Chemical Analysis Report

TLH-ROC-2021-08-04-01

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

Event Description: **Run 3**
Request ID: **RQ-2021-08-02-72**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
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Certified by: Colin Wright, Program Administrator

Date Certified: 23-AUG-2021 08:40

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: Spring Creek 50m dstream US19 **Collection Date/Time: 08/04/2021 09:30**

Field ID: G1TLHR0145 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267424	EPA 8321B	Aldicarb	0.020	U	ug/L	P401862	
		Aldicarb Sulfone	0.0020	U	ug/L	P401862	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P401862	MS
		Carbaryl	0.0020	U	ug/L	P401862	
		Carbofuran	0.0020	U	ug/L	P401862	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P401862	
		Methiocarb	0.0020	U	ug/L	P401862	
		Methomyl	0.0020	U	ug/L	P401862	
		Oxamyl	0.0020	U	ug/L	P401862	
		Propoxur	0.0020	U	ug/L	P401862	
2267425		2,4-D	0.0020	U	ug/L	P402147	
		Acesulfame K	0.10	U	ug/L	P401931	
		2,4,5-T	0.0040	U	ug/L	P402147	
		AMPA	0.10	U	ug/L	P401931	
		Acetaminophen	0.0080	U	ug/L	P402147	
		Acetamiprid	0.0020	U	ug/L	P402147	
		Endothall	0.25	U	ug/L	P401931	
		Glufosinate	0.10	U	ug/L	P401931	
		Glyphosate	0.10	U	ug/L	P401931	
		Afidopyropen	0.0020	U	ug/L	P402147	
		Bentazon	8.6E-04	I	ug/L	P402147	
		Sucralose	0.027	I	ug/L	P401931	
		Benzovindiflupyr	0.0020	U	ug/L	P402147	
		Carbamazepine	8.0E-04	U	ug/L	P402147	
		Clothianidin	0.0020	U	ug/L	P402147	
		Dinotefuran	0.0020	U	ug/L	P402147	
		Diuron	0.0020	U	ug/L	P402147	
		Fenuron	0.016	U	ug/L	P402147	
		Fluridone	8.0E-04	U	ug/L	P402147	
		Imazapyr	0.024		ug/L	P402147	
		Hydrocodone	0.0020	U	ug/L	P402147	
		Ibuprofen	0.020	U	ug/L	P402147	
		Imidacloprid	0.0020	U	ug/L	P402147	MS
		Linuron	0.0040	U	ug/L	P402147	
		Mandestrobin	0.0020	U	ug/L	P402147	
		MCPP	0.0020	U	ug/L	P402147	
		Naproxen	0.0080	U	ug/L	P402147	
		Primidone	0.0040	U	ug/L	P402147	
		Pyraclostrobin	0.0020	U	ug/L	P402147	
		Thiamethoxam	0.0020	U	ug/L	P402147	MS
		Tolfenpyrad	0.0020	U	ug/L	P402147	
		Triclopyr	0.0040	U	ug/L	P402147	
2267427	EPA 8270E	Aldrin	0.68	U	ng/L	P401933	
		Alpha-BHC	0.11	U	ng/L	P401933	

Field ID: G1TLHR0145 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267427	EPA 8270E	Alpha-Chlordane	0.21	U	ng/L	P401933	
		Beta-BHC	0.11	U	ng/L	P401933	
		Beta-Cyfluthrin**	1.3	U	ng/L	P401933	
		Bifenthrin**	0.53	U	ng/L	P401933	
		Chlorothalonil	0.53	U	ng/L	P401933	MS
		Cis-Nonachlor**	0.21	U	ng/L	P401933	
		Cypermethrin	1.6	U	ng/L	P401933	
		Dacthal**	0.16	U	ng/L	P401933	
		DDD-p,p'	0.26	U	ng/L	P401933	
		DDE-p,p'	0.21	U	ng/L	P401933	
		DDT-p,p'	0.26	U	ng/L	P401933	
		Delta-BHC	0.42	U	ng/L	P401933	
		Deltamethrin**	1.3	U	ng/L	P401933	MS
		Dichlobenil**	0.11	U	ng/L	P401933	
		Dicofol	1.3	U	ng/L	P401933	
		Dieldrin	1.4	I	ng/L	P401933	
		Endosulfan I	0.42	U	ng/L	P401933	
		Endosulfan II	0.42	U	ng/L	P401933	
		Endosulfan Sulfate	0.32	U	ng/L	P401933	
		Endrin	0.42	U	ng/L	P401933	
		Endrin Aldehyde	0.79	U	ng/L	P401933	
		Endrin Ketone	0.42	U	ng/L	P401933	
		Esfenvalerate**	0.79	U	ng/L	P401933	
		Ethalfluralin**	0.16	U	ng/L	P401933	
		Fenpropathrin**	0.26	U	ng/L	P401933	
		Gamma-BHC	0.13	U	ng/L	P401933	
		Gamma-Chlordane	0.21	I	ng/L	P401933	
		Heptachlor	0.21	U	ng/L	P401933	
		Heptachlor Epoxide	0.26	U	ng/L	P401933	
		Hexachlorobenzene	1.1	U	ng/L	P401933	
		Kepone**	5.3	UJ	ng/L	P401933	CCV, RPD
		Lambda-Cyhalothrin**	0.79	U	ng/L	P401933	
		Methoxychlor	0.32	U	ng/L	P401933	
		MGK-264**	0.21	U	ng/L	P401933	
		Mirex	0.74	U	ng/L	P401933	
		Permethrin	1.7	U	ng/L	P401933	
		Phenothrin**	0.95	U	ng/L	P401933	
		Piperonyl Butoxide**	0.16	U	ng/L	P401933	
		Prallethrin**	2.1	U	ng/L	P401933	
		Tau-Fluvalinate**	0.26	U	ng/L	P401933	
		Tetramethrin**	0.79	U	ng/L	P401933	
		Trans-Nonachlor**	0.21	U	ng/L	P401933	
		Triclosan Methyl**	0.16	U	ng/L	P401933	
		Trifluralin	0.21	U	ng/L	P401933	
	EPA 8276	Chlordane	5.3	U	ng/L	P401933	

Field ID: G1TLHR0145 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267427	EPA 8276	Toxaphene	32	U	ng/L	P401933	
2267428	EPA 8270E	Acetochlor	0.24	U	ng/L	P402110	
		Alachlor	0.24	U	ng/L	P402110	
		Ametryn	0.57	U	ng/L	P402110	
		Atrazine	0.24	U	ng/L	P402110	
		Atrazine Desethyl	1.4	U	ng/L	P402110	
		Azinphos Methyl	1.9	U	ng/L	P402110	
		Azoxystrobin**	0.47	U	ng/L	P402110	
		Bromacil	2.0		ng/L	P402110	
		Butylate	0.38	U	ng/L	P402110	
		Caffeine**	7.1	U	ng/L	P402110	
		Carbophenothion	0.47	U	ng/L	P402110	
		Carfentrazone Ethyl**	0.095	U	ng/L	P402110	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P402110	
		Chlorpyrifos Methyl	0.047	U	ng/L	P402110	
		Cyanazine	3.1	U	ng/L	P402110	
		Demeton	1.4	U	ng/L	P402110	
		Diazinon	0.12	U	ng/L	P402110	
		Difenoconazole**	0.57	U	ng/L	P402110	
		Dimethenamid**	0.095	U	ng/L	P402110	
		Disulfoton	0.47	U	ng/L	P402110	
		Dithiopyr**	0.17	U	ng/L	P402110	
		EPTC	1.2	UJ	ng/L	P402110	LCS
		Ethion	0.14	U	ng/L	P402110	
		Ethoprop	0.095	U	ng/L	P402110	
		Fenamiphos	0.47	U	ng/L	P402110	
		Fenbuconazole**	0.12	U	ng/L	P402110	
		Fipronil	0.24	U	ng/L	P402110	
		Fipronil Desulfinyl**	0.12	U	ng/L	P402110	
		Fipronil Sulfide	0.14	U	ng/L	P402110	
		Fipronil Sulfone	0.16	I	ng/L	P402110	
		Fluazifop-P-butyl**	0.095	U	ng/L	P402110	
		Fludioxonil**	0.12	U	ng/L	P402110	
		Flumioxazin**	1.7	UJ	ng/L	P402110	RPD
		Flutolanil**	0.095	U	ng/L	P402110	
		Fluxapyroxad**	0.095	U	ng/L	P402110	RPD
		Fonofos	0.19	U	ng/L	P402110	
		Hexazinone	9.9		ng/L	P402110	
		Imazalil**	0.71	U	ng/L	P402110	
		Iprodione**	0.57	U	ng/L	P402110	
		Malathion	0.33	U	ng/L	P402110	
		Metalaxyl	0.71	U	ng/L	P402110	
		Metolachlor	0.33	U	ng/L	P402110	
		Metribuzin	3.1	U	ng/L	P402110	
		Mevinphos	0.99	U	ng/L	P402110	

Field ID: G1TLHR0145 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267428	EPA 8270E	Molinate	0.28	U	ng/L	P402110	
		Myclobutanil**	0.24	U	ng/L	P402110	
		Naled**	1.4	UJ	ng/L	P402110	LCS
		Norflurazon	0.47	U	ng/L	P402110	
		Oxadiazon	0.28	U	ng/L	P402110	
		Oxyfluorfen**	0.14	U	ng/L	P402110	
		Parathion Ethyl	0.24	U	ng/L	P402110	
		Parathion Methyl	0.52	U	ng/L	P402110	
		Pendimethalin	0.95	U	ng/L	P402110	
		Phorate	0.50	U	ng/L	P402110	
		Prodiamine**	0.17	UJ	ng/L	P402110	RPD
		Prometon	0.85	U	ng/L	P402110	
		Prometryn	0.19	U	ng/L	P402110	
		Pronamide**	0.14	U	ng/L	P402110	
		Propiconazole**	0.47	U	ng/L	P402110	
		Pyriproxyfen**	0.12	U	ng/L	P402110	
		Simazine	0.47	U	ng/L	P402110	
		Sulfentrazone**	0.47	U	ng/L	P402110	
		Tebuconazole**	0.47	U	ng/L	P402110	RPD
		Terbufos	0.095	U	ng/L	P402110	
		Terbuthylazine	0.40	U	ng/L	P402110	

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

Sample Location: Ichetucknee Riv 80m upstream **Collection Date/Time: 08/04/2021 11:35**

Field ID: G1TLHR0142 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267426	EPA 8276	Chlordane	5.1	U	ng/L	P401933	
		Toxaphene	31	U	ng/L	P401933	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P401933

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: P401933

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: P402110

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: P402110

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: P402110

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: P402110

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: P401933

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: P401862

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: P401931

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: P401931

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

Reference Method: EPA 8321B
Batch ID: P402147

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: P401933

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	50.0	52.5	P/P	20 - 150
Alpha-BHC	91.6	94.9	P/P	50 - 150
Alpha-Chlordane	78.9	86.1	P/P	50 - 150
Beta-BHC	106	113	P/P	50 - 150
Beta-Cyfluthrin	109	127	P/P	50 - 150
Bifenthrin	72.0	84.5	P/P	40 - 150
Chlorothalonil	130	141	P/P	20 - 150
Cis-Nonachlor	75.6	84.2	P/P	50 - 150
Cypermethrin	106	124	P/P	50 - 150
Dacthal	92.6	96.8	P/P	50 - 150
DDD-p,p'	72.5	79.4	P/P	50 - 150
DDE-p,p'	77.5	79.1	P/P	50 - 150
DDT-p,p'	87.8	92.1	P/P	50 - 150
Delta-BHC	117	125	P/P	50 - 150
Deltamethrin	112	131	P/P	50 - 150
Dichlobenil	81.7	79.8	P/P	40 - 150
Dicofol	101	107	P/P	50 - 150
Dieldrin	85.4	90.0	P/P	50 - 150
Endosulfan I	76.3	81.8	P/P	50 - 150
Endosulfan II	84.6	93.3	P/P	50 - 150
Endosulfan Sulfate	96.5	111	P/P	50 - 150
Endrin	78.0	87.7	P/P	50 - 150
Endrin Aldehyde	84.1	94.4	P/P	50 - 150
Endrin Ketone	94.1	106	P/P	50 - 150
Esfenvalerate	99.1	117	P/P	50 - 180
Ethalfluralin	71.2	77.5	P/P	50 - 150
Fenpropathrin	87.7	93.3	P/P	50 - 150
Gamma-BHC	98.0	106	P/P	50 - 150
Gamma-Chlordane	73.4	78.1	P/P	50 - 150
Heptachlor	69.3	73.2	P/P	50 - 150
Heptachlor Epoxide	79.6	83.8	P/P	50 - 150
Hexachlorobenzene	67.5	73.2	P/P	50 - 150
Kepone	111	157	P/P	30 - 180
Lambda-Cyhalothrin	111	127	P/P	50 - 200
Methoxychlor	83.4	89.3	P/P	50 - 150
MGK-264	84.3	87.4	P/P	30 - 150
Mirex	56.2	65.8	P/P	50 - 180
Permethrin	95.5	108	P/P	50 - 150
Phenothrin	62.1	76.3	P/P	20 - 150
Piperonyl Butoxide	90.3	106	P/P	50 - 150
Prallethrin	69.9	70.8	P/P	30 - 150
Tau-Fluvalinate	82.9	104	P/P	40 - 150
Tetramethrin	60.0	65.0	P/P	30 - 150
Trans-Nonachlor	75.4	77.7	P/P	50 - 150
Triclosan Methyl	86.1	89.3	P/P	50 - 150
Trifluralin	75.0	77.8	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P402110

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	103	89.9	P/P	70 - 121

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P402110

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Alachlor	92.8	80.8	P/P	70 - 119
Ametryn	115	90.8	P/P	61 - 135
Atrazine	107	93.2	P/P	76 - 123
Atrazine Desethyl	69.9	60.3	P/P	35 - 140
Azinphos Methyl	118	103	P/P	57 - 163
Azoxystrobin	112	88.4	P/P	43 - 231
Bromacil	94.9	82.5	P/P	42 - 123
Butylate	37.3	34.5	P/P	34 - 92.0
Caffeine	109	100	P/P	70 - 130
Carbophenothion	116	90.9	P/P	61 - 121
Carfentrazone Ethyl	110	96.1	P/P	62 - 139
Chlorpyrifos Ethyl	98.6	80.2	P/P	67 - 121
Chlorpyrifos Methyl	112	87.9	P/P	67 - 120
Cyanazine	121	102	P/P	20 - 226
Demeton	102	89.7	P/P	35 - 125
Diazinon	107	90.9	P/P	70 - 122
Difenoconazole	183	148	P/P	56 - 186
Dimethenamid	80.0	67.1	P/P	67 - 119
Disulfoton	100	78.7	P/P	47 - 120
Dithiopyr	96.5	78.8	P/P	67 - 118
EPTC	33.8	28.6	P/F	33 - 90.0
Ethion	79.4	76.3	P/P	40 - 133
Ethoprop	96.1	85.1	P/P	61 - 121
Fenamiphos	106	92.1	P/P	31 - 139
Fenbuconazole	126	97.1	P/P	66 - 141
Fipronil	107	90.5	P/P	62 - 129
Fipronil Desulfinyl	108	92.5	P/P	59 - 126
Fipronil Sulfide	106	80.6	P/P	63 - 117
Fipronil Sulfone	83.0	73.5	P/P	57 - 117
Fluazifop-P-butyl	113	86.3	P/P	63 - 124
Fludioxonil	102	96.8	P/P	63 - 123
Flumioxazin	220	153	P/P	34 - 245
Flutolanil	103	91.2	P/P	56 - 131
Fluxapyroxad	81.5	67.9	P/P	57 - 117
Fonofos	97.5	78.6	P/P	61 - 116
Hexazinone	99.6	85.7	P/P	55 - 138
Imazalil	108	83.1	P/P	33 - 143
Iprodione	104	91.6	P/P	59 - 118
Malathion	112	91.6	P/P	62 - 138
Metalaxyl	89.3	78.5	P/P	24 - 147
Metolachlor	94.8	82.8	P/P	68 - 118
Metribuzin	113	91.1	P/P	20 - 239
Mevinphos	91.3	80.2	P/P	46 - 124
Molinate	52.6	46.9	P/P	46 - 100
Myclobutanil	96.3	82.6	P/P	32 - 149
Naled	20.3	19.0	F/F	32 - 95.0
Norflurazon	94.5	77.2	P/P	57 - 127
Oxadiazon	88.7	75.4	P/P	63 - 118
Oxyfluorfen	99.0	75.8	P/P	69 - 137
Parathion Ethyl	99.3	83.8	P/P	70 - 113
Parathion Methyl	125	100	P/P	71 - 130
Pendimethalin	78.0	67.7	P/P	55 - 118

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P402110

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	86.7	69.1	P/P	46 - 125
Prodiamine	125	85.3	P/P	20 - 141
Prometon	101	86.0	P/P	54 - 122
Prometryn	112	98.8	P/P	66 - 124
Pronamide	106	93.0	P/P	79 - 122
Propiconazole	88.3	69.5	P/P	61 - 126
Pyriproxyfen	91.7	79.6	P/P	52 - 131
Simazine	98.8	83.0	P/P	75 - 128
Sulfentrazone	82.5	63.5	P/P	20 - 132
Tebuconazole	39.7	37.0	P/P	20 - 116
Terbufos	109	93.0	P/P	61 - 117
Terbuthylazine	97.0	84.3	P/P	74 - 116

Reference Method: EPA 8276
Batch ID: P401933

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	69.2	82.4	P/P	56 - 117
Toxaphene	72.9	71.9	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P401862

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	86.7		P	40 - 150
Aldicarb	75.3		P	30 - 150
Aldicarb Sulfone	87.3		P	40 - 150
Aldicarb Sulfoxide	82.3		P	40 - 150
Carbaryl	78.8		P	40 - 150
Carbofuran	79.2		P	40 - 150
Methiocarb	79.0		P	40 - 150
Methomyl	86.9		P	40 - 150
Oxamyl	88.7		P	40 - 150
Propoxur	83.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401931

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	109		P	40 - 150
AMPA	103		P	40 - 150
Endothall	76.4		P	40 - 150
Glufosinate	99.1		P	40 - 150
Glyphosate	101		P	40 - 150
Sucralose	98.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P402147

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	96.5		P	40 - 150
2,4,5-T	90.2		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P402147

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	75.1		P	30 - 150
Acetamiprid	77.9		P	40 - 150
Afidopyropen	53.3		P	40 - 150
Bentazon	92.8		P	30 - 150
Benzovindiflupyr	78.0		P	40 - 150
Carbamazepine	83.5		P	40 - 150
Clothianidin	82.0		P	40 - 150
Dinotefuran	79.9		P	40 - 150
Diuron	82.1		P	40 - 150
Fenuron	85.4		P	40 - 150
Fluridone	83.8		P	40 - 150
Hydrocodone	83.8		P	40 - 150
Ibuprofen	76.5		P	40 - 150
Imazapyr	88.2		P	40 - 150
Imidacloprid	83.1		P	40 - 150
Linuron	75.9		P	40 - 150
Mandestrobin	78.0		P	40 - 150
MCPP	95.5		P	40 - 150
Naproxen	82.6		P	40 - 150
Primidone	82.1		P	40 - 150
Pyraclostrobin	75.7		P	40 - 150
Thiamethoxam	86.2		P	40 - 150
Tolfenpyrad	46.0		P	30 - 150
Triclopyr	94.3		P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P401933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267311	Aldrin	40.9	36.2	P/P	20 - 170
2267311	Alpha-BHC	91.9	91.1	P/P	50 - 170
2267311	Alpha-Chlordane	77.7	75.8	P/P	50 - 170
2267311	Beta-BHC	123	124	P/P	50 - 170
2267311	Beta-Cyfluthrin	149	149	P/P	50 - 170
2267311	Bifenthrin	85.8	74.7	P/P	40 - 170
2267311	Chlorothalonil	3.35	3.59	F/F	20 - 170
2267311	Cis-Nonachlor	83.0	81.3	P/P	50 - 170
2267311	Cypermethrin	145	139	P/P	50 - 170
2267311	Dacthal	90.3	90.3	P/P	50 - 170
2267311	DDD-p,p'	74.1	72.7	P/P	50 - 170
2267311	DDE-p,p'	74.1	70.9	P/P	50 - 170
2267311	DDT-p,p'	88.3	86.7	P/P	50 - 170
2267311	Delta-BHC	135	144	P/P	50 - 170
2267311	Deltamethrin	175	193	F/F	50 - 170
2267311	Dichlobenil	56.7	47.4	P/P	40 - 170
2267311	Dicofol	99.0	101	P/P	50 - 170
2267311	Dieldrin	80.2	79.6	P/P	50 - 170
2267311	Endosulfan I	74.4	74.7	P/P	50 - 170
2267311	Endosulfan II	87.3	88.2	P/P	50 - 170
2267311	Endosulfan Sulfate	110	114	P/P	50 - 170
2267311	Endrin	79.9	76.7	P/P	50 - 170
2267311	Endrin Aldehyde	67.1	55.4	P/P	50 - 170
2267311	Endrin Ketone	101	105	P/P	50 - 170
2267311	Esfenvalerate	149	152	P/P	50 - 180
2267311	Ethalfluralin	73.9	74.0	P/P	50 - 170
2267311	Fenpropathrin	93.3	86.2	P/P	50 - 170
2267311	Gamma-BHC	111	114	P/P	50 - 170
2267311	Gamma-Chlordane	72.9	69.6	P/P	50 - 170
2267311	Heptachlor	66.7	63.6	P/P	50 - 170
2267311	Heptachlor Epoxide	79.2	79.3	P/P	50 - 170
2267311	Hexachlorobenzene	61.4	61.5	P/P	50 - 170
2267311	Kepone	157	153	P/P	30 - 180
2267311	Lambda-Cyhalothrin	172	157	P/P	50 - 200
2267311	Methoxychlor	83.0	81.2	P/P	50 - 170
2267311	MGK-264	65.0	77.2	P/P	30 - 170
2267311	Mirex	65.5	59.9	P/P	50 - 180
2267311	Permethrin	124	121	P/P	50 - 170
2267311	Phenothrin	68.7	81.0	P/P	20 - 170
2267311	Piperonyl Butoxide	101	101	P/P	50 - 170
2267311	Prallethrin	71.8	80.7	P/P	30 - 170
2267311	Tau-Fluvalinate	122	136	P/P	40 - 170
2267311	Tetramethrin	73.6	76.4	P/P	30 - 170
2267311	Trans-Nonachlor	75.0	71.2	P/P	50 - 170
2267311	Triclosan Methyl	80.2	77.7	P/P	50 - 170
2267311	Trifluralin	73.8	72.7	P/P	50 - 170

Reference Method: EPA 8270E
Batch ID: P402110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267050	Acetochlor	81.5	89.1	P/P	66 - 122

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P402110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267050	Alachlor	71.7	84.4	P/P	65 - 122
2267050	Ametryn	94.8	113	P/P	45 - 173
2267050	Atrazine	94.4	95.9	P/P	70 - 134
2267050	Atrazine Desethyl	71.3	57.6	P/P	25 - 150
2267050	Azinphos Methyl	102	100	P/P	44 - 174
2267050	Azoxystrobin	107	87.5	P/P	10 - 268
2267050	Bromacil	83.9	83.3	P/P	31 - 145
2267050	Butylate	34.6	43.6	P/P	15 - 97.0
2267050	Caffeine	84.2	89.4	P/P	70 - 130
2267050	Carbophenothion	83.4	87.4	P/P	42 - 129
2267050	Carfentrazone Ethyl	78.4	87.3	P/P	62 - 145
2267050	Chlorpyrifos Ethyl	74.9	77.4	P/P	60 - 124
2267050	Chlorpyrifos Methyl	83.7	86.8	P/P	66 - 119
2267050	Cyanazine	109	102	P/P	17 - 225
2267050	Demeton	92.3	99.1	P/P	36 - 142
2267050	Diazinon	85.1	98.6	P/P	70 - 128
2267050	Difenoconazole	123	147	P/P	33 - 222
2267050	Dimethenamid	60.4	70.1	P/P	54 - 125
2267050	Disulfoton	78.1	81.5	P/P	49 - 133
2267050	Dithiopyr	71.2	81.1	P/P	55 - 123
2267050	EPTC	31.4	38.3	P/P	19 - 91.0
2267050	Ethion	82.9	80.4	P/P	13 - 143
2267050	Ethoprop	92.7	99.1	P/P	49 - 144
2267050	Fenamiphos	84.5	76.7	P/P	32 - 136
2267050	Fenbuconazole	102	109	P/P	73 - 148
2267050	Fipronil	84.5	85.8	P/P	57 - 129
2267050	Fipronil Desulfinyl	79.6	89.9	P/P	49 - 127
2267050	Fipronil Sulfide	71.0	73.4	P/P	44 - 127
2267050	Fipronil Sulfone	71.5	69.9	P/P	35 - 126
2267050	Fluazifop-P-butyl	70.6	90.2	P/P	67 - 129
2267050	Fludioxonil	81.5	79.2	P/P	61 - 126
2267050	Flumioxazin	161	186	P/P	38 - 279
2267050	Flutolanil	74.9	80.5	P/P	55 - 136
2267050	Fluxapyroxad	49.5	73.2	P/P	33 - 140
2267050	Fonofos	73.8	82.1	P/P	58 - 125
2267050	Hexazinone	84.5	89.4	P/P	57 - 148
2267050	Imazalil	97.1	84.4	P/P	10 - 221
2267050	Iprodione	82.5	86.3	P/P	32 - 140
2267050	Malathion	94.2	80.6	P/P	52 - 138
2267050	Metalaxyl	70.2	76.0	P/P	46 - 134
2267050	Metolachlor	69.4	76.7	P/P	58 - 122
2267050	Metribuzin	99.4	92.7	P/P	16 - 272
2267050	Mevinphos	102	111	P/P	45 - 140
2267050	Molinate	53.0	59.6	P/P	41 - 103
2267050	Myclobutanil	76.3	83.4	P/P	60 - 134
2267050	Naled	21.3	25.0	P/P	20 - 113
2267050	Norflurazon	74.0	72.1	P/P	51 - 123
2267050	Oxadiazon	69.5	72.2	P/P	44 - 125
2267050	Oxyfluorfen	81.8	97.4	P/P	66 - 176
2267050	Parathion Ethyl	83.5	88.3	P/P	57 - 132
2267050	Parathion Methyl	112	115	P/P	59 - 156
2267050	Pendimethalin	70.1	69.2	P/P	59 - 129

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P402110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267050	Phorate	74.6	82.9	P/P	47 - 136
2267050	Prodiamine	45.4	53.8	P/P	10 - 159
2267050	Prometon	82.1	66.4	P/P	59 - 127
2267050	Prometryn	89.1	86.5	P/P	59 - 129
2267050	Pronamide	89.5	98.6	P/P	65 - 145
2267050	Propiconazole	45.4	58.3	P/P	28 - 165
2267050	Pyriproxyfen	66.9	74.9	P/P	21 - 180
2267050	Simazine	89.3	83.5	P/P	63 - 147
2267050	Sulfentrazone	68.2	70.2	P/P	32 - 136
2267050	Tebuconazole	24.3	37.8	P/P	-8.3 - 117
2267050	Terbufos	93.8	99.2	P/P	61 - 131
2267050	Terbuthylazine	84.5	84.4	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P401933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267196	Chlordane	79.9	83.4	P/P	47 - 128
2267196	Toxaphene	75.2	72.3	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P401862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265964	3-Hydroxycarbofuran	85.8	90.3	P/P	40 - 150
2265964	Aldicarb	78.7	83.9	P/P	30 - 150
2265964	Aldicarb Sulfone	96.2	106	P/P	40 - 150
2265964	Aldicarb Sulfoxide	38.3	42.3	F/P	40 - 150
2265964	Carbaryl	76.8	79.3	P/P	40 - 150
2265964	Carbofuran	79.7	83.2	P/P	40 - 150
2265964	Methiocarb	77.6	81.6	P/P	40 - 150
2265964	Methomyl	84.3	90.9	P/P	40 - 150
2265964	Oxamyl	89.8	96.7	P/P	40 - 150
2265964	Propoxur	81.5	86.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401931

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267098	Acesulfame K	94.7	104	P/P	40 - 150
2267098	AMPA	91.7	92.4	P/P	40 - 150
2267098	Endothall	105	106	P/P	40 - 150
2267098	Glufosinate	124	132	P/P	40 - 150
2267098	Glyphosate	82.4	87.0	P/P	40 - 150
2267098	Sucralose	106	103	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P402147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267226	2,4,5-T	120	104	P/P	40 - 150
2267226	Acetaminophen	98.7	111	P/P	30 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P402147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267226	Acetamiprid	83.4	84.7	P/P	40 - 150
2267226	Afidopyropen	70.6	65.5	P/P	40 - 150
2267226	Bentazon	84.7	93.5	P/P	30 - 150
2267226	Benzovindiflupyr	83.3	87.2	P/P	40 - 150
2267226	Carbamazepine	97.1	105	P/P	40 - 150
2267226	Clothianidin	112	121	P/P	40 - 150
2267226	Dinotefuran	112	130	P/P	40 - 150
2267226	Diuron	74.8	79.0	P/P	40 - 150
2267226	Fenuron	78.7	89.6	P/P	40 - 150
2267226	Fluridone	82.0	78.2	P/P	40 - 150
2267226	Hydrocodone	94.9	104	P/P	40 - 150
2267226	Ibuprofen	78.9	75.4	P/P	40 - 150
2267226	Imazapyr	121	138	P/P	40 - 150
2267226	Imidacloprid	169	172	F/F	40 - 150
2267226	Linuron	76.8	81.4	P/P	40 - 150
2267226	Mandestrobin	84.7	91.4	P/P	40 - 150
2267226	MCPP	135	131	P/P	40 - 150
2267226	Naproxen	116	115	P/P	40 - 150
2267226	Primidone	98.2	112	P/P	40 - 150
2267226	Pyraclostrobin	83.4	92.3	P/P	40 - 150
2267226	Thiamethoxam	138	150	P/F	40 - 150
2267226	Tolfenpyrad	54.2	58.1	P/P	30 - 150
2267226	Triclopyr	122	113	P/P	40 - 150

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P401933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267311	Aldrin	12.4	Spike	P	0 - 30
2267311	Alpha-BHC	0.808	Spike	P	0 - 30
2267311	Alpha-Chlordane	2.45	Spike	P	0 - 30
2267311	Beta-BHC	0.525	Spike	P	0 - 30
2267311	Beta-Cyfluthrin	0.533	Spike	P	0 - 30
2267311	Bifenthrin	13.7	Spike	P	0 - 30
2267311	Chlorothalonil	6.83	Spike	P	0 - 50
2267311	Cis-Nonachlor	2.10	Spike	P	0 - 30
2267311	Cypermethrin	4.46	Spike	P	0 - 30
2267311	Dacthal	0.0657	Spike	P	0 - 30
2267311	DDD-p,p'	1.97	Spike	P	0 - 30
2267311	DDE-p,p'	4.41	Spike	P	0 - 30
2267311	DDT-p,p'	1.84	Spike	P	0 - 30
2267311	Delta-BHC	6.00	Spike	P	0 - 30
2267311	Deltamethrin	9.45	Spike	P	0 - 30
2267311	Dichlobenil	18.0	Spike	P	0 - 30
2267311	Dicofol	2.54	Spike	P	0 - 30
2267311	Dieldrin	0.776	Spike	P	0 - 30
2267311	Endosulfan I	0.375	Spike	P	0 - 30
2267311	Endosulfan II	1.08	Spike	P	0 - 30
2267311	Endosulfan Sulfate	3.29	Spike	P	0 - 30
2267311	Endrin	4.06	Spike	P	0 - 30
2267311	Endrin Aldehyde	19.2	Spike	P	0 - 30
2267311	Endrin Ketone	3.85	Spike	P	0 - 30
2267311	Esfenvalerate	1.54	Spike	P	0 - 30
2267311	Ethalfluralin	0.156	Spike	P	0 - 30
2267311	Fenpropathrin	7.96	Spike	P	0 - 30
2267311	Gamma-BHC	2.98	Spike	P	0 - 30
2267311	Gamma-Chlordane	4.59	Spike	P	0 - 30
2267311	Heptachlor	4.75	Spike	P	0 - 30
2267311	Heptachlor Epoxide	0.0848	Spike	P	0 - 30
2267311	Hexachlorobenzene	0.189	Spike	P	0 - 30
2267311	Kepone	2.84	Spike	P	0 - 30
2267311	Lambda-Cyhalothrin	8.85	Spike	P	0 - 30
2267311	Methoxychlor	2.21	Spike	P	0 - 30
2267311	MGK-264	17.2	Spike	P	0 - 30
2267311	Mirex	9.03	Spike	P	0 - 30
2267311	Permethrin	2.25	Spike	P	0 - 30
2267311	Phenothrin	16.4	Spike	P	0 - 30
2267311	Piperonyl Butoxide	0.0404	Spike	P	0 - 30
2267311	Prallethrin	11.6	Spike	P	0 - 30
2267311	Tau-Fluvalinate	10.6	Spike	P	0 - 30
2267311	Tetramethrin	3.74	Spike	P	0 - 30
2267311	Trans-Nonachlor	5.14	Spike	P	0 - 30
2267311	Triclosan Methyl	3.10	Spike	P	0 - 30
2267311	Trifluralin	1.54	Spike	P	0 - 30
LFB	Aldrin	4.91	LCS	P	0 - 30
LFB	Alpha-BHC	3.55	LCS	P	0 - 30
LFB	Alpha-Chlordane	8.74	LCS	P	0 - 30
LFB	Beta-BHC	6.28	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	15.2	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P401933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Bifenthrin	15.9	LCS	P	0 - 30
LFB	Chlorothalonil	8.73	LCS	P	0 - 50
LFB	Cis-Nonachlor	10.8	LCS	P	0 - 30
LFB	Cypermethrin	15.6	LCS	P	0 - 30
LFB	Dacthal	4.41	LCS	P	0 - 30
LFB	DDD-p,p'	9.21	LCS	P	0 - 30
LFB	DDE-p,p'	2.04	LCS	P	0 - 30
LFB	DDT-p,p'	4.74	LCS	P	0 - 30
LFB	Delta-BHC	6.00	LCS	P	0 - 30
LFB	Deltamethrin	15.5	LCS	P	0 - 30
LFB	Dichlobenil	2.25	LCS	P	0 - 30
LFB	Dicofol	5.75	LCS	P	0 - 30
LFB	Dieldrin	5.20	LCS	P	0 - 30
LFB	Endosulfan I	7.05	LCS	P	0 - 30
LFB	Endosulfan II	9.77	LCS	P	0 - 30
LFB	Endosulfan Sulfate	14.3	LCS	P	0 - 30
LFB	Endrin	11.8	LCS	P	0 - 30
LFB	Endrin Aldehyde	11.6	LCS	P	0 - 30
LFB	Endrin Ketone	11.5	LCS	P	0 - 30
LFB	Esfenvalerate	16.3	LCS	P	0 - 30
LFB	Ethalfluralin	8.46	LCS	P	0 - 30
LFB	Fenpropathrin	6.16	LCS	P	0 - 30
LFB	Gamma-BHC	7.48	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.18	LCS	P	0 - 30
LFB	Heptachlor	5.47	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.13	LCS	P	0 - 30
LFB	Hexachlorobenzene	8.12	LCS	P	0 - 30
LFB	Kepone	34.1	LCS	F	0 - 30
LFB	Lambda-Cyhalothrin	13.6	LCS	P	0 - 30
LFB	Methoxychlor	6.83	LCS	P	0 - 30
LFB	MGK-264	3.57	LCS	P	0 - 30
LFB	Mirex	15.8	LCS	P	0 - 30
LFB	Permethrin	11.9	LCS	P	0 - 30
LFB	Phenothrin	20.5	LCS	P	0 - 30
LFB	Piperonyl Butoxide	16.1	LCS	P	0 - 30
LFB	Prallethrin	1.30	LCS	P	0 - 30
LFB	Tau-Fluvalinate	22.4	LCS	P	0 - 30
LFB	Tetramethrin	8.12	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.99	LCS	P	0 - 30
LFB	Triclosan Methyl	3.71	LCS	P	0 - 30
LFB	Trifluralin	3.73	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P402110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267050	Acetochlor	8.91	Spike	P	0 - 30
2267050	Alachlor	10.2	Spike	P	0 - 30
2267050	Ametryn	17.9	Spike	P	0 - 30
2267050	Atrazine	1.37	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P402110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267050	Atrazine Desethyl	21.3	Spike	P	0 - 30
2267050	Azinphos Methyl	1.49	Spike	P	0 - 30
2267050	Azoxystrobin	17.0	Spike	P	0 - 30
2267050	Bromacil	0.715	Spike	P	0 - 30
2267050	Butylate	23.2	Spike	P	0 - 30
2267050	Caffeine	3.98	Spike	P	0 - 30
2267050	Carbophenothion	4.68	Spike	P	0 - 30
2267050	Carfentrazone Ethyl	10.8	Spike	P	0 - 30
2267050	Chlorpyrifos Ethyl	3.19	Spike	P	0 - 30
2267050	Chlorpyrifos Methyl	3.63	Spike	P	0 - 30
2267050	Cyanazine	7.38	Spike	P	0 - 30
2267050	Demeton	7.13	Spike	P	0 - 30
2267050	Diazinon	14.7	Spike	P	0 - 30
2267050	Difenoconazole	18.1	Spike	P	0 - 30
2267050	Dimethenamid	14.9	Spike	P	0 - 30
2267050	Disulfoton	4.27	Spike	P	0 - 30
2267050	Dithiopyr	13.0	Spike	P	0 - 30
2267050	EPTC	19.9	Spike	P	0 - 30
2267050	Ethion	3.02	Spike	P	0 - 30
2267050	Ethoprop	6.66	Spike	P	0 - 30
2267050	Fenamiphos	9.71	Spike	P	0 - 30
2267050	Fenbuconazole	6.51	Spike	P	0 - 30
2267050	Fipronil	1.53	Spike	P	0 - 30
2267050	Fipronil Desulfinyl	12.1	Spike	P	0 - 30
2267050	Fipronil Sulfide	3.37	Spike	P	0 - 30
2267050	Fipronil Sulfone	2.23	Spike	P	0 - 30
2267050	Fluazifop-P-butyl	24.4	Spike	P	0 - 30
2267050	Fludioxonil	2.94	Spike	P	0 - 30
2267050	Flumioxazin	14.2	Spike	P	0 - 30
2267050	Flutolanil	6.01	Spike	P	0 - 30
2267050	Fluxapyroxad	38.6	Spike	F	0 - 30
2267050	Fonofos	10.7	Spike	P	0 - 30
2267050	Hexazinone	5.70	Spike	P	0 - 30
2267050	Imazalil	13.9	Spike	P	0 - 30
2267050	Iprodione	4.57	Spike	P	0 - 30
2267050	Malathion	15.6	Spike	P	0 - 30
2267050	Metalaxyl	7.86	Spike	P	0 - 30
2267050	Metolachlor	6.88	Spike	P	0 - 30
2267050	Metribuzin	6.90	Spike	P	0 - 30
2267050	Mevinphos	9.05	Spike	P	0 - 30
2267050	Molinate	11.7	Spike	P	0 - 30
2267050	Myclobutanil	8.95	Spike	P	0 - 30
2267050	Naled	16.0	Spike	P	0 - 30
2267050	Norflurazon	1.87	Spike	P	0 - 30
2267050	Oxadiazon	3.78	Spike	P	0 - 30
2267050	Oxyfluorfen	17.4	Spike	P	0 - 30
2267050	Parathion Ethyl	5.62	Spike	P	0 - 30
2267050	Parathion Methyl	2.68	Spike	P	0 - 30
2267050	Pendimethalin	1.32	Spike	P	0 - 30
2267050	Phorate	10.4	Spike	P	0 - 30
2267050	Prodiamine	17.0	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P402110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267050	Prometon	21.2	Spike	P	0 - 30
2267050	Prometryn	2.96	Spike	P	0 - 30
2267050	Pronamide	9.66	Spike	P	0 - 30
2267050	Propiconazole	24.8	Spike	P	0 - 30
2267050	Pyriproxyfen	11.3	Spike	P	0 - 30
2267050	Simazine	6.79	Spike	P	0 - 30
2267050	Sulfentrazone	2.84	Spike	P	0 - 30
2267050	Tebuconazole	43.2	Spike	F	0 - 30
2267050	Terbufos	5.63	Spike	P	0 - 30
2267050	Terbuthylazine	0.121	Spike	P	0 - 30
LFB	Acetochlor	13.8	LCS	P	0 - 30
LFB	Alachlor	13.7	LCS	P	0 - 30
LFB	Ametryn	23.7	LCS	P	0 - 30
LFB	Atrazine	13.4	LCS	P	0 - 30
LFB	Atrazine Desethyl	14.9	LCS	P	0 - 30
LFB	Azinphos Methyl	13.8	LCS	P	0 - 30
LFB	Azoxystrobin	23.4	LCS	P	0 - 30
LFB	Bromacil	14.0	LCS	P	0 - 30
LFB	Butylate	7.78	LCS	P	0 - 30
LFB	Caffeine	8.39	LCS	P	0 - 30
LFB	Carbophenothion	24.1	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	13.2	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	20.6	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	24.1	LCS	P	0 - 30
LFB	Cyanazine	17.4	LCS	P	0 - 30
LFB	Demeton	12.8	LCS	P	0 - 30
LFB	Diazinon	16.2	LCS	P	0 - 30
LFB	Difenoconazole	21.0	LCS	P	0 - 30
LFB	Dimethenamid	17.6	LCS	P	0 - 30
LFB	Disulfoton	23.8	LCS	P	0 - 30
LFB	Dithiopyr	20.2	LCS	P	0 - 30
LFB	EPTC	16.7	LCS	P	0 - 30
LFB	Ethion	4.04	LCS	P	0 - 30
LFB	Ethoprop	12.1	LCS	P	0 - 30
LFB	Fenamiphos	14.0	LCS	P	0 - 30
LFB	Fenbuconazole	25.7	LCS	P	0 - 30
LFB	Fipronil	17.0	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	15.1	LCS	P	0 - 30
LFB	Fipronil Sulfide	26.8	LCS	P	0 - 30
LFB	Fipronil Sulfone	12.1	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	26.6	LCS	P	0 - 30
LFB	Fludioxonil	4.83	LCS	P	0 - 30
LFB	Flumioxazin	35.8	LCS	F	0 - 30
LFB	Flutolanil	12.5	LCS	P	0 - 30
LFB	Fluxapyroxad	18.2	LCS	P	0 - 30
LFB	Fonofos	21.5	LCS	P	0 - 30
LFB	Hexazinone	15.0	LCS	P	0 - 30
LFB	Imazalil	25.8	LCS	P	0 - 30
LFB	Iprodione	12.9	LCS	P	0 - 30
LFB	Malathion	20.0	LCS	P	0 - 30
LFB	Metalaxyl	12.8	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P402110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metolachlor	13.5	LCS	P	0 - 30
LFB	Metribuzin	21.4	LCS	P	0 - 30
LFB	Mevinphos	12.9	LCS	P	0 - 30
LFB	Molinate	11.6	LCS	P	0 - 30
LFB	Myclobutanil	15.3	LCS	P	0 - 30
LFB	Naled	6.49	LCS	P	0 - 30
LFB	Norflurazon	20.1	LCS	P	0 - 30
LFB	Oxadiazon	16.2	LCS	P	0 - 30
LFB	Oxyfluorfen	26.5	LCS	P	0 - 30
LFB	Parathion Ethyl	17.0	LCS	P	0 - 30
LFB	Parathion Methyl	22.3	LCS	P	0 - 30
LFB	Pendimethalin	14.2	LCS	P	0 - 30
LFB	Phorate	22.6	LCS	P	0 - 30
LFB	Prodiamine	37.4	LCS	F	0 - 30
LFB	Prometon	16.3	LCS	P	0 - 30
LFB	Prometryn	12.8	LCS	P	0 - 30
LFB	Pronamide	13.4	LCS	P	0 - 30
LFB	Propiconazole	23.8	LCS	P	0 - 30
LFB	Pyriproxyfen	14.1	LCS	P	0 - 30
LFB	Simazine	17.4	LCS	P	0 - 30
LFB	Sulfentrazone	26.0	LCS	P	0 - 30
LFB	Tebuconazole	6.99	LCS	P	0 - 30
LFB	Terbufos	15.9	LCS	P	0 - 30
LFB	Terbuthylazine	14.0	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P401933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267196	Chlordane	4.28	Spike	P	0 - 30
2267196	Toxaphene	3.89	Spike	P	0 - 30
LFB	Chlordane	17.4	LCS	P	0 - 30
LFB	Toxaphene	1.44	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265964	3-Hydroxycarbofuran	5.07	Spike	P	0 - 30
2265964	Aldicarb	6.39	Spike	P	0 - 30
2265964	Aldicarb Sulfone	9.60	Spike	P	0 - 30
2265964	Aldicarb Sulfoxide	9.77	Spike	P	0 - 30
2265964	Carbaryl	3.32	Spike	P	0 - 30
2265964	Carbofuran	4.33	Spike	P	0 - 30
2265964	Methiocarb	5.08	Spike	P	0 - 30
2265964	Methomyl	7.57	Spike	P	0 - 30
2265964	Oxamyl	7.37	Spike	P	0 - 30
2265964	Propoxur	5.93	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P401931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267098	Acesulfame K	8.44	Spike	P	0 - 30
2267098	AMPA	0.626	Spike	P	0 - 30
2267098	Endothall	0.228	Spike	P	0 - 30
2267098	Glufosinate	6.32	Spike	P	0 - 30
2267098	Glyphosate	3.37	Spike	P	0 - 30
2267098	Sucralose	2.78	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P402147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267226	2,4-D	3.44	Spike	P	0 - 30
2267226	2,4,5-T	14.0	Spike	P	0 - 30
2267226	Acetaminophen	11.7	Spike	P	0 - 30
2267226	Acetamiprid	1.63	Spike	P	0 - 30
2267226	Afidopyropen	7.41	Spike	P	0 - 30
2267226	Bentazon	9.86	Spike	P	0 - 30
2267226	Benzovindiflupyr	4.60	Spike	P	0 - 30
2267226	Carbamazepine	7.70	Spike	P	0 - 30
2267226	Clothianidin	7.64	Spike	P	0 - 30
2267226	Dinotefuran	14.6	Spike	P	0 - 30
2267226	Diuron	5.44	Spike	P	0 - 30
2267226	Fenuron	13.0	Spike	P	0 - 30
2267226	Fluridone	4.79	Spike	P	0 - 30
2267226	Hydrocodone	9.47	Spike	P	0 - 30
2267226	Ibuprofen	4.53	Spike	P	0 - 30
2267226	Imazapyr	12.7	Spike	P	0 - 30
2267226	Imidacloprid	1.35	Spike	P	0 - 30
2267226	Linuron	5.81	Spike	P	0 - 30
2267226	Mandestrobin	7.60	Spike	P	0 - 30
2267226	MCPP	3.06	Spike	P	0 - 30
2267226	Naproxen	0.941	Spike	P	0 - 30
2267226	Primidone	12.7	Spike	P	0 - 30
2267226	Pyraclostrobin	10.2	Spike	P	0 - 30
2267226	Thiamethoxam	8.81	Spike	P	0 - 30
2267226	Tolfenpyrad	7.08	Spike	P	0 - 30
2267226	Triclopyr	7.01	Spike	P	0 - 30

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2267424
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	73.3	P	30 - 160

Lab Sample ID: 2267425
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	123	P	30 - 160
EPA 8321B	Acetaminophen-d4	101	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.5	P	30 - 160
EPA 8321B	Diuron-d6	82.2	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	81.2	P	30 - 160
EPA 8321B	Primidone-d5	98.4	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Lab Sample ID: 2267426
Field Sample ID: G1TLHR0142

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	64.8	P	29 - 92.0
EPA 8276	PCNB	72.0	P	43 - 134

Lab Sample ID: 2267427
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	114	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	60.5	P	30 - 110
EPA 8276	Decachlorobiphenyl	77.7	P	29 - 92.0
EPA 8276	PCNB	77.6	P	43 - 134

Lab Sample ID: 2267428
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	66.3	P	20 - 200
EPA 8270E	Simazine-d10	106	P	73 - 135
EPA 8270E	Terbufos-d10	88.3	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A107069
Included Lab Sample IDs: 2267425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	65.0	80.9	P/P	60 - 160
Endothall	72.4	66.0	P/P	60 - 160
Sucralose	90.4	85.4	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A107073
Included Lab Sample IDs: 2267425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	109	114	P/P	60 - 160
Glufosinate	96.8	101	P/P	60 - 160
Glyphosate	101	106	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A107122
Included Lab Sample IDs: 2267424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	105	109	P/P	60 - 150
Aldicarb	82.0	92.6	P/P	60 - 150
Aldicarb Sulfone	101	102	P/P	50 - 150
Aldicarb Sulfoxide	98.0	98.2	P/P	50 - 150
Carbaryl	100	101	P/P	60 - 150
Carbofuran	102	104	P/P	50 - 150
Methiocarb	97.5	98.3	P/P	50 - 150
Methomyl	100	103	P/P	50 - 150
Oxamyl	103	104	P/P	50 - 150
Propoxur	96.6	99.1	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A107142
Included Lab Sample IDs: 2267427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	90.8		P	80 - 120
Alpha-BHC	99.3		P	80 - 120
Alpha-Chlordane	98.0		P	80 - 120
Beta-BHC	103		P	80 - 120
Beta-Cyfluthrin	106		P	80 - 120
Bifenthrin	103		P	80 - 120
Chlorothalonil	107		P	80 - 120
Cis-Nonachlor	107		P	80 - 120
Cypermethrin	107		P	80 - 120
Dacthal	94.3		P	80 - 120
DDD-p,p'	99.9		P	80 - 120
DDE-p,p'	94.9		P	80 - 120
DDT-p,p'	91.9		P	80 - 120
Delta-BHC	102		P	80 - 120
Deltamethrin	105		P	80 - 120
Dichlobenil	97.9		P	80 - 120
Dicofol	107		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A107142
Included Lab Sample IDs: 2267427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dieldrin	101		P	80 - 120
Endosulfan I	92.0		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	108		P	80 - 120
Endrin	103		P	80 - 120
Endrin Aldehyde	110		P	80 - 120
Endrin Ketone	106		P	80 - 120
Esfenvalerate	104		P	80 - 120
Ethalfluralin	96.9		P	80 - 120
Fenpropathrin	106		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	93.2		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	94.6		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Kepone	79.0*		F	80 - 120
Lambda-Cyhalothrin	106		P	80 - 120
Methoxychlor	99.6		P	80 - 120
MGK-264	96.9		P	80 - 120
Mirex	94.6		P	80 - 120
Permethrin	107		P	80 - 120
Phenothrin	101		P	80 - 120
Piperonyl Butoxide	85.4		P	80 - 120
Prallethrin	85.8		P	80 - 120
Tau-Fluvalinate	104		P	80 - 120
Tetramethrin	105		P	80 - 120
Trans-Nonachlor	97.2		P	80 - 120
Triclosan Methyl	94.0		P	80 - 120
Trifluralin	96.3		P	80 - 120

Reference Method: EPA 8321B
Run ID: A107150
Included Lab Sample IDs: 2267425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.1	95.1	P/P	50 - 150
2,4,5-T	100	97.9	P/P	50 - 150
Acetaminophen	93.2	92.0	P/P	60 - 160
Acetamiprid	100	99.9	P/P	50 - 150
Afidopyropen	95.8	93.1	P/P	50 - 150
Bentazon	110	108	P/P	50 - 160
Benzovindiflupyr	97.9	99.4	P/P	50 - 150
Carbamazepine	106	101	P/P	60 - 150
Clothianidin	96.9	95.0	P/P	60 - 150
Dinotefuran	98.6	98.9	P/P	50 - 150
Diuron	107	104	P/P	60 - 160
Fenuron	98.6	101	P/P	60 - 150
Fluridone	101	102	P/P	60 - 160
Hydrocodone	103	105	P/P	60 - 150
Ibuprofen	90.7	91.2	P/P	50 - 160
Imazapyr	101	101	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A107150
Included Lab Sample IDs: 2267425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	95.6	95.6	P/P	60 - 150
Linuron	102	97.9	P/P	60 - 150
Mandestrobin	98.8	100	P/P	50 - 150
MCPP	96.7	95.7	P/P	50 - 150
Naproxen	93.7	110	P/P	50 - 160
Primidone	93.9	92.6	P/P	60 - 150
Pyraclostrobin	99.9	101	P/P	60 - 150
Thiamethoxam	101	106	P/P	50 - 150
Tolfenpyrad	94.9	93.6	P/P	60 - 150
Triclopyr	101	99.1	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A107168
Included Lab Sample IDs: 2267426, 2267427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	93.7		P	80 - 120
Toxaphene	93.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A107260
Included Lab Sample IDs: 2267428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.0		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	99.0		P	80 - 120
Atrazine	98.1		P	80 - 120
Atrazine Desethyl	109		P	80 - 120
Azinphos Methyl	107		P	80 - 120
Azoxystrobin	103		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	103		P	80 - 120
Caffeine	94.9		P	70 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	98.7		P	80 - 120
Chlorpyrifos Ethyl	98.6		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Cyanazine	101		P	80 - 120
Demeton	113		P	80 - 120
Diazinon	100		P	80 - 120
Difenoconazole	82.1		P	80 - 120
Dimethenamid	97.0		P	80 - 120
Disulfoton	105		P	80 - 120
Dithiopyr	99.4		P	80 - 120
EPTC	102		P	80 - 120
Ethion	105		P	80 - 120
Ethoprop	116		P	80 - 120
Fenamiphos	92.2		P	80 - 120
Fenbuconazole	102		P	80 - 120
Fipronil	95.0		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A107260
Included Lab Sample IDs: 2267428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	96.5		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	102		P	80 - 120
Flumioxazin	90.3		P	80 - 120
Flutolanil	97.7		P	80 - 120
Fluxapyroxad	99.4		P	80 - 120
Fonofos	108		P	80 - 120
Hexazinone	99.5		P	80 - 120
Imazalil	101		P	80 - 120
Iprodione	104		P	80 - 120
Malathion	92.7		P	80 - 120
Metalaxyl	99.3		P	80 - 120
Metolachlor	97.8		P	80 - 120
Metribuzin	99.4		P	80 - 120
Mevinphos	119		P	80 - 120
Molinate	104		P	80 - 120
Myclobutanil	94.6		P	80 - 120
Naled	101		P	80 - 120
Norflurazon	105		P	80 - 120
Oxadiazon	101		P	80 - 120
Oxyfluorfen	90.9		P	80 - 120
Parathion Ethyl	104		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	97.2		P	80 - 120
Phorate	119		P	80 - 120
Prodiamine	101		P	80 - 120
Prometon	96.0		P	80 - 120
Prometryn	95.1		P	80 - 120
Pronamide	90.7		P	80 - 120
Propiconazole	96.8		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	99.6		P	80 - 120
Sulfentrazone	92.7		P	80 - 120
Tebuconazole	96.6		P	80 - 120
Terbufos	102		P	80 - 120
Terbuthylazine	94.6		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	103	89.9	81.5	89.1	13.8		8.91
	Alachlor	92.8	80.8	71.7	84.4	13.7		10.2
	Aldrin	50.0	52.5	40.9	36.2	4.91		12.4
	Alpha-BHC	91.6	94.9	91.9	91.1	3.55		0.808
	Alpha-Chlordane	78.9	86.1	77.7	75.8	8.74		2.45
	Ametryn	115	90.8	94.8	113	23.7		17.9
	Atrazine	107	93.2	94.4	95.9	13.4		1.37
	Atrazine Desethyl	69.9	60.3	71.3	57.6	14.9		21.3
	Azinphos Methyl	118	103	102	100	13.8		1.49
	Azoxystrobin	112	88.4	107	87.5	23.4		17.0
	Beta-BHC	106	113	123	124	6.28		0.525
	Beta-Cyfluthrin	109	127	149	149	15.2		0.533
	Bifenthrin	72.0	84.5	85.8	74.7	15.9		13.7
	Bromacil	94.9	82.5	83.9	83.3	14.0		0.715
	Butylate	37.3	34.5	34.6	43.6	7.78		23.2
	Caffeine	109	100	84.2	89.4	8.39		3.98
	Carbophenothion	116	90.9	83.4	87.4	24.1		4.68
	Carfentrazone Ethyl	110	96.1	78.4	87.3	13.2		10.8
	Chlorothalonil	130	141	3.35	3.59	8.73		6.83
	Chlorpyrifos Ethyl	98.6	80.2	74.9	77.4	20.6		3.19
	Chlorpyrifos Methyl	112	87.9	83.7	86.8	24.1		3.63
	Cis-Nonachlor	75.6	84.2	83.0	81.3	10.8		2.10
	Cyanazine	121	102	109	102	17.4		7.38
	Cypermethrin	106	124	145	139	15.6		4.46
	Dacthal	92.6	96.8	90.3	90.3	4.41		0.0657
	DDD-p,p'	72.5	79.4	74.1	72.7	9.21		1.97
	DDE-p,p'	77.5	79.1	74.1	70.9	2.04		4.41
	DDT-p,p'	87.8	92.1	88.3	86.7	4.74		1.84
	Delta-BHC	117	125	135	144	6.00		6.00
	Deltamethrin	112	131	175	193	15.5		9.45
	Demeton	102	89.7	92.3	99.1	12.8		7.13
	Diazinon	107	90.9	85.1	98.6	16.2		14.7
	Dichlobenil	81.7	79.8	56.7	47.4	2.25		18.0
	Dicofol	101	107	99.0	101	5.75		2.54
	Dieldrin	85.4	90.0	80.2	79.6	5.20		0.776
	Difenoconazole	183	148	123	147	21.0		18.1
	Dimethenamid	80.0	67.1	60.4	70.1	17.6		14.9
	Disulfoton	100	78.7	78.1	81.5	23.8		4.27
	Dithiopyr	96.5	78.8	71.2	81.1	20.2		13.0
	Endosulfan I	76.3	81.8	74.4	74.7	7.05		0.375
	Endosulfan II	84.6	93.3	87.3	88.2	9.77		1.08
	Endosulfan Sulfate	96.5	111	110	114	14.3		3.29
	Endrin	78.0	87.7	79.9	76.7	11.8		4.06
	Endrin Aldehyde	84.1	94.4	67.1	55.4	11.6		19.2
	Endrin Ketone	94.1	106	101	105	11.5		3.85
	EPTC	33.8	28.6	31.4	38.3	16.7		19.9
	Esfenvalerate	99.1	117	149	152	16.3		1.54
	Ethalfluralin	71.2	77.5	73.9	74.0	8.46		0.156
	Ethion	79.4	76.3	82.9	80.4	4.04		3.02
	Ethoprop	96.1	85.1	92.7	99.1	12.1		6.66
	Fenamiphos	106	92.1	84.5	76.7	14.0		9.71
	Fenbuconazole	126	97.1	102	109	25.7		6.51
	Fenpropathrin	87.7	93.3	93.3	86.2	6.16		7.96
	Fipronil	107	90.5	84.5	85.8	17.0		1.53

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Fipronil Desulfinyl	108	92.5	79.6	89.9	15.1		12.1
	Fipronil Sulfide	106	80.6	71.0	73.4	26.8		3.37
	Fipronil Sulfone	83.0	73.5	71.5	69.9	12.1		2.23
	Fluazifop-P-butyl	113	86.3	70.6	90.2	26.6		24.4
	Fludioxonil	102	96.8	81.5	79.2	4.83		2.94
	Flumioxazin	220	153	161	186	35.8		14.2
	Flutolanil	103	91.2	74.9	80.5	12.5		6.01
	Fluxapyroxad	81.5	67.9	49.5	73.2	18.2		38.6
	Fonofos	97.5	78.6	73.8	82.1	21.5		10.7
	Gamma-BHC	98.0	106	111	114	7.48		2.98
	Gamma-Chlordane	73.4	78.1	72.9	69.6	6.18		4.59
	Heptachlor	69.3	73.2	66.7	63.6	5.47		4.75
	Heptachlor Epoxide	79.6	83.8	79.2	79.3	5.13		0.0848
	Hexachlorobenzene	67.5	73.2	61.4	61.5	8.12		0.189
	Hexazinone	99.6	85.7	84.5	89.4	15.0		5.70
	Imazalil	108	83.1	97.1	84.4	25.8		13.9
	Iprodione	104	91.6	82.5	86.3	12.9		4.57
	Kepone	111	157	157	153	34.1		2.84
	Lambda-Cyhalothrin	111	127	172	157	13.6		8.85
	Malathion	112	91.6	94.2	80.6	20.0		15.6
	Metalaxyl	89.3	78.5	70.2	76.0	12.8		7.86
	Methoxychlor	83.4	89.3	83.0	81.2	6.83		2.21
	Metolachlor	94.8	82.8	69.4	76.7	13.5		6.88
	Metribuzin	113	91.1	99.4	92.7	21.4		6.90
	Mevinphos	91.3	80.2	102	111	12.9		9.05
	MGK-264	84.3	87.4	65.0	77.2	3.57		17.2
	Mirex	56.2	65.8	65.5	59.9	15.8		9.03
	Molinate	52.6	46.9	53.0	59.6	11.6		11.7
	Myclobutanil	96.3	82.6	76.3	83.4	15.3		8.95
	Naled	20.3	19.0	21.3	25.0	6.49		16.0
	Norflurazon	94.5	77.2	74.0	72.1	20.1		1.87
	Oxadiazon	88.7	75.4	69.5	72.2	16.2		3.78
	Oxyfluorfen	99.0	75.8	81.8	97.4	26.5		17.4
	Parathion Ethyl	99.3	83.8	83.5	88.3	17.0		5.62
	Parathion Methyl	125	100	112	115	22.3		2.68
	Pendimethalin	78.0	67.7	70.1	69.2	14.2		1.32
	Permethrin	95.5	108	124	121	11.9		2.25
	Phenothrin	62.1	76.3	68.7	81.0	20.5		16.4
	Phorate	86.7	69.1	74.6	82.9	22.6		10.4
	Piperonyl Butoxide	90.3	106	101	101	16.1		0.0404
	Prallethrin	69.9	70.8	71.8	80.7	1.30		11.6
	Prodiamine	125	85.3	45.4	53.8	37.4		17.0
	Prometon	101	86.0	82.1	66.4	16.3		21.2
	Prometryn	112	98.8	89.1	86.5	12.8		2.96
	Pronamide	106	93.0	89.5	98.6	13.4		9.66
	Propiconazole	88.3	69.5	45.4	58.3	23.8		24.8
	Pyriproxyfen	91.7	79.6	66.9	74.9	14.1		11.3
	Simazine	98.8	83.0	89.3	83.5	17.4		6.79
	Sulfentrazone	82.5	63.5	68.2	70.2	26.0		2.84
	Tau-Fluvalinate	82.9	104	122	136	22.4		10.6
	Tebuconazole	39.7	37.0	24.3	37.8	6.99		43.2
	Terbufos	109	93.0	93.8	99.2	15.9		5.63
	Terbuthylazine	97.0	84.3	84.5	84.4	14.0		0.121
	Tetramethrin	60.0	65.0	73.6	76.4	8.12		3.74

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Trans-Nonachlor	75.4	77.7	75.0	71.2	2.99		5.14
	Triclosan Methyl	86.1	89.3	80.2	77.7	3.71		3.10
	Trifluralin	75.0	77.8	73.8	72.7	3.73		1.54
EPA 8276	Chlordane	69.2	82.4	79.9	83.4	17.4		4.28
	Toxaphene	72.9	71.9	75.2	72.3	1.44		3.89
EPA 8321B	2,4-D	96.5						3.44
	2,4,5-T	90.2		120	104			14.0
	3-Hydroxycarbofuran	86.7		85.8	90.3			5.07
	Acesulfame K	109		94.7	104			8.44
	Acetaminophen	75.1		98.7	111			11.7
	Acetamiprid	77.9		83.4	84.7			1.63
	Afidopyropen	53.3		70.6	65.5			7.41
	Aldicarb	75.3		78.7	83.9			6.39
	Aldicarb Sulfone	87.3		96.2	106			9.60
	Aldicarb Sulfoxide	82.3		38.3	42.3			9.77
	AMPA	103		91.7	92.4			0.626
	Bentazon	92.8		84.7	93.5			9.86
	Benzovindiflupyr	78.0		83.3	87.2			4.60
	Carbamazepine	83.5		97.1	105			7.70
	Carbaryl	78.8		76.8	79.3			3.32
	Carbofuran	79.2		79.7	83.2			4.33
	Clothianidin	82.0		112	121			7.64
	Dinotefuran	79.9		112	130			14.6
	Diuron	82.1		74.8	79.0			5.44
	Endothall	76.4		105	106			0.228
	Fenuron	85.4		78.7	89.6			13.0
	Fluridone	83.8		82.0	78.2			4.79
	Glufosinate	99.1		124	132			6.32
	Glyphosate	101		82.4	87.0			3.37
	Hydrocodone	83.8		94.9	104			9.47
	Ibuprofen	76.5		78.9	75.4			4.53
	Imazapyr	88.2		121	138			12.7
	Imidacloprid	83.1		169	172			1.35
	Linuron	75.9		76.8	81.4			5.81
	Mandestrobin	78.0		84.7	91.4			7.60
	MCPP	95.5		135	131			3.06
	Methiocarb	79.0		77.6	81.6			5.08
	Methomyl	86.9		84.3	90.9			7.57
	Naproxen	82.6		116	115			0.941
	Oxamyl	88.7		89.8	96.7			7.37
	Primidone	82.1		98.2	112			12.7
	Propoxur	83.6		81.5	86.4			5.93
	Pyraclostrobin	75.7		83.4	92.3			10.2
	Sucralose	98.2		106	103			2.78
	Thiamethoxam	86.2		138	150			8.81
	Tolfenpyrad	46.0		54.2	58.1			7.08
	Triclopyr	94.3		122	113			7.01

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2267427
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2267428

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2267426, 2267427
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2267424
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2267425

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	08/04/2021	08/06/2021 08:00	Fe-Val Siddell	08/10/2021 02:04	Arthur Maknenko	2267427
	08/04/2021	08/09/2021 08:00	Fe-Val Siddell	08/10/2021 22:02	Michael Poppell	2267428
EPA 8276	08/04/2021	08/06/2021 08:00	Fe-Val Siddell	08/10/2021 10:57	Michael Poppell	2267426
	08/04/2021	08/06/2021 08:00	Fe-Val Siddell	08/10/2021 11:53	Michael Poppell	2267427
EPA 8321B	08/04/2021	08/04/2021 15:00	Hoor Shaik	08/06/2021 14:16	Juyoung Kim	2267424
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/05/2021 14:19	Juyoung Kim	2267425
	08/04/2021	08/05/2021 10:30	Juyoung Kim	08/06/2021 09:31	Juyoung Kim	2267425
	08/04/2021	08/09/2021 08:30	Hoor Shaik	08/10/2021 02:10	Juyoung Kim	2267425