beverly Y. Sanders	2192153
	08/26/2020			08/28/2020 09:16	Beverly Y. Sanders	2192157
EPA 365.1 Rev. 2.0	08/26/2020	08/27/2020 11:54	Yen Ta	09/03/2020 11:02	Lipi Saha	2192152
	08/26/2020	08/27/2020 11:54	Yen Ta	09/03/2020 11:03	Lipi Saha	2192153
	08/26/2020	08/27/2020 11:54	Yen Ta	09/03/2020 11:04	Lipi Saha	2192157
EPA 365.1 Rev. 2.0 dissolved	08/26/2020			08/26/2020 18:51	Blanca Fach	2192154
	08/26/2020			08/26/2020 18:52	Blanca Fach	2192155
	08/26/2020			08/26/2020 19:17	Blanca Fach	2192158
EPA 8270E	08/26/2020	08/28/2020 09:00	Fe-Val Siddell	09/02/2020 17:08	Vandana T. Nagar	2192185
	08/26/2020	08/28/2020 09:00	Fe-Val Siddell	09/09/2020 15:22	Vandana T. Nagar	2192185
	08/26/2020	08/31/2020 10:30	Rasheda Ghaffari	09/02/2020 23:36	Michael Poppell	2192184
EPA 8276	08/26/2020	08/31/2020 10:30	Rasheda Ghaffari	09/02/2020 10:34	Arthur Maknenko	2192184
EPA 8321B	08/26/2020	08/26/2020 13:00	Rebecca Ware	08/26/2020 13:16	Rebecca Ware	2192179
	08/26/2020	08/26/2020 13:00	Rebecca Ware	08/26/2020 18:02	Rebecca Ware	2192179
	08/26/2020	08/26/2020 13:00	Rebecca Ware	08/27/2020 16:05	Rebecca Ware	2192179
	08/26/2020	08/27/2020 08:30	Hoor Shaik	08/29/2020 12:19	Juyoung Kim	2192178
	08/26/2020	08/27/2020 08:30	Hoor Shaik	08/29/2020 19:15	Juyoung Kim	2192179
	08/26/2020	08/27/2020 08:30	Hoor Shaik	09/01/2020 15:34	Juyoung Kim	2192179
SM 2120 B-2011	08/26/2020			08/26/2020 15:50	Benjamin T. Nordmann	2192150
	08/26/2020			08/26/2020 15:51	Benjamin T. Nordmann	2192151
	08/26/2020			08/26/2020 15:52	Benjamin T. Nordmann	2192156
SM 2320 B-2011	08/26/2020			08/27/2020 22:43	Dale L. Simmons	2192150
	08/26/2020			08/27/2020 22:55	Dale L. Simmons	2192151
	08/26/2020			08/27/2020 23:07	Dale L. Simmons	2192156
SM 2540 C-2011	08/26/2020			08/27/2020 15:08	Yijie Li	2192150, 2192151, 2192156
SM 2540 D-2011	08/26/2020			08/27/2020 15:08	Yijie Li	2192150, 2192151, 2192156
SM 4500 F-C-2011	08/26/2020			09/03/2020 01:32	Dale L. Simmons	2192150

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	08/26/2020			09/03/2020 01:38	Dale L. Simmons	2192151
	08/26/2020			09/03/2020 01:43	Dale L. Simmons	2192156
SM 5310 B-2011	08/26/2020			08/30/2020 02:00	Ping Hua	2192152
	08/26/2020			08/30/2020 02:12	Ping Hua	2192153
	08/26/2020			08/30/2020 02:24	Ping Hua	2192157