Chemical Analysis Report

NE-DIST-2021-06-17-02

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

Event Description: **Palm Coast**
Request ID: **RQ-2021-06-07-29**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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8800 Baymeadows Way West
Suite 100
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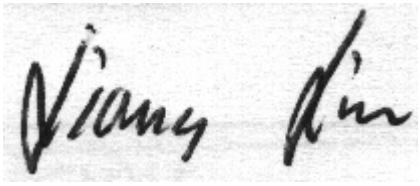
Certified by: Liang Lin, Environmental Administrator

Date Certified: 08-JUL-2021 13:31



Case Narrative

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

Results for the following analytical group are included in this report: Pesticides.

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Bull Creek Ditch Downstream of East Ditch **Collection Date/Time: 06/16/2021 10:15**

Field ID: G2NE1212 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255642	EPA 8321B	Aldicarb	0.020	U	ug/L	P399841	
		Aldicarb Sulfone	0.0020	U	ug/L	P399841	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P399841	
		Carbaryl	0.0020	U	ug/L	P399841	
		Carbofuran	0.0020	U	ug/L	P399841	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P399841	
		Methiocarb	0.0020	U	ug/L	P399841	
		Methomyl	0.0020	U	ug/L	P399841	
		Oxamyl	0.0020	U	ug/L	P399841	
		Propoxur	0.0020	U	ug/L	P399841	
2255643		2,4-D	1.9		ug/L	P399973	
		Acesulfame K	0.10	U	ug/L	P399865	
		2,4,5-T	0.0040	U	ug/L	P399973	
		AMPA	2.3		ug/L	P399865	
		Acetaminophen	0.0080	U	ug/L	P399973	
		Acetamiprid	0.0020	U	ug/L	P399973	
		Endothall	0.25	U	ug/L	P399865	
		Glufosinate	0.10	U	ug/L	P399865	
		Glyphosate	7.1		ug/L	P399865	
		Afidopyropen	0.0020	U	ug/L	P399973	MS, RPD
		Bentazon	2.3		ug/L	P399973	
		Sucralose	0.010	U	ug/L	P399865	
		Benzovindiflupyr	0.0020	I	ug/L	P399973	
		Carbamazepine	8.0E-04	U	ug/L	P399973	
		Clothianidin	0.026		ug/L	P399973	
		Dinotefuran	0.0020	U	ug/L	P399973	
		Diuron	0.0020	U	ug/L	P399973	
		Fenuron	0.016	U	ug/L	P399973	
		Fluridone	8.0E-04	U	ug/L	P399973	
		Imazapyr	0.31		ug/L	P399973	
		Hydrocodone	0.0020	U	ug/L	P399973	
		Ibuprofen	0.020	U	ug/L	P399973	
		Imidacloprid	0.023		ug/L	P399973	
		Linuron	0.0040	U	ug/L	P399973	
		Mandestrobin	0.0020	U	ug/L	P399973	
		MCPP	0.0020	U	ug/L	P399973	
		Naproxen	0.0080	U	ug/L	P399973	
		Primidone	0.0040	U	ug/L	P399973	
		Pyraclostrobin	0.0020	U	ug/L	P399973	
		Thiamethoxam	0.15		ug/L	P399973	
		Tolfenpyrad	0.0020	U	ug/L	P399973	
		Triclopyr	0.0040	U	ug/L	P399973	
2255644	EPA 8270E	Aldrin	0.67	U	ng/L	P400016	
		Alpha-BHC	0.10	U	ng/L	P400016	

Field ID: G2NE1212 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255644	EPA 8270E	Alpha-Chlordane	0.22	I	ng/L	P400016	
		Beta-BHC	0.10	U	ng/L	P400016	
		Beta-Cyfluthrin**	1.7	I	ng/L	P400016	
		Bifenthrin**	0.53	I	ng/L	P400016	
		Chlorothalonil	0.52	U	ng/L	P400016	
		Cis-Nonachlor**	0.29	I	ng/L	P400016	
		Cypermethrin	1.5	U	ng/L	P400016	
		Dacthal**	1.4		ng/L	P400016	
		DDD-p,p'	0.26	U	ng/L	P400016	
		DDE-p,p'	0.21	U	ng/L	P400016	
		DDT-p,p'	0.81	I	ng/L	P400016	
		Delta-BHC	0.41	U	ng/L	P400016	
		Deltamethrin**	1.3	U	ng/L	P400016	
		Dichlobenil**	0.10	U	ng/L	P400016	
		Dicofol	1.3	U	ng/L	P400016	
		Dieldrin	0.55	I	ng/L	P400016	
		Endosulfan I	0.41	U	ng/L	P400016	
		Endosulfan II	0.41	U	ng/L	P400016	
		Endosulfan Sulfate	0.31	U	ng/L	P400016	
		Endrin	0.41	U	ng/L	P400016	
		Endrin Aldehyde	0.77	U	ng/L	P400016	
		Endrin Ketone	0.41	U	ng/L	P400016	
		Esfenvalerate**	0.95	I	ng/L	P400016	
		Ethalfluralin**	0.15	U	ng/L	P400016	
		Fenpropathrin**	0.26	U	ng/L	P400016	
		Gamma-BHC	0.13	U	ng/L	P400016	
		Gamma-Chlordane	0.21	U	ng/L	P400016	
		Heptachlor	0.21	U	ng/L	P400016	
		Heptachlor Epoxide	0.26	U	ng/L	P400016	
		Hexachlorobenzene	1.0	U	ng/L	P400016	
		Kepone**	7.9	I	ng/L	P400016	RPD
		Lambda-Cyhalothrin**	2.3	I	ng/L	P400016	
		Methoxychlor	0.31	U	ng/L	P400016	
		MGK-264**	0.21	U	ng/L	P400016	
		Mirex	0.42	I	ng/L	P400016	
		Permethrin	1.8	I	ng/L	P400016	
		Phenothrin**	0.93	U	ng/L	P400016	
		Piperonyl Butoxide**	0.15	UJ	ng/L	P400016	LCS
		Prallethrin**	2.1	U	ng/L	P400016	
		Tau-Fluvalinate**	0.31	I	ng/L	P400016	
		Tetramethrin**	0.77	U	ng/L	P400016	
		Trans-Nonachlor**	0.23	I	ng/L	P400016	
		Triclosan Methyl**	0.15	U	ng/L	P400016	
		Trifluralin	0.24	I	ng/L	P400016	
	EPA 8276	Chlordane	5.4	I	ng/L	P400016	

Field ID: G2NE1212 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255644	EPA 8276	Toxaphene	31	U	ng/L	P400016	
2255645	EPA 8270E	Acetochlor	0.24	U	ng/L	P399912	
		Alachlor	0.24	U	ng/L	P399912	
		Ametryn	0.57	U	ng/L	P399912	
		Atrazine	3.7E+03		ng/L	P399912	
		Atrazine Desethyl	580		ng/L	P399912	
		Azinphos Methyl	1.9	U	ng/L	P399912	
		Azoxystrobin**	240		ng/L	P399912	
		Bromacil	0.48	U	ng/L	P399912	
		Butylate	0.38	U	ng/L	P399912	
		Caffeine**	7.2	U	ng/L	P399912	
		Carbophenothion	0.48	U	ng/L	P399912	
		Carfentrazone Ethyl**	0.095	U	ng/L	P399912	
		Chlorpyrifos Ethyl	1.7		ng/L	P399912	
		Chlorpyrifos Methyl	0.048	U	ng/L	P399912	
		Cyanazine	3.1	U	ng/L	P399912	
		Demeton	1.4	UJ	ng/L	P399912	LCS
		Diazinon	0.12	U	ng/L	P399912	
		Difenoconazole**	7.2		ng/L	P399912	
		Dimethenamid**	0.095	U	ng/L	P399912	
		Disulfoton	0.48	U	ng/L	P399912	
		Dithiopyr**	48		ng/L	P399912	
		EPTC	1.2	U	ng/L	P399912	
		Ethion	0.14	U	ng/L	P399912	RPD
		Ethoprop	1.2		ng/L	P399912	
		Fenamiphos	0.48	U	ng/L	P399912	
		Fenbuconazole**	0.12	U	ng/L	P399912	
		Fipronil	46		ng/L	P399912	
		Fipronil Desulfinyl**	24		ng/L	P399912	
		Fipronil Sulfide	17		ng/L	P399912	
		Fipronil Sulfone	70		ng/L	P399912	
		Fluazifop-P-butyl**	0.095	U	ng/L	P399912	
		Fludioxonil**	27		ng/L	P399912	
		Flumioxazin**	1.7	U	ng/L	P399912	
		Flutolanil**	6.0		ng/L	P399912	
		Fluxapyroxad**	0.095	U	ng/L	P399912	
		Fonofos	0.19	U	ng/L	P399912	
		Hexazinone	0.48	U	ng/L	P399912	
		Imazalil**	0.72	U	ng/L	P399912	
		Iprodione**	0.57	U	ng/L	P399912	
		Malathion	0.33	U	ng/L	P399912	
		Metalaxyl	7.7		ng/L	P399912	
		Metolachlor	6.1E+03		ng/L	P399912	
		Metribuzin	17		ng/L	P399912	
		Mevinphos	1.0	U	ng/L	P399912	

Field ID: G2NE1212 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255645	EPA 8270E	Molinate	0.29	U	ng/L	P399912	
		Myclobutanil**	0.24	U	ng/L	P399912	
		Naled**	1.4	U	ng/L	P399912	
		Norflurazon	0.48	U	ng/L	P399912	
		Oxadiazon	8.6E+03		ng/L	P399912	
		Oxyfluorfen**	0.14	U	ng/L	P399912	
		Parathion Ethyl	0.24	U	ng/L	P399912	
		Parathion Methyl	0.52	U	ng/L	P399912	
		Pendimethalin	0.95	U	ng/L	P399912	
		Phorate	0.50	U	ng/L	P399912	MS
		Prodiamine**	2.7		ng/L	P399912	
		Prometon	2.0	I	ng/L	P399912	
		Prometryn	0.19	U	ng/L	P399912	
		Pronamide**	0.14	U	ng/L	P399912	
		Propiconazole**	2.1		ng/L	P399912	
		Pyriproxyfen**	0.12	U	ng/L	P399912	
		Simazine	810		ng/L	P399912	
		Sulfentrazone**	5.7		ng/L	P399912	
		Tebuconazole**	0.48	UJ	ng/L	P399912	RPD
		Terbufos	0.095	U	ng/L	P399912	
		Terbuthylazine	0.41	U	ng/L	P399912	

Ref. Method and Comment:
EPA 8321B: MS accuracy for 2,4-D could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8270E: MS accuracy for Kepone not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for atrazine and hexazinone not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P399912

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P399912

Component	Result	Code	Units
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P399912

Component	Result	Code	Units
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P400016

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P400016

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

Reference Method: EPA 8276
Batch ID: P400016

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

Reference Method: EPA 8321B
Batch ID: P399841

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P399865

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P399865

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

Reference Method: EPA 8321B
Batch ID: P399973

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: P399912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	112	100	P/P	70 - 121
Alachlor	108	95.5	P/P	70 - 119
Ametryn	94.7	97.1	P/P	61 - 135
Atrazine	99.8	100	P/P	76 - 123
Atrazine Desethyl	72.3	69.9	P/P	35 - 140
Azinphos Methyl	111	127	P/P	57 - 163
Azoxystrobin	97.1	102	P/P	43 - 231
Bromacil	91.6	86.9	P/P	42 - 123
Butylate	59.9	60.0	P/P	34 - 92.0
Caffeine	81.7	78.3	P/P	70 - 130
Carbophenothion	103	101	P/P	61 - 121
Carfentrazone Ethyl	120	110	P/P	62 - 139
Chlorpyrifos Ethyl	90.4	86.6	P/P	67 - 121
Chlorpyrifos Methyl	87.8	89.0	P/P	67 - 120
Cyanazine	118	109	P/P	20 - 226
Demeton	30.3	29.9	F/F	35 - 125
Diazinon	100	97.8	P/P	70 - 122
Difenoconazole	126	151	P/P	56 - 186
Dimethenamid	84.9	77.7	P/P	67 - 119
Disulfoton	74.9	74.0	P/P	47 - 120
Dithiopyr	96.5	85.1	P/P	67 - 118
EPTC	39.2	40.9	P/P	33 - 90.0
Ethion	90.6	80.9	P/P	40 - 133
Ethoprop	77.0	83.1	P/P	61 - 121
Fenamiphos	97.6	95.4	P/P	31 - 139
Fenbuconazole	114	106	P/P	66 - 141
Fipronil	110	97.9	P/P	62 - 129
Fipronil Desulfinyl	117	101	P/P	59 - 126
Fipronil Sulfide	92.1	85.1	P/P	63 - 117
Fipronil Sulfone	89.4	81.1	P/P	57 - 117
Fluazifop-P-butyl	103	97.4	P/P	63 - 124
Fludioxonil	108	95.8	P/P	63 - 123
Flumioxazin	137	164	P/P	34 - 245
Flutolanil	102	90.3	P/P	56 - 131
Fluxapyroxad	99.3	86.1	P/P	57 - 117
Fonofos	77.7	81.6	P/P	61 - 116
Hexazinone	94.4	89.1	P/P	55 - 138
Imazalil	102	95.2	P/P	33 - 143
Iprodione	111	101	P/P	59 - 118
Malathion	105	105	P/P	62 - 138
Metalaxyl	105	93.6	P/P	24 - 147
Metolachlor	106	96.2	P/P	68 - 118
Metribuzin	98.6	98.9	P/P	20 - 239
Mevinphos	63.0	69.8	P/P	46 - 124
Molinate	49.2	56.4	P/P	46 - 100
Myclobutanil	98.4	92.4	P/P	32 - 149
Naled	38.8	43.8	P/P	32 - 95.0
Norflurazon	97.9	87.3	P/P	57 - 127
Oxadiazon	97.9	87.5	P/P	63 - 118
Oxyfluorfen	112	112	P/P	69 - 137
Parathion Ethyl	88.5	89.8	P/P	70 - 113
Parathion Methyl	99.8	104	P/P	71 - 130

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P399912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pendimethalin	86.8	89.0	P/P	55 - 118
Phorate	103	105	P/P	46 - 125
Prodiamine	44.1	48.4	P/P	20 - 141
Prometon	91.9	86.5	P/P	54 - 122
Prometryn	98.7	92.3	P/P	66 - 124
Pronamide	97.1	95.9	P/P	79 - 122
Propiconazole	104	88.2	P/P	61 - 126
Pyriproxyfen	97.3	93.5	P/P	52 - 131
Simazine	86.7	86.5	P/P	75 - 128
Sulfentrazone	85.9	77.1	P/P	20 - 132
Tebuconazole	94.3	63.7	P/P	20 - 116
Terbufos	91.3	93.5	P/P	61 - 117
Terbuthylazine	102	89.6	P/P	74 - 116

Reference Method: EPA 8270E
Batch ID: P400016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	47.9	49.8	P/P	20 - 150
Alpha-BHC	84.3	84.0	P/P	50 - 150
Alpha-Chlordane	73.0	77.0	P/P	50 - 150
Beta-BHC	93.2	90.8	P/P	50 - 150
Beta-Cyfluthrin	62.6	63.4	P/P	50 - 150
Bifenthrin	49.2	52.5	P/P	40 - 150
Chlorothalonil	74.9	72.6	P/P	20 - 150
Cis-Nonachlor	66.5	67.7	P/P	50 - 150
Cypermethrin	64.6	68.1	P/P	50 - 150
Dacthal	84.8	87.1	P/P	50 - 150
DDD-p,p'	67.7	69.2	P/P	50 - 150
DDE-p,p'	73.1	76.6	P/P	50 - 150
DDT-p,p'	69.6	70.1	P/P	50 - 150
Delta-BHC	87.5	85.1	P/P	50 - 150
Deltamethrin	68.4	68.1	P/P	50 - 150
Dichlobenil	53.8	53.8	P/P	40 - 150
Dicofol	67.5	71.9	P/P	50 - 150
Dieldrin	78.5	80.5	P/P	50 - 150
Endosulfan I	78.2	78.0	P/P	50 - 150
Endosulfan II	67.4	69.9	P/P	50 - 150
Endosulfan Sulfate	79.8	71.9	P/P	50 - 150
Endrin	70.8	73.0	P/P	50 - 150
Endrin Aldehyde	64.3	64.0	P/P	50 - 150
Endrin Ketone	81.6	82.4	P/P	50 - 150
Esfenvalerate	62.1	63.2	P/P	50 - 180
Ethalfluralin	70.4	72.1	P/P	50 - 150
Fenpropathrin	62.1	62.1	P/P	50 - 150
Gamma-BHC	87.8	89.2	P/P	50 - 150
Gamma-Chlordane	71.6	71.2	P/P	50 - 150
Heptachlor	67.0	67.5	P/P	50 - 150
Heptachlor Epoxide	75.7	79.7	P/P	50 - 150
Hexachlorobenzene	65.3	67.2	P/P	50 - 150
Kepone	68.1	63.8	P/P	30 - 180
Lambda-Cyhalothrin	57.2	58.1	P/P	50 - 200

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P400016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Methoxychlor	76.8	79.7	P/P	50 - 150
MGK-264	69.8	69.4	P/P	30 - 150
Mirex	111	119	P/P	50 - 180
Permethrin	66.7	71.6	P/P	50 - 150
Phenothrin	46.0	53.1	P/P	20 - 150
Piperonyl Butoxide	43.1	42.4	F/F	50 - 150
Prallethrin	58.3	57.1	P/P	30 - 150
Tau-Fluvalinate	50.6	51.0	P/P	40 - 150
Tetramethrin	65.8	69.7	P/P	30 - 150
Trans-Nonachlor	71.9	76.3	P/P	50 - 150
Triclosan Methyl	78.9	81.0	P/P	50 - 150
Trifluralin	68.9	68.9	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P400016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	94.9	93.0	P/P	56 - 117
Toxaphene	84.9	88.0	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P399841

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

Reference Method: EPA 8321B
Batch ID: P399865

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

Reference Method: EPA 8321B
Batch ID: P399973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	104		P	30 - 160
2,4,5-T	98.0		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P399973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	78.3		P	30 - 160
Acetamiprid	75.5		P	30 - 160
Afidopyropen	71.5		P	30 - 160
Bentazon	76.8		P	30 - 160
Benzovindiflupyr	84.2		P	30 - 160
Carbamazepine	88.8		P	30 - 160
Clothianidin	81.4		P	30 - 160
Dinotefuran	88.5		P	30 - 160
Diuron	79.9		P	30 - 160
Fenuron	89.1		P	30 - 160
Fluridone	90.7		P	30 - 160
Hydrocodone	78.0		P	30 - 160
Ibuprofen	77.0		P	30 - 160
Imazapyr	110		P	30 - 160
Imidacloprid	81.6		P	30 - 160
Linuron	72.2		P	30 - 160
Mandestrobin	101		P	30 - 160
MCPP	101		P	30 - 160
Naproxen	101		P	30 - 160
Primidone	90.5		P	30 - 160
Pyraclostrobin	78.0		P	30 - 160
Thiamethoxam	90.2		P	30 - 160
Tolfenpyrad	52.3		P	30 - 160
Triclopyr	93.3		P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P399912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255159	Acetochlor	106	113	P/P	66 - 122
2255159	Alachlor	90.7	103	P/P	65 - 122
2255159	Ametryn	92.9	86.5	P/P	45 - 173
2255159	Atrazine Desethyl	80.5	85.1	P/P	25 - 150
2255159	Azinphos Methyl	129	122	P/P	44 - 174
2255159	Azoxystrobin	107	123	P/P	10 - 268
2255159	Bromacil	82.3	94.6	P/P	31 - 145
2255159	Butylate	71.4	95.5	P/P	15 - 97.0
2255159	Caffeine	103	104	P/P	70 - 130
2255159	Carbophenothion	94.6	98.7	P/P	42 - 129
2255159	Carfentrazone Ethyl	101	104	P/P	62 - 145
2255159	Chlorpyrifos Ethyl	85.7	92.4	P/P	60 - 124
2255159	Chlorpyrifos Methyl	87.6	90.9	P/P	66 - 119
2255159	Cyanazine	97.9	110	P/P	17 - 225
2255159	Demeton	46.6	48.6	P/P	36 - 142
2255159	Diazinon	99.1	109	P/P	70 - 128
2255159	Difenoconazole	148	137	P/P	33 - 222
2255159	Dimethenamid	78.1	79.8	P/P	54 - 125
2255159	Disulfoton	91.9	69.4	P/P	49 - 133
2255159	Dithiopyr	84.4	96.9	P/P	55 - 123
2255159	EPTC	44.3	52.8	P/P	19 - 91.0
2255159	Ethion	63.7	44.2	P/P	13 - 143
2255159	Ethoprop	87.1	97.5	P/P	49 - 144
2255159	Fenamiphos	85.6	80.8	P/P	32 - 136
2255159	Fenbuconazole	101	107	P/P	73 - 148
2255159	Fipronil	95.2	96.4	P/P	57 - 129
2255159	Fipronil Desulfinyl	95.1	100	P/P	49 - 127
2255159	Fipronil Sulfide	76.0	73.8	P/P	44 - 127
2255159	Fipronil Sulfone	72.8	85.0	P/P	35 - 126
2255159	Fluazifop-P-butyl	90.7	97.8	P/P	67 - 129
2255159	Fludioxonil	90.9	92.8	P/P	61 - 126
2255159	Flumioxazin	173	172	P/P	38 - 279
2255159	Flutolanil	80.6	85.9	P/P	55 - 136
2255159	Fluxapyroxad	86.2	80.0	P/P	33 - 140
2255159	Fonofos	81.4	92.2	P/P	58 - 125
2255159	Imazalil	114	95.1	P/P	10 - 221
2255159	Iprodione	95.3	96.5	P/P	32 - 140
2255159	Malathion	96.5	103	P/P	52 - 138
2255159	Metalaxyl	87.8	96.1	P/P	46 - 134
2255159	Metolachlor	92.6	102	P/P	58 - 122
2255159	Metribuzin	96.8	119	P/P	16 - 272
2255159	Mevinphos	76.6	87.6	P/P	45 - 140
2255159	Molinate	61.2	72.5	P/P	41 - 103
2255159	Myclobutanil	86.6	88.3	P/P	60 - 134
2255159	Naled	50.8	58.4	P/P	20 - 113
2255159	Norflurazon	86.0	88.9	P/P	51 - 123
2255159	Oxadiazon	85.0	86.2	P/P	44 - 125
2255159	Oxyfluorfen	113	106	P/P	66 - 176
2255159	Parathion Ethyl	87.5	96.7	P/P	57 - 132
2255159	Parathion Methyl	101	115	P/P	59 - 156
2255159	Pendimethalin	93.3	102	P/P	59 - 129
2255159	Phorate	145	161	F/F	47 - 136

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P399912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255159	Prodiamine	58.1	63.2	P/P	10 - 159
2255159	Prometon	84.3	96.3	P/P	59 - 127
2255159	Prometryn	85.0	89.4	P/P	59 - 129
2255159	Pronamide	100	108	P/P	65 - 145
2255159	Propiconazole	86.1	92.5	P/P	28 - 165
2255159	Pyriproxyfen	88.0	116	P/P	21 - 180
2255159	Simazine	92.4	109	P/P	63 - 147
2255159	Sulfentrazone	79.8	83.9	P/P	32 - 136
2255159	Tebuconazole	66.0	53.5	P/P	10 - 117
2255159	Terbufos	98.5	110	P/P	61 - 131
2255159	Terbuthylazine	70.6	79.5	P/P	62 - 126

Reference Method: EPA 8270E
Batch ID: P400016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255687	Aldrin	68.8	61.3	P/P	20 - 170
2255687	Alpha-BHC	92.2	90.4	P/P	50 - 170
2255687	Alpha-Chlordane	93.3	85.4	P/P	50 - 170
2255687	Beta-BHC	97.6	92.5	P/P	50 - 170
2255687	Beta-Cyfluthrin	138	128	P/P	50 - 170
2255687	Bifenthrin	101	95.3	P/P	40 - 170
2255687	Chlorothalonil	118	124	P/P	20 - 170
2255687	Cis-Nonachlor	89.9	75.7	P/P	50 - 170
2255687	Cypermethrin	140	115	P/P	50 - 170
2255687	Dacthal	90.7	83.2	P/P	50 - 170
2255687	DDD-p,p'	96.4	75.4	P/P	50 - 170
2255687	DDE-p,p'	92.2	83.8	P/P	50 - 170
2255687	DDT-p,p'	116	94.1	P/P	50 - 170
2255687	Delta-BHC	108	107	P/P	50 - 170
2255687	Deltamethrin	158	155	P/P	50 - 170
2255687	Dichlobenil	87.5	78.2	P/P	40 - 170
2255687	Dicofol	86.6	73.6	P/P	50 - 170
2255687	Dieldrin	82.1	78.3	P/P	50 - 170
2255687	Endosulfan I	87.2	81.2	P/P	50 - 170
2255687	Endosulfan II	85.3	73.4	P/P	50 - 170
2255687	Endosulfan Sulfate	75.4	69.4	P/P	50 - 170
2255687	Endrin	84.4	75.6	P/P	50 - 170
2255687	Endrin Aldehyde	71.6	58.4	P/P	50 - 170
2255687	Endrin Ketone	89.5	78.3	P/P	50 - 170
2255687	Esfenvalerate	149	140	P/P	50 - 180
2255687	Ethalfluralin	87.0	78.1	P/P	50 - 170
2255687	Fenpropathrin	97.2	85.5	P/P	50 - 170
2255687	Gamma-BHC	98.4	94.1	P/P	50 - 170
2255687	Gamma-Chlordane	87.3	77.5	P/P	50 - 170
2255687	Heptachlor	84.7	76.4	P/P	50 - 170
2255687	Heptachlor Epoxide	84.3	77.1	P/P	50 - 170
2255687	Hexachlorobenzene	81.2	73.5	P/P	50 - 170
2255687	Lambda-Cyhalothrin	132	117	P/P	50 - 200
2255687	Methoxychlor	97.6	88.3	P/P	50 - 170
2255687	MGK-264	87.5	80.9	P/P	30 - 170
2255687	Mirex	170	145	P/P	50 - 180

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P400016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255687	Permethrin	146	138	P/P	50 - 170
2255687	Phenothrin	97.2	92.8	P/P	20 - 170
2255687	Piperonyl Butoxide	59.8	55.6	P/P	50 - 170
2255687	Prallethrin	78.0	69.9	P/P	30 - 170
2255687	Tau-Fluvalinate	108	94.6	P/P	40 - 170
2255687	Tetramethrin	92.3	85.5	P/P	30 - 170
2255687	Trans-Nonachlor	93.2	80.8	P/P	50 - 170
2255687	Triclosan Methyl	88.9	80.3	P/P	50 - 170
2255687	Trifluralin	85.9	76.3	P/P	50 - 170

Reference Method: EPA 8276
Batch ID: P400016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255632	Chlordane	90.2	102	P/P	47 - 128
2255632	Toxaphene	92.3	105	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P399841

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

Reference Method: EPA 8321B
Batch ID: P399865

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

Reference Method: EPA 8321B
Batch ID: P399973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255827	2,4,5-T	104	87.5	P/P	30 - 160
2255827	Acetaminophen	97.1	89.2	P/P	30 - 160
2255827	Acetamiprid	77.8	58.4	P/P	30 - 160
2255827	Afidopyropen	67.5	6.62	P/F	30 - 160
2255827	Bentazon	64.4	59.5	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P399973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255827	Benzovindiflupyr	89.4	78.1	P/P	30 - 160
2255827	Carbamazepine	97.2	89.8	P/P	30 - 160
2255827	Clothianidin	95.7	99.6	P/P	30 - 160
2255827	Dinotefuran	114	93.7	P/P	30 - 160
2255827	Diuron	77.8	71.8	P/P	30 - 160
2255827	Fenuron	88.0	84.8	P/P	30 - 160
2255827	Fluridone	91.5	81.3	P/P	30 - 160
2255827	Hydrocodone	111	86.8	P/P	30 - 160
2255827	Ibuprofen	91.3	82.4	P/P	30 - 160
2255827	Imazapyr	158	140	P/P	30 - 160
2255827	Imidacloprid	127	116	P/P	30 - 160
2255827	Linuron	72.1	61.6	P/P	30 - 160
2255827	Mandestrobin	107	88.5	P/P	30 - 160
2255827	MCPP	104	93.8	P/P	30 - 160
2255827	Naproxen	80.3	97.0	P/P	30 - 160
2255827	Primidone	103	98.0	P/P	30 - 160
2255827	Pyraclostrobin	80.6	75.0	P/P	30 - 160
2255827	Thiamethoxam	128	117	P/P	30 - 160
2255827	Tolfenpyrad	54.2	48.1	P/P	30 - 160
2255827	Triclopyr	105	93.6	P/P	30 - 160

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255159	Acetochlor	6.40	Spike	P	0 - 30
2255159	Alachlor	13.0	Spike	P	0 - 30
2255159	Ametryn	7.11	Spike	P	0 - 30
2255159	Atrazine	5.98	Spike	P	0 - 30
2255159	Atrazine Desethyl	5.55	Spike	P	0 - 30
2255159	Azinphos Methyl	5.80	Spike	P	0 - 30
2255159	Azoxystrobin	14.3	Spike	P	0 - 30
2255159	Bromacil	13.8	Spike	P	0 - 30
2255159	Butylate	28.9	Spike	P	0 - 30
2255159	Caffeine	0.609	Spike	P	0 - 30
2255159	Carbophenothion	4.23	Spike	P	0 - 30
2255159	Carfentrazone Ethyl	2.37	Spike	P	0 - 30
2255159	Chlorpyrifos Ethyl	7.52	Spike	P	0 - 30
2255159	Chlorpyrifos Methyl	3.66	Spike	P	0 - 30
2255159	Cyanazine	11.6	Spike	P	0 - 30
2255159	Demeton	4.32	Spike	P	0 - 30
2255159	Diazinon	9.75	Spike	P	0 - 30
2255159	Difenoconazole	7.65	Spike	P	0 - 30
2255159	Dimethenamid	2.14	Spike	P	0 - 30
2255159	Disulfoton	27.9	Spike	P	0 - 30
2255159	Dithiopyr	13.7	Spike	P	0 - 30
2255159	EPTC	17.5	Spike	P	0 - 30
2255159	Ethion	36.0	Spike	F	0 - 30
2255159	Ethoprop	11.3	Spike	P	0 - 30
2255159	Fenamiphos	5.74	Spike	P	0 - 30
2255159	Fenbuconazole	6.02	Spike	P	0 - 30
2255159	Fipronil	1.21	Spike	P	0 - 30
2255159	Fipronil Desulfinyl	5.09	Spike	P	0 - 30
2255159	Fipronil Sulfide	2.98	Spike	P	0 - 30
2255159	Fipronil Sulfone	14.0	Spike	P	0 - 30
2255159	Fluazifop-P-butyl	7.60	Spike	P	0 - 30
2255159	Fludioxonil	2.07	Spike	P	0 - 30
2255159	Flumioxazin	0.614	Spike	P	0 - 30
2255159	Flutolanil	6.30	Spike	P	0 - 30
2255159	Fluxapyroxad	7.13	Spike	P	0 - 30
2255159	Fonofos	12.5	Spike	P	0 - 30
2255159	Hexazinone	11.3	Spike	P	0 - 30
2255159	Imazalil	18.0	Spike	P	0 - 30
2255159	Iprodione	1.27	Spike	P	0 - 30
2255159	Malathion	6.59	Spike	P	0 - 30
2255159	Metalaxyl	9.00	Spike	P	0 - 30
2255159	Metolachlor	8.99	Spike	P	0 - 30
2255159	Metribuzin	20.6	Spike	P	0 - 30
2255159	Mevinphos	13.3	Spike	P	0 - 30
2255159	Molinate	16.9	Spike	P	0 - 30
2255159	Myclobutanil	1.95	Spike	P	0 - 30
2255159	Naled	13.8	Spike	P	0 - 30
2255159	Norflurazon	3.32	Spike	P	0 - 30
2255159	Oxadiazon	1.44	Spike	P	0 - 30
2255159	Oxyfluorfen	6.65	Spike	P	0 - 30
2255159	Parathion Ethyl	9.93	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255159	Parathion Methyl	12.8	Spike	P	0 - 30
2255159	Pendimethalin	9.34	Spike	P	0 - 30
2255159	Phorate	10.4	Spike	P	0 - 30
2255159	Prodiamine	8.44	Spike	P	0 - 30
2255159	Prometon	13.2	Spike	P	0 - 30
2255159	Prometryn	5.11	Spike	P	0 - 30
2255159	Pronamide	7.47	Spike	P	0 - 30
2255159	Propiconazole	7.17	Spike	P	0 - 30
2255159	Pyriproxyfen	27.1	Spike	P	0 - 30
2255159	Simazine	11.8	Spike	P	0 - 30
2255159	Sulfentrazone	5.04	Spike	P	0 - 30
2255159	Tebuconazole	21.0	Spike	P	0 - 30
2255159	Terbufos	11.1	Spike	P	0 - 30
2255159	Terbuthylazine	9.44	Spike	P	0 - 30
LFB	Acetochlor	11.4	LCS	P	0 - 30
LFB	Alachlor	12.6	LCS	P	0 - 30
LFB	Ametryn	2.42	LCS	P	0 - 30
LFB	Atrazine	0.128	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.36	LCS	P	0 - 30
LFB	Azinphos Methyl	13.7	LCS	P	0 - 30
LFB	Azoxystrobin	5.38	LCS	P	0 - 30
LFB	Bromacil	5.23	LCS	P	0 - 30
LFB	Butylate	0.124	LCS	P	0 - 30
LFB	Caffeine	4.29	LCS	P	0 - 30
LFB	Carbophenothion	1.88	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	8.87	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.35	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.33	LCS	P	0 - 30
LFB	Cyanazine	7.70	LCS	P	0 - 30
LFB	Demeton	1.47	LCS	P	0 - 30
LFB	Diazinon	2.54	LCS	P	0 - 30
LFB	Difenoconazole	17.6	LCS	P	0 - 30
LFB	Dimethenamid	8.82	LCS	P	0 - 30
LFB	Disulfoton	1.21	LCS	P	0 - 30
LFB	Dithiopyr	12.5	LCS	P	0 - 30
LFB	EPTC	4.26	LCS	P	0 - 30
LFB	Ethion	11.3	LCS	P	0 - 30
LFB	Ethoprop	7.51	LCS	P	0 - 30
LFB	Fenamiphos	2.32	LCS	P	0 - 30
LFB	Fenbuconazole	7.51	LCS	P	0 - 30
LFB	Fipronil	11.3	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	15.5	LCS	P	0 - 30
LFB	Fipronil Sulfide	7.97	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.84	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	5.89	LCS	P	0 - 30
LFB	Fludioxonil	12.2	LCS	P	0 - 30
LFB	Flumioxazin	18.4	LCS	P	0 - 30
LFB	Flutolanil	12.6	LCS	P	0 - 30
LFB	Fluxapyroxad	14.3	LCS	P	0 - 30
LFB	Fonofos	4.88	LCS	P	0 - 30
LFB	Hexazinone	5.77	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Imazalil	6.82	LCS	P	0 - 30
LFB	Iprodione	10.1	LCS	P	0 - 30
LFB	Malathion	0.621	LCS	P	0 - 30
LFB	Metalaxyl	11.3	LCS	P	0 - 30
LFB	Metolachlor	9.20	LCS	P	0 - 30
LFB	Metribuzin	0.245	LCS	P	0 - 30
LFB	Mevinphos	10.2	LCS	P	0 - 30
LFB	Molinate	13.6	LCS	P	0 - 30
LFB	Myclobutanil	6.26	LCS	P	0 - 30
LFB	Naled	12.1	LCS	P	0 - 30
LFB	Norflurazon	11.4	LCS	P	0 - 30
LFB	Oxadiazon	11.2	LCS	P	0 - 30
LFB	Oxyfluorfen	0.167	LCS	P	0 - 30
LFB	Parathion Ethyl	1.44	LCS	P	0 - 30
LFB	Parathion Methyl	3.66	LCS	P	0 - 30
LFB	Pendimethalin	2.39	LCS	P	0 - 30
LFB	Phorate	1.38	LCS	P	0 - 30
LFB	Prodiamine	9.34	LCS	P	0 - 30
LFB	Prometon	6.14	LCS	P	0 - 30
LFB	Prometryn	6.69	LCS	P	0 - 30
LFB	Pronamide	1.28	LCS	P	0 - 30
LFB	Propiconazole	16.8	LCS	P	0 - 30
LFB	Pyriproxyfen	3.97	LCS	P	0 - 30
LFB	Simazine	0.195	LCS	P	0 - 30
LFB	Sulfentrazone	10.9	LCS	P	0 - 30
LFB	Tebuconazole	38.7	LCS	F	0 - 30
LFB	Terbufos	2.35	LCS	P	0 - 30
LFB	Terbuthylazine	13.0	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P400016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255687	Aldrin	11.6	Spike	P	0 - 30
2255687	Alpha-BHC	2.02	Spike	P	0 - 30
2255687	Alpha-Chlordane	8.86	Spike	P	0 - 30
2255687	Beta-BHC	5.40	Spike	P	0 - 30
2255687	Beta-Cyfluthrin	7.64	Spike	P	0 - 30
2255687	Bifenthrin	6.14	Spike	P	0 - 30
2255687	Chlorothalonil	4.37	Spike	P	0 - 50
2255687	Cis-Nonachlor	17.1	Spike	P	0 - 30
2255687	Cypermethrin	19.5	Spike	P	0 - 30
2255687	Dacthal	8.62	Spike	P	0 - 30
2255687	DDD-p,p'	24.4	Spike	P	0 - 30
2255687	DDE-p,p'	9.61	Spike	P	0 - 30
2255687	DDT-p,p'	21.0	Spike	P	0 - 30
2255687	Delta-BHC	1.19	Spike	P	0 - 30
2255687	Deltamethrin	1.76	Spike	P	0 - 30
2255687	Dichlobenil	11.1	Spike	P	0 - 30
2255687	Dicofol	16.2	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255687	Dieldrin	3.59	Spike	P	0 - 30
2255687	Endosulfan I	7.11	Spike	P	0 - 30
2255687	Endosulfan II	14.9	Spike	P	0 - 30
2255687	Endosulfan Sulfate	8.25	Spike	P	0 - 30
2255687	Endrin	11.1	Spike	P	0 - 30
2255687	Endrin Aldehyde	20.3	Spike	P	0 - 30
2255687	Endrin Ketone	13.4	Spike	P	0 - 30
2255687	Esfenvalerate	6.60	Spike	P	0 - 30
2255687	Ethalfluralin	10.8	Spike	P	0 - 30
2255687	Fenpropathrin	12.8	Spike	P	0 - 30
2255687	Gamma-BHC	4.54	Spike	P	0 - 30
2255687	Gamma-Chlordane	11.0	Spike	P	0 - 30
2255687	Heptachlor	10.2	Spike	P	0 - 30
2255687	Heptachlor Epoxide	7.88	Spike	P	0 - 30
2255687	Hexachlorobenzene	9.97	Spike	P	0 - 30
2255687	Kepone	51.8	Spike	F	0 - 30
2255687	Lambda-Cyhalothrin	9.14	Spike	P	0 - 30
2255687	Methoxychlor	9.96	Spike	P	0 - 30
2255687	MGK-264	7.85	Spike	P	0 - 30
2255687	Mirex	15.4	Spike	P	0 - 30
2255687	Permethrin	5.72	Spike	P	0 - 30
2255687	Phenothrin	4.66	Spike	P	0 - 30
2255687	Piperonyl Butoxide	7.20	Spike	P	0 - 30
2255687	Prallethrin	10.9	Spike	P	0 - 30
2255687	Tau-Fluvalinate	13.3	Spike	P	0 - 30
2255687	Tetramethrin	7.68	Spike	P	0 - 30
2255687	Trans-Nonachlor	14.4	Spike	P	0 - 30
2255687	Triclosan Methyl	10.1	Spike	P	0 - 30
2255687	Trifluralin	11.9	Spike	P	0 - 30
LFB	Aldrin	3.80	LCS	P	0 - 30
LFB	Alpha-BHC	0.318	LCS	P	0 - 30
LFB	Alpha-Chlordane	5.38	LCS	P	0 - 30
LFB	Beta-BHC	2.64	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	1.27	LCS	P	0 - 30
LFB	Bifenthrin	6.49	LCS	P	0 - 30
LFB	Chlorothalonil	3.09	LCS	P	0 - 50
LFB	Cis-Nonachlor	1.70	LCS	P	0 - 30
LFB	Cypermethrin	5.18	LCS	P	0 - 30
LFB	Dacthal	2.66	LCS	P	0 - 30
LFB	DDD-p,p'	2.12	LCS	P	0 - 30
LFB	DDE-p,p'	4.61	LCS	P	0 - 30
LFB	DDT-p,p'	0.688	LCS	P	0 - 30
LFB	Delta-BHC	2.75	LCS	P	0 - 30
LFB	Deltamethrin	0.517	LCS	P	0 - 30
LFB	Dichlobenil	0.107	LCS	P	0 - 30
LFB	Dicofol	6.41	LCS	P	0 - 30
LFB	Dieldrin	2.53	LCS	P	0 - 30
LFB	Endosulfan I	0.289	LCS	P	0 - 30
LFB	Endosulfan II	3.60	LCS	P	0 - 30
LFB	Endosulfan Sulfate	10.4	LCS	P	0 - 30
LFB	Endrin	2.95	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endrin Aldehyde	0.467	LCS	P	0 - 30
LFB	Endrin Ketone	0.925	LCS	P	0 - 30
LFB	Esfenvalerate	1.89	LCS	P	0 - 30
LFB	Ethalfluralin	2.36	LCS	P	0 - 30
LFB	Fenpropathrin	0.0226	LCS	P	0 - 30
LFB	Gamma-BHC	1.60	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.617	LCS	P	0 - 30
LFB	Heptachlor	0.641	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.05	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.96	LCS	P	0 - 30
LFB	Kepone	6.40	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	1.67	LCS	P	0 - 30
LFB	Methoxychlor	3.78	LCS	P	0 - 30
LFB	MGK-264	0.527	LCS	P	0 - 30
LFB	Mirex	6.80	LCS	P	0 - 30
LFB	Permethrin	7.09	LCS	P	0 - 30
LFB	Phenothrin	14.2	LCS	P	0 - 30
LFB	Piperonyl Butoxide	1.73	LCS	P	0 - 30
LFB	Prallethrin	1.95	LCS	P	0 - 30
LFB	Tau-Fluvalinate	0.741	LCS	P	0 - 30
LFB	Tetramethrin	5.72	LCS	P	0 - 30
LFB	Trans-Nonachlor	5.88	LCS	P	0 - 30
LFB	Triclosan Methyl	2.69	LCS	P	0 - 30
LFB	Trifluralin	0.0488	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P400016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255632	Chlordane	12.3	Spike	P	0 - 30
2255632	Toxaphene	12.4	Spike	P	0 - 30
LFB	Chlordane	1.99	LCS	P	0 - 30
LFB	Toxaphene	3.57	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399841

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

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P399865

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

Reference Method: EPA 8321B
Batch ID: P399973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255827	2,4-D	7.19	Spike	P	0 - 30
2255827	2,4,5-T	17.4	Spike	P	0 - 30
2255827	Acetaminophen	8.47	Spike	P	0 - 30
2255827	Acetamiprid	28.4	Spike	P	0 - 30
2255827	Afidopyropen	164	Spike	F	0 - 30
2255827	Bentazon	8.00	Spike	P	0 - 30
2255827	Benzovindiflupyr	13.5	Spike	P	0 - 30
2255827	Carbamazepine	7.89	Spike	P	0 - 30
2255827	Clothianidin	3.92	Spike	P	0 - 30
2255827	Dinotefuran	19.4	Spike	P	0 - 30
2255827	Diuron	8.07	Spike	P	0 - 30
2255827	Fenuron	3.65	Spike	P	0 - 30
2255827	Fluridone	11.8	Spike	P	0 - 30
2255827	Hydrocodone	24.1	Spike	P	0 - 30
2255827	Ibuprofen	10.3	Spike	P	0 - 30
2255827	Imazapyr	11.2	Spike	P	0 - 30
2255827	Imidacloprid	8.80	Spike	P	0 - 30
2255827	Linuron	15.8	Spike	P	0 - 30
2255827	Mandestrobin	19.3	Spike	P	0 - 30
2255827	MCPP	10.4	Spike	P	0 - 30
2255827	Naproxen	18.8	Spike	P	0 - 30
2255827	Primidone	4.52	Spike	P	0 - 30
2255827	Pyraclostrobin	7.11	Spike	P	0 - 30
2255827	Thiamethoxam	8.77	Spike	P	0 - 30
2255827	Tolfenpyrad	11.9	Spike	P	0 - 30
2255827	Triclopyr	11.8	Spike	P	0 - 30

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2255642
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	38.7	P	30 - 160

Lab Sample ID: 2255643
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	135	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.7	P	30 - 160
EPA 8321B	Diuron-d6	61.4	P	30 - 160
EPA 8321B	Endothall-d6	74.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	38.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.4	P	30 - 160
EPA 8321B	Primidone-d5	85.5	P	30 - 160
EPA 8321B	Sucralose-d6	96.7	P	30 - 160

Lab Sample ID: 2255644
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	89.1	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	42.4	P	30 - 110
EPA 8276	Decachlorobiphenyl	35.9	P	29 - 92.0
EPA 8276	PCNB	96.5	P	43 - 134

Lab Sample ID: 2255645
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	65.7	P	20 - 200
EPA 8270E	Simazine-d10	115	P	73 - 135
EPA 8270E	Terbufos-d10	86.5	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A106190
Included Lab Sample IDs: 2255643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.2	82.6	P/P	60 - 160
Glufosinate	95.5	89.7	P/P	60 - 160
Glyphosate	99.1	93.6	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A106192
Included Lab Sample IDs: 2255643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.2	76.7	P/P	60 - 160
Endothall	75.7	82.8	P/P	60 - 160
Sucralose	110	107	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A106199
Included Lab Sample IDs: 2255642

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	108	103	P/P	60 - 150
Aldicarb	103	105	P/P	60 - 150
Aldicarb Sulfone	99.2	99.0	P/P	50 - 150
Aldicarb Sulfoxide	98.6	102	P/P	50 - 150
Carbaryl	116	113	P/P	60 - 150
Carbofuran	93.3	91.7	P/P	50 - 150
Methiocarb	125		P	50 - 150
Methomyl	101	104	P/P	50 - 150
Oxamyl	94.0	97.8	P/P	50 - 150
Propoxur	104	96.1	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A106290
Included Lab Sample IDs: 2255644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Piperonyl Butoxide	90.3		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106291
Included Lab Sample IDs: 2255644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.5		P	80 - 120
Alpha-BHC	99.3		P	80 - 120
Alpha-Chlordane	99.2		P	80 - 120
Beta-BHC	97.0		P	80 - 120
Beta-Cyfluthrin	99.1		P	80 - 120
Bifenthrin	91.0		P	80 - 120
Chlorothalonil	97.3		P	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	97.5		P	80 - 120
Dacthal	99.0		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A106291
Included Lab Sample IDs: 2255644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDD-p,p'	96.2		P	80 - 120
DDE-p,p'	95.9		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	97.7		P	80 - 120
Deltamethrin	95.6		P	80 - 120
Dichlobenil	97.7		P	80 - 120
Dicofol	98.9		P	80 - 120
Dieldrin	95.6		P	80 - 120
Endosulfan I	99.6		P	80 - 120
Endosulfan II	93.2		P	80 - 120
Endosulfan Sulfate	95.1		P	80 - 120
Endrin	96.9		P	80 - 120
Endrin Aldehyde	98.7		P	80 - 120
Endrin Ketone	98.6		P	80 - 120
Esfenvalerate	99.6		P	80 - 120
Ethalfluralin	102		P	80 - 120
Fenpropathrin	96.2		P	80 - 120
Gamma-BHC	98.1		P	80 - 120
Gamma-Chlordane	99.2		P	80 - 120
Heptachlor	100		P	80 - 120
Heptachlor Epoxide	97.7		P	80 - 120
Hexachlorobenzene	96.2		P	80 - 120
Kepone	86.6		P	80 - 120
Lambda-Cyhalothrin	99.9		P	80 - 120
Methoxychlor	94.7		P	80 - 120
MGK-264	97.7		P	80 - 120
Mirex	94.9		P	80 - 120
Permethrin	96.9		P	80 - 120
Phenothrin	95.6		P	80 - 120
Prallethrin	97.2		P	80 - 120
Tau-Fluvalinate	98.7		P	80 - 120
Tetramethrin	91.1		P	80 - 120
Trans-Nonachlor	97.6		P	80 - 120
Triclosan Methyl	98.8		P	80 - 120
Trifluralin	99.1		P	80 - 120

Reference Method: EPA 8321B
Run ID: A106322
Included Lab Sample IDs: 2255643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.7	88.7	P/P	50 - 150
2,4,5-T	114	121	P/P	50 - 150
Acetaminophen	93.5	102	P/P	60 - 160
Acetamiprid	104	98.7	P/P	50 - 150
Afidopyropen	121	113	P/P	50 - 150
Bentazon	81.0	78.9	P/P	50 - 160
Benzovindiflupyr	104	100	P/P	50 - 160
Carbamazepine	99.8	101	P/P	60 - 150
Clothianidin	104	100	P/P	60 - 150
Dinotefuran	93.9	118	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A106322
Included Lab Sample IDs: 2255643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	103	111	P/P	60 - 160
Fenuron	96.6	98.4	P/P	60 - 150
Fluridone	104	103	P/P	60 - 160
Hydrocodone	101	103	P/P	60 - 150
Ibuprofen	124	97.8	P/P	50 - 160
Imazapyr	119	119	P/P	50 - 160
Imidacloprid	94.8	93.8	P/P	60 - 150
Linuron	85.7	93.1	P/P	60 - 150
Mandestrobin	118	117	P/P	50 - 150
MCPP	107	109	P/P	50 - 150
Naproxen	105	110	P/P	50 - 160
Primidone	102	94.8	P/P	60 - 150
Pyraclostrobin	99.8	97.8	P/P	60 - 150
Thiamethoxam	99.4	102	P/P	50 - 150
Tolfenpyrad	95.1	94.5	P/P	60 - 150
Triclopyr	97.4	113	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A106329
Included Lab Sample IDs: 2255644

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.2		P	80 - 120
Toxaphene	99.4		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106448
Included Lab Sample IDs: 2255645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	103		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	99.2		P	80 - 120
Azinphos Methyl	94.7		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	106		P	80 - 120
Caffeine	86.0		P	80 - 120
Carbophenothion	102		P	80 - 120
Carfentrazone Ethyl	100		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	99.2		P	80 - 120
Cyanazine	107		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	96.8		P	80 - 120
Difenoconazole	88.5		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	97.1		P	80 - 120
EPTC	103		P	80 - 120
Ethion	98.8		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	96.6		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A106448
Included Lab Sample IDs: 2255645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenbuconazole	101		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Flumioxazin	93.2		P	80 - 120
Flutolanil	104		P	80 - 120
Fluxapyroxad	102		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	106		P	80 - 120
Iprodione	115		P	80 - 120
Malathion	91.7		P	80 - 120
Metalaxyl	106		P	80 - 120
Metribuzin	102		P	80 - 120
Mevinphos	99.7		P	80 - 120
Molinate	102		P	80 - 120
Myclobutanil	101		P	80 - 120
Naled	103		P	80 - 120
Norflurazon	102		P	80 - 120
Oxyfluorfen	97.7		P	80 - 120
Parathion Ethyl	102		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	109		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	93.9		P	80 - 120
Prometon	99.6		P	80 - 120
Prometryn	108		P	80 - 120
Pronamide	96.3		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Sulfentrazone	94.2		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	103		P	80 - 120
Terbuthylazine	103		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106451
Included Lab Sample IDs: 2255645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	104		P	80 - 120
Atrazine Desethyl	99.8		P	80 - 120
Azoxystrobin	97.8		P	80 - 120
Dithiopyr	103		P	80 - 120
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	99.8		P	80 - 120
Fipronil Sulfone	95.5		P	80 - 120
Fludioxonil	97.9		P	80 - 120
Metolachlor	102		P	80 - 120
Simazine	102		P	80 - 120

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Reference Method: EPA 8270E
Run ID: A106463
Included Lab Sample IDs: 2255645

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Oxadiazon	106		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	112	100	106	113	11.4		6.40
	Alachlor	108	95.5	90.7	103	12.6		13.0
	Aldrin	49.8	47.9	68.8	61.3	3.80		11.6
	Alpha-BHC	84.0	84.3	92.2	90.4	0.318		2.02
	Alpha-Chlordane	77.0	73.0	93.3	85.4	5.38		8.86
	Ametryn	94.7	97.1	92.9	86.5	2.42		7.11
	Atrazine	99.8	100			0.128		5.98
	Atrazine Desethyl	72.3	69.9	80.5	85.1	3.36		5.55
	Azinphos Methyl	111	127	129	122	13.7		5.80
	Azoxystrobin	97.1	102	107	123	5.38		14.3
	Beta-BHC	90.8	93.2	97.6	92.5	2.64		5.40
	Beta-Cyfluthrin	63.4	62.6	138	128	1.27		7.64
	Bifenthrin	52.5	49.2	101	95.3	6.49		6.14
	Bromacil	91.6	86.9	82.3	94.6	5.23		13.8
	Butylate	59.9	60.0	71.4	95.5	0.124		28.9
	Caffeine	81.7	78.3	103	104	4.29		0.609
	Carbophenothion	103	101	94.6	98.7	1.88		4.23
	Carfentrazone Ethyl	120	110	101	104	8.87		2.37
	Chlorothalonil	72.6	74.9	118	124	3.09		4.37
	Chlorpyrifos Ethyl	90.4	86.6	85.7	92.4	4.35		7.52
	Chlorpyrifos Methyl	87.8	89.0	87.6	90.9	1.33		3.66
	Cis-Nonachlor	67.7	66.5	89.9	75.7	1.70		17.1
	Cyanazine	118	109	97.9	110	7.70		11.6
	Cypermethrin	68.1	64.6	140	115	5.18		19.5
	Dacthal	87.1	84.8	90.7	83.2	2.66		8.62
	DDD-p,p'	69.2	67.7	96.4	75.4	2.12		24.4
	DDE-p,p'	76.6	73.1	92.2	83.8	4.61		9.61
	DDT-p,p'	70.1	69.6	116	94.1	0.688		21.0
	Delta-BHC	85.1	87.5	108	107	2.75		1.19
	Deltamethrin	68.1	68.4	158	155	0.517		1.76
	Demeton	30.3	29.9	46.6	48.6	1.47		4.32
	Diazinon	100	97.8	99.1	109	2.54		9.75
	Dichlobenil	53.8	53.8	87.5	78.2	0.107		11.1
	Dicofol	71.9	67.5	86.6	73.6	6.41		16.2
	Dieldrin	80.5	78.5	82.1	78.3	2.53		3.59
	Difenoconazole	126	151	148	137	17.6		7.65
	Dimethenamid	84.9	77.7	78.1	79.8	8.82		2.14
	Disulfoton	74.9	74.0	91.9	69.4	1.21		27.9
	Dithiopyr	96.5	85.1	84.4	96.9	12.5		13.7
	Endosulfan I	78.0	78.2	87.2	81.2	0.289		7.11
	Endosulfan II	69.9	67.4	85.3	73.4	3.60		14.9
	Endosulfan Sulfate	71.9	79.8	75.4	69.4	10.4		8.25
	Endrin	73.0	70.8	84.4	75.6	2.95		11.1
	Endrin Aldehyde	64.0	64.3	71.6	58.4	0.467		20.3
	Endrin Ketone	82.4	81.6	89.5	78.3	0.925		13.4
	EPTC	39.2	40.9	44.3	52.8	4.26		17.5
	Esfenvalerate	63.2	62.1	149	140	1.89		6.60
	Ethalfluralin	72.1	70.4	87.0	78.1	2.36		10.8
	Ethion	90.6	80.9	63.7	44.2	11.3		36.0
	Ethoprop	77.0	83.1	87.1	97.5	7.51		11.3
	Fenamiphos	97.6	95.4	85.6	80.8	2.32		5.74
	Fenbuconazole	114	106	101	107	7.51		6.02
	Fenpropathrin	62.1	62.1	97.2	85.5	0.0226		12.8
	Fipronil	110	97.9	95.2	96.4	11.3		1.21

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Fipronil Desulfinyl	117	101	95.1	100	15.5		5.09
	Fipronil Sulfide	92.1	85.1	76.0	73.8	7.97		2.98
	Fipronil Sulfone	89.4	81.1	72.8	85.0	9.84		14.0
	Fluazifop-P-butyl	103	97.4	90.7	97.8	5.89		7.60
	Fludioxonil	108	95.8	90.9	92.8	12.2		2.07
	Flumioxazin	137	164	173	172	18.4		0.614
	Flutolanil	102	90.3	80.6	85.9	12.6		6.30
	Fluxapyroxad	99.3	86.1	86.2	80.0	14.3		7.13
	Fonofos	77.7	81.6	81.4	92.2	4.88		12.5
	Gamma-BHC	89.2	87.8	98.4	94.1	1.60		4.54
	Gamma-Chlordane	71.2	71.6	87.3	77.5	0.617		11.0
	Heptachlor	67.5	67.0	84.7	76.4	0.641		10.2
	Heptachlor Epoxide	79.7	75.7	84.3	77.1	5.05		7.88
	Hexachlorobenzene	67.2	65.3	81.2	73.5	2.96		9.97
	Hexazinone	94.4	89.1			5.77		11.3
	Imazalil	102	95.2	114	95.1	6.82		18.0
	Iprodione	111	101	95.3	96.5	10.1		1.27
	Kepone	63.8	68.1			6.40		51.8
	Lambda-Cyhalothrin	58.1	57.2	132	117	1.67		9.14
	Malathion	105	105	96.5	103	0.621		6.59
	Metalaxyl	105	93.6	87.8	96.1	11.3		9.00
	Methoxychlor	79.7	76.8	97.6	88.3	3.78		9.96
	Metolachlor	106	96.2	92.6	102	9.20		8.99
	Metribuzin	98.6	98.9	96.8	119	0.245		20.6
	Mevinphos	63.0	69.8	76.6	87.6	10.2		13.3
	MGK-264	69.4	69.8	87.5	80.9	0.527		7.85
	Mirex	119	111	170	145	6.80		15.4
	Molinate	49.2	56.4	61.2	72.5	13.6		16.9
	Myclobutanil	98.4	92.4	86.6	88.3	6.26		1.95
	Naled	38.8	43.8	50.8	58.4	12.1		13.8
	Norflurazon	97.9	87.3	86.0	88.9	11.4		3.32
	Oxadiazon	97.9	87.5	85.0	86.2	11.2		1.44
	Oxyfluorfen	112	112	113	106	0.167		6.65
	Parathion Ethyl	88.5	89.8	87.5	96.7	1.44		9.93
	Parathion Methyl	99.8	104	101	115	3.66		12.8
	Pendimethalin	86.8	89.0	93.3	102	2.39		9.34
	Permethrin	66.7	71.6	146	138	7.09		5.72
	Phenothrin	46.0	53.1	97.2	92.8	14.2		4.66
	Phorate	103	105	145	161	1.38		10.4
	Piperonyl Butoxide	43.1	42.4	59.8	55.6	1.73		7.20
	Prallethrin	58.3	57.1	78.0	69.9	1.95		10.9
	Prodiamine	44.1	48.4	58.1	63.2	9.34		8.44
	Prometon	91.9	86.5	84.3	96.3	6.14		13.2
	Prometryn	98.7	92.3	85.0	89.4	6.69		5.11
	Pronamide	97.1	95.9	100	108	1.28		7.47
	Propiconazole	104	88.2	86.1	92.5	16.8		7.17
	Pyriproxyfen	97.3	93.5	88.0	116	3.97		27.1
	Simazine	86.7	86.5	92.4	109	0.195		11.8
	Sulfentrazone	85.9	77.1	79.8	83.9	10.9		5.04
	Tau-Fluvalinate	50.6	51.0	108	94.6	0.741		13.3
	Tebuconazole	94.3	63.7	66.0	53.5	38.7		21.0
	Terbufos	91.3	93.5	98.5	110	2.35		11.1
	Terbuthylazine	102	89.6	70.6	79.5	13.0		9.44
	Tetramethrin	65.8	69.7	92.3	85.5	5.72		7.68

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Trans-Nonachlor	71.9	76.3	93.2	80.8	5.88		14.4
	Triclosan Methyl	78.9	81.0	88.9	80.3	2.69		10.1
	Trifluralin	68.9	68.9	85.9	76.3	0.0488		11.9
EPA 8276	Chlordane	94.9	93.0	90.2	102	1.99		12.3
	Toxaphene	84.9	88.0	92.3	105	3.57		12.4
EPA 8321B	2,4-D	104						7.19
	2,4,5-T	98.0		104	87.5			17.4
	3-Hydroxycarbofuran	79.4		80.2	80.4			0.349
	Acesulfame K	80.5		84.0	86.4			2.82
	Acetaminophen	78.3		97.1	89.2			8.47
	Acetamiprid	75.5		77.8	58.4			28.4
	Afidopyropen	71.5		67.5	6.62			164
	Aldicarb	70.9		78.9	71.8			9.34
	Aldicarb Sulfone	56.2		89.5	84.1			6.21
	Aldicarb Sulfoxide	97.3		55.2	50.5			8.78
	AMPA	99.4		95.1	97.3			2.28
	Bentazon	76.8		64.4	59.5			8.00
	Benzovindiflupyr	84.2		89.4	78.1			13.5
	Carbamazepine	88.8		97.2	89.8			7.89
	Carbaryl	73.7		51.1	48.8			4.65
	Carbofuran	69.6		52.2	49.7			4.94
	Clothianidin	81.4		95.7	99.6			3.92
	Dinotefuran	88.5		114	93.7			19.4
	Diuron	79.9		77.8	71.8			8.07
	Endothall	71.4		70.2	82.7			16.3
	Fenuron	89.1		88.0	84.8			3.65
	Fluridone	90.7		91.5	81.3			11.8
	Glufosinate	101		103	105			1.33
	Glyphosate	103		106	111			4.62
	Hydrocodone	78.0		111	86.8			24.1
	Ibuprofen	77.0		91.3	82.4			10.3
	Imazapyr	110		158	140			11.2
	Imidacloprid	81.6		127	116			8.80
	Linuron	72.2		72.1	61.6			15.8
	Mandestrobin	101		107	88.5			19.3
	MCPP	101		104	93.8			10.4
	Methiocarb	68.2		71.0	59.7			17.2
	Methomyl	90.4		78.4	73.8			6.04
	Naproxen	101		80.3	97.0			18.8
	Oxamyl	85.7		75.7	74.8			1.26
	Primidone	90.5		103	98.0			4.52
	Propoxur	75.2		56.3	52.0			7.90
	Pyraclostrobin	78.0		80.6	75.0			7.11
	Sucralose	102		99.7	103			2.76
	Thiamethoxam	90.2		128	117			8.77
	Tolfenpyrad	52.3		54.2	48.1			11.9
	Triclopyr	93.3		105	93.6			11.8

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2255644
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2255645

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2255644
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2255642
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2255643

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	06/17/2021	06/18/2021 08:00	Rasheda Ghaffari	06/22/2021 20:41	Michael Poppell	2255644
	06/17/2021	06/18/2021 08:00	Rasheda Ghaffari	06/24/2021 20:43	Michael Poppell	2255644
	06/17/2021	06/21/2021 08:00	Fe-Val Siddell	06/22/2021 17:49	Vandana T. Nagar	2255645
	06/17/2021	06/21/2021 08:00	Fe-Val Siddell	06/29/2021 17:35	Vandana T. Nagar	2255645
	06/17/2021	06/21/2021 08:00	Fe-Val Siddell	06/29/2021 18:00	Vandana T. Nagar	2255645
	06/17/2021	06/21/2021 08:00	Fe-Val Siddell	06/29/2021 18:24	Vandana T. Nagar	2255645
	06/17/2021	06/21/2021 08:00	Fe-Val Siddell	06/29/2021 18:50	Vandana T. Nagar	2255645
	06/17/2021	06/21/2021 08:00	Fe-Val Siddell	06/29/2021 19:15	Vandana T. Nagar	2255645
	06/17/2021	06/21/2021 08:00	Fe-Val Siddell	07/06/2021 16:16	Vandana T. Nagar	2255645
EPA 8276	06/17/2021	06/18/2021 08:00	Rasheda Ghaffari	06/27/2021 04:17	Chiran X. Ghimire	2255644
EPA 8321B	06/17/2021	06/18/2021 11:00	Juyoung Kim	06/18/2021 16:42	Juyoung Kim	2255643
	06/17/2021	06/18/2021 11:00	Juyoung Kim	06/18/2021 23:56	Juyoung Kim	2255643
	06/17/2021	06/21/2021 09:00	Hoor Shaik	06/21/2021 21:17	Juyoung Kim	2255642
	06/17/2021	06/23/2021 09:00	Hoor Shaik	06/25/2021 17:24	Juyoung Kim	2255643
	06/17/2021	06/23/2021 09:00	Hoor Shaik	06/28/2021 10:07	Juyoung Kim	2255643