

Chemical Analysis Report

SO-DIST-2019-06-21-02

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

Event Description: **2019 SMP : COLLIER (IMKFSHCK)**

Request ID: **RQ-2019-06-10-60**

Customer: **SO-DIST**

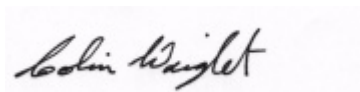
Project ID: **SMP**

Send Reports to:
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2295 Victoria Ave. Suite 364
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Certified by: Colin Wright, Program Administrator

Date Certified: 16-JUL-2019 12:29

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light blue rectangular background.

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: IMKFSHCK

Collection Date/Time: 06/20/2019 09:38

Field ID: AF55136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2097519	EPA 8321B	Aldicarb	0.020	U	ug/L	P365921	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P365921	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P365921	
		Carbaryl	0.0020	U	ug/L	P365921	
		Carbofuran	0.0020	U	ug/L	P365921	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P365921	
		Methiocarb	0.0020	U	ug/L	P365921	
		Methomyl	0.0020	U	ug/L	P365921	
		Oxamyl	0.0020	U	ug/L	P365921	
		Propoxur	0.0020	U	ug/L	P365921	
2097520		Acesulfame K**	0.10	U	ug/L	P366232	
		2,4-D	0.25		ug/L	P366199	MS
		AMPA**	3.6		ug/L	P366232	
		Acetaminophen**	0.0080	U	ug/L	P366199	
		Endothall**	0.25	U	ug/L	P366232	
		Glufosinate**	0.10	U	ug/L	P366232	
		Glyphosate**	1.6		ug/L	P366232	
		Bentazon	8.0E-04	U	ug/L	P366199	
		Sucralose**	0.010	U	ug/L	P366232	
		Carbamazepine**	8.0E-04	U	ug/L	P366199	
		Diuron	0.12		ug/L	P366199	
		Fenuron	0.016	U	ug/L	P366199	
		Fluridone**	0.0018	I	ug/L	P366199	
		Imazapyr**	0.25		ug/L	P366199	MS
		Hydrocodone**	0.0020	U	ug/L	P366199	
		Ibuprofen**	0.020	U	ug/L	P366199	
		Imidacloprid	0.80		ug/L	P366199	MS
		Linuron	0.0040	U	ug/L	P366199	
		MCPP	0.0020	U	ug/L	P366199	MS
		Naproxen**	0.0080	U	ug/L	P366199	
		Primidone**	0.0040	U	ug/L	P366199	
		Pyraclostrobin**	0.0020	U	ug/L	P366199	
		Triclopyr**	0.0040	U	ug/L	P366199	
2097521	EPA 8270E	Aldrin	4.1	U	ng/L	P366274	
		Alpha-BHC	2.0	UJ	ng/L	P366274	LCS
		Alpha-Chlordane	1.0	U	ng/L	P366274	
		Beta-BHC	10	U	ng/L	P366274	
		Bifenthrin**	4.1	U	ng/L	P366274	
		Delta-BHC	8.1	U	ng/L	P366274	
		Gamma-BHC	8.1	U	ng/L	P366274	
		Carbophenothion	10	U	ng/L	P366274	
		Chlorothalonil	2.0	UJ	ng/L	P366274	LCS
		Cis-Nonachlor**	1.0	U	ng/L	P366274	
		Cypermethrin	20	U	ng/L	P366274	

Field ID: AF55136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2097521	EPA 8270E	DDD-p,p'	6.1	U	ng/L	P366274	
		DDE-p,p'	6.1	U	ng/L	P366274	
		DDT-p,p'	7.1	U	ng/L	P366274	
		Dicofol	30	U	ng/L	P366274	
		Dieldrin	4.1	U	ng/L	P366274	
		Endosulfan I	4.1	U	ng/L	P366274	
		Endosulfan II	4.1	U	ng/L	P366274	
		Endosulfan Sulfate	2.0	U	ng/L	P366274	
		Endrin	2.0	U	ng/L	P366274	
		Endrin Aldehyde	2.0	U	ng/L	P366274	
		Endrin Ketone	2.0	U	ng/L	P366274	
		Ethalfuralin**	3.0	U	ng/L	P366274	
		Gamma-Chlordane	1.0	U	ng/L	P366274	
		Heptachlor	1.5	U	ng/L	P366274	
		Heptachlor Epoxide	2.0	U	ng/L	P366274	
		Hexachlorobenzene**	2.0	U	ng/L	P366274	
		Methoxychlor	4.1	U	ng/L	P366274	
		Mirex	2.0	U	ng/L	P366274	
		Permethrin	10	U	ng/L	P366274	
		Trans-Nonachlor**	1.0	U	ng/L	P366274	
		Trifluralin	2.5	U	ng/L	P366274	
	EPA 8276	Chlordane	5.1	U	ng/L	P366274	
		Toxaphene	30	U	ng/L	P366274	
2097522	EPA 8270E	Acetochlor	0.26	U	ng/L	P366290	
		Alachlor	0.26	U	ng/L	P366290	
		Ametryn	0.62	U	ng/L	P366290	
		Atrazine	0.89	I	ng/L	P366290	
		Atrazine Desethyl	1.5	UJ	ng/L	P366290	RPD
		Azinphos Methyl	5.1	U	ng/L	P366290	
		Bromacil	16		ng/L	P366290	
		Butylate	0.41	U	ng/L	P366290	
		Chlorpyrifos Ethyl	0.59	I	ng/L	P366290	
		Chlorpyrifos Methyl	0.10	U	ng/L	P366290	
		Cyanazine	3.3	UJ	ng/L	P366290	RPD
		Demeton	7.2	U	ng/L	P366290	
		Diazinon	0.13	U	ng/L	P366290	
		Dimethenamid**	0.10	U	ng/L	P366290	
		Disulfoton	0.51	U	ng/L	P366290	
		Dithiopyr**	0.10	U	ng/L	P366290	
		EPTC	1.3	U	ng/L	P366290	
		Ethion	0.15	U	ng/L	P366290	
		Ethoprop	0.10	U	ng/L	P366290	
		Fenamiphos	0.51	U	ng/L	P366290	
		Fipronil	0.26	U	ng/L	P366290	
		Fipronil Desulfinyl**	0.13	U	ng/L	P366290	

Field ID: AF55136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2097522	EPA 8270E	Fipronil Sulfide	0.15	U	ng/L	P366290	
		Fipronil Sulfone	0.15	U	ng/L	P366290	
		Fonofos	0.21	U	ng/L	P366290	
		Hexazinone	2.4		ng/L	P366290	
		Malathion	0.36	U	ng/L	P366290	
		Metalaxyl	0.31	U	ng/L	P366290	
		Metolachlor	2.1		ng/L	P366290	
		Metribuzin	0.77	U	ng/L	P366290	
		Mevinphos	0.51	U	ng/L	P366290	
		Molinate	0.31	UJ	ng/L	P366290	MS, RPD
		Norflurazon	490	J	ng/L	P366290	RPD
		Oxadiazon**	0.75		ng/L	P366290	
		Parathion Ethyl	0.26	U	ng/L	P366290	
		Parathion Methyl	0.56	U	ng/L	P366290	
		Pendimethalin	1.0	U	ng/L	P366290	
		Phorate	0.26	U	ng/L	P366290	
		Prodiamine**	0.18	U	ng/L	P366290	
		Prometon	0.92	U	ng/L	P366290	
		Prometryn	0.21	U	ng/L	P366290	
		Simazine	8.3		ng/L	P366290	
		Tebuconazole**	0.51	U	ng/L	P366290	
		Terbufos	0.10	U	ng/L	P366290	
		Terbuthylazine	0.44	U	ng/L	P366290	
2097523	EPA 200.7 Rev. 4.4	Barium	15.3		ug/L	P366213	
		Calcium	37.4		mg/L	P366213	
		Iron	390		ug/L	P366213	
		Magnesium	11.0		mg/L	P366213	
		Potassium	8.6		mg/L	P366213	
		Sodium	20.7		mg/L	P366213	
		Zinc	5.0	U	ug/L	P366213	
	EPA 200.8 Rev. 5.4	Aluminum	152		ug/L	P366213	
		Antimony	0.14	I	ug/L	P366213	
		Arsenic	1.56		ug/L	P366213	
		Boron**	52.7		ug/L	P366213	
		Cadmium	0.020	U	ug/L	P366213	
		Chromium	1.5	I	ug/L	P366213	
		Copper	2.35		ug/L	P366213	
		Lead	0.20	U	ug/L	P366213	
		Nickel	0.74	I	ug/L	P366213	
		Selenium	0.20	U	ug/L	P366213	
		Silver	0.010	U	ug/L	P366213	
		Thallium	0.10	U	ug/L	P366213	

Field ID: AF55136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
EPA 8321B: LCS results are not available due to incidental loss of the sample during preparation.
EPA 8270E: Refer to the narrative for an explanation of QC Codes.
EPA 8270E: MS accuracies for bromacil, simazine, and norflurazon not assessed due to high content of these parameters in the sample spiked.
Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366213

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: P366213

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: P366274

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: P366274

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: P366290

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	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	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
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	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
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P366290

Component	Result	Code	Units
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	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: P366274

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

Reference Method: EPA 8321B
Batch ID: P365921

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: P366199

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P366232

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.9		P	85 - 115
Calcium	103		P	85 - 115
Iron	101		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	103		P	85 - 115
Sodium	103		P	85 - 115
Zinc	96.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	94.9		P	85 - 115
Antimony	96.4		P	85 - 115
Arsenic	98.3		P	85 - 115
Boron	93.7		P	85 - 115
Cadmium	95.5		P	85 - 115
Chromium	96.0		P	85 - 115
Copper	91.9		P	85 - 115
Lead	96.0		P	85 - 115
Nickel	95.0		P	85 - 115
Selenium	96.8		P	85 - 115
Silver	95.3		P	85 - 115
Thallium	97.7		P	85 - 115

Reference Method: EPA 8270E
Batch ID: P366274

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	61.5	63.5	P/P	20 - 93.0
Alpha-BHC	128	117	F/P	57 - 119
Alpha-Chlordane	92.3	87.3	P/P	58 - 112
Beta-BHC	143	128	P/P	56 - 149
Bifenthrin	66.5	72.4	P/P	50 - 130
Carbophenothion	61.5	76.9	P/P	26 - 147
Chlorothalonil	187	163	F/F	20 - 155
Cis-Nonachlor	91.6	87.9	P/P	50 - 130
Cypermethrin	72.6	75.8	P/P	40 - 137
DDD-p,p'	103	95.8	P/P	65 - 129
DDE-p,p'	93.5	83.9	P/P	57 - 116
DDT-p,p'	115	106	P/P	53 - 133
Delta-BHC	161	134	P/P	59 - 163
Dicofol	90.8	88.8	P/P	24 - 138
Dieldrin	106	98.1	P/P	60 - 120
Endosulfan I	103	95.2	P/P	64 - 118
Endosulfan II	111	103	P/P	58 - 142
Endosulfan Sulfate	97.4	85.7	P/P	60 - 127
Endrin	105	96.1	P/P	59 - 122
Endrin Aldehyde	114	102	P/P	49 - 132
Endrin Ketone	95.9	93.6	P/P	64 - 121
Ethalfuralin	107	101	P/P	50 - 130
Gamma-BHC	131	123	P/P	56 - 141

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P366274

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-Chlordane	92.3	87.3	P/P	56 - 110
Heptachlor	76.4	74.9	P/P	46 - 96.0
Heptachlor Epoxide	95.8	91.4	P/P	61 - 112
Hexachlorobenzene	84.7	78.8	P/P	50 - 130
Methoxychlor	133	132	P/P	63 - 134
Mirex	65.9	68.2	P/P	45 - 100
Permethrin	71.3	71.4	P/P	53 - 115
Trans-Nonachlor	85.8	84.3	P/P	50 - 130
Trifluralin	105	96.7	P/P	39 - 142

Reference Method: EPA 8270E
Batch ID: P366290

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	91.6	92.6	P/P	69 - 122
Alachlor	91.2	88.9	P/P	71 - 120
Ametryn	88.8	89.5	P/P	47 - 138
Atrazine	91.0	87.4	P/P	74 - 124
Atrazine Desethyl	61.1	69.3	P/P	38 - 138
Azinphos Methyl	120	122	P/P	69 - 154
Bromacil	73.6	83.5	P/P	39 - 121
Butylate	59.8	51.7	P/P	27 - 87.0
Chlorpyrifos Ethyl	88.6	92.3	P/P	69 - 118
Chlorpyrifos Methyl	84.7	86.4	P/P	70 - 120
Cyanazine	83.9	82.3	P/P	20 - 250
Demeton	71.1	61.3	P/P	39 - 118
Diazinon	86.4	85.1	P/P	68 - 127
Dimethenamid	91.3	90.5	P/P	66 - 125
Disulfoton	75.5	71.6	P/P	52 - 126
Dithiopyr	93.2	96.2	P/P	67 - 127
EPTC	59.1	50.6	P/P	24 - 88.0
Ethion	94.8	99.1	P/P	51 - 132
Ethoprop	73.7	66.7	P/P	58 - 117
Fenamiphos	87.8	90.3	P/P	38 - 139
Fipronil	93.8	95.9	P/P	61 - 124
Fipronil Desulfinyl	87.3	89.6	P/P	47 - 120
Fipronil Sulfide	89.1	91.8	P/P	56 - 119
Fipronil Sulfone	86.6	91.1	P/P	50 - 117
Fonofos	75.1	69.4	P/P	60 - 121
Hexazinone	95.3	100	P/P	55 - 137
Malathion	93.3	96.4	P/P	66 - 126
Metaxyl	90.6	91.8	P/P	33 - 140
Metolachlor	91.7	92.3	P/P	69 - 119
Metribuzin	103	108	P/P	31 - 238
Mevinphos	80.0	67.0	P/P	42 - 113
Molinate	80.9	69.7	P/P	32 - 96.0
Norflurazon	91.6	97.1	P/P	54 - 123
Oxadiazon	94.6	95.7	P/P	63 - 128
Parathion Ethyl	88.1	86.4	P/P	72 - 111
Parathion Methyl	92.4	94.0	P/P	74 - 126
Pendimethalin	85.7	87.5	P/P	61 - 131
Phorate	71.8	64.8	P/P	51 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P366290

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prodiamine	104	102	P/P	38 - 144
Prometon	90.4	91.6	P/P	54 - 119
Prometryn	88.7	92.5	P/P	63 - 120
Simazine	97.4	98.8	P/P	75 - 126
Tebuconazole	61.7	67.0	P/P	20 - 119
Terbufos	78.2	72.0	P/P	64 - 116
Terbutylazine	87.8	89.2	P/P	73 - 117

Reference Method: EPA 8276
Batch ID: P366274

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	82.6	87.5	P/P	43 - 128
Toxaphene	79.3	79.4	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P366199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	116		P	40 - 150
Acetaminophen	82.7		P	30 - 150
Bentazon	117		P	30 - 150
Carbamazepine	82.5		P	40 - 150
Diuron	83.2		P	40 - 150
Fenuron	100		P	40 - 150
Fluridone	93.2		P	40 - 150
Hydrocodone	98.7		P	40 - 150
Ibuprofen	83.5		P	30 - 150
Imazapyr	131		P	40 - 150
Imidacloprid	87.5		P	40 - 150
Linuron	63.2		P	40 - 150
MCPP	137		P	40 - 150
Naproxen	84.5		P	40 - 150
Primidone	79.5		P	40 - 150
Pyraclostrobin	69.4		P	30 - 150
Triclopyr	107		P	30 - 150

Reference Method: EPA 8321B
Batch ID: P366232

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	116		P	40 - 150
AMPA	95.3		P	40 - 150
Endothall	94.4		P	40 - 150
Glufosinate	86.8		P	40 - 150
Glyphosate	95.3		P	40 - 140
Sucralose	103		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097324	Barium	97.5	96.7	P/P	80 - 120
2097324	Calcium	103		P	80 - 120
2097324	Iron	104	104	P/P	80 - 120
2097324	Magnesium	104		P	80 - 120
2097324	Potassium	105		P	80 - 120
2097324	Sodium	99.5		P	80 - 120
2097324	Zinc	100	99.5	P/P	80 - 120
2097848	Barium	100		P	80 - 120
2097848	Calcium	102		P	80 - 120
2097848	Iron	104		P	80 - 120
2097848	Magnesium	107		P	80 - 120
2097848	Potassium	107		P	80 - 120
2097848	Sodium	103		P	80 - 120
2097848	Zinc	98.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097324	Aluminum	95.5	91.4	P/P	80 - 120
2097324	Antimony	98.1	96.9	P/P	80 - 120
2097324	Arsenic	102	100	P/P	80 - 120
2097324	Boron	95.2	92.6	P/P	80 - 120
2097324	Cadmium	98.9	96.1	P/P	80 - 120
2097324	Chromium	94.3	91.8	P/P	80 - 120
2097324	Copper	87.4	91.2	P/P	80 - 120
2097324	Lead	97.7	95.5	P/P	80 - 120
2097324	Nickel	95.9	93.1	P/P	80 - 120
2097324	Selenium	100	99.2	P/P	80 - 120
2097324	Silver	94.9	93.4	P/P	80 - 120
2097324	Thallium	99.9	97.7	P/P	80 - 120
2097848	Aluminum	94.5		P	80 - 120
2097848	Antimony	96.2		P	80 - 120
2097848	Arsenic	98.4		P	80 - 120
2097848	Boron	91.8		P	80 - 120
2097848	Cadmium	96.3		P	80 - 120
2097848	Chromium	94.6		P	80 - 120
2097848	Copper	99.9		P	80 - 120
2097848	Lead	96.4		P	80 - 120
2097848	Nickel	94.9		P	80 - 120
2097848	Selenium	96.2		P	80 - 120
2097848	Silver	95.8		P	80 - 120
2097848	Thallium	98.8		P	80 - 120

Reference Method: EPA 8270E
Batch ID: P366274

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096781	Aldrin	67.3	71.4	P/P	25 - 92.0
2096781	Alpha-BHC	115	124	P/P	49 - 130
2096781	Alpha-Chlordane	73.9	80.9	P/P	50 - 115
2096781	Beta-BHC	123	123	P/P	43 - 157

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P366274

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096781	Bifenthrin	88.0	92.4	P/P	50 - 130
2096781	Carbophenothion	79.2	83.1	P/P	27 - 180
2096781	Chlorothalonil	209	215	P/P	10 - 216
2096781	Cis-Nonachlor	74.9	79.6	P/P	50 - 130
2096781	Cypermethrin	93.2	101	P/P	40 - 153
2096781	DDD-p,p'	76.5	84.0	P/P	53 - 128
2096781	DDE-p,p'	72.9	79.1	P/P	48 - 116
2096781	DDT-p,p'	86.1	91.9	P/P	47 - 128
2096781	Delta-BHC	119	136	P/P	51 - 196
2096781	Dicofol	79.9	98.5	P/P	10 - 147
2096781	Dieldrin	83.4	90.4	P/P	48 - 128
2096781	Endosulfan I	83.9	89.9	P/P	58 - 126
2096781	Endosulfan II	99.6	98.7	P/P	50 - 150
2096781	Endosulfan Sulfate	122	115	P/P	56 - 130
2096781	Endrin	87.0	94.2	P/P	50 - 126
2096781	Endrin Aldehyde	109	106	P/P	12 - 145
2096781	Endrin Ketone	103	102	P/P	59 - 132
2096781	Ethalfuralin	94.2	97.4	P/P	50 - 130
2096781	Gamma-BHC	125	129	P/P	50 - 155
2096781	Gamma-Chlordane	73.9	80.9	P/P	50 - 112
2096781	Heptachlor	73.4	75.4	P/P	41 - 98.0
2096781	Heptachlor Epoxide	77.9	84.2	P/P	55 - 117
2096781	Hexachlorobenzene	77.0	77.6	P/P	50 - 130
2096781	Methoxychlor	121	131	P/P	55 - 133
2096781	Mirex	68.8	73.5	P/P	44 - 101
2096781	Permethrin	88.3	93.6	P/P	52 - 124
2096781	Trans-Nonachlor	70.1	76.8	P/P	50 - 130
2096781	Trifluralin	92.7	93.6	P/P	10 - 201

Reference Method: EPA 8270E
Batch ID: P366290

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097522	Acetochlor	99.4	88.8	P/P	63 - 129
2097522	Alachlor	98.6	87.5	P/P	65 - 127
2097522	Ametryn	98.8	94.7	P/P	40 - 164
2097522	Atrazine	107	84.7	P/P	66 - 135
2097522	Atrazine Desethyl	74.9	108	P/P	14 - 157
2097522	Azinphos Methyl	121	125	P/P	49 - 180
2097522	Butylate	63.6	57.5	P/P	10 - 94.0
2097522	Chlorpyrifos Ethyl	97.5	86.8	P/P	58 - 123
2097522	Chlorpyrifos Methyl	104	98.6	P/P	58 - 125
2097522	Cyanazine	63.1	86.8	P/P	24 - 253
2097522	Demeton	92.3	89.3	P/P	25 - 149
2097522	Diazinon	109	101	P/P	59 - 144
2097522	Dimethenamid	94.2	86.5	P/P	46 - 139
2097522	Disulfoton	98.3	94.7	P/P	54 - 132
2097522	Dithiopyr	99.6	89.2	P/P	64 - 130
2097522	EPTC	62.2	55.7	P/P	10 - 92.0
2097522	Ethion	81.4	66.2	P/P	30 - 148
2097522	Ethoprop	102	96.2	P/P	50 - 130
2097522	Fenamiphos	79.3	85.2	P/P	49 - 142

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P366290

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097522	Fipronil	68.3	68.7	P/P	46 - 140
2097522	Fipronil Desulfinyl	57.9	62.4	P/P	30 - 121
2097522	Fipronil Sulfide	61.7	67.6	P/P	31 - 136
2097522	Fipronil Sulfone	45.3	55.2	P/P	16 - 136
2097522	Fonofos	107	102	P/P	55 - 129
2097522	Hexazinone	97.8	88.9	P/P	56 - 141
2097522	Malathion	98.3	85.6	P/P	56 - 135
2097522	Metalaxyl	92.2	83.7	P/P	54 - 135
2097522	Metolachlor	93.2	83.3	P/P	51 - 140
2097522	Metribuzin	226	219	P/P	45 - 254
2097522	Mevinphos	92.5	90.4	P/P	33 - 131
2097522	Molinate	103	75.0	F/P	14 - 98.0
2097522	Oxadiazon	96.3	83.9	P/P	67 - 116
2097522	Parathion Ethyl	99.1	94.7	P/P	66 - 118
2097522	Parathion Methyl	108	104	P/P	64 - 136
2097522	Pendimethalin	107	101	P/P	59 - 144
2097522	Phorate	95.2	90.4	P/P	42 - 130
2097522	Prodiamine	79.9	60.2	P/P	42 - 148
2097522	Prometon	91.3	81.8	P/P	59 - 134
2097522	Prometryn	92.8	85.6	P/P	54 - 135
2097522	Tebuconazole	39.4	34.6	P/P	10 - 131
2097522	Terbufos	108	103	P/P	57 - 131
2097522	Terbutylazine	99.0	89.7	P/P	68 - 125

Reference Method: EPA 8276
Batch ID: P366274

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097521	Chlordane	70.4	68.6	P/P	34 - 136
2097521	Toxaphene	62.1	60.6	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P365921

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096686	3-Hydroxycarbofuran	107	90.0	P/P	40 - 150
2096686	Aldicarb	77.2	52.9	P/P	30 - 150
2096686	Aldicarb Sulfone	115	103	P/P	40 - 150
2096686	Aldicarb Sulfoxide	60.4	51.5	P/P	40 - 150
2096686	Carbaryl	82.8	73.1	P/P	40 - 150
2096686	Carbofuran	77.7	70.4	P/P	40 - 150
2096686	Methiocarb	78.6	69.8	P/P	40 - 150
2096686	Methomyl	81.6	73.6	P/P	40 - 150
2096686	Oxamyl	101	95.3	P/P	40 - 150
2096686	Propoxur	74.2	67.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P366199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097411	2,4-D	137	161	P/F	40 - 150
2097411	Acetaminophen	101	111	P/P	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P366199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097411	Bentazon	101	106	P/P	30 - 150
2097411	Carbamazepine	84.4	85.3	P/P	40 - 150
2097411	Diuron	77.0	78.4	P/P	40 - 150
2097411	Fenuron	93.2	96.6	P/P	40 - 150
2097411	Fluridone	85.2	84.1	P/P	40 - 150
2097411	Hydrocodone	116	117	P/P	40 - 150
2097411	Ibuprofen	83.3	90.6	P/P	30 - 150
2097411	Imazapyr	139	182	P/F	40 - 150
2097411	Imidacloprid	174	198	F/F	40 - 150
2097411	Linuron	55.0	53.0	P/P	40 - 150
2097411	MCPP	187	189	F/F	40 - 150
2097411	Naproxen	95.4	81.8	P/P	40 - 150
2097411	Primidone	92.6	99.7	P/P	40 - 150
2097411	Pyraclostrobin	71.8	73.2	P/P	30 - 150
2097411	Triclopyr	122	136	P/P	30 - 150

Reference Method: EPA 8321B
Batch ID: P366232

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097186	Acesulfame K	134	139	P/P	40 - 150
2097186	AMPA	70.6	71.9	P/P	40 - 150
2097186	Endothall	97.7	100	P/P	40 - 150
2097186	Glufosinate	82.5	83.7	P/P	40 - 150
2097186	Glyphosate	77.1	79.8	P/P	40 - 140
2097186	Sucralose	107	106	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097324	Barium	0.832	Spike	P	0 - 20
2097324	Calcium	0.900	Spike	P	0 - 20
2097324	Iron	0.570	Spike	P	0 - 20
2097324	Magnesium	0.641	Spike	P	0 - 20
2097324	Potassium	0.971	Spike	P	0 - 20
2097324	Sodium	1.10	Spike	P	0 - 20
2097324	Zinc	0.846	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097324	Aluminum	3.99	Spike	P	0 - 20
2097324	Antimony	1.23	Spike	P	0 - 20
2097324	Arsenic	1.64	Spike	P	0 - 20
2097324	Boron	1.81	Spike	P	0 - 20
2097324	Cadmium	2.88	Spike	P	0 - 20
2097324	Chromium	2.62	Spike	P	0 - 20
2097324	Copper	4.20	Spike	P	0 - 20
2097324	Lead	2.19	Spike	P	0 - 20
2097324	Nickel	2.96	Spike	P	0 - 20
2097324	Selenium	0.930	Spike	P	0 - 20
2097324	Silver	1.58	Spike	P	0 - 20
2097324	Thallium	2.21	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P366274

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096781	Aldrin	6.02	Spike	P	0 - 30
2096781	Alpha-BHC	7.70	Spike	P	0 - 30
2096781	Alpha-Chlordane	9.10	Spike	P	0 - 30
2096781	Beta-BHC	0.0277	Spike	P	0 - 30
2096781	Bifenthrin	4.95	Spike	P	0 - 30
2096781	Carbophenothion	4.84	Spike	P	0 - 30
2096781	Chlorothalonil	2.95	Spike	P	0 - 30
2096781	Cis-Nonachlor	6.06	Spike	P	0 - 30
2096781	Cypermethrin	7.72	Spike	P	0 - 30
2096781	DDD-p,p'	9.36	Spike	P	0 - 30
2096781	DDE-p,p'	8.08	Spike	P	0 - 30
2096781	DDT-p,p'	6.44	Spike	P	0 - 30
2096781	Delta-BHC	13.4	Spike	P	0 - 30
2096781	Dicofol	20.8	Spike	P	0 - 30
2096781	Dieldrin	8.10	Spike	P	0 - 30
2096781	Endosulfan I	6.83	Spike	P	0 - 30
2096781	Endosulfan II	0.907	Spike	P	0 - 30
2096781	Endosulfan Sulfate	6.37	Spike	P	0 - 30
2096781	Endrin	7.97	Spike	P	0 - 30
2096781	Endrin Aldehyde	2.19	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P366274

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096781	Endrin Ketone	0.562	Spike	P	0 - 30
2096781	Ethalfuralin	3.35	Spike	P	0 - 30
2096781	Gamma-BHC	2.72	Spike	P	0 - 30
2096781	Gamma-Chlordane	9.10	Spike	P	0 - 30
2096781	Heptachlor	2.63	Spike	P	0 - 30
2096781	Heptachlor Epoxide	7.76	Spike	P	0 - 30
2096781	Hexachlorobenzene	0.826	Spike	P	0 - 30
2096781	Methoxychlor	8.21	Spike	P	0 - 30
2096781	Mirex	6.57	Spike	P	0 - 30
2096781	Permethrin	5.91	Spike	P	0 - 30
2096781	Trans-Nonachlor	9.09	Spike	P	0 - 30
2096781	Trifluralin	1.04	Spike	P	0 - 30
LFB	Aldrin	3.18	LCS	P	0 - 30
LFB	Alpha-BHC	8.76	LCS	P	0 - 30
LFB	Alpha-Chlordane	5.51	LCS	P	0 - 30
LFB	Beta-BHC	10.6	LCS	P	0 - 30
LFB	Bifenthrin	8.52	LCS	P	0 - 30
LFB	Carbophenothion	22.3	LCS	P	0 - 30
LFB	Chlorothalonil	13.5	LCS	P	0 - 30
LFB	Cis-Nonachlor	4.10	LCS	P	0 - 30
LFB	Cypermethrin	4.31	LCS	P	0 - 30
LFB	DDD-p,p'	7.76	LCS	P	0 - 30
LFB	DDE-p,p'	10.9	LCS	P	0 - 30
LFB	DDT-p,p'	7.92	LCS	P	0 - 30
LFB	Delta-BHC	18.5	LCS	P	0 - 30
LFB	Dicofol	2.24	LCS	P	0 - 30
LFB	Dieldrin	7.70	LCS	P	0 - 30
LFB	Endosulfan I	7.85	LCS	P	0 - 30
LFB	Endosulfan II	7.76	LCS	P	0 - 30
LFB	Endosulfan Sulfate	12.8	LCS	P	0 - 30
LFB	Endrin	8.55	LCS	P	0 - 30
LFB	Endrin Aldehyde	11.3	LCS	P	0 - 30
LFB	Endrin Ketone	2.36	LCS	P	0 - 30
LFB	Ethalfuralin	6.47	LCS	P	0 - 30
LFB	Gamma-BHC	6.25	LCS	P	0 - 30
LFB	Gamma-Chlordane	5.51	LCS	P	0 - 30
LFB	Heptachlor	1.91	LCS	P	0 - 30
LFB	Heptachlor Epoxide	4.73	LCS	P	0 - 30
LFB	Hexachlorobenzene	7.24	LCS	P	0 - 30
LFB	Methoxychlor	0.941	LCS	P	0 - 30
LFB	Mirex	3.51	LCS	P	0 - 30
LFB	Permethrin	0.234	LCS	P	0 - 30
LFB	Trans-Nonachlor	1.78	LCS	P	0 - 30
LFB	Trifluralin	7.91	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P366290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097522	Acetochlor	11.2	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E
Batch ID: P366290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097522	Alachlor	11.8	Spike	P	0 - 30
2097522	Ametryn	4.17	Spike	P	0 - 30
2097522	Atrazine	18.6	Spike	P	0 - 30
2097522	Atrazine Desethyl	36.0	Spike	F	0 - 30
2097522	Azinphos Methyl	3.26	Spike	P	0 - 30
2097522	Bromacil	6.26	Spike	P	0 - 30
2097522	Butylate	10.1	Spike	P	0 - 30
2097522	Chlorpyrifos Ethyl	10.0	Spike	P	0 - 30
2097522	Chlorpyrifos Methyl	5.05	Spike	P	0 - 30
2097522	Cyanazine	31.6	Spike	F	0 - 30
2097522	Demeton	3.21	Spike	P	0 - 30
2097522	Diazinon	8.30	Spike	P	0 - 30
2097522	Dimethenamid	8.52	Spike	P	0 - 30
2097522	Disulfoton	3.69	Spike	P	0 - 30
2097522	Dithiopyr	11.0	Spike	P	0 - 30
2097522	EPTC	11.1	Spike	P	0 - 30
2097522	Ethion	20.6	Spike	P	0 - 30
2097522	Ethoprop	5.60	Spike	P	0 - 30
2097522	Fenamiphos	7.12	Spike	P	0 - 30
2097522	Fipronil	0.588	Spike	P	0 - 30
2097522	Fipronil Desulfinyl	7.56	Spike	P	0 - 30
2097522	Fipronil Sulfide	9.02	Spike	P	0 - 30
2097522	Fipronil Sulfone	19.8	Spike	P	0 - 30
2097522	Fonofos	4.08	Spike	P	0 - 30
2097522	Hexazinone	7.93	Spike	P	0 - 30
2097522	Malathion	13.7	Spike	P	0 - 30
2097522	Metalaxyl	9.66	Spike	P	0 - 30
2097522	Metolachlor	9.35	Spike	P	0 - 30
2097522	Metribuzin	2.89	Spike	P	0 - 30
2097522	Mevinphos	2.30	Spike	P	0 - 30
2097522	Molinate	31.1	Spike	F	0 - 30
2097522	Norflurazon	55.8	Spike	F	0 - 30
2097522	Oxadiazon	11.4	Spike	P	0 - 30
2097522	Parathion Ethyl	4.57	Spike	P	0 - 30
2097522	Parathion Methyl	4.28	Spike	P	0 - 30
2097522	Pendimethalin	6.06	Spike	P	0 - 30
2097522	Phorate	5.15	Spike	P	0 - 30
2097522	Prodiamine	28.2	Spike	P	0 - 30
2097522	Prometon	11.1	Spike	P	0 - 30
2097522	Prometryn	8.04	Spike	P	0 - 30
2097522	Simazine	1.58	Spike	P	0 - 30
2097522	Tebuconazole	12.8	Spike	P	0 - 30
2097522	Terbufos	4.11	Spike	P	0 - 30
2097522	Terbutylazine	9.90	Spike	P	0 - 30
LFB	Acetochlor	1.04	LCS	P	0 - 30
LFB	Alachlor	2.63	LCS	P	0 - 30
LFB	Ametryn	0.811	LCS	P	0 - 30
LFB	Atrazine	3.99	LCS	P	0 - 30
LFB	Atrazine Desethyl	12.5	LCS	P	0 - 30
LFB	Azinphos Methyl	1.59	LCS	P	0 - 30
LFB	Bromacil	12.6	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P366290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Butylate	14.4	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.05	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.99	LCS	P	0 - 30
LFB	Cyanazine	1.86	LCS	P	0 - 30
LFB	Demeton	14.8	LCS	P	0 - 30
LFB	Diazinon	1.49	LCS	P	0 - 30
LFB	Dimethenamid	0.915	LCS	P	0 - 30
LFB	Disulfoton	5.18	LCS	P	0 - 30
LFB	Dithiopyr	3.25	LCS	P	0 - 30
LFB	EPTC	15.4	LCS	P	0 - 30
LFB	Ethion	4.39	LCS	P	0 - 30
LFB	Ethoprop	9.94	LCS	P	0 - 30
LFB	Fenamiphos	2.76	LCS	P	0 - 30
LFB	Fipronil	2.23	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	2.63	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.02	LCS	P	0 - 30
LFB	Fipronil Sulfone	5.13	LCS	P	0 - 30
LFB	Fonofos	7.94	LCS	P	0 - 30
LFB	Hexazinone	5.23	LCS	P	0 - 30
LFB	Malathion	3.29	LCS	P	0 - 30
LFB	Metaxyl	1.31	LCS	P	0 - 30
LFB	Metolachlor	0.718	LCS	P	0 - 30
LFB	Metribuzin	5.50	LCS	P	0 - 30
LFB	Mevinphos	17.7	LCS	P	0 - 30
LFB	Molinate	14.9	LCS	P	0 - 30
LFB	Norflurazon	5.83	LCS	P	0 - 30
LFB	Oxadiazon	1.05	LCS	P	0 - 30
LFB	Parathion Ethyl	2.02	LCS	P	0 - 30
LFB	Parathion Methyl	1.78	LCS	P	0 - 30
LFB	Pendimethalin	2.10	LCS	P	0 - 30
LFB	Phorate	10.3	LCS	P	0 - 30
LFB	Prodiamine	2.14	LCS	P	0 - 30
LFB	Prometon	1.25	LCS	P	0 - 30
LFB	Prometryn	4.29	LCS	P	0 - 30
LFB	Simazine	1.41	LCS	P	0 - 30
LFB	Tebuconazole	8.26	LCS	P	0 - 30
LFB	Terbufos	8.27	LCS	P	0 - 30
LFB	Terbutylazine	1.69	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P366274

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097521	Chlordane	2.49	Spike	P	0 - 30
2097521	Toxaphene	2.41	Spike	P	0 - 30
LFB	Chlordane	5.76	LCS	P	0 - 30
LFB	Toxaphene	0.200	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P365921

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096686	3-Hydroxycarbofuran	17.5	Spike	P	0 - 30
2096686	Aldicarb	37.3	Spike	F	0 - 30
2096686	Aldicarb Sulfone	11.2	Spike	P	0 - 30
2096686	Aldicarb Sulfoxide	15.9	Spike	P	0 - 30
2096686	Carbaryl	12.5	Spike	P	0 - 30
2096686	Carbofuran	9.85	Spike	P	0 - 30
2096686	Methiocarb	11.8	Spike	P	0 - 30
2096686	Methomyl	10.3	Spike	P	0 - 30
2096686	Oxamyl	6.20	Spike	P	0 - 30
2096686	Propoxur	9.84	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P366199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097411	2,4-D	11.9	Spike	P	0 - 30
2097411	Acetaminophen	8.61	Spike	P	0 - 30
2097411	Bentazon	2.77	Spike	P	0 - 30
2097411	Carbamazepine	1.14	Spike	P	0 - 30
2097411	Diuron	1.59	Spike	P	0 - 30
2097411	Fenuron	3.59	Spike	P	0 - 30
2097411	Fluridone	1.25	Spike	P	0 - 30
2097411	Hydrocodone	1.01	Spike	P	0 - 30
2097411	Ibuprofen	8.35	Spike	P	0 - 30
2097411	Imazapyr	20.8	Spike	P	0 - 30
2097411	Imidacloprid	6.52	Spike	P	0 - 30
2097411	Linuron	3.84	Spike	P	0 - 30
2097411	MCP	1.01	Spike	P	0 - 30
2097411	Naproxen	15.4	Spike	P	0 - 30
2097411	Primidone	7.35	Spike	P	0 - 30
2097411	Pyraclostrobin	1.99	Spike	P	0 - 30
2097411	Triclopyr	11.2	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P366232

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097186	Acesulfame K	4.04	Spike	P	0 - 30
2097186	AMPA	1.74	Spike	P	0 - 30
2097186	Endothall	2.39	Spike	P	0 - 30
2097186	Glufosinate	1.47	Spike	P	0 - 30
2097186	Glyphosate	3.43	Spike	P	0 - 30
2097186	Sucralose	1.04	Spike	P	0 - 30

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2097519
Field Sample ID: AF55136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	35.4	P	30 - 160

Lab Sample ID: 2097520
Field Sample ID: AF55136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	152	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.9	P	30 - 160
EPA 8321B	Diuron-d6	66.0	P	30 - 160
EPA 8321B	Endothall-d6	93.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.7	P	30 - 160
EPA 8321B	Primidone-d5	79.9	P	30 - 160
EPA 8321B	Sucralose-d6	138	P	30 - 160

Lab Sample ID: 2097521
Field Sample ID: AF55136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	106	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	95.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	62.7	P	30 - 103
EPA 8276	PCNB	111	P	37 - 143

Lab Sample ID: 2097522
Field Sample ID: AF55136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	105	P	68 - 130
EPA 8270E	Terbufos-d10	108	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A92352

Included Lab Sample IDs: 2097523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	101	P/P	90 - 110
Calcium	104	103	P/P	90 - 110
Iron	101	102	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Potassium	99.9	100	P/P	90 - 110
Sodium	102	104	P/P	90 - 110
Zinc	101	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92361

Included Lab Sample IDs: 2097520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	126	71.0	P/P	60 - 160
Endothall	99.8	98.6	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A92363

Included Lab Sample IDs: 2097520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	73.1	71.7	P/P	60 - 160
Glufosinate	77.9	80.5	P/P	60 - 160
Glyphosate	77.2	82.8	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92368

Included Lab Sample IDs: 2097523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.4	95.0	P/P	90 - 110
Antimony	97.0	96.7	P/P	90 - 110
Arsenic	97.4	97.3	P/P	90 - 110
Boron	94.0	91.1	P/P	90 - 110
Cadmium	95.5	95.2	P/P	90 - 110
Chromium	95.1	95.8	P/P	90 - 110
Lead	96.3	96.4	P/P	90 - 110
Nickel	95.2	95.3	P/P	90 - 110
Selenium	97.4	98.1	P/P	90 - 110
Silver	93.4	93.6	P/P	90 - 110
Thallium	94.3	93.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92372

Included Lab Sample IDs: 2097520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	107	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276

Run ID: A92413

Included Lab Sample IDs: 2097521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	93.1		P	80 - 120
Toxaphene	96.6		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92469

Included Lab Sample IDs: 2097523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	101	99.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92483

Included Lab Sample IDs: 2097519

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	115	121	P/P	60 - 150
Aldicarb	111	117	P/P	60 - 150
Aldicarb Sulfone	111	114	P/P	50 - 150
Aldicarb Sulfoxide	120	122	P/P	50 - 150
Carbaryl	110	111	P/P	60 - 150
Carbofuran	116	114	P/P	50 - 150
Methiocarb	109	104	P/P	50 - 150
Methomyl	106	111	P/P	50 - 150
Oxamyl	116	115	P/P	50 - 150
Propoxur	114	111	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A92564

Included Lab Sample IDs: 2097521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	90.7		P	80 - 120
Alpha-BHC	94.7		P	80 - 120
Alpha-Chlordane	94.7		P	80 - 120
Beta-BHC	97.0		P	80 - 120
Bifenthrin	90.8		P	80 - 120
Carbophenothion	83.8		P	80 - 120
Chlorothalonil	89.6		P	80 - 120
Cis-Nonachlor	93.1		P	80 - 120
Cypermethrin	89.6		P	80 - 120
DDD-p,p'	96.7		P	80 - 120
DDE-p,p'	94.8		P	80 - 120
DDT-p,p'	97.3		P	80 - 120
Delta-BHC	102		P	80 - 120
Dicofol	100		P	80 - 120
Dieldrin	98.8		P	80 - 120
Endosulfan I	93.8		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	97.4		P	80 - 120
Endrin	94.7		P	80 - 120
Endrin Aldehyde	93.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A92564
 Included Lab Sample IDs: 2097521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin Ketone	98.4		P	80 - 120
Ethalfuralin	101		P	80 - 120
Gamma-BHC	97.9		P	80 - 120
Gamma-Chlordane	94.7		P	80 - 120
Heptachlor	90.0		P	80 - 120
Heptachlor Epoxide	93.9		P	80 - 120
Hexachlorobenzene	98.4		P	80 - 120
Methoxychlor	99.0		P	80 - 120
Mirex	96.0		P	80 - 120
Permethrin	89.2		P	80 - 120
Trans-Nonachlor	94.0		P	80 - 120
Trifluralin	96.1		P	80 - 120

Reference Method: EPA 8321B
 Run ID: A92569
 Included Lab Sample IDs: 2097520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.4	81.7	P/P	50 - 150
Acetaminophen	106	103	P/P	60 - 160
Bentazon	120	112	P/P	50 - 160
Carbamazepine	102	104	P/P	60 - 150
Diuron	103	106	P/P	60 - 150
Fenuron	101	107	P/P	60 - 150
Fluridone	105	102	P/P	60 - 160
Hydrocodone	109	94.6	P/P	60 - 150
Ibuprofen	72.9	82.6	P/P	50 - 160
Imazapyr	93.7	122	P/P	50 - 150
Linuron	88.9	91.4	P/P	60 - 150
MCPD	92.2	81.6	P/P	50 - 150
Naproxen	109	132	P/P	50 - 160
Primidone	91.3	100	P/P	60 - 150
Pyraclostrobin	87.8	78.6	P/P	60 - 150
Triclopyr	91.8	80.8	P/P	50 - 150

Reference Method: EPA 8270E
 Run ID: A92590
 Included Lab Sample IDs: 2097522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.9		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	97.9		P	80 - 120
Atrazine	97.1		P	80 - 120
Atrazine Desethyl	90.0		P	80 - 120
Azinphos Methyl	100		P	80 - 120
Bromacil	97.7		P	80 - 120
Butylate	98.1		P	80 - 120
Chlorpyrifos Ethyl	98.4		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Cyanazine	110		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A92590
Included Lab Sample IDs: 2097522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Demeton	98.6		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	99.8		P	80 - 120
Disulfoton	96.1		P	80 - 120
Dithiopyr	99.4		P	80 - 120
EPTC	97.3		P	80 - 120
Ethion	97.6		P	80 - 120
Ethoprop	94.8		P	80 - 120
Fenamiphos	94.8		P	80 - 120
Fipronil	96.4		P	80 - 120
Fipronil Desulfinyl	99.5		P	80 - 120
Fipronil Sulfide	93.2		P	80 - 120
Fipronil Sulfone	96.7		P	80 - 120
Fonofos	96.2		P	80 - 120
Hexazinone	96.2		P	80 - 120
Malathion	94.8		P	80 - 120
Metalaxyl	97.0		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	105		P	80 - 120
Mevinphos	94.6		P	80 - 120
Molinate	100		P	80 - 120
Oxadiazon	102		P	80 - 120
Parathion Ethyl	97.6		P	80 - 120
Parathion Methyl	99.2		P	80 - 120
Pendimethalin	100		P	80 - 120
Phorate	98.6		P	80 - 120
Prodiamine	99.5		P	80 - 120
Prometon	99.7		P	80 - 120
Prometryn	98.4		P	80 - 120
Simazine	93.5		P	80 - 120
Tebuconazole	96.2		P	80 - 120
Terbufos	97.3		P	80 - 120
Terbutylazine	97.3		P	80 - 120

Reference Method: EPA 8321B
Run ID: A92632
Included Lab Sample IDs: 2097520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	102	96.9	P/P	60 - 150

Reference Method: EPA 8270E
Run ID: A92646
Included Lab Sample IDs: 2097522

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Norflurazon	97.6		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			LCS	Precision	
								SMP	MS
EPA 200.7 Rev. 4.4	Barium	98.9		97.5	96.7	100			0.832
	Calcium	103		103	102				0.900
	Iron	101		104	104	104			0.570
	Magnesium	102		104	107				0.641
	Potassium	103		105	107				0.971
	Sodium	103		99.5	103				1.10
	Zinc	96.6		100	99.5	98.8			0.846
EPA 200.8 Rev. 5.4	Aluminum	94.9		95.5	91.4	94.5			3.99
	Antimony	96.4		98.1	96.9	96.2			1.23
	Arsenic	98.3		102	100	98.4			1.64
	Boron	93.7		95.2	92.6	91.8			1.81
	Cadmium	95.5		98.9	96.1	96.3			2.88
	Chromium	96.0		94.3	91.8	94.6			2.62
	Copper	91.9		99.9	87.4	91.2			4.20
	Lead	96.0		97.7	95.5	96.4			2.19
	Nickel	95.0		95.9	93.1	94.9			2.96
	Selenium	96.8		100	99.2	96.2			0.930
	Silver	95.3		94.9	93.4	95.8			1.58
	Thallium	97.7		99.9	97.7	98.8			2.21
EPA 8270E	Acetochlor	92.6	91.6	88.8	99.4		1.04		11.2
	Alachlor	88.9	91.2	98.6	87.5		2.63		11.8
	Aldrin	61.5	63.5	67.3	71.4		3.18		6.02
	Alpha-BHC	128	117	115	124		8.76		7.70
	Alpha-Chlordane	92.3	87.3	80.9	73.9		5.51		9.10
	Ametryn	89.5	88.8	98.8	94.7		0.811		4.17
	Atrazine	91.0	87.4	107	84.7		3.99		18.6
	Atrazine Desethyl	61.1	69.3	74.9	108		12.5		36.0
	Azinphos Methyl	120	122	121	125		1.59		3.26
	Beta-BHC	143	128	123	123		10.6		0.0277
	Bifenthrin	66.5	72.4	92.4	88.0		8.52		4.95
	Bromacil	73.6	83.5				12.6		6.26
	Butylate	59.8	51.7	63.6	57.5		14.4		10.1
	Carbophenothion	61.5	76.9	83.1	79.2		22.3		4.84
	Chlorothalonil	187	163	215	209		13.5		2.95
	Chlorpyrifos Ethyl	88.6	92.3	97.5	86.8		4.05		10.0
	Chlorpyrifos Methyl	86.4	84.7	98.6	104		1.99		5.05
	Cis-Nonachlor	91.6	87.9	74.9	79.6		4.10		6.06
	Cyanazine	82.3	83.9	86.8	63.1		1.86		31.6
	Cypermethrin	72.6	75.8	93.2	101		4.31		7.72
	DDD-p,p'	103	95.8	76.5	84.0		7.76		9.36
	DDE-p,p'	93.5	83.9	72.9	79.1		10.9		8.08
	DDT-p,p'	115	106	86.1	91.9		7.92		6.44
	Delta-BHC	161	134	136	119		18.5		13.4
	Demeton	61.3	71.1	92.3	89.3		14.8		3.21
	Diazinon	85.1	86.4	109	101		1.49		8.30
	Dicofol	90.8	88.8	79.9	98.5		2.24		20.8
	Dieldrin	106	98.1	83.4	90.4		7.70		8.10
	Dimethenamid	90.5	91.3	94.2	86.5		0.915		8.52
	Disulfoton	71.6	75.5	98.3	94.7		5.18		3.69
	Dithiopyr	96.2	93.2	99.6	89.2		3.25		11.0
	Endosulfan I	103	95.2	83.9	89.9		7.85		6.83
	Endosulfan II	111	103	99.6	98.7		7.76		0.907
	Endosulfan Sulfate	97.4	85.7	122	115		12.8		6.37
	Endrin	105	96.1	87.0	94.2		8.55		7.97

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Endrin Aldehyde	114	102	109	106	11.3		2.19
	Endrin Ketone	95.9	93.6	103	102	2.36		0.562
	EPTC	50.6	59.1	62.2	55.7	15.4		11.1
	Ethalfuralin	107	101	94.2	97.4	6.47		3.35
	Ethion	99.1	94.8	81.4	66.2	4.39		20.6
	Ethoprop	66.7	73.7	102	96.2	9.94		5.60
	Fenamiphos	90.3	87.8	79.3	85.2	2.76		7.12
	Fipronil	95.9	93.8	68.3	68.7	2.23		0.588
	Fipronil Desulfinyl	89.6	87.3	57.9	62.4	2.63		7.56
	Fipronil Sulfide	91.8	89.1	61.7	67.6	3.02		9.02
	Fipronil Sulfone	91.1	86.6	45.3	55.2	5.13		19.8
	Fonofos	69.4	75.1	107	102	7.94		4.08
	Gamma-BHC	131	123	129	125	6.25		2.72
	Gamma-Chlordane	92.3	87.3	73.9	80.9	5.51		9.10
	Heptachlor	76.4	74.9	73.4	75.4	1.91		2.63
	Heptachlor Epoxide	95.8	91.4	77.9	84.2	4.73		7.76
	Hexachlorobenzene	84.7	78.8	77.0	77.6	7.24		0.826
	Hexazinone	100	95.3	97.8	88.9	5.23		7.93
	Malathion	96.4	93.3	98.3	85.6	3.29		13.7
	Metalaxyl	91.8	90.6	92.2	83.7	1.31		9.66
	Methoxychlor	133	132	121	131	0.941		8.21
	Metolachlor	92.3	91.7	93.2	83.3	0.718		9.35
	Metribuzin	108	103	226	219	5.50		2.89
	Mevinphos	67.0	80.0	92.5	90.4	17.7		2.30
	Mirex	65.9	68.2	73.5	68.8	3.51		6.57
	Molinate	69.7	80.9	103	75.0	14.9		31.1
	Norflurazon	97.1	91.6			5.83		55.8
	Oxadiazon	95.7	94.6	96.3	83.9	1.05		11.4
	Parathion Ethyl	86.4	88.1	99.1	94.7	2.02		4.57
	Parathion Methyl	94.0	92.4	108	104	1.78		4.28
	Pendimethalin	87.5	85.7	107	101	2.10		6.06
	Permethrin	71.3	71.4	93.6	88.3	0.234		5.91
	Phorate	64.8	71.8	95.2	90.4	10.3		5.15
	Prodiamine	104	102	79.9	60.2	2.14		28.2
	Prometon	90.4	91.6	91.3	81.8	1.25		11.1
	Prometryn	88.7	92.5	92.8	85.6	4.29		8.04
	Simazine	97.4	98.8			1.41		1.58
	Tebuconazole	61.7	67.0	39.4	34.6	8.26		12.8
	Terbufos	78.2	72.0	108	103	8.27		4.11
	Terbutylazine	87.8	89.2	99.0	89.7	1.69		9.90
	Trans-Nonachlor	85.8	84.3	76.8	70.1	1.78		9.09
	Trifluralin	105	96.7	93.6	92.7	7.91		1.04
EPA 8276	Chlordane	82.6	87.5	70.4	68.6	5.76		2.49
	Toxaphene	79.3	79.4	62.1	60.6	0.200		2.41
EPA 8321B	2,4-D	116		137	161			11.9
	3-Hydroxycarbofuran			107	90.0			17.5
	Acesulfame K	116		134	139			4.04
	Acetaminophen	82.7		101	111			8.61
	Aldicarb			77.2	52.9			37.3
	Aldicarb Sulfone			115	103			11.2
	Aldicarb Sulfoxide			60.4	51.5			15.9
	AMPA	95.3		70.6	71.9			1.74
	Bentazon	117		101	106			2.77
	Carbamazepine	82.5		84.4	85.3			1.14

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Carbaryl		82.8	73.1		12.5
	Carbofuran		77.7	70.4		9.85
	Diuron	83.2	77.0	78.4		1.59
	Endothall	94.4	97.7	100		2.39
	Fenuron	100	93.2	96.6		3.59
	Fluridone	93.2	85.2	84.1		1.25
	Glufosinate	86.8	83.7	82.5		1.47
	Glyphosate	95.3	77.1	79.8		3.43
	Hydrocodone	98.7	116	117		1.01
	Ibuprofen	83.5	83.3	90.6		8.35
	Imazapyr	131	139	182		20.8
	Imidacloprid	87.5	174	198		6.52
	Linuron	63.2	55.0	53.0		3.84
	MCPP	137	187	189		1.01
	Methiocarb		78.6	69.8		11.8
	Methomyl		81.6	73.6		10.3
	Naproxen	84.5	95.4	81.8		15.4
	Oxamyl		101	95.3		6.20
	Primidone	79.5	92.6	99.7		7.35
	Propoxur		74.2	67.3		9.84
	Pyraclostrobin	69.4	71.8	73.2		1.99
	Sucralose	103	107	106		1.04
	Triclopyr	107	122	136		11.2

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2097523
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2097523
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2097521
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2097522
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2097521
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2097519
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2097520

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	06/21/2019	06/24/2019 16:50	Elliott D. Healy	06/25/2019 15:04	Betina Topolski	2097523
EPA 200.8 Rev. 5.4	06/21/2019	06/24/2019 16:50	Elliott D. Healy	06/26/2019 01:22	Robert K Palmer	2097523
	06/21/2019	06/24/2019 16:50	Elliott D. Healy	07/01/2019 12:50	Robert K Palmer	2097523
	06/21/2019	06/25/2019 08:00	Rasheda Ghaffari	07/04/2019 02:33	Arthur Maknenko	2097521
EPA 8270E	06/21/2019	06/27/2019 08:30	Fe-Val Siddell	06/28/2019 16:13	Vandana T. Nagar	2097522
	06/21/2019	06/27/2019 08:30	Fe-Val Siddell	07/08/2019 17:45	Vandana T. Nagar	2097522
	06/21/2019	06/25/2019 08:00	Rasheda Ghaffari	06/27/2019 05:26	Dinesh Mishra	2097521
EPA 8276	06/21/2019	06/25/2019 09:30	Joshua Hartstein	07/01/2019 14:55	Juyoung Kim	2097519
EPA 8321B	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/25/2019 12:11	Rebecca Ware	2097520
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/25/2019 21:59	Rebecca Ware	2097520
	06/21/2019	06/25/2019 10:15	Rebecca Ware	06/26/2019 11:53	Rebecca Ware	2097520
	06/21/2019	06/27/2019 09:00	Hoor Shaik	07/05/2019 20:21	Juyoung Kim	2097520
	06/21/2019	06/27/2019 09:00	Hoor Shaik	07/09/2019 01:20	Juyoung Kim	2097520