Chemical Analysis Report

NE-DIST-2021-02-02-01

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

Event Description: **Palm Coast 2021**
Request ID: **RQ-2021-02-01-48**
Customer: **NE-DIST**
Project ID: **SMP**

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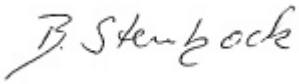
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 23-FEB-2021 17:20



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 group are included in this report: 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: Bull Creek Ditch Downstream of East Ditch **Collection Date/Time: 02/01/2021 09:45**

Field ID: G2NE1212 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2222756	EPA 8321B	Aldicarb	0.020	U	ug/L	P393224	
		Aldicarb Sulfone	0.0020	U	ug/L	P393224	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P393224	
		Carbaryl	0.0041	I	ug/L	P393224	
		Carbofuran	0.0020	U	ug/L	P393224	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P393224	
		Methiocarb	0.0020	U	ug/L	P393224	
		Methomyl	0.0020	U	ug/L	P393224	
		Oxamyl	0.0036	I	ug/L	P393224	
		Propoxur	0.0020	U	ug/L	P393224	
2222757		2,4-D	0.0025	I	ug/L	P393145	
		Acesulfame K	0.10	UJ	ug/L	P393377	MS
		AMPA	2.1	I	ug/L	P393377	
		Sucralose	0.010	U	ug/L	P393377	
		Acetaminophen**	0.0080	U	ug/L	P393145	
		Endothall	0.25	U	ug/L	P393377	
		Acetamiprid**	0.0020	U	ug/L	P393145	
		Glufosinate	1.0	U	ug/L	P393377	
		Glyphosate	6.5		ug/L	P393377	
		Afidopyropen**	0.0020	U	ug/L	P393145	
		Bentazon	0.066		ug/L	P393145	
		Benzovindiflupyr**	0.0020	U	ug/L	P393145	
		Carbamazepine**	8.0E-04	U	ug/L	P393145	
		Clothianidin**	0.0020	U	ug/L	P393145	
		Dinotefuran**	0.0020	U	ug/L	P393145	
		Diuron	0.0020	U	ug/L	P393145	
		Fenuron	0.016	U	ug/L	P393145	
		Fluridone**	8.0E-04	U	ug/L	P393145	
		Imazapyr**	0.089		ug/L	P393145	
		Hydrocodone**	0.0020	U	ug/L	P393145	
		Ibuprofen**	0.020	U	ug/L	P393145	
		Imidacloprid	0.0020	U	ug/L	P393145	
		Linuron	0.0066	I	ug/L	P393145	
		Mandestrobin**	0.0020	U	ug/L	P393145	
		MCPP	0.0020	U	ug/L	P393145	
		Naproxen**	0.0080	U	ug/L	P393145	
		Primidone**	0.0040	U	ug/L	P393145	
		Pyraclostrobin**	0.0020	U	ug/L	P393145	
		Thiamethoxam**	0.0028	I	ug/L	P393145	
		Tolfenpyrad**	0.0020	U	ug/L	P393145	
		Triclopyr**	0.0040	U	ug/L	P393145	
2222758	EPA 8270E	Aldrin	0.77	UJ	ng/L	P393293	RPD
		Dieldrin	0.41	U	ng/L	P393293	
		Alpha-BHC	2.1	U	ng/L	P393293	

Field ID: G2NE1212 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2222758	EPA 8270E	Kepone**	5.7	U	ng/L	P393293	
		Alpha-Chlordane	1.0	U	ng/L	P393293	
		Beta-BHC	8.3	U	ng/L	P393293	
		Beta-Cyfluthrin**	15	U	ng/L	P393293	
		Bifenthrin**	4.1	U	ng/L	P393293	
		Delta-BHC	8.3	U	ng/L	P393293	
		Gamma-BHC	8.3	U	ng/L	P393293	
		Chlorothalonil	2.1	U	ng/L	P393293	
		Cis-Nonachlor**	1.0	U	ng/L	P393293	
		Cypermethrin	21	U	ng/L	P393293	
		Dacthal**	38		ng/L	P393293	
		DDD-p,p'	5.2	U	ng/L	P393293	
		DDE-p,p'	5.2	U	ng/L	P393293	
		DDT-p,p'	6.2	U	ng/L	P393293	
		Deltamethrin**	21	U	ng/L	P393293	
		Dicofol	31	UJ	ng/L	P393293	LCS
		Endosulfan I	4.1	U	ng/L	P393293	
		Endosulfan II	4.1	U	ng/L	P393293	
		Endosulfan Sulfate	2.1	U	ng/L	P393293	
		Endrin	2.1	U	ng/L	P393293	
		Endrin Aldehyde	2.1	U	ng/L	P393293	
		Endrin Ketone	2.1	U	ng/L	P393293	
		Ethalfluralin**	3.1	U	ng/L	P393293	
		Gamma-Chlordane	1.0	U	ng/L	P393293	
		Dichlobenil**	2.1	U	ng/L	P393293	
		Esfenvalerate**	21	U	ng/L	P393293	
		Fenpropathrin**	10	U	ng/L	P393293	
		Heptachlor	1.5	U	ng/L	P393293	
		Heptachlor Epoxide	2.1	U	ng/L	P393293	
		Hexachlorobenzene	2.1	U	ng/L	P393293	
		Lambda-Cyhalothrin**	15	U	ng/L	P393293	
		Methoxychlor	4.1	U	ng/L	P393293	
		Mirex	2.1	U	ng/L	P393293	
		MGK-264**	3.1	U	ng/L	P393293	
		Permethrin	10	U	ng/L	P393293	
		Phenothrin**	31	U	ng/L	P393293	
		Piperonyl Butoxide**	1.5	U	ng/L	P393293	
		Prallethrin**	26	U	ng/L	P393293	
		Tau-Fluvalinate**	3.6	U	ng/L	P393293	
		Tetramethrin**	8.3	U	ng/L	P393293	RPD
		Trans-Nonachlor**	1.0	U	ng/L	P393293	
		Triclosan Methyl**	1.0	U	ng/L	P393293	
		Trifluralin	2.6	U	ng/L	P393293	
	EPA 8276	Chlordane	9.4	I	ng/L	P393293	
		Toxaphene	31	UJ	ng/L	P393293	MS

Field ID: G2NE1212 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2222759	EPA 8270E	Acetochlor	0.26	U	ng/L	P393299	
		Alachlor	0.26	U	ng/L	P393299	
		Ametryn	0.62	U	ng/L	P393299	
		Atrazine	8.4		ng/L	P393299	
		Atrazine Desethyl	1.5	U	ng/L	P393299	
		Azinphos Methyl	2.1	U	ng/L	P393299	
		Azoxystrobin**	58	J	ng/L	P393299	
		Bromacil	0.51	U	ng/L	P393299	
		Butylate	0.41	U	ng/L	P393299	
		Caffeine**	9.4	I	ng/L	P393299	
		Carbophenothion	0.51	U	ng/L	P393299	
		Carfentrazone Ethyl**	0.10	U	ng/L	P393299	
		Chlorpyrifos Ethyl	26		ng/L	P393299	
		Chlorpyrifos Methyl	0.051	U	ng/L	P393299	
		Cyanazine	3.3	U	ng/L	P393299	
		Demeton	1.5	U	ng/L	P393299	
		Diazinon	0.13	U	ng/L	P393299	
		Difenoconazole**	2.2	I	ng/L	P393299	
		Dimethenamid**	0.10	U	ng/L	P393299	
		Disulfoton	0.51	U	ng/L	P393299	
		Dithiopyr**	1.9		ng/L	P393299	
		EPTC	1.3	U	ng/L	P393299	
		Ethion	0.15	U	ng/L	P393299	
		Ethoprop	2.2		ng/L	P393299	
		Fenamiphos	0.51	U	ng/L	P393299	
		Fenbuconazole**	0.13	U	ng/L	P393299	
		Fipronil	1.5		ng/L	P393299	
		Fipronil Desulfinyl**	1.2		ng/L	P393299	
		Fipronil Sulfide	2.9		ng/L	P393299	
		Fipronil Sulfone	4.4		ng/L	P393299	
		Fluazifop-P-butyl**	0.10	U	ng/L	P393299	
		Fludioxonil**	8.6		ng/L	P393299	
		Flumioxazin**	1.8	U	ng/L	P393299	
		Flutolanil**	0.10	U	ng/L	P393299	
		Fluxapyroxad**	0.10	UJ	ng/L	P393299	LCS
		Fonofos	0.21	U	ng/L	P393299	
		Hexazinone	0.51	U	ng/L	P393299	
		Imazalil**	0.77	U	ng/L	P393299	
		Iprodione**	0.62	UJ	ng/L	P393299	LCS
		Malathion	0.36	U	ng/L	P393299	
		Metalaxyl	3.5		ng/L	P393299	
		Metolachlor	54		ng/L	P393299	
		Metribuzin	3.3	U	ng/L	P393299	
		Mevinphos	1.1	U	ng/L	P393299	
		Molinate	0.31	U	ng/L	P393299	

Field ID: G2NE1212 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2222759	EPA 8270E	Myclobutanil**	0.26	U	ng/L	P393299	
		Naled**	1.5	U	ng/L	P393299	
		Norflurazon	0.51	U	ng/L	P393299	
		Oxadiazon	69		ng/L	P393299	
		Oxyfluorfen**	0.86		ng/L	P393299	
		Parathion Ethyl	0.26	U	ng/L	P393299	
		Parathion Methyl	0.57	U	ng/L	P393299	
		Pendimethalin	1.0	U	ng/L	P393299	
		Phorate	0.54	U	ng/L	P393299	
		Prodiamine**	0.18	U	ng/L	P393299	
		Prometon	0.93	U	ng/L	P393299	
		Prometryn	0.21	U	ng/L	P393299	
		Pronamide**	0.15	U	ng/L	P393299	
		Propiconazole**	0.51	U	ng/L	P393299	
		Pyriproxyfen**	0.13	U	ng/L	P393299	
		Simazine	0.51	U	ng/L	P393299	
		Sulfentrazone**	0.52	I	ng/L	P393299	
		Tebuconazole**	0.51	UJ	ng/L	P393299	LCS
		Terbufos	0.10	U	ng/L	P393299	
		Terbuthylazine	0.44	U	ng/L	P393299	

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8321B: MDL for some parameters elevated due to matrix interference. MS accuracy for glyphosate could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8276: 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. Estimated value for azoxystrobin due to internal standard recovery exceeding control limits. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P393293

Component	Result	Code	Units
Aldrin	0.75	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dichlobenil	2.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Esfenvalerate	20	U	ng/L
Ethalfluralin	3.0	U	ng/L
Fenpropathrin	10	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Kepone	5.5	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
MGK-264	3.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Piperonyl Butoxide	1.5	U	ng/L
Prallethrin	25	U	ng/L
Tau-Fluvalinate	3.5	U	ng/L
Tetramethrin	8.0	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Triclosan Methyl	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E
Batch ID: P393299

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P393299

Component	Result	Code	Units
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	5.0	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P393299

Component	Result	Code	Units
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P393293

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

Reference Method: EPA 8321B
Batch ID: P393145

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P393224

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: P393377

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P393293

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	20.9	41.9	P/P	20 - 110
Alpha-BHC	85.7	73.2	P/P	58 - 130
Alpha-Chlordane	89.3	81.0	P/P	61 - 105
Beta-BHC	98.2	88.7	P/P	53 - 164
Beta-Cyfluthrin	87.7	76.6	P/P	40 - 140
Bifenthrin	82.2	71.6	P/P	44 - 122
Chlorothalonil	93.8	79.7	P/P	20 - 201
Cis-Nonachlor	93.2	82.5	P/P	60 - 110
Cypermethrin	88.5	77.8	P/P	43 - 131
Dacthal	99.8	88.9	P/P	76 - 108
DDD-p,p'	96.2	85.0	P/P	68 - 118
DDE-p,p'	80.5	73.1	P/P	56 - 107
DDT-p,p'	88.5	79.3	P/P	55 - 122
Delta-BHC	106	84.7	P/P	60 - 181
Deltamethrin	97.7	82.7	P/P	51 - 139
Dichlobenil	61.0	52.7	P/P	20 - 106
Dicofol	143	127	F/P	56 - 130
Dieldrin	61.7	76.7	P/P	58 - 112
Endosulfan I	95.6	82.4	P/P	68 - 115
Endosulfan II	114	101	P/P	69 - 133
Endosulfan Sulfate	96.7	87.2	P/P	65 - 126
Endrin	97.6	90.9	P/P	66 - 118
Endrin Aldehyde	107	94.6	P/P	60 - 132
Endrin Ketone	102	89.1	P/P	68 - 121
Esfenvalerate	83.7	71.7	P/P	42 - 116
Ethalfluralin	82.0	71.8	P/P	50 - 118
Fenpropathrin	117	97.6	P/P	55 - 132
Gamma-BHC	96.8	84.2	P/P	65 - 147
Gamma-Chlordane	87.6	76.3	P/P	56 - 103
Heptachlor	72.4	63.7	P/P	47 - 95.0
Heptachlor Epoxide	93.5	83.7	P/P	67 - 107
Hexachlorobenzene	68.9	62.9	P/P	45 - 99.0
Kepone	101	114	P/P	28 - 128
Lambda-Cyhalothrin	86.1	73.1	P/P	41 - 135
Methoxychlor	101	89.6	P/P	61 - 138
MGK-264	67.5	53.5	P/P	20 - 109
Mirex	70.6	63.1	P/P	36 - 92.0
Permethrin	74.1	63.6	P/P	45 - 111
Phenothrin	51.1	39.9	P/P	22 - 88.0
Piperonyl Butoxide	106	92.5	P/P	67 - 120
Prallethrin	67.2	54.8	P/P	28 - 92.0
Tau-Fluvalinate	94.9	81.1	P/P	38 - 145
Tetramethrin	102	91.2	P/P	29 - 150
Trans-Nonachlor	87.0	77.1	P/P	54 - 105
Triclosan Methyl	102	90.8	P/P	76 - 115
Trifluralin	79.1	70.0	P/P	53 - 111

Reference Method: EPA 8270E
Batch ID: P393299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	81.5	82.2	P/P	70 - 121

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P393299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alachlor	78.9	78.6	P/P	70 - 119
Ametryn	96.6	94.1	P/P	61 - 135
Atrazine	95.9	96.6	P/P	76 - 123
Atrazine Desethyl	86.1	87.5	P/P	35 - 140
Azinphos Methyl	98.5	96.9	P/P	57 - 163
Azoxystrobin	174	151	P/P	43 - 231
Bromacil	80.9	80.0	P/P	42 - 123
Butylate	58.8	62.6	P/P	34 - 92.0
Caffeine	97.5	95.8	P/P	70 - 130
Carbophenothion	76.3	71.2	P/P	61 - 121
Carfentrazone Ethyl	80.5	77.9	P/P	62 - 139
Chlorpyrifos Ethyl	76.3	71.6	P/P	67 - 121
Chlorpyrifos Methyl	88.8	87.9	P/P	67 - 120
Cyanazine	105	99.6	P/P	20 - 226
Demeton	85.5	88.4	P/P	35 - 125
Diazinon	84.0	84.1	P/P	70 - 122
Difenoconazole	146	126	P/P	56 - 186
Dimethenamid	79.2	79.4	P/P	67 - 119
Disulfoton	80.9	78.6	P/P	47 - 120
Dithiopyr	69.5	71.3	P/P	67 - 118
EPTC	57.6	57.7	P/P	33 - 90.0
Ethion	43.8	42.6	P/P	40 - 133
Ethoprop	98.3	99.6	P/P	61 - 121
Fenamiphos	85.4	81.4	P/P	31 - 139
Fenbuconazole	106	90.8	P/P	66 - 141
Fipronil	82.9	83.7	P/P	62 - 129
Fipronil Desulfinyl	76.6	77.5	P/P	59 - 126
Fipronil Sulfide	81.6	79.3	P/P	63 - 117
Fipronil Sulfone	77.6	73.2	P/P	57 - 117
Fluazifop-P-butyl	78.2	77.8	P/P	63 - 124
Fludioxonil	76.1	72.7	P/P	63 - 123
Flumioxazin	136	125	P/P	34 - 245
Flutolanil	81.7	79.6	P/P	56 - 131
Fluxapyroxad	63.0	56.8	P/F	57 - 117
Fonofos	90.4	90.1	P/P	61 - 116
Hexazinone	80.8	81.7	P/P	55 - 138
Imazalil	78.1	78.2	P/P	33 - 143
Iprodione	60.5	58.9	P/F	59 - 118
Malathion	96.3	94.1	P/P	62 - 138
Metalaxyl	76.8	76.8	P/P	24 - 147
Metolachlor	78.7	75.9	P/P	68 - 118
Metribuzin	100	98.7	P/P	20 - 239
Mevinphos	93.4	96.5	P/P	46 - 124
Molinate	72.5	73.3	P/P	46 - 100
Myclobutanil	74.4	69.7	P/P	32 - 149
Naled	38.3	38.1	P/P	32 - 95.0
Norflurazon	74.7	72.5	P/P	57 - 127
Oxadiazon	73.5	70.7	P/P	63 - 118
Oxyfluorfen	85.1	81.8	P/P	69 - 137
Parathion Ethyl	86.8	86.9	P/P	70 - 113
Parathion Methyl	102	109	P/P	71 - 130
Pendimethalin	76.4	77.6	P/P	55 - 118

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P393299

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	88.7	92.0	P/P	46 - 125
Prodiamine	53.4	51.5	P/P	20 - 141
Prometon	91.7	87.4	P/P	54 - 122
Prometryn	91.1	92.7	P/P	66 - 124
Pronamide	94.9	93.8	P/P	79 - 122
Propiconazole	79.7	73.4	P/P	61 - 126
Pyriproxyfen	80.6	79.1	P/P	52 - 131
Simazine	96.2	98.3	P/P	75 - 128
Sulfentrazone	51.7	50.2	P/P	20 - 132
Tebuconazole	15.2	16.1	F/F	20 - 116
Terbufos	89.7	90.0	P/P	61 - 117
Terbuthylazine	86.5	84.9	P/P	74 - 116

Reference Method: EPA 8276
Batch ID: P393293

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	72.6	90.1	P/P	56 - 117
Toxaphene	94.7	103	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P393145

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	103		P	30 - 160
Acetaminophen	83.5		P	30 - 160
Acetamiprid	85.3		P	30 - 160
Afidopyropen	52.7		P	30 - 160
Bentazon	85.8		P	30 - 160
Benzovindiflupyr	74.7		P	30 - 160
Carbamazepine	101		P	30 - 160
Clothianidin	96.8		P	30 - 160
Dinotefuran	71.4		P	30 - 160
Diuron	80.0		P	30 - 160
Fenuron	100		P	30 - 160
Fluridone	82.3		P	30 - 160
Hydrocodone	94.4		P	30 - 160
Ibuprofen	59.0		P	30 - 160
Imazapyr	104		P	30 - 160
Imidacloprid	93.3		P	30 - 160
Linuron	79.0		P	30 - 160
Mandestrobin	86.6		P	30 - 160
MCPP	90.3		P	30 - 160
Naproxen	56.8		P	30 - 160
Primidone	87.3		P	30 - 160
Pyraclostrobin	75.8		P	30 - 160
Thiamethoxam	93.5		P	30 - 160
Tolfenpyrad	44.3		P	30 - 160
Triclopyr	84.3		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P393224

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	58.5		P	30 - 160
Aldicarb	48.1		P	30 - 160
Aldicarb Sulfone	63.8		P	30 - 160
Aldicarb Sulfoxide	79.4		P	30 - 160
Carbaryl	48.4		P	30 - 160
Carbofuran	52.6		P	30 - 160
Methiocarb	52.9		P	30 - 160
Methomyl	53.5		P	30 - 160
Oxamyl	61.7		P	30 - 160
Propoxur	53.2		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P393377

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	116		P	40 - 150
AMPA	106		P	40 - 150
Endothall	104		P	40 - 150
Glufosinate	107		P	40 - 150
Glyphosate	101		P	40 - 150
Sucralose	109		P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P393293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2222758	Aldrin	57.3	55.6	P/P	20 - 110
2222758	Dieldrin	81.2	63.4	P/P	58 - 112
2222758	Kepone	56.5	56.1	P/P	28 - 128
2223138	Alpha-BHC	69.7	84.5	P/P	53 - 147
2223138	Alpha-Chlordane	74.9	85.9	P/P	56 - 107
2223138	Beta-BHC	79.4	95.3	P/P	43 - 182
2223138	Beta-Cyfluthrin	66.0	83.6	P/P	42 - 157
2223138	Bifenthrin	68.4	86.9	P/P	52 - 124
2223138	Chlorothalonil	75.6	100	P/P	10 - 265
2223138	Cis-Nonachlor	77.4	88.4	P/P	55 - 112
2223138	Cypermethrin	72.6	98.2	P/P	46 - 144
2223138	Dacthal	83.9	94.2	P/P	72 - 110
2223138	DDD-p,p'	80.5	87.2	P/P	58 - 123
2223138	DDE-p,p'	68.5	73.7	P/P	52 - 106
2223138	DDT-p,p'	73.1	87.7	P/P	50 - 127
2223138	Delta-BHC	90.8	110	P/P	56 - 222
2223138	Deltamethrin	81.9	102	P/P	47 - 152
2223138	Dichlobenil	51.2	56.5	P/P	22 - 99.0
2223138	Dicofol	125	115	P/P	38 - 145
2223138	Endosulfan I	80.7	97.2	P/P	64 - 124
2223138	Endosulfan II	95.1	110	P/P	52 - 159
2223138	Endosulfan Sulfate	80.4	103	P/P	62 - 136
2223138	Endrin	89.3	99.3	P/P	57 - 126
2223138	Endrin Aldehyde	89.0	106	P/P	41 - 128
2223138	Endrin Ketone	82.7	102	P/P	67 - 129
2223138	Esfenvalerate	66.3	84.0	P/P	50 - 120
2223138	Ethalfluralin	67.4	80.2	P/P	41 - 125
2223138	Fenpropathrin	99.3	124	P/P	40 - 202
2223138	Gamma-BHC	78.7	100	P/P	58 - 180
2223138	Gamma-Chlordane	70.8	81.5	P/P	54 - 103
2223138	Heptachlor	65.8	83.3	P/P	46 - 94.0
2223138	Heptachlor Epoxide	78.5	91.0	P/P	62 - 111
2223138	Hexachlorobenzene	56.5	65.3	P/P	42 - 95.0
2223138	Lambda-Cyhalothrin	69.2	93.0	P/P	37 - 162
2223138	Methoxychlor	84.2	92.6	P/P	52 - 143
2223138	MGK-264	43.4	45.3	P/P	37 - 102
2223138	Mirex	59.6	73.5	P/P	43 - 91.0
2223138	Permethrin	60.1	75.7	P/P	48 - 113
2223138	Phenothrin	38.9	45.0	P/P	30 - 104
2223138	Piperonyl Butoxide	85.7	101	P/P	67 - 127
2223138	Prallethrin	45.4	47.1	P/P	28 - 102
2223138	Tau-Fluvalinate	75.9	97.7	P/P	46 - 174
2223138	Tetramethrin	80.3	132	P/P	28 - 176
2223138	Trans-Nonachlor	71.0	80.6	P/P	51 - 103
2223138	Triclosan Methyl	84.5	93.8	P/P	67 - 116
2223138	Trifluralin	65.1	75.5	P/P	47 - 118

Reference Method: EPA 8270E
Batch ID: P393299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2222710	Acetochlor	75.5	81.5	P/P	66 - 122

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P393299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2222710	Alachlor	74.9	77.2	P/P	65 - 122
2222710	Ametryn	94.3	101	P/P	45 - 173
2222710	Atrazine Desethyl	82.0	88.5	P/P	25 - 150
2222710	Azinphos Methyl	81.6	90.8	P/P	44 - 174
2222710	Azoxystrobin	138	143	P/P	10 - 268
2222710	Butylate	55.5	58.0	P/P	15 - 97.0
2222710	Carbophenothion	65.6	67.8	P/P	42 - 129
2222710	Carfentrazone Ethyl	68.2	70.4	P/P	62 - 145
2222710	Chlorpyrifos Ethyl	67.0	83.0	P/P	60 - 124
2222710	Chlorpyrifos Methyl	82.6	87.2	P/P	66 - 119
2222710	Cyanazine	82.7	99.4	P/P	17 - 225
2222710	Demeton	98.2	97.6	P/P	36 - 142
2222710	Diazinon	83.4	90.9	P/P	70 - 128
2222710	Difenoconazole	128	141	P/P	33 - 222
2222710	Dimethenamid	71.4	77.1	P/P	54 - 125
2222710	Disulfoton	72.0	80.3	P/P	49 - 133
2222710	Dithiopyr	67.4	76.8	P/P	55 - 123
2222710	EPTC	49.5	48.3	P/P	19 - 91.0
2222710	Ethion	32.6	32.3	P/P	13 - 143
2222710	Ethoprop	100	108	P/P	49 - 144
2222710	Fenamiphos	56.4	62.7	P/P	32 - 136
2222710	Fenbuconazole	83.2	103	P/P	73 - 148
2222710	Fipronil	82.7	93.4	P/P	57 - 129
2222710	Fipronil Desulfinyl	71.6	81.5	P/P	49 - 127
2222710	Fipronil Sulfide	69.7	78.7	P/P	44 - 127
2222710	Fipronil Sulfone	63.7	72.3	P/P	35 - 126
2222710	Fluazifop-P-butyl	71.0	75.9	P/P	67 - 129
2222710	Fludioxonil	66.4	76.6	P/P	61 - 126
2222710	Flumioxazin	151	155	P/P	38 - 279
2222710	Flutolanil	67.0	69.1	P/P	55 - 136
2222710	Fluxapyroxad	49.1	51.2	P/P	33 - 140
2222710	Fonofos	86.2	91.6	P/P	58 - 125
2222710	Hexazinone	81.2	87.7	P/P	57 - 148
2222710	Imazalil	69.0	81.8	P/P	10 - 221
2222710	Iprodione	58.3	55.0	P/P	32 - 140
2222710	Malathion	86.3	93.6	P/P	52 - 138
2222710	Metalaxyl	66.6	82.9	P/P	46 - 134
2222710	Metolachlor	67.6	78.6	P/P	58 - 122
2222710	Metribuzin	88.7	103	P/P	16 - 272
2222710	Mevinphos	107	115	P/P	45 - 140
2222710	Molinate	68.1	70.4	P/P	41 - 103
2222710	Myclobutanil	72.0	80.5	P/P	60 - 134
2222710	Naled	50.2	54.3	P/P	20 - 113
2222710	Oxadiazon	66.9	69.7	P/P	44 - 125
2222710	Oxyfluorfen	83.8	87.9	P/P	66 - 176
2222710	Parathion Ethyl	84.0	92.0	P/P	57 - 132
2222710	Parathion Methyl	109	110	P/P	59 - 156
2222710	Pendimethalin	82.6	84.6	P/P	59 - 129
2222710	Phorate	91.8	108	P/P	47 - 136
2222710	Prodiamine	61.2	71.5	P/P	10 - 159
2222710	Prometon	84.7	92.9	P/P	59 - 127
2222710	Prometryn	86.6	97.5	P/P	59 - 129

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P393299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2222710	Pronamide	109	116	P/P	65 - 145
2222710	Propiconazole	85.6	87.5	P/P	28 - 165
2222710	Pyriproxyfen	66.3	68.7	P/P	21 - 180
2222710	Simazine	97.9	111	P/P	63 - 147
2222710	Sulfentrazone	65.5	75.5	P/P	32 - 136
2222710	Tebuconazole	13.5	14.9	P/P	-8.3 - 117
2222710	Terbufos	89.0	98.4	P/P	61 - 131
2222710	Terbuthylazine	80.4	90.9	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P393293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2222758	Chlordane	98.2	85.6	P/P	47 - 128
2222758	Toxaphene	164	147	F/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P393145

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2222298	Acetaminophen	105	106	P/P	30 - 160
2222298	Acetamiprid	103	104	P/P	30 - 160
2222298	Afidopyropen	77.0	73.5	P/P	30 - 160
2222298	Benzovindiflupyr	69.8	73.2	P/P	30 - 160
2222298	Carbamazepine	86.8	82.4	P/P	30 - 160
2222298	Clothianidin	91.1	106	P/P	30 - 160
2222298	Dinotefuran	98.9	99.3	P/P	30 - 160
2222298	Diuron	66.3	56.9	P/P	30 - 160
2222298	Fenuron	81.5	83.2	P/P	30 - 160
2222298	Fluridone	82.1	59.6	P/P	30 - 160
2222298	Hydrocodone	106	109	P/P	30 - 160
2222298	Ibuprofen	79.6	76.5	P/P	30 - 160
2222298	Imazapyr	102	80.1	P/P	30 - 160
2222298	Imidacloprid	133	138	P/P	30 - 160
2222298	Linuron	70.5	66.1	P/P	30 - 160
2222298	Mandestrobin	82.3	80.6	P/P	30 - 160
2222298	MCPP	84.2	80.5	P/P	30 - 160
2222298	Naproxen	78.6	85.0	P/P	30 - 160
2222298	Primidone	90.4	90.2	P/P	30 - 160
2222298	Pyraclostrobin	72.6	74.6	P/P	30 - 160
2222298	Thiamethoxam	124	128	P/P	30 - 160
2222298	Tolfenpyrad	46.7	52.7	P/P	30 - 160
2222298	Triclopyr	69.7	76.2	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P393224

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2222093	3-Hydroxycarbofuran	53.9	58.2	P/P	30 - 160
2222093	Aldicarb	41.8	44.7	P/P	30 - 160
2222093	Aldicarb Sulfone	71.5	67.1	P/P	30 - 160
2222093	Aldicarb Sulfoxide	35.8	31.5	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P393224

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2222093	Carbaryl	36.8	37.0	P/P	30 - 160
2222093	Carbofuran	36.6	34.7	P/P	30 - 160
2222093	Methiocarb	46.6	45.3	P/P	30 - 160
2222093	Methomyl	45.6	46.4	P/P	30 - 160
2222093	Oxamyl	62.6	61.4	P/P	30 - 160
2222093	Propoxur	38.7	37.1	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P393377

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2222757	Acesulfame K	19.1	19.9	F/F	40 - 150
2222757	AMPA	86.1	82.2	P/P	40 - 150
2222757	Endothall	86.2	82.5	P/P	40 - 150
2222757	Glufosinate	103	93.5	P/P	40 - 150
2222757	Sucralose	109	113	P/P	40 - 150

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P393293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2222758	Aldrin	2.95	Spike	P	0 - 30
2222758	Dieldrin	24.6	Spike	P	0 - 30
2222758	Kepone	0.603	Spike	P	0 - 30
2223138	Alpha-BHC	19.2	Spike	P	0 - 30
2223138	Alpha-Chlordane	13.7	Spike	P	0 - 30
2223138	Beta-BHC	18.2	Spike	P	0 - 30
2223138	Beta-Cyfluthrin	23.5	Spike	P	0 - 30
2223138	Bifenthrin	23.8	Spike	P	0 - 30
2223138	Chlorothalonil	28.2	Spike	P	0 - 30
2223138	Cis-Nonachlor	13.2	Spike	P	0 - 30
2223138	Cypermethrin	30.0	Spike	P	0 - 30
2223138	Dacthal	11.6	Spike	P	0 - 30
2223138	DDD-p,p'	8.06	Spike	P	0 - 30
2223138	DDE-p,p'	7.25	Spike	P	0 - 30
2223138	DDT-p,p'	18.2	Spike	P	0 - 30
2223138	Delta-BHC	18.8	Spike	P	0 - 30
2223138	Deltamethrin	21.6	Spike	P	0 - 30
2223138	Dichlobenil	9.82	Spike	P	0 - 30
2223138	Dicofol	8.21	Spike	P	0 - 30
2223138	Endosulfan I	18.6	Spike	P	0 - 30
2223138	Endosulfan II	14.6	Spike	P	0 - 30
2223138	Endosulfan Sulfate	25.1	Spike	P	0 - 30
2223138	Endrin	10.6	Spike	P	0 - 30
2223138	Endrin Aldehyde	17.2	Spike	P	0 - 30
2223138	Endrin Ketone	20.9	Spike	P	0 - 30
2223138	Esfenvalerate	23.6	Spike	P	0 - 30
2223138	Ethalfluralin	17.4	Spike	P	0 - 30
2223138	Fenpropathrin	22.1	Spike	P	0 - 30
2223138	Gamma-BHC	24.3	Spike	P	0 - 30
2223138	Gamma-Chlordane	14.1	Spike	P	0 - 30
2223138	Heptachlor	23.4	Spike	P	0 - 30
2223138	Heptachlor Epoxide	14.7	Spike	P	0 - 30
2223138	Hexachlorobenzene	14.4	Spike	P	0 - 30
2223138	Lambda-Cyhalothrin	29.4	Spike	P	0 - 30
2223138	Methoxychlor	9.48	Spike	P	0 - 30
2223138	MGK-264	4.36	Spike	P	0 - 30
2223138	Mirex	20.9	Spike	P	0 - 30
2223138	Permethrin	22.9	Spike	P	0 - 30
2223138	Phenothrin	14.4	Spike	P	0 - 30
2223138	Piperonyl Butoxide	16.7	Spike	P	0 - 30
2223138	Prallethrin	3.68	Spike	P	0 - 30
2223138	Tau-Fluvalinate	25.1	Spike	P	0 - 30
2223138	Tetramethrin	48.9	Spike	F	0 - 30
2223138	Trans-Nonachlor	12.7	Spike	P	0 - 30
2223138	Triclosan Methyl	10.5	Spike	P	0 - 30
2223138	Trifluralin	14.8	Spike	P	0 - 30
LFB	Aldrin	66.7	LCS	F	0 - 30
LFB	Alpha-BHC	15.8	LCS	P	0 - 30
LFB	Alpha-Chlordane	9.73	LCS	P	0 - 30
LFB	Beta-BHC	10.1	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	13.5	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P393293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Bifenthrin	13.8	LCS	P	0 - 30
LFB	Chlorothalonil	16.3	LCS	P	0 - 30
LFB	Cis-Nonachlor	12.2	LCS	P	0 - 30
LFB	Cypermethrin	12.9	LCS	P	0 - 30
LFB	Dacthal	11.6	LCS	P	0 - 30
LFB	DDD-p,p'	12.3	LCS	P	0 - 30
LFB	DDE-p,p'	9.68	LCS	P	0 - 30
LFB	DDT-p,p'	11.0	LCS	P	0 - 30
LFB	Delta-BHC	22.7	LCS	P	0 - 30
LFB	Deltamethrin	16.6	LCS	P	0 - 30
LFB	Dichlobenil	14.5	LCS	P	0 - 30
LFB	Dicofol	12.2	LCS	P	0 - 30
LFB	Dieldrin	21.8	LCS	P	0 - 30
LFB	Endosulfan I	14.9	LCS	P	0 - 30
LFB	Endosulfan II	11.7	LCS	P	0 - 30
LFB	Endosulfan Sulfate	10.3	LCS	P	0 - 30
LFB	Endrin	7.11	LCS	P	0 - 30
LFB	Endrin Aldehyde	12.3	LCS	P	0 - 30
LFB	Endrin Ketone	13.4	LCS	P	0 - 30
LFB	Esfenvalerate	15.5	LCS	P	0 - 30
LFB	Ethalfluralin	13.3	LCS	P	0 - 30
LFB	Fenpropathrin	18.3	LCS	P	0 - 30
LFB	Gamma-BHC	13.9	LCS	P	0 - 30
LFB	Gamma-Chlordane	13.8	LCS	P	0 - 30
LFB	Heptachlor	12.8	LCS	P	0 - 30
LFB	Heptachlor Epoxide	11.1	LCS	P	0 - 30
LFB	Hexachlorobenzene	9.16	LCS	P	0 - 30
LFB	Kepone	11.3	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	16.4	LCS	P	0 - 30
LFB	Methoxychlor	12.4	LCS	P	0 - 30
LFB	MGK-264	23.1	LCS	P	0 - 30
LFB	Mirex	11.2	LCS	P	0 - 30
LFB	Permethrin	15.2	LCS	P	0 - 30
LFB	Phenothrin	24.7	LCS	P	0 - 30
LFB	Piperonyl Butoxide	13.2	LCS	P	0 - 30
LFB	Prallethrin	20.2	LCS	P	0 - 30
LFB	Tau-Fluvalinate	15.6	LCS	P	0 - 30
LFB	Tetramethrin	11.2	LCS	P	0 - 30
LFB	Trans-Nonachlor	12.1	LCS	P	0 - 30
LFB	Triclosan Methyl	11.5	LCS	P	0 - 30
LFB	Trifluralin	12.2	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P393299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2222710	Acetochlor	7.57	Spike	P	0 - 30
2222710	Alachlor	2.99	Spike	P	0 - 30
2222710	Ametryn	6.45	Spike	P	0 - 30
2222710	Atrazine	11.2	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P393299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2222710	Atrazine Desethyl	7.60	Spike	P	0 - 30
2222710	Azinphos Methyl	10.6	Spike	P	0 - 30
2222710	Azoxystrobin	3.50	Spike	P	0 - 30
2222710	Bromacil	15.0	Spike	P	0 - 30
2222710	Butylate	4.47	Spike	P	0 - 30
2222710	Caffeine	26.7	Spike	P	0 - 30
2222710	Carbophenothion	3.20	Spike	P	0 - 30
2222710	Carfentrazone Ethyl	3.11	Spike	P	0 - 30
2222710	Chlorpyrifos Ethyl	21.3	Spike	P	0 - 30
2222710	Chlorpyrifos Methyl	5.44	Spike	P	0 - 30
2222710	Cyanazine	18.4	Spike	P	0 - 30
2222710	Demeton	0.560	Spike	P	0 - 30
2222710	Diazinon	8.63	Spike	P	0 - 30
2222710	Difenoconazole	9.80	Spike	P	0 - 30
2222710	Dimethenamid	7.73	Spike	P	0 - 30
2222710	Disulfoton	10.9	Spike	P	0 - 30
2222710	Dithiopyr	13.0	Spike	P	0 - 30
2222710	EPTC	2.42	Spike	P	0 - 30
2222710	Ethion	0.873	Spike	P	0 - 30
2222710	Ethoprop	7.64	Spike	P	0 - 30
2222710	Fenamiphos	10.5	Spike	P	0 - 30
2222710	Fenbuconazole	21.6	Spike	P	0 - 30
2222710	Fipronil	11.0	Spike	P	0 - 30
2222710	Fipronil Desulfinyl	13.0	Spike	P	0 - 30
2222710	Fipronil Sulfide	10.9	Spike	P	0 - 30
2222710	Fipronil Sulfone	10.5	Spike	P	0 - 30
2222710	Fluazifop-P-butyl	6.66	Spike	P	0 - 30
2222710	Fludioxonil	14.3	Spike	P	0 - 30
2222710	Flumioxazin	2.34	Spike	P	0 - 30
2222710	Flutolanil	3.10	Spike	P	0 - 30
2222710	Fluxapyroxad	4.17	Spike	P	0 - 30
2222710	Fonofos	6.08	Spike	P	0 - 30
2222710	Hexazinone	6.63	Spike	P	0 - 30
2222710	Imazalil	17.0	Spike	P	0 - 30
2222710	Iprodione	5.78	Spike	P	0 - 30
2222710	Malathion	8.11	Spike	P	0 - 30
2222710	Metalaxyl	10.3	Spike	P	0 - 30
2222710	Metolachlor	9.01	Spike	P	0 - 30
2222710	Metribuzin	14.7	Spike	P	0 - 30
2222710	Mevinphos	7.19	Spike	P	0 - 30
2222710	Molinate	3.37	Spike	P	0 - 30
2222710	Myclobutanil	11.1	Spike	P	0 - 30
2222710	Naled	7.86	Spike	P	0 - 30
2222710	Norflurazon	8.84	Spike	P	0 - 30
2222710	Oxadiazon	4.13	Spike	P	0 - 30
2222710	Oxyfluorfen	4.70	Spike	P	0 - 30
2222710	Parathion Ethyl	9.11	Spike	P	0 - 30
2222710	Parathion Methyl	1.22	Spike	P	0 - 30
2222710	Pendimethalin	2.45	Spike	P	0 - 30
2222710	Phorate	16.0	Spike	P	0 - 30
2222710	Prodiamine	15.4	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P393299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2222710	Prometon	9.24	Spike	P	0 - 30
2222710	Prometryn	11.8	Spike	P	0 - 30
2222710	Pronamide	6.53	Spike	P	0 - 30
2222710	Propiconazole	2.18	Spike	P	0 - 30
2222710	Pyriproxyfen	3.44	Spike	P	0 - 30
2222710	Simazine	12.5	Spike	P	0 - 30
2222710	Sulfentrazone	14.2	Spike	P	0 - 30
2222710	Tebuconazole	9.82	Spike	P	0 - 30
2222710	Terbufos	9.99	Spike	P	0 - 30
2222710	Terbuthylazine	12.4	Spike	P	0 - 30
LFB	Acetochlor	0.860	LCS	P	0 - 30
LFB	Alachlor	0.322	LCS	P	0 - 30
LFB	Ametryn	2.57	LCS	P	0 - 30
LFB	Atrazine	0.781	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.59	LCS	P	0 - 30
LFB	Azinphos Methyl	1.58	LCS	P	0 - 30
LFB	Azoxystrobin	14.3	LCS	P	0 - 30
LFB	Bromacil	1.14	LCS	P	0 - 30
LFB	Butylate	6.24	LCS	P	0 - 30
LFB	Caffeine	1.83	LCS	P	0 - 30
LFB	Carbophenothion	6.81	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	3.32	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	6.32	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	0.954	LCS	P	0 - 30
LFB	Cyanazine	5.36	LCS	P	0 - 30
LFB	Demeton	3.35	LCS	P	0 - 30
LFB	Diazinon	0.0491	LCS	P	0 - 30
LFB	Difenoconazole	14.7	LCS	P	0 - 30
LFB	Dimethenamid	0.243	LCS	P	0 - 30
LFB	Disulfoton	2.94	LCS	P	0 - 30
LFB	Dithiopyr	2.54	LCS	P	0 - 30
LFB	EPTC	0.239	LCS	P	0 - 30
LFB	Ethion	2.74	LCS	P	0 - 30
LFB	Ethoprop	1.35	LCS	P	0 - 30
LFB	Fenamiphos	4.85	LCS	P	0 - 30
LFB	Fenbuconazole	15.1	LCS	P	0 - 30
LFB	Fipronil	0.994	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.09	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.92	LCS	P	0 - 30
LFB	Fipronil Sulfone	5.84	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	0.526	LCS	P	0 - 30
LFB	Fludioxonil	4.66	LCS	P	0 - 30
LFB	Flumioxazin	8.40	LCS	P	0 - 30
LFB	Flutolanil	2.67	LCS	P	0 - 30
LFB	Fluxapyroxad	10.3	LCS	P	0 - 30
LFB	Fonofos	0.280	LCS	P	0 - 30
LFB	Hexazinone	1.05	LCS	P	0 - 30
LFB	Imazalil	0.154	LCS	P	0 - 30
LFB	Iprodione	2.78	LCS	P	0 - 30
LFB	Malathion	2.29	LCS	P	0 - 30
LFB	Metalaxyl	0.0488	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P393299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metolachlor	3.66	LCS	P	0 - 30
LFB	Metribuzin	1.42	LCS	P	0 - 30
LFB	Mevinphos	3.24	LCS	P	0 - 30
LFB	Molinate	1.10	LCS	P	0 - 30
LFB	Myclobutanil	6.58	LCS	P	0 - 30
LFB	Naled	0.509	LCS	P	0 - 30
LFB	Norflurazon	2.92	LCS	P	0 - 30
LFB	Oxadiazon	3.88	LCS	P	0 - 30
LFB	Oxyfluorfen	3.99	LCS	P	0 - 30
LFB	Parathion Ethyl	0.121	LCS	P	0 - 30
LFB	Parathion Methyl	6.94	LCS	P	0 - 30
LFB	Pendimethalin	1.66	LCS	P	0 - 30
LFB	Phorate	3.65	LCS	P	0 - 30
LFB	Prodiamine	3.68	LCS	P	0 - 30
LFB	Prometon	4.83	LCS	P	0 - 30
LFB	Prometryn	1.74	LCS	P	0 - 30
LFB	Pronamide	1.19	LCS	P	0 - 30
LFB	Propiconazole	8.23	LCS	P	0 - 30
LFB	Pyriproxyfen	1.90	LCS	P	0 - 30
LFB	Simazine	2.16	LCS	P	0 - 30
LFB	Sulfentrazone	2.99	LCS	P	0 - 30
LFB	Tebuconazole	5.76	LCS	P	0 - 30
LFB	Terbufos	0.394	LCS	P	0 - 30
LFB	Terbuthylazine	1.80	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P393293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2222758	Chlordane	12.2	Spike	P	0 - 30
2222758	Toxaphene	10.9	Spike	P	0 - 30
LFB	Chlordane	21.6	LCS	P	0 - 30
LFB	Toxaphene	8.58	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P393145

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2222298	2,4-D	4.73	Spike	P	0 - 30
2222298	Acetaminophen	1.21	Spike	P	0 - 30
2222298	Acetamiprid	0.744	Spike	P	0 - 30
2222298	Afidopyropen	4.72	Spike	P	0 - 30
2222298	Bentazon	2.76	Spike	P	0 - 30
2222298	Benzovindiflupyr	4.81	Spike	P	0 - 30
2222298	Carbamazepine	4.66	Spike	P	0 - 30
2222298	Clothianidin	15.5	Spike	P	0 - 30
2222298	Dinotefuran	0.363	Spike	P	0 - 30
2222298	Diuron	10.3	Spike	P	0 - 30
2222298	Fenuron	2.09	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P393145

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2222298	Fluridone	25.2	Spike	P	0 - 30
2222298	Hydrocodone	2.54	Spike	P	0 - 30
2222298	Ibuprofen	3.86	Spike	P	0 - 30
2222298	Imazapyr	11.4	Spike	P	0 - 30
2222298	Imidacloprid	3.43	Spike	P	0 - 30
2222298	Linuron	6.49	Spike	P	0 - 30
2222298	Mandestrobin	2.00	Spike	P	0 - 30
2222298	MCPP	4.53	Spike	P	0 - 30
2222298	Naproxen	7.88	Spike	P	0 - 30
2222298	Primidone	0.144	Spike	P	0 - 30
2222298	Pyraclostrobin	2.71	Spike	P	0 - 30
2222298	Thiamethoxam	2.91	Spike	P	0 - 30
2222298	Tolfenpyrad	12.1	Spike	P	0 - 30
2222298	Triclopyr	9.00	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P393224

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2222093	3-Hydroxycarbofuran	7.68	Spike	P	0 - 30
2222093	Aldicarb	6.89	Spike	P	0 - 30
2222093	Aldicarb Sulfone	6.45	Spike	P	0 - 30
2222093	Aldicarb Sulfoxide	12.7	Spike	P	0 - 30
2222093	Carbaryl	0.420	Spike	P	0 - 30
2222093	Carbofuran	5.31	Spike	P	0 - 30
2222093	Methiocarb	2.84	Spike	P	0 - 30
2222093	Methomyl	1.85	Spike	P	0 - 30
2222093	Oxamyl	1.80	Spike	P	0 - 30
2222093	Propoxur	4.13	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P393377

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2222757	Acesulfame K	4.09	Spike	P	0 - 30
2222757	AMPA	2.64	Spike	P	0 - 30
2222757	Endothall	4.40	Spike	P	0 - 30
2222757	Glufosinate	9.79	Spike	P	0 - 30
2222757	Glyphosate	2.89	Spike	P	0 - 30
2222757	Sucralose	3.48	Spike	P	0 - 30

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2222756
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	30.1	P	30 - 160

Lab Sample ID: 2222757
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	83.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	71.0	P	30 - 160
EPA 8321B	Diuron-d6	54.7	P	30 - 160
EPA 8321B	Endothall-d6	91.9	P	30 - 160
EPA 8321B	Endothall-d6	91.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.4	P	30 - 160
EPA 8321B	Primidone-d5	85.5	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160

Lab Sample ID: 2222758
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	105	P	40 - 123
EPA 8270E	Decachlorobiphenyl	91.4	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	46.6	P	31 - 100
EPA 8270E	Tetrachloro-m-xylene	51.0	P	33 - 102
EPA 8276	Decachlorobiphenyl	33.5	P	29 - 92.0
EPA 8276	PCNB	121	P	43 - 134

Lab Sample ID: 2222759
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	69.6	P	20 - 200
EPA 8270E	Simazine-d10	104	P	73 - 135
EPA 8270E	Terbufos-d10	93.0	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A103413
Included Lab Sample IDs: 2222757

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.4	91.1	P/P	50 - 150
3-Hydroxycarbofuran	71.4	74.4	P/P	60 - 150
Acetaminophen	99.9	121	P/P	60 - 160
Acetamiprid	116	120	P/P	50 - 150
Afidopyropen	115	113	P/P	50 - 150
Aldicarb	80.2	68.2	P/P	60 - 150
Aldicarb Sulfone	78.6	75.2	P/P	50 - 150
Aldicarb Sulfoxide	83.4	82.2	P/P	50 - 150
Bentazon	122	127	P/P	50 - 160
Benzovindiflupyr	107	116	P/P	50 - 160
Carbamazepine	114	123	P/P	60 - 150
Carbaryl	89.0	82.8	P/P	60 - 150
Carbofuran	80.4	76.6	P/P	50 - 150
Clothianidin	84.1	103	P/P	60 - 150
Dinotefuran	98.8	117	P/P	50 - 150
Diuron	132	155	P/P	60 - 160
Fenuron	108	128	P/P	60 - 150
Fluridone	127	147	P/P	60 - 160
Hydrocodone	105	119	P/P	60 - 150
Ibuprofen	75.7	84.7	P/P	50 - 160
Imazapyr	97.1	104	P/P	50 - 160
Imidacloprid	95.8	111	P/P	60 - 150
Linuron	121	130	P/P	60 - 150
Mandestrobin	112	125	P/P	50 - 150
MCPP	110	105	P/P	50 - 150
Methiocarb	94.8	91.7	P/P	50 - 150
Methomyl	81.7	74.0	P/P	50 - 150
Naproxen	131	98.2	P/P	50 - 160
Oxamyl	73.6	71.0	P/P	50 - 150
Primidone	98.4	102	P/P	60 - 150
Propoxur	82.9	82.1	P/P	50 - 150
Pyraclostrobin	107	138	P/P	60 - 150
Thiamethoxam	106	114	P/P	50 - 150
Tolfenpyrad	106	127	P/P	60 - 150
Triclopyr	107	116	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A103441
Included Lab Sample IDs: 2222757

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	133	80.2	P/P	60 - 160
AMPA	86.9	116	P/P	60 - 160
Endothall	108	105	P/P	60 - 160
Glufosinate	95.2	88.2	P/P	60 - 160
Glyphosate	87.2	103	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A103503
Included Lab Sample IDs: 2222758

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-BHC	93.2		P	80 - 120
Alpha-Chlordane	96.7		P	80 - 120
Beta-BHC	98.2		P	80 - 120
Beta-Cyfluthrin	88.0		P	80 - 120
Bifenthrin	103		P	80 - 120
Chlorothalonil	92.0		P	80 - 120
Cis-Nonachlor	95.7		P	80 - 120
Cypermethrin	92.6		P	80 - 120
Dacthal	97.3		P	80 - 120
DDD-p,p'	99.0		P	80 - 120
DDE-p,p'	100		P	80 - 120
DDT-p,p'	109		P	80 - 120
Delta-BHC	88.7		P	80 - 120
Deltamethrin	108		P	80 - 120
Dichlobenil	91.1		P	80 - 120
Dicofol	93.5		P	80 - 120
Endosulfan I	98.4		P	80 - 120
Endosulfan II	92.7		P	80 - 120
Endosulfan Sulfate	93.9		P	80 - 120
Endrin	102		P	80 - 120
Endrin Aldehyde	92.2		P	80 - 120
Endrin Ketone	97.3		P	80 - 120
Esfenvalerate	93.7		P	80 - 120
Ethalfluralin	103		P	80 - 120
Fenpropathrin	82.7		P	80 - 120
Gamma-BHC	99.4		P	80 - 120
Gamma-Chlordane	97.0		P	80 - 120
Heptachlor	91.2		P	80 - 120
Heptachlor Epoxide	94.6		P	80 - 120
Hexachlorobenzene	112		P	80 - 120
Lambda-Cyhalothrin	91.1		P	80 - 120
Methoxychlor	103		P	80 - 120
MGK-264	96.1		P	80 - 120
Mirex	97.9		P	80 - 120
Permethrin	89.1		P	80 - 120
Phenothrin	89.0		P	80 - 120
Piperonyl Butoxide	100		P	80 - 120
Prallethrin	87.7		P	80 - 120
Tau-Fluvalinate	95.2		P	80 - 120
Tetramethrin	106		P	80 - 120
Trans-Nonachlor	94.5		P	80 - 120
Triclosan Methyl	94.2		P	80 - 120
Trifluralin	99.7		P	80 - 120

Reference Method: EPA 8321B
Run ID: A103516
Included Lab Sample IDs: 2222757

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	109	107	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A103633
Included Lab Sample IDs: 2222759

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	94.0		P	80 - 120
Alachlor	95.7		P	80 - 120
Ametryn	86.2		P	80 - 120
Atrazine	97.5		P	80 - 120
Atrazine Desethyl	92.4		P	80 - 120
Azinphos Methyl	86.4		P	80 - 120
Bromacil	96.9		P	80 - 120
Butylate	99.7		P	80 - 120
Caffeine	105		P	70 - 120
Carbophenothion	92.4		P	80 - 120
Carfentrazone Ethyl	91.5		P	80 - 120
Chlorpyrifos Ethyl	95.7		P	80 - 120
Chlorpyrifos Methyl	96.7		P	80 - 120
Cyanazine	96.8		P	80 - 120
Demeton	96.7		P	80 - 120
Diazinon	86.4		P	80 - 120
Difenoconazole	95.7		P	80 - 120
Dimethenamid	93.7		P	80 - 120
Disulfoton	93.9		P	80 - 120
Dithiopyr	94.4		P	80 - 120
EPTC	95.8		P	80 - 120
Ethion	93.7		P	80 - 120
Ethoprop	97.4		P	80 - 120
Fenamiphos	100		P	80 - 120
Fenbuconazole	99.8		P	80 - 120
Fipronil	97.1		P	80 - 120
Fipronil Desulfinyl	92.4		P	80 - 120
Fipronil Sulfide	98.4		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fluazifop-P-butyl	89.6		P	80 - 120
Fludioxonil	100		P	80 - 120
Flumioxazin	89.0		P	80 - 120
Flutolanil	95.3		P	80 - 120
Fluxapyroxad	96.5		P	80 - 120
Fonofos	100		P	80 - 120
Hexazinone	95.2		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	96.5		P	80 - 120
Malathion	95.2		P	80 - 120
Metalaxyl	95.6		P	80 - 120
Metolachlor	96.8		P	80 - 120
Metribuzin	107		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	96.7		P	80 - 120
Myclobutanil	97.4		P	80 - 120
Naled	103		P	80 - 120
Norflurazon	95.7		P	80 - 120
Oxyfluorfen	99.9		P	80 - 120
Parathion Ethyl	97.6		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	99.2		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A103633
Included Lab Sample IDs: 2222759

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Phorate	91.9		P	80 - 120
Prodiamine	109		P	80 - 120
Prometon	97.4		P	80 - 120
Prometryn	94.4		P	80 - 120
Pronamide	91.9		P	80 - 120
Propiconazole	97.6		P	80 - 120
Pyriproxyfen	107		P	80 - 120
Simazine	97.2		P	80 - 120
Sulfentrazone	95.4		P	80 - 120
Tebuconazole	97.6		P	80 - 120
Terbufos	94.3		P	80 - 120
Terbuthylazine	93.5		P	80 - 120

Reference Method: EPA 8270E
Run ID: A103640
Included Lab Sample IDs: 2222759

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azoxystrobin	89.9		P	80 - 120
Oxadiazon	102		P	80 - 120

Reference Method: EPA 8276
Run ID: A103682
Included Lab Sample IDs: 2222758

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.7		P	80 - 120
Toxaphene	96.2		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		Precision		
						LCS	SMP	MS
EPA 8270E	Acetochlor	81.5	82.2	81.5	75.5	0.860		7.57
	Alachlor	78.9	78.6	77.2	74.9	0.322		2.99
	Aldrin	20.9	41.9	57.3	55.6	66.7		2.95
	Alpha-BHC	85.7	73.2	84.5	69.7	15.8		19.2
	Alpha-Chlordane	89.3	81.0	85.9	74.9	9.73		13.7
	Ametryn	96.6	94.1	101	94.3	2.57		6.45
	Atrazine	95.9	96.6			0.781		11.2
	Atrazine Desethyl	86.1	87.5	88.5	82.0	1.59		7.60
	Azinphos Methyl	98.5	96.9	90.8	81.6	1.58		10.6
	Azoxystrobin	174	151	143	138	14.3		3.50
	Beta-BHC	98.2	88.7	95.3	79.4	10.1		18.2
	Beta-Cyfluthrin	87.7	76.6	66.0	83.6	13.5		23.5
	Bifenthrin	82.2	71.6	68.4	86.9	13.8		23.8
	Bromacil	80.9	80.0			1.14		15.0
	Butylate	58.8	62.6	58.0	55.5	6.24		4.47
	Caffeine	97.5	95.8			1.83		26.7
	Carbophenothion	76.3	71.2	67.8	65.6	6.81		3.20
	Carfentrazone Ethyl	80.5	77.9	70.4	68.2	3.32		3.11
	Chlorothalonil	93.8	79.7	100	75.6	16.3		28.2
	Chlorpyrifos Ethyl	76.3	71.6	83.0	67.0	6.32		21.3
	Chlorpyrifos Methyl	88.8	87.9	87.2	82.6	0.954		5.44
	Cis-Nonachlor	93.2	82.5	88.4	77.4	12.2		13.2
	Cyanazine	105	99.6	99.4	82.7	5.36		18.4
	Cypermethrin	88.5	77.8	98.2	72.6	12.9		30.0
	Dacthal	99.8	88.9	94.2	83.9	11.6		11.6
	DDD-p,p'	96.2	85.0	87.2	80.5	12.3		8.06
	DDE-p,p'	80.5	73.1	73.7	68.5	9.68		7.25
	DDT-p,p'	88.5	79.3	87.7	73.1	11.0		18.2
	Delta-BHC	106	84.7	90.8	110	22.7		18.8
	Deltamethrin	97.7	82.7	102	81.9	16.6		21.6
	Demeton	85.5	88.4	97.6	98.2	3.35		0.560
	Diazinon	84.0	84.1	90.9	83.4	0.0491		8.63
	Dichlobenil	61.0	52.7	56.5	51.2	14.5		9.82
	Dicofol	143	127	115	125	12.2		8.21
	Dieldrin	61.7	76.7	81.2	63.4	21.8		24.6
	Difenoconazole	146	126	141	128	14.7		9.80
	Dimethenamid	79.2	79.4	77.1	71.4	0.243		7.73
	Disulfoton	80.9	78.6	80.3	72.0	2.94		10.9
	Dithiopyr	69.5	71.3	76.8	67.4	2.54		13.0
	Endosulfan I	95.6	82.4	97.2	80.7	14.9		18.6
	Endosulfan II	114	101	110	95.1	11.7		14.6
	Endosulfan Sulfate	96.7	87.2	103	80.4	10.3		25.1
	Endrin	97.6	90.9	99.3	89.3	7.11		10.6
	Endrin Aldehyde	107	94.6	106	89.0	12.3		17.2
	Endrin Ketone	102	89.1	102	82.7	13.4		20.9
	EPTC	57.6	57.7	48.3	49.5	0.239		2.42
	Esfenvalerate	83.7	71.7	84.0	66.3	15.5		23.6
	Ethalfluralin	82.0	71.8	80.2	67.4	13.3		17.4
	Ethion	43.8	42.6	32.3	32.6	2.74		0.873
	Ethoprop	98.3	99.6	108	100	1.35		7.64
	Fenamiphos	85.4	81.4	62.7	56.4	4.85		10.5
	Fenbuconazole	106	90.8	103	83.2	15.1		21.6
	Fenpropathrin	117	97.6	124	99.3	18.3		22.1
	Fipronil	82.9	83.7	93.4	82.7	0.994		11.0

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Fipronil Desulfinyl	76.6	77.5	81.5	71.6	1.09		13.0
	Fipronil Sulfide	81.6	79.3	78.7	69.7	2.92		10.9
	Fipronil Sulfone	77.6	73.2	72.3	63.7	5.84		10.5
	Fluazifop-P-butyl	78.2	77.8	75.9	71.0	0.526		6.66
	Fludioxonil	76.1	72.7	76.6	66.4	4.66		14.3
	Flumioxazin	136	125	155	151	8.40		2.34
	Flutolanil	81.7	79.6	69.1	67.0	2.67		3.10
	Fluxapyroxad	63.0	56.8	51.2	49.1	10.3		4.17
	Fonofos	90.4	90.1	91.6	86.2	0.280		6.08
	Gamma-BHC	96.8	84.2	78.7	100	13.9		24.3
	Gamma-Chlordane	87.6	76.3	81.5	70.8	13.8		14.1
	Heptachlor	72.4	63.7	83.3	65.8	12.8		23.4
	Heptachlor Epoxide	93.5	83.7	91.0	78.5	11.1		14.7
	Hexachlorobenzene	68.9	62.9	65.3	56.5	9.16		14.4
	Hexazinone	80.8	81.7	87.7	81.2	1.05		6.63
	Imazalil	78.1	78.2	81.8	69.0	0.154		17.0
	Iprodione	60.5	58.9	55.0	58.3	2.78		5.78
	Kepone	101	114	56.5	56.1	11.3		0.603
	Lambda-Cyhalothrin	86.1	73.1	93.0	69.2	16.4		29.4
	Malathion	96.3	94.1	93.6	86.3	2.29		8.11
	Metalaxyl	76.8	76.8	82.9	66.6	0.0488		10.3
	Methoxychlor	101	89.6	92.6	84.2	12.4		9.48
	Metolachlor	78.7	75.9	78.6	67.6	3.66		9.01
	Metribuzin	100	98.7	103	88.7	1.42		14.7
	Mevinphos	93.4	96.5	115	107	3.24		7.19
	MGK-264	67.5	53.5	45.3	43.4	23.1		4.36
	Mirex	70.6	63.1	73.5	59.6	11.2		20.9
	Molinate	72.5	73.3	70.4	68.1	1.10		3.37
	Myclobutanil	74.4	69.7	80.5	72.0	6.58		11.1
	Naled	38.3	38.1	54.3	50.2	0.509		7.86
	Norflurazon	74.7	72.5			2.92		8.84
	Oxadiazon	73.5	70.7	69.7	66.9	3.88		4.13
	Oxyfluorfen	85.1	81.8	87.9	83.8	3.99		4.70
	Parathion Ethyl	86.8	86.9	92.0	84.0	0.121		9.11
	Parathion Methyl	102	109	110	109	6.94		1.22
	Pendimethalin	76.4	77.6	84.6	82.6	1.66		2.45
	Permethrin	74.1	63.6	75.7	60.1	15.2		22.9
	Phenothrin	51.1	39.9	45.0	38.9	24.7		14.4
	Phorate	88.7	92.0	108	91.8	3.65		16.0
	Piperonyl Butoxide	106	92.5	85.7	101	13.2		16.7
	Prallethrin	67.2	54.8	45.4	47.1	20.2		3.68
	Prodiamine	53.4	51.5	71.5	61.2	3.68		15.4
	Prometon	91.7	87.4	92.9	84.7	4.83		9.24
	Prometryn	91.1	92.7	97.5	86.6	1.74		11.8
	Pronamide	94.9	93.8	116	109	1.19		6.53
	Propiconazole	79.7	73.4	87.5	85.6	8.23		2.18
	Pyriproxyfen	80.6	79.1	68.7	66.3	1.90		3.44
	Simazine	96.2	98.3	111	97.9	2.16		12.5
	Sulfentrazone	51.7	50.2	75.5	65.5	2.99		14.2
	Tau-Fluvalinate	94.9	81.1	75.9	97.7	15.6		25.1
	Tebuconazole	15.2	16.1	14.9	13.5	5.76		9.82
	Terbufos	89.7	90.0	98.4	89.0	0.394		9.99
	Terbuthylazine	86.5	84.9	90.9	80.4	1.80		12.4
	Tetramethrin	102	91.2	80.3	132	11.2		48.9

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Trans-Nonachlor	87.0	77.1	71.0	80.6	12.1		12.7
	Triclosan Methyl	102	90.8	84.5	93.8	11.5		10.5
	Trifluralin	79.1	70.0	65.1	75.5	12.2		14.8
EPA 8276	Chlordane	72.6	90.1	98.2	85.6	21.6		12.2
	Toxaphene	94.7	103	164	147	8.58		10.9
EPA 8321B	2,4-D	103						4.73
	3-Hydroxycarbofuran	58.5		53.9	58.2			7.68
	Acesulfame K	116		19.1	19.9			4.09
	Acetaminophen	83.5		105	106			1.21
	Acetamiprid	85.3		103	104			0.744
	Afidopyropen	52.7		77.0	73.5			4.72
	Aldicarb	48.1		41.8	44.7			6.89
	Aldicarb Sulfone	63.8		71.5	67.1			6.45
	Aldicarb Sulfoxide	79.4		35.8	31.5			12.7
	AMPA	106		86.1	82.2			2.64
	Bentazon	85.8						2.76
	Benzovindiflupyr	74.7		69.8	73.2			4.81
	Carbamazepine	101		86.8	82.4			4.66
	Carbaryl	48.4		36.8	37.0			0.420
	Carbofuran	52.6		36.6	34.7			5.31
	Clothianidin	96.8		91.1	106			15.5
	Dinotefuran	71.4		98.9	99.3			0.363
	Diuron	80.0		66.3	56.9			10.3
	Endothall	104		86.2	82.5			4.40
	Fenuron	100		81.5	83.2			2.09
	Fluridone	82.3		82.1	59.6			25.2
	Glufosinate	107		103	93.5			9.79
	Glyphosate	101						2.89
	Hydrocodone	94.4		106	109			2.54
	Ibuprofen	59.0		79.6	76.5			3.86
	Imazapyr	104		102	80.1			11.4
	Imidacloprid	93.3		133	138			3.43
	Linuron	79.0		70.5	66.1			6.49
	Mandestrobin	86.6		82.3	80.6			2.00
	MCPP	90.3		84.2	80.5			4.53
	Methiocarb	52.9		46.6	45.3			2.84
	Methomyl	53.5		45.6	46.4			1.85
	Naproxen	56.8		78.6	85.0			7.88
	Oxamyl	61.7		62.6	61.4			1.80
	Primidone	87.3		90.4	90.2			0.144
	Propoxur	53.2		38.7	37.1			4.13
	Pyraclostrobin	75.8		72.6	74.6			2.71
	Sucralose	109		109	113			3.48
	Thiamethoxam	93.5		124	128			2.91
	Tolfenpyrad	44.3		46.7	52.7			12.1
	Triclopyr	84.3		69.7	76.2			9.00

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Dieldrin (ultra low level) in water matrices by GC/MS/MS	2222758
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2222758
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2222759

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2222758
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2222756
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2222757
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2222757

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	02/02/2021	02/04/2021 08:30	Rasheda Ghaffari	02/10/2021 22:14	Vandana T. Nagar	2222759
	02/02/2021	02/04/2021 08:30	Rasheda Ghaffari	02/12/2021 18:29	Vandana T. Nagar	2222759
	02/02/2021	02/05/2021 08:00	Fe-Val Siddell	02/08/2021 21:03	Michael Poppell	2222758
	02/02/2021	02/05/2021 08:00	Fe-Val Siddell	02/10/2021 16:01	Julie Wi	2222758
EPA 8276	02/02/2021	02/05/2021 08:00	Fe-Val Siddell	02/18/2021 02:39	Arthur Maknenko	2222758
EPA 8321B	02/02/2021	02/02/2021 14:00	Hoor Shaik	02/03/2021 10:47	Juyoung Kim	2222757
	02/02/2021	02/02/2021 14:00	Hoor Shaik	02/03/2021 17:08	Juyoung Kim	2222757
	02/02/2021	02/02/2021 14:00	Hoor Shaik	02/03/2021 22:55	Juyoung Kim	2222756
	02/02/2021	02/04/2021 14:00	Rebecca Ware	02/04/2021 15:37	Rebecca Ware	2222757
	02/02/2021	02/04/2021 14:00	Rebecca Ware	02/05/2021 10:22	Rebecca Ware	2222757
	02/02/2021	02/04/2021 14:00	Rebecca Ware	02/10/2021 01:43	Rebecca Ware	2222757