Chemical Analysis Report

SE-DIST-2021-08-17-02

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

Event Description: **SMP - Palm Beach West**
Request ID: **RQ-2021-08-09-70**
Customer: **SE-DIST**
Project ID: **SMP**

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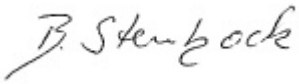
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 07-SEP-2021 18:06



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: 08/16/2021 12:30**

Field ID: G5SE0058 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2269819	EPA 8321B	Aldicarb	0.020	U	ug/L	P402513	
		Aldicarb Sulfone	0.0020	U	ug/L	P402513	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P402513	
		Carbaryl	0.0020	U	ug/L	P402513	
		Carbofuran	0.0020	U	ug/L	P402513	
		3-Hydroxycarbofuran	0.0020	UJ	ug/L	P402513	MS
		Methiocarb	0.0020	U	ug/L	P402513	
		Methomyl	0.0020	U	ug/L	P402513	
		Oxamyl	0.0020	U	ug/L	P402513	
		Propoxur	0.0020	U	ug/L	P402513	
2269820		Acesulfame K	0.10	U	ug/L	P402556	
		2,4-D	0.42		ug/L	P402616	
		2,4,5-T	0.0040	U	ug/L	P402616	
		AMPA	2.0	I J	ug/L	P402556	MS
		Acetaminophen	0.0080	U	ug/L	P402616	
		Endothall	0.25	U	ug/L	P402556	
		Acetamiprid	0.0020	U	ug/L	P402616	
		Glufosinate	0.10	U	ug/L	P402556	
		Glyphosate	18		ug/L	P402556	
		Afidopyropen	0.0020	U	ug/L	P402616	
		Sucralose	0.046		ug/L	P402556	
		Bentazon	0.030		ug/L	P402616	
		Benzovindiflupyr	0.0020	U	ug/L	P402616	
		Carbamazepine	8.0E-04	U	ug/L	P402616	
		Clothianidin	0.0020	U	ug/L	P402616	
		Dinotefuran	0.0020	U	ug/L	P402616	
		Diuron	0.0020	U	ug/L	P402616	
		Fenuron	0.016	U	ug/L	P402616	
		Fluridone	8.0E-04	U	ug/L	P402616	
		Imazapyr	2.7		ug/L	P402616	
		Hydrocodone	0.0020	U	ug/L	P402616	
		Ibuprofen	0.020	U	ug/L	P402616	
		Imidacloprid	0.0036	I	ug/L	P402616	
		Linuron	0.0040	U	ug/L	P402616	
		Mandestrobin	0.0020	U	ug/L	P402616	
		MCPP	0.0020	U	ug/L	P402616	
		Naproxen	0.0080	U	ug/L	P402616	
		Primidone	0.0040	U	ug/L	P402616	
		Pyraclostrobin	0.0020	U	ug/L	P402616	
		Thiamethoxam	0.0020	U	ug/L	P402616	
		Tolfenpyrad	0.0020	U	ug/L	P402616	
		Triclopyr	0.0040	U	ug/L	P402616	
2269821	EPA 8270E	Aldrin	0.67	U	ng/L	P402612	
		Alpha-BHC	0.10	U	ng/L	P402612	

Field ID: G5SE0058 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2269821	EPA 8270E	Alpha-Chlordane	0.20	U	ng/L	P402612	
		Beta-BHC	0.10	U	ng/L	P402612	
		Beta-Cyfluthrin**	1.3	U	ng/L	P402612	
		Bifenthrin**	0.80	I	ng/L	P402612	
		Chlorothalonil	0.51	U	ng/L	P402612	
		Cis-Nonachlor**	0.20	U	ng/L	P402612	
		Cypermethrin	1.5	U	ng/L	P402612	
		Dacthal**	0.15	U	ng/L	P402612	
		DDD-p,p'	0.51	I	ng/L	P402612	
		DDE-p,p'	0.46	I	ng/L	P402612	
		DDT-p,p'	0.35	I	ng/L	P402612	
		Delta-BHC	0.41	U	ng/L	P402612	
		Deltamethrin**	1.3	UJ	ng/L	P402612	RPD
		Dichlobenil**	0.10	U	ng/L	P402612	MS
		Dicofol	1.3	U	ng/L	P402612	
		Dieldrin	0.41	U	ng/L	P402612	
		Endosulfan I	0.41	U	ng/L	P402612	
		Endosulfan II	0.41	U	ng/L	P402612	
		Endosulfan Sulfate	0.31	U	ng/L	P402612	
		Endrin	0.41	U	ng/L	P402612	
		Endrin Aldehyde	0.77	U	ng/L	P402612	MS
		Endrin Ketone	0.41	U	ng/L	P402612	
		Esfenvalerate**	0.77	U	ng/L	P402612	
		Ethalfluralin**	0.15	U	ng/L	P402612	
		Fenpropathrin**	0.26	U	ng/L	P402612	
		Gamma-BHC	0.13	U	ng/L	P402612	
		Gamma-Chlordane	0.27	I	ng/L	P402612	
		Heptachlor	0.20	U	ng/L	P402612	
		Heptachlor Epoxide	0.26	U	ng/L	P402612	
		Hexachlorobenzene	1.0	U	ng/L	P402612	
		Kepone**	5.1	UJ	ng/L	P402612	CCV, RPD
		Lambda-Cyhalothrin**	0.77	U	ng/L	P402612	
		Methoxychlor	0.31	U	ng/L	P402612	
		MGK-264**	0.20	U	ng/L	P402612	
		Mirex	0.72	UJ	ng/L	P402612	LCS
		Permethrin	1.6	U	ng/L	P402612	
		Phenothrin**	0.92	U	ng/L	P402612	RPD
		Piperonyl Butoxide**	0.53	I	ng/L	P402612	
		Prallethrin**	3.1	I	ng/L	P402612	MS, RPD
		Tau-Fluvalinate**	0.26	U	ng/L	P402612	
		Tetramethrin**	0.77	U	ng/L	P402612	MS, RPD
		Trans-Nonachlor**	0.20	U	ng/L	P402612	
		Triclosan Methyl**	0.15	U	ng/L	P402612	
		Trifluralin	0.20	U	ng/L	P402612	
	EPA 8276	Chlordane	5.1	U	ng/L	P402612	

Field ID: G5SE0058 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2269821	EPA 8276	Toxaphene	31	U	ng/L	P402612	
2269822	EPA 8270E	Acetochlor	0.24	U	ng/L	P402814	
		Alachlor	0.24	U	ng/L	P402814	
		Ametryn	110		ng/L	P402814	
		Atrazine	120	J	ng/L	P402814	RPD
		Atrazine Desethyl	14		ng/L	P402814	
		Azinphos Methyl	1.9	U	ng/L	P402814	
		Azoxystrobin**	35	J	ng/L	P402814	RPD
		Bromacil	0.48	U	ng/L	P402814	
		Butylate	0.39	U	ng/L	P402814	
		Caffeine**	7.2	UJ	ng/L	P402814	RPD
		Carbophenothion	0.48	U	ng/L	P402814	
		Carfentrazone Ethyl**	0.097	U	ng/L	P402814	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P402814	
		Chlorpyrifos Methyl	0.048	U	ng/L	P402814	
		Cyanazine	3.1	U	ng/L	P402814	
		Demeton	1.4	U	ng/L	P402814	
		Diazinon	0.12	U	ng/L	P402814	
		Difenoconazole**	0.58	U	ng/L	P402814	
		Dimethenamid**	0.097	U	ng/L	P402814	
		Disulfoton	0.48	U	ng/L	P402814	
		Dithiopyr**	0.17	U	ng/L	P402814	
		EPTC	1.2	U	ng/L	P402814	
		Ethion	0.14	U	ng/L	P402814	
		Ethoprop	0.097	U	ng/L	P402814	
		Fenamiphos	0.48	U	ng/L	P402814	
		Fenbuconazole**	0.12	U	ng/L	P402814	
		Fipronil	0.25	I	ng/L	P402814	
		Fipronil Desulfinyl**	0.12	U	ng/L	P402814	
		Fipronil Sulfide	0.14	U	ng/L	P402814	
		Fipronil Sulfone	0.14	U	ng/L	P402814	
		Fluazifop-P-butyl**	0.097	U	ng/L	P402814	
		Fludioxonil**	0.12	U	ng/L	P402814	
		Flumioxazin**	1.7	U	ng/L	P402814	
		Flutolanil**	0.097	U	ng/L	P402814	
		Fluxapyroxad**	28		ng/L	P402814	
		Fonofos	0.19	U	ng/L	P402814	
		Hexazinone	8.4		ng/L	P402814	
		Imazalil**	0.72	U	ng/L	P402814	
		Iprodione**	0.58	U	ng/L	P402814	
		Malathion	0.34	U	ng/L	P402814	
		Metalaxyl	420	J	ng/L	P402814	RPD
		Metolachlor	30	J	ng/L	P402814	RPD
		Metribuzin	3.1	U	ng/L	P402814	
		Mevinphos	1.0	U	ng/L	P402814	

Field ID: G5SE0058 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2269822	EPA 8270E	Molinate	0.29	U	ng/L	P402814	
		Myclobutanil**	0.24	U	ng/L	P402814	
		Naled**	1.4	U	ng/L	P402814	
		Norflurazon	0.48	U	ng/L	P402814	
		Oxadiazon	0.31	I	ng/L	P402814	
		Oxyfluorfen**	0.14	U	ng/L	P402814	
		Parathion Ethyl	0.24	U	ng/L	P402814	
		Parathion Methyl	0.53	U	ng/L	P402814	
		Pendimethalin	0.97	U	ng/L	P402814	
		Phorate	0.51	U	ng/L	P402814	
		Prodiamine**	0.17	U	ng/L	P402814	
		Prometon	0.87	U	ng/L	P402814	
		Prometryn	1.4		ng/L	P402814	
		Pronamide**	0.14	U	ng/L	P402814	
		Propiconazole**	31	J	ng/L	P402814	RPD
		Pyriproxyfen**	0.12	U	ng/L	P402814	
		Simazine	0.48	U	ng/L	P402814	
		Sulfentrazone**	0.64	I	ng/L	P402814	
		Tebuconazole**	0.64	I	ng/L	P402814	
		Terbufos	0.097	U	ng/L	P402814	
		Terbuthylazine	0.41	U	ng/L	P402814	

Ref. Method and Comment:
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8321B: MS accuracy for glyphosate could not be assessed due to high concentration of parameter in the spiked sample. MDL for AMPA elevated due to matrix interference. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for several 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: P402612

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: P402612

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	0.70	U	ng/L
Mirex	0.70	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: P402814

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: P402814

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: P402814

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: P402814

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: P402612

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: P402513

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: P402556

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P402556

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P402616

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: P402612

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	46.4	48.6	P/P	20 - 150
Alpha-BHC	94.7	95.4	P/P	50 - 150
Alpha-Chlordane	66.2	67.2	P/P	50 - 150
Beta-BHC	111	108	P/P	50 - 150
Beta-Cyfluthrin	97.7	73.5	P/P	50 - 150
Bifenthrin	78.8	63.2	P/P	40 - 150
Chlorothalonil	120	113	P/P	20 - 150
Cis-Nonachlor	64.0	58.2	P/P	50 - 150
Cypermethrin	102	76.5	P/P	50 - 150
Dacthal	93.2	94.0	P/P	50 - 150
DDD-p,p'	71.1	64.3	P/P	50 - 150
DDE-p,p'	73.1	77.3	P/P	50 - 150
DDT-p,p'	68.9	67.6	P/P	50 - 150
Delta-BHC	119	115	P/P	50 - 150
Deltamethrin	111	74.6	P/P	50 - 150
Dichlobenil	73.5	75.2	P/P	40 - 150
Dicofol	64.3	58.0	P/P	50 - 150
Dieldrin	75.8	78.0	P/P	50 - 150
Endosulfan I	75.2	78.6	P/P	50 - 150
Endosulfan II	87.4	73.3	P/P	50 - 150
Endosulfan Sulfate	89.7	83.5	P/P	50 - 150
Endrin	77.2	68.3	P/P	50 - 150
Endrin Aldehyde	64.3	57.7	P/P	50 - 150
Endrin Ketone	92.0	82.3	P/P	50 - 150
Esfenvalerate	107	79.8	P/P	50 - 180
Ethalfluralin	64.6	66.3	P/P	50 - 150
Fenpropathrin	78.3	65.9	P/P	50 - 150
Gamma-BHC	102	101	P/P	50 - 150
Gamma-Chlordane	64.7	66.4	P/P	50 - 150
Heptachlor	59.7	62.7	P/P	50 - 150
Heptachlor Epoxide	74.4	78.4	P/P	50 - 150
Hexachlorobenzene	63.0	62.6	P/P	50 - 150
Kepone	86.4	56.7	P/P	30 - 180
Lambda-Cyhalothrin	104	81.5	P/P	50 - 200
Methoxychlor	85.6	79.5	P/P	50 - 150
MGK-264	88.5	92.1	P/P	30 - 150
Mirex	49.5	46.1	F/F	50 - 180
Permethrin	99.6	74.4	P/P	50 - 150
Phenothrin	50.2	39.7	P/P	20 - 150
Piperonyl Butoxide	95.8	85.3	P/P	50 - 150
Prallethrin	69.4	76.5	P/P	30 - 150
Tau-Fluvalinate	78.3	58.8	P/P	40 - 150
Tetramethrin	96.5	80.2	P/P	30 - 150
Trans-Nonachlor	62.2	65.8	P/P	50 - 150
Triclosan Methyl	75.3	77.9	P/P	50 - 150
Trifluralin	66.3	66.0	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P402814

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	93.3	103	P/P	70 - 121

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P402814

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alachlor	89.1	97.0	P/P	70 - 119
Ametryn	96.6	98.4	P/P	61 - 135
Atrazine	93.8	103	P/P	76 - 123
Atrazine Desethyl	63.7	70.9	P/P	35 - 140
Azinphos Methyl	95.6	120	P/P	57 - 163
Azoxystrobin	101	114	P/P	43 - 231
Bromacil	47.2	59.6	P/P	42 - 123
Butylate	49.7	59.6	P/P	34 - 92.0
Caffeine	77.5	86.4	P/P	70 - 130
Carbophenothion	99.8	106	P/P	61 - 121
Carfentrazone Ethyl	92.5	98.3	P/P	62 - 139
Chlorpyrifos Ethyl	82.9	97.8	P/P	67 - 121
Chlorpyrifos Methyl	90.5	99.4	P/P	67 - 120
Cyanazine	95.9	113	P/P	20 - 226
Demeton	83.2	98.4	P/P	35 - 125
Diazinon	96.1	108	P/P	70 - 122
Difenoconazole	141	124	P/P	56 - 186
Dimethenamid	77.2	83.1	P/P	67 - 119
Disulfoton	78.5	85.6	P/P	47 - 120
Dithiopyr	83.0	95.1	P/P	67 - 118
EPTC	47.1	59.9	P/P	33 - 90.0
Ethion	72.9	55.9	P/P	40 - 133
Ethoprop	87.0	101	P/P	61 - 121
Fenamiphos	87.0	86.1	P/P	31 - 139
Fenbuconazole	97.0	106	P/P	66 - 141
Fipronil	88.5	93.9	P/P	62 - 129
Fipronil Desulfinyl	102	103	P/P	59 - 126
Fipronil Sulfide	80.1	85.8	P/P	63 - 117
Fipronil Sulfone	81.8	75.1	P/P	57 - 117
Fluazifop-P-butyl	100	106	P/P	63 - 124
Fludioxonil	93.1	97.4	P/P	63 - 123
Flumioxazin	127	111	P/P	34 - 245
Flutolanil	84.7	84.3	P/P	56 - 131
Fluxapyroxad	90.8	89.2	P/P	57 - 117
Fonofos	80.5	89.6	P/P	61 - 116
Hexazinone	99.4	104	P/P	55 - 138
Imazalil	103	109	P/P	33 - 143
Iprodione	89.2	89.4	P/P	59 - 118
Malathion	94.3	109	P/P	62 - 138
Metalaxyl	86.9	93.2	P/P	24 - 147
Metolachlor	93.5	97.8	P/P	68 - 118
Metribuzin	96.2	111	P/P	20 - 239
Mevinphos	81.1	92.8	P/P	46 - 124
Molinate	68.6	79.9	P/P	46 - 100
Myclobutanil	87.1	88.9	P/P	32 - 149
Naled	42.7	50.6	P/P	32 - 95.0
Norflurazon	67.7	62.3	P/P	57 - 127
Oxadiazon	80.2	80.7	P/P	63 - 118
Oxyfluorfen	79.4	80.6	P/P	69 - 137
Parathion Ethyl	88.1	96.8	P/P	70 - 113
Parathion Methyl	107	118	P/P	71 - 130
Pendimethalin	74.5	80.9	P/P	55 - 118

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P402814

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	75.7	83.7	P/P	46 - 125
Prodiamine	28.2	33.1	P/P	20 - 141
Prometon	81.5	78.9	P/P	54 - 122
Prometryn	86.4	91.9	P/P	66 - 124
Pronamide	101	106	P/P	79 - 122
Propiconazole	69.0	63.3	P/P	61 - 126
Pyriproxyfen	72.4	67.6	P/P	52 - 131
Simazine	89.8	102	P/P	75 - 128
Sulfentrazone	75.6	82.0	P/P	20 - 132
Tebuconazole	63.6	48.4	P/P	20 - 116
Terbufos	101	115	P/P	61 - 117
Terbuthylazine	97.1	105	P/P	74 - 116

Reference Method: EPA 8276
Batch ID: P402612

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	83.6	78.7	P/P	56 - 117
Toxaphene	67.9	67.1	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P402513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	81.2		P	30 - 160
Aldicarb	95.1		P	30 - 160
Aldicarb Sulfone	82.0		P	30 - 160
Aldicarb Sulfoxide	76.7		P	30 - 160
Carbaryl	62.8		P	30 - 160
Carbofuran	64.1		P	30 - 160
Methiocarb	68.7		P	30 - 160
Methomyl	84.6		P	30 - 160
Oxamyl	80.6		P	30 - 160
Propoxur	65.5		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P402556

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	88.2		P	40 - 150
AMPA	98.9		P	40 - 160
Endothall	126		P	40 - 150
Glufosinate	96.1		P	40 - 160
Glyphosate	96.4		P	40 - 160
Sucralose	105		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P402616

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	137		P	30 - 160
2,4,5-T	125		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P402616

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	91.5		P	30 - 160
Acetamiprid	92.4		P	30 - 160
Afidopyropen	70.4		P	30 - 160
Bentazon	107		P	30 - 160
Benzovindiflupyr	97.0		P	30 - 160
Carbamazepine	86.8		P	30 - 160
Clothianidin	97.8		P	30 - 160
Dinotefuran	93.3		P	30 - 160
Diuron	69.7		P	30 - 160
Fenuron	94.4		P	30 - 160
Fluridone	90.4		P	30 - 160
Hydrocodone	100		P	30 - 160
Ibuprofen	91.9		P	30 - 160
Imazapyr	99.5		P	30 - 160
Imidacloprid	98.3		P	30 - 160
Linuron	70.7		P	30 - 160
Mandestrobin	95.2		P	30 - 160
MCPP	126		P	30 - 160
Naproxen	61.8		P	30 - 160
Primidone	105		P	30 - 160
Pyraclostrobin	84.3		P	30 - 160
Thiamethoxam	107		P	30 - 160
Tolfenpyrad	58.3		P	30 - 160
Triclopyr	129		P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P402612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2270127	Aldrin	46.0	40.3	P/P	20 - 170
2270127	Alpha-BHC	93.7	87.0	P/P	50 - 170
2270127	Alpha-Chlordane	73.4	64.2	P/P	50 - 170
2270127	Beta-BHC	122	125	P/P	50 - 170
2270127	Beta-Cyfluthrin	102	81.2	P/P	50 - 170
2270127	Bifenthrin	60.3	49.1	P/P	40 - 170
2270127	Chlorothalonil	140	129	P/P	20 - 170
2270127	Cis-Nonachlor	67.7	58.5	P/P	50 - 170
2270127	Cypermethrin	74.0	57.5	P/P	50 - 170
2270127	Dacthal	91.3	83.5	P/P	50 - 170
2270127	DDD-p,p'	73.2	68.6	P/P	50 - 170
2270127	DDE-p,p'	73.7	68.9	P/P	50 - 170
2270127	DDT-p,p'	69.6	60.9	P/P	50 - 170
2270127	Delta-BHC	127	124	P/P	50 - 170
2270127	Deltamethrin	98.1	74.8	P/P	50 - 170
2270127	Dichlobenil	32.3	40.5	F/P	40 - 170
2270127	Dicofol	57.3	50.4	P/P	50 - 170
2270127	Dieldrin	79.5	69.4	P/P	50 - 170
2270127	Endosulfan I	82.7	71.0	P/P	50 - 170
2270127	Endosulfan II	68.6	54.4	P/P	50 - 170
2270127	Endosulfan Sulfate	62.4	51.9	P/P	50 - 170
2270127	Endrin	63.1	68.0	P/P	50 - 170
2270127	Endrin Aldehyde	31.5	26.8	F/F	50 - 170
2270127	Endrin Ketone	111	88.3	P/P	50 - 170
2270127	Esfenvalerate	91.4	70.7	P/P	50 - 180
2270127	Ethalfluralin	52.1	55.8	P/P	50 - 170
2270127	Fenpropathrin	62.0	51.3	P/P	50 - 170
2270127	Gamma-BHC	107	111	P/P	50 - 170
2270127	Gamma-Chlordane	71.0	62.5	P/P	50 - 170
2270127	Heptachlor	64.8	52.2	P/P	50 - 170
2270127	Heptachlor Epoxide	81.4	70.7	P/P	50 - 170
2270127	Hexachlorobenzene	62.8	56.3	P/P	50 - 170
2270127	Kepone	68.6	41.9	P/P	30 - 180
2270127	Lambda-Cyhalothrin	86.1	66.3	P/P	50 - 200
2270127	Methoxychlor	91.8	75.4	P/P	50 - 170
2270127	MGK-264	72.8	72.6	P/P	30 - 170
2270127	Mirex	58.1	52.0	P/P	50 - 180
2270127	Permethrin	84.7	75.5	P/P	50 - 170
2270127	Phenothrin	23.4	33.7	P/P	20 - 170
2270127	Piperonyl Butoxide	66.3	61.0	P/P	50 - 170
2270127	Prallethrin	3.54	2.40	F/F	30 - 170
2270127	Tau-Fluvalinate	72.8	54.3	P/P	40 - 170
2270127	Tetramethrin	19.7	9.82	F/F	30 - 170
2270127	Trans-Nonachlor	72.5	61.1	P/P	50 - 170
2270127	Triclosan Methyl	75.8	68.3	P/P	50 - 170
2270127	Trifluralin	68.4	62.0	P/P	50 - 170

Reference Method: EPA 8270E
Batch ID: P402814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2269822	Acetochlor	110	118	P/P	66 - 122

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P402814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2269822	Alachlor	95.0	105	P/P	65 - 122
2269822	Atrazine Desethyl	79.5	66.4	P/P	25 - 150
2269822	Azinphos Methyl	105	115	P/P	44 - 174
2269822	Bromacil	91.1	89.9	P/P	31 - 145
2269822	Butylate	60.0	56.0	P/P	15 - 97.0
2269822	Caffeine	78.8	114	P/P	70 - 130
2269822	Carbophenothion	81.7	95.3	P/P	42 - 129
2269822	Carfentrazone Ethyl	91.9	92.8	P/P	62 - 145
2269822	Chlorpyrifos Ethyl	70.6	74.5	P/P	60 - 124
2269822	Chlorpyrifos Methyl	91.3	103	P/P	66 - 119
2269822	Cyanazine	103	123	P/P	17 - 225
2269822	Demeton	103	109	P/P	36 - 142
2269822	Diazinon	116	119	P/P	70 - 128
2269822	Difenoconazole	120	144	P/P	33 - 222
2269822	Dimethenamid	82.3	87.7	P/P	54 - 125
2269822	Disulfoton	65.8	66.7	P/P	49 - 133
2269822	Dithiopyr	90.2	104	P/P	55 - 123
2269822	EPTC	63.1	54.3	P/P	19 - 91.0
2269822	Ethion	42.3	56.3	P/P	13 - 143
2269822	Ethoprop	104	116	P/P	49 - 144
2269822	Fenamiphos	67.3	53.2	P/P	32 - 136
2269822	Fenbuconazole	96.8	114	P/P	73 - 148
2269822	Fipronil	88.7	97.8	P/P	57 - 129
2269822	Fipronil Desulfinyl	82.9	104	P/P	49 - 127
2269822	Fipronil Sulfide	76.6	93.1	P/P	44 - 127
2269822	Fipronil Sulfone	84.3	101	P/P	35 - 126
2269822	Fluazifop-P-butyl	92.7	102	P/P	67 - 129
2269822	Fludioxonil	98.1	107	P/P	61 - 126
2269822	Flumioxazin	132	157	P/P	38 - 279
2269822	Flutolanil	75.9	84.2	P/P	55 - 136
2269822	Fonofos	89.3	99.5	P/P	58 - 125
2269822	Hexazinone	137	111	P/P	57 - 148
2269822	Imazalil	52.1	53.2	P/P	10 - 221
2269822	Iprodione	89.1	97.1	P/P	32 - 140
2269822	Malathion	104	125	P/P	52 - 138
2269822	Metribuzin	142	133	P/P	16 - 272
2269822	Mevinphos	90.3	99.5	P/P	45 - 140
2269822	Molinate	77.0	79.1	P/P	41 - 103
2269822	Myclobutanil	77.8	95.2	P/P	60 - 134
2269822	Naled	50.2	55.6	P/P	20 - 113
2269822	Norflurazon	75.8	80.1	P/P	51 - 123
2269822	Oxadiazon	70.5	76.0	P/P	44 - 125
2269822	Oxyfluorfen	96.3	104	P/P	66 - 176
2269822	Parathion Ethyl	92.1	104	P/P	57 - 132
2269822	Parathion Methyl	122	135	P/P	59 - 156
2269822	Pendimethalin	94.4	103	P/P	59 - 129
2269822	Phorate	82.2	90.7	P/P	47 - 136
2269822	Prodiamine	52.6	61.3	P/P	10 - 159
2269822	Prometon	81.4	84.1	P/P	59 - 127
2269822	Prometryn	61.2	93.0	P/P	59 - 129
2269822	Pronamide	105	114	P/P	65 - 145
2269822	Pyriproxyfen	82.0	89.7	P/P	21 - 180

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P402814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2269822	Simazine	110	118	P/P	63 - 147
2269822	Sulfentrazone	99.8	98.9	P/P	32 - 136
2269822	Tebuconazole	43.4	46.6	P/P	10 - 117
2269822	Terbufos	118	127	P/P	61 - 131
2269822	Terbuthylazine	107	116	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P402612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2270340	Chlordane	90.7	82.1	P/P	47 - 128
2270340	Toxaphene	72.9	69.9	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P402513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2269819	3-Hydroxycarbofuran	44.5	33.2	P/F	40 - 150
2269819	Aldicarb	39.7	51.6	P/P	30 - 150
2269819	Aldicarb Sulfone	60.2	63.3	P/P	40 - 150
2269819	Aldicarb Sulfoxide	40.1	43.9	P/P	40 - 150
2269819	Carbaryl	60.4	61.2	P/P	40 - 150
2269819	Carbofuran	68.1	64.2	P/P	40 - 150
2269819	Methiocarb	75.2	68.7	P/P	40 - 150
2269819	Methomyl	81.4	78.0	P/P	40 - 150
2269819	Oxamyl	77.9	71.9	P/P	40 - 150
2269819	Propoxur	65.8	62.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P402556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2269820	Acesulfame K	81.1	65.2	P/P	40 - 150
2269820	AMPA	55.8	39.5	P/F	40 - 160
2269820	Endothall	69.7	64.1	P/P	40 - 150
2269820	Glufosinate	158	143	P/P	40 - 160
2269820	Sucralose	114	110	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P402616

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2269820	2,4,5-T	92.5	86.2	P/P	30 - 160
2269820	Acetaminophen	93.9	95.3	P/P	30 - 160
2269820	Acetamiprid	45.4	35.7	P/P	30 - 160
2269820	Afidopyropen	64.2	51.9	P/P	30 - 160
2269820	Benzovindiflupyr	82.1	76.6	P/P	30 - 160
2269820	Carbamazepine	46.0	44.6	P/P	30 - 160
2269820	Clothianidin	55.3	58.4	P/P	30 - 160
2269820	Dinotefuran	67.6	71.4	P/P	30 - 160
2269820	Diuron	30.9	30.1	P/P	30 - 160
2269820	Fenuron	32.6	33.7	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P402616

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2269820	Fluridone	67.1	67.9	P/P	30 - 160
2269820	Hydrocodone	56.1	60.2	P/P	30 - 160
2269820	Ibuprofen	69.1	59.6	P/P	30 - 160
2269820	Imidacloprid	91.5	86.2	P/P	30 - 160
2269820	Linuron	52.7	52.0	P/P	30 - 160
2269820	Mandestrobin	80.6	81.1	P/P	30 - 160
2269820	MCPP	81.2	81.8	P/P	30 - 160
2269820	Naproxen	76.4	63.5	P/P	30 - 160
2269820	Primidone	58.5	62.6	P/P	30 - 160
2269820	Pyraclostrobin	71.6	75.1	P/P	30 - 160
2269820	Thiamethoxam	70.9	73.0	P/P	30 - 160
2269820	Tolfenpyrad	50.5	51.9	P/P	30 - 160
2269820	Triclopyr	94.3	92.6	P/P	30 - 160

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P402612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2270127	Aldrin	13.2	Spike	P	0 - 30
2270127	Alpha-BHC	7.39	Spike	P	0 - 30
2270127	Alpha-Chlordane	13.5	Spike	P	0 - 30
2270127	Beta-BHC	2.46	Spike	P	0 - 30
2270127	Beta-Cyfluthrin	22.3	Spike	P	0 - 30
2270127	Bifenthrin	20.5	Spike	P	0 - 30
2270127	Chlorothalonil	8.08	Spike	P	0 - 50
2270127	Cis-Nonachlor	14.6	Spike	P	0 - 30
2270127	Cypermethrin	25.0	Spike	P	0 - 30
2270127	Dacthal	8.89	Spike	P	0 - 30
2270127	DDD-p,p'	6.51	Spike	P	0 - 30
2270127	DDE-p,p'	6.84	Spike	P	0 - 30
2270127	DDT-p,p'	13.4	Spike	P	0 - 30
2270127	Delta-BHC	2.46	Spike	P	0 - 30
2270127	Deltamethrin	27.0	Spike	P	0 - 30
2270127	Dichlobenil	22.6	Spike	P	0 - 30
2270127	Dicofol	12.7	Spike	P	0 - 30
2270127	Dieldrin	13.5	Spike	P	0 - 30
2270127	Endosulfan I	15.1	Spike	P	0 - 30
2270127	Endosulfan II	23.2	Spike	P	0 - 30
2270127	Endosulfan Sulfate	18.4	Spike	P	0 - 30
2270127	Endrin	7.57	Spike	P	0 - 30
2270127	Endrin Aldehyde	15.9	Spike	P	0 - 30
2270127	Endrin Ketone	23.0	Spike	P	0 - 30
2270127	Esfenvalerate	25.5	Spike	P	0 - 30
2270127	Ethalfluralin	6.76	Spike	P	0 - 30
2270127	Fenpropathrin	18.7	Spike	P	0 - 30
2270127	Gamma-BHC	4.45	Spike	P	0 - 30
2270127	Gamma-Chlordane	12.8	Spike	P	0 - 30
2270127	Heptachlor	21.6	Spike	P	0 - 30
2270127	Heptachlor Epoxide	14.1	Spike	P	0 - 30
2270127	Hexachlorobenzene	10.9	Spike	P	0 - 30
2270127	Kepone	48.4	Spike	F	0 - 30
2270127	Lambda-Cyhalothrin	26.0	Spike	P	0 - 30
2270127	Methoxychlor	19.6	Spike	P	0 - 30
2270127	MGK-264	0.252	Spike	P	0 - 30
2270127	Mirex	11.1	Spike	P	0 - 30
2270127	Permethrin	11.6	Spike	P	0 - 30
2270127	Phenothrin	36.1	Spike	F	0 - 30
2270127	Piperonyl Butoxide	8.36	Spike	P	0 - 30
2270127	Prallethrin	38.5	Spike	F	0 - 30
2270127	Tau-Fluvalinate	29.2	Spike	P	0 - 30
2270127	Tetramethrin	66.8	Spike	F	0 - 30
2270127	Trans-Nonachlor	17.0	Spike	P	0 - 30
2270127	Triclosan Methyl	10.3	Spike	P	0 - 30
2270127	Trifluralin	9.81	Spike	P	0 - 30
LFB	Aldrin	4.69	LCS	P	0 - 30
LFB	Alpha-BHC	0.750	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.39	LCS	P	0 - 30
LFB	Beta-BHC	2.65	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	28.3	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P402612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Bifenthrin	22.0	LCS	P	0 - 30
LFB	Chlorothalonil	5.84	LCS	P	0 - 50
LFB	Cis-Nonachlor	9.50	LCS	P	0 - 30
LFB	Cypermethrin	28.6	LCS	P	0 - 30
LFB	Dacthal	0.872	LCS	P	0 - 30
LFB	DDD-p,p'	10.1	LCS	P	0 - 30
LFB	DDE-p,p'	5.53	LCS	P	0 - 30
LFB	DDT-p,p'	1.92	LCS	P	0 - 30
LFB	Delta-BHC	2.92	LCS	P	0 - 30
LFB	Deltamethrin	39.1	LCS	F	0 - 30
LFB	Dichlobenil	2.35	LCS	P	0 - 30
LFB	Dicofol	10.2	LCS	P	0 - 30
LFB	Dieldrin	2.76	LCS	P	0 - 30
LFB	Endosulfan I	4.49	LCS	P	0 - 30
LFB	Endosulfan II	17.6	LCS	P	0 - 30
LFB	Endosulfan Sulfate	7.14	LCS	P	0 - 30
LFB	Endrin	12.2	LCS	P	0 - 30
LFB	Endrin Aldehyde	10.8	LCS	P	0 - 30
LFB	Endrin Ketone	11.2	LCS	P	0 - 30
LFB	Esfenvalerate	29.3	LCS	P	0 - 30
LFB	Ethalfluralin	2.57	LCS	P	0 - 30
LFB	Fenpropathrin	17.3	LCS	P	0 - 30
LFB	Gamma-BHC	0.976	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.65	LCS	P	0 - 30
LFB	Heptachlor	4.97	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.30	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.742	LCS	P	0 - 30
LFB	Kepone	41.6	LCS	F	0 - 30
LFB	Lambda-Cyhalothrin	24.3	LCS	P	0 - 30
LFB	Methoxychlor	7.39	LCS	P	0 - 30
LFB	MGK-264	3.90	LCS	P	0 - 30
LFB	Mirex	6.95	LCS	P	0 - 30
LFB	Permethrin	29.1	LCS	P	0 - 30
LFB	Phenothrin	23.4	LCS	P	0 - 30
LFB	Piperonyl Butoxide	11.6	LCS	P	0 - 30
LFB	Prallethrin	9.69	LCS	P	0 - 30
LFB	Tau-Fluvalinate	28.4	LCS	P	0 - 30
LFB	Tetramethrin	18.4	LCS	P	0 - 30
LFB	Trans-Nonachlor	5.65	LCS	P	0 - 30
LFB	Triclosan Methyl	3.43	LCS	P	0 - 30
LFB	Trifluralin	0.400	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P402814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2269822	Acetochlor	6.43	Spike	P	0 - 30
2269822	Alachlor	10.1	Spike	P	0 - 30
2269822	Ametryn	23.0	Spike	P	0 - 30
2269822	Atrazine	45.9	Spike	F	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P402814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2269822	Atrazine Desethyl	8.16	Spike	P	0 - 30
2269822	Azinphos Methyl	8.71	Spike	P	0 - 30
2269822	Azoxystrobin	39.3	Spike	F	0 - 30
2269822	Bromacil	1.19	Spike	P	0 - 30
2269822	Butylate	6.94	Spike	P	0 - 30
2269822	Caffeine	36.4	Spike	F	0 - 30
2269822	Carbophenothion	15.3	Spike	P	0 - 30
2269822	Carfentrazone Ethyl	0.969	Spike	P	0 - 30
2269822	Chlorpyrifos Ethyl	5.31	Spike	P	0 - 30
2269822	Chlorpyrifos Methyl	12.2	Spike	P	0 - 30
2269822	Cyanazine	17.4	Spike	P	0 - 30
2269822	Demeton	4.76	Spike	P	0 - 30
2269822	Diazinon	2.57	Spike	P	0 - 30
2269822	Difenoconazole	17.7	Spike	P	0 - 30
2269822	Dimethenamid	6.37	Spike	P	0 - 30
2269822	Disulfoton	1.37	Spike	P	0 - 30
2269822	Dithiopyr	14.4	Spike	P	0 - 30
2269822	EPTC	15.0	Spike	P	0 - 30
2269822	Ethion	28.4	Spike	P	0 - 30
2269822	Ethoprop	10.9	Spike	P	0 - 30
2269822	Fenamiphos	23.4	Spike	P	0 - 30
2269822	Fenbuconazole	16.3	Spike	P	0 - 30
2269822	Fipronil	9.17	Spike	P	0 - 30
2269822	Fipronil Desulfinyl	22.6	Spike	P	0 - 30
2269822	Fipronil Sulfide	19.5	Spike	P	0 - 30
2269822	Fipronil Sulfone	17.8	Spike	P	0 - 30
2269822	Fluazifop-P-butyl	9.60	Spike	P	0 - 30
2269822	Fludioxonil	8.34	Spike	P	0 - 30
2269822	Flumioxazin	16.9	Spike	P	0 - 30
2269822	Flutolanil	10.4	Spike	P	0 - 30
2269822	Fluxapyroxad	25.3	Spike	P	0 - 30
2269822	Fonofos	10.8	Spike	P	0 - 30
2269822	Hexazinone	13.2	Spike	P	0 - 30
2269822	Imazalil	2.07	Spike	P	0 - 30
2269822	Iprodione	8.55	Spike	P	0 - 30
2269822	Malathion	18.1	Spike	P	0 - 30
2269822	Metalaxyl	115	Spike	F	0 - 30
2269822	Metolachlor	107	Spike	F	0 - 30
2269822	Metribuzin	6.46	Spike	P	0 - 30
2269822	Mevinphos	9.71	Spike	P	0 - 30
2269822	Molinate	2.66	Spike	P	0 - 30
2269822	Myclobutanil	20.1	Spike	P	0 - 30
2269822	Naled	10.1	Spike	P	0 - 30
2269822	Norflurazon	5.45	Spike	P	0 - 30
2269822	Oxadiazon	6.82	Spike	P	0 - 30
2269822	Oxyfluorfen	7.36	Spike	P	0 - 30
2269822	Parathion Ethyl	12.4	Spike	P	0 - 30
2269822	Parathion Methyl	10.6	Spike	P	0 - 30
2269822	Pendimethalin	8.38	Spike	P	0 - 30
2269822	Phorate	9.76	Spike	P	0 - 30
2269822	Prodiamine	15.3	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P402814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2269822	Prometon	3.25	Spike	P	0 - 30
2269822	Prometryn	28.1	Spike	P	0 - 30
2269822	Pronamide	8.18	Spike	P	0 - 30
2269822	Propiconazole	70.0	Spike	F	0 - 30
2269822	Pyriproxyfen	9.06	Spike	P	0 - 30
2269822	Simazine	7.10	Spike	P	0 - 30
2269822	Sulfentrazone	0.838	Spike	P	0 - 30
2269822	Tebuconazole	6.33	Spike	P	0 - 30
2269822	Terbufos	7.20	Spike	P	0 - 30
2269822	Terbuthylazine	8.64	Spike	P	0 - 30
LFB	Acetochlor	9.94	LCS	P	0 - 30
LFB	Alachlor	8.51	LCS	P	0 - 30
LFB	Ametryn	1.83	LCS	P	0 - 30
LFB	Atrazine	9.43	LCS	P	0 - 30
LFB	Atrazine Desethyl	10.7	LCS	P	0 - 30
LFB	Azinphos Methyl	22.7	LCS	P	0 - 30
LFB	Azoxystrobin	12.3	LCS	P	0 - 30
LFB	Bromacil	23.2	LCS	P	0 - 30
LFB	Butylate	18.0	LCS	P	0 - 30
LFB	Caffeine	10.8	LCS	P	0 - 30
LFB	Carbophenothion	5.90	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	6.10	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	16.5	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	9.35	LCS	P	0 - 30
LFB	Cyanazine	16.7	LCS	P	0 - 30
LFB	Demeton	16.7	LCS	P	0 - 30
LFB	Diazinon	11.8	LCS	P	0 - 30
LFB	Difenoconazole	12.9	LCS	P	0 - 30
LFB	Dimethenamid	7.44	LCS	P	0 - 30
LFB	Disulfoton	8.59	LCS	P	0 - 30
LFB	Dithiopyr	13.6	LCS	P	0 - 30
LFB	EPTC	23.9	LCS	P	0 - 30
LFB	Ethion	26.4	LCS	P	0 - 30
LFB	Ethoprop	14.7	LCS	P	0 - 30
LFB	Fenamiphos	1.02	LCS	P	0 - 30
LFB	Fenbuconazole	9.07	LCS	P	0 - 30
LFB	Fipronil	5.90	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.44	LCS	P	0 - 30
LFB	Fipronil Sulfide	6.90	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.53	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	5.46	LCS	P	0 - 30
LFB	Fludioxonil	4.49	LCS	P	0 - 30
LFB	Flumioxazin	13.2	LCS	P	0 - 30
LFB	Flutolanil	0.441	LCS	P	0 - 30
LFB	Fluxapyroxad	1.87	LCS	P	0 - 30
LFB	Fonofos	10.7	LCS	P	0 - 30
LFB	Hexazinone	4.85	LCS	P	0 - 30
LFB	Imazalil	5.53	LCS	P	0 - 30
LFB	Iprodione	0.234	LCS	P	0 - 30
LFB	Malathion	14.2	LCS	P	0 - 30
LFB	Metalaxyl	7.02	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P402814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metolachlor	4.48	LCS	P	0 - 30
LFB	Metribuzin	14.3	LCS	P	0 - 30
LFB	Mevinphos	13.5	LCS	P	0 - 30
LFB	Molinate	15.1	LCS	P	0 - 30
LFB	Myclobutanil	2.04	LCS	P	0 - 30
LFB	Naled	16.9	LCS	P	0 - 30
LFB	Norflurazon	8.35	LCS	P	0 - 30
LFB	Oxadiazon	0.647	LCS	P	0 - 30
LFB	Oxyfluorfen	1.54	LCS	P	0 - 30
LFB	Parathion Ethyl	9.46	LCS	P	0 - 30
LFB	Parathion Methyl	9.36	LCS	P	0 - 30
LFB	Pendimethalin	8.30	LCS	P	0 - 30
LFB	Phorate	10.0	LCS	P	0 - 30
LFB	Prodiamine	16.0	LCS	P	0 - 30
LFB	Prometon	3.34	LCS	P	0 - 30
LFB	Prometryn	6.23	LCS	P	0 - 30
LFB	Pronamide	4.73	LCS	P	0 - 30
LFB	Propiconazole	8.66	LCS	P	0 - 30
LFB	Pyriproxyfen	6.92	LCS	P	0 - 30
LFB	Simazine	13.0	LCS	P	0 - 30
LFB	Sulfentrazone	8.03	LCS	P	0 - 30
LFB	Tebuconazole	27.1	LCS	P	0 - 30
LFB	Terbufos	13.3	LCS	P	0 - 30
LFB	Terbuthylazine	7.90	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P402612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2270340	Chlordane	9.86	Spike	P	0 - 30
2270340	Toxaphene	4.18	Spike	P	0 - 30
LFB	Chlordane	6.04	LCS	P	0 - 30
LFB	Toxaphene	1.19	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P402513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2269819	3-Hydroxycarbofuran	29.1	Spike	P	0 - 30
2269819	Aldicarb	26.0	Spike	P	0 - 30
2269819	Aldicarb Sulfone	5.12	Spike	P	0 - 30
2269819	Aldicarb Sulfoxide	9.05	Spike	P	0 - 30
2269819	Carbaryl	1.41	Spike	P	0 - 30
2269819	Carbofuran	6.01	Spike	P	0 - 30
2269819	Methiocarb	8.96	Spike	P	0 - 30
2269819	Methomyl	4.30	Spike	P	0 - 30
2269819	Oxamyl	8.03	Spike	P	0 - 30
2269819	Propoxur	5.89	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P402556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2269820	Acesulfame K	21.6	Spike	P	0 - 30
2269820	AMPA	18.8	Spike	P	0 - 30
2269820	Endothall	8.35	Spike	P	0 - 30
2269820	Glufosinate	9.49	Spike	P	0 - 30
2269820	Glyphosate	0.454	Spike	P	0 - 30
2269820	Sucralose	3.85	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P402616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2269820	2,4-D	0.694	Spike	P	0 - 30
2269820	2,4,5-T	7.06	Spike	P	0 - 30
2269820	Acetaminophen	1.51	Spike	P	0 - 30
2269820	Acetamiprid	23.8	Spike	P	0 - 30
2269820	Afidopyropen	21.2	Spike	P	0 - 30
2269820	Bentazon	5.64	Spike	P	0 - 30
2269820	Benzovindiflupyr	6.94	Spike	P	0 - 30
2269820	Carbamazepine	3.01	Spike	P	0 - 30
2269820	Clothianidin	5.62	Spike	P	0 - 30
2269820	Dinotefuran	5.36	Spike	P	0 - 30
2269820	Diuron	2.66	Spike	P	0 - 30
2269820	Fenuron	3.31	Spike	P	0 - 30
2269820	Fluridone	1.27	Spike	P	0 - 30
2269820	Hydrocodone	7.00	Spike	P	0 - 30
2269820	Ibuprofen	14.7	Spike	P	0 - 30
2269820	Imazapyr	0.332	Spike	P	0 - 30
2269820	Imidacloprid	5.67	Spike	P	0 - 30
2269820	Linuron	1.35	Spike	P	0 - 30
2269820	Mandestrobin	0.654	Spike	P	0 - 30
2269820	MCPP	0.741	Spike	P	0 - 30
2269820	Naproxen	18.5	Spike	P	0 - 30
2269820	Primidone	6.75	Spike	P	0 - 30
2269820	Pyraclostrobin	4.76	Spike	P	0 - 30
2269820	Thiamethoxam	2.97	Spike	P	0 - 30
2269820	Tolfenpyrad	2.67	Spike	P	0 - 30
2269820	Triclopyr	1.82	Spike	P	0 - 30

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2269819
Field Sample ID: G5SE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	67.0	P	30 - 160

Lab Sample ID: 2269820
Field Sample ID: G5SE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	86.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	41.1	P	30 - 160
EPA 8321B	Diuron-d6	33.0	P	30 - 160
EPA 8321B	Endothall-d6	54.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	39.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	59.8	P	30 - 160
EPA 8321B	Primidone-d5	58.6	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160

Lab Sample ID: 2269821
Field Sample ID: G5SE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	95.4	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	72.0	P	30 - 110
EPA 8276	Decachlorobiphenyl	90.7	P	29 - 92.0
EPA 8276	PCNB	92.3	P	43 - 134

Lab Sample ID: 2269822
Field Sample ID: G5SE0058

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	77.4	P	20 - 200
EPA 8270E	Simazine-d10	129	P	73 - 135
EPA 8270E	Terbufos-d10	124	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A107353
Included Lab Sample IDs: 2269820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.1	98.5	P/P	60 - 160
Glufosinate	93.3	102	P/P	60 - 160
Glyphosate	93.3	94.0	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A107377
Included Lab Sample IDs: 2269820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	92.5	80.0	P/P	60 - 160
Endothall	136	122	P/P	60 - 160
Sucralose	100	102	P/P	60 - 160

Reference Method: EPA 8270E
Run ID: A107412
Included Lab Sample IDs: 2269821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.9		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	105		P	80 - 120
Beta-BHC	102		P	80 - 120
Beta-Cyfluthrin	94.0		P	80 - 120
Bifenthrin	98.7		P	80 - 120
Chlorothalonil	98.9		P	80 - 120
Cis-Nonachlor	89.1		P	80 - 120
Cypermethrin	96.2		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	90.8		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	102		P	80 - 120
Deltamethrin	92.1		P	80 - 120
Dichlobenil	87.8		P	80 - 120
Dicofol	81.5		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	100		P	80 - 120
Endosulfan II	89.6		P	80 - 120
Endosulfan Sulfate	85.4		P	80 - 120
Endrin	94.3		P	80 - 120
Endrin Aldehyde	85.6		P	80 - 120
Endrin Ketone	89.2		P	80 - 120
Esfenvalerate	99.8		P	80 - 120
Ethalfluralin	100		P	80 - 120
Fenpropathrin	90.7		P	80 - 120
Gamma-BHC	111		P	80 - 120
Gamma-Chlordane	106		P	80 - 120
Heptachlor	104		P	80 - 120
Heptachlor Epoxide	104		P	80 - 120
Hexachlorobenzene	98.1		P	80 - 120
Kepone	69.7*		F	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A107412
Included Lab Sample IDs: 2269821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lambda-Cyhalothrin	94.2		P	80 - 120
Methoxychlor	99.8		P	80 - 120
MGK-264	103		P	80 - 120
Mirex	93.9		P	80 - 120
Permethrin	92.9		P	80 - 120
Phenothrin	92.3		P	80 - 120
Piperonyl Butoxide	92.0		P	80 - 120
Prallethrin	95.0		P	80 - 120
Tau-Fluvalinate	93.7		P	80 - 120
Tetramethrin	103		P	80 - 120
Trans-Nonachlor	98.4		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	99.6		P	80 - 120

Reference Method: EPA 8321B
Run ID: A107453
Included Lab Sample IDs: 2269820

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	126	121	P/P	50 - 150
2,4,5-T	111	103	P/P	50 - 150
Acetaminophen	115	109	P/P	60 - 160
Acetamiprid	114	102	P/P	50 - 150
Afidopyropen	105	103	P/P	50 - 150
Bentazon	93.9	130	P/P	50 - 160
Benzovindiflupyr	120	120	P/P	50 - 160
Carbamazepine	119	107	P/P	60 - 150
Clothianidin	126	113	P/P	60 - 150
Dinotefuran	106	100	P/P	50 - 150
Diuron	108	115	P/P	60 - 160
Fenuron	106	107	P/P	60 - 150
Fluridone	111	112	P/P	60 - 160
Hydrocodone	116	103	P/P	60 - 150
Ibuprofen	82.9	101	P/P	50 - 160
Imazapyr	126	100	P/P	50 - 160
Imidacloprid	108	105	P/P	60 - 150
Linuron	109	109	P/P	60 - 150
Mandestrobin	117	115	P/P	50 - 150
MCPP	113	109	P/P	50 - 150
Naproxen	70.0	97.6	P/P	50 - 160
Primidone	94.8	109	P/P	60 - 150
Pyraclostrobin	105	105	P/P	60 - 150
Thiamethoxam	118	106	P/P	50 - 150
Tolfenpyrad	98.9	109	P/P	60 - 150
Triclopyr	115	118	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A107479
Included Lab Sample IDs: 2269821

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8276
Run ID: A107479
Included Lab Sample IDs: 2269821

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.4		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: EPA 8321B
Run ID: A107499
Included Lab Sample IDs: 2269819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	114	110	P/P	60 - 150
Aldicarb	98.4	87.0	P/P	60 - 150
Aldicarb Sulfone	107	111	P/P	50 - 150
Aldicarb Sulfoxide	116	108	P/P	50 - 150
Carbaryl	115	119	P/P	60 - 150
Carbofuran	108	113	P/P	50 - 150
Methiocarb	110	99.3	P/P	50 - 150
Methomyl	104	104	P/P	50 - 150
Oxamyl	112	114	P/P	50 - 150
Propoxur	115	112	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A107526
Included Lab Sample IDs: 2269822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	94.9		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	93.5		P	80 - 120
Atrazine Desethyl	94.1		P	80 - 120
Azoxystrobin	99.7		P	80 - 120
Butylate	92.5		P	80 - 120
Caffeine	94.6		P	80 - 120
Carbophenothion	88.9		P	80 - 120
Carfentrazone Ethyl	93.1		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	99.2		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	99.7		P	80 - 120
Difenoconazole	95.0		P	80 - 120
Dimethenamid	98.5		P	80 - 120
Disulfoton	91.6		P	80 - 120
Dithiopyr	97.1		P	80 - 120
EPTC	102		P	80 - 120
Ethion	88.6		P	80 - 120
Ethoprop	111		P	80 - 120
Fenamiphos	91.5		P	80 - 120
Fenbuconazole	90.6		P	80 - 120
Fipronil	92.3		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	99.4		P	80 - 120
Fipronil Sulfone	98.9		P	80 - 120
Fluazifop-P-butyl	94.9		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A107526
Included Lab Sample IDs: 2269822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fludioxonil	89.4		P	80 - 120
Flumioxazin	92.2		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	82.4		P	80 - 120
Fonofos	95.8		P	80 - 120
Hexazinone	111		P	80 - 120
Iprodione	91.3		P	80 - 120
Malathion	86.9		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	107		P	80 - 120
Naled	108		P	80 - 120
Norflurazon	94.6		P	80 - 120
Oxadiazon	90.1		P	80 - 120
Oxyfluorfen	90.4		P	80 - 120
Parathion Ethyl	105		P	80 - 120
Parathion Methyl	107		P	80 - 120
Pendimethalin	103		P	80 - 120
Phorate	96.5		P	80 - 120
Prodiamine	98.4		P	80 - 120
Prometon	99.5		P	80 - 120
Prometryn	104		P	80 - 120
Pronamide	90.6		P	80 - 120
Propiconazole	94.2		P	80 - 120
Pyriproxyfen	89.8		P	80 - 120
Simazine	101		P	80 - 120
Sulfentrazone	92.0		P	80 - 120
Tebuconazole	93.7		P	80 - 120
Terbufos	93.6		P	80 - 120
Terbuthylazine	98.5		P	80 - 120

Reference Method: EPA 8270E
Run ID: A107590
Included Lab Sample IDs: 2269822

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	101		P	80 - 120
Azinphos Methyl	103		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Imazalil	107		P	80 - 120
Metalaxyl	98.2		P	80 - 120
Metolachlor	99.1		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Acetochlor	93.3	103	110	118	9.94		6.43
	Alachlor	89.1	97.0	95.0	105	8.51		10.1
	Aldrin	46.4	48.6	40.3	46.0	4.69		13.2
	Alpha-BHC	94.7	95.4	87.0	93.7	0.750		7.39
	Alpha-Chlordane	66.2	67.2	64.2	73.4	1.39		13.5
	Ametryn	96.6	98.4			1.83		23.0
	Atrazine	93.8	103			9.43		45.9
	Atrazine Desethyl	63.7	70.9	79.5	66.4	10.7		8.16
	Azinphos Methyl	95.6	120	105	115	22.7		8.71
	Azoxystrobin	101	114			12.3		39.3
	Beta-BHC	111	108	125	122	2.65		2.46
	Beta-Cyfluthrin	97.7	73.5	102	81.2	28.3		22.3
	Bifenthrin	78.8	63.2	49.1	60.3	22.0		20.5
	Bromacil	47.2	59.6	91.1	89.9	23.2		1.19
	Butylate	49.7	59.6	60.0	56.0	18.0		6.94
	Caffeine	77.5	86.4	78.8	114	10.8		36.4
	Carbophenothion	99.8	106	81.7	95.3	5.90		15.3
	Carfentrazone Ethyl	92.5	98.3	91.9	92.8	6.10		0.969
	Chlorothalonil	120	113	129	140	5.84		8.08
	Chlorpyrifos Ethyl	82.9	97.8	70.6	74.5	16.5		5.31
	Chlorpyrifos Methyl	90.5	99.4	91.3	103	9.35		12.2
	Cis-Nonachlor	64.0	58.2	58.5	67.7	9.50		14.6
	Cyanazine	95.9	113	103	123	16.7		17.4
	Cypermethrin	102	76.5	57.5	74.0	28.6		25.0
	Dacthal	93.2	94.0	83.5	91.3	0.872		8.89
	DDD-p,p'	71.1	64.3	68.6	73.2	10.1		6.51
	DDE-p,p'	73.1	77.3	68.9	73.7	5.53		6.84
	DDT-p,p'	68.9	67.6	60.9	69.6	1.92		13.4
	Delta-BHC	119	115	124	127	2.92		2.46
	Deltamethrin	111	74.6	74.8	98.1	39.1		27.0
	Demeton	83.2	98.4	103	109	16.7		4.76
	Diazinon	96.1	108	116	119	11.8		2.57
	Dichlobenil	73.5	75.2	40.5	32.3	2.35		22.6
	Dicofol	64.3	58.0	50.4	57.3	10.2		12.7
	Dieldrin	75.8	78.0	69.4	79.5	2.76		13.5
	Difenoconazole	141	124	120	144	12.9		17.7
	Dimethenamid	77.2	83.1	82.3	87.7	7.44		6.37
	Disulfoton	78.5	85.6	65.8	66.7	8.59		1.37
	Dithiopyr	83.0	95.1	90.2	104	13.6		14.4
	Endosulfan I	75.2	78.6	71.0	82.7	4.49		15.1
	Endosulfan II	87.4	73.3	54.4	68.6	17.6		23.2
	Endosulfan Sulfate	89.7	83.5	51.9	62.4	7.14		18.4
	Endrin	77.2	68.3	68.0	63.1	12.2		7.57
	Endrin Aldehyde	64.3	57.7	26.8	31.5	10.8		15.9
	Endrin Ketone	92.0	82.3	111	88.3	11.2		23.0
	EPTC	47.1	59.9	63.1	54.3	23.9		15.0
	Esfenvalerate	107	79.8	70.7	91.4	29.3		25.5
	Ethalfluralin	64.6	66.3	55.8	52.1	2.57		6.76
	Ethion	72.9	55.9	42.3	56.3	26.4		28.4
	Ethoprop	87.0	101	104	116	14.7		10.9
	Fenamiphos	87.0	86.1	67.3	53.2	1.02		23.4
	Fenbuconazole	97.0	106	96.8	114	9.07		16.3
	Fenpropathrin	78.3	65.9	51.3	62.0	17.3		18.7
	Fipronil	88.5	93.9	88.7	97.8	5.90		9.17

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Fipronil Desulfinyl	102	103	82.9	104	1.44		22.6
	Fipronil Sulfide	80.1	85.8	76.6	93.1	6.90		19.5
	Fipronil Sulfone	81.8	75.1	84.3	101	8.53		17.8
	Fluazifop-P-butyl	100	106	92.7	102	5.46		9.60
	Fludioxonil	93.1	97.4	98.1	107	4.49		8.34
	Flumioxazin	127	111	132	157	13.2		16.9
	Flutolanil	84.7	84.3	75.9	84.2	0.441		10.4
	Fluxapyroxad	90.8	89.2			1.87		25.3
	Fonofos	80.5	89.6	89.3	99.5	10.7		10.8
	Gamma-BHC	102	101	111	107	0.976		4.45
	Gamma-Chlordane	64.7	66.4	62.5	71.0	2.65		12.8
	Heptachlor	59.7	62.7	52.2	64.8	4.97		21.6
	Heptachlor Epoxide	74.4	78.4	70.7	81.4	5.30		14.1
	Hexachlorobenzene	63.0	62.6	56.3	62.8	0.742		10.9
	Hexazinone	99.4	104	137	111	4.85		13.2
	Imazalil	103	109	52.1	53.2	5.53		2.07
	Iprodione	89.2	89.4	89.1	97.1	0.234		8.55
	Kepone	86.4	56.7	41.9	68.6	41.6		48.4
	Lambda-Cyhalothrin	104	81.5	66.3	86.1	24.3		26.0
	Malathion	94.3	109	104	125	14.2		18.1
	Metalaxyl	86.9	93.2			7.02		115
	Methoxychlor	85.6	79.5	75.4	91.8	7.39		19.6
	Metolachlor	93.5	97.8			4.48		107
	Metribuzin	96.2	111	142	133	14.3		6.46
	Mevinphos	81.1	92.8	90.3	99.5	13.5		9.71
	MGK-264	88.5	92.1	72.6	72.8	3.90		0.252
	Mirex	49.5	46.1	52.0	58.1	6.95		11.1
	Molinate	68.6	79.9	77.0	79.1	15.1		2.66
	Myclobutanil	87.1	88.9	77.8	95.2	2.04		20.1
	Naled	42.7	50.6	50.2	55.6	16.9		10.1
	Norflurazon	67.7	62.3	75.8	80.1	8.35		5.45
	Oxadiazon	80.2	80.7	70.5	76.0	0.647		6.82
	Oxyfluorfen	79.4	80.6	96.3	104	1.54		7.36
	Parathion Ethyl	88.1	96.8	92.1	104	9.46		12.4
	Parathion Methyl	107	118	122	135	9.36		10.6
	Pendimethalin	74.5	80.9	94.4	103	8.30		8.38
	Permethrin	99.6	74.4	84.7	75.5	29.1		11.6
	Phenothrin	50.2	39.7	23.4	33.7	23.4		36.1
	Phorate	75.7	83.7	82.2	90.7	10.0		9.76
	Piperonyl Butoxide	95.8	85.3	66.3	61.0	11.6		8.36
	Prallethrin	69.4	76.5	3.54	2.40	9.69		38.5
	Prodiamine	28.2	33.1	52.6	61.3	16.0		15.3
	Prometon	81.5	78.9	81.4	84.1	3.34		3.25
	Prometryn	86.4	91.9	61.2	93.0	6.23		28.1
	Pronamide	101	106	105	114	4.73		8.18
	Propiconazole	69.0	63.3			8.66		70.0
	Pyriproxyfen	72.4	67.6	82.0	89.7	6.92		9.06
	Simazine	89.8	102	110	118	13.0		7.10
	Sulfentrazone	75.6	82.0	99.8	98.9	8.03		0.838
	Tau-Fluvalinate	78.3	58.8	72.8	54.3	28.4		29.2
	Tebuconazole	63.6	48.4	43.4	46.6	27.1		6.33
	Terbufos	101	115	118	127	13.3		7.20
	Terbuthylazine	97.1	105	107	116	7.90		8.64
	Tetramethrin	96.5	80.2	19.7	9.82	18.4		66.8

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Trans-Nonachlor	62.2	65.8	72.5	61.1	5.65		17.0
	Triclosan Methyl	75.3	77.9	75.8	68.3	3.43		10.3
	Trifluralin	66.3	66.0	68.4	62.0	0.400		9.81
EPA 8276	Chlordane	83.6	78.7	90.7	82.1	6.04		9.86
	Toxaphene	67.9	67.1	72.9	69.9	1.19		4.18
EPA 8321B	2,4-D	137						0.694
	2,4,5-T	125		92.5	86.2			7.06
	3-Hydroxycarbofuran	81.2		44.5	33.2			29.1
	Acesulfame K	88.2		81.1	65.2			21.6
	Acetaminophen	91.5		93.9	95.3			1.51
	Acetamiprid	92.4		45.4	35.7			23.8
	Afidopyropen	70.4		64.2	51.9			21.2
	Aldicarb	95.1		39.7	51.6			26.0
	Aldicarb Sulfone	82.0		60.2	63.3			5.12
	Aldicarb Sulfoxide	76.7		40.1	43.9			9.05
	AMPA	98.9		55.8	39.5			18.8
	Bentazon	107						5.64
	Benzovindiflupyr	97.0		82.1	76.6			6.94
	Carbamazepine	86.8		46.0	44.6			3.01
	Carbaryl	62.8		60.4	61.2			1.41
	Carbofuran	64.1		68.1	64.2			6.01
	Clothianidin	97.8		55.3	58.4			5.62
	Dinotefuran	93.3		67.6	71.4			5.36
	Diuron	69.7		30.9	30.1			2.66
	Endothall	126		69.7	64.1			8.35
	Fenuron	94.4		32.6	33.7			3.31
	Fluridone	90.4		67.1	67.9			1.27
	Glufosinate	96.1		158	143			9.49
	Glyphosate	96.4						0.454
	Hydrocodone	100		56.1	60.2			7.00
	Ibuprofen	91.9		69.1	59.6			14.7
	Imazapyr	99.5						0.332
	Imidacloprid	98.3		91.5	86.2			5.67
	Linuron	70.7		52.7	52.0			1.35
	Mandestrobin	95.2		80.6	81.1			0.654
	MCPP	126		81.2	81.8			0.741
	Methiocarb	68.7		75.2	68.7			8.96
	Methomyl	84.6		81.4	78.0			4.30
	Naproxen	61.8		76.4	63.5			18.5
	Oxamyl	80.6		77.9	71.9			8.03
	Primidone	105		58.5	62.6			6.75
	Propoxur	65.5		65.8	62.0			5.89
	Pyraclostrobin	84.3		71.6	75.1			4.76
	Sucralose	105		114	110			3.85
	Thiamethoxam	107		70.9	73.0			2.97
	Tolfenpyrad	58.3		50.5	51.9			2.67
	Triclopyr	129		94.3	92.6			1.82

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2269821
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2269822

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2269821
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2269819
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2269820

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	08/17/2021	08/20/2021 08:00	Fe-Val Siddell	08/24/2021 00:59	Arthur Maknenko	2269821
	08/17/2021	08/23/2021 08:00	Fe-Val Siddell	08/25/2021 21:29	Michael Poppell	2269822
	08/17/2021	08/23/2021 08:00	Fe-Val Siddell	08/25/2021 21:54	Michael Poppell	2269822
	08/17/2021	08/23/2021 08:00	Fe-Val Siddell	08/31/2021 15:20	Michael Poppell	2269822
	08/17/2021	08/23/2021 08:00	Fe-Val Siddell	08/31/2021 16:34	Michael Poppell	2269822
	08/17/2021	08/23/2021 08:00	Fe-Val Siddell	08/31/2021 17:48	Michael Poppell	2269822
EPA 8276	08/17/2021	08/20/2021 08:00	Fe-Val Siddell	08/25/2021 04:40	Michael Poppell	2269821
EPA 8321B	08/17/2021	08/18/2021 09:00	Hoor Shaik	08/25/2021 11:46	Juyoung Kim	2269820
	08/17/2021	08/18/2021 09:00	Hoor Shaik	08/25/2021 14:05	Juyoung Kim	2269820
	08/17/2021	08/18/2021 09:00	Hoor Shaik	08/27/2021 00:45	Juyoung Kim	2269819
	08/17/2021	08/19/2021 09:00	Juyoung Kim	08/19/2021 12:20	Juyoung Kim	2269820
	08/17/2021	08/19/2021 09:00	Juyoung Kim	08/19/2021 18:47	Juyoung Kim	2269820
	08/17/2021	08/19/2021 09:00	Juyoung Kim	08/20/2021 13:43	Pramila Ghimire	2269820