

Chemical Analysis Report

NW-DIST-2021-06-16-02

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

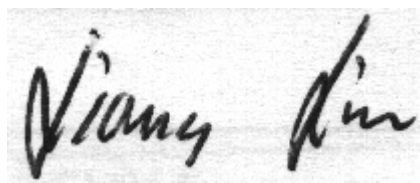
Event Description: **Alaqua Whaler Run**
Request ID: **RQ-2021-06-21-21**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

For additional information please contact
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Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 12-JUL-2021 11:57

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

NON-CONFORMANCE REPORT INCLUDED

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: 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: Boggy Bayou Mouth

Collection Date/Time: 06/14/2021 11:50

Field ID: G3NW0186

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255140	EPA 180.1 Rev. 2.0	Turbidity	0.95		NTU	P399808	
	SM 2320 B-2011	Total Alkalinity	57		mg CaCO3/L	P399898	
	SM 2540 D-2011	TSS	4	I	mg/L	P400049	
	SM 4500 F-C-2011	Fluoride	0.53		mg F/L	P400025	
2255141	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P400287	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23	I	mg N/L	P399932	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P399870	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P399854	
	SM 5310 B-2011	Organic Carbon	1.7	I	mg C/L	P400169	
2255142	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P399785	
2255154	EPA 8321B	Aldicarb	0.020	U	ug/L	P399841	
		Aldicarb Sulfone	0.0020	U	ug/L	P399841	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P399841	
		Carbaryl	0.0020	U	ug/L	P399841	
		Carbofuran	0.0020	U	ug/L	P399841	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P399841	
		Methiocarb	0.0020	U	ug/L	P399841	
		Methomyl	0.0020	U	ug/L	P399841	
		Oxamyl	0.0020	U	ug/L	P399841	
		Propoxur	0.0020	U	ug/L	P399841	
2255155		Acesulfame K	0.10	U	ug/L	P399865	
		2,4-D	0.0032	I	ug/L	P399742	
		AMPA	1.0	U	ug/L	P399865	
		2,4,5-T	0.0040	U	ug/L	P399742	MS
		Acetaminophen	0.0080	U	ug/L	P399742	
		Endothall	0.25	U	ug/L	P399865	
		Acetamiprid	0.0020	U	ug/L	P399742	
		Glufosinate	1.0	U	ug/L	P399865	
		Glyphosate	1.0	U	ug/L	P399865	
		Afidopyropen	0.0020	U	ug/L	P399742	
		Bentazon	8.0E-04	U	ug/L	P399742	
		Sucralose	0.010	UJ	ug/L	P399865	SUR
		Benzovindiflupyr	0.0020	U	ug/L	P399742	
		Carbamazepine	8.0E-04	U	ug/L	P399742	
		Clothianidin	0.0020	U	ug/L	P399742	
		Dinotefuran	0.0020	U	ug/L	P399742	
		Diuron	0.0020	U	ug/L	P399742	
		Fenuron	0.016	U	ug/L	P399742	
		Fluridone	8.0E-04	U	ug/L	P399742	
		Imazapyr	0.0066	I	ug/L	P399742	
		Hydrocodone	0.0020	U	ug/L	P399742	
		Ibuprofen	0.020	U	ug/L	P399742	
		Imidacloprid	0.0020	U	ug/L	P399742	MS

Field ID: G3NW0186

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255155	EPA 8321B	Linuron	0.0040	U	ug/L	P399742	
		Mandestrobin	0.0020	U	ug/L	P399742	
		MCP	0.0020	U	ug/L	P399742	MS
		Naproxen	0.0080	U	ug/L	P399742	
		Primidone	0.0040	U	ug/L	P399742	
		Pyraclostrobin	0.0020	U	ug/L	P399742	
		Thiamethoxam	0.0020	U	ug/L	P399742	
		Tolfenpyrad	0.0020	U	ug/L	P399742	
		Triclopyr	0.0040	U	ug/L	P399742	MS
2255158	EPA 8270E	Aldrin	0.71	U	ng/L	P399745	
		Alpha-BHC	0.11	U	ng/L	P399745	
		Alpha-Chlordane	0.22	U	ng/L	P399745	
		Beta-BHC	0.11	U	ng/L	P399745	
		Beta-Cyfluthrin**	1.4	U	ng/L	P399745	
		Bifenthrin**	0.54	U	ng/L	P399745	
		Carbophenothion	0.38	U	ng/L	P399745	
		Chlorothalonil	0.76	IJ	ng/L	P399745	MS
		Cis-Nonachlor**	0.22	U	ng/L	P399745	
		Cypermethrin	1.6	U	ng/L	P399745	
		Dacthal**	0.16	U	ng/L	P399745	
		DDD-p,p'	0.27	U	ng/L	P399745	
		DDE-p,p'	0.22	U	ng/L	P399745	
		DDT-p,p'	0.27	U	ng/L	P399745	
		Delta-BHC	0.43	U	ng/L	P399745	
		Deltamethrin**	1.4	UJ	ng/L	P399745	MS, RPD
		Dichlobenil**	0.11	U	ng/L	P399745	
		Dicofol	1.4	U	ng/L	P399745	
		Dieldrin	0.57	I	ng/L	P399745	
		Endosulfan I	0.43	U	ng/L	P399745	
		Endosulfan II	0.43	U	ng/L	P399745	
		Endosulfan Sulfate	0.33	U	ng/L	P399745	
		Endrin	0.43	U	ng/L	P399745	
		Endrin Aldehyde	0.82	U	ng/L	P399745	
		Endrin Ketone	0.43	U	ng/L	P399745	
		Esfenvalerate**	0.82	U	ng/L	P399745	
		Ethalfuralin**	0.16	U	ng/L	P399745	
		Fenpropathrin**	0.27	U	ng/L	P399745	
		Gamma-BHC	0.14	U	ng/L	P399745	
		Gamma-Chlordane	0.22	U	ng/L	P399745	
		Heptachlor	0.22	U	ng/L	P399745	
		Heptachlor Epoxide	0.27	U	ng/L	P399745	
		Hexachlorobenzene	1.1	U	ng/L	P399745	
		Kepone**	5.4	U	ng/L	P399745	
		Lambda-Cyhalothrin**	0.82	UJ	ng/L	P399745	RPD
		Methoxychlor	0.33	U	ng/L	P399745	

Field ID: G3NW0186

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255158	EPA 8270E	MGK-264**	0.22	U	ng/L	P399745	
		Mirex	0.33	U	ng/L	P399745	
		Permethrin	1.7	U	ng/L	P399745	
		Phenothrin**	0.98	UJ	ng/L	P399745	RPD
		Piperonyl Butoxide**	0.16	U	ng/L	P399745	
		Prallethrin**	2.2	U	ng/L	P399745	
		Tau-Fluvalinate**	0.27	U	ng/L	P399745	
		Tetramethrin**	0.82	U	ng/L	P399745	
		Trans-Nonachlor**	0.22	U	ng/L	P399745	
		Triclosan Methyl**	0.16	U	ng/L	P399745	
		Trifluralin	0.26	I	ng/L	P399745	
		Chlordane	5.4	U	ng/L	P399745	
		Toxaphene	33	U	ng/L	P399745	
2255159	EPA 8270E	Acetochlor	0.25	U	ng/L	P399912	
		Alachlor	0.25	U	ng/L	P399912	
		Ametryn	0.59	U	ng/L	P399912	
		Atrazine	18		ng/L	P399912	
		Atrazine Desethyl	1.5	U	ng/L	P399912	
		Azinphos Methyl	2.0	U	ng/L	P399912	
		Azoxystrobin**	0.49	U	ng/L	P399912	
		Bromacil	0.49	U	ng/L	P399912	
		Butylate	0.39	U	ng/L	P399912	
		Caffeine**	7.4	U	ng/L	P399912	
		Carbophenothion	0.49	U	ng/L	P399912	
		Carfentrazone Ethyl**	0.099	U	ng/L	P399912	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P399912	
		Chlorpyrifos Methyl	0.049	U	ng/L	P399912	
		Cyanazine	3.2	U	ng/L	P399912	
		Demeton	1.5	UJ	ng/L	P399912	LCS
		Diazinon	0.12	U	ng/L	P399912	
		Difenoconazole**	0.59	U	ng/L	P399912	
		Dimethenamid**	0.099	U	ng/L	P399912	
		Disulfoton	0.49	U	ng/L	P399912	
		Dithiopyr**	0.17	U	ng/L	P399912	
		EPTC	1.2	U	ng/L	P399912	
		Ethion	0.15	UJ	ng/L	P399912	RPD
		Ethoprop	0.099	U	ng/L	P399912	
		Fenamiphos	0.49	U	ng/L	P399912	
		Fenbuconazole**	0.12	U	ng/L	P399912	
		Fipronil	0.25	U	ng/L	P399912	
		Fipronil Desulfinyl**	0.12	U	ng/L	P399912	
		Fipronil Sulfide	0.15	U	ng/L	P399912	
		Fipronil Sulfone	0.16	I	ng/L	P399912	
		Fluazifop-P-butyl**	0.099	U	ng/L	P399912	
		Fludioxonil**	0.12	U	ng/L	P399912	

Field ID: G3NW0186

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255159	EPA 8270E	Flumioxazin**	1.7	U	ng/L	P399912	
		Flutolanil**	0.099	U	ng/L	P399912	
		Fluxapyroxad**	0.16	I	ng/L	P399912	
		Fonofos	0.20	U	ng/L	P399912	
		Hexazinone	29		ng/L	P399912	
		Imazalil**	0.74	U	ng/L	P399912	
		Iprodione**	0.59	U	ng/L	P399912	
		Malathion	0.35	U	ng/L	P399912	
		Metaxyl	0.74	U	ng/L	P399912	
		Metolachlor	0.65	I	ng/L	P399912	
		Metribuzin	3.2	U	ng/L	P399912	
		Mevinphos	1.0	U	ng/L	P399912	
		Molinate	0.30	U	ng/L	P399912	
		Myclobutanil**	0.25	U	ng/L	P399912	
		Naled**	1.5	U	ng/L	P399912	
		Norflurazon	0.49	U	ng/L	P399912	
		Oxadiazon	0.30	U	ng/L	P399912	
		Oxyfluorfen**	0.15	U	ng/L	P399912	
		Parathion Ethyl	0.25	U	ng/L	P399912	
		Parathion Methyl	0.54	U	ng/L	P399912	
		Pendimethalin	0.99	U	ng/L	P399912	
		Phorate	0.52	UJ	ng/L	P399912	MS
		Prodiamine**	0.17	U	ng/L	P399912	
		Prometon	0.89	U	ng/L	P399912	
		Prometryn	0.20	U	ng/L	P399912	
		Pronamide**	0.15	U	ng/L	P399912	
		Propiconazole**	0.49	U	ng/L	P399912	
		Pyriproxyfen**	0.12	U	ng/L	P399912	
		Simazine	1.6	I	ng/L	P399912	
		Sulfentrazone**	0.49	U	ng/L	P399912	
		Tebuconazole**	0.49	UJ	ng/L	P399912	RPD
		Terbufos	0.099	U	ng/L	P399912	
		Terbuthylazine	0.76	I	ng/L	P399912	

Ref. Method and Comment:

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

EPA 8321B: MDL for some parameters elevated due to matrix interference. Results confirmed in re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.

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

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: MS accuracy for atrazine and hexazinone 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.

Sample Location: Joes Bayou

Collection Date/Time: 06/14/2021 12:35

Field ID: G3NW0182

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255143	EPA 180.1 Rev. 2.0	Turbidity	2.9	A	NTU	P399808	
	SM 2320 B-2011	Total Alkalinity	82		mg CaCO3/L	P399898	
	SM 2540 D-2011	TSS	4	I	mg/L	P400049	
	SM 4500 F-C-2011	Fluoride	0.75		mg F/L	P400025	
2255144	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P400287	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40	I	mg N/L	P399932	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P399870	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P399854	
	SM 5310 B-2011	Organic Carbon	3.9		mg C/L	P400363	
2255145	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P399785	

Ref. Method and Comment:

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

Non-Conformance Report

NCR ID: 8890

Event(s)

NW-DIST-2021-06-16-02

Job(s)

Sample(s)

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Samples arrived late

Observation: Samples arrived late and were received within the acceptable temperature range.

Resolution: Samples will be qualified as appropriate.

Customer contacted via phone.

Biology and Chemistry supervisors were notified by email.

Authorized by/Date: Kerry Tate, Ph.D. 6/28/2021

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

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P399808

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400287

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399932

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399870

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399854

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399785

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

Reference Method: EPA 8270E
Batch ID: P399745

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.35	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399745

Component	Result	Code	Units
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E

Batch ID: P399912

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399912

Component	Result	Code	Units
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399912

Component	Result	Code	Units
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399912

Component	Result	Code	Units
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276

Batch ID: P399745

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

Reference Method: EPA 8321B

Batch ID: P399742

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P399841

Component	Result	Code	Units
3-Hydroxycarbofuran	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
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B

Batch ID: P399865

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 2320 B-2011

Batch ID: P399898

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

Reference Method: SM 2540 D-2011

Batch ID: P400049

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P400025

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P400169

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

Reference Method: SM 5310 B-2011

Batch ID: P400363

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400287

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: P399932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399870

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399854

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399785

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

Reference Method: EPA 8270E
Batch ID: P399745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	43.8	50.0	P/P	20 - 150
Alpha-BHC	89.5	91.3	P/P	50 - 150
Alpha-Chlordane	90.2	80.5	P/P	50 - 150
Beta-BHC	105	104	P/P	50 - 150
Beta-Cyfluthrin	117	97.5	P/P	50 - 150
Bifenthrin	87.3	80.3	P/P	40 - 150
Carbophenothion	61.3	50.2	P/P	20 - 150
Chlorothalonil	106	117	P/P	20 - 150
Cis-Nonachlor	93.6	93.2	P/P	50 - 150
Cypermethrin	111	92.5	P/P	50 - 150
Dacthal	97.6	86.7	P/P	50 - 150
DDD-p,p'	94.4	86.4	P/P	50 - 150
DDE-p,p'	86.3	77.2	P/P	50 - 150
DDT-p,p'	84.8	84.6	P/P	50 - 150
Delta-BHC	123	119	P/P	50 - 150
Deltamethrin	109	76.2	P/P	50 - 150
Dichlobenil	56.8	52.9	P/P	40 - 150
Dicofol	88.1	87.2	P/P	50 - 150
Dieldrin	95.7	84.4	P/P	50 - 150
Endosulfan I	89.9	87.3	P/P	50 - 150
Endosulfan II	103	118	P/P	50 - 150
Endosulfan Sulfate	97.0	84.7	P/P	50 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P399745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	93.9	103	P/P	50 - 150
Endrin Aldehyde	91.7	80.9	P/P	50 - 150
Endrin Ketone	101	95.1	P/P	50 - 150
Esfenvalerate	117	86.7	P/P	50 - 180
Ethalfuralin	83.9	86.2	P/P	50 - 150
Fenpropathrin	90.2	86.8	P/P	50 - 150
Gamma-BHC	94.2	91.6	P/P	50 - 150
Gamma-Chlordane	84.6	74.9	P/P	50 - 150
Heptachlor	75.2	101	P/P	50 - 150
Heptachlor Epoxide	89.1	81.4	P/P	50 - 150
Hexachlorobenzene	69.9	57.5	P/P	50 - 150
Kepone	115	95.5	P/P	30 - 180
Lambda-Cyhalothrin	144	104	P/P	50 - 200
Methoxychlor	97.9	85.6	P/P	50 - 150
MGK-264	63.7	53.1	P/P	30 - 150
Mirex	151	148	P/P	50 - 180
Permethrin	103	80.4	P/P	50 - 150
Phenothrin	61.6	42.1	P/P	20 - 150
Piperonyl Butoxide	97.6	85.5	P/P	50 - 150
Prallethrin	61.8	50.7	P/P	30 - 150
Tau-Fluvalinate	86.9	77.2	P/P	40 - 150
Tetramethrin	71.8	56.9	P/P	30 - 150
Trans-Nonachlor	89.4	77.1	P/P	50 - 150
Triclosan Methyl	93.3	83.6	P/P	50 - 150
Trifluralin	83.6	84.8	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P399912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	112	100	P/P	70 - 121
Alachlor	108	95.5	P/P	70 - 119
Ametryn	94.7	97.1	P/P	61 - 135
Atrazine	99.8	100	P/P	76 - 123
Atrazine Desethyl	72.3	69.9	P/P	35 - 140
Azinphos Methyl	111	127	P/P	57 - 163
Azoxystrobin	97.1	102	P/P	43 - 231
Bromacil	91.6	86.9	P/P	42 - 123
Butylate	59.9	60.0	P/P	34 - 92.0
Caffeine	81.7	78.3	P/P	70 - 130
Carbophenothion	103	101	P/P	61 - 121
Carfentrazone Ethyl	120	110	P/P	62 - 139
Chlorpyrifos Ethyl	90.4	86.6	P/P	67 - 121
Chlorpyrifos Methyl	87.8	89.0	P/P	67 - 120
Cyanazine	118	109	P/P	20 - 226
Demeton	30.3	29.9	F/F	35 - 125
Diazinon	100	97.8	P/P	70 - 122
Difenoconazole	126	151	P/P	56 - 186
Dimethenamid	84.9	77.7	P/P	67 - 119
Disulfoton	74.9	74.0	P/P	47 - 120
Dithiopyr	96.5	85.1	P/P	67 - 118
EPTC	39.2	40.9	P/P	33 - 90.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P399912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ethion	90.6	80.9	P/P	40 - 133
Ethoprop	77.0	83.1	P/P	61 - 121
Fenamiphos	97.6	95.4	P/P	31 - 139
Fenbuconazole	114	106	P/P	66 - 141
Fipronil	110	97.9	P/P	62 - 129
Fipronil Desulfinyl	117	101	P/P	59 - 126
Fipronil Sulfide	92.1	85.1	P/P	63 - 117
Fipronil Sulfone	89.4	81.1	P/P	57 - 117
Fluazifop-P-butyl	103	97.4	P/P	63 - 124
Fludioxonil	108	95.8	P/P	63 - 123
Flumioxazin	137	164	P/P	34 - 245
Flutolanil	102	90.3	P/P	56 - 131
Fluxapyroxad	99.3	86.1	P/P	57 - 117
Fonofos	77.7	81.6	P/P	61 - 116
Hexazinone	94.4	89.1	P/P	55 - 138
Imazalil	102	95.2	P/P	33 - 143
Iprodione	111	101	P/P	59 - 118
Malathion	105	105	P/P	62 - 138
Metalaxyl	105	93.6	P/P	24 - 147
Metolachlor	106	96.2	P/P	68 - 118
Metribuzin	98.6	98.9	P/P	20 - 239
Mevinphos	63.0	69.8	P/P	46 - 124
Molinate	49.2	56.4	P/P	46 - 100
Myclobutanil	98.4	92.4	P/P	32 - 149
Naled	38.8	43.8	P/P	32 - 95.0
Norflurazon	97.9	87.3	P/P	57 - 127
Oxadiazon	97.9	87.5	P/P	63 - 118
Oxyfluorfen	112	112	P/P	69 - 137
Parathion Ethyl	88.5	89.8	P/P	70 - 113
Parathion Methyl	99.8	104	P/P	71 - 130
Pendimethalin	86.8	89.0	P/P	55 - 118
Phorate	103	105	P/P	46 - 125
Prodiamine	44.1	48.4	P/P	20 - 141
Prometon	91.9	86.5	P/P	54 - 122
Prometryn	98.7	92.3	P/P	66 - 124
Pronamide	97.1	95.9	P/P	79 - 122
Propiconazole	104	88.2	P/P	61 - 126
Pyriproxyfen	97.3	93.5	P/P	52 - 131
Simazine	86.7	86.5	P/P	75 - 128
Sulfentrazone	85.9	77.1	P/P	20 - 132
Tebuconazole	94.3	63.7	P/P	20 - 116
Terbufos	91.3	93.5	P/P	61 - 117
Terbutylazine	102	89.6	P/P	74 - 116

Reference Method: EPA 8276
Batch ID: P399745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	97.4	92.5	P/P	56 - 117
Toxaphene	96.0	93.3	P/P	45 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P399742

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	106		P	30 - 160
2,4,5-T	99.3		P	30 - 160
Acetaminophen	60.6		P	30 - 150
Acetamiprid	78.4		P	30 - 160
Afidopyropen	73.3		P	30 - 160
Bentazon	39.2		P	30 - 150
Benzovindiflupyr	78.0		P	30 - 160
Carbamazepine	76.5		P	30 - 160
Clothianidin	77.5		P	30 - 160
Dinotefuran	68.1		P	30 - 160
Diuron	66.8		P	30 - 160
Fenuron	85.5		P	30 - 160
Fluridone	83.2		P	30 - 160
Hydrocodone	81.6		P	30 - 160
Ibuprofen	65.1		P	30 - 160
Imazapyr	91.7		P	30 - 160
Imidacloprid	72.3		P	30 - 160
Linuron	59.6		P	30 - 160
Mandestrobin	88.0		P	30 - 160
MCPP	147		P	30 - 160
Naproxen	81.4		P	30 - 160
Primidone	86.5		P	30 - 160
Pyraclostrobin	62.0		P	30 - 160
Thiamethoxam	52.4		P	30 - 160
Tolfenpyrad	47.0		P	30 - 160
Triclopyr	112		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P399841

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	79.4		P	30 - 160
Aldicarb	70.9		P	30 - 150
Aldicarb Sulfone	56.2		P	30 - 160
Aldicarb Sulfoxide	97.3		P	30 - 160
Carbaryl	73.7		P	30 - 160
Carbofuran	69.6		P	30 - 160
Methiocarb	68.2		P	30 - 160
Methomyl	90.4		P	30 - 160
Oxamyl	85.7		P	30 - 160
Propoxur	75.2		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P399865

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	80.5		P	40 - 150
AMPA	99.4		P	40 - 150
Endothall	71.4		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	103		P	40 - 150
Sucralose	102		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P399898

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.5		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P400025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.8		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P400169

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P400363

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400287

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255141	Ammonia-N	97.8	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2254968	Kjeldahl Nitrogen	99.2	95.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399870

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255132	NO2NO3-N	95.8	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399854

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2253763	Total-P	95.0	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399785

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255142	O-Phosphate-P	95.5	98.1	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P399745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255158	Aldrin	50.8	58.0	P/P	20 - 170
2255158	Alpha-BHC	86.6	91.6	P/P	50 - 170
2255158	Alpha-Chlordane	69.2	80.1	P/P	50 - 170
2255158	Beta-BHC	121	136	P/P	50 - 170
2255158	Beta-Cyfluthrin	99.0	105	P/P	50 - 170
2255158	Bifenthrin	63.7	56.8	P/P	40 - 170
2255158	Carbophenothion	47.9	63.8	P/P	20 - 170
2255158	Chlorothalonil	199	218	F/F	20 - 170
2255158	Cis-Nonachlor	81.3	95.9	P/P	50 - 170
2255158	Cypermethrin	87.3	92.2	P/P	50 - 170
2255158	Dacthal	83.6	88.3	P/P	50 - 170
2255158	DDD-p,p'	79.9	87.1	P/P	50 - 170
2255158	DDE-p,p'	59.7	68.2	P/P	50 - 170
2255158	DDT-p,p'	71.7	78.1	P/P	50 - 170
2255158	Delta-BHC	56.5	65.9	P/P	50 - 170
2255158	Deltamethrin	80.0	30.8	P/F	50 - 170
2255158	Dichlobenil	45.1	43.4	P/P	40 - 170
2255158	Dicofol	60.7	67.3	P/P	50 - 170
2255158	Dieldrin	70.9	78.8	P/P	50 - 170
2255158	Endosulfan I	79.8	89.0	P/P	50 - 170
2255158	Endosulfan II	110	125	P/P	50 - 170
2255158	Endosulfan Sulfate	78.4	89.1	P/P	50 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P399745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255158	Endrin	94.4	105	P/P	50 - 170
2255158	Endrin Aldehyde	65.2	78.5	P/P	50 - 170
2255158	Endrin Ketone	101	111	P/P	50 - 170
2255158	Esfenvalerate	104	115	P/P	50 - 180
2255158	Ethalfuralin	70.5	78.5	P/P	50 - 170
2255158	Fenpropathrin	72.1	73.8	P/P	50 - 170
2255158	Gamma-BHC	67.8	74.9	P/P	50 - 170
2255158	Gamma-Chlordane	63.7	72.2	P/P	50 - 170
2255158	Heptachlor	75.3	82.1	P/P	50 - 170
2255158	Heptachlor Epoxide	74.8	82.8	P/P	50 - 170
2255158	Hexachlorobenzene	57.8	59.1	P/P	50 - 170
2255158	Kepone	80.9	103	P/P	30 - 180
2255158	Lambda-Cyhalothrin	112	133	P/P	50 - 200
2255158	Methoxychlor	91.1	93.7	P/P	50 - 170
2255158	MGK-264	59.6	73.8	P/P	30 - 170
2255158	Mirex	139	162	P/P	50 - 180
2255158	Permethrin	86.5	89.7	P/P	50 - 170
2255158	Phenothrin	42.0	41.6	P/P	20 - 170
2255158	Piperonyl Butoxide	67.8	75.2	P/P	50 - 170
2255158	Prallethrin	48.6	62.3	P/P	30 - 170
2255158	Tau-Fluvalinate	69.0	67.7	P/P	40 - 170
2255158	Tetramethrin	55.2	63.0	P/P	30 - 170
2255158	Trans-Nonachlor	65.5	75.4	P/P	50 - 170
2255158	Triclosan Methyl	76.2	82.2	P/P	50 - 170
2255158	Trifluralin	65.6	74.6	P/P	50 - 170

Reference Method: EPA 8270E

Batch ID: P399912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255159	Acetochlor	106	113	P/P	66 - 122
2255159	Alachlor	90.7	103	P/P	65 - 122
2255159	Ametryn	92.9	86.5	P/P	45 - 173
2255159	Atrazine Desethyl	80.5	85.1	P/P	25 - 150
2255159	Azinphos Methyl	129	122	P/P	44 - 174
2255159	Azoxystrobin	107	123	P/P	10 - 268
2255159	Bromacil	82.3	94.6	P/P	31 - 145
2255159	Butylate	71.4	95.5	P/P	15 - 97.0
2255159	Caffeine	103	104	P/P	70 - 130
2255159	Carbophenothion	94.6	98.7	P/P	42 - 129
2255159	Carfentrazone Ethyl	101	104	P/P	62 - 145
2255159	Chlorpyrifos Ethyl	85.7	92.4	P/P	60 - 124
2255159	Chlorpyrifos Methyl	87.6	90.9	P/P	66 - 119
2255159	Cyanazine	97.9	110	P/P	17 - 225
2255159	Demeton	46.6	48.6	P/P	36 - 142
2255159	Diazinon	99.1	109	P/P	70 - 128
2255159	Difenoconazole	148	137	P/P	33 - 222
2255159	Dimethenamid	78.1	79.8	P/P	54 - 125
2255159	Disulfoton	91.9	69.4	P/P	49 - 133
2255159	Dithiopyr	84.4	96.9	P/P	55 - 123
2255159	EPTC	44.3	52.8	P/P	19 - 91.0
2255159	Ethion	63.7	44.2	P/P	13 - 143

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P399912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255159	Ethoprop	87.1	97.5	P/P	49 - 144
2255159	Fenamiphos	85.6	80.8	P/P	32 - 136
2255159	Fenbuconazole	101	107	P/P	73 - 148
2255159	Fipronil	95.2	96.4	P/P	57 - 129
2255159	Fipronil Desulfinyl	95.1	100	P/P	49 - 127
2255159	Fipronil Sulfide	76.0	73.8	P/P	44 - 127
2255159	Fipronil Sulfone	72.8	85.0	P/P	35 - 126
2255159	Fluazifop-P-butyl	90.7	97.8	P/P	67 - 129
2255159	Fludioxonil	90.9	92.8	P/P	61 - 126
2255159	Flumioxazin	173	172	P/P	38 - 279
2255159	Flutolanil	80.6	85.9	P/P	55 - 136
2255159	Fluxapyroxad	86.2	80.0	P/P	33 - 140
2255159	Fonofos	81.4	92.2	P/P	58 - 125
2255159	Imazalil	114	95.1	P/P	10 - 221
2255159	Iprodione	95.3	96.5	P/P	32 - 140
2255159	Malathion	96.5	103	P/P	52 - 138
2255159	Metalaxyl	87.8	96.1	P/P	46 - 134
2255159	Metolachlor	92.6	102	P/P	58 - 122
2255159	Metribuzin	96.8	119	P/P	16 - 272
2255159	Mevinphos	76.6	87.6	P/P	45 - 140
2255159	Molinate	61.2	72.5	P/P	41 - 103
2255159	Myclobutanil	86.6	88.3	P/P	60 - 134
2255159	Naled	50.8	58.4	P/P	20 - 113
2255159	Norflurazon	86.0	88.9	P/P	51 - 123
2255159	Oxadiazon	85.0	86.2	P/P	44 - 125
2255159	Oxyfluorfen	113	106	P/P	66 - 176
2255159	Parathion Ethyl	87.5	96.7	P/P	57 - 132
2255159	Parathion Methyl	101	115	P/P	59 - 156
2255159	Pendimethalin	93.3	102	P/P	59 - 129
2255159	Phorate	145	161	F/F	47 - 136
2255159	Prodiamine	58.1	63.2	P/P	10 - 159
2255159	Prometon	84.3	96.3	P/P	59 - 127
2255159	Prometryn	85.0	89.4	P/P	59 - 129
2255159	Pronamide	100	108	P/P	65 - 145
2255159	Propiconazole	86.1	92.5	P/P	28 - 165
2255159	Pyriproxyfen	88.0	116	P/P	21 - 180
2255159	Simazine	92.4	109	P/P	63 - 147
2255159	Sulfentrazone	79.8	83.9	P/P	32 - 136
2255159	Tebuconazole	66.0	53.5	P/P	10 - 117
2255159	Terbufos	98.5	110	P/P	61 - 131
2255159	Terbutylazine	70.6	79.5	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P399745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255153	Chlordane	92.0	97.8	P/P	47 - 128
2255153	Toxaphene	86.2	94.8	P/P	11 - 163

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P399742

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2254386	2,4-D	127	139	P/P	30 - 160
2254386	2,4,5-T	150	161	P/F	30 - 160
2254386	Acetaminophen	48.3	51.9	P/P	30 - 150
2254386	Acetamiprid	90.4	85.9	P/P	30 - 160
2254386	Afidopyropen	81.3	86.6	P/P	30 - 160
2254386	Benzovindiflupyr	73.8	78.6	P/P	30 - 160
2254386	Carbamazepine	77.5	70.6	P/P	30 - 160
2254386	Clothianidin	109	101	P/P	30 - 160
2254386	Dinotefuran	97.4	98.4	P/P	30 - 160
2254386	Diuron	69.0	64.6	P/P	30 - 160
2254386	Fenuron	79.8	81.6	P/P	30 - 160
2254386	Fluridone	86.1	82.8	P/P	30 - 160
2254386	Hydrocodone	83.6	87.4	P/P	30 - 160
2254386	Ibuprofen	65.0	85.4	P/P	30 - 160
2254386	Imidacloprid	157	162	P/F	30 - 160
2254386	Linuron	74.5	80.2	P/P	30 - 160
2254386	Mandestrobin	92.8	97.3	P/P	30 - 160
2254386	MCPP	199	213	F/F	30 - 160
2254386	Naproxen	94.0	101	P/P	30 - 160
2254386	Primidone	104	85.9	P/P	30 - 160
2254386	Pyraclostrobin	74.7	65.6	P/P	30 - 160
2254386	Thiamethoxam	119	116	P/P	30 - 160
2254386	Tolfenpyrad	48.4	64.3	P/P	30 - 160
2254386	Triclopyr	155	161	P/F	30 - 160

Reference Method: EPA 8321B
Batch ID: P399841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255371	3-Hydroxycarbofuran	80.2	80.4	P/P	30 - 160
2255371	Aldicarb	78.9	71.8	P/P	30 - 150
2255371	Aldicarb Sulfone	89.5	84.1	P/P	30 - 160
2255371	Aldicarb Sulfoxide	55.2	50.5	P/P	30 - 160
2255371	Carbaryl	51.1	48.8	P/P	30 - 160
2255371	Carbofuran	52.2	49.7	P/P	30 - 160
2255371	Methiocarb	71.0	59.7	P/P	30 - 160
2255371	Methomyl	78.4	73.8	P/P	30 - 160
2255371	Oxamyl	75.7	74.8	P/P	30 - 160
2255371	Propoxur	56.3	52.0	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P399865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255020	Acesulfame K	84.0	86.4	P/P	40 - 150
2255020	AMPA	95.1	97.3	P/P	40 - 150
2255020	Endothall	70.2	82.7	P/P	40 - 150
2255020	Glufosinate	103	105	P/P	40 - 150
2255020	Glyphosate	106	111	P/P	40 - 150
2255020	Sucralose	99.7	103	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P400169

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2253598	Organic Carbon	100	100	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P400363

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255144	Organic Carbon	95.7	95.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P399808

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255143	Turbidity	3.46	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P400287

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255141	Ammonia-N	1.71	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P399932

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2254968	Kjeldahl Nitrogen	2.37	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P399870

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255132	NO2NO3-N	0.506	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P399854

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2253763	Total-P	4.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P399785

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255142	O-Phosphate-P	2.69	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P399745

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255158	Aldrin	13.3	Spike	P	0 - 30
2255158	Alpha-BHC	5.67	Spike	P	0 - 30
2255158	Alpha-Chlordane	14.6	Spike	P	0 - 30
2255158	Beta-BHC	11.3	Spike	P	0 - 30
2255158	Beta-Cyfluthrin	5.49	Spike	P	0 - 30
2255158	Bifenthrin	11.3	Spike	P	0 - 30
2255158	Carbophenothion	28.4	Spike	P	0 - 30
2255158	Chlorothalonil	8.82	Spike	P	0 - 50
2255158	Cis-Nonachlor	16.5	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P399745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255158	Cypermethrin	5.42	Spike	P	0 - 30
2255158	Dacthal	5.46	Spike	P	0 - 30
2255158	DDD-p,p'	8.56	Spike	P	0 - 30
2255158	DDE-p,p'	13.2	Spike	P	0 - 30
2255158	DDT-p,p'	8.61	Spike	P	0 - 30
2255158	Delta-BHC	15.3	Spike	P	0 - 30
2255158	Deltamethrin	88.9	Spike	F	0 - 30
2255158	Dichlobenil	3.89	Spike	P	0 - 30
2255158	Dicofol	10.4	Spike	P	0 - 30
2255158	Dieldrin	10.0	Spike	P	0 - 30
2255158	Endosulfan I	10.8	Spike	P	0 - 30
2255158	Endosulfan II	12.3	Spike	P	0 - 30
2255158	Endosulfan Sulfate	12.7	Spike	P	0 - 30
2255158	Endrin	10.7	Spike	P	0 - 30
2255158	Endrin Aldehyde	18.6	Spike	P	0 - 30
2255158	Endrin Ketone	9.80	Spike	P	0 - 30
2255158	Esfenvalerate	9.74	Spike	P	0 - 30
2255158	Ethalfuralin	10.6	Spike	P	0 - 30
2255158	Fenpropathrin	2.25	Spike	P	0 - 30
2255158	Gamma-BHC	9.91	Spike	P	0 - 30
2255158	Gamma-Chlordane	12.6	Spike	P	0 - 30
2255158	Heptachlor	8.60	Spike	P	0 - 30
2255158	Heptachlor Epoxide	10.1	Spike	P	0 - 30
2255158	Hexachlorobenzene	2.23	Spike	P	0 - 30
2255158	Kepone	24.2	Spike	P	0 - 30
2255158	Lambda-Cyhalothrin	17.0	Spike	P	0 - 30
2255158	Methoxychlor	2.74	Spike	P	0 - 30
2255158	MGK-264	21.2	Spike	P	0 - 30
2255158	Mirex	15.2	Spike	P	0 - 30
2255158	Permethrin	3.63	Spike	P	0 - 30
2255158	Phenothrin	1.01	Spike	P	0 - 30
2255158	Piperonyl Butoxide	10.4	Spike	P	0 - 30
2255158	Prallethrin	24.6	Spike	P	0 - 30
2255158	Tau-Fluvalinate	1.91	Spike	P	0 - 30
2255158	Tetramethrin	13.3	Spike	P	0 - 30
2255158	Trans-Nonachlor	14.1	Spike	P	0 - 30
2255158	Triclosan Methyl	7.55	Spike	P	0 - 30
2255158	Trifluralin	12.2	Spike	P	0 - 30
LFB	Aldrin	13.2	LCS	P	0 - 30
LFB	Alpha-BHC	2.06	LCS	P	0 - 30
LFB	Alpha-Chlordane	11.4	LCS	P	0 - 30
LFB	Beta-BHC	0.852	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	18.3	LCS	P	0 - 30
LFB	Bifenthrin	8.33	LCS	P	0 - 30
LFB	Carbophenothion	19.9	LCS	P	0 - 30
LFB	Chlorothalonil	9.76	LCS	P	0 - 50
LFB	Cis-Nonachlor	0.509	LCS	P	0 - 30
LFB	Cypermethrin	18.2	LCS	P	0 - 30
LFB	Dacthal	11.9	LCS	P	0 - 30
LFB	DDD-p,p'	8.81	LCS	P	0 - 30
LFB	DDE-p,p'	11.2	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P399745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	DDT-p,p'	0.224	LCS	P	0 - 30
LFB	Delta-BHC	2.71	LCS	P	0 - 30
LFB	Deltamethrin	35.3	LCS	F	0 - 30
LFB	Dichlobenil	7.04	LCS	P	0 - 30
LFB	Dicofol	1.04	LCS	P	0 - 30
LFB	Dieldrin	12.6	LCS	P	0 - 30
LFB	Endosulfan I	2.96	LCS	P	0 - 30
LFB	Endosulfan II	13.5	LCS	P	0 - 30
LFB	Endosulfan Sulfate	13.5	LCS	P	0 - 30
LFB	Endrin	9.38	LCS	P	0 - 30
LFB	Endrin Aldehyde	12.5	LCS	P	0 - 30
LFB	Endrin Ketone	6.27	LCS	P	0 - 30
LFB	Esfenvalerate	29.5	LCS	P	0 - 30
LFB	Ethalfuralin	2.72	LCS	P	0 - 30
LFB	Fenprothrin	3.84	LCS	P	0 - 30
LFB	Gamma-BHC	2.80	LCS	P	0 - 30
LFB	Gamma-Chlordane	12.1	LCS	P	0 - 30
LFB	Heptachlor	29.1	LCS	P	0 - 30
LFB	Heptachlor Epoxide	8.94	LCS	P	0 - 30
LFB	Hexachlorobenzene	19.4	LCS	P	0 - 30
LFB	Kepone	18.9	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	32.4	LCS	F	0 - 30
LFB	Methoxychlor	13.4	LCS	P	0 - 30
LFB	MGK-264	18.2	LCS	P	0 - 30
LFB	Mirex	2.05	LCS	P	0 - 30
LFB	Permethrin	24.7	LCS	P	0 - 30
LFB	Phenothrin	37.5	LCS	F	0 - 30
LFB	Piperonyl Butoxide	13.2	LCS	P	0 - 30
LFB	Prallethrin	19.9	LCS	P	0 - 30
LFB	Tau-Fluvalinate	11.8	LCS	P	0 - 30
LFB	Tetramethrin	23.2	LCS	P	0 - 30
LFB	Trans-Nonachlor	14.9	LCS	P	0 - 30
LFB	Triclosan Methyl	11.0	LCS	P	0 - 30
LFB	Trifluralin	1.46	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255159	Acetochlor	6.40	Spike	P	0 - 30
2255159	Alachlor	13.0	Spike	P	0 - 30
2255159	Ametryn	7.11	Spike	P	0 - 30
2255159	Atrazine	5.98	Spike	P	0 - 30
2255159	Atrazine Desethyl	5.55	Spike	P	0 - 30
2255159	Azinphos Methyl	5.80	Spike	P	0 - 30
2255159	Azoxystrobin	14.3	Spike	P	0 - 30
2255159	Bromacil	13.8	Spike	P	0 - 30
2255159	Butylate	28.9	Spike	P	0 - 30
2255159	Caffeine	0.609	Spike	P	0 - 30
2255159	Carbophenothion	4.23	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255159	Carfentrazone Ethyl	2.37	Spike	P	0 - 30
2255159	Chlorpyrifos Ethyl	7.52	Spike	P	0 - 30
2255159	Chlorpyrifos Methyl	3.66	Spike	P	0 - 30
2255159	Cyanazine	11.6	Spike	P	0 - 30
2255159	Demeton	4.32	Spike	P	0 - 30
2255159	Diazinon	9.75	Spike	P	0 - 30
2255159	Difenoconazole	7.65	Spike	P	0 - 30
2255159	Dimethenamid	2.14	Spike	P	0 - 30
2255159	Disulfoton	27.9	Spike	P	0 - 30
2255159	Dithiopyr	13.7	Spike	P	0 - 30
2255159	EPTC	17.5	Spike	P	0 - 30
2255159	Ethion	36.0	Spike	F	0 - 30
2255159	Ethoprop	11.3	Spike	P	0 - 30
2255159	Fenamiphos	5.74	Spike	P	0 - 30
2255159	Fenbuconazole	6.02	Spike	P	0 - 30
2255159	Fipronil	1.21	Spike	P	0 - 30
2255159	Fipronil Desulfinyl	5.09	Spike	P	0 - 30
2255159	Fipronil Sulfide	2.98	Spike	P	0 - 30
2255159	Fipronil Sulfone	14.0	Spike	P	0 - 30
2255159	Fluazifop-P-butyl	7.60	Spike	P	0 - 30
2255159	Fludioxonil	2.07	Spike	P	0 - 30
2255159	Flumioxazin	0.614	Spike	P	0 - 30
2255159	Flutolanil	6.30	Spike	P	0 - 30
2255159	Fluxapyroxad	7.13	Spike	P	0 - 30
2255159	Fonofos	12.5	Spike	P	0 - 30
2255159	Hexazinone	11.3	Spike	P	0 - 30
2255159	Imazalil	18.0	Spike	P	0 - 30
2255159	Iprodione	1.27	Spike	P	0 - 30
2255159	Malathion	6.59	Spike	P	0 - 30
2255159	Metalaxyl	9.00	Spike	P	0 - 30
2255159	Metolachlor	8.99	Spike	P	0 - 30
2255159	Metribuzin	20.6	Spike	P	0 - 30
2255159	Mevinphos	13.3	Spike	P	0 - 30
2255159	Molinate	16.9	Spike	P	0 - 30
2255159	Myclobutanil	1.95	Spike	P	0 - 30
2255159	Naled	13.8	Spike	P	0 - 30
2255159	Norflurazon	3.32	Spike	P	0 - 30
2255159	Oxadiazon	1.44	Spike	P	0 - 30
2255159	Oxyfluorfen	6.65	Spike	P	0 - 30
2255159	Parathion Ethyl	9.93	Spike	P	0 - 30
2255159	Parathion Methyl	12.8	Spike	P	0 - 30
2255159	Pendimethalin	9.34	Spike	P	0 - 30
2255159	Phorate	10.4	Spike	P	0 - 30
2255159	Prodiamine	8.44	Spike	P	0 - 30
2255159	Prometon	13.2	Spike	P	0 - 30
2255159	Prometryn	5.11	Spike	P	0 - 30
2255159	Pronamide	7.47	Spike	P	0 - 30
2255159	Propiconazole	7.17	Spike	P	0 - 30
2255159	Pyriproxyfen	27.1	Spike	P	0 - 30
2255159	Simazine	11.8	Spike	P	0 - 30
2255159	Sulfentrazone	5.04	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255159	Tebuconazole	21.0	Spike	P	0 - 30
2255159	Terbufos	11.1	Spike	P	0 - 30
2255159	Terbutylazine	9.44	Spike	P	0 - 30
LFB	Acetochlor	11.4	LCS	P	0 - 30
LFB	Alachlor	12.6	LCS	P	0 - 30
LFB	Ametryn	2.42	LCS	P	0 - 30
LFB	Atrazine	0.128	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.36	LCS	P	0 - 30
LFB	Azinphos Methyl	13.7	LCS	P	0 - 30
LFB	Azoxystrobin	5.38	LCS	P	0 - 30
LFB	Bromacil	5.23	LCS	P	0 - 30
LFB	Butylate	0.124	LCS	P	0 - 30
LFB	Caffeine	4.29	LCS	P	0 - 30
LFB	Carbophenothion	1.88	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	8.87	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.35	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.33	LCS	P	0 - 30
LFB	Cyanazine	7.70	LCS	P	0 - 30
LFB	Demeton	1.47	LCS	P	0 - 30
LFB	Diazinon	2.54	LCS	P	0 - 30
LFB	Difenoconazole	17.6	LCS	P	0 - 30
LFB	Dimethenamid	8.82	LCS	P	0 - 30
LFB	Disulfoton	1.21	LCS	P	0 - 30
LFB	Dithiopyr	12.5	LCS	P	0 - 30
LFB	EPTC	4.26	LCS	P	0 - 30
LFB	Ethion	11.3	LCS	P	0 - 30
LFB	Ethoprop	7.51	LCS	P	0 - 30
LFB	Fenamiphos	2.32	LCS	P	0 - 30
LFB	Fenbuconazole	7.51	LCS	P	0 - 30
LFB	Fipronil	11.3	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	15.5	LCS	P	0 - 30
LFB	Fipronil Sulfide	7.97	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.84	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	5.89	LCS	P	0 - 30
LFB	Fludioxonil	12.2	LCS	P	0 - 30
LFB	Flumioxazin	18.4	LCS	P	0 - 30
LFB	Flutolanil	12.6	LCS	P	0 - 30
LFB	Fluxapyroxad	14.3	LCS	P	0 - 30
LFB	Fonofos	4.88	LCS	P	0 - 30
LFB	Hexazinone	5.77	LCS	P	0 - 30
LFB	Imazalil	6.82	LCS	P	0 - 30
LFB	Iprodione	10.1	LCS	P	0 - 30
LFB	Malathion	0.621	LCS	P	0 - 30
LFB	Metalaxyl	11.3	LCS	P	0 - 30
LFB	Metolachlor	9.20	LCS	P	0 - 30
LFB	Metribuzin	0.245	LCS	P	0 - 30
LFB	Mevinphos	10.2	LCS	P	0 - 30
LFB	Molinate	13.6	LCS	P	0 - 30
LFB	Myclobutanil	6.26	LCS	P	0 - 30
LFB	Naled	12.1	LCS	P	0 - 30
LFB	Norflurazon	11.4	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Oxadiazon	11.2	LCS	P	0 - 30
LFB	Oxyfluorfen	0.167	LCS	P	0 - 30
LFB	Parathion Ethyl	1.44	LCS	P	0 - 30
LFB	Parathion Methyl	3.66	LCS	P	0 - 30
LFB	Pendimethalin	2.39	LCS	P	0 - 30
LFB	Phorate	1.38	LCS	P	0 - 30
LFB	Prodiamine	9.34	LCS	P	0 - 30
LFB	Prometon	6.14	LCS	P	0 - 30
LFB	Prometryn	6.69	LCS	P	0 - 30
LFB	Pronamide	1.28	LCS	P	0 - 30
LFB	Propiconazole	16.8	LCS	P	0 - 30
LFB	Pyriproxyfen	3.97	LCS	P	0 - 30
LFB	Simazine	0.195	LCS	P	0 - 30
LFB	Sulfentrazone	10.9	LCS	P	0 - 30
LFB	Tebuconazole	38.7	LCS	F	0 - 30
LFB	Terbufos	2.35	LCS	P	0 - 30
LFB	Terbutylazine	13.0	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P399745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255153	Chlordane	6.16	Spike	P	0 - 30
2255153	Toxaphene	9.48	Spike	P	0 - 30
LFB	Chlordane	5.20	LCS	P	0 - 30
LFB	Toxaphene	2.76	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2254386	2,4-D	8.10	Spike	P	0 - 30
2254386	2,4,5-T	7.63	Spike	P	0 - 30
2254386	Acetaminophen	5.02	Spike	P	0 - 30
2254386	Acetamiprid	5.13	Spike	P	0 - 30
2254386	Afidopyropen	6.35	Spike	P	0 - 30
2254386	Bentazon	11.4	Spike	P	0 - 30
2254386	Benzovindiflupyr	6.22	Spike	P	0 - 30
2254386	Carbamazepine	4.66	Spike	P	0 - 30
2254386	Clothianidin	7.29	Spike	P	0 - 30
2254386	Dinotefuran	1.06	Spike	P	0 - 30
2254386	Diuron	6.65	Spike	P	0 - 30
2254386	Fenuron	2.17	Spike	P	0 - 30
2254386	Fluridone	2.03	Spike	P	0 - 30
2254386	Hydrocodone	4.45	Spike	P	0 - 30
2254386	Ibuprofen	27.1	Spike	P	0 - 30
2254386	Imazapyr	2.51	Spike	P	0 - 30
2254386	Imidacloprid	3.25	Spike	P	0 - 30
2254386	Linuron	7.30	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P399742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2254386	Mandestrobin	4.70	Spike	P	0 - 30
2254386	MCCP	6.70	Spike	P	0 - 30
2254386	Naproxen	7.41	Spike	P	0 - 30
2254386	Primidone	11.6	Spike	P	0 - 30
2254386	Pyraclostrobin	13.0	Spike	P	0 - 30
2254386	Thiamethoxam	3.17	Spike	P	0 - 30
2254386	Tolfenpyrad	28.3	Spike	P	0 - 30
2254386	Triclopyr	3.84	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255371	3-Hydroxycarbofuran	0.349	Spike	P	0 - 30
2255371	Aldicarb	9.34	Spike	P	0 - 30
2255371	Aldicarb Sulfone	6.21	Spike	P	0 - 30
2255371	Aldicarb Sulfoxide	8.78	Spike	P	0 - 30
2255371	Carbaryl	4.65	Spike	P	0 - 30
2255371	Carbofuran	4.94	Spike	P	0 - 30
2255371	Methiocarb	17.2	Spike	P	0 - 30
2255371	Methomyl	6.04	Spike	P	0 - 30
2255371	Oxamyl	1.26	Spike	P	0 - 30
2255371	Propoxur	7.90	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399865

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255020	Acesulfame K	2.82	Spike	P	0 - 30
2255020	AMPA	2.28	Spike	P	0 - 30
2255020	Endothall	16.3	Spike	P	0 - 30
2255020	Glufosinate	1.33	Spike	P	0 - 30
2255020	Glyphosate	4.62	Spike	P	0 - 30
2255020	Sucralose	2.76	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P399898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2253306	Total Alkalinity	0.670	Sample	P	0 - 5.2

Reference Method: SM 2540 D-2011
Batch ID: P400049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2254967	TSS	7.41	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P400025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255537	Fluoride	0.457	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P400169

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2253598	Organic Carbon	0.0899	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P400363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255144	Organic Carbon	0.523	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2255154
Field Sample ID: G3NW0186

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	77.4	P	30 - 160

Lab Sample ID: 2255155
Field Sample ID: G3NW0186

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	132	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.4	P	30 - 160
EPA 8321B	Diuron-d6	97.2	P	30 - 160
EPA 8321B	Endothall-d6	44.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	35.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.5	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	6.44	F	30 - 160

Lab Sample ID: 2255158
Field Sample ID: G3NW0186

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	89.0	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	54.9	P	30 - 110
EPA 8276	Decachlorobiphenyl	80.5	P	29 - 92.0
EPA 8276	PCNB	81.7	P	43 - 134

Lab Sample ID: 2255159
Field Sample ID: G3NW0186

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	66.7	P	20 - 200
EPA 8270E	Simazine-d10	114	P	73 - 135
EPA 8270E	Terbufos-d10	96.6	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A106113

Included Lab Sample IDs: 2255142, 2255145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A106120

Included Lab Sample IDs: 2255140, 2255143

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A106143

Included Lab Sample IDs: 2255141, 2255144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A106152

Included Lab Sample IDs: 2255140, 2255143

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.7	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A106165

Included Lab Sample IDs: 2255141, 2255144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	100	P/P	90 - 110
Total-P	100	98.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A106190

Included Lab Sample IDs: 2255155

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	82.6	85.6	P/P	60 - 160
Glufosinate	89.7	88.5	P/P	60 - 160
Glyphosate	93.6	89.6	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A106192

Included Lab Sample IDs: 2255155

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	84.2	77.2	P/P	60 - 160
Endothall	75.8	75.7	P/P	60 - 160
Sucralose	103	110	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A106193
 Included Lab Sample IDs: 2255158

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	97.1		P	80 - 120
Alpha-Chlordane	103		P	80 - 120
Beta-BHC	89.4		P	80 - 120
Beta-Cyfluthrin	90.2		P	80 - 120
Bifenthrin	96.6		P	80 - 120
Carbophenothion	97.0		P	80 - 120
Chlorothalonil	97.1		P	80 - 120
Cis-Nonachlor	98.6		P	80 - 120
Cypermethrin	90.9		P	80 - 120
Dacthal	102		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDE-p,p'	99.3		P	80 - 120
DDT-p,p'	99.3		P	80 - 120
Delta-BHC	88.3		P	80 - 120
Deltamethrin	87.8		P	80 - 120
Dichlobenil	94.4		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	103		P	80 - 120
Endosulfan I	102		P	80 - 120
Endosulfan II	98.8		P	80 - 120
Endosulfan Sulfate	94.6		P	80 - 120
Endrin	97.4		P	80 - 120
Endrin Aldehyde	92.3		P	80 - 120
Endrin Ketone	99.4		P	80 - 120
Esfenvalerate	91.2		P	80 - 120
Ethalfuralin	100		P	80 - 120
Fenpropathrin	103		P	80 - 120
Gamma-BHC	92.3		P	80 - 120
Gamma-Chlordane	100		P	80 - 120
Heptachlor	99.4		P	80 - 120
Heptachlor Epoxide	97.9		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Kepone	83.7		P	80 - 120
Lambda-Cyhalothrin	90.8		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	103		P	80 - 120
Mirex	99.7		P	80 - 120
Permethrin	92.2		P	80 - 120
Phenothrin	96.4		P	80 - 120
Piperonyl Butoxide	92.8		P	80 - 120
Prallethrin	104		P	80 - 120
Tau-Fluvalinate	92.0		P	80 - 120
Tetramethrin	102		P	80 - 120
Trans-Nonachlor	102		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	94.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
 Run ID: A106199
 Included Lab Sample IDs: 2255155

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.7	84.5	P/P	50 - 150
2,4,5-T	102	93.6	P/P	50 - 150
3-Hydroxycarbofuran	108	103	P/P	60 - 150
Acetaminophen	79.2	77.0	P/P	60 - 160
Acetamiprid	101	95.6	P/P	50 - 150
Afidopyropen	127	120	P/P	50 - 150
Aldicarb	103	105	P/P	60 - 150
Aldicarb Sulfone	99.2	99.0	P/P	50 - 150
Aldicarb Sulfoxide	98.6	102	P/P	50 - 150
Bentazon	102	101	P/P	50 - 160
Benzovindiflupyr	106	87.7	P/P	50 - 160
Carbamazepine	115	106	P/P	60 - 150
Carbaryl	116	113	P/P	60 - 150
Carbofuran	93.3	91.7	P/P	50 - 150
Clothianidin	104	91.5	P/P	60 - 150
Dinotefuran	87.7	88.4	P/P	50 - 150
Diuron	104	101	P/P	60 - 160
Fenuron	99.6	102	P/P	60 - 150
Fluridone	126	125	P/P	60 - 160
Hydrocodone	104	103	P/P	60 - 150
Ibuprofen	71.3	83.9	P/P	50 - 160
Imazapyr	106	86.3	P/P	50 - 150
Imidacloprid	87.7	92.3	P/P	60 - 150
Linuron	124	109	P/P	60 - 150
Mandestrobin	113	110	P/P	50 - 150
MCPP	116	115	P/P	50 - 150
Methiocarb	125		P	50 - 150
Methomyl	101	104	P/P	50 - 150
Naproxen	119	93.2	P/P	50 - 160
Oxamyl	94.0	97.8	P/P	50 - 150
Primidone	112	100	P/P	60 - 150
Propoxur	104	96.1	P/P	50 - 150
Pyraclostrobin	90.6	96.3	P/P	60 - 150
Thiamethoxam	93.9	94.5	P/P	50 - 150
Tolfenpyrad	115	109	P/P	60 - 150
Triclopyr	105	110	P/P	50 - 150

Reference Method: SM 4500 F-C-2011
 Run ID: A106203
 Included Lab Sample IDs: 2255140, 2255143

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Run ID: A106212
 Included Lab Sample IDs: 2255141, 2255144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.8	93.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A106258

Included Lab Sample IDs: 2255141

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

Reference Method: EPA 8276

Run ID: A106317

Included Lab Sample IDs: 2255158

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.3		P	80 - 120
Toxaphene	90.8		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A106327

Included Lab Sample IDs: 2255141, 2255144

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

Reference Method: SM 5310 B-2011

Run ID: A106360

Included Lab Sample IDs: 2255144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	96.9	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A106448

Included Lab Sample IDs: 2255159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	103		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	99.2		P	80 - 120
Atrazine	98.1		P	80 - 120
Atrazine Desethyl	106		P	80 - 120
Azinphos Methyl	94.7		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	106		P	80 - 120
Caffeine	86.0		P	80 - 120
Carbophenothion	102		P	80 - 120
Carfentrazone Ethyl	100		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	99.2		P	80 - 120
Cyanazine	107		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	96.8		P	80 - 120
Difenoconazole	88.5		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	97.1		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A106448
Included Lab Sample IDs: 2255159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethion	98.8		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	96.6		P	80 - 120
Fenbuconazole	101		P	80 - 120
Fipronil	100		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	98.3		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	101		P	80 - 120
Flumioxazin	93.2		P	80 - 120
Flutolanil	104		P	80 - 120
Fluxapyroxad	102		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	106		P	80 - 120
Iprodione	115		P	80 - 120
Malathion	91.7		P	80 - 120
Metalaxyl	106		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	102		P	80 - 120
Mevinphos	99.7		P	80 - 120
Molinate	102		P	80 - 120
Myclobutanil	101		P	80 - 120
Naled	103		P	80 - 120
Norflurazon	102		P	80 - 120
Oxadiazon	106		P	80 - 120
Oxyfluorfen	97.7		P	80 - 120
Parathion Ethyl	102		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	109		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	93.9		P	80 - 120
Prometon	99.6		P	80 - 120
Prometryn	108		P	80 - 120
Pronamide	96.3		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	106		P	80 - 120
Sulfentrazone	94.2		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	103		P	80 - 120
Terbutylazine	103		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						3.46	
EPA 350.1 Rev. 2.0	Ammonia-N	101		97.8	99.6			1.71
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.8		99.2	95.1			2.37
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5		95.8	96.3			0.506
EPA 365.1 Rev. 2.0	Total-P	103		95.0	98.9			4.01
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		95.5	98.1			2.69
EPA 8270E	Acetochlor	112	100	106	113	11.4		6.40
	Alachlor	108	95.5	90.7	103	12.6		13.0
	Aldrin	43.8	50.0	50.8	58.0	13.2		13.3
	Alpha-BHC	89.5	91.3	86.6	91.6	2.06		5.67
	Alpha-Chlordane	90.2	80.5	69.2	80.1	11.4		14.6
	Ametryn	94.7	97.1	92.9	86.5	2.42		7.11
	Atrazine	99.8	100			0.128		5.98
	Atrazine Desethyl	72.3	69.9	80.5	85.1	3.36		5.55
	Azinphos Methyl	111	127	129	122	13.7		5.80
	Azoxystrobin	97.1	102	107	123	5.38		14.3
	Beta-BHC	105	104	121	136	0.852		11.3
	Beta-Cyfluthrin	117	97.5	99.0	105	18.3		5.49
	Bifenthrin	87.3	80.3	63.7	56.8	8.33		11.3
	Bromacil	91.6	86.9	82.3	94.6	5.23		13.8
	Butylate	59.9	60.0	71.4	95.5	0.124		28.9
	Caffeine	81.7	78.3	103	104	4.29		0.609
	Carbophenothion	61.3	50.2	47.9	63.8	19.9		28.4
	Carbophenothion	103	101	94.6	98.7	1.88		4.23
	Carfentrazone Ethyl	120	110	101	104	8.87		2.37
	Chlorothalonil	106	117	199	218	9.76		8.82
	Chlorpyrifos Ethyl	90.4	86.6	85.7	92.4	4.35		7.52
	Chlorpyrifos Methyl	87.8	89.0	87.6	90.9	1.33		3.66
	Cis-Nonachlor	93.6	93.2	81.3	95.9	0.509		16.5
	Cyanazine	118	109	97.9	110	7.70		11.6
	Cypermethrin	111	92.5	87.3	92.2	18.2		5.42
	Dacthal	97.6	86.7	83.6	88.3	11.9		5.46
	DDD-p,p'	94.4	86.4	79.9	87.1	8.81		8.56
	DDE-p,p'	86.3	77.2	59.7	68.2	11.2		13.2
	DDT-p,p'	84.8	84.6	71.7	78.1	0.224		8.61
	Delta-BHC	123	119	56.5	65.9	2.71		15.3
	Deltamethrin	109	76.2	80.0	30.8	35.3		88.9
	Demeton	30.3	29.9	46.6	48.6	1.47		4.32
	Diazinon	100	97.8	99.1	109	2.54		9.75
	Dichlobenil	56.8	52.9	45.1	43.4	7.04		3.89
	Dicofol	88.1	87.2	60.7	67.3	1.04		10.4
	Dieldrin	95.7	84.4	70.9	78.8	12.6		10.0
	Difenoconazole	126	151	148	137	17.6		7.65
	Dimethenamid	84.9	77.7	78.1	79.8	8.82		2.14
	Disulfoton	74.9	74.0	91.9	69.4	1.21		27.9
	Dithiopyr	96.5	85.1	84.4	96.9	12.5		13.7
	Endosulfan I	89.9	87.3	79.8	89.0	2.96		10.8
	Endosulfan II	103	118	110	125	13.5		12.3
	Endosulfan Sulfate	97.0	84.7	78.4	89.1	13.5		12.7
	Endrin	93.9	103	94.4	105	9.38		10.7
	Endrin Aldehyde	91.7	80.9	65.2	78.5	12.5		18.6
	Endrin Ketone	101	95.1	101	111	6.27		9.80
	EPTC	39.2	40.9	44.3	52.8	4.26		17.5
	Esfenvalerate	117	86.7	104	115	29.5		9.74

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Ethalfuralin	83.9	86.2	70.5	78.5	2.72	10.6
	Ethion	90.6	80.9	63.7	44.2	11.3	36.0
	Ethoprop	77.0	83.1	87.1	97.5	7.51	11.3
	Fenamiphos	97.6	95.4	85.6	80.8	2.32	5.74
	Fenbuconazole	114	106	101	107	7.51	6.02
	Fenpropathrin	90.2	86.8	72.1	73.8	3.84	2.25
	Fipronil	110	97.9	95.2	96.4	11.3	1.21
	Fipronil Desulfinyl	117	101	95.1	100	15.5	5.09
	Fipronil Sulfide	92.1	85.1	76.0	73.8	7.97	2.98
	Fipronil Sulfone	89.4	81.1	72.8	85.0	9.84	14.0
	Fluazifop-P-butyl	103	97.4	90.7	97.8	5.89	7.60
	Fludioxonil	108	95.8	90.9	92.8	12.2	2.07
	Flumioxazin	137	164	173	172	18.4	0.614
	Flutolanil	102	90.3	80.6	85.9	12.6	6.30
	Fluxapyroxad	99.3	86.1	86.2	80.0	14.3	7.13
	Fonofos	77.7	81.6	81.4	92.2	4.88	12.5
	Gamma-BHC	94.2	91.6	67.8	74.9	2.80	9.91
	Gamma-Chlordane	84.6	74.9	63.7	72.2	12.1	12.6
	Heptachlor	75.2	101	75.3	82.1	29.1	8.60
	Heptachlor Epoxide	89.1	81.4	74.8	82.8	8.94	10.1
	Hexachlorobenzene	69.9	57.5	57.8	59.1	19.4	2.23
	Hexazinone	94.4	89.1			5.77	11.3
	Imazalil	102	95.2	114	95.1	6.82	18.0
	Iprodione	111	101	95.3	96.5	10.1	1.27
	Kepone	115	95.5	80.9	103	18.9	24.2
	Lambda-Cyhalothrin	144	104	112	133	32.4	17.0
	Malathion	105	105	96.5	103	0.621	6.59
	Metalaxyl	105	93.6	87.8	96.1	11.3	9.00
	Methoxychlor	97.9	85.6	91.1	93.7	13.4	2.74
	Metolachlor	106	96.2	92.6	102	9.20	8.99
	Metribuzin	98.6	98.9	96.8	119	0.245	20.6
	Mevinphos	63.0	69.8	76.6	87.6	10.2	13.3
	MGK-264	63.7	53.1	59.6	73.8	18.2	21.2
	Mirex	151	148	139	162	2.05	15.2
	Molinate	49.2	56.4	61.2	72.5	13.6	16.9
	Myclobutanil	98.4	92.4	86.6	88.3	6.26	1.95
	Naled	38.8	43.8	50.8	58.4	12.1	13.8
	Norflurazon	97.9	87.3	86.0	88.9	11.4	3.32
	Oxadiazon	97.9	87.5	85.0	86.2	11.2	1.44
	Oxyfluorfen	112	112	113	106	0.167	6.65
	Parathion Ethyl	88.5	89.8	87.5	96.7	1.44	9.93
	Parathion Methyl	99.8	104	101	115	3.66	12.8
	Pendimethalin	86.8	89.0	93.3	102	2.39	9.34
	Permethrin	103	80.4	86.5	89.7	24.7	3.63
	Phenothrin	61.6	42.1	42.0	41.6	37.5	1.01
	Phorate	103	105	145	161	1.38	10.4
	Piperonyl Butoxide	97.6	85.5	67.8	75.2	13.2	10.4
	Prallethrin	61.8	50.7	48.6	62.3	19.9	24.6
	Prodiamine	44.1	48.4	58.1	63.2	9.34	8.44
	Prometon	91.9	86.5	84.3	96.3	6.14	13.2
	Prometryn	98.7	92.3	85.0	89.4	6.69	5.11
	Pronamide	97.1	95.9	100	108	1.28	7.47
	Propiconazole	104	88.2	86.1	92.5	16.8	7.17
	Pyriproxyfen	97.3	93.5	88.0	116	3.97	27.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Simazine	86.7	86.5	92.4	109	0.195	11.8
	Sulfentrazone	85.9	77.1	79.8	83.9	10.9	5.04
	Tau-Fluvalinate	86.9	77.2	69.0	67.7	11.8	1.91
	Tebuconazole	94.3	63.7	66.0	53.5	38.7	21.0
	Terbufos	91.3	93.5	98.5	110	2.35	11.1
	Terbutylazine	102	89.6	70.6	79.5	13.0	9.44
	Tetramethrin	71.8	56.9	55.2	63.0	23.2	13.3
	Trans-Nonachlor	89.4	77.1	65.5	75.4	14.9	14.1
	Triclosan Methyl	93.3	83.6	76.2	82.2	11.0	7.55
	Trifluralin	83.6	84.8	65.6	74.6	1.46	12.2
EPA 8276	Chlordane	97.4	92.5	92.0	97.8	5.20	6.16
	Toxaphene	96.0	93.3	86.2	94.8	2.76	9.48
EPA 8321B	2,4-D	106		127	139		8.10
	2,4,5-T	99.3		150	161		7.63
	3-Hydroxycarbofuran	79.4		80.2	80.4		0.349
	Acesulfame K	80.5		84.0	86.4		2.82
	Acetaminophen	60.6		48.3	51.9		5.02
	Acetamiprid	78.4		90.4	85.9		5.13
	Afidopyropen	73.3		81.3	86.6		6.35
	Aldicarb	70.9		78.9	71.8		9.34
	Aldicarb Sulfone	56.2		89.5	84.1		6.21
	Aldicarb Sulfoxide	97.3		55.2	50.5		8.78
	AMPA	99.4		95.1	97.3		2.28
	Bentazon	39.2					11.4
	Benzovindiflupyr	78.0		73.8	78.6		6.22
	Carbamazepine	76.5		77.5	70.6		4.66
	Carbaryl	73.7		51.1	48.8		4.65
	Carbofuran	69.6		52.2	49.7		4.94
	Clothianidin	77.5		109	101		7.29
	Dinotefuran	68.1		97.4	98.4		1.06
	Diuron	66.8		69.0	64.6		6.65
	Endothall	71.4		70.2	82.7		16.3
	Fenuron	85.5		79.8	81.6		2.17
	Fluridone	83.2		86.1	82.8		2.03
	Glufosinate	101		103	105		1.33
	Glyphosate	103		106	111		4.62
	Hydrocodone	81.6		83.6	87.4		4.45
	Ibuprofen	65.1		65.0	85.4		27.1
	Imazapyr	91.7					2.51
	Imidacloprid	72.3		157	162		3.25
	Linuron	59.6		74.5	80.2		7.30
	Mandestrobin	88.0		92.8	97.3		4.70
	MCPP	147		199	213		6.70
	Methiocarb	68.2		71.0	59.7		17.2
	Methomyl	90.4		78.4	73.8		6.04
	Naproxen	81.4		94.0	101		7.41
	Oxamyl	85.7		75.7	74.8		1.26
	Primidone	86.5		104	85.9		11.6
	Propoxur	75.2		56.3	52.0		7.90
	Pyraclostrobin	62.0		74.7	65.6		13.0
	Sucralose	102		99.7	103		2.76
	Thiamethoxam	52.4		119	116		3.17
	Tolfenpyrad	47.0		48.4	64.3		28.3
	Triclopyr	112		155	161		3.84

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
					LCS	
SM 2320 B-2011	Total Alkalinity	99.5			0.670	
SM 2540 D-2011	TSS				7.41	
SM 4500 F-C-2011	Fluoride	99.8				0.457
SM 5310 B-2011	Organic Carbon	98.6	100	100		0.0899
	Organic Carbon	96.6	95.7	95.1		0.523

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2255140, 2255143
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2255141, 2255144
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2255141, 2255144
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2255141, 2255144
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2255141, 2255144
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2255142, 2255145
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2255158
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2255159
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2255158
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2255154
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2255155
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2255140, 2255143
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2255140, 2255143
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2255140, 2255143
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2255141, 2255144

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	06/16/2021			06/16/2021 10:09	Sarah A Nixon	2255140
	06/16/2021			06/16/2021 10:12	Sarah A Nixon	2255143
EPA 350.1 Rev. 2.0	06/16/2021			06/28/2021 12:34	Ping Hua	2255141
	06/16/2021			06/28/2021 12:39	Ping Hua	2255144
EPA 351.2 Rev. 2.0	06/16/2021	06/18/2021 14:20	Benjamin T. Nordmann	06/21/2021 12:10	Letuzia M De Oliveira	2255141
	06/16/2021	06/18/2021 14:20	Benjamin T. Nordmann	06/21/2021 12:12	Letuzia M De Oliveira	2255144
EPA 353.2 Rev. 2.0	06/16/2021			06/17/2021 11:23	Beverly Y. Sanders	2255141
	06/16/2021			06/17/2021 11:24	Beverly Y. Sanders	2255144
EPA 365.1 Rev. 2.0	06/16/2021	06/17/2021 11:39	Shengyu Ding	06/18/2021 11:05	Shengyu Ding	2255141
	06/16/2021	06/17/2021 11:39	Shengyu Ding	06/18/2021 11:13	Shengyu Ding	2255144
EPA 365.1 Rev. 2.0 dissolved	06/16/2021			06/16/2021 11:18	Ping Hua	2255142
	06/16/2021			06/16/2021 11:20	Ping Hua	2255145
EPA 8270E	06/16/2021	06/17/2021 08:00	Fe-Val Siddell	06/19/2021 01:31	Arthur Maknenko	2255158
	06/16/2021	06/21/2021 08:00	Fe-Val Siddell	06/22/2021 15:19	Vandana T. Nagar	2255159
EPA 8276	06/16/2021	06/17/2021 08:00	Fe-Val Siddell	06/25/2021 15:07	Chiran X. Ghimire	2255158
EPA 8321B	06/16/2021	06/16/2021 14:00	Hoor Shaik	06/21/2021 08:36	Juyoung Kim	2255155
	06/16/2021	06/18/2021 11:00	Juyoung Kim	06/18/2021 14:39	Juyoung Kim	2255155
	06/16/2021	06/18/2021 11:00	Juyoung Kim	06/19/2021 01:33	Juyoung Kim	2255155
	06/16/2021	06/21/2021 09:00	Hoor Shaik	06/21/2021 18:24	Juyoung Kim	2255154
SM 2320 B-2011	06/16/2021			06/18/2021 01:38	Dale L. Simmons	2255140
	06/16/2021			06/18/2021 01:52	Dale L. Simmons	2255143
SM 2540 D-2011	06/16/2021			06/18/2021 15:41	Yijie Li	2255140, 2255143
SM 4500 F-C-2011	06/16/2021			06/22/2021 03:37	Patrick M. Roche	2255140
	06/16/2021			06/22/2021 03:42	Patrick M. Roche	2255143
SM 5310 B-2011	06/16/2021			06/23/2021 15:16	Madeline Gruver	2255141
	06/16/2021			06/29/2021 12:36	Madeline Gruver	2255144