

Chemical Analysis Report

SE-DIST-2021-05-27-01

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

Event Description: **SMP - Fort Pierce/Drum 3**
Request ID: **RQ-2021-05-03-12**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Drew Liddick

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

Certified by: Colin Wright, Program Administrator

Date Certified: 18-JUN-2021 09:35

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

Case Narrative

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

Results for the following analytical groups are included in this report: Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Fort Pierce Farm Canal @ Taylor Dairy

Collection Date/Time: 05/26/2021 09:45

Field ID: G2SE0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250593	EPA 180.1 Rev. 2.0	Turbidity	2.8	A	NTU	P398943	
	EPA 300.0 Rev. 2.1	Chloride	550		mg Cl/L	P399476	
		Sulfate	120		mg SO4/L	P399479	
	SM 2120 B-2011	Color (true)	30		PCU	P398933	
	SM 2320 B-2011	Total Alkalinity	176		mg CaCO3/L	P399026	
	SM 2540 C-2011	TDS	1.35E+03		mg/L	P399416	
	SM 2540 D-2011	TSS	4	I	mg/L	P399104	
	SM 4500 F-C-2011	Fluoride	0.59		mg F/L	P399028	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P399371	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.67		mg N/L	P399036	
2250594	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P398984	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P398974	
	SM 5310 B-2011	Organic Carbon	9.0		mg C/L	P399095	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.079		mg P/L	P398938	
	EPA 8321B	Aldicarb	0.020	U	ug/L	P398814	
2250595		Aldicarb Sulfone	0.0020	U	ug/L	P398814	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P398814	
		Carbaryl	0.0020	U	ug/L	P398814	
		Carbofuran	0.0020	U	ug/L	P398814	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P398814	
		Methiocarb	0.0020	U	ug/L	P398814	
		Methomyl	0.0020	U	ug/L	P398814	
		Oxamyl	0.0020	U	ug/L	P398814	
		Propoxur	0.0020	U	ug/L	P398814	
		2,4-D	0.033		ug/L	P398813	
2250606		Acesulfame K	0.10	U	ug/L	P398724	
		2,4,5-T	0.0040	U	ug/L	P398813	
		AMPA	0.48		ug/L	P398724	
		Sucralose	0.060		ug/L	P398724	
		Acetaminophen	0.0080	U	ug/L	P398813	RPD
		Acetamiprid	0.0020	U	ug/L	P398813	
		Endothall	0.25	U	ug/L	P398724	
		Glufosinate	0.10	U	ug/L	P398724	
		Glyphosate	1.1		ug/L	P398724	
		Afidopyropen	0.0020	U	ug/L	P398813	
		Bentazon	0.62		ug/L	P398813	
		Benzovindiflupyr	0.0020	U	ug/L	P398813	
		Carbamazepine	8.0E-04	U	ug/L	P398813	
		Clothianidin	0.0040	I	ug/L	P398813	
		Dinotefuran	0.0020	U	ug/L	P398813	
		Diuron	0.0020	U	ug/L	P398813	
		Fenuron	0.016	U	ug/L	P398813	
		Fluridone	8.0E-04	U	ug/L	P398813	

Field ID: G2SE0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250606	EPA 8321B	Imazapyr	0.057		ug/L	P398813	
		Hydrocodone	0.0020	U	ug/L	P398813	
		Ibuprofen	0.020	U	ug/L	P398813	
		Imidacloprid	0.0093		ug/L	P398813	
		Linuron	0.0040	U	ug/L	P398813	
		Mandestrobin	0.0020	U	ug/L	P398813	
		MCPP	0.0020	U	ug/L	P398813	
		Naproxen	0.0080	U	ug/L	P398813	MS
		Primidone	0.0040	U	ug/L	P398813	
		Pyraclostrobin	0.0020	U	ug/L	P398813	
		Thiamethoxam	0.0099		ug/L	P398813	
		Tolfenpyrad	0.0020	U	ug/L	P398813	
		Triclopyr	0.0040	U	ug/L	P398813	
2250607	EPA 8270E	Aldrin	0.73	U	ng/L	P398912	RPD
		Alpha-BHC	0.11	U	ng/L	P398912	
		Alpha-Chlordane	0.22	U	ng/L	P398912	
		Beta-BHC	0.11	U	ng/L	P398912	
		Beta-Cyfluthrin**	1.4	U	ng/L	P398912	RPD
		Bifenthrin**	0.56	U	ng/L	P398912	
		Chlorothalonil	0.56	U	ng/L	P398912	
		Cis-Nonachlor**	0.22	U	ng/L	P398912	
		Cypermethrin	1.7	U	ng/L	P398912	RPD
		Dacthal**	0.17	U	ng/L	P398912	
		DDD-p,p'	0.39	I	ng/L	P398912	
		DDE-p,p'	0.22	U	ng/L	P398912	
		DDT-p,p'	0.28	U	ng/L	P398912	
		Delta-BHC	0.45	U	ng/L	P398912	
		Deltamethrin**	1.4	UJ	ng/L	P398912	LCS, RPD
		Dichlobenil**	0.11	U	ng/L	P398912	
		Dicofol	1.4	U	ng/L	P398912	
		Dieldrin	0.45	U	ng/L	P398912	
		Endosulfan I	0.45	U	ng/L	P398912	
		Endosulfan II	0.45	U	ng/L	P398912	
		Endosulfan Sulfate	0.34	U	ng/L	P398912	
		Endrin	0.45	U	ng/L	P398912	
		Endrin Aldehyde	0.84	U	ng/L	P398912	
		Endrin Ketone	0.45	U	ng/L	P398912	
		Esfenvalerate**	0.84	U	ng/L	P398912	RPD
		Ethalfuralin**	0.17	U	ng/L	P398912	
		Fenpropathrin**	0.28	U	ng/L	P398912	
		Gamma-BHC	0.14	U	ng/L	P398912	
		Gamma-Chlordane	0.22	U	ng/L	P398912	
		Heptachlor	0.22	U	ng/L	P398912	
		Heptachlor Epoxide	0.28	U	ng/L	P398912	
		Hexachlorobenzene	1.1	U	ng/L	P398912	

Field ID: G2SE0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250607	EPA 8270E	Kepone**	5.6	U	ng/L	P398912	
		Lambda-Cyhalothrin**	0.84	U	ng/L	P398912	RPD
		Methoxychlor	0.34	U	ng/L	P398912	
		MGK-264**	0.22	U	ng/L	P398912	RPD
		Mirex	0.34	U	ng/L	P398912	
		Permethrin	1.8	U	ng/L	P398912	
		Phenothrin**	1.0	U	ng/L	P398912	RPD
		Piperonyl Butoxide**	0.17	U	ng/L	P398912	
		Prallethrin**	2.2	U	ng/L	P398912	
		Tau-Fluvalinate**	0.28	U	ng/L	P398912	RPD
		Tetramethrin**	0.84	U	ng/L	P398912	
		Trans-Nonachlor**	0.22	U	ng/L	P398912	
		Triclosan Methyl**	0.17	U	ng/L	P398912	
		Trifluralin	0.22	U	ng/L	P398912	
		Chlordane	5.6	U	ng/L	P398912	
2250608	EPA 8270E	Toxaphene	34	U	ng/L	P398912	
		Acetochlor	0.25	U	ng/L	P398911	
		Alachlor	0.25	U	ng/L	P398911	
		Ametryn	4.4		ng/L	P398911	
		Atrazine	31		ng/L	P398911	
		Atrazine Desethyl	4.8	I	ng/L	P398911	RPD
		Azinphos Methyl	2.0	U	ng/L	P398911	MS, RPD
		Azoxystrobin**	4.4		ng/L	P398911	
		Bromacil	7.7		ng/L	P398911	
		Butylate	0.40	U	ng/L	P398911	
		Caffeine**	7.5	U	ng/L	P398911	
		Carbophenothion	0.50	U	ng/L	P398911	
		Carfentrazone Ethyl**	0.10	U	ng/L	P398911	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P398911	
		Chlorpyrifos Methyl	0.050	U	ng/L	P398911	
		Cyanazine	3.3	U	ng/L	P398911	
		Demeton	1.5	U	ng/L	P398911	
		Diazinon	0.13	U	ng/L	P398911	
		Difenoconazole**	0.60	U	ng/L	P398911	
		Dimethenamid**	0.10	U	ng/L	P398911	
		Disulfoton	0.50	U	ng/L	P398911	
		Dithiopyr**	0.18	U	ng/L	P398911	
		EPTC	1.3	U	ng/L	P398911	
		Ethion	0.15	U	ng/L	P398911	
		Ethoprop	0.10	U	ng/L	P398911	
		Fenamiphos	0.50	U	ng/L	P398911	
		Fenbuconazole**	1.2		ng/L	P398911	
		Fipronil	0.25	U	ng/L	P398911	
		Fipronil Desulfinyl**	0.13	U	ng/L	P398911	
		Fipronil Sulfide	0.15	U	ng/L	P398911	

Field ID: G2SE0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250608	EPA 8270E	Fipronil Sulfone	0.15	U	ng/L	P398911	
		Fluazifop-P-butyl**	0.10	U	ng/L	P398911	
		Fludioxonil**	0.13	U	ng/L	P398911	
		Flumioxazin**	1.8	U	ng/L	P398911	
		Flutolanil**	0.34	I	ng/L	P398911	
		Fluxapyroxad**	0.29	I	ng/L	P398911	
		Fonofos	0.20	U	ng/L	P398911	
		Hexazinone	4.3		ng/L	P398911	
		Imazalil**	0.75	U	ng/L	P398911	
		Iprodione**	0.60	U	ng/L	P398911	
		Malathion	0.35	U	ng/L	P398911	
		Metalaxyl	22		ng/L	P398911	
		Metolachlor	93		ng/L	P398911	
		Metribuzin	3.3	U	ng/L	P398911	
		Mevinphos	1.1	U	ng/L	P398911	
		Molinate	0.30	U	ng/L	P398911	
		Myclobutanil**	0.25	U	ng/L	P398911	
		Naled**	1.5	UJ	ng/L	P398911	LCS
		Norflurazon	47		ng/L	P398911	
		Oxadiazon	1.6		ng/L	P398911	
		Oxyfluorfen**	0.15	U	ng/L	P398911	
		Parathion Ethyl	0.25	U	ng/L	P398911	
		Parathion Methyl	0.55	U	ng/L	P398911	
		Pendimethalin	1.0	U	ng/L	P398911	
		Phorate	0.53	U	ng/L	P398911	
		Prodiamine**	0.18	U	ng/L	P398911	
		Prometon	0.90	U	ng/L	P398911	
		Prometryn	0.20	U	ng/L	P398911	
		Pronamide**	0.15	U	ng/L	P398911	
		Propiconazole**	0.50	U	ng/L	P398911	
		Pyriproxyfen**	0.13	U	ng/L	P398911	RPD
		Simazine	0.50	U	ng/L	P398911	
		Sulfentrazone**	0.65	I	ng/L	P398911	
		Tebuconazole**	0.68	I	ng/L	P398911	
		Terbufos	0.10	U	ng/L	P398911	
		Terbuthylazine	0.43	U	ng/L	P398911	

Ref. Method and Comment:

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

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

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

Sample Location: Fort Drum Creek @ 441

Collection Date/Time: 05/26/2021 11:05

Field ID: G3SE0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250596	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P398943	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P399476	
		Sulfate	0.43	I	mg SO4/L	P399479	
	SM 2120 B-2011	Color (true)	35		PCU	P398933	
	SM 2320 B-2011	Total Alkalinity	61		mg CaCO3/L	P399026	
	SM 2540 C-2011	TDS	98.5	A	mg/L	P399416	
	SM 2540 D-2011	TSS	9	IA	mg/L	P399104	
	SM 4500 F-C-2011	Fluoride	0.064	I	mg F/L	P399028	
2250597	EPA 350.1 Rev. 2.0	Ammonia-N	0.077		mg N/L	P399371	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P399037	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P398984	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P398974	
	SM 5310 B-2011	Organic Carbon	7.9		mg C/L	P399095	
2250598	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.028		mg P/L	P398938	

Ref. Method and Comment:

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

Sample Location: Sweetwater Branch @ 441

Collection Date/Time: 05/26/2021 11:20

Field ID: G3SE0025

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250604	EPA 8321B	Acesulfame K	0.10	U	ug/L	P398724	
		2,4-D	0.0020	U	ug/L	P398813	
		AMPA	1.0	U	ug/L	P398724	
		2,4,5-T	0.0040	U	ug/L	P398813	
		Sucralose	0.010	U	ug/L	P398724	
		Acetaminophen	0.0080	U	ug/L	P398813	RPD
		Endothall	0.25	U	ug/L	P398724	
		Acetamiprid	0.0020	U	ug/L	P398813	
		Glufosinate	1.0	U	ug/L	P398724	
		Glyphosate	1.0	U	ug/L	P398724	
		Afidopyropen	0.0020	U	ug/L	P398813	
		Bentazon	8.0E-04	U	ug/L	P398813	
		Benzovindiflupyr	0.0020	U	ug/L	P398813	
		Carbamazepine	8.0E-04	U	ug/L	P398813	
		Clothianidin	0.0020	U	ug/L	P398813	
		Dinotefuran	0.0020	U	ug/L	P398813	
		Diuron	0.0020	U	ug/L	P398813	
		Fenuron	0.016	U	ug/L	P398813	
		Fluridone	8.0E-04	U	ug/L	P398813	
		Imazapyr	0.0050	I	ug/L	P398813	
		Hydrocodone	0.0020	U	ug/L	P398813	
		Ibuprofen	0.020	U	ug/L	P398813	
		Imidacloprid	0.0026	I	ug/L	P398813	
		Linuron	0.0040	U	ug/L	P398813	
		Mandestrobin	0.0020	U	ug/L	P398813	
		MCPP	0.0020	U	ug/L	P398813	
		Naproxen	0.0080	U	ug/L	P398813	MS
		Primidone	0.0040	U	ug/L	P398813	
		Pyraclostrobin	0.0020	U	ug/L	P398813	
		Thiamethoxam	0.0020	U	ug/L	P398813	
		Tolfenpyrad	0.0020	U	ug/L	P398813	
		Triclopyr	0.0040	U	ug/L	P398813	

Ref. Method and Comment:

EPA 8321B: MDL for some parameters elevated due to matrix interference.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P398943

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399371

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399036

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399037

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398984

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398974

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398938

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P398911

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P398911

Component	Result	Code	Units
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
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
Metaxyl	0.75	U	ng/L
Metaxyl	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P398911

Component	Result	Code	Units
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
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 8270E

Batch ID: P398912

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
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P398912

Component	Result	Code	Units
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 8276

Batch ID: P398912

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

Reference Method: EPA 8321B

Batch ID: P398724

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: P398813

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.012	I	ug/L
Acetamiprid	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P398813

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

Reference Method: EPA 8321B

Batch ID: P398814

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: SM 2120 B-2011

Batch ID: P398933

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P399026

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P399416

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P399104

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P399028

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P399095

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399036

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399037

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398984

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398974

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398938

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

Reference Method: EPA 8270E
Batch ID: P398911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	74.6	77.1	P/P	70 - 121
Alachlor	71.4	73.0	P/P	70 - 119
Ametryn	98.4	89.2	P/P	61 - 135
Atrazine	80.7	86.5	P/P	76 - 123

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P398911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine Desethyl	78.6	84.4	P/P	35 - 140
Azinphos Methyl	99.7	89.8	P/P	57 - 163
Azoxystrobin	118	118	P/P	43 - 231
Bromacil	66.6	67.4	P/P	42 - 123
Butylate	45.4	52.0	P/P	34 - 92.0
Caffeine	101	113	P/P	70 - 130
Carbophenothion	70.3	65.8	P/P	61 - 121
Carfentrazone Ethyl	84.6	76.3	P/P	62 - 139
Chlorpyrifos Ethyl	69.3	67.4	P/P	67 - 121
Chlorpyrifos Methyl	72.1	73.1	P/P	67 - 120
Cyanazine	151	154	P/P	20 - 226
Demeton	62.2	80.3	P/P	35 - 125
Diazinon	82.7	85.5	P/P	70 - 122
Difenoconazole	110	100	P/P	56 - 186
Dimethenamid	76.1	78.1	P/P	67 - 119
Disulfoton	61.0	77.9	P/P	47 - 120
Dithiopyr	71.7	72.9	P/P	67 - 118
EPTC	44.3	53.5	P/P	33 - 90.0
Ethion	51.8	58.4	P/P	40 - 133
Ethoprop	83.4	101	P/P	61 - 121
Fenamiphos	86.6	81.3	P/P	31 - 139
Fenbuconazole	90.1	76.9	P/P	66 - 141
Fipronil	83.3	77.3	P/P	62 - 129
Fipronil Desulfinyl	76.9	76.1	P/P	59 - 126
Fipronil Sulfide	80.1	76.6	P/P	63 - 117
Fipronil Sulfone	68.8	68.5	P/P	57 - 117
Fluazifop-P-butyl	81.8	73.5	P/P	63 - 124
Fludioxonil	86.1	77.4	P/P	63 - 123
Flumioxazin	107	106	P/P	34 - 245
Flutolanil	85.8	80.4	P/P	56 - 131
Fluxapyroxad	77.1	68.9	P/P	57 - 117
Fonofos	76.7	90.9	P/P	61 - 116
Hexazinone	80.9	90.1	P/P	55 - 138
Imazalil	84.2	78.0	P/P	33 - 143
Iprodione	78.6	70.5	P/P	59 - 118
Malathion	75.0	77.9	P/P	62 - 138
Metalaxyl	80.6	81.9	P/P	24 - 147
Metolachlor	75.7	74.2	P/P	68 - 118
Metribuzin	88.6	91.0	P/P	20 - 239
Mevinphos	74.1	78.0	P/P	46 - 124
Molinate	57.6	76.7	P/P	46 - 100
Myclobutanil	83.0	74.7	P/P	32 - 149
Naled	30.4	30.7	F/F	32 - 95.0
Norflurazon	77.4	68.9	P/P	57 - 127
Oxadiazon	78.7	75.8	P/P	63 - 118
Oxyfluorfen	77.2	73.5	P/P	69 - 137
Parathion Ethyl	77.7	85.5	P/P	70 - 113
Parathion Methyl	91.6	102	P/P	71 - 130
Pendimethalin	71.0	79.9	P/P	55 - 118
Phorate	74.8	78.3	P/P	46 - 125
Prodiamine	33.6	34.7	P/P	20 - 141
Prometon	80.1	87.5	P/P	54 - 122

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P398911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prometryn	85.3	85.5	P/P	66 - 124
Pronamide	84.2	88.5	P/P	79 - 122
Propiconazole	82.5	72.3	P/P	61 - 126
Pyriproxyfen	69.0	65.7	P/P	52 - 131
Simazine	80.4	89.6	P/P	75 - 128
Sulfentrazone	63.8	57.2	P/P	20 - 132
Tebuconazole	57.1	58.6	P/P	20 - 116
Terbufos	72.5	80.9	P/P	61 - 117
Terbutylazine	79.7	83.1	P/P	74 - 116

Reference Method: EPA 8270E
Batch ID: P398912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	34.2	34.9	P/P	20 - 150
Alpha-BHC	78.8	86.5	P/P	50 - 150
Alpha-Chlordane	72.2	80.8	P/P	50 - 150
Beta-BHC	88.0	95.6	P/P	50 - 150
Beta-Cyfluthrin	120	146	P/P	50 - 150
Bifenthrin	76.5	98.3	P/P	40 - 150
Chlorothalonil	93.1	101	P/P	20 - 150
Cis-Nonachlor	75.7	78.3	P/P	50 - 150
Cypermethrin	109	131	P/P	50 - 150
Dacthal	79.0	85.8	P/P	50 - 150
DDD-p,p'	71.6	73.6	P/P	50 - 150
DDE-p,p'	71.1	79.4	P/P	50 - 150
DDT-p,p'	75.3	85.6	P/P	50 - 150
Delta-BHC	101	107	P/P	50 - 150
Deltamethrin	137	189	P/F	50 - 150
Dichlobenil	55.2	61.1	P/P	40 - 150
Dicofol	76.0	89.3	P/P	50 - 150
Dieldrin	76.6	82.9	P/P	50 - 150
Endosulfan I	74.3	80.2	P/P	50 - 150
Endosulfan II	82.7	89.1	P/P	50 - 150
Endosulfan Sulfate	69.3	72.1	P/P	50 - 150
Endrin	73.0	73.9	P/P	50 - 150
Endrin Aldehyde	73.8	77.4	P/P	50 - 150
Endrin Ketone	78.0	78.2	P/P	50 - 150
Esfenvalerate	128	168	P/P	50 - 180
Ethalfuralin	68.3	76.2	P/P	50 - 150
Fenpropathrin	88.0	97.6	P/P	50 - 150
Gamma-BHC	82.2	87.4	P/P	50 - 150
Gamma-Chlordane	71.6	78.9	P/P	50 - 150
Heptachlor	62.5	73.6	P/P	50 - 150
Heptachlor Epoxide	73.6	80.2	P/P	50 - 150
Hexachlorobenzene	62.9	72.0	P/P	50 - 150
Kepone	104	95.6	P/P	30 - 180
Lambda-Cyhalothrin	127	148	P/P	50 - 200
Methoxychlor	83.0	101	P/P	50 - 150
MGK-264	57.9	48.3	P/P	30 - 150
Mirex	132	147	P/P	50 - 180
Permethrin	105	133	P/P	50 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P398912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phenothrin	47.0	45.9	P/P	20 - 150
Piperonyl Butoxide	84.5	86.1	P/P	50 - 150
Prallethrin	60.2	48.8	P/P	30 - 150
Tau-Fluvalinate	93.4	119	P/P	40 - 150
Tetramethrin	65.7	66.4	P/P	30 - 150
Trans-Nonachlor	73.9	81.0	P/P	50 - 150
Triclosan Methyl	78.6	84.5	P/P	50 - 150
Trifluralin	67.5	73.8	P/P	50 - 150

Reference Method: EPA 8276

Batch ID: P398912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	83.0	78.5	P/P	56 - 117
Toxaphene	90.8	88.7	P/P	45 - 116

Reference Method: EPA 8321B

Batch ID: P398724

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	119		P	40 - 150
AMPA	92.6		P	40 - 150
Endothall	126		P	40 - 150
Glufosinate	96.5		P	40 - 150
Glyphosate	91.5		P	40 - 150
Sucralose	122		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P398813

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	98.3		P	40 - 150
2,4,5-T	111		P	40 - 150
Acetaminophen	75.2		P	30 - 150
Acetamiprid	81.1		P	40 - 150
Afidopyropen	50.7		P	40 - 150
Bentazon	132		P	30 - 150
Benzovindiflupyr	80.0		P	40 - 150
Carbamazepine	86.6		P	40 - 150
Clothianidin	85.0		P	40 - 150
Dinotefuran	84.6		P	40 - 150
Diuron	70.9		P	40 - 150
Fenuron	106		P	40 - 150
Fluridone	74.0		P	40 - 150
Hydrocodone	80.7		P	40 - 150
Ibuprofen	61.8		P	40 - 150
Imazapyr	85.8		P	40 - 150
Imidacloprid	85.8		P	40 - 150
Linuron	69.5		P	40 - 150
Mandestrobin	72.9		P	40 - 150
MCPP	108		P	40 - 150
Naproxen	47.9		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P398813

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Primidone	93.1		P	40 - 150
Pyraclostrobin	74.1		P	40 - 150
Thiamethoxam	83.6		P	40 - 150
Tolfenpyrad	46.9		P	30 - 150
Triclopyr	131		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P398814

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	76.6		P	40 - 150
Aldicarb	60.5		P	30 - 150
Aldicarb Sulfone	87.7		P	40 - 150
Aldicarb Sulfoxide	118		P	40 - 150
Carbaryl	71.2		P	40 - 150
Carbofuran	77.3		P	40 - 150
Methiocarb	45.7		P	40 - 150
Methomyl	103		P	40 - 150
Oxamyl	87.5		P	40 - 150
Propoxur	88.5		P	40 - 150

Reference Method: SM 2120 B-2011

Batch ID: P398933

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.2		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P399026

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

Reference Method: SM 4500 F-C-2011

Batch ID: P399028

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

Reference Method: SM 5310 B-2011

Batch ID: P399095

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250461	Chloride	92.8		P	90 - 110
2250718	Chloride	97.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250461	Sulfate	91.8		P	90 - 110
2250718	Sulfate	94.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250594	Ammonia-N	96.2	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399036

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250551	Kjeldahl Nitrogen	101	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399037

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250597	Kjeldahl Nitrogen	94.4	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398984

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250473	NO2NO3-N	99.4	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250551	Total-P	104	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398938

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250553	O-Phosphate-P	96.9	97.7	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P398911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250788	Acetochlor	77.6	90.1	P/P	66 - 122
2250788	Alachlor	74.8	82.8	P/P	65 - 122

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P398911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250788	Azinphos Methyl	105	200	P/F	44 - 174
2250788	Azoxystrobin	125	138	P/P	10 - 268
2250788	Bromacil	68.0	90.3	P/P	31 - 145
2250788	Butylate	43.1	42.4	P/P	15 - 97.0
2250788	Caffeine	102	115	P/P	70 - 130
2250788	Carbophenothion	70.2	68.9	P/P	42 - 129
2250788	Carfentrazone Ethyl	83.8	88.7	P/P	62 - 145
2250788	Chlorpyrifos Ethyl	80.4	77.7	P/P	60 - 124
2250788	Chlorpyrifos Methyl	71.7	75.4	P/P	66 - 119
2250788	Cyanazine	146	175	P/P	17 - 225
2250788	Demeton	83.9	89.4	P/P	36 - 142
2250788	Diazinon	88.2	97.3	P/P	70 - 128
2250788	Difenoconazole	120	130	P/P	33 - 222
2250788	Dimethenamid	80.3	87.5	P/P	54 - 125
2250788	Disulfoton	75.1	72.7	P/P	49 - 133
2250788	Dithiopyr	78.2	83.3	P/P	55 - 123
2250788	EPTC	43.0	37.4	P/P	19 - 91.0
2250788	Ethion	58.7	66.2	P/P	13 - 143
2250788	Ethoprop	100	104	P/P	49 - 144
2250788	Fenamiphos	81.6	74.7	P/P	32 - 136
2250788	Fenbuconazole	96.3	104	P/P	73 - 148
2250788	Fipronil	85.4	92.2	P/P	57 - 129
2250788	Fipronil Desulfinyl	79.1	84.7	P/P	49 - 127
2250788	Fipronil Sulfide	79.0	78.5	P/P	44 - 127
2250788	Fipronil Sulfone	66.5	67.4	P/P	35 - 126
2250788	Fluazifop-P-butyl	86.2	87.7	P/P	67 - 129
2250788	Fludioxonil	81.1	90.6	P/P	61 - 126
2250788	Flumioxazin	144	164	P/P	38 - 279
2250788	Flutolanil	86.5	88.3	P/P	55 - 136
2250788	Fluxapyroxad	35.3	44.6	P/P	33 - 140
2250788	Fonofos	86.0	90.5	P/P	58 - 125
2250788	Imazalil	162	165	P/P	10 - 221
2250788	Iprodione	79.7	82.7	P/P	32 - 140
2250788	Malathion	81.7	82.8	P/P	52 - 138
2250788	Metalaxyl	83.4	88.1	P/P	46 - 134
2250788	Metolachlor	73.2	83.5	P/P	58 - 122
2250788	Metribuzin	102	109	P/P	16 - 272
2250788	Mevinphos	77.6	89.2	P/P	45 - 140
2250788	Molinate	68.1	67.9	P/P	41 - 103
2250788	Myclobutanil	83.0	90.0	P/P	60 - 134
2250788	Naled	30.1	28.6	P/P	20 - 113
2250788	Norflurazon	75.0	74.3	P/P	51 - 123
2250788	Oxadiazon	69.2	74.6	P/P	44 - 125
2250788	Oxyfluorfen	84.9	101	P/P	66 - 176
2250788	Parathion Ethyl	82.6	91.7	P/P	57 - 132
2250788	Parathion Methyl	94.3	99.5	P/P	59 - 156
2250788	Pendimethalin	85.2	93.3	P/P	59 - 129
2250788	Phorate	99.5	106	P/P	47 - 136
2250788	Prodiamine	46.9	50.2	P/P	10 - 159
2250788	Prometon	88.1	91.7	P/P	59 - 127
2250788	Prometryn	113	126	P/P	59 - 129
2250788	Pronamide	97.6	109	P/P	65 - 145

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P398911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250788	Propiconazole	77.2	65.7	P/P	28 - 165
2250788	Pyriproxyfen	70.3	162	P/P	21 - 180
2250788	Simazine	135	138	P/P	63 - 147
2250788	Sulfentrazone	65.3	73.8	P/P	32 - 136
2250788	Tebuconazole	60.6	68.2	P/P	10 - 117
2250788	Terbufos	84.6	91.2	P/P	61 - 131
2250788	Terbutylazine	87.6	96.2	P/P	62 - 126

Reference Method: EPA 8270E
Batch ID: P398912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250757	Aldrin	26.3	38.3	P/P	20 - 170
2250757	Alpha-BHC	73.5	81.9	P/P	50 - 170
2250757	Alpha-Chlordane	67.0	77.9	P/P	50 - 170
2250757	Beta-BHC	90.9	101	P/P	50 - 170
2250757	Beta-Cyfluthrin	94.4	138	P/P	50 - 170
2250757	Bifenthrin	64.9	79.9	P/P	40 - 170
2250757	Chlorothalonil	101	129	P/P	20 - 170
2250757	Cis-Nonachlor	65.9	82.4	P/P	50 - 170
2250757	Cypermethrin	86.7	118	P/P	50 - 170
2250757	Dacthal	71.1	85.3	P/P	50 - 170
2250757	DDD-p,p'	63.5	72.8	P/P	50 - 170
2250757	DDE-p,p'	64.1	75.3	P/P	50 - 170
2250757	DDT-p,p'	67.0	79.0	P/P	50 - 170
2250757	Delta-BHC	99.0	115	P/P	50 - 170
2250757	Deltamethrin	118	158	P/P	50 - 170
2250757	Dichlobenil	46.0	48.1	P/P	40 - 170
2250757	Dicofol	70.7	79.4	P/P	50 - 170
2250757	Dieldrin	70.4	82.1	P/P	50 - 170
2250757	Endosulfan I	66.5	79.0	P/P	50 - 170
2250757	Endosulfan II	70.3	92.3	P/P	50 - 170
2250757	Endosulfan Sulfate	66.5	81.4	P/P	50 - 170
2250757	Endrin	65.5	74.0	P/P	50 - 170
2250757	Endrin Aldehyde	64.9	74.6	P/P	50 - 170
2250757	Endrin Ketone	67.9	80.6	P/P	50 - 170
2250757	Esfenvalerate	99.6	148	P/P	50 - 180
2250757	Ethalfuralin	63.5	70.9	P/P	50 - 170
2250757	Fenpropathrin	71.2	90.4	P/P	50 - 170
2250757	Gamma-BHC	81.7	85.8	P/P	50 - 170
2250757	Gamma-Chlordane	63.8	75.3	P/P	50 - 170
2250757	Heptachlor	53.9	64.3	P/P	50 - 170
2250757	Heptachlor Epoxide	66.0	77.0	P/P	50 - 170
2250757	Hexachlorobenzene	58.0	65.7	P/P	50 - 170
2250757	Kepone	118	106	P/P	30 - 180
2250757	Lambda-Cyhalothrin	100	156	P/P	50 - 200
2250757	Methoxychlor	75.7	84.8	P/P	50 - 170
2250757	MGK-264	44.5	66.6	P/P	30 - 170
2250757	Mirex	121	144	P/P	50 - 180
2250757	Permethrin	86.1	107	P/P	50 - 170
2250757	Phenothrin	40.5	59.9	P/P	20 - 170
2250757	Piperonyl Butoxide	75.6	86.3	P/P	50 - 170

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
 Batch ID: P398912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250757	Prallethrin	54.2	64.1	P/P	30 - 170
2250757	Tau-Fluvalinate	75.9	104	P/P	40 - 170
2250757	Tetramethrin	53.6	70.0	P/P	30 - 170
2250757	Trans-Nonachlor	67.1	75.4	P/P	50 - 170
2250757	Triclosan Methyl	70.8	81.0	P/P	50 - 170
2250757	Trifluralin	65.0	72.0	P/P	50 - 170

Reference Method: EPA 8276
 Batch ID: P398912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250763	Chlordane	103	83.9	P/P	47 - 128
2250763	Toxaphene	100	96.6	P/P	11 - 163

Reference Method: EPA 8321B
 Batch ID: P398724

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249591	Acesulfame K	115	118	P/P	40 - 150
2249591	AMPA	106	106	P/P	40 - 150
2249591	Endothall	95.0	105	P/P	40 - 150
2249591	Glufosinate	96.5	103	P/P	40 - 150
2249591	Glyphosate	107	108	P/P	40 - 150
2249591	Sucralose	114	116	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P398813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250311	2,4-D	96.1	121	P/P	40 - 150
2250311	2,4,5-T	96.2	83.4	P/P	40 - 150
2250311	Acetaminophen	119	73.7	P/P	30 - 150
2250311	Acetamiprid	78.7	76.4	P/P	40 - 150
2250311	Afidopyropen	48.1	49.9	P/P	40 - 150
2250311	Bentazon	60.5	47.7	P/P	30 - 150
2250311	Benzovindiflupyr	68.6	74.6	P/P	40 - 150
2250311	Carbamazepine	64.9	61.5	P/P	40 - 150
2250311	Clothianidin	71.7	68.6	P/P	40 - 150
2250311	Dinotefuran	89.9	90.7	P/P	40 - 150
2250311	Diuron	44.0	48.5	P/P	40 - 150
2250311	Fenuron	69.5	67.7	P/P	40 - 150
2250311	Fluridone	62.7	69.0	P/P	40 - 150
2250311	Hydrocodone	66.5	64.7	P/P	40 - 150
2250311	Ibuprofen	43.5	57.0	P/P	40 - 150
2250311	Imazapyr	93.6	93.7	P/P	40 - 150
2250311	Imidacloprid	126	133	P/P	40 - 150
2250311	Linuron	55.5	51.7	P/P	40 - 150
2250311	Mandestrobin	66.5	67.3	P/P	40 - 150
2250311	MCPP	96.4	100	P/P	40 - 150
2250311	Naproxen	43.0	37.1	P/F	40 - 150
2250311	Primidone	82.9	83.5	P/P	40 - 150
2250311	Pyraclostrobin	72.2	77.6	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P398813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250311	Thiamethoxam	90.2	83.9	P/P	40 - 150
2250311	Tolfenpyrad	46.4	46.4	P/P	30 - 150
2250311	Triclopyr	109	96.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P398814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249594	3-Hydroxycarbofuran	95.5	95.9	P/P	40 - 150
2249594	Aldicarb	80.6	84.0	P/P	30 - 150
2249594	Aldicarb Sulfone	97.3	100	P/P	40 - 150
2249594	Aldicarb Sulfoxide	122	126	P/P	40 - 150
2249594	Carbaryl	68.6	69.8	P/P	40 - 150
2249594	Carbofuran	84.0	79.3	P/P	40 - 150
2249594	Methiocarb	53.6	53.8	P/P	40 - 150
2249594	Methomyl	103	102	P/P	40 - 150
2249594	Oxamyl	92.3	93.3	P/P	40 - 150
2249594	Propoxur	91.8	84.9	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P399028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250731	Fluoride	97.9	96.9	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P399095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250058	Organic Carbon	100	99.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P398943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250593	Turbidity	3.25	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250461	Chloride	0.637	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250461	Sulfate	1.61	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250594	Ammonia-N	2.77	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399036

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250551	Kjeldahl Nitrogen	0.930	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399037

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250597	Kjeldahl Nitrogen	8.25	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250473	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250551	Total-P	3.07	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398938

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250553	O-Phosphate-P	0.822	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250788	Acetochlor	14.9	Spike	P	0 - 30
2250788	Alachlor	10.1	Spike	P	0 - 30
2250788	Ametryn	1.95	Spike	P	0 - 30
2250788	Atrazine	3.24	Spike	P	0 - 30
2250788	Atrazine Desethyl	34.8	Spike	F	0 - 30
2250788	Azinphos Methyl	61.9	Spike	F	0 - 30
2250788	Azoxystrobin	8.18	Spike	P	0 - 30
2250788	Bromacil	28.2	Spike	P	0 - 30
2250788	Butylate	1.75	Spike	P	0 - 30
2250788	Caffeine	12.1	Spike	P	0 - 30
2250788	Carbophenothion	1.91	Spike	P	0 - 30
2250788	Carfentrazone Ethyl	5.60	Spike	P	0 - 30
2250788	Chlorpyrifos Ethyl	3.39	Spike	P	0 - 30
2250788	Chlorpyrifos Methyl	5.14	Spike	P	0 - 30
2250788	Cyanazine	18.0	Spike	P	0 - 30
2250788	Demeton	6.33	Spike	P	0 - 30
2250788	Diazinon	9.83	Spike	P	0 - 30
2250788	Difenoconazole	7.56	Spike	P	0 - 30
2250788	Dimethenamid	8.54	Spike	P	0 - 30
2250788	Disulfoton	3.24	Spike	P	0 - 30
2250788	Dithiopyr	6.31	Spike	P	0 - 30
2250788	EPTC	14.0	Spike	P	0 - 30
2250788	Ethion	11.9	Spike	P	0 - 30
2250788	Ethoprop	4.10	Spike	P	0 - 30
2250788	Fenamiphos	8.82	Spike	P	0 - 30
2250788	Fenbuconazole	7.30	Spike	P	0 - 30
2250788	Fipronil	7.62	Spike	P	0 - 30
2250788	Fipronil Desulfinyl	6.81	Spike	P	0 - 30
2250788	Fipronil Sulfide	0.609	Spike	P	0 - 30
2250788	Fipronil Sulfone	1.28	Spike	P	0 - 30
2250788	Fluazifop-P-butyl	1.67	Spike	P	0 - 30
2250788	Fludioxonil	11.1	Spike	P	0 - 30
2250788	Flumioxazin	12.4	Spike	P	0 - 30
2250788	Flutolanil	2.06	Spike	P	0 - 30
2250788	Fluxapyroxad	4.85	Spike	P	0 - 30
2250788	Fonofos	5.13	Spike	P	0 - 30
2250788	Hexazinone	2.14	Spike	P	0 - 30
2250788	Imazalil	2.17	Spike	P	0 - 30
2250788	Iprodione	3.61	Spike	P	0 - 30
2250788	Malathion	1.31	Spike	P	0 - 30
2250788	Metalaxyl	5.50	Spike	P	0 - 30
2250788	Metolachlor	10.9	Spike	P	0 - 30
2250788	Metribuzin	2.66	Spike	P	0 - 30
2250788	Mevinphos	13.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250788	Molinate	0.230	Spike	P	0 - 30
2250788	Myclobutanil	8.08	Spike	P	0 - 30
2250788	Naled	5.20	Spike	P	0 - 30
2250788	Norflurazon	1.01	Spike	P	0 - 30
2250788	Oxadiazon	6.64	Spike	P	0 - 30
2250788	Oxyfluorfen	17.4	Spike	P	0 - 30
2250788	Parathion Ethyl	10.4	Spike	P	0 - 30
2250788	Parathion Methyl	5.35	Spike	P	0 - 30
2250788	Pendimethalin	9.07	Spike	P	0 - 30
2250788	Phorate	6.65	Spike	P	0 - 30
2250788	Prodiamine	6.70	Spike	P	0 - 30
2250788	Prometon	3.99	Spike	P	0 - 30
2250788	Prometryn	10.5	Spike	P	0 - 30
2250788	Pronamide	11.4	Spike	P	0 - 30
2250788	Propiconazole	8.82	Spike	P	0 - 30
2250788	Pyriproxyfen	78.8	Spike	F	0 - 30
2250788	Simazine	2.32	Spike	P	0 - 30
2250788	Sulfentrazone	12.3	Spike	P	0 - 30
2250788	Tebuconazole	11.7	Spike	P	0 - 30
2250788	Terbufos	7.47	Spike	P	0 - 30
2250788	Terbutylazine	9.30	Spike	P	0 - 30
LFB	Acetochlor	3.39	LCS	P	0 - 30
LFB	Alachlor	2.22	LCS	P	0 - 30
LFB	Ametryn	9.80	LCS	P	0 - 30
LFB	Atrazine	7.01	LCS	P	0 - 30
LFB	Atrazine Desethyl	7.13	LCS	P	0 - 30
LFB	Azinphos Methyl	10.4	LCS	P	0 - 30
LFB	Azoxystrobin	0.182	LCS	P	0 - 30
LFB	Bromacil	1.20	LCS	P	0 - 30
LFB	Butylate	13.6	LCS	P	0 - 30
LFB	Caffeine	10.7	LCS	P	0 - 30
LFB	Carbophenothion	6.59	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	10.4	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.83	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.41	LCS	P	0 - 30
LFB	Cyanazine	1.93	LCS	P	0 - 30
LFB	Demeton	25.4	LCS	P	0 - 30
LFB	Diazinon	3.33	LCS	P	0 - 30
LFB	Difenoconazole	8.88	LCS	P	0 - 30
LFB	Dimethenamid	2.69	LCS	P	0 - 30
LFB	Disulfoton	24.3	LCS	P	0 - 30
LFB	Dithiopyr	1.66	LCS	P	0 - 30
LFB	EPTC	18.8	LCS	P	0 - 30
LFB	Ethion	11.9	LCS	P	0 - 30
LFB	Ethoprop	19.4	LCS	P	0 - 30
LFB	Fenamiphos	6.35	LCS	P	0 - 30
LFB	Fenbuconazole	15.8	LCS	P	0 - 30
LFB	Fipronil	7.57	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.05	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.38	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.426	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fluazifop-P-butyl	10.6	LCS	P	0 - 30
LFB	Fludioxonil	10.6	LCS	P	0 - 30
LFB	Flumioxazin	0.325	LCS	P	0 - 30
LFB	Flutolanil	6.44	LCS	P	0 - 30
LFB	Fluxapyroxad	11.2	LCS	P	0 - 30
LFB	Fonofos	17.0	LCS	P	0 - 30
LFB	Hexazinone	10.8	LCS	P	0 - 30
LFB	Imazalil	7.62	LCS	P	0 - 30
LFB	Iprodione	10.8	LCS	P	0 - 30
LFB	Malathion	3.69	LCS	P	0 - 30
LFB	Metalaxyl	1.60	LCS	P	0 - 30
LFB	Metolachlor	1.99	LCS	P	0 - 30
LFB	Metribuzin	2.66	LCS	P	0 - 30
LFB	Mevinphos	5.08	LCS	P	0 - 30
LFB	Molinate	28.5	LCS	P	0 - 30
LFB	Myclobutanil	10.5	LCS	P	0 - 30
LFB	Naled	0.825	LCS	P	0 - 30
LFB	Norflurazon	11.6	LCS	P	0 - 30
LFB	Oxadiazon	3.69	LCS	P	0 - 30
LFB	Oxyfluorfen	4.86	LCS	P	0 - 30
LFB	Parathion Ethyl	9.58	LCS	P	0 - 30
LFB	Parathion Methyl	10.5	LCS	P	0 - 30
LFB	Pendimethalin	11.8	LCS	P	0 - 30
LFB	Phorate	4.58	LCS	P	0 - 30
LFB	Prodiamine	3.43	LCS	P	0 - 30
LFB	Prometon	8.86	LCS	P	0 - 30
LFB	Prometryn	0.288	LCS	P	0 - 30
LFB	Pronamide	5.05	LCS	P	0 - 30
LFB	Propiconazole	13.2	LCS	P	0 - 30
LFB	Pyriproxyfen	4.87	LCS	P	0 - 30
LFB	Simazine	10.8	LCS	P	0 - 30
LFB	Sulfentrazone	11.0	LCS	P	0 - 30
LFB	Tebuconazole	2.64	LCS	P	0 - 30
LFB	Terbufos	11.0	LCS	P	0 - 30
LFB	Terbuthylazine	4.18	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P398912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250757	Aldrin	37.3	Spike	F	0 - 30
2250757	Alpha-BHC	10.8	Spike	P	0 - 30
2250757	Alpha-Chlordane	15.1	Spike	P	0 - 30
2250757	Beta-BHC	10.4	Spike	P	0 - 30
2250757	Beta-Cyfluthrin	37.3	Spike	F	0 - 30
2250757	Bifenthrin	20.8	Spike	P	0 - 30
2250757	Chlorothalonil	24.6	Spike	P	0 - 50
2250757	Cis-Nonachlor	22.2	Spike	P	0 - 30
2250757	Cypermethrin	30.9	Spike	F	0 - 30
2250757	Dacthal	18.1	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P398912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250757	DDD-p,p'	13.6	Spike	P	0 - 30
2250757	DDE-p,p'	16.2	Spike	P	0 - 30
2250757	DDT-p,p'	16.4	Spike	P	0 - 30
2250757	Delta-BHC	15.4	Spike	P	0 - 30
2250757	Deltamethrin	29.1	Spike	P	0 - 30
2250757	Dichlobenil	4.32	Spike	P	0 - 30
2250757	Dicofol	11.6	Spike	P	0 - 30
2250757	Dieldrin	15.4	Spike	P	0 - 30
2250757	Endosulfan I	17.1	Spike	P	0 - 30
2250757	Endosulfan II	27.0	Spike	P	0 - 30
2250757	Endosulfan Sulfate	20.0	Spike	P	0 - 30
2250757	Endrin	12.1	Spike	P	0 - 30
2250757	Endrin Aldehyde	13.9	Spike	P	0 - 30
2250757	Endrin Ketone	17.1	Spike	P	0 - 30
2250757	Esfenvalerate	39.1	Spike	F	0 - 30
2250757	Ethalfuralin	10.9	Spike	P	0 - 30
2250757	Fenpropathrin	23.7	Spike	P	0 - 30
2250757	Gamma-BHC	4.97	Spike	P	0 - 30
2250757	Gamma-Chlordane	16.5	Spike	P	0 - 30
2250757	Heptachlor	17.5	Spike	P	0 - 30
2250757	Heptachlor Epoxide	15.4	Spike	P	0 - 30
2250757	Hexachlorobenzene	12.4	Spike	P	0 - 30
2250757	Kepone	10.7	Spike	P	0 - 30
2250757	Lambda-Cyhalothrin	43.2	Spike	F	0 - 30
2250757	Methoxychlor	11.2	Spike	P	0 - 30
2250757	MGK-264	39.7	Spike	F	0 - 30
2250757	Mirex	16.9	Spike	P	0 - 30
2250757	Permethrin	21.5	Spike	P	0 - 30
2250757	Phenothrin	38.7	Spike	F	0 - 30
2250757	Piperonyl Butoxide	13.2	Spike	P	0 - 30
2250757	Prallethrin	16.9	Spike	P	0 - 30
2250757	Tau-Fluvalinate	31.2	Spike	F	0 - 30
2250757	Tetramethrin	26.6	Spike	P	0 - 30
2250757	Trans-Nonachlor	11.7	Spike	P	0 - 30
2250757	Triclosan Methyl	13.4	Spike	P	0 - 30
2250757	Trifluralin	10.2	Spike	P	0 - 30
LFB	Aldrin	1.95	LCS	P	0 - 30
LFB	Alpha-BHC	9.38	LCS	P	0 - 30
LFB	Alpha-Chlordane	11.3	LCS	P	0 - 30
LFB	Beta-BHC	8.30	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	19.3	LCS	P	0 - 30
LFB	Bifenthrin	24.9	LCS	P	0 - 30
LFB	Chlorothalonil	8.45	LCS	P	0 - 50
LFB	Cis-Nonachlor	3.38	LCS	P	0 - 30
LFB	Cypermethrin	18.2	LCS	P	0 - 30
LFB	Dacthal	8.31	LCS	P	0 - 30
LFB	DDD-p,p'	2.77	LCS	P	0 - 30
LFB	DDE-p,p'	11.1	LCS	P	0 - 30
LFB	DDT-p,p'	12.9	LCS	P	0 - 30
LFB	Delta-BHC	6.32	LCS	P	0 - 30
LFB	Deltamethrin	31.7	LCS	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P398912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dichlobenil	10.0	LCS	P	0 - 30
LFB	Dicofol	16.1	LCS	P	0 - 30
LFB	Dieldrin	7.84	LCS	P	0 - 30
LFB	Endosulfan I	7.68	LCS	P	0 - 30
LFB	Endosulfan II	7.48	LCS	P	0 - 30
LFB	Endosulfan Sulfate	3.93	LCS	P	0 - 30
LFB	Endrin	1.19	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.83	LCS	P	0 - 30
LFB	Endrin Ketone	0.299	LCS	P	0 - 30
LFB	Esfenvalerate	26.7	LCS	P	0 - 30
LFB	Ethalfuralin	10.9	LCS	P	0 - 30
LFB	Fenpropathrin	10.3	LCS	P	0 - 30
LFB	Gamma-BHC	6.10	LCS	P	0 - 30
LFB	Gamma-Chlordane	9.73	LCS	P	0 - 30
LFB	Heptachlor	16.4	LCS	P	0 - 30
LFB	Heptachlor Epoxide	8.52	LCS	P	0 - 30
LFB	Hexachlorobenzene	13.5	LCS	P	0 - 30
LFB	Kepone	8.85	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	15.7	LCS	P	0 - 30
LFB	Methoxychlor	19.7	LCS	P	0 - 30
LFB	MGK-264	18.1	LCS	P	0 - 30
LFB	Mirex	10.4	LCS	P	0 - 30
LFB	Permethrin	23.2	LCS	P	0 - 30
LFB	Phenothrin	2.42	LCS	P	0 - 30
LFB	Piperonyl Butoxide	1.92	LCS	P	0 - 30
LFB	Prallethrin	20.9	LCS	P	0 - 30
LFB	Tau-Fluvalinate	24.5	LCS	P	0 - 30
LFB	Tetramethrin	1.09	LCS	P	0 - 30
LFB	Trans-Nonachlor	9.06	LCS	P	0 - 30
LFB	Triclosan Methyl	7.17	LCS	P	0 - 30
LFB	Trifluralin	8.85	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P398912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250763	Chlordane	20.3	Spike	P	0 - 30
2250763	Toxaphene	3.82	Spike	P	0 - 30
LFB	Chlordane	5.54	LCS	P	0 - 30
LFB	Toxaphene	2.31	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P398724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249591	Acesulfame K	2.71	Spike	P	0 - 30
2249591	AMPA	0.200	Spike	P	0 - 30
2249591	Endothall	9.70	Spike	P	0 - 30
2249591	Glufosinate	6.86	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P398724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249591	Glyphosate	1.67	Spike	P	0 - 30
2249591	Sucralose	2.00	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P398813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250311	2,4-D	22.8	Spike	P	0 - 30
2250311	2,4,5-T	14.3	Spike	P	0 - 30
2250311	Acetaminophen	47.1	Spike	F	0 - 30
2250311	Acetamiprid	2.90	Spike	P	0 - 30
2250311	Afidopyropen	3.12	Spike	P	0 - 30
2250311	Bentazon	15.1	Spike	P	0 - 30
2250311	Benzovindiflupyr	8.31	Spike	P	0 - 30
2250311	Carbamazepine	5.44	Spike	P	0 - 30
2250311	Clothianidin	4.43	Spike	P	0 - 30
2250311	Dinotefuran	0.861	Spike	P	0 - 30
2250311	Diuron	9.58	Spike	P	0 - 30
2250311	Fenuron	2.71	Spike	P	0 - 30
2250311	Fluridone	9.52	Spike	P	0 - 30
2250311	Hydrocodone	2.73	Spike	P	0 - 30
2250311	Ibuprofen	26.9	Spike	P	0 - 30
2250311	Imazapyr	0.118	Spike	P	0 - 30
2250311	Imidacloprid	5.23	Spike	P	0 - 30
2250311	Linuron	6.93	Spike	P	0 - 30
2250311	Mandestrobin	1.26	Spike	P	0 - 30
2250311	MCP	3.74	Spike	P	0 - 30
2250311	Naproxen	11.2	Spike	P	0 - 30
2250311	Primidone	0.720	Spike	P	0 - 30
2250311	Pyraclostrobin	7.21	Spike	P	0 - 30
2250311	Thiamethoxam	7.22	Spike	P	0 - 30
2250311	Tolfenpyrad	0.0153	Spike	P	0 - 30
2250311	Triclopyr	11.6	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P398814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249594	3-Hydroxycarbofuran	0.359	Spike	P	0 - 30
2249594	Aldicarb	4.07	Spike	P	0 - 30
2249594	Aldicarb Sulfone	3.07	Spike	P	0 - 30
2249594	Aldicarb Sulfoxide	3.66	Spike	P	0 - 30
2249594	Carbaryl	1.78	Spike	P	0 - 30
2249594	Carbofuran	5.72	Spike	P	0 - 30
2249594	Methiocarb	0.313	Spike	P	0 - 30
2249594	Methomyl	0.923	Spike	P	0 - 30
2249594	Oxamyl	1.13	Spike	P	0 - 30
2249594	Propoxur	7.82	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P398933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250657	Color (true)	1.02	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P399026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250731	Total Alkalinity	0.673	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P399416

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250596	TDS	7.11	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P399028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250731	Fluoride	0.929	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P399095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250058	Organic Carbon	0.389	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2250604
Field Sample ID: G3SE0025

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	121	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.6	P	30 - 160
EPA 8321B	Diuron-d6	63.9	P	30 - 160
EPA 8321B	Endothall-d6	96.0	P	30 - 160
EPA 8321B	Endothall-d6	96.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.6	P	30 - 160
EPA 8321B	Primidone-d5	86.4	P	30 - 160
EPA 8321B	Sucralose-d6	32.4	P	30 - 160
EPA 8321B	Sucralose-d6	32.4	P	30 - 160

Lab Sample ID: 2250605
Field Sample ID: G2SE0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	80.5	P	30 - 160

Lab Sample ID: 2250606
Field Sample ID: G2SE0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	93.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	128	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.1	P	30 - 160
EPA 8321B	Diuron-d6	76.7	P	30 - 160
EPA 8321B	Endothall-d6	91.5	P	30 - 160
EPA 8321B	Endothall-d6	91.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	34.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	34.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	52.9	P	30 - 160
EPA 8321B	Primidone-d5	112	P	30 - 160
EPA 8321B	Sucralose-d6	61.9	P	30 - 160
EPA 8321B	Sucralose-d6	61.9	P	30 - 160

Lab Sample ID: 2250607
Field Sample ID: G2SE0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	75.1	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	54.8	P	30 - 110
EPA 8276	Decachlorobiphenyl	66.1	P	29 - 92.0
EPA 8276	PCNB	73.7	P	43 - 134

Lab Sample ID: 2250608
Field Sample ID: G2SE0002

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	54.7	P	20 - 200
EPA 8270E	Simazine-d10	89.5	P	73 - 135
EPA 8270E	Terbufos-d10	85.5	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B-2011

Run ID: A105738

Included Lab Sample IDs: 2250593, 2250596

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.0	99.4	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A105742

Included Lab Sample IDs: 2250595, 2250598

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.5	P/P	90 - 110
O-Phosphate-P	99.6	99.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A105744

Included Lab Sample IDs: 2250593, 2250596

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A105748

Included Lab Sample IDs: 2250604, 2250606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	87.4	P/P	60 - 160
Acesulfame K	109	103	P/P	60 - 160
Endothall	121	114	P/P	60 - 160
Endothall	123	121	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A105750

Included Lab Sample IDs: 2250604, 2250606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	120	124	P/P	60 - 160
Sucralose	124	127	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A105751

Included Lab Sample IDs: 2250604, 2250606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	84.4	P/P	60 - 160
AMPA	84.4	100	P/P	60 - 160
Glufosinate	100	81.8	P/P	60 - 160
Glufosinate	81.8	93.5	P/P	60 - 160
Glyphosate	103	80.7	P/P	60 - 160
Glyphosate	80.7	93.8	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A105761

Included Lab Sample IDs: 2250594, 2250597

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A105778

Included Lab Sample IDs: 2250594, 2250597

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

Reference Method: SM 2320 B-2011

Run ID: A105786

Included Lab Sample IDs: 2250593, 2250596

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.3	98.7	P/P	90 - 110
Total Alkalinity	98.7	93.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A105786

Included Lab Sample IDs: 2250593, 2250596

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

Reference Method: EPA 8321B

Run ID: A105808

Included Lab Sample IDs: 2250604, 2250606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.6	89.0	P/P	50 - 150
2,4,5-T	143	144	P/P	50 - 150
3-Hydroxycarbofuran	104	95.1	P/P	60 - 150
Acetaminophen	85.9	87.8	P/P	60 - 160
Acetamiprid	102	103	P/P	50 - 150
Afidopyropen	72.5	73.3	P/P	50 - 150
Aldicarb	105	88.4	P/P	60 - 150
Aldicarb Sulfone	96.5	92.1	P/P	50 - 150
Aldicarb Sulfoxide	87.7	90.2	P/P	50 - 150
Bentazon	116	133	P/P	50 - 160
Bentazon	75.5	142	P/P	50 - 160
Benzovindiflupyr	93.3	89.1	P/P	50 - 150
Carbamazepine	96.6	95.0	P/P	60 - 150
Carbaryl	99.7	93.2	P/P	60 - 150
Carbofuran	121	99.3	P/P	50 - 150
Clothianidin	97.2	97.8	P/P	60 - 150
Dinotefuran	93.6	91.7	P/P	50 - 150
Diuron	102	107	P/P	60 - 160
Fenuron	91.2	90.3	P/P	60 - 150
Fluridone	94.9	96.1	P/P	60 - 160
Hydrocodone	88.3	89.1	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A105808

Included Lab Sample IDs: 2250604, 2250606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	81.4	82.0	P/P	50 - 160
Imazapyr	90.2	99.8	P/P	50 - 150
Imidacloprid	93.7	87.5	P/P	60 - 150
Linuron	71.0	75.7	P/P	60 - 150
Mandestrobin	85.0	80.0	P/P	50 - 150
MCPP	102	104	P/P	50 - 150
Methiocarb	77.9	74.6	P/P	50 - 150
Methomyl	96.6	94.1	P/P	50 - 150
Naproxen	78.8	88.5	P/P	50 - 160
Oxamyl	96.8	96.7	P/P	50 - 150
Primidone	96.4	91.7	P/P	60 - 150
Propoxur	116	104	P/P	50 - 150
Pyraclostrobin	91.5	93.7	P/P	60 - 150
Thiamethoxam	96.1	91.7	P/P	50 - 150
Tolfenpyrad	97.1	78.4	P/P	60 - 150
Triclopyr	148	147	P/P	50 - 150

Reference Method: SM 5310 B-2011

Run ID: A105818

Included Lab Sample IDs: 2250594, 2250597

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.1	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A105840

Included Lab Sample IDs: 2250594, 2250597

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.0	99.2	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A105941

Included Lab Sample IDs: 2250607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.5		P	80 - 120
Toxaphene	105		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A105942

Included Lab Sample IDs: 2250594, 2250597

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A105956

Included Lab Sample IDs: 2250593, 2250596

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A105956

Included Lab Sample IDs: 2250593, 2250596

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.5	99.8	P/P	90 - 110
Sulfate	98.7	99.4	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A105978

Included Lab Sample IDs: 2250607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.2		P	80 - 120
Alpha-BHC	97.6		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	98.4		P	80 - 120
Beta-Cyfluthrin	95.4		P	80 - 120
Bifenthrin	100		P	80 - 120
Chlorothalonil	102		P	80 - 120
Cis-Nonachlor	91.8		P	80 - 120
Cypermethrin	92.0		P	80 - 120
Dacthal	99.2		P	80 - 120
DDD-p,p'	88.5		P	80 - 120
DDE-p,p'	96.9		P	80 - 120
DDT-p,p'	99.5		P	80 - 120
Delta-BHC	106		P	80 - 120
Deltamethrin	97.1		P	80 - 120
Dichlobenil	97.7		P	80 - 120
Dicofol	98.1		P	80 - 120
Dieldrin	103		P	80 - 120
Endosulfan I	98.8		P	80 - 120
Endosulfan II	94.8		P	80 - 120
Endosulfan Sulfate	89.8		P	80 - 120
Endrin	91.9		P	80 - 120
Endrin Aldehyde	90.2		P	80 - 120
Endrin Ketone	91.5		P	80 - 120
Esfenvalerate	93.8		P	80 - 120
Ethalfuralin	98.2		P	80 - 120
Fenpropathrin	97.5		P	80 - 120
Gamma-BHC	98.1		P	80 - 120
Gamma-Chlordane	97.1		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	97.5		P	80 - 120
Hexachlorobenzene	99.9		P	80 - 120
Kepone	87.0		P	80 - 120
Lambda-Cyhalothrin	94.9		P	80 - 120
Methoxychlor	102		P	80 - 120
MGK-264	101		P	80 - 120
Mirex	94.0		P	80 - 120
Permethrin	93.6		P	80 - 120
Phenothrin	96.9		P	80 - 120
Piperonyl Butoxide	91.1		P	80 - 120
Prallethrin	89.5		P	80 - 120
Tau-Fluvalinate	92.5		P	80 - 120
Tetramethrin	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A105978
Included Lab Sample IDs: 2250607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Trans-Nonachlor	98.1		P	80 - 120
Triclosan Methyl	99.7		P	80 - 120
Trifluralin	95.7		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106055
Included Lab Sample IDs: 2250608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	100		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	94.5		P	80 - 120
Atrazine Desethyl	113		P	80 - 120
Azinphos Methyl	97.6		P	80 - 120
Azoxystrobin	102		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	96.3		P	80 - 120
Caffeine	107		P	80 - 120
Carbophenothion	99.2		P	80 - 120
Carfentrazone Ethyl	99.6		P	80 - 120
Chlorpyrifos Ethyl	95.1		P	80 - 120
Chlorpyrifos Methyl	99.6		P	80 - 120
Cyanazine	107		P	80 - 120
Demeton	91.6		P	80 - 120
Diazinon	98.8		P	80 - 120
Difenoconazole	106		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	94.6		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	98.6		P	80 - 120
Fenbuconazole	102		P	80 - 120
Fipronil	99.9		P	80 - 120
Fipronil Desulfinyl	98.6		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	104		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	98.2		P	80 - 120
Flumioxazin	104		P	80 - 120
Flutolanil	97.4		P	80 - 120
Fluxapyroxad	98.8		P	80 - 120
Fonofos	94.2		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	101		P	80 - 120
Malathion	98.6		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	97.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A106055
Included Lab Sample IDs: 2250608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mevinphos	95.3		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	97.0		P	80 - 120
Naled	98.7		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	103		P	80 - 120
Oxyfluorfen	100		P	80 - 120
Parathion Ethyl	98.4		P	80 - 120
Parathion Methyl	97.1		P	80 - 120
Pendimethalin	96.9		P	80 - 120
Phorate	98.5		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	98.5		P	80 - 120
Propiconazole	101		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	105		P	80 - 120
Sulfentrazone	98.9		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	95.5		P	80 - 120
Terbuthylazine	97.4		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106100
Included Lab Sample IDs: 2250608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hexazinone	98.1		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						3.25	
EPA 300.0 Rev. 2.1	Chloride	97.3		92.8	97.2		0.637	
	Sulfate	96.2		91.8	94.9		1.61	
EPA 350.1 Rev. 2.0	Ammonia-N	98.8		96.2	99.4			2.77
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.4		101	102			0.930
	Kjeldahl Nitrogen	106		94.4	108			8.25
EPA 353.2 Rev. 2.0	NO2NO3-N	100		99.4	99.4			0.0
EPA 365.1 Rev. 2.0	Total-P	104		104	101			3.07
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		96.9	97.7			0.822
EPA 8270E	Acetochlor	74.6	77.1	77.6	90.1	3.39		14.9
	Alachlor	71.4	73.0	74.8	82.8	2.22		10.1
	Aldrin	34.2	34.9	26.3	38.3	1.95		37.3
	Alpha-BHC	78.8	86.5	73.5	81.9	9.38		10.8
	Alpha-Chlordane	72.2	80.8	67.0	77.9	11.3		15.1
	Ametryn	98.4	89.2			9.80		1.95
	Atrazine	80.7	86.5			7.01		3.24
	Atrazine Desethyl	78.6	84.4			7.13		34.8
	Azinphos Methyl	99.7	89.8	105	200	10.4		61.9
	Azoxystrobin	118	118	125	138	0.182		8.18
	Beta-BHC	88.0	95.6	90.9	101	8.30		10.4
	Beta-Cyfluthrin	120	146	94.4	138	19.3		37.3
	Bifenthrin	76.5	98.3	64.9	79.9	24.9		20.8
	Bromacil	66.6	67.4	68.0	90.3	1.20		28.2
	Butylate	45.4	52.0	43.1	42.4	13.6		1.75
	Caffeine	101	113	102	115	10.7		12.1
	Carbophenothion	70.3	65.8	70.2	68.9	6.59		1.91
	Carfentrazone Ethyl	84.6	76.3	83.8	88.7	10.4		5.60
	Chlorothalonil	93.1	101	101	129	8.45		24.6
	Chlorpyrifos Ethyl	69.3	67.4	80.4	77.7	2.83		3.39
	Chlorpyrifos Methyl	72.1	73.1	71.7	75.4	1.41		5.14
	Cis-Nonachlor	75.7	78.3	65.9	82.4	3.38		22.2
	Cyanazine	151	154	146	175	1.93		18.0
	Cypermethrin	109	131	86.7	118	18.2		30.9
	Dacthal	79.0	85.8	71.1	85.3	8.31		18.1
	DDD-p,p'	71.6	73.6	63.5	72.8	2.77		13.6
	DDE-p,p'	71.1	79.4	64.1	75.3	11.1		16.2
	DDT-p,p'	75.3	85.6	67.0	79.0	12.9		16.4
	Delta-BHC	101	107	99.0	115	6.32		15.4
	Deltamethrin	137	189	118	158	31.7		29.1
	Demeton	62.2	80.3	83.9	89.4	25.4		6.33
	Diazinon	82.7	85.5	88.2	97.3	3.33		9.83
	Dichlobenil	55.2	61.1	46.0	48.1	10.0		4.32
	Dicofol	76.0	89.3	70.7	79.4	16.1		11.6
	Dieldrin	76.6	82.9	70.4	82.1	7.84		15.4
	Difenoconazole	110	100	120	130	8.88		7.56
	Dimethenamid	76.1	78.1	80.3	87.5	2.69		8.54
	Disulfoton	61.0	77.9	75.1	72.7	24.3		3.24
	Dithiopyr	71.7	72.9	78.2	83.3	1.66		6.31
	Endosulfan I	74.3	80.2	66.5	79.0	7.68		17.1
	Endosulfan II	82.7	89.1	70.3	92.3	7.48		27.0
	Endosulfan Sulfate	69.3	72.1	66.5	81.4	3.93		20.0
	Endrin	73.0	73.9	65.5	74.0	1.19		12.1
	Endrin Aldehyde	73.8	77.4	64.9	74.6	4.83		13.9
	Endrin Ketone	78.0	78.2	67.9	80.6	0.299		17.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	EPTC	44.3	53.5	43.0	37.4	18.8	14.0
	Esfenvalerate	128	168	99.6	148	26.7	39.1
	Ethalfuralin	68.3	76.2	63.5	70.9	10.9	10.9
	Ethion	51.8	58.4	58.7	66.2	11.9	11.9
	Ethoprop	83.4	101	100	104	19.4	4.10
	Fenamiphos	86.6	81.3	81.6	74.7	6.35	8.82
	Fenbuconazole	90.1	76.9	96.3	104	15.8	7.30
	Fenpropathrin	88.0	97.6	71.2	90.4	10.3	23.7
	Fipronil	83.3	77.3	85.4	92.2	7.57	7.62
	Fipronil Desulfinyl	76.9	76.1	79.1	84.7	1.05	6.81
	Fipronil Sulfide	80.1	76.6	79.0	78.5	4.38	0.609
	Fipronil Sulfone	68.8	68.5	66.5	67.4	0.426	1.28
	Fluazifop-P-butyl	81.8	73.5	86.2	87.7	10.6	1.67
	Fludioxonil	86.1	77.4	81.1	90.6	10.6	11.1
	Flumioxazin	107	106	144	164	0.325	12.4
	Flutolanil	85.8	80.4	86.5	88.3	6.44	2.06
	Fluxapyroxad	77.1	68.9	35.3	44.6	11.2	4.85
	Fonofos	76.7	90.9	86.0	90.5	17.0	5.13
	Gamma-BHC	82.2	87.4	81.7	85.8	6.10	4.97
	Gamma-Chlordane	71.6	78.9	63.8	75.3	9.73	16.5
	Heptachlor	62.5	73.6	53.9	64.3	16.4	17.5
	Heptachlor Epoxide	73.6	80.2	66.0	77.0	8.52	15.4
	Hexachlorobenzene	62.9	72.0	58.0	65.7	13.5	12.4
	Hexazinone	80.9	90.1			10.8	2.14
	Imazalil	84.2	78.0	162	165	7.62	2.17
	Iprodione	78.6	70.5	79.7	82.7	10.8	3.61
	Kepone	104	95.6	118	106	8.85	10.7
	Lambda-Cyhalothrin	127	148	100	156	15.7	43.2
	Malathion	75.0	77.9	81.7	82.8	3.69	1.31
	Metalaxyl	80.6	81.9	83.4	88.1	1.60	5.50
	Methoxychlor	83.0	101	75.7	84.8	19.7	11.2
	Metolachlor	75.7	74.2	73.2	83.5	1.99	10.9
	Metribuzin	88.6	91.0	102	109	2.66	2.66
	Mevinphos	74.1	78.0	77.6	89.2	5.08	13.9
	MGK-264	57.9	48.3	44.5	66.6	18.1	39.7
	Mirex	132	147	121	144	10.4	16.9
	Molinate	57.6	76.7	68.1	67.9	28.5	0.230
	Myclobutanil	83.0	74.7	83.0	90.0	10.5	8.08
	Naled	30.4	30.7	30.1	28.6	0.825	5.20
	Norflurazon	77.4	68.9	75.0	74.3	11.6	1.01
	Oxadiazon	78.7	75.8	69.2	74.6	3.69	6.64
	Oxyfluorfen	77.2	73.5	84.9	101	4.86	17.4
	Parathion Ethyl	77.7	85.5	82.6	91.7	9.58	10.4
	Parathion Methyl	91.6	102	94.3	99.5	10.5	5.35
	Pendimethalin	71.0	79.9	85.2	93.3	11.8	9.07
	Permethrin	105	133	86.1	107	23.2	21.5
	Phenothrin	47.0	45.9	40.5	59.9	2.42	38.7
	Phorate	74.8	78.3	99.5	106	4.58	6.65
	Piperonyl Butoxide	84.5	86.1	75.6	86.3	1.92	13.2
	Prallethrin	60.2	48.8	54.2	64.1	20.9	16.9
	Prodiamine	33.6	34.7	46.9	50.2	3.43	6.70
	Prometon	80.1	87.5	88.1	91.7	8.86	3.99
	Prometryn	85.3	85.5	113	126	0.288	10.5
	Pronamide	84.2	88.5	97.6	109	5.05	11.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Propiconazole	82.5	72.3	77.2	65.7	13.2		8.82
	Pyriproxyfen	69.0	65.7	70.3	162	4.87		78.8
	Simazine	80.4	89.6	135	138	10.8		2.32
	Sulfentrazone	63.8	57.2	65.3	73.8	11.0		12.3
	Tau-Fluvalinate	93.4	119	75.9	104	24.5		31.2
	Tebuconazole	57.1	58.6	60.6	68.2	2.64		11.7
	Terbufos	72.5	80.9	84.6	91.2	11.0		7.47
	Terbutylazine	79.7	83.1	87.6	96.2	4.18		9.30
	Tetramethrin	65.7	66.4	53.6	70.0	1.09		26.6
	Trans-Nonachlor	73.9	81.0	67.1	75.4	9.06		11.7
	Triclosan Methyl	78.6	84.5	70.8	81.0	7.17		13.4
	Trifluralin	67.5	73.8	65.0	72.0	8.85		10.2
	Chlordane	83.0	78.5	103	83.9	5.54		20.3
	Toxaphene	90.8	88.7	100	96.6	2.31		3.82
EPA 8276								
EPA 8321B	2,4-D	98.3		96.1	121			22.8
	2,4,5-T	111		96.2	83.4			14.3
	3-Hydroxycarbofuran	76.6		95.5	95.9			0.359
	Acesulfame K	119		115	118			2.71
	Acetaminophen	75.2		119	73.7			47.1
	Acetamiprid	81.1		78.7	76.4			2.90
	Afidopyropen	50.7		48.1	49.9			3.12
	Aldicarb	60.5		80.6	84.0			4.07
	Aldicarb Sulfone	87.7		97.3	100			3.07
	Aldicarb Sulfoxide	118		122	126			3.66
	AMPA	92.6		106	106			0.200
	Bentazon	132		60.5	47.7			15.1
	Benzovindiflupyr	80.0		68.6	74.6			8.31
	Carbamazepine	86.6		64.9	61.5			5.44
	Carbaryl	71.2		68.6	69.8			1.78
	Carbofuran	77.3		84.0	79.3			5.72
	Clothianidin	85.0		71.7	68.6			4.43
	Dinotefuran	84.6		89.9	90.7			0.861
	Diuron	70.9		44.0	48.5			9.58
	Endothall	126		95.0	105			9.70
	Fenuron	106		69.5	67.7			2.71
	Fluridone	74.0		62.7	69.0			9.52
	Glufosinate	96.5		96.5	103			6.86
	Glyphosate	91.5		107	108			1.67
	Hydrocodone	80.7		66.5	64.7			2.73
	Ibuprofen	61.8		43.5	57.0			26.9
	Imazapyr	85.8		93.6	93.7			0.118
	Imidacloprid	85.8		126	133			5.23
	Linuron	69.5		55.5	51.7			6.93
	Mandestrobin	72.9		66.5	67.3			1.26
	MCPP	108		96.4	100			3.74
	Methiocarb	45.7		53.6	53.8			0.313
	Methomyl	103		103	102			0.923
	Naproxen	47.9		43.0	37.1			11.2
	Oxamyl	87.5		92.3	93.3			1.13
	Primidone	93.1		82.9	83.5			0.720
	Propoxur	88.5		91.8	84.9			7.82
	Pyraclostrobin	74.1		72.2	77.6			7.21
	Sucralose	122		114	116			2.00
	Thiamethoxam	83.6		90.2	83.9			7.22

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Tolfenpyrad	46.9	46.4	46.4		0.0153
	Triclopyr	131	109	96.6		11.6
SM 2120 B-2011	Color (true)	98.2			1.02	
SM 2320 B-2011	Total Alkalinity	101			0.673	
SM 2540 C-2011	TDS				7.11	
SM 4500 F-C-2011	Fluoride	99.2	97.9	96.9		0.929
SM 5310 B-2011	Organic Carbon	95.8	100	99.8		0.389

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2250593, 2250596
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2250593, 2250596
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2250593, 2250596
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2250594, 2250597
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2250594, 2250597
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2250594, 2250597
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2250594, 2250597
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2250595, 2250598
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2250607
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2250608
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2250607
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2250605
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2250604, 2250606
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2250604, 2250606
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2250593, 2250596
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2250593, 2250596
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2250593, 2250596
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2250593, 2250596
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2250593, 2250596
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2250594, 2250597

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	05/27/2021			05/27/2021 15:49	Yen Ta	2250593, 2250596
EPA 300.0 Rev. 2.1	05/27/2021			06/09/2021 12:42	Lipi Saha	2250593
	05/27/2021			06/09/2021 12:54	Lipi Saha	2250596
EPA 350.1 Rev. 2.0	05/27/2021			06/08/2021 13:29	Roberta Tatti	2250594
	05/27/2021			06/08/2021 13:33	Roberta Tatti	2250597
EPA 351.2 Rev. 2.0	05/27/2021	06/01/2021 13:29	Benjamin T. Nordmann	06/02/2021 16:19	Virginia P. Brown	2250594
	05/27/2021	06/01/2021 13:29	Benjamin T. Nordmann	06/02/2021 16:24	Virginia P. Brown	2250597
EPA 353.2 Rev. 2.0	05/27/2021			05/28/2021 09:40	Beverly Y. Sanders	2250594
	05/27/2021			05/28/2021 09:41	Beverly Y. Sanders	2250597
EPA 365.1 Rev. 2.0	05/27/2021	05/28/2021 13:30	Yen Ta	05/28/2021 16:35	Shengyu Ding	2250594
	05/27/2021	05/28/2021 13:30	Yen Ta	05/28/2021 16:36	Shengyu Ding	2250597
EPA 365.1 Rev. 2.0 dissolved	05/27/2021			05/27/2021 15:38	Blanca Fach	2250598
	05/27/2021			05/27/2021 16:09	Blanca Fach	2250595
EPA 8270E	05/27/2021	05/28/2021 08:00	Fe-Val Siddell	06/09/2021 22:06	Arthur Maknenko	2250607
	05/27/2021	06/01/2021 08:00	Fe-Val Siddell	06/09/2021 17:04	Vandana T. Nagar	2250608
	05/27/2021	06/01/2021 08:00	Fe-Val Siddell	06/11/2021 20:40	Vandana T. Nagar	2250608
EPA 8276	05/27/2021	05/28/2021 08:00	Fe-Val Siddell	06/08/2021 03:11	Chiran X. Ghimire	2250607
EPA 8321B	05/27/2021	05/27/2021 11:30	Pramila Ghimire	05/27/2021 13:39	Juyoung Kim	2250606
	05/27/2021	05/27/2021 11:30	Pramila Ghimire	05/27/2021 14:35	Pramila Ghimire	2250604
	05/27/2021	05/27/2021 11:30	Pramila Ghimire	05/27/2021 15:03	Pramila Ghimire	2250606
	05/27/2021	05/27/2021 11:30	Pramila Ghimire	05/27/2021 15:59	Juyoung Kim	2250604
	05/27/2021	05/27/2021 11:30	Pramila Ghimire	05/27/2021 22:10	Pramila Ghimire	2250604
	05/27/2021	05/27/2021 11:30	Pramila Ghimire	05/27/2021 22:34	Pramila Ghimire	2250606
	05/27/2021	05/27/2021 14:00	Hoor Shaik	05/29/2021 11:47	Juyoung Kim	2250605
	05/27/2021	05/27/2021 14:00	Hoor Shaik	05/29/2021 18:43	Juyoung Kim	2250604
	05/27/2021	05/27/2021 14:00	Hoor Shaik	05/29/2021 19:18	Juyoung Kim	2250606
	05/27/2021	05/27/2021 14:00	Hoor Shaik	06/01/2021 10:54	Juyoung Kim	2250606
SM 2120 B-2011	05/27/2021			05/27/2021 15:13	Sarah A Nixon	2250593, 2250596
SM 2320 B-2011	05/27/2021			05/28/2021 21:36	Dale L. Simmons	2250596
	05/27/2021			05/28/2021 23:38	Dale L. Simmons	2250593
SM 2540 C-2011	05/27/2021			06/01/2021 14:02	Yijie Li	2250593, 2250596
SM 2540 D-2011	05/27/2021			06/01/2021 14:02	Yijie Li	2250593, 2250596
SM 4500 F-C-2011	05/27/2021			05/28/2021 21:36	Dale L. Simmons	2250596
	05/27/2021			05/28/2021 23:38	Dale L. Simmons	2250593
SM 5310 B-2011	05/27/2021			06/02/2021 01:03	Madeline Gruver	2250594
	05/27/2021			06/02/2021 01:16	Madeline Gruver	2250597