

Chemical Analysis Report

NE-DIST-2020-02-18-02

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

Event Description: **Alachua County 2020**
Request ID: **RQ-2020-02-17-11**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 12-MAR-2020 17:10



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 groups are included in this report: Metals and 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: Bivens Arm Lake - west off US 441, and south of SW 16th Street

Collection Date/Time: 02/17/2020 09:00

Field ID: G1NE0904

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158602	EPA 200.7 Rev. 4.4	Barium	15.3		ug/L	P379279	
		Calcium	48.5		mg/L	P379279	
		Iron	39	I	ug/L	P379279	
		Magnesium	4.95		mg/L	P379279	
		Potassium	1.4		mg/L	P379279	
		Sodium	7.8		mg/L	P379279	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P379279	
		Aluminum	201		ug/L	P379279	
		Antimony	0.59		ug/L	P379279	
		Arsenic	1.20		ug/L	P379279	
		Boron**	17.3		ug/L	P379279	
		Cadmium	0.020	U	ug/L	P379279	
		Chromium	0.48	I	ug/L	P379279	
		Copper	0.63	I	ug/L	P379279	
		Lead	1.80		ug/L	P379279	
		Nickel	0.50	U	ug/L	P379279	
		Selenium	0.20	U	ug/L	P379279	
		Silver	0.010	U	ug/L	P379279	
		Thallium	0.10	U	ug/L	P379279	
	SM 2340B	Hardness	142		mg/L	P379279	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 02/28/2020.

Sample Location: Paraners Branch - E of CR 1491, S of NW 276th Ln **Collection Date/Time: 02/17/2020 10:35**

Field ID: G1NE0906

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158598	EPA 8321B	Aldicarb	0.020	U	ug/L	P379101	
		Aldicarb Sulfone	0.0020	U	ug/L	P379101	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P379101	
		Carbaryl	0.0020	U	ug/L	P379101	
		Carbofuran	0.0020	U	ug/L	P379101	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P379101	
		Methiocarb	0.0020	U	ug/L	P379101	
		Methomyl	0.0020	U	ug/L	P379101	
		Oxamyl	0.0020	U	ug/L	P379101	
		Propoxur	0.0020	U	ug/L	P379101	
2158599		2,4-D	0.0020	U	ug/L	P379190	
		Acesulfame K**	0.10	U	ug/L	P379179	
		AMPA**	0.10	U	ug/L	P379179	
		Sucralose**	0.052		ug/L	P379179	
		Acetaminophen**	0.0080	U	ug/L	P379190	
		Endothall**	0.25	U	ug/L	P379179	
		Acetamiprid**	0.0020	U	ug/L	P379190	RPD
		Glufosinate**	0.10	U	ug/L	P379179	MS
		Glyphosate**	0.10	U	ug/L	P379179	MS
		Afidopyropen**	0.0020	UJ	ug/L	P379190	
		Bentazon	8.0E-04	U	ug/L	P379190	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379190	
		Carbamazepine**	8.0E-04	U	ug/L	P379190	
		Clothianidin**	0.0093		ug/L	P379190	
		Dinotefuran**	0.0020	U	ug/L	P379190	
		Diuron	0.015		ug/L	P379190	
		Fenuron	0.016	U	ug/L	P379190	
		Fluridone**	8.0E-04	U	ug/L	P379190	
		Imazapyr**	0.0040	U	ug/L	P379190	
		Hydrocodone**	0.0020	U	ug/L	P379190	
		Ibuprofen**	0.020	U	ug/L	P379190	
		Imidacloprid	0.0020	U	ug/L	P379190	
		Linuron	0.0040	U	ug/L	P379190	
		Mandestrobin**	0.0020	UJ	ug/L	P379190	
		MCPP	0.0020	U	ug/L	P379190	
		Naproxen**	0.0080	U	ug/L	P379190	
		Primidone**	0.0040	U	ug/L	P379190	
		Pyraclostrobin**	0.0020	U	ug/L	P379190	
		Thiamethoxam**	0.0020	U	ug/L	P379190	
		Tolfenpyrad**	0.0020	U	ug/L	P379190	
		Triclopyr**	0.0040	U	ug/L	P379190	
2158600	EPA 8270E	Aldrin	4.2	U	ng/L	P379288	
		Alpha-BHC	2.1	U	ng/L	P379288	

Field ID: G1NE0906

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158600	EPA 8270E	Alpha-Chlordane	1.0	U	ng/L	P379288	
		Beta-BHC	10	U	ng/L	P379288	
		Bifenthrin**	4.2	U	ng/L	P379288	
		Delta-BHC	8.4	U	ng/L	P379288	
		Gamma-BHC	8.4	U	ng/L	P379288	
		Carbophenothion	10	U	ng/L	P379288	
		Chlorothalonil	2.1	UJ	ng/L	P379288	RPD
		Cis-Nonachlor**	1.0	U	ng/L	P379288	
		Cypermethrin	21	U	ng/L	P379288	
		DDD-p,p'	6.3	U	ng/L	P379288	
		DDE-p,p'	6.3	U	ng/L	P379288	
		DDT-p,p'	7.3	U	ng/L	P379288	
		Dicofol	31	U	ng/L	P379288	
		Dieldrin	4.2	U	ng/L	P379288	
		Endosulfan I	4.2	U	ng/L	P379288	
		Endosulfan II	4.2	U	ng/L	P379288	
		Endosulfan Sulfate	2.1	U	ng/L	P379288	
		Endrin	2.1	U	ng/L	P379288	
		Endrin Aldehyde	2.1	U	ng/L	P379288	
		Endrin Ketone	2.1	U	ng/L	P379288	
		Ethalfuralin**	3.1	U	ng/L	P379288	
		Gamma-Chlordane	1.0	U	ng/L	P379288	
		Heptachlor	1.6	U	ng/L	P379288	
		Heptachlor Epoxide	2.1	U	ng/L	P379288	
		Hexachlorobenzene	2.1	U	ng/L	P379288	
		Methoxychlor	4.2	U	ng/L	P379288	
		Mirex	2.1	U	ng/L	P379288	
		Permethrin	10	U	ng/L	P379288	
		Trans-Nonachlor**	1.0	U	ng/L	P379288	
		Trifluralin	2.6	U	ng/L	P379288	
	EPA 8276	Chlordane	5.2	UJ	ng/L	P379288	LCS, RPD
		Toxaphene	31	U	ng/L	P379288	
2158601	EPA 8270E	Acetochlor	0.24	U	ng/L	P379289	
		Alachlor	0.24	U	ng/L	P379289	
		Ametryn	0.58	U	ng/L	P379289	
		Atrazine	0.32	I	ng/L	P379289	
		Atrazine Desethyl	2.6	I	ng/L	P379289	RPD
		Azinphos Methyl	1.9	U	ng/L	P379289	
		Bromacil	0.49	U	ng/L	P379289	
		Butylate	0.39	U	ng/L	P379289	RPD
		Carbophenothion	0.49	U	ng/L	P379289	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P379289	
		Chlorpyrifos Methyl	0.049	U	ng/L	P379289	
		Cyanazine	3.2	U	ng/L	P379289	
		Demeton	1.5	UJ	ng/L	P379289	RPD

Field ID: G1NE0906

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2158601	EPA 8270E	Diazinon	0.12	U	ng/L	P379289	
		Dimethenamid**	0.097	U	ng/L	P379289	
		Disulfoton	0.49	U	ng/L	P379289	
		Dithiopyr**	0.11	I	ng/L	P379289	
		EPTC	1.2	U	ng/L	P379289	RPD
		Ethion	0.15	U	ng/L	P379289	
		Ethoprop	0.097	U	ng/L	P379289	
		Fenamiphos	0.49	U	ng/L	P379289	
		Fipronil	0.24	U	ng/L	P379289	
		Fipronil Desulfinyl**	0.12	U	ng/L	P379289	
		Fipronil Sulfide	0.15	U	ng/L	P379289	
		Fipronil Sulfone	0.15	U	ng/L	P379289	
		Flumioxazin**	1.7	U	ng/L	P379289	
		Fonofos	0.19	U	ng/L	P379289	
		Hexazinone	0.49	U	ng/L	P379289	
		Imazalil**	0.73	U	ng/L	P379289	MS, RPD
		Malathion	0.34	U	ng/L	P379289	
		Metaxyl	0.73	U	ng/L	P379289	
		Metolachlor	0.49	U	ng/L	P379289	
		Metribuzin	3.2	U	ng/L	P379289	
		Mevinphos	0.49	U	ng/L	P379289	
		Molinate	0.29	U	ng/L	P379289	
		Norflurazon	0.49	U	ng/L	P379289	
		Oxadiazon**	0.15	I	ng/L	P379289	
		Parathion Ethyl	0.24	U	ng/L	P379289	
		Parathion Methyl	0.53	U	ng/L	P379289	
		Pendimethalin	0.97	U	ng/L	P379289	
		Phorate	0.24	U	ng/L	P379289	
		Prodiamine**	0.17	U	ng/L	P379289	RPD
		Prometon	0.87	U	ng/L	P379289	
		Prometryn	0.19	U	ng/L	P379289	
		Pronamide**	0.15	U	ng/L	P379289	
		Propiconazole**	0.63	I	ng/L	P379289	
		Simazine	0.49	U	ng/L	P379289	
		Sulfentrazone**	0.49	UJ	ng/L	P379289	RPD
		Tebuconazole**	0.49	UJ	ng/L	P379289	RPD
		Terbufos	0.097	U	ng/L	P379289	
		Terbuthylazine	0.41	U	ng/L	P379289	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for bentazon and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379279

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379279

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 8270E
Batch ID: P379288

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P379288

Component	Result	Code	Units
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E
Batch ID: P379289

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Flumioxazin	1.8	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P379289

Component	Result	Code	Units
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P379288

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

Reference Method: EPA 8321B
Batch ID: P379101

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: P379179

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: P379190

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P379190

Component	Result	Code	Units
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 200.7 Rev. 4.4
Batch ID: P379279

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	106		P	85 - 115
Calcium	107		P	85 - 115
Iron	109		P	85 - 115
Magnesium	112		P	85 - 115
Potassium	107		P	85 - 115
Sodium	112		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379279

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	91.9		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	100		P	85 - 115
Boron	95.9		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	97.1		P	85 - 115
Copper	95.3		P	85 - 115
Lead	95.4		P	85 - 115
Nickel	94.4		P	85 - 115
Selenium	105		P	85 - 115
Silver	100		P	85 - 115
Thallium	99.4		P	85 - 115

Reference Method: EPA 8270E
Batch ID: P379288

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	35.3	32.7	P/P	20 - 87.0
Alpha-BHC	82.6	74.6	P/P	65 - 142
Alpha-Chlordane	76.2	71.9	P/P	58 - 106
Beta-BHC	109	98.3	P/P	65 - 179
Bifenthrin	69.9	63.6	P/P	38 - 128
Carbophenothion	75.2	74.0	P/P	20 - 144
Chlorothalonil	91.4	38.0	P/P	20 - 214
Cis-Nonachlor	78.4	75.2	P/P	56 - 113
Cypermethrin	88.8	76.5	P/P	37 - 130
DDD-p,p'	89.8	83.1	P/P	66 - 119
DDE-p,p'	75.3	72.8	P/P	53 - 108
DDT-p,p'	69.0	67.7	P/P	57 - 133
Delta-BHC	113	93.9	P/P	68 - 187
Dicofol	84.5	79.5	P/P	66 - 123
Diieldrin	86.9	80.3	P/P	65 - 111
Endosulfan I	87.9	79.0	P/P	65 - 115
Endosulfan II	100	84.3	P/P	68 - 133
Endosulfan Sulfate	94.9	78.2	P/P	62 - 127
Endrin	87.2	81.0	P/P	64 - 122
Endrin Aldehyde	105	88.3	P/P	61 - 132
Endrin Ketone	97.4	82.7	P/P	66 - 120
Ethalfuralin	69.4	64.4	P/P	57 - 127
Gamma-BHC	106	92.3	P/P	71 - 158

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P379288

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-Chlordane	69.3	67.3	P/P	53 - 106
Heptachlor	59.6	58.2	P/P	45 - 96.0
Heptachlor Epoxide	79.9	73.4	P/P	64 - 109
Hexachlorobenzene	68.5	63.3	P/P	46 - 103
Methoxychlor	78.0	75.7	P/P	69 - 149
Mirex	58.5	56.5	P/P	31 - 90.0
Permethrin	71.5	65.9	P/P	41 - 108
Trans-Nonachlor	74.5	71.5	P/P	50 - 107
Trifluralin	69.3	66.3	P/P	58 - 119

Reference Method: EPA 8270E
Batch ID: P379289

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	99.5	94.5	P/P	71 - 122
Alachlor	99.0	94.9	P/P	70 - 121
Ametryn	103	116	P/P	49 - 137
Atrazine	100	101	P/P	76 - 125
Atrazine Desethyl	85.0	80.3	P/P	31 - 144
Azinphos Methyl	133	111	P/P	67 - 150
Bromacil	89.5	99.6	P/P	36 - 121
Butylate	48.8	60.6	P/P	33 - 88.0
Carbophenothion	104	108	P/P	50 - 150
Chlorpyrifos Ethyl	104	103	P/P	73 - 117
Chlorpyrifos Methyl	97.9	92.9	P/P	68 - 121
Cyanazine	127	99.0	P/P	20 - 250
Demeton	78.6	56.8	P/P	30 - 123
Diazinon	91.9	89.8	P/P	70 - 128
Dimethenamid	92.4	94.4	P/P	66 - 122
Disulfoton	87.6	65.7	P/P	46 - 124
Dithiopyr	97.4	98.5	P/P	69 - 122
EPTC	46.5	57.9	P/P	31 - 90.0
Ethion	98.9	107	P/P	45 - 135
Ethoprop	87.0	79.0	P/P	59 - 118
Fenamiphos	105	102	P/P	30 - 136
Fipronil	87.5	108	P/P	57 - 127
Fipronil Desulfinyl	94.6	107	P/P	51 - 122
Fipronil Sulfide	88.8	107	P/P	57 - 119
Fipronil Sulfone	95.4	104	P/P	51 - 119
Flumioxazin	157	161	P/P	70 - 200
Fonofos	93.4	77.1	P/P	60 - 120
Hexazinone	96.5	116	P/P	57 - 142
Imazalil	94.4	90.8	P/P	50 - 150
Malathion	109	111	P/P	67 - 128
Metalaxyl	106	101	P/P	21 - 148
Metolachlor	92.3	94.5	P/P	70 - 120
Metribuzin	104	104	P/P	20 - 253
Mevinphos	79.5	69.5	P/P	47 - 116
Molinate	66.0	63.7	P/P	41 - 99.0
Norflurazon	91.8	109	P/P	54 - 127
Oxadiazon	95.2	107	P/P	65 - 122
Parathion Ethyl	95.4	95.5	P/P	71 - 113

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P379289

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Methyl	95.9	96.4	P/P	73 - 129
Pendimethalin	93.1	94.3	P/P	63 - 130
Phorate	90.0	75.7	P/P	48 - 118
Prodiamine	104	93.8	P/P	20 - 144
Prometon	94.8	98.6	P/P	53 - 120
Prometryn	102	103	P/P	63 - 119
Pronamide	92.7	104	P/P	50 - 150
Propiconazole	99.8	117	P/P	50 - 150
Simazine	101	101	P/P	77 - 129
Sulfentrazone	70.2	99.9	P/P	50 - 150
Tebuconazole	59.8	103	P/P	20 - 118
Terbufos	92.6	79.5	P/P	61 - 119
Terbutylazine	96.0	98.0	P/P	75 - 119

Reference Method: EPA 8276
Batch ID: P379288

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	157	98.2	F/P	47 - 119
Toxaphene	76.9	82.6	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P379101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	88.6		P	30 - 160
Aldicarb	74.0		P	30 - 160
Aldicarb Sulfone	95.0		P	30 - 160
Aldicarb Sulfoxide	96.0		P	30 - 160
Carbaryl	61.9		P	30 - 160
Carbofuran	70.2		P	30 - 160
Methiocarb	73.0		P	30 - 160
Methomyl	85.6		P	30 - 160
Oxamyl	92.9		P	30 - 160
Propoxur	71.7		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P379179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.5		P	40 - 150
AMPA	98.1		P	40 - 150
Endothall	86.8		P	40 - 150
Glufosinate	95.0		P	40 - 150
Glyphosate	93.1		P	40 - 140
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	133		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P379190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	88.1		P	30 - 160
Acetamiprid	82.0		P	30 - 160
Afidopyropen	71.5		P	30 - 160
Bentazon	76.6		P	30 - 160
Benzovindiflupyr	78.1		P	30 - 160
Carbamazepine	80.5		P	30 - 160
Clothianidin	70.9		P	30 - 160
Dinotefuran	79.0		P	30 - 160
Diuron	78.7		P	30 - 160
Fenuron	91.3		P	30 - 160
Fluridone	92.4		P	30 - 160
Hydrocodone	82.6		P	30 - 160
Ibuprofen	86.7		P	30 - 160
Imazapyr	90.1		P	30 - 160
Imidacloprid	89.6		P	30 - 160
Linuron	73.5		P	30 - 160
Mandestrobin	87.7		P	30 - 160
MCPP	131		P	30 - 160
Naproxen	83.9		P	30 - 160
Primidone	79.7		P	30 - 160
Pyraclostrobin	82.3		P	30 - 160
Thiamethoxam	86.9		P	30 - 160
Tolfenpyrad	58.6		P	30 - 160
Triclopyr	105		P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158739	Barium	106		P	80 - 120
2158739	Calcium	102		P	80 - 120
2158739	Iron	110		P	80 - 120
2158739	Magnesium	103		P	80 - 120
2158739	Potassium	108		P	80 - 120
2158739	Sodium	103		P	80 - 120
2158739	Zinc	105		P	80 - 120
2159002	Barium	105	105	P/P	80 - 120
2159002	Calcium	109	105	P/P	80 - 120
2159002	Iron	109	105	P/P	80 - 120
2159002	Magnesium	116	111	P/P	80 - 120
2159002	Potassium	108	107	P/P	80 - 120
2159002	Sodium	106	105	P/P	80 - 120
2159002	Zinc	105	105	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158739	Aluminum	96.9		P	80 - 120
2158739	Antimony	107		P	80 - 120
2158739	Arsenic	105		P	80 - 120
2158739	Boron	98.1		P	80 - 120
2158739	Cadmium	105		P	80 - 120
2158739	Chromium	99.6		P	80 - 120
2158739	Copper	97.0		P	80 - 120
2158739	Lead	96.7		P	80 - 120
2158739	Nickel	95.7		P	80 - 120
2158739	Selenium	109		P	80 - 120
2158739	Silver	101		P	80 - 120
2158739	Thallium	107		P	80 - 120
2159002	Aluminum	97.2	96.0	P/P	80 - 120
2159002	Antimony	104	104	P/P	80 - 120
2159002	Arsenic	102	101	P/P	80 - 120
2159002	Boron	95.6	95.6	P/P	80 - 120
2159002	Cadmium	102	101	P/P	80 - 120
2159002	Chromium	99.1	98.6	P/P	80 - 120
2159002	Copper	99.0	98.4	P/P	80 - 120
2159002	Lead	95.7	95.3	P/P	80 - 120
2159002	Nickel	97.3	97.9	P/P	80 - 120
2159002	Selenium	107	106	P/P	80 - 120
2159002	Silver	100	99.9	P/P	80 - 120
2159002	Thallium	105	106	P/P	80 - 120

Reference Method: EPA 8270E
Batch ID: P379288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158658	Aldrin	44.5	42.2	P/P	32 - 82.0
2158658	Alpha-BHC	88.4	76.7	P/P	68 - 157
2158658	Alpha-Chlordane	76.3	74.6	P/P	54 - 108
2158658	Beta-BHC	145	133	P/P	54 - 200

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P379288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158658	Bifenthrin	66.5	72.3	P/P	49 - 124
2158658	Carbophenothion	92.9	94.0	P/P	42 - 173
2158658	Chlorothalonil	93.9	67.1	P/P	10 - 289
2158658	Cis-Nonachlor	78.6	78.1	P/P	53 - 112
2158658	Cypermethrin	85.4	83.9	P/P	43 - 141
2158658	DDD-p,p'	90.5	88.1	P/P	58 - 125
2158658	DDE-p,p'	74.6	72.8	P/P	50 - 108
2158658	DDT-p,p'	67.9	66.5	P/P	52 - 140
2158658	Delta-BHC	140	131	P/P	61 - 228
2158658	Dicofol	75.8	70.3	P/P	59 - 130
2158658	Dieldrin	91.4	93.7	P/P	57 - 121
2158658	Endosulfan I	89.9	84.1	P/P	62 - 123
2158658	Endosulfan II	102	94.8	P/P	48 - 163
2158658	Endosulfan Sulfate	100	89.7	P/P	63 - 132
2158658	Endrin	86.9	82.7	P/P	58 - 128
2158658	Endrin Aldehyde	91.8	81.7	P/P	44 - 126
2158658	Endrin Ketone	107	95.2	P/P	68 - 127
2158658	Ethalfuralin	67.1	61.5	P/P	55 - 131
2158658	Gamma-BHC	135	120	P/P	54 - 206
2158658	Gamma-Chlordane	68.0	67.1	P/P	52 - 105
2158658	Heptachlor	55.6	54.3	P/P	47 - 94.0
2158658	Heptachlor Epoxide	82.7	77.1	P/P	61 - 113
2158658	Hexachlorobenzene	66.4	61.0	P/P	45 - 100
2158658	Methoxychlor	78.3	72.7	P/P	63 - 153
2158658	Mirex	56.3	57.2	P/P	38 - 90.0
2158658	Permethrin	71.8	70.4	P/P	45 - 112
2158658	Trans-Nonachlor	74.7	74.3	P/P	50 - 103
2158658	Trifluralin	69.1	64.7	P/P	57 - 122

Reference Method: EPA 8270E
Batch ID: P379289

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158576	Acetochlor	101	96.3	P/P	68 - 126
2158576	Alachlor	103	97.8	P/P	66 - 125
2158576	Ametryn	101	98.3	P/P	31 - 182
2158576	Atrazine Desethyl	60.9	84.6	P/P	13 - 161
2158576	Azinphos Methyl	125	122	P/P	54 - 162
2158576	Bromacil	88.2	78.7	P/P	34 - 144
2158576	Butylate	32.5	50.9	P/P	16 - 92.0
2158576	Carbophenothion	110	101	P/P	50 - 150
2158576	Chlorpyrifos Ethyl	123	108	P/P	63 - 124
2158576	Chlorpyrifos Methyl	103	99.9	P/P	64 - 125
2158576	Cyanazine	106	102	P/P	13 - 245
2158576	Demeton	85.9	87.5	P/P	20 - 154
2158576	Diazinon	97.0	93.7	P/P	66 - 141
2158576	Dimethenamid	100	94.3	P/P	50 - 130
2158576	Disulfoton	90.2	89.5	P/P	55 - 130
2158576	Dithiopyr	99.8	92.7	P/P	66 - 122
2158576	EPTC	29.1	41.4	P/P	15 - 93.0
2158576	Ethion	121	107	P/P	15 - 148
2158576	Ethoprop	95.7	96.1	P/P	59 - 126

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P379289

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158576	Fenamiphos	100	94.3	P/P	39 - 137
2158576	Fipronil	109	100	P/P	47 - 131
2158576	Fipronil Desulfinyl	110	97.4	P/P	43 - 121
2158576	Fipronil Sulfide	112	98.5	P/P	29 - 134
2158576	Fipronil Sulfone	108	90.8	P/P	19 - 131
2158576	Flumioxazin	177	174	P/P	70 - 200
2158576	Fonofos	93.0	85.8	P/P	62 - 128
2158576	Imazalil	66.8	210	P/F	50 - 150
2158576	Malathion	115	104	P/P	54 - 135
2158576	Metalaxyl	105	100	P/P	46 - 136
2158576	Mevinphos	83.8	86.7	P/P	44 - 135
2158576	Molinate	57.2	68.8	P/P	31 - 104
2158576	Norflurazon	106	85.4	P/P	32 - 134
2158576	Oxadiazon	96.3	88.1	P/P	55 - 123
2158576	Parathion Ethyl	108	97.6	P/P	67 - 120
2158576	Parathion Methyl	109	105	P/P	70 - 140
2158576	Pendimethalin	110	101	P/P	59 - 145
2158576	Phorate	82.6	86.5	P/P	52 - 127
2158576	Prodiamine	110	76.7	P/P	11 - 157
2158576	Prometon	89.1	93.4	P/P	55 - 130
2158576	Prometryn	106	99.8	P/P	55 - 127
2158576	Pronamide	99.4	108	P/P	50 - 150
2158576	Propiconazole	112	111	P/P	50 - 150
2158576	Simazine	119	107	P/P	58 - 159
2158576	Sulfentrazone	100	90.6	P/P	50 - 150
2158576	Tebuconazole	97.4	76.4	P/P	10 - 122
2158576	Terbufos	97.9	98.6	P/P	65 - 131
2158576	Terbutylazine	102	95.1	P/P	63 - 131

Reference Method: EPA 8276
Batch ID: P379288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158600	Chlordane	97.3	95.1	P/P	34 - 129
2158600	Toxaphene	76.5	82.0	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P379101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157327	3-Hydroxycarbofuran	83.4	82.9	P/P	30 - 160
2157327	Aldicarb	78.2	64.9	P/P	30 - 160
2157327	Aldicarb Sulfone	103	101	P/P	30 - 160
2157327	Aldicarb Sulfoxide	44.3	45.6	P/P	30 - 160
2157327	Carbaryl	50.0	61.4	P/P	30 - 160
2157327	Carbofuran	67.6	69.0	P/P	30 - 160
2157327	Methiocarb	58.9	63.7	P/P	30 - 160
2157327	Methomyl	77.8	90.0	P/P	30 - 160
2157327	Oxamyl	96.1	98.0	P/P	30 - 160
2157327	Propoxur	62.4	66.7	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P379179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158377	Acesulfame K	79.3	75.2	P/P	40 - 150
2158377	AMPA	83.7	77.7	P/P	40 - 150
2158377	Endothall	106	97.5	P/P	40 - 150
2158377	Glufosinate	195	246	F/F	40 - 150
2158377	Glyphosate	183	213	F/F	40 - 140
2158377	Sucralose	108	101	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P379190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158377	2,4-D	131	142	P/P	30 - 160
2158377	Acetaminophen	92.5	114	P/P	30 - 160
2158377	Acetamiprid	78.4	57.3	P/P	30 - 160
2158377	Afidopyropen	87.0	80.3	P/P	30 - 160
2158377	Benzovindiflupyr	75.4	82.7	P/P	30 - 160
2158377	Carbamazepine	66.9	70.5	P/P	30 - 160
2158377	Clothianidin	92.3	104	P/P	30 - 160
2158377	Dinotefuran	119	120	P/P	30 - 160
2158377	Diuron	63.8	65.4	P/P	30 - 160
2158377	Fenuron	77.4	71.1	P/P	30 - 160
2158377	Fluridone	88.0	90.0	P/P	30 - 160
2158377	Hydrocodone	78.4	95.1	P/P	30 - 160
2158377	Ibuprofen	79.4	82.2	P/P	30 - 160
2158377	Imidacloprid	157	138	P/P	30 - 160
2158377	Linuron	75.0	71.5	P/P	30 - 160
2158377	Mandestrobin	84.9	88.5	P/P	30 - 160
2158377	MCP	133	134	P/P	30 - 160
2158377	Naproxen	97.3	117	P/P	30 - 160
2158377	Primidone	85.7	88.2	P/P	30 - 160
2158377	Pyraclostrobin	83.5	88.0	P/P	30 - 160
2158377	Thiamethoxam	108	121	P/P	30 - 160
2158377	Tolfenpyrad	57.1	57.5	P/P	30 - 160
2158377	Triclopyr	115	130	P/P	30 - 160

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159002	Barium	0.640	Spike	P	0 - 20
2159002	Calcium	2.88	Spike	P	0 - 20
2159002	Iron	3.66	Spike	P	0 - 20
2159002	Magnesium	3.50	Spike	P	0 - 20
2159002	Potassium	0.422	Spike	P	0 - 20
2159002	Sodium	0.981	Spike	P	0 - 20
2159002	Zinc	0.495	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159002	Aluminum	1.24	Spike	P	0 - 20
2159002	Antimony	0.00801	Spike	P	0 - 20
2159002	Arsenic	0.201	Spike	P	0 - 20
2159002	Boron	0.0281	Spike	P	0 - 20
2159002	Cadmium	0.446	Spike	P	0 - 20
2159002	Chromium	0.477	Spike	P	0 - 20
2159002	Copper	0.656	Spike	P	0 - 20
2159002	Lead	0.451	Spike	P	0 - 20
2159002	Nickel	0.588	Spike	P	0 - 20
2159002	Selenium	1.73	Spike	P	0 - 20
2159002	Silver	0.355	Spike	P	0 - 20
2159002	Thallium	0.647	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P379288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158658	Aldrin	5.31	Spike	P	0 - 30
2158658	Alpha-BHC	14.2	Spike	P	0 - 30
2158658	Alpha-Chlordane	2.20	Spike	P	0 - 30
2158658	Beta-BHC	9.28	Spike	P	0 - 30
2158658	Bifenthrin	8.30	Spike	P	0 - 30
2158658	Carbophenothion	1.15	Spike	P	0 - 30
2158658	Chlorothalonil	33.2	Spike	F	0 - 30
2158658	Cis-Nonachlor	0.671	Spike	P	0 - 30
2158658	Cypermethrin	1.76	Spike	P	0 - 30
2158658	DDD-p,p'	2.73	Spike	P	0 - 30
2158658	DDE-p,p'	2.49	Spike	P	0 - 30
2158658	DDT-p,p'	2.05	Spike	P	0 - 30
2158658	Delta-BHC	6.48	Spike	P	0 - 30
2158658	Dicofol	7.42	Spike	P	0 - 30
2158658	Dieldrin	2.53	Spike	P	0 - 30
2158658	Endosulfan I	6.69	Spike	P	0 - 30
2158658	Endosulfan II	7.51	Spike	P	0 - 30
2158658	Endosulfan Sulfate	11.3	Spike	P	0 - 30
2158658	Endrin	4.98	Spike	P	0 - 30
2158658	Endrin Aldehyde	11.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P379288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158658	Endrin Ketone	11.4	Spike	P	0 - 30
2158658	Ethalfuralin	8.70	Spike	P	0 - 30
2158658	Gamma-BHC	12.2	Spike	P	0 - 30
2158658	Gamma-Chlordane	1.30	Spike	P	0 - 30
2158658	Heptachlor	2.43	Spike	P	0 - 30
2158658	Heptachlor Epoxide	7.11	Spike	P	0 - 30
2158658	Hexachlorobenzene	8.48	Spike	P	0 - 30
2158658	Methoxychlor	7.44	Spike	P	0 - 30
2158658	Mirex	1.61	Spike	P	0 - 30
2158658	Permethrin	1.99	Spike	P	0 - 30
2158658	Trans-Nonachlor	0.547	Spike	P	0 - 30
2158658	Trifluralin	6.66	Spike	P	0 - 30
LFB	Aldrin	7.73	LCS	P	0 - 30
LFB	Alpha-BHC	10.1	LCS	P	0 - 30
LFB	Alpha-Chlordane	5.85	LCS	P	0 - 30
LFB	Beta-BHC	9.93	LCS	P	0 - 30
LFB	Bifenthrin	9.39	LCS	P	0 - 30
LFB	Carbophenothion	1.61	LCS	P	0 - 30
LFB	Chlorothalonil	82.5	LCS	F	0 - 30
LFB	Cis-Nonachlor	4.19	LCS	P	0 - 30
LFB	Cypermethrin	14.9	LCS	P	0 - 30
LFB	DDD-p,p'	7.85	LCS	P	0 - 30
LFB	DDE-p,p'	3.32	LCS	P	0 - 30
LFB	DDT-p,p'	1.90	LCS	P	0 - 30
LFB	Delta-BHC	18.7	LCS	P	0 - 30
LFB	Dicofol	6.10	LCS	P	0 - 30
LFB	Dieldrin	7.88	LCS	P	0 - 30
LFB	Endosulfan I	10.7	LCS	P	0 - 30
LFB	Endosulfan II	17.1	LCS	P	0 - 30
LFB	Endosulfan Sulfate	19.3	LCS	P	0 - 30
LFB	Endrin	7.40	LCS	P	0 - 30
LFB	Endrin Aldehyde	17.0	LCS	P	0 - 30
LFB	Endrin Ketone	16.3	LCS	P	0 - 30
LFB	Ethalfuralin	7.52	LCS	P	0 - 30
LFB	Gamma-BHC	13.3	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.90	LCS	P	0 - 30
LFB	Heptachlor	2.44	LCS	P	0 - 30
LFB	Heptachlor Epoxide	8.39	LCS	P	0 - 30
LFB	Hexachlorobenzene	7.85	LCS	P	0 - 30
LFB	Methoxychlor	3.00	LCS	P	0 - 30
LFB	Mirex	3.53	LCS	P	0 - 30
LFB	Permethrin	8.11	LCS	P	0 - 30
LFB	Trans-Nonachlor	4.11	LCS	P	0 - 30
LFB	Trifluralin	4.42	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P379289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158576	Acetochlor	4.82	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P379289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158576	Alachlor	4.86	Spike	P	0 - 30
2158576	Ametryn	2.56	Spike	P	0 - 30
2158576	Atrazine	0.914	Spike	P	0 - 30
2158576	Atrazine Desethyl	32.6	Spike	F	0 - 30
2158576	Azinphos Methyl	2.79	Spike	P	0 - 30
2158576	Bromacil	6.53	Spike	P	0 - 30
2158576	Butylate	44.1	Spike	F	0 - 30
2158576	Carbophenothion	8.54	Spike	P	0 - 30
2158576	Chlorpyrifos Ethyl	12.8	Spike	P	0 - 30
2158576	Chlorpyrifos Methyl	3.51	Spike	P	0 - 30
2158576	Cyanazine	3.58	Spike	P	0 - 30
2158576	Demeton	1.84	Spike	P	0 - 30
2158576	Diazinon	3.38	Spike	P	0 - 30
2158576	Dimethenamid	5.93	Spike	P	0 - 30
2158576	Disulfoton	0.861	Spike	P	0 - 30
2158576	Dithiopyr	6.97	Spike	P	0 - 30
2158576	EPTC	34.9	Spike	F	0 - 30
2158576	Ethion	12.1	Spike	P	0 - 30
2158576	Ethoprop	0.412	Spike	P	0 - 30
2158576	Fenamiphos	6.01	Spike	P	0 - 30
2158576	Fipronil	8.25	Spike	P	0 - 30
2158576	Fipronil Desulfinyl	12.2	Spike	P	0 - 30
2158576	Fipronil Sulfide	12.6	Spike	P	0 - 30
2158576	Fipronil Sulfone	15.0	Spike	P	0 - 30
2158576	Flumioxazin	1.43	Spike	P	0 - 30
2158576	Fonofos	8.11	Spike	P	0 - 30
2158576	Hexazinone	2.10	Spike	P	0 - 30
2158576	Imazalil	103	Spike	F	0 - 30
2158576	Malathion	7.70	Spike	P	0 - 30
2158576	Metalaxyl	4.64	Spike	P	0 - 30
2158576	Metolachlor	0.666	Spike	P	0 - 30
2158576	Metribuzin	5.83	Spike	P	0 - 30
2158576	Mevinphos	3.40	Spike	P	0 - 30
2158576	Molinate	18.4	Spike	P	0 - 30
2158576	Norflurazon	14.3	Spike	P	0 - 30
2158576	Oxadiazon	7.41	Spike	P	0 - 30
2158576	Parathion Ethyl	10.3	Spike	P	0 - 30
2158576	Parathion Methyl	3.53	Spike	P	0 - 30
2158576	Pendimethalin	8.53	Spike	P	0 - 30
2158576	Phorate	4.55	Spike	P	0 - 30
2158576	Prodiamine	35.8	Spike	F	0 - 30
2158576	Prometon	4.70	Spike	P	0 - 30
2158576	Prometryn	6.20	Spike	P	0 - 30
2158576	Pronamide	7.96	Spike	P	0 - 30
2158576	Propiconazole	0.837	Spike	P	0 - 30
2158576	Simazine	10.9	Spike	P	0 - 30
2158576	Sulfentrazone	10.3	Spike	P	0 - 30
2158576	Tebuconazole	22.2	Spike	P	0 - 30
2158576	Terbufos	0.749	Spike	P	0 - 30
2158576	Terbutylazine	6.68	Spike	P	0 - 30
LFB	Acetochlor	5.23	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P379289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Alachlor	4.30	LCS	P	0 - 30
LFB	Ametryn	12.1	LCS	P	0 - 30
LFB	Atrazine	0.993	LCS	P	0 - 30
LFB	Atrazine Desethyl	5.76	LCS	P	0 - 30
LFB	Azinphos Methyl	18.7	LCS	P	0 - 30
LFB	Bromacil	10.6	LCS	P	0 - 30
LFB	Butylate	21.6	LCS	P	0 - 30
LFB	Carbophenothion	4.56	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	0.380	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.19	LCS	P	0 - 30
LFB	Cyanazine	24.5	LCS	P	0 - 30
LFB	Demeton	32.1	LCS	F	0 - 30
LFB	Diazinon	2.31	LCS	P	0 - 30
LFB	Dimethenamid	2.12	LCS	P	0 - 30
LFB	Disulfoton	28.6	LCS	P	0 - 30
LFB	Dithiopyr	1.16	LCS	P	0 - 30
LFB	EPTC	21.8	LCS	P	0 - 30
LFB	Ethion	7.62	LCS	P	0 - 30
LFB	Ethoprop	9.55	LCS	P	0 - 30
LFB	Fenamiphos	2.54	LCS	P	0 - 30
LFB	Fipronil	21.2	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	12.8	LCS	P	0 - 30
LFB	Fipronil Sulfide	18.9	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.42	LCS	P	0 - 30
LFB	Flumioxazin	2.02	LCS	P	0 - 30
LFB	Fonofos	19.1	LCS	P	0 - 30
LFB	Hexazinone	18.1	LCS	P	0 - 30
LFB	Imazalil	3.84	LCS	P	0 - 30
LFB	Malathion	2.14	LCS	P	0 - 30
LFB	Metalaxyl	5.64	LCS	P	0 - 30
LFB	Metolachlor	2.33	LCS	P	0 - 30
LFB	Metribuzin	0.236	LCS	P	0 - 30
LFB	Mevinphos	13.5	LCS	P	0 - 30
LFB	Molinate	3.45	LCS	P	0 - 30
LFB	Norflurazon	17.2	LCS	P	0 - 30
LFB	Oxadiazon	11.3	LCS	P	0 - 30
LFB	Parathion Ethyl	0.157	LCS	P	0 - 30
LFB	Parathion Methyl	0.529	LCS	P	0 - 30
LFB	Pendimethalin	1.32	LCS	P	0 - 30
LFB	Phorate	17.3	LCS	P	0 - 30
LFB	Prodiamine	10.4	LCS	P	0 - 30
LFB	Prometon	3.91	LCS	P	0 - 30
LFB	Prometryn	1.77	LCS	P	0 - 30
LFB	Pronamide	11.4	LCS	P	0 - 30
LFB	Propiconazole	15.9	LCS	P	0 - 30
LFB	Simazine	0.173	LCS	P	0 - 30
LFB	Sulfentrazone	34.9	LCS	F	0 - 30
LFB	Tebuconazole	53.0	LCS	F	0 - 30
LFB	Terbufos	15.2	LCS	P	0 - 30
LFB	Terbutylazine	2.05	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P379288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158600	Chlordane	2.32	Spike	P	0 - 30
2158600	Toxaphene	6.90	Spike	P	0 - 30
LFB	Chlordane	45.8	LCS	F	0 - 30
LFB	Toxaphene	7.22	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157327	3-Hydroxycarbofuran	0.617	Spike	P	0 - 30
2157327	Aldicarb	18.6	Spike	P	0 - 30
2157327	Aldicarb Sulfone	2.41	Spike	P	0 - 30
2157327	Aldicarb Sulfoxide	3.00	Spike	P	0 - 30
2157327	Carbaryl	20.4	Spike	P	0 - 30
2157327	Carbofuran	2.07	Spike	P	0 - 30
2157327	Methiocarb	7.82	Spike	P	0 - 30
2157327	Methomyl	14.5	Spike	P	0 - 30
2157327	Oxamyl	2.01	Spike	P	0 - 30
2157327	Propoxur	5.32	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158377	Acesulfame K	4.80	Spike	P	0 - 30
2158377	AMPA	7.50	Spike	P	0 - 30
2158377	Endothall	8.73	Spike	P	0 - 30
2158377	Glufosinate	23.2	Spike	P	0 - 30
2158377	Glyphosate	15.1	Spike	P	0 - 30
2158377	Sucralose	5.72	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158377	2,4-D	8.66	Spike	P	0 - 30
2158377	Acetaminophen	20.6	Spike	P	0 - 30
2158377	Acetamiprid	31.1	Spike	F	0 - 30
2158377	Afidopyropen	8.04	Spike	P	0 - 30
2158377	Bentazon	21.0	Spike	P	0 - 30
2158377	Benzovindiflupyr	9.23	Spike	P	0 - 30
2158377	Carbamazepine	5.32	Spike	P	0 - 30
2158377	Clothianidin	12.3	Spike	P	0 - 30
2158377	Dinotefuran	0.777	Spike	P	0 - 30
2158377	Diuron	2.51	Spike	P	0 - 30
2158377	Fenuron	8.43	Spike	P	0 - 30
2158377	Fluridone	1.75	Spike	P	0 - 30
2158377	Hydrocodone	19.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P379190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158377	Ibuprofen	3.35	Spike	P	0 - 30
2158377	Imazapyr	2.90	Spike	P	0 - 30
2158377	Imidacloprid	12.8	Spike	P	0 - 30
2158377	Linuron	4.70	Spike	P	0 - 30
2158377	Mandestrobin	4.07	Spike	P	0 - 30
2158377	MCPP	0.847	Spike	P	0 - 30
2158377	Naproxen	18.7	Spike	P	0 - 30
2158377	Primidone	2.92	Spike	P	0 - 30
2158377	Pyraclostrobin	5.19	Spike	P	0 - 30
2158377	Thiamethoxam	11.2	Spike	P	0 - 30
2158377	Tolfenpyrad	0.759	Spike	P	0 - 30
2158377	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: 2158598
Field Sample ID: G1NE0906

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	54.0	P	30 - 160

Lab Sample ID: 2158599
Field Sample ID: G1NE0906

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	117	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.8	P	30 - 160
EPA 8321B	Diuron-d6	75.2	P	30 - 160
EPA 8321B	Endothall-d6	97.8	P	30 - 160
EPA 8321B	Endothall-d6	97.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	108	P	30 - 160
EPA 8321B	Ibuprofen-d3	81.3	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	30 - 160

Lab Sample ID: 2158600
Field Sample ID: G1NE0906

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	69.6	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	54.6	P	34 - 106
EPA 8276	Decachlorobiphenyl	53.4	P	26 - 97.0
EPA 8276	PCNB	73.4	P	38 - 141

Lab Sample ID: 2158601
Field Sample ID: G1NE0906

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	92.8	P	72 - 135
EPA 8270E	Terbufos-d10	83.1	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A37839

Included Lab Sample IDs: 2158602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	105	106	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A97710

Included Lab Sample IDs: 2158598

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	97.4	106	P/P	60 - 150
Aldicarb	112	106	P/P	60 - 150
Aldicarb Sulfone	110	105	P/P	50 - 150
Aldicarb Sulfoxide	108	100	P/P	50 - 150
Carbaryl	110	103	P/P	60 - 150
Carbofuran	114	113	P/P	50 - 150
Methiocarb	97.7	98.3	P/P	50 - 150
Methomyl	108	101	P/P	50 - 150
Oxamyl	102	95.1	P/P	50 - 150
Propoxur	84.1	102	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A97772

Included Lab Sample IDs: 2158602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	93.7	95.5	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	97.3	97.2	P/P	90 - 110
Boron	98.4	98.4	P/P	90 - 110
Cadmium	97.5	97.6	P/P	90 - 110
Chromium	94.4	94.2	P/P	90 - 110
Copper	93.5	94.2	P/P	90 - 110
Lead	93.0	94.0	P/P	90 - 110
Nickel	93.2	93.8	P/P	90 - 110
Silver	99.3	99.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A97786

Included Lab Sample IDs: 2158602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	103	P/P	90 - 110
Iron	101	98.7	P/P	90 - 110
Potassium	97.6	98.8	P/P	90 - 110
Sodium	100	101	P/P	90 - 110
Zinc	98.4	102	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A97815

Included Lab Sample IDs: 2158601

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A97815
Included Lab Sample IDs: 2158601

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alachlor	99.9		P	80 - 120
Ametryn	117		P	80 - 120
Atrazine	96.8		P	80 - 120
Atrazine Desethyl	120		P	80 - 120
Azinphos Methyl	102		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	96.4		P	80 - 120
Carbophenothion	98.5		P	80 - 120
Chlorpyrifos Ethyl	97.2		P	80 - 120
Chlorpyrifos Methyl	95.1		P	80 - 120
Cyanazine	103		P	80 - 120
Demeton	99.9		P	80 - 120
Diazinon	104		P	80 - 120
Dimethenamid	100		P	80 - 120
Disulfoton	98.1		P	80 - 120
Dithiopyr	105		P	80 - 120
EPTC	99.2		P	80 - 120
Ethion	94.9		P	80 - 120
Ethoprop	98.5		P	80 - 120
Fenamiphos	97.9		P	80 - 120
Fipronil	97.4		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	98.4		P	80 - 120
Fipronil Sulfone	95.8		P	80 - 120
Flumioxazin	91.2		P	80 - 120
Fonofos	98.9		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	101		P	80 - 120
Malathion	92.3		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	107		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	85.9		P	80 - 120
Molinate	98.3		P	80 - 120
Norflurazon	104		P	80 - 120
Oxadiazon	109		P	80 - 120
Parathion Ethyl	97.7		P	80 - 120
Parathion Methyl	91.1		P	80 - 120
Pendimethalin	99.2		P	80 - 120
Phorate	100		P	80 - 120
Prodiamine	97.3		P	80 - 120
Prometon	104		P	80 - 120
Prometryn	106		P	80 - 120
Pronamide	97.5		P	80 - 120
Propiconazole	103		P	80 - 120
Simazine	98.8		P	80 - 120
Sulfentrazone	106		P	80 - 120
Tebuconazole	106		P	80 - 120
Terbufos	99.0		P	80 - 120
Terbutylazine	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A97817
Included Lab Sample IDs: 2158599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	60.7	60.5	P/P	60 - 160
Endothall	97.1	101	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A97819
Included Lab Sample IDs: 2158599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	75.4	71.3	P/P	60 - 160
Glufosinate	96.6	96.6	P/P	60 - 160
Glyphosate	108	105	P/P	60 - 160

Reference Method: EPA 8270E
Run ID: A97856
Included Lab Sample IDs: 2158600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.6		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	99.5		P	80 - 120
Beta-BHC	105		P	80 - 120
Bifenthrin	96.4		P	80 - 120
Carbophenothion	94.2		P	80 - 120
Chlorothalonil	82.3		P	80 - 120
Cis-Nonachlor	98.8		P	80 - 120
Cypermethrin	94.1		P	80 - 120
DDD-p,p'	98.3		P	80 - 120
DDE-p,p'	98.9		P	80 - 120
DDT-p,p'	99.2		P	80 - 120
Delta-BHC	97.9		P	80 - 120
Dicofol	95.8		P	80 - 120
Dieldrin	99.9		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	95.2		P	80 - 120
Endosulfan Sulfate	99.6		P	80 - 120
Endrin	99.4		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	101		P	80 - 120
Ethalfuralin	99.9		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	97.6		P	80 - 120
Heptachlor	99.0		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	98.5		P	80 - 120
Methoxychlor	98.7		P	80 - 120
Mirex	100		P	80 - 120
Permethrin	94.1		P	80 - 120
Trans-Nonachlor	99.2		P	80 - 120
Trifluralin	99.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A97908
Included Lab Sample IDs: 2158599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	107	122	P/P	60 - 160

Reference Method: EPA 8276
Run ID: A97915
Included Lab Sample IDs: 2158600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A97919
Included Lab Sample IDs: 2158602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	99.4	98.6	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A97922
Included Lab Sample IDs: 2158602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.7	100	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A97978
Included Lab Sample IDs: 2158599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.8	83.7	P/P	50 - 150
Acetaminophen	96.1	84.8	P/P	60 - 160
Acetamiprid	89.7	98.6	P/P	50 - 150
Afidopyropen	94.6	91.2	P/P	50 - 150
Bentazon	122	110	P/P	50 - 160
Benzovindiflupyr	94.3	104	P/P	50 - 150
Carbamazepine	98.5	99.9	P/P	60 - 150
Clothianidin	98.8	79.4	P/P	60 - 150
Dinotefuran	81.8	92.7	P/P	50 - 150
Diuron	104	103	P/P	60 - 150
Fenuron	96.9	97.5	P/P	60 - 150
Fluridone	109	107	P/P	60 - 160
Hydrocodone	89.3	92.3	P/P	60 - 150
Ibuprofen	91.2	76.8	P/P	50 - 160
Imazapyr	96.0	97.0	P/P	50 - 150
Imidacloprid	88.7	88.8	P/P	60 - 150
Linuron	91.6	97.4	P/P	60 - 150
Mandestrobin	100	101	P/P	50 - 150
MCPP	104	98.2	P/P	50 - 150
Naproxen	114	125	P/P	50 - 160
Primidone	91.5	90.3	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A97978

Included Lab Sample IDs: 2158599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	93.7	98.7	P/P	60 - 150
Thiamethoxam	83.7	101	P/P	50 - 150
Tolfenpyrad	92.0	94.5	P/P	60 - 150
Triclopyr	98.1	89.0	P/P	50 - 150

* 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			LCS	Precision	
								SMP	MS
EPA 200.7 Rev. 4.4	Barium	106		106	105	105			0.640
	Calcium	107		102	109	105			2.88
	Iron	109		110	109	105			3.66
	Magnesium	112		103	116	111			3.50
	Potassium	107		108	108	107			0.422
	Sodium	112		103	106	105			0.981
	Zinc	106		105	105	105			0.495
EPA 200.8 Rev. 5.4	Aluminum	91.9		97.2	96.0	96.9			1.24
	Antimony	104		104	104	107			0.0080
	Arsenic	100		102	101	105			0.201
	Boron	95.9		95.6	95.6	98.1			0.0281
	Cadmium	104		102	101	105			0.446
	Chromium	97.1		99.1	98.6	99.6			0.477
	Copper	95.3		99.0	98.4	97.0			0.656
	Lead	95.4		95.7	95.3	96.7			0.451
	Nickel	94.4		97.3	97.9	95.7			0.588
	Selenium	105		107	106	109			1.73
	Silver	100		100	99.9	101			0.355
	Thallium	99.4		105	106	107			0.647
	Acetochlor	99.5	94.5	101	96.3		5.23		4.82
	Alachlor	99.0	94.9	103	97.8		4.30		4.86
EPA 8270E	Aldrin	35.3	32.7	44.5	42.2		7.73		5.31
	Alpha-BHC	82.6	74.6	88.4	76.7		10.1		14.2
	Alpha-Chlordane	76.2	71.9	76.3	74.6		5.85		2.20
	Ametryn	103	116	101	98.3		12.1		2.56
	Atrazine	100	101				0.993		0.914
	Atrazine Desethyl	85.0	80.3	60.9	84.6		5.76		32.6
	Azinphos Methyl	133	111	125	122		18.7		2.79
	Beta-BHC	109	98.3	145	133		9.93		9.28
	Bifenthrin	69.9	63.6	66.5	72.3		9.39		8.30
	Bromacil	89.5	99.6	88.2	78.7		10.6		6.53
	Butylate	48.8	60.6	32.5	50.9		21.6		44.1
	Carbophenothion	75.2	74.0	92.9	94.0		1.61		1.15
	Carbophenothion	104	108	110	101		4.56		8.54
	Chlorothalonil	91.4	38.0	93.9	67.1		82.5		33.2
	Chlorpyrifos Ethyl	104	103	123	108		0.380		12.8
	Chlorpyrifos Methyl	97.9	92.9	103	99.9		5.19		3.51
	Cis-Nonachlor	78.4	75.2	78.6	78.1		4.19		0.671
	Cyanazine	127	99.0	106	102		24.5		3.58
	Cypermethrin	88.8	76.5	85.4	83.9		14.9		1.76
	DDD-p,p'	89.8	83.1	90.5	88.1		7.85		2.73
	DDE-p,p'	75.3	72.8	74.6	72.8		3.32		2.49
	DDT-p,p'	69.0	67.7	67.9	66.5		1.90		2.05
	Delta-BHC	113	93.9	140	131		18.7		6.48
	Demeton	78.6	56.8	85.9	87.5		32.1		1.84
	Diazinon	91.9	89.8	97.0	93.7		2.31		3.38
	Dicofol	84.5	79.5	75.8	70.3		6.10		7.42
	Dieldrin	86.9	80.3	91.4	93.7		7.88		2.53
	Dimethenamid	92.4	94.4	100	94.3		2.12		5.93
	Disulfoton	87.6	65.7	90.2	89.5		28.6		0.861
	Dithiopyr	97.4	98.5	99.8	92.7		1.16		6.97
	Endosulfan I	87.9	79.0	89.9	84.1		10.7		6.69
	Endosulfan II	100	84.3	102	94.8		17.1		7.51
	Endosulfan Sulfate	94.9	78.2	100	89.7		19.3		11.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	SMP
EPA 8270E	Endrin	87.2	81.0	86.9	82.7	7.40	4.98
	Endrin Aldehyde	105	88.3	91.8	81.7	17.0	11.7
	Endrin Ketone	97.4	82.7	107	95.2	16.3	11.4
	EPTC	46.5	57.9	29.1	41.4	21.8	34.9
	Ethalfuralin	69.4	64.4	67.1	61.5	7.52	8.70
	Ethion	98.9	107	121	107	7.62	12.1
	Ethoprop	87.0	79.0	95.7	96.1	9.55	0.412
	Fenamiphos	105	102	100	94.3	2.54	6.01
	Fipronil	87.5	108	109	100	21.2	8.25
	Fipronil Desulfinyl	94.6	107	110	97.4	12.8	12.2
	Fipronil Sulfide	88.8	107	112	98.5	18.9	12.6
	Fipronil Sulfone	95.4	104	108	90.8	8.42	15.0
	Flumioxazin	157	161	177	174	2.02	1.43
	Fonofos	93.4	77.1	93.0	85.8	19.1	8.11
	Gamma-BHC	106	92.3	135	120	13.3	12.2
	Gamma-Chlordane	69.3	67.3	68.0	67.1	2.90	1.30
	Heptachlor	59.6	58.2	55.6	54.3	2.44	2.43
	Heptachlor Epoxide	79.9	73.4	82.7	77.1	8.39	7.11
	Hexachlorobenzene	68.5	63.3	66.4	61.0	7.85	8.48
	Hexazinone	96.5	116			18.1	2.10
	Imazalil	94.4	90.8	66.8	210	3.84	103
	Malathion	109	111	115	104	2.14	7.70
	Metalaxyl	106	101	105	100	5.64	4.64
	Methoxychlor	78.0	75.7	78.3	72.7	3.00	7.44
	Metolachlor	92.3	94.5			2.33	0.666
	Metribuzin	104	104			0.236	5.83
	Mevinphos	79.5	69.5	83.8	86.7	13.5	3.40
	Mirex	58.5	56.5	56.3	57.2	3.53	1.61
	Molinate	66.0	63.7	57.2	68.8	3.45	18.4
	Norflurazon	91.8	109	106	85.4	17.2	14.3
	Oxadiazon	95.2	107	96.3	88.1	11.3	7.41
	Parathion Ethyl	95.4	95.5	108	97.6	0.157	10.3
	Parathion Methyl	95.9	96.4	109	105	0.529	3.53
	Pendimethalin	93.1	94.3	110	101	1.32	8.53
	Permethrin	71.5	65.9	71.8	70.4	8.11	1.99
	Phorate	90.0	75.7	82.6	86.5	17.3	4.55
	Prodiamine	104	93.8	110	76.7	10.4	35.8
	Prometon	94.8	98.6	89.1	93.4	3.91	4.70
	Prometryn	102	103	106	99.8	1.77	6.20
	Pronamide	92.7	104	99.4	108	11.4	7.96
	Propiconazole	99.8	117	112	111	15.9	0.837
	Simazine	101	101	119	107	0.173	10.9
	Sulfentrazone	70.2	99.9	100	90.6	34.9	10.3
	Tebuconazole	59.8	103	97.4	76.4	53.0	22.2
	Terbufos	92.6	79.5	97.9	98.6	15.2	0.749
	Terbuthylazine	96.0	98.0	102	95.1	2.05	6.68
	Trans-Nonachlor	74.5	71.5	74.7	74.3	4.11	0.547
	Trifluralin	69.3	66.3	69.1	64.7	4.42	6.66
EPA 8276	Chlordane	157	98.2	97.3	95.1	45.8	2.32
	Toxaphene	76.9	82.6	76.5	82.0	7.22	6.90
EPA 8321B	2,4-D	133		131	142		8.66
	3-Hydroxycarbofuran	88.6		82.9	83.4		0.617
	Acesulfame K	95.5		79.3	75.2		4.80
	Acetaminophen	88.1		92.5	114		20.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	SMP
EPA 8321B	Acetamiprid	82.0		78.4	57.3		31.1
	Afidopyropen	71.5		87.0	80.3		8.04
	Aldicarb	74.0		64.9	78.2		18.6
	Aldicarb Sulfone	95.0		103	101		2.41
	Aldicarb Sulfoxide	96.0		44.3	45.6		3.00
	AMPA	98.1		83.7	77.7		7.50
	Bentazon	76.6					21.0
	Benzovindiflupyr	78.1		75.4	82.7		9.23
	Carbamazepine	80.5		66.9	70.5		5.32
	Carbaryl	61.9		61.4	50.0		20.4
	Carbofuran	70.2		69.0	67.6		2.07
	Clothianidin	70.9		92.3	104		12.3
	Dinotefuran	79.0		119	120		0.777
	Diuron	78.7		63.8	65.4		2.51
	Endothall	86.8		106	97.5		8.73
	Fenuron	91.3		77.4	71.1		8.43
	Fluridone	92.4		88.0	90.0		1.75
	Glufosinate	95.0		195	246		23.2
	Glyphosate	93.1		183	213		15.1
	Hydrocodone	82.6		78.4	95.1		19.2
	Ibuprofen	86.7		79.4	82.2		3.35
	Imazapyr	90.1					2.90
	Imidacloprid	89.6		157	138		12.8
	Linuron	73.5		75.0	71.5		4.70
	Mandestrobin	87.7		84.9	88.5		4.07
	MCPP	131		133	134		0.847
	Methiocarb	73.0		63.7	58.9		7.82
	Methomyl	85.6		90.0	77.8		14.5
	Naproxen	83.9		97.3	117		18.7
	Oxamyl	92.9		96.1	98.0		2.01
	Primidone	79.7		85.7	88.2		2.92
	Propoxur	71.7		66.7	62.4		5.32
	Pyraclostrobin	82.3		83.5	88.0		5.19
	Sucralose	113		108	101		5.72
	Thiamethoxam	86.9		108	121		11.2
	Tolfenpyrad	58.6		57.1	57.5		0.759
	Triclopyr	105		115	130		11.8

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2158602
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2158602
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2158600
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2158601
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2158600
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2158598
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2158599
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2158599
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2158602

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 200.7 Rev. 4.4	02/18/2020	02/20/2020 15:35	Elliott D. Healy	02/24/2020 17:00	Martin Acosta	2158602
	02/18/2020	02/20/2020 15:35	Elliott D. Healy	03/02/2020 22:00	Betina Topolski	2158602
EPA 200.8 Rev. 5.4	02/18/2020	02/20/2020 15:35	Elliott D. Healy	02/25/2020 03:42	Justin Cutchin	2158602
	02/18/2020	02/20/2020 15:35	Elliott D. Healy	02/26/2020 21:25	Justin Cutchin	2158602
	02/18/2020	02/20/2020 15:35	Elliott D. Healy	03/02/2020 20:01	Alexander Thompson	2158602
	02/18/2020	02/20/2020 15:35	Elliott D. Healy	03/02/2020 20:01	Alexander Thompson	2158602
EPA 8270E	02/18/2020	02/19/2020 11:00	Fe-Val Siddell	02/22/2020 02:19	Michael Poppell	2158600
	02/18/2020	02/21/2020 09:00	Fe-Val Siddell	02/24/2020 18:33	Vandana T. Nagar	2158601
EPA 8276	02/18/2020	02/19/2020 11:00	Fe-Val Siddell	02/26/2020 03:37	Julie Wi	2158600
EPA 8321B	02/18/2020	02/19/2020 14:30	Hoor Shaik	02/21/2020 05:30	Juyoung Kim	2158598
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 12:15	Rebecca Ware	2158599
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 23:16	Rebecca Ware	2158599
	02/18/2020	02/19/2020 16:00	Rebecca Ware	02/27/2020 00:42	Rebecca Ware	2158599
	02/18/2020	02/20/2020 10:00	Hoor Shaik	03/04/2020 10:33	Juyoung Kim	2158599
SM 2340B	02/18/2020			03/02/2020 22:00	Betina Topolski	2158602