Chemical Analysis Report

SE-DIST-2021-06-24-01

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

Event Description: **SMP - Palm Beach West 1**
Request ID: **RQ-2021-06-14-42**
Customer: **SE-DIST**
Project ID: **SMP**

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2199 South Rock Road
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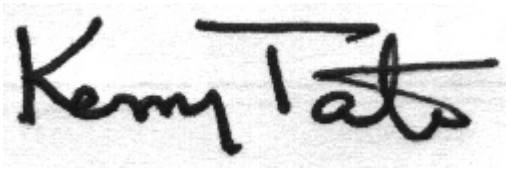
Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 13-JUL-2021 14:38



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: West Palm Beach Canal @ Twenty-mile Bend **Collection Date/Time: 06/23/2021 13:30**

Field ID: G5SE0058 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256881	EPA 8321B	Aldicarb	0.020	U	ug/L	P400140	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P400140	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P400140	
		Carbaryl	0.0020	U	ug/L	P400140	
		Carbofuran	0.0020	U	ug/L	P400140	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P400140	
		Methiocarb	0.0020	U	ug/L	P400140	
		Methomyl	0.0020	U	ug/L	P400140	
		Oxamyl	0.0020	U	ug/L	P400140	
		Propoxur	0.0020	U	ug/L	P400140	
2256882		2,4-D	0.63		ug/L	P400315	
		Acesulfame K	0.10	U	ug/L	P400090	RPD
		2,4,5-T	0.0040	U	ug/L	P400315	
		AMPA	1.2		ug/L	P400090	
		Acetaminophen	0.0088	I	ug/L	P400315	
		Acetamiprid	0.0020	U	ug/L	P400315	
		Endothall	0.25	U	ug/L	P400090	
		Glufosinate	0.10	U	ug/L	P400090	
		Glyphosate	4.2		ug/L	P400090	
		Afidopyropen	0.0020	U	ug/L	P400315	
		Bentazon	0.24		ug/L	P400315	
		Sucralose	0.11		ug/L	P400090	
		Benzovindiflupyr	0.0020	U	ug/L	P400315	
		Carbamazepine	8.0E-04	U	ug/L	P400315	
		Clothianidin	0.0020	U	ug/L	P400315	
		Dinotefuran	0.0020	U	ug/L	P400315	
		Diuron	0.0020	U	ug/L	P400315	
		Fenuron	0.016	U	ug/L	P400315	
		Fluridone	0.0016	I	ug/L	P400315	
		Imazapyr	0.051		ug/L	P400315	MS
		Hydrocodone	0.0020	U	ug/L	P400315	
		Ibuprofen	0.020	U	ug/L	P400315	
		Imidacloprid	0.37		ug/L	P400315	
		Linuron	0.0040	U	ug/L	P400315	
		Mandestrobin	0.0020	U	ug/L	P400315	
		MCPP	0.0020	U	ug/L	P400315	
		Naproxen	0.0080	U	ug/L	P400315	
		Primidone	0.0040	U	ug/L	P400315	
		Pyraclostrobin	0.0038	I	ug/L	P400315	
		Thiamethoxam	0.0020	U	ug/L	P400315	
		Tolfenpyrad	0.0020	U	ug/L	P400315	
		Triclopyr	0.0040	U	ug/L	P400315	
2256883	EPA 8270E	Aldrin	0.74	UJ	ng/L	P400152	RPD
		Alpha-BHC	0.11	U	ng/L	P400152	

Field ID: G5SE0058 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256883	EPA 8270E	Alpha-Chlordane	0.23	U	ng/L	P400152	
		Beta-BHC	0.11	U	ng/L	P400152	
		Beta-Cyfluthrin**	1.4	UJ	ng/L	P400152	LCS
		Bifenthrin**	0.57	U	ng/L	P400152	
		Chlorothalonil	0.57	U	ng/L	P400152	
		Cis-Nonachlor**	0.23	U	ng/L	P400152	
		Cypermethrin	1.7	UJ	ng/L	P400152	LCS
		Dacthal**	0.17	U	ng/L	P400152	
		DDD-p,p'	0.28	U	ng/L	P400152	
		DDE-p,p'	0.23	U	ng/L	P400152	
		DDT-p,p'	0.28	U	ng/L	P400152	
		Delta-BHC	0.45	U	ng/L	P400152	
		Deltamethrin**	1.4	UJ	ng/L	P400152	LCS, RPD
		Dichlobenil**	0.11	U	ng/L	P400152	
		Dicofol	1.4	U	ng/L	P400152	
		Dieldrin	0.45	U	ng/L	P400152	
		Endosulfan I	0.45	U	ng/L	P400152	
		Endosulfan II	0.45	U	ng/L	P400152	
		Endosulfan Sulfate	0.34	U	ng/L	P400152	
		Endrin	0.45	U	ng/L	P400152	
		Endrin Aldehyde	0.85	U	ng/L	P400152	
		Endrin Ketone	0.45	U	ng/L	P400152	
		Esfenvalerate**	0.85	UJ	ng/L	P400152	LCS, RPD
		Ethalfluralin**	0.17	U	ng/L	P400152	
		Fenpropathrin**	0.28	U	ng/L	P400152	
		Gamma-BHC	0.14	U	ng/L	P400152	
		Gamma-Chlordane	0.23	U	ng/L	P400152	
		Heptachlor	0.23	U	ng/L	P400152	
		Heptachlor Epoxide	0.28	U	ng/L	P400152	
		Hexachlorobenzene	1.1	U	ng/L	P400152	
		Kepone**	5.7	U	ng/L	P400152	
		Lambda-Cyhalothrin**	0.85	UJ	ng/L	P400152	LCS, RPD
		Methoxychlor	0.34	U	ng/L	P400152	
		MGK-264**	0.23	U	ng/L	P400152	
		Mirex	0.34	U	ng/L	P400152	
		Permethrin	2.2	I J	ng/L	P400152	LCS
		Phenothrin**	1.0	UJ	ng/L	P400152	RPD
		Piperonyl Butoxide**	0.59	I	ng/L	P400152	
		Prallethrin**	2.3	U	ng/L	P400152	
		Tau-Fluvalinate**	0.28	U	ng/L	P400152	
		Tetramethrin**	0.85	U	ng/L	P400152	
		Trans-Nonachlor**	0.23	U	ng/L	P400152	
		Triclosan Methyl**	0.17	U	ng/L	P400152	
		Trifluralin	0.23	U	ng/L	P400152	
	EPA 8276	Chlordane	5.7	UJ	ng/L	P400152	RPD

Field ID: G5SE0058 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256883	EPA 8276	Toxaphene	34	UJ	ng/L	P400152	RPD
2256884	EPA 8270E	Acetochlor	0.27	U	ng/L	P400222	
		Alachlor	0.27	U	ng/L	P400222	
		Ametryn	49		ng/L	P400222	
		Atrazine	1.1E+03		ng/L	P400222	
		Atrazine Desethyl	110		ng/L	P400222	
		Azinphos Methyl	2.2	U	ng/L	P400222	
		Azoxystrobin**	76		ng/L	P400222	
		Bromacil	0.54	U	ng/L	P400222	
		Butylate	0.43	U	ng/L	P400222	
		Caffeine**	94		ng/L	P400222	
		Carbophenothion	0.54	U	ng/L	P400222	
		Carfentrazone Ethyl**	0.11	U	ng/L	P400222	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P400222	MS, RPD
		Chlorpyrifos Methyl	0.054	U	ng/L	P400222	
		Cyanazine	3.5	U	ng/L	P400222	
		Demeton	1.6	UJ	ng/L	P400222	LCS
		Diazinon	0.13	U	ng/L	P400222	
		Difenoconazole**	0.65	U	ng/L	P400222	
		Dimethenamid**	0.11	U	ng/L	P400222	
		Disulfoton	0.54	U	ng/L	P400222	
		Dithiopyr**	0.19	U	ng/L	P400222	
		EPTC	1.3	U	ng/L	P400222	
		Ethion	0.16	U	ng/L	P400222	
		Ethoprop	0.11	U	ng/L	P400222	
		Fenamiphos	0.54	U	ng/L	P400222	
		Fenbuconazole**	0.13	U	ng/L	P400222	
		Fipronil	0.27	U	ng/L	P400222	
		Fipronil Desulfinyl**	0.13	U	ng/L	P400222	
		Fipronil Sulfide	0.16	U	ng/L	P400222	
		Fipronil Sulfone	0.16	U	ng/L	P400222	
		Fluazifop-P-butyl**	0.11	U	ng/L	P400222	
		Fludioxonil**	0.13	U	ng/L	P400222	
		Flumioxazin**	1.9	U	ng/L	P400222	
		Flutolanil**	0.11	U	ng/L	P400222	
		Fluxapyroxad**	47		ng/L	P400222	
		Fonofos	0.22	U	ng/L	P400222	
		Hexazinone	37		ng/L	P400222	
		Imazalil**	0.81	U	ng/L	P400222	
		Iprodione**	0.65	U	ng/L	P400222	
		Malathion	0.38	U	ng/L	P400222	
		Metalaxyl	0.81	U	ng/L	P400222	
		Metolachlor	800		ng/L	P400222	
		Metribuzin	9.6	I	ng/L	P400222	
		Mevinphos	1.1	U	ng/L	P400222	

Field ID: G5SE0058 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2256884	EPA 8270E	Molinate	0.32	U	ng/L	P400222	
		Myclobutanil**	0.27	U	ng/L	P400222	
		Naled**	1.6	U	ng/L	P400222	
		Norflurazon	0.54	U	ng/L	P400222	
		Oxadiazon	0.57	I	ng/L	P400222	
		Oxyfluorfen**	0.16	U	ng/L	P400222	
		Parathion Ethyl	0.27	U	ng/L	P400222	
		Parathion Methyl	0.59	U	ng/L	P400222	
		Pendimethalin	1.1	U	ng/L	P400222	
		Phorate	0.56	U	ng/L	P400222	
		Prodiamine**	0.19	U	ng/L	P400222	
		Prometon	0.97	U	ng/L	P400222	
		Prometryn	0.22	U	ng/L	P400222	
		Pronamide**	0.16	U	ng/L	P400222	
		Propiconazole**	1.1E+03		ng/L	P400222	
		Pyriproxyfen**	0.13	U	ng/L	P400222	
		Simazine	3.4		ng/L	P400222	
		Sulfentrazone**	0.54	U	ng/L	P400222	
		Tebuconazole**	0.54	U	ng/L	P400222	
		Terbufos	0.11	U	ng/L	P400222	
		Terbuthylazine	0.46	U	ng/L	P400222	

Ref. Method and Comment:
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. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P400152

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfluralin	0.15	U	ng/L
Ethalfluralin	0.15	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P400152

Component	Result	Code	Units
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.30	U	ng/L
Mirex	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E
Batch ID: P400222

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P400222

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P400222

Component	Result	Code	Units
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
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P400222

Component	Result	Code	Units
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 8276
Batch ID: P400152

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

Reference Method: EPA 8321B
Batch ID: P400090

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: P400140

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P400140

Component	Result	Code	Units
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P400315

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P400152

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	33.7	51.5	P/P	20 - 150
Alpha-BHC	87.6	88.4	P/P	50 - 150
Alpha-Chlordane	85.0	88.4	P/P	50 - 150
Beta-BHC	106	108	P/P	50 - 150
Beta-Cyfluthrin	187	147	F/P	50 - 150
Bifenthrin	92.7	97.3	P/P	40 - 150
Chlorothalonil	127	120	P/P	20 - 150
Cis-Nonachlor	89.1	94.4	P/P	50 - 150
Cypermethrin	168	132	F/P	50 - 150
Dacthal	90.5	95.8	P/P	50 - 150
DDD-p,p'	85.3	92.5	P/P	50 - 150
DDE-p,p'	83.5	89.9	P/P	50 - 150
DDT-p,p'	91.3	92.9	P/P	50 - 150
Delta-BHC	120	117	P/P	50 - 150
Deltamethrin	214	126	F/P	50 - 150
Dichlobenil	45.4	47.4	P/P	40 - 150
Dicofol	90.8	91.8	P/P	50 - 150
Dieldrin	85.8	93.0	P/P	50 - 150
Endosulfan I	87.8	90.6	P/P	50 - 150
Endosulfan II	85.5	90.5	P/P	50 - 150
Endosulfan Sulfate	90.3	94.5	P/P	50 - 150
Endrin	84.4	88.6	P/P	50 - 150
Endrin Aldehyde	86.6	86.5	P/P	50 - 150
Endrin Ketone	91.5	95.2	P/P	50 - 150
Esfenvalerate	226	151	F/P	50 - 180
Ethalfluralin	77.0	85.0	P/P	50 - 150
Fenpropathrin	104	102	P/P	50 - 150
Gamma-BHC	94.1	96.4	P/P	50 - 150
Gamma-Chlordane	84.8	88.9	P/P	50 - 150
Heptachlor	73.3	75.9	P/P	50 - 150
Heptachlor Epoxide	85.5	89.2	P/P	50 - 150
Hexachlorobenzene	70.0	74.6	P/P	50 - 150
Kepone	111	117	P/P	30 - 180
Lambda-Cyhalothrin	206	147	F/P	50 - 200
Methoxychlor	89.2	93.6	P/P	50 - 150
MGK-264	55.9	74.9	P/P	30 - 150
Mirex	78.7	81.9	P/P	50 - 180
Permethrin	172	142	F/P	50 - 150
Phenothrin	103	70.7	P/P	20 - 150
Piperonyl Butoxide	110	101	P/P	50 - 150
Prallethrin	52.9	70.1	P/P	30 - 150
Tau-Fluvalinate	125	125	P/P	40 - 150
Tetramethrin	61.5	81.1	P/P	30 - 150
Trans-Nonachlor	84.2	89.7	P/P	50 - 150
Triclosan Methyl	91.0	94.3	P/P	50 - 150
Trifluralin	75.5	83.5	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P400222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	92.8	102	P/P	70 - 121

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P400222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alachlor	93.5	106	P/P	70 - 119
Ametryn	101	109	P/P	61 - 135
Atrazine	94.9	103	P/P	76 - 123
Atrazine Desethyl	60.7	76.3	P/P	35 - 140
Azinphos Methyl	97.2	109	P/P	57 - 163
Azoxystrobin	96.9	104	P/P	43 - 231
Bromacil	81.3	93.0	P/P	42 - 123
Butylate	46.6	56.8	P/P	34 - 92.0
Caffeine	85.0	83.8	P/P	70 - 130
Carbophenothion	100	108	P/P	61 - 121
Carfentrazone Ethyl	95.2	108	P/P	62 - 139
Chlorpyrifos Ethyl	84.9	98.8	P/P	67 - 121
Chlorpyrifos Methyl	92.7	101	P/P	67 - 120
Cyanazine	116	111	P/P	20 - 226
Demeton	34.6	38.1	F/P	35 - 125
Diazinon	90.5	103	P/P	70 - 122
Difenoconazole	137	160	P/P	56 - 186
Dimethenamid	74.7	83.8	P/P	67 - 119
Disulfoton	78.4	85.2	P/P	47 - 120
Dithiopyr	87.6	101	P/P	67 - 118
EPTC	47.9	55.4	P/P	33 - 90.0
Ethion	81.7	96.0	P/P	40 - 133
Ethoprop	79.5	92.0	P/P	61 - 121
Fenamiphos	89.2	104	P/P	31 - 139
Fenbuconazole	96.2	107	P/P	66 - 141
Fipronil	89.8	102	P/P	62 - 129
Fipronil Desulfinyl	96.4	110	P/P	59 - 126
Fipronil Sulfide	83.8	98.4	P/P	63 - 117
Fipronil Sulfone	91.5	88.9	P/P	57 - 117
Fluazifop-P-butyl	98.0	110	P/P	63 - 124
Fludioxonil	88.9	97.3	P/P	63 - 123
Flumioxazin	162	188	P/P	34 - 245
Flutolanil	85.3	97.5	P/P	56 - 131
Fluxapyroxad	83.1	91.8	P/P	57 - 117
Fonofos	80.2	86.3	P/P	61 - 116
Hexazinone	94.0	101	P/P	55 - 138
Imazalil	37.7	44.1	P/P	33 - 143
Iprodione	98.0	112	P/P	59 - 118
Malathion	92.9	105	P/P	62 - 138
Metalaxyl	90.1	103	P/P	24 - 147
Metolachlor	91.2	102	P/P	68 - 118
Metribuzin	83.6	94.4	P/P	20 - 239
Mevinphos	78.0	83.8	P/P	46 - 124
Molinate	58.8	66.4	P/P	46 - 100
Myclobutanil	88.1	96.7	P/P	32 - 149
Naled	45.0	51.7	P/P	32 - 95.0
Norflurazon	86.2	95.9	P/P	57 - 127
Oxadiazon	83.4	95.9	P/P	63 - 118
Oxyfluorfen	99.7	114	P/P	69 - 137
Parathion Ethyl	87.0	87.5	P/P	70 - 113
Parathion Methyl	97.6	102	P/P	71 - 130
Pendimethalin	93.5	93.2	P/P	55 - 118

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P400222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	77.9	81.4	P/P	46 - 125
Prodiamine	63.9	84.8	P/P	20 - 141
Prometon	82.3	94.1	P/P	54 - 122
Prometryn	82.6	97.6	P/P	66 - 124
Pronamide	88.3	100	P/P	79 - 122
Propiconazole	82.1	92.6	P/P	61 - 126
Pyriproxyfen	82.1	98.0	P/P	52 - 131
Simazine	90.2	97.0	P/P	75 - 128
Sulfentrazone	80.9	92.2	P/P	20 - 132
Tebuconazole	57.6	64.6	P/P	20 - 116
Terbufos	97.1	110	P/P	61 - 117
Terbuthylazine	91.6	98.6	P/P	74 - 116

Reference Method: EPA 8276
Batch ID: P400152

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	111	76.6	P/P	56 - 117
Toxaphene	96.3	62.4	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P400090

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	83.9		P	40 - 150
AMPA	97.9		P	40 - 150
Endothall	72.9		P	40 - 150
Glufosinate	96.7		P	40 - 150
Glyphosate	102		P	40 - 140
Sucralose	92.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P400140

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	97.9		P	30 - 160
Aldicarb	45.7		P	30 - 160
Aldicarb Sulfone	93.8		P	30 - 160
Aldicarb Sulfoxide	92.7		P	30 - 160
Carbaryl	69.7		P	30 - 160
Carbofuran	83.2		P	30 - 160
Methiocarb	72.0		P	30 - 160
Methomyl	101		P	30 - 160
Oxamyl	89.4		P	30 - 160
Propoxur	82.7		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P400315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	120		P	30 - 160
2,4,5-T	128		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P400315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	83.0		P	30 - 160
Acetamiprid	90.6		P	30 - 160
Afidopyropen	73.6		P	30 - 160
Bentazon	92.3		P	30 - 160
Benzovindiflupyr	92.8		P	30 - 160
Carbamazepine	92.0		P	30 - 160
Clothianidin	92.2		P	30 - 160
Dinotefuran	88.1		P	30 - 160
Diuron	73.7		P	30 - 160
Fenuron	99.7		P	30 - 160
Fluridone	87.6		P	30 - 160
Hydrocodone	94.6		P	30 - 160
Ibuprofen	86.0		P	30 - 160
Imazapyr	101		P	30 - 160
Imidacloprid	92.6		P	30 - 160
Linuron	73.3		P	30 - 160
Mandestrobin	94.1		P	30 - 160
MCPP	125		P	30 - 160
Naproxen	82.1		P	30 - 160
Primidone	93.3		P	30 - 160
Pyraclostrobin	81.1		P	30 - 160
Thiamethoxam	91.7		P	30 - 160
Tolfenpyrad	47.4		P	30 - 160
Triclopyr	122		P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P400152

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256961	Aldrin	50.0	60.0	P/P	20 - 170
2256961	Alpha-BHC	72.0	92.2	P/P	50 - 170
2256961	Alpha-Chlordane	73.7	87.6	P/P	50 - 170
2256961	Beta-BHC	103	120	P/P	50 - 170
2256961	Beta-Cyfluthrin	136	145	P/P	50 - 170
2256961	Bifenthrin	71.2	84.6	P/P	40 - 170
2256961	Chlorothalonil	139	128	P/P	20 - 170
2256961	Cis-Nonachlor	74.6	92.6	P/P	50 - 170
2256961	Cypermethrin	114	129	P/P	50 - 170
2256961	Dacthal	84.0	101	P/P	50 - 170
2256961	DDD-p,p'	80.3	94.1	P/P	50 - 170
2256961	DDE-p,p'	90.8	85.8	P/P	50 - 170
2256961	DDT-p,p'	73.0	82.3	P/P	50 - 170
2256961	Delta-BHC	115	127	P/P	50 - 170
2256961	Deltamethrin	124	124	P/P	50 - 170
2256961	Dichlobenil	43.1	46.9	P/P	40 - 170
2256961	Dicofol	82.7	93.5	P/P	50 - 170
2256961	Dieldrin	76.3	91.2	P/P	50 - 170
2256961	Endosulfan I	74.5	90.3	P/P	50 - 170
2256961	Endosulfan II	76.9	91.5	P/P	50 - 170
2256961	Endosulfan Sulfate	75.7	96.9	P/P	50 - 170
2256961	Endrin	75.8	85.3	P/P	50 - 170
2256961	Endrin Aldehyde	61.4	73.0	P/P	50 - 170
2256961	Endrin Ketone	85.6	98.5	P/P	50 - 170
2256961	Esfenvalerate	137	144	P/P	50 - 180
2256961	Ethalfluralin	67.4	82.6	P/P	50 - 170
2256961	Fenpropathrin	84.7	101	P/P	50 - 170
2256961	Gamma-BHC	89.3	100	P/P	50 - 170
2256961	Gamma-Chlordane	69.2	84.7	P/P	50 - 170
2256961	Heptachlor	56.5	67.8	P/P	50 - 170
2256961	Heptachlor Epoxide	74.2	89.1	P/P	50 - 170
2256961	Hexachlorobenzene	56.8	68.2	P/P	50 - 170
2256961	Kepone	91.0	108	P/P	30 - 180
2256961	Lambda-Cyhalothrin	110	153	P/P	50 - 200
2256961	Methoxychlor	75.4	93.1	P/P	50 - 170
2256961	MGK-264	81.1	95.4	P/P	30 - 170
2256961	Mirex	65.3	71.8	P/P	50 - 180
2256961	Permethrin	108	102	P/P	50 - 170
2256961	Phenothrin	98.3	86.6	P/P	20 - 170
2256961	Piperonyl Butoxide	100	105	P/P	50 - 170
2256961	Prallethrin	75.6	81.4	P/P	30 - 170
2256961	Tau-Fluvalinate	122	99.4	P/P	40 - 170
2256961	Tetramethrin	95.2	86.2	P/P	30 - 170
2256961	Trans-Nonachlor	67.6	87.5	P/P	50 - 170
2256961	Triclosan Methyl	77.3	95.2	P/P	50 - 170
2256961	Trifluralin	66.7	82.1	P/P	50 - 170

Reference Method: EPA 8270E
Batch ID: P400222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2257106	Acetochlor	112	105	P/P	66 - 122

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P400222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2257106	Alachlor	93.9	102	P/P	65 - 122
2257106	Ametryn	117	118	P/P	45 - 173
2257106	Atrazine Desethyl	48.1	50.7	P/P	25 - 150
2257106	Azinphos Methyl	121	110	P/P	44 - 174
2257106	Azoxystrobin	110	107	P/P	10 - 268
2257106	Butylate	69.4	55.6	P/P	15 - 97.0
2257106	Carbophenothion	101	98.2	P/P	42 - 129
2257106	Carfentrazone Ethyl	95.8	87.2	P/P	62 - 145
2257106	Chlorpyrifos Ethyl	136	94.5	F/P	60 - 124
2257106	Chlorpyrifos Methyl	99.2	97.9	P/P	66 - 119
2257106	Cyanazine	125	116	P/P	17 - 225
2257106	Demeton	49.7	51.3	P/P	36 - 142
2257106	Diazinon	101	96.3	P/P	70 - 128
2257106	Difenoconazole	172	144	P/P	33 - 222
2257106	Dimethenamid	83.1	80.6	P/P	54 - 125
2257106	Disulfoton	85.4	88.7	P/P	49 - 133
2257106	Dithiopyr	91.3	90.2	P/P	55 - 123
2257106	EPTC	52.5	40.6	P/P	19 - 91.0
2257106	Ethion	88.7	84.0	P/P	13 - 143
2257106	Ethoprop	98.3	91.3	P/P	49 - 144
2257106	Fenamiphos	66.9	73.9	P/P	32 - 136
2257106	Fenbuconazole	106	101	P/P	73 - 148
2257106	Fipronil Desulfinyl	91.6	98.8	P/P	49 - 127
2257106	Fluazifop-P-butyl	97.0	97.3	P/P	67 - 129
2257106	Fludioxonil	97.8	90.1	P/P	61 - 126
2257106	Flumioxazin	193	171	P/P	38 - 279
2257106	Flutolanil	81.7	78.8	P/P	55 - 136
2257106	Fluxapyroxad	90.2	84.6	P/P	33 - 140
2257106	Fonofos	91.9	95.6	P/P	58 - 125
2257106	Hexazinone	106	108	P/P	57 - 148
2257106	Imazalil	62.3	63.3	P/P	10 - 221
2257106	Iprodione	102	96.7	P/P	32 - 140
2257106	Malathion	120	124	P/P	52 - 138
2257106	Metalaxyl	83.6	91.9	P/P	46 - 134
2257106	Metolachlor	95.9	93.8	P/P	58 - 122
2257106	Metribuzin	99.8	102	P/P	16 - 272
2257106	Mevinphos	99.1	86.9	P/P	45 - 140
2257106	Molinate	75.9	65.1	P/P	41 - 103
2257106	Myclobutanil	96.4	97.0	P/P	60 - 134
2257106	Naled	57.0	54.7	P/P	20 - 113
2257106	Norflurazon	88.7	85.1	P/P	51 - 123
2257106	Oxadiazon	80.8	82.7	P/P	44 - 125
2257106	Oxyfluorfen	105	107	P/P	66 - 176
2257106	Parathion Ethyl	91.9	93.3	P/P	57 - 132
2257106	Parathion Methyl	112	102	P/P	59 - 156
2257106	Pendimethalin	105	106	P/P	59 - 129
2257106	Phorate	91.8	89.9	P/P	47 - 136
2257106	Prodiamine	71.0	77.8	P/P	10 - 159
2257106	Prometryn	78.8	86.3	P/P	59 - 129
2257106	Pronamide	92.0	99.5	P/P	65 - 145
2257106	Pyriproxyfen	71.7	74.3	P/P	21 - 180
2257106	Simazine	83.6	87.6	P/P	63 - 147

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P400222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2257106	Sulfentrazone	93.0	86.5	P/P	32 - 136
2257106	Tebuconazole	42.8	49.0	P/P	10 - 117
2257106	Terbufos	118	111	P/P	61 - 131
2257106	Terbuthylazine	91.5	102	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P400152

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2257252	Chlordane	84.7	93.7	P/P	47 - 128
2257252	Toxaphene	96.2	108	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P400090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256374	Acesulfame K	105	77.0	P/P	40 - 150
2256374	AMPA	79.8	84.1	P/P	40 - 150
2256374	Endothall	102	99.8	P/P	40 - 150
2256374	Glufosinate	94.5	100	P/P	40 - 150
2256374	Glyphosate	100	100	P/P	40 - 140
2256374	Sucralose	94.2	101	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P400140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256373	3-Hydroxycarbofuran	84.6	82.5	P/P	30 - 160
2256373	Aldicarb	79.0	43.7	P/P	30 - 160
2256373	Aldicarb Sulfone	95.0	93.8	P/P	30 - 160
2256373	Aldicarb Sulfoxide	43.3	41.5	P/P	30 - 160
2256373	Carbaryl	65.5	63.9	P/P	30 - 160
2256373	Carbofuran	79.3	81.9	P/P	30 - 160
2256373	Methiocarb	81.6	81.7	P/P	30 - 160
2256373	Methomyl	97.4	87.6	P/P	30 - 160
2256373	Oxamyl	78.4	86.6	P/P	30 - 160
2256373	Propoxur	82.7	82.6	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P400315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256868	2,4-D	122	124	P/P	30 - 160
2256868	2,4,5-T	113	116	P/P	30 - 160
2256868	Acetaminophen	112	112	P/P	30 - 160
2256868	Acetamiprid	82.4	74.6	P/P	30 - 160
2256868	Afidopyropen	71.1	57.7	P/P	30 - 160
2256868	Bentazon	79.5	74.5	P/P	30 - 160
2256868	Benzovindiflupyr	84.5	91.2	P/P	30 - 160
2256868	Carbamazepine	85.2	87.3	P/P	30 - 160
2256868	Clothianidin	114	107	P/P	30 - 160
2256868	Dinotefuran	125	123	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P400315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2256868	Diuron	75.7	68.5	P/P	30 - 160
2256868	Fenuron	83.1	79.1	P/P	30 - 160
2256868	Fluridone	79.7	81.1	P/P	30 - 160
2256868	Hydrocodone	108	107	P/P	30 - 160
2256868	Ibuprofen	84.8	67.3	P/P	30 - 160
2256868	Imazapyr	168	159	F/P	30 - 160
2256868	Imidacloprid	148	155	P/P	30 - 160
2256868	Linuron	70.6	70.0	P/P	30 - 160
2256868	Mandestrobin	94.0	90.3	P/P	30 - 160
2256868	MCPP	113	112	P/P	30 - 160
2256868	Naproxen	97.4	75.5	P/P	30 - 160
2256868	Primidone	122	111	P/P	30 - 160
2256868	Pyraclostrobin	88.6	80.2	P/P	30 - 160
2256868	Thiamethoxam	145	148	P/P	30 - 160
2256868	Tolfenpyrad	53.7	55.9	P/P	30 - 160
2256868	Triclopyr	121	113	P/P	30 - 160

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400152

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256961	Aldrin	18.3	Spike	P	0 - 30
2256961	Alpha-BHC	24.6	Spike	P	0 - 30
2256961	Alpha-Chlordane	17.2	Spike	P	0 - 30
2256961	Beta-BHC	15.6	Spike	P	0 - 30
2256961	Beta-Cyfluthrin	6.49	Spike	P	0 - 30
2256961	Bifenthrin	17.1	Spike	P	0 - 30
2256961	Chlorothalonil	8.69	Spike	P	0 - 50
2256961	Cis-Nonachlor	21.4	Spike	P	0 - 30
2256961	Cypermethrin	12.4	Spike	P	0 - 30
2256961	Dacthal	18.6	Spike	P	0 - 30
2256961	DDD-p,p'	15.8	Spike	P	0 - 30
2256961	DDE-p,p'	5.66	Spike	P	0 - 30
2256961	DDT-p,p'	11.9	Spike	P	0 - 30
2256961	Delta-BHC	10.3	Spike	P	0 - 30
2256961	Deltamethrin	0.536	Spike	P	0 - 30
2256961	Dichlobenil	8.45	Spike	P	0 - 30
2256961	Dicofol	12.2	Spike	P	0 - 30
2256961	Dieldrin	17.8	Spike	P	0 - 30
2256961	Endosulfan I	19.2	Spike	P	0 - 30
2256961	Endosulfan II	17.3	Spike	P	0 - 30
2256961	Endosulfan Sulfate	24.5	Spike	P	0 - 30
2256961	Endrin	11.8	Spike	P	0 - 30
2256961	Endrin Aldehyde	17.2	Spike	P	0 - 30
2256961	Endrin Ketone	14.0	Spike	P	0 - 30
2256961	Esfenvalerate	5.01	Spike	P	0 - 30
2256961	Ethalfluralin	20.3	Spike	P	0 - 30
2256961	Fenpropathrin	17.9	Spike	P	0 - 30
2256961	Gamma-BHC	11.5	Spike	P	0 - 30
2256961	Gamma-Chlordane	20.2	Spike	P	0 - 30
2256961	Heptachlor	18.2	Spike	P	0 - 30
2256961	Heptachlor Epoxide	18.2	Spike	P	0 - 30
2256961	Hexachlorobenzene	18.1	Spike	P	0 - 30
2256961	Kepone	17.5	Spike	P	0 - 30
2256961	Lambda-Cyhalothrin	32.4	Spike	F	0 - 30
2256961	Methoxychlor	20.9	Spike	P	0 - 30
2256961	MGK-264	16.3	Spike	P	0 - 30
2256961	Mirex	9.57	Spike	P	0 - 30
2256961	Permethrin	4.13	Spike	P	0 - 30
2256961	Phenothrin	12.6	Spike	P	0 - 30
2256961	Piperonyl Butoxide	4.57	Spike	P	0 - 30
2256961	Prallethrin	7.40	Spike	P	0 - 30
2256961	Tau-Fluvalinate	20.6	Spike	P	0 - 30
2256961	Tetramethrin	9.90	Spike	P	0 - 30
2256961	Trans-Nonachlor	25.7	Spike	P	0 - 30
2256961	Triclosan Methyl	20.8	Spike	P	0 - 30
2256961	Trifluralin	20.7	Spike	P	0 - 30
LFB	Aldrin	42.0	LCS	F	0 - 30
LFB	Alpha-BHC	0.876	LCS	P	0 - 30
LFB	Alpha-Chlordane	3.97	LCS	P	0 - 30
LFB	Beta-BHC	2.10	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	23.8	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400152

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Bifenthrin	4.81	LCS	P	0 - 30
LFB	Chlorothalonil	5.52	LCS	P	0 - 50
LFB	Cis-Nonachlor	5.79	LCS	P	0 - 30
LFB	Cypermethrin	24.5	LCS	P	0 - 30
LFB	Dacthal	5.69	LCS	P	0 - 30
LFB	DDD-p,p'	8.16	LCS	P	0 - 30
LFB	DDE-p,p'	7.35	LCS	P	0 - 30
LFB	DDT-p,p'	1.72	LCS	P	0 - 30
LFB	Delta-BHC	2.69	LCS	P	0 - 30
LFB	Deltamethrin	51.7	LCS	F	0 - 30
LFB	Dichlobenil	4.30	LCS	P	0 - 30
LFB	Dicofol	1.14	LCS	P	0 - 30
LFB	Dieldrin	8.08	LCS	P	0 - 30
LFB	Endosulfan I	3.13	LCS	P	0 - 30
LFB	Endosulfan II	5.71	LCS	P	0 - 30
LFB	Endosulfan Sulfate	4.51	LCS	P	0 - 30
LFB	Endrin	4.91	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.0762	LCS	P	0 - 30
LFB	Endrin Ketone	3.99	LCS	P	0 - 30
LFB	Esfenvalerate	39.8	LCS	F	0 - 30
LFB	Ethalfluralin	9.83	LCS	P	0 - 30
LFB	Fenpropathrin	1.92	LCS	P	0 - 30
LFB	Gamma-BHC	2.44	LCS	P	0 - 30
LFB	Gamma-Chlordane	4.66	LCS	P	0 - 30
LFB	Heptachlor	3.50	LCS	P	0 - 30
LFB	Heptachlor Epoxide	4.21	LCS	P	0 - 30
LFB	Hexachlorobenzene	6.41	LCS	P	0 - 30
LFB	Kepone	5.15	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	33.5	LCS	F	0 - 30
LFB	Methoxychlor	4.81	LCS	P	0 - 30
LFB	MGK-264	29.0	LCS	P	0 - 30
LFB	Mirex	4.03	LCS	P	0 - 30
LFB	Permethrin	19.3	LCS	P	0 - 30
LFB	Phenothrin	37.3	LCS	F	0 - 30
LFB	Piperonyl Butoxide	9.24	LCS	P	0 - 30
LFB	Prallethrin	28.0	LCS	P	0 - 30
LFB	Tau-Fluvalinate	0.183	LCS	P	0 - 30
LFB	Tetramethrin	27.5	LCS	P	0 - 30
LFB	Trans-Nonachlor	6.31	LCS	P	0 - 30
LFB	Triclosan Methyl	3.60	LCS	P	0 - 30
LFB	Trifluralin	10.0	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P400222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2257106	Acetochlor	6.25	Spike	P	0 - 30
2257106	Alachlor	8.18	Spike	P	0 - 30
2257106	Ametryn	0.721	Spike	P	0 - 30
2257106	Atrazine	3.25	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2257106	Atrazine Desethyl	2.41	Spike	P	0 - 30
2257106	Azinphos Methyl	9.87	Spike	P	0 - 30
2257106	Azoxystrobin	2.11	Spike	P	0 - 30
2257106	Bromacil	5.69	Spike	P	0 - 30
2257106	Butylate	22.0	Spike	P	0 - 30
2257106	Caffeine	1.03	Spike	P	0 - 30
2257106	Carbophenothion	2.73	Spike	P	0 - 30
2257106	Carfentrazone Ethyl	9.49	Spike	P	0 - 30
2257106	Chlorpyrifos Ethyl	36.1	Spike	F	0 - 30
2257106	Chlorpyrifos Methyl	1.31	Spike	P	0 - 30
2257106	Cyanazine	6.92	Spike	P	0 - 30
2257106	Demeton	3.06	Spike	P	0 - 30
2257106	Diazinon	5.23	Spike	P	0 - 30
2257106	Difenoconazole	17.5	Spike	P	0 - 30
2257106	Dimethenamid	1.80	Spike	P	0 - 30
2257106	Disulfoton	3.90	Spike	P	0 - 30
2257106	Dithiopyr	0.997	Spike	P	0 - 30
2257106	EPTC	25.7	Spike	P	0 - 30
2257106	Ethion	5.35	Spike	P	0 - 30
2257106	Ethoprop	7.34	Spike	P	0 - 30
2257106	Fenamiphos	9.98	Spike	P	0 - 30
2257106	Fenbuconazole	4.59	Spike	P	0 - 30
2257106	Fipronil	2.34	Spike	P	0 - 30
2257106	Fipronil Desulfinyl	4.08	Spike	P	0 - 30
2257106	Fipronil Sulfide	4.75	Spike	P	0 - 30
2257106	Fipronil Sulfone	9.20	Spike	P	0 - 30
2257106	Fluazifop-P-butyl	0.318	Spike	P	0 - 30
2257106	Fludioxonil	8.16	Spike	P	0 - 30
2257106	Flumioxazin	10.2	Spike	P	0 - 30
2257106	Flutolanil	3.68	Spike	P	0 - 30
2257106	Fluxapyroxad	6.36	Spike	P	0 - 30
2257106	Fonofos	3.88	Spike	P	0 - 30
2257106	Hexazinone	1.22	Spike	P	0 - 30
2257106	Imazalil	1.61	Spike	P	0 - 30
2257106	Iprodione	5.10	Spike	P	0 - 30
2257106	Malathion	3.59	Spike	P	0 - 30
2257106	Metalaxyl	9.47	Spike	P	0 - 30
2257106	Metolachlor	1.88	Spike	P	0 - 30
2257106	Metribuzin	1.75	Spike	P	0 - 30
2257106	Mevinphos	13.2	Spike	P	0 - 30
2257106	Molinate	15.4	Spike	P	0 - 30
2257106	Myclobutanil	0.656	Spike	P	0 - 30
2257106	Naled	4.20	Spike	P	0 - 30
2257106	Norflurazon	4.09	Spike	P	0 - 30
2257106	Oxadiazon	1.68	Spike	P	0 - 30
2257106	Oxyfluorfen	2.20	Spike	P	0 - 30
2257106	Parathion Ethyl	1.56	Spike	P	0 - 30
2257106	Parathion Methyl	8.98	Spike	P	0 - 30
2257106	Pendimethalin	1.49	Spike	P	0 - 30
2257106	Phorate	2.06	Spike	P	0 - 30
2257106	Prodiamine	7.97	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2257106	Prometon	1.44	Spike	P	0 - 30
2257106	Prometryn	9.10	Spike	P	0 - 30
2257106	Pronamide	7.76	Spike	P	0 - 30
2257106	Propiconazole	0.557	Spike	P	0 - 30
2257106	Pyriproxyfen	3.48	Spike	P	0 - 30
2257106	Simazine	2.28	Spike	P	0 - 30
2257106	Sulfentrazone	5.52	Spike	P	0 - 30
2257106	Tebuconazole	4.54	Spike	P	0 - 30
2257106	Terbufos	5.71	Spike	P	0 - 30
2257106	Terbuthylazine	10.5	Spike	P	0 - 30
LFB	Acetochlor	9.38	LCS	P	0 - 30
LFB	Alachlor	12.5	LCS	P	0 - 30
LFB	Ametryn	7.39	LCS	P	0 - 30
LFB	Atrazine	7.79	LCS	P	0 - 30
LFB	Atrazine Desethyl	22.8	LCS	P	0 - 30
LFB	Azinphos Methyl	11.5	LCS	P	0 - 30
LFB	Azoxystrobin	6.75	LCS	P	0 - 30
LFB	Bromacil	13.5	LCS	P	0 - 30
LFB	Butylate	19.9	LCS	P	0 - 30
LFB	Caffeine	1.46	LCS	P	0 - 30
LFB	Carbophenothion	7.09	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	12.4	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	15.2	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	8.90	LCS	P	0 - 30
LFB	Cyanazine	5.08	LCS	P	0 - 30
LFB	Demeton	9.70	LCS	P	0 - 30
LFB	Diazinon	12.7	LCS	P	0 - 30
LFB	Difenoconazole	15.1	LCS	P	0 - 30
LFB	Dimethenamid	11.5	LCS	P	0 - 30
LFB	Disulfoton	8.29	LCS	P	0 - 30
LFB	Dithiopyr	13.9	LCS	P	0 - 30
LFB	EPTC	14.6	LCS	P	0 - 30
LFB	Ethion	16.2	LCS	P	0 - 30
LFB	Ethoprop	14.5	LCS	P	0 - 30
LFB	Fenamiphos	14.9	LCS	P	0 - 30
LFB	Fenbuconazole	10.2	LCS	P	0 - 30
LFB	Fipronil	13.0	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	13.0	LCS	P	0 - 30
LFB	Fipronil Sulfide	16.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	2.97	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	11.4	LCS	P	0 - 30
LFB	Fludioxonil	9.07	LCS	P	0 - 30
LFB	Flumioxazin	14.5	LCS	P	0 - 30
LFB	Flutolanil	13.3	LCS	P	0 - 30
LFB	Fluxapyroxad	10.0	LCS	P	0 - 30
LFB	Fonofos	7.44	LCS	P	0 - 30
LFB	Hexazinone	7.34	LCS	P	0 - 30
LFB	Imazalil	15.8	LCS	P	0 - 30
LFB	Iprodione	13.4	LCS	P	0 - 30
LFB	Malathion	11.9	LCS	P	0 - 30
LFB	Metalaxyl	13.5	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metolachlor	11.1	LCS	P	0 - 30
LFB	Metribuzin	12.2	LCS	P	0 - 30
LFB	Mevinphos	7.14	LCS	P	0 - 30
LFB	Molinate	12.1	LCS	P	0 - 30
LFB	Myclobutanil	9.32	LCS	P	0 - 30
LFB	Naled	13.8	LCS	P	0 - 30
LFB	Norflurazon	10.7	LCS	P	0 - 30
LFB	Oxadiazon	14.0	LCS	P	0 - 30
LFB	Oxyfluorfen	13.5	LCS	P	0 - 30
LFB	Parathion Ethyl	0.529	LCS	P	0 - 30
LFB	Parathion Methyl	4.52	LCS	P	0 - 30
LFB	Pendimethalin	0.357	LCS	P	0 - 30
LFB	Phorate	4.32	LCS	P	0 - 30
LFB	Prodiamine	28.1	LCS	P	0 - 30
LFB	Prometon	13.4	LCS	P	0 - 30
LFB	Prometryn	16.7	LCS	P	0 - 30
LFB	Pronamide	12.9	LCS	P	0 - 30
LFB	Propiconazole	12.1	LCS	P	0 - 30
LFB	Pyriproxyfen	17.7	LCS	P	0 - 30
LFB	Simazine	7.28	LCS	P	0 - 30
LFB	Sulfentrazone	13.0	LCS	P	0 - 30
LFB	Tebuconazole	11.4	LCS	P	0 - 30
LFB	Terbufos	12.7	LCS	P	0 - 30
LFB	Terbuthylazine	7.33	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P400152

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2257252	Chlordane	10.1	Spike	P	0 - 30
2257252	Toxaphene	11.5	Spike	P	0 - 30
LFB	Chlordane	36.8	LCS	F	0 - 30
LFB	Toxaphene	42.8	LCS	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P400090

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256374	Acesulfame K	31.2	Spike	F	0 - 30
2256374	AMPA	5.21	Spike	P	0 - 30
2256374	Endothall	1.71	Spike	P	0 - 30
2256374	Glufosinate	5.98	Spike	P	0 - 30
2256374	Glyphosate	0.0759	Spike	P	0 - 30
2256374	Sucralose	6.69	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P400140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256373	3-Hydroxycarbofuran	2.43	Spike	P	0 - 30
2256373	Aldicarb	57.6	Spike	F	0 - 30
2256373	Aldicarb Sulfone	1.33	Spike	P	0 - 30
2256373	Aldicarb Sulfoxide	4.09	Spike	P	0 - 30
2256373	Carbaryl	2.45	Spike	P	0 - 30
2256373	Carbofuran	3.30	Spike	P	0 - 30
2256373	Methiocarb	0.0696	Spike	P	0 - 30
2256373	Methomyl	10.6	Spike	P	0 - 30
2256373	Oxamyl	9.93	Spike	P	0 - 30
2256373	Propoxur	0.0824	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P400315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2256868	2,4-D	1.26	Spike	P	0 - 30
2256868	2,4,5-T	3.02	Spike	P	0 - 30
2256868	Acetaminophen	0.0414	Spike	P	0 - 30
2256868	Acetamiprid	10.0	Spike	P	0 - 30
2256868	Afidopyropen	20.9	Spike	P	0 - 30
2256868	Bentazon	4.42	Spike	P	0 - 30
2256868	Benzovindiflupyr	7.62	Spike	P	0 - 30
2256868	Carbamazepine	2.49	Spike	P	0 - 30
2256868	Clothianidin	6.72	Spike	P	0 - 30
2256868	Dinotefuran	1.79	Spike	P	0 - 30
2256868	Diuron	9.87	Spike	P	0 - 30
2256868	Fenuron	4.91	Spike	P	0 - 30
2256868	Fluridone	1.73	Spike	P	0 - 30
2256868	Hydrocodone	1.10	Spike	P	0 - 30
2256868	Ibuprofen	23.0	Spike	P	0 - 30
2256868	Imazapyr	5.53	Spike	P	0 - 30
2256868	Imidacloprid	3.73	Spike	P	0 - 30
2256868	Linuron	0.884	Spike	P	0 - 30
2256868	Mandestrobin	4.05	Spike	P	0 - 30
2256868	MCPP	0.487	Spike	P	0 - 30
2256868	Naproxen	25.3	Spike	P	0 - 30
2256868	Primidone	9.27	Spike	P	0 - 30
2256868	Pyraclostrobin	9.94	Spike	P	0 - 30
2256868	Thiamethoxam	2.44	Spike	P	0 - 30
2256868	Tolfenpyrad	4.05	Spike	P	0 - 30
2256868	Triclopyr	6.44	Spike	P	0 - 30

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2256881
Field Sample ID: G5SE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	59.5	P	30 - 160

Lab Sample ID: 2256882
Field Sample ID: G5SE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	120	P	30 - 160
EPA 8321B	Acetaminophen-d4	113	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.2	P	30 - 160
EPA 8321B	Diuron-d6	45.2	P	30 - 160
EPA 8321B	Endothall-d6	117	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	113	P	40 - 160
EPA 8321B	Ibuprofen-d3	66.7	P	30 - 160
EPA 8321B	Primidone-d5	68.5	P	30 - 160
EPA 8321B	Sucralose-d6	118	P	30 - 160

Lab Sample ID: 2256883
Field Sample ID: G5SE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	98.1	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	54.9	P	30 - 110
EPA 8276	Decachlorobiphenyl	73.5	P	29 - 92.0
EPA 8276	PCNB	92.3	P	43 - 134

Lab Sample ID: 2256884
Field Sample ID: G5SE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	82.8	P	20 - 200
EPA 8270E	Simazine-d10	131	P	73 - 135
EPA 8270E	Terbufos-d10	102	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A106300
Included Lab Sample IDs: 2256882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	99.7	98.4	P/P	60 - 160
Glufosinate	101	104	P/P	60 - 160
Glyphosate	101	105	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A106301
Included Lab Sample IDs: 2256882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	90.0	83.9	P/P	60 - 160
Endothall	86.2	74.9	P/P	60 - 160
Sucralose	94.1	95.9	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A106361
Included Lab Sample IDs: 2256881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	105	114	P/P	60 - 150
Aldicarb	83.9	113	P/P	60 - 150
Aldicarb Sulfone	90.9	100	P/P	50 - 150
Aldicarb Sulfoxide	113	110	P/P	50 - 150
Carbaryl	111	94.3	P/P	60 - 150
Carbofuran	106	107	P/P	50 - 150
Methiocarb	106	116	P/P	50 - 150
Methomyl	102	103	P/P	50 - 150
Oxamyl	112	96.3	P/P	50 - 150
Propoxur	110	108	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A106381
Included Lab Sample IDs: 2256883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.9		P	80 - 120
Alpha-BHC	96.0		P	80 - 120
Alpha-Chlordane	95.1		P	80 - 120
Beta-BHC	97.4		P	80 - 120
Beta-Cyfluthrin	95.0		P	80 - 120
Bifenthrin	101		P	80 - 120
Chlorothalonil	96.8		P	80 - 120
Cis-Nonachlor	102		P	80 - 120
Cypermethrin	97.0		P	80 - 120
Dacthal	97.8		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	96.0		P	80 - 120
DDT-p,p'	97.3		P	80 - 120
Delta-BHC	99.6		P	80 - 120
Deltamethrin	92.6		P	80 - 120
Dichlobenil	92.2		P	80 - 120
Dicofol	100		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A106381
Included Lab Sample IDs: 2256883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dieldrin	98.8		P	80 - 120
Endosulfan I	96.4		P	80 - 120
Endosulfan II	99.1		P	80 - 120
Endosulfan Sulfate	87.3		P	80 - 120
Endrin	98.9		P	80 - 120
Endrin Aldehyde	96.1		P	80 - 120
Endrin Ketone	99.7		P	80 - 120
Esfenvalerate	95.9		P	80 - 120
Ethalfluralin	96.2		P	80 - 120
Fenpropathrin	92.3		P	80 - 120
Gamma-BHC	98.4		P	80 - 120
Gamma-Chlordane	98.8		P	80 - 120
Heptachlor	97.5		P	80 - 120
Heptachlor Epoxide	95.8		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Kepone	82.4		P	80 - 120
Lambda-Cyhalothrin	97.8		P	80 - 120
Methoxychlor	95.9		P	80 - 120
MGK-264	97.1		P	80 - 120
Mirex	95.9		P	80 - 120
Permethrin	100		P	80 - 120
Phenothrin	93.1		P	80 - 120
Piperonyl Butoxide	101		P	80 - 120
Prallethrin	95.1		P	80 - 120
Tau-Fluvalinate	98.0		P	80 - 120
Tetramethrin	106		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Triclosan Methyl	97.8		P	80 - 120
Trifluralin	96.3		P	80 - 120

Reference Method: EPA 8321B
Run ID: A106390
Included Lab Sample IDs: 2256882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.6	93.1	P/P	50 - 150
2,4,5-T	104	96.6	P/P	50 - 150
Acetaminophen	107	102	P/P	60 - 160
Acetamiprid	104	103	P/P	50 - 150
Afidopyropen	113	112	P/P	50 - 150
Bentazon	101	102	P/P	50 - 160
Benzovindiflupyr	110	113	P/P	50 - 160
Carbamazepine	106	105	P/P	60 - 150
Clothianidin	103	127	P/P	60 - 150
Dinotefuran	113	97.9	P/P	50 - 150
Diuron	113	113	P/P	60 - 160
Fenuron	104	101	P/P	60 - 150
Fluridone	111	97.5	P/P	60 - 160
Hydrocodone	103	107	P/P	60 - 150
Ibuprofen	110	96.7	P/P	50 - 160
Imazapyr	103	96.9	P/P	50 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A106390
Included Lab Sample IDs: 2256882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	101	95.5	P/P	60 - 150
Linuron	106	104	P/P	60 - 150
Mandestrobin	110	113	P/P	50 - 150
MCPP	99.4	107	P/P	50 - 150
Naproxen	87.1	89.8	P/P	50 - 160
Primidone	102	113	P/P	60 - 150
Pyraclostrobin	106	105	P/P	60 - 150
Thiamethoxam	107	97.2	P/P	50 - 150
Tolfenpyrad	102	101	P/P	60 - 150
Triclopyr	106	109	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A106437
Included Lab Sample IDs: 2256883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.4		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106467
Included Lab Sample IDs: 2256884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.9		P	80 - 120
Alachlor	107		P	80 - 120
Ametryn	108		P	80 - 120
Atrazine Desethyl	99.8		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Azoxystrobin	97.8		P	80 - 120
Bromacil	97.7		P	80 - 120
Butylate	99.0		P	80 - 120
Caffeine	89.8		P	80 - 120
Carbophenothion	90.1		P	80 - 120
Carfentrazone Ethyl	94.2		P	80 - 120
Chlorpyrifos Ethyl	93.6		P	80 - 120
Chlorpyrifos Methyl	96.0		P	80 - 120
Cyanazine	95.9		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	87.2		P	80 - 120
Dimethenamid	100		P	80 - 120
Disulfoton	94.7		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	99.7		P	80 - 120
Ethion	97.5		P	80 - 120
Ethoprop	98.2		P	80 - 120
Fenamiphos	90.9		P	80 - 120
Fenbuconazole	95.3		P	80 - 120
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	99.8		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A106467
Included Lab Sample IDs: 2256884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fipronil Sulfide	94.0		P	80 - 120
Fipronil Sulfone	95.5		P	80 - 120
Fluazifop-P-butyl	97.3		P	80 - 120
Fludioxonil	97.9		P	80 - 120
Flumioxazin	93.4		P	80 - 120
Flutolanil	102		P	80 - 120
Fonofos	96.0		P	80 - 120
Hexazinone	98.5		P	80 - 120
Imazalil	94.5		P	80 - 120
Iprodione	101		P	80 - 120
Malathion	90.1		P	80 - 120
Metalaxyl	98.8		P	80 - 120
Metribuzin	100		P	80 - 120
Mevinphos	96.3		P	80 - 120
Molinate	99.2		P	80 - 120
Myclobutanil	99.3		P	80 - 120
Naled	91.8		P	80 - 120
Norflurazon	95.6		P	80 - 120
Oxadiazon	103		P	80 - 120
Oxyfluorfen	92.9		P	80 - 120
Parathion Ethyl	95.6		P	80 - 120
Parathion Methyl	97.8		P	80 - 120
Pendimethalin	109		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	110		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	100		P	80 - 120
Pronamide	95.7		P	80 - 120
Pyriproxyfen	100		P	80 - 120
Simazine	102		P	80 - 120
Sulfentrazone	91.8		P	80 - 120
Tebuconazole	100		P	80 - 120
Terbufos	94.6		P	80 - 120
Terbuthylazine	100		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106470
Included Lab Sample IDs: 2256884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	102		P	80 - 120
Fluxapyroxad	99.3		P	80 - 120
Metolachlor	104		P	80 - 120
Propiconazole	102		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	92.8	102	112	105	9.38		6.25
	Alachlor	93.5	106	93.9	102	12.5		8.18
	Aldrin	33.7	51.5	60.0	50.0	42.0		18.3
	Alpha-BHC	87.6	88.4	92.2	72.0	0.876		24.6
	Alpha-Chlordane	85.0	88.4	87.6	73.7	3.97		17.2
	Ametryn	101	109	117	118	7.39		0.721
	Atrazine	94.9	103			7.79		3.25
	Atrazine Desethyl	60.7	76.3	48.1	50.7	22.8		2.41
	Azinphos Methyl	97.2	109	121	110	11.5		9.87
	Azoxystrobin	96.9	104	110	107	6.75		2.11
	Beta-BHC	106	108	120	103	2.10		15.6
	Beta-Cyfluthrin	187	147	145	136	23.8		6.49
	Bifenthrin	92.7	97.3	84.6	71.2	4.81		17.1
	Bromacil	81.3	93.0			13.5		5.69
	Butylate	46.6	56.8	69.4	55.6	19.9		22.0
	Caffeine	85.0	83.8			1.46		1.03
	Carbophenothion	100	108	101	98.2	7.09		2.73
	Carfentrazone Ethyl	95.2	108	95.8	87.2	12.4		9.49
	Chlorothalonil	127	120	128	139	5.52		8.69
	Chlorpyrifos Ethyl	84.9	98.8	136	94.5	15.2		36.1
	Chlorpyrifos Methyl	92.7	101	99.2	97.9	8.90		1.31
	Cis-Nonachlor	89.1	94.4	92.6	74.6	5.79		21.4
	Cyanazine	116	111	125	116	5.08		6.92
	Cypermethrin	168	132	129	114	24.5		12.4
	Dacthal	90.5	95.8	101	84.0	5.69		18.6
	DDD-p,p'	85.3	92.5	94.1	80.3	8.16		15.8
	DDE-p,p'	83.5	89.9	85.8	90.8	7.35		5.66
	DDT-p,p'	91.3	92.9	82.3	73.0	1.72		11.9
	Delta-BHC	120	117	127	115	2.69		10.3
	Deltamethrin	214	126	124	124	51.7		0.536
	Demeton	34.6	38.1	49.7	51.3	9.70		3.06
	Diazinon	90.5	103	101	96.3	12.7		5.23
	Dichlobenil	45.4	47.4	46.9	43.1	4.30		8.45
	Dicofol	90.8	91.8	93.5	82.7	1.14		12.2
	Dieldrin	85.8	93.0	76.3	91.2	8.08		17.8
	Difenoconazole	137	160	172	144	15.1		17.5
	Dimethenamid	74.7	83.8	83.1	80.6	11.5		1.80
	Disulfoton	78.4	85.2	85.4	88.7	8.29		3.90
	Dithiopyr	87.6	101	91.3	90.2	13.9		0.997
	Endosulfan I	87.8	90.6	74.5	90.3	3.13		19.2
	Endosulfan II	85.5	90.5	76.9	91.5	5.71		17.3
	Endosulfan Sulfate	90.3	94.5	75.7	96.9	4.51		24.5
	Endrin	84.4	88.6	75.8	85.3	4.91		11.8
	Endrin Aldehyde	86.6	86.5	61.4	73.0	0.0762		17.2
	Endrin Ketone	91.5	95.2	85.6	98.5	3.99		14.0
	EPTC	47.9	55.4	52.5	40.6	14.6		25.7
	Esfenvalerate	226	151	137	144	39.8		5.01
	Ethalfluralin	77.0	85.0	67.4	82.6	9.83		20.3
	Ethion	81.7	96.0	88.7	84.0	16.2		5.35
	Ethoprop	79.5	92.0	98.3	91.3	14.5		7.34
	Fenamiphos	89.2	104	66.9	73.9	14.9		9.98
	Fenbuconazole	96.2	107	106	101	10.2		4.59
	Fenpropathrin	104	102	84.7	101	1.92		17.9
	Fipronil	89.8	102			13.0		2.34

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Fipronil Desulfinyl	96.4	110	91.6	98.8	13.0		4.08
	Fipronil Sulfide	83.8	98.4			16.0		4.75
	Fipronil Sulfone	91.5	88.9			2.97		9.20
	Fluazifop-P-butyl	98.0	110	97.0	97.3	11.4		0.318
	Fludioxonil	88.9	97.3	97.8	90.1	9.07		8.16
	Flumioxazin	162	188	193	171	14.5		10.2
	Flutolanil	85.3	97.5	81.7	78.8	13.3		3.68
	Fluxapyroxad	83.1	91.8	90.2	84.6	10.0		6.36
	Fonofos	80.2	86.3	91.9	95.6	7.44		3.88
	Gamma-BHC	94.1	96.4	89.3	100	2.44		11.5
	Gamma-Chlordane	84.8	88.9	69.2	84.7	4.66		20.2
	Heptachlor	73.3	75.9	56.5	67.8	3.50		18.2
	Heptachlor Epoxide	85.5	89.2	74.2	89.1	4.21		18.2
	Hexachlorobenzene	70.0	74.6	56.8	68.2	6.41		18.1
	Hexazinone	94.0	101	106	108	7.34		1.22
	Imazalil	37.7	44.1	62.3	63.3	15.8		1.61
	Iprodione	98.0	112	102	96.7	13.4		5.10
	Kepone	111	117	91.0	108	5.15		17.5
	Lambda-Cyhalothrin	206	147	110	153	33.5		32.4
	Malathion	92.9	105	120	124	11.9		3.59
	Metalaxyl	90.1	103	83.6	91.9	13.5		9.47
	Methoxychlor	89.2	93.6	75.4	93.1	4.81		20.9
	Metolachlor	91.2	102	95.9	93.8	11.1		1.88
	Metribuzin	83.6	94.4	99.8	102	12.2		1.75
	Mevinphos	78.0	83.8	99.1	86.9	7.14		13.2
	MGK-264	55.9	74.9	81.1	95.4	29.0		16.3
	Mirex	78.7	81.9	65.3	71.8	4.03		9.57
	Molinate	58.8	66.4	75.9	65.1	12.1		15.4
	Myclobutanil	88.1	96.7	96.4	97.0	9.32		0.656
	Naled	45.0	51.7	57.0	54.7	13.8		4.20
	Norflurazon	86.2	95.9	88.7	85.1	10.7		4.09
	Oxadiazon	83.4	95.9	80.8	82.7	14.0		1.68
	Oxyfluorfen	99.7	114	105	107	13.5		2.20
	Parathion Ethyl	87.0	87.5	91.9	93.3	0.529		1.56
	Parathion Methyl	97.6	102	112	102	4.52		8.98
	Pendimethalin	93.5	93.2	105	106	0.357		1.49
	Permethrin	172	142	108	102	19.3		4.13
	Phenothrin	103	70.7	98.3	86.6	37.3		12.6
	Phorate	77.9	81.4	91.8	89.9	4.32		2.06
	Piperonyl Butoxide	110	101	100	105	9.24		4.57
	Prallethrin	52.9	70.1	75.6	81.4	28.0		7.40
	Prodiamine	63.9	84.8	71.0	77.8	28.1		7.97
	Prometon	82.3	94.1			13.4		1.44
	Prometryn	82.6	97.6	78.8	86.3	16.7		9.10
	Pronamide	88.3	100	92.0	99.5	12.9		7.76
	Propiconazole	82.1	92.6			12.1		0.557
	Pyriproxyfen	82.1	98.0	71.7	74.3	17.7		3.48
	Simazine	90.2	97.0	83.6	87.6	7.28		2.28
	Sulfentrazone	80.9	92.2	86.5	93.0	13.0		5.52
	Tau-Fluvalinate	125	125	122	99.4	0.183		20.6
	Tebuconazole	57.6	64.6	49.0	42.8	11.4		4.54
	Terbufos	97.1	110	111	118	12.7		5.71
	Terbuthylazine	91.6	98.6	102	91.5	7.33		10.5
	Tetramethrin	61.5	81.1	95.2	86.2	27.5		9.90

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Trans-Nonachlor	84.2	89.7	67.6	87.5	6.31		25.7
	Triclosan Methyl	91.0	94.3	77.3	95.2	3.60		20.8
	Trifluralin	75.5	83.5	66.7	82.1	10.0		20.7
EPA 8276	Chlordane	111	76.6	84.7	93.7	36.8		10.1
	Toxaphene	96.3	62.4	96.2	108	42.8		11.5
EPA 8321B	2,4-D	120		122	124			1.26
	2,4,5-T	128		113	116			3.02
	3-Hydroxycarbofuran	97.9		84.6	82.5			2.43
	Acesulfame K	83.9		105	77.0			31.2
	Acetaminophen	83.0		112	112			0.0414
	Acetamiprid	90.6		82.4	74.6			10.0
	Afidopyropen	73.6		71.1	57.7			20.9
	Aldicarb	45.7		79.0	43.7			57.6
	Aldicarb Sulfone	93.8		95.0	93.8			1.33
	Aldicarb Sulfoxide	92.7		43.3	41.5			4.09
	AMPA	97.9		79.8	84.1			5.21
	Bentazon	92.3		79.5	74.5			4.42
	Benzovindiflupyr	92.8		84.5	91.2			7.62
	Carbamazepine	92.0		85.2	87.3			2.49
	Carbaryl	69.7		63.9	65.5			2.45
	Carbofuran	83.2		81.9	79.3			3.30
	Clothianidin	92.2		114	107			6.72
	Dinotefuran	88.1		125	123			1.79
	Diuron	73.7		75.7	68.5			9.87
	Endothall	72.9		102	99.8			1.71
	Fenuron	99.7		83.1	79.1			4.91
	Fluridone	87.6		79.7	81.1			1.73
	Glufosinate	96.7		94.5	100			5.98
	Glyphosate	102		100	100			0.0759
	Hydrocodone	94.6		108	107			1.10
	Ibuprofen	86.0		84.8	67.3			23.0
	Imazapyr	101		168	159			5.53
	Imidacloprid	92.6		148	155			3.73
	Linuron	73.3		70.6	70.0			0.884
	Mandestrobin	94.1		94.0	90.3			4.05
	MCPP	125		113	112			0.487
	Methiocarb	72.0		81.7	81.6			0.0696
	Methomyl	101		97.4	87.6			10.6
	Naproxen	82.1		97.4	75.5			25.3
	Oxamyl	89.4		78.4	86.6			9.93
	Primidone	93.3		122	111			9.27
	Propoxur	82.7		82.7	82.6			0.0824
	Pyraclostrobin	81.1		88.6	80.2			9.94
	Sucralose	92.1		94.2	101			6.69
	Thiamethoxam	91.7		145	148			2.44
	Tolfenpyrad	47.4		53.7	55.9			4.05
	Triclopyr	122		121	113			6.44

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2256883
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2256884

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2256883
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2256881
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2256882

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	06/24/2021	06/28/2021 08:00	Fe-Val Siddell	06/30/2021 23:00	Arthur Maknenko	2256883
	06/24/2021	06/28/2021 08:30	Rasheda Ghaffari	06/29/2021 17:10	Vandana T. Nagar	2256884
	06/24/2021	06/28/2021 08:30	Rasheda Ghaffari	07/02/2021 17:47	Vandana T. Nagar	2256884
	06/24/2021	06/28/2021 08:30	Rasheda Ghaffari	07/02/2021 18:37	Vandana T. Nagar	2256884
EPA 8276	06/24/2021	06/28/2021 08:00	Fe-Val Siddell	07/04/2021 06:19	Michael Poppell	2256883
EPA 8321B	06/24/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 14:06	Juyoung Kim	2256882
	06/24/2021	06/25/2021 08:00	Pramila Ghimire	06/25/2021 22:47	Pramila Ghimire	2256882
	06/24/2021	06/29/2021 08:30	Hoor Shaik	06/30/2021 03:05	Juyoung Kim	2256881
	06/24/2021	06/30/2021 09:00	Hoor Shaik	06/30/2021 21:37	Juyoung Kim	2256882
	06/24/2021	06/30/2021 09:00	Hoor Shaik	07/01/2021 09:45	Juyoung Kim	2256882