

Chemical Analysis Report

SO-DIST-2023-10-18-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **SMP : Prairie Creek SCI**
Request ID: **RQ-2023-10-16-40**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
Attn: Nicole Reistad

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Certified by: Colin Wright, Program Administrator

Date Certified: 13-NOV-2023 09:56

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray 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 group are included in this report: Pesticides.

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: PRAIRIE CREEK AT WASHINGTON LOOP

Collection Date/Time: 10/17/2023 08:45

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445805	EPA 8321B	2,4-D	0.96		ug/L	P436749	
		Acesulfame K	0.10	U	ug/L	P436712	
		2,4,5-T	0.0040	U	ug/L	P436749	
		AMPA	0.75		ug/L	P436712	
		Acetaminophen	0.0080	U	ug/L	P436749	
		Acetamiprid	0.0020	U	ug/L	P436749	
		Endothall	0.25	U	ug/L	P436712	
		Glufosinate	0.10	U	ug/L	P436712	
		Glyphosate	5.2		ug/L	P436712	
		Afidopyropen	0.0020	U	ug/L	P436749	
		Bentazon	0.0056		ug/L	P436749	
		Sucralose	0.010	U	ug/L	P436712	
		Benzovindiflupyr	0.0020	U	ug/L	P436749	
		Carbamazepine	8.0E-04	U	ug/L	P436749	
		Clothianidin	0.021		ug/L	P436749	
		Dinotefuran	0.0020	U	ug/L	P436749	
		Diuron	0.15		ug/L	P436749	
		Fenuron	0.032	U	ug/L	P436749	MS
		Fluridone	8.0E-04	U	ug/L	P436749	
		Imazapyr	0.013	I	ug/L	P436749	
		Hydrocodone	0.0020	U	ug/L	P436749	
		Ibuprofen	0.080	U	ug/L	P436749	
		Imidacloprid	0.097		ug/L	P436749	
		Linuron	0.0040	U	ug/L	P436749	
		Mandestrobin	0.0020	U	ug/L	P436749	
		MCPP	0.0020	U	ug/L	P436749	
		Naproxen	0.0080	U	ug/L	P436749	
		Primidone	0.0040	U	ug/L	P436749	
		Pyraclostrobin	0.0020	U	ug/L	P436749	
		Silvex	0.0040	U	ug/L	P436749	
		Thiamethoxam	0.097		ug/L	P436749	
		Tolfenpyrad	0.0020	U	ug/L	P436749	
		Triclopyr	0.0040	U	ug/L	P436749	
2445813	EPA 8270E	Oxybenzone**	11	U	ng/L	P436713	
		Acetochlor	0.22	UJ	ng/L	P436713	CCV
		Octinoxate**	170	U	ng/L	P436713	
		Alachlor	0.44	U	ng/L	P436713	
		Avobenzone**	110	U	ng/L	P436713	
		Ametryn	1.2	U	ng/L	P436713	
		Atrazine	19		ng/L	P436713	
		PBDE-47**	4.4	U	ng/L	P436713	
		Atrazine Desethyl	19		ng/L	P436713	
		PBDE-99**	5.5	U	ng/L	P436713	
		Azinphos Methyl	3.3	U	ng/L	P436713	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445813	EPA 8270E	Tri-o-cresyl Phosphate**	6.6	U	ng/L	P436713	
		Azoxystrobin	0.44	U	ng/L	P436713	
		Bromacil	130		ng/L	P436713	
		2-Ethylhexyl	13	UJ	ng/L	P436713	LCS
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.50	U	ng/L	P436713	
		Dechlorane Plus**	33	U	ng/L	P436713	
		Caffeine**	8.3	U	ng/L	P436713	
		Dechlorane 602**	5.5	U	ng/L	P436713	
		Carbophenothion	0.55	U	ng/L	P436713	
		Dechlorane 603**	4.4	U	ng/L	P436713	
		Carfentrazone Ethyl	0.17	U	ng/L	P436713	
		Hexabromobenzene**	6.6	U	ng/L	P436713	
		Chlorfenapyr	0.33	U	ng/L	P436713	
		PBB-153**	6.6	UJ	ng/L	P436713	LCS
		Chlorpyrifos Ethyl	0.33	U	ng/L	P436713	
		Pentabromotoluene**	3.3	U	ng/L	P436713	
		Chlorpyrifos Methyl	0.11	U	ng/L	P436713	
		Tris(2-chloroethyl) phosphate (TCEP)**	61	U	ng/L	P436713	
		Coumaphos	1.2	U	ng/L	P436713	
		Tris(1-chloro-2-propyl) phosphate (TCP)**	28	U	ng/L	P436713	
		Cyanazine	5.5	U	ng/L	P436713	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.8	U	ng/L	P436713	
		Cyprodinil	0.22	U	ng/L	P436713	
		Tetradecachloro-m-terphenyl**	8.3	U	ng/L	P436713	
		Demeton	3.9	U	ng/L	P436713	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	66	U	ng/L	P436713	
		Diazinon	0.14	U	ng/L	P436713	
		Difenoconazole	0.77	I	ng/L	P436713	
		Dimethenamid	0.11	U	ng/L	P436713	
		Dimethomorph	0.33	U	ng/L	P436713	
		Disulfoton	0.66	U	ng/L	P436713	
		Dithiopyr	1.1	U	ng/L	P436713	
		EPTC	0.55	U	ng/L	P436713	
		Ethion	0.33	U	ng/L	P436713	
		Ethoprop	0.14	U	ng/L	P436713	
		Etridiazole	0.11	U	ng/L	P436713	
		Fenamiphos	0.50	U	ng/L	P436713	
		Fenbuconazole	0.55	U	ng/L	P436713	
		Fipronil	0.22	U	ng/L	P436713	
		Fipronil Desulfinyl**	0.11	U	ng/L	P436713	MS
		Fipronil Sulfide	0.11	U	ng/L	P436713	
		Fipronil Sulfone	0.11	U	ng/L	P436713	MS, RPD
		Fluazifop-P-butyl	0.11	U	ng/L	P436713	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445813	EPA 8270E	Fludioxonil	0.11	U	ng/L	P436713	
		Flumioxazin	31		ng/L	P436713	
		Flutolanil	0.39	I	ng/L	P436713	
		Fluxapyroxad	0.28	U	ng/L	P436713	
		Fonofos	0.17	U	ng/L	P436713	
		Hexazinone	57		ng/L	P436713	
		Imazalil	0.72	U	ng/L	P436713	
		Iprodione	0.55	U	ng/L	P436713	
		Loratadine**	0.33	U	ng/L	P436713	
		Malathion	0.39	U	ng/L	P436713	
		Metalaxyl	58		ng/L	P436713	
		Metolachlor	4.7		ng/L	P436713	
		Metribuzin	0.44	UJ	ng/L	P436713	LCS
		Mevinphos	1.1	U	ng/L	P436713	
		Molinate	0.28	U	ng/L	P436713	
		Myclobutanil	0.39	U	ng/L	P436713	
		Naled	2.8	U	ng/L	P436713	
		Napropamide	0.77	U	ng/L	P436713	
		Norflurazon	160		ng/L	P436713	
		Oxadiazon	0.39	U	ng/L	P436713	
		Oxyfluorfen	0.22	U	ng/L	P436713	MS, RPD
		Parathion Ethyl	0.17	U	ng/L	P436713	
		Parathion Methyl	0.22	U	ng/L	P436713	
		Pendimethalin	1.9	U	ng/L	P436713	
		Phenytion**	5.8	U	ng/L	P436713	
		Phorate	0.28	U	ng/L	P436713	
		Prodiamine	0.22	UJ	ng/L	P436713	CCV
		Prometon	3.3	U	ng/L	P436713	
		Prometryn	0.39	U	ng/L	P436713	
		Pronamide	0.11	U	ng/L	P436713	
		Propanil	0.11	U	ng/L	P436713	
		Propargite	0.88	U	ng/L	P436713	
		Propiconazole	0.66	U	ng/L	P436713	
		Pyraflufen Ethyl	0.33	U	ng/L	P436713	
		Pyridaben	1.5	U	ng/L	P436713	
		Pyriproxyfen	0.28	U	ng/L	P436713	
		Simazine	98		ng/L	P436713	
		Stirophos	0.44	U	ng/L	P436713	
		Sulfentrazone	6.1	I	ng/L	P436713	MS
		Tebuconazole	1.6	I	ng/L	P436713	
		Terbufos	0.22	U	ng/L	P436713	RPD
		Terbuthylazine	0.22	U	ng/L	P436713	
		Thiobencarb	0.55	U	ng/L	P436713	
		Triadimefon	0.17	UJ	ng/L	P436713	LCS

Field ID: G3SD0067

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P436713

Component	Result	Code	Units
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	60	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.45	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P436713

Component	Result	Code	Units
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	6.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.7	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	25	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	55	U	ng/L

Reference Method: EPA 8321B

Batch ID: P436712

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P436712

Component	Result	Code	Units
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: P436749

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P436713

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	73.6		P	50 - 150
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	20.1		F	37 - 154
Acetochlor	68.0		P	64 - 124
Alachlor	81.1		P	61 - 118
Ametryn	111		P	47 - 158
Atrazine	118		P	68 - 121
Atrazine Desethyl	107		P	30 - 119
Avobenzone	108		P	48 - 193
Azinphos Methyl	53.8		P	30 - 194
Azoxystrobin	85.3		P	58 - 154
Bromacil	93.0		P	47 - 126
Butylate	59.7		P	31 - 83.0
Caffeine	146		P	10 - 180
Carbophenothion	118		P	59 - 133
Carfentrazone Ethyl	95.7		P	59 - 147
Chlorfenapyr	75.2		P	52 - 118
Chlorpyrifos Ethyl	108		P	59 - 119
Chlorpyrifos Methyl	99.6		P	65 - 123
Coumaphos	113		P	11 - 223
Cyanazine	88.9		P	63 - 250
Cyprodinil	89.0		P	52 - 143
Dechlorane 602	57.5		P	23 - 142
Dechlorane 603	82.3		P	51 - 171
Dechlorane Plus	75.2		P	46 - 161
Demeton	89.3		P	42 - 119
Diazinon	98.3		P	67 - 132
Difenoconazole	64.5		P	12 - 204
Dimethenamid	83.5		P	53 - 113
Dimethomorph	150		P	13 - 238
Disulfoton	80.3		P	56 - 126
Dithiopyr	91.2		P	58 - 127
EPTC	56.0		P	31 - 78.0
Ethion	63.8		P	24 - 127
Ethoprop	93.4		P	60 - 118
Etridiazole	66.7		P	32 - 91.0
Fenamiphos	112		P	54 - 129
Fenbuconazole	53.1		P	31 - 162
Fipronil	66.2		P	56 - 131
Fipronil Desulfinyl	73.5		P	58 - 132
Fipronil Sulfide	65.7		P	51 - 123
Fipronil Sulfone	90.7		P	50 - 125
Fluazifop-P-butyl	95.4		P	52 - 132
Fludioxonil	82.5		P	52 - 129
Flumioxazin	56.5		P	34 - 250
Flutolanil	71.9		P	45 - 128
Fluxapyroxad	92.6		P	31 - 150
Fonofos	87.8		P	60 - 116
Hexabromobenzene	71.2		P	52 - 165
Hexazinone	108		P	59 - 120
Imazalil	115		P	39 - 134
Iprodione	110		P	39 - 243
Loratadine	147		P	10 - 240

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P436713

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Malathion	125		P	53 - 145
Metalaxyl	93.0		P	59 - 120
Metolachlor	103		P	64 - 122
Metribuzin	12.8		F	33 - 128
Mevinphos	102		P	48 - 119
Molinate	72.5		P	42 - 89.0
Myclobutanil	76.9		P	54 - 129
Naled	51.4		P	10 - 138
Napropamide	73.1		P	40 - 122
Norflurazon	81.3		P	49 - 132
Octinoxate	113		P	29 - 176
Oxadiazon	77.0		P	50 - 115
Oxybenzone	117		P	45 - 145
Oxyfluorfen	99.8		P	62 - 149
Parathion Ethyl	109		P	68 - 119
Parathion Methyl	133		P	68 - 147
PBB-153	31.3		F	42 - 179
PBDE-47	79.5		P	44 - 141
PBDE-99	51.6		P	36 - 141
Pendimethalin	133		P	59 - 158
Pentabromotoluene	85.3		P	58 - 148
Phenytoin	55.8		P	10 - 151
Phorate	104		P	44 - 124
Prodiamine	54.1		P	10 - 136
Prometon	101		P	45 - 131
Prometryn	92.5		P	52 - 140
Pronamide	106		P	70 - 129
Propanil	116		P	54 - 144
Propargite	87.0		P	10 - 191
Propiconazole	63.7		P	49 - 128
Pyraflufen Ethyl	88.3		P	46 - 141
Pyridaben	90.7		P	29 - 198
Pyriproxyfen	56.0		P	33 - 221
Simazine	108		P	62 - 119
Stirophos	91.6		P	13 - 144
Sulfentrazone	110		P	12 - 152
Tebuconazole	68.0		P	10 - 135
Terbufos	98.5		P	67 - 136
Terbutylazine	70.6		P	66 - 113
Tetradecachloro-m-terphenyl	132		P	30 - 235
Thiobencarb	93.5		P	51 - 125
Tri-o-cresyl Phosphate	98.3		P	50 - 150
Triadimefon	125		F	57 - 118
Tris(1-chloro-2-propyl) phosphate (TCPP)	127		P	60 - 160
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	99.1		P	66 - 141
Tris(2-chloroethyl) phosphate (TCEP)	107		P	59 - 166

Reference Method: EPA 8321B

Batch ID: P436712

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	84.6		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P436712

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	88.4		P	40 - 160
Endothall	93.9		P	40 - 160
Glufosinate	96.5		P	40 - 160
Glyphosate	99.0		P	40 - 160
Sucralose	90.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P436749

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	73.5		P	40 - 150
2,4,5-T	76.8		P	40 - 150
Acetaminophen	95.7		P	30 - 150
Acetamiprid	89.0		P	40 - 150
Afidopyropen	82.5		P	30 - 150
Bentazon	97.0		P	30 - 150
Benzovindiflupyr	87.8		P	40 - 150
Carbamazepine	84.6		P	40 - 150
Clothianidin	95.4		P	40 - 150
Dinotefuran	105		P	40 - 150
Diuron	80.7		P	40 - 150
Fenuron	98.5		P	40 - 150
Fluridone	95.8		P	40 - 150
Hydrocodone	100		P	40 - 150
Ibuprofen	84.3		P	40 - 150
Imazapyr	88.2		P	40 - 150
Imidacloprid	87.4		P	40 - 150
Linuron	82.0		P	40 - 150
Mandestrobin	86.4		P	40 - 150
MCPP	89.4		P	40 - 150
Naproxen	70.2		P	40 - 150
Primidone	94.0		P	40 - 150
Pyraclostrobin	87.9		P	40 - 150
Silvex	83.2		P	40 - 150
Thiamethoxam	95.3		P	40 - 150
Tolfenpyrad	62.5		P	30 - 150
Triclopyr	79.2		P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P436713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445500	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	56.1	61.8	P/P	50 - 150
2445500	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	74.6	72.8	P/P	29 - 155
2445500	Acetochlor	88.0	83.6	P/P	60 - 124
2445500	Alachlor	76.0	101	P/P	54 - 122
2445500	Ametryn	98.0	75.3	P/P	51 - 208
2445500	Atrazine	108	104	P/P	57 - 131
2445500	Atrazine Desethyl	74.4	81.8	P/P	13 - 124
2445500	Avobenzone	92.2	103	P/P	35 - 187
2445500	Azinphos Methyl	148	174	P/P	43 - 276
2445500	Azoxystrobin	87.1	96.6	P/P	52 - 300
2445500	Bromacil	80.1	59.1	P/P	44 - 134
2445500	Butylate	70.7	74.8	P/P	23 - 82.0
2445500	Caffeine	110	118	P/P	10 - 277
2445500	Carbophenothion	66.3	69.7	P/P	47 - 135
2445500	Carfentrazone Ethyl	69.4	74.7	P/P	46 - 147
2445500	Chlorfenapyr	77.2	61.7	P/P	43 - 114
2445500	Chlorpyrifos Ethyl	72.2	60.9	P/P	47 - 124
2445500	Chlorpyrifos Methyl	84.4	70.8	P/P	60 - 135
2445500	Coumaphos	74.8	73.8	P/P	10 - 222
2445500	Cyanazine	102	93.6	P/P	10 - 257
2445500	Cyprodinil	78.3	83.6	P/P	42 - 148
2445500	Dechlorane 602	40.1	41.4	P/P	14 - 133
2445500	Dechlorane 603	76.0	80.1	P/P	18 - 191
2445500	Dechlorane Plus	71.9	65.2	P/P	23 - 154
2445500	Demeton	98.5	119	P/P	41 - 137
2445500	Diazinon	88.4	89.4	P/P	64 - 139
2445500	Difenoconazole	145	123	P/P	46 - 254
2445500	Dimethenamid	85.8	87.0	P/P	47 - 117
2445500	Dimethomorph	199	172	P/P	14 - 255
2445500	Disulfoton	112	83.9	P/P	52 - 130
2445500	Dithiopyr	84.5	66.4	P/P	40 - 121
2445500	EPTC	59.6	51.7	P/P	19 - 78.0
2445500	Ethion	62.4	58.7	P/P	12 - 124
2445500	Ethoprop	102	101	P/P	68 - 144
2445500	Etridiazole	79.3	84.9	P/P	26 - 96.0
2445500	Fenamiphos	74.4	53.0	P/P	41 - 129
2445500	Fenbuconazole	74.9	84.9	P/P	26 - 169
2445500	Fipronil	69.9	51.4	P/P	46 - 145
2445500	Fipronil Desulfinyl	58.8	46.4	P/F	47 - 136
2445500	Fipronil Sulfide	59.1	45.2	P/P	41 - 127
2445500	Fipronil Sulfone	141	80.3	F/P	35 - 133
2445500	Fluazifop-P-butyl	72.1	57.8	P/P	46 - 131
2445500	Fludioxonil	86.6	64.8	P/P	51 - 124
2445500	Flumioxazin	154	140	P/P	10 - 289
2445500	Flutolanil	71.2	62.0	P/P	34 - 130
2445500	Fluxapyroxad	137	93.3	P/P	10 - 197
2445500	Fonofos	90.8	69.9	P/P	42 - 131
2445500	Hexabromobenzene	88.5	93.7	P/P	47 - 178
2445500	Hexazinone	104	99.1	P/P	64 - 125
2445500	Imazalil	58.0	43.0	P/P	37 - 252
2445500	Iprodione	89.4	73.3	P/P	34 - 265
2445500	Loratadine	64.0	66.9	P/P	20 - 231

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P436713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445500	Malathion	125	99.5	P/P	34 - 164
2445500	Metalaxyl	93.2	112	P/P	49 - 125
2445500	Metolachlor	91.5	68.9	P/P	54 - 125
2445500	Metribuzin	51.2	81.5	P/P	51 - 139
2445500	Mevinphos	96.2	94.8	P/P	46 - 130
2445500	Molinate	65.9	83.8	P/P	39 - 93.0
2445500	Myclobutanil	103	94.5	P/P	50 - 130
2445500	Naled	55.4	62.4	P/P	10 - 150
2445500	Napropamide	69.8	72.1	P/P	10 - 109
2445500	Norflurazon	70.9	64.9	P/P	36 - 134
2445500	Octinoxate	101	101	P/P	18 - 170
2445500	Oxadiazon	65.8	53.5	P/P	43 - 112
2445500	Oxybenzone	109	103	P/P	33 - 154
2445500	Oxyfluorfen	183	117	F/P	62 - 154
2445500	Parathion Ethyl	115	114	P/P	65 - 120
2445500	Parathion Methyl	107	91.4	P/P	77 - 185
2445500	PBB-153	72.6	86.6	P/P	23 - 193
2445500	PBDE-47	62.6	59.3	P/P	31 - 139
2445500	PBDE-99	55.1	58.8	P/P	24 - 138
2445500	Pendimethalin	113	109	P/P	50 - 146
2445500	Pentabromotoluene	85.6	84.2	P/P	54 - 152
2445500	Phenytoin	42.0	44.6	P/P	10 - 157
2445500	Phorate	134	131	P/P	54 - 161
2445500	Prodiamine	65.7	62.1	P/P	29 - 160
2445500	Prometon	145	134	P/P	38 - 145
2445500	Prometryn	91.9	84.3	P/P	32 - 151
2445500	Pronamide	124	105	P/P	61 - 140
2445500	Propanil	99.8	99.2	P/P	50 - 147
2445500	Propargite	93.6	80.6	P/P	10 - 190
2445500	Propiconazole	73.4	58.7	P/P	30 - 146
2445500	Pyraflufen Ethyl	47.1	46.8	P/P	30 - 147
2445500	Pyridaben	146	98.1	P/P	15 - 195
2445500	Pyriproxyfen	79.9	76.0	P/P	31 - 218
2445500	Simazine	112	104	P/P	45 - 139
2445500	Stirophos	58.9	55.5	P/P	10 - 134
2445500	Sulfentrazone	46.2	41.9	F/F	53 - 186
2445500	Tebuconazole	53.1	42.3	P/P	10 - 133
2445500	Terbufos	116	83.7	P/P	65 - 151
2445500	Terbutylazine	111	89.0	P/P	62 - 117
2445500	Tetradecachloro-m-terphenyl	143	137	P/P	10 - 260
2445500	Thiobencarb	96.2	82.8	P/P	48 - 122
2445500	Tri-o-cresyl Phosphate	94.3	96.6	P/P	32 - 151
2445500	Triadimefon	66.2	61.7	P/P	46 - 124
2445500	Tris(1-chloro-2-propyl) phosphate (TCPP)	122	118	P/P	51 - 154
2445500	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	91.9	84.5	P/P	59 - 147
2445500	Tris(2-chloroethyl) phosphate (TCEP)	97.5	112	P/P	65 - 156

Reference Method: EPA 8321B

Batch ID: P436712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445805	Acesulfame K	103	110	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P436712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445805	AMPA	52.7	49.7	P/P	40 - 160
2445805	Endothall	96.6	98.0	P/P	40 - 160
2445805	Glufosinate	83.4	81.9	P/P	40 - 160
2445805	Glyphosate	102	101	P/P	40 - 160
2445805	Sucralose	99.5	100	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P436749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445740	2,4-D	90.0	92.7	P/P	40 - 150
2445740	2,4,5-T	104	107	P/P	40 - 150
2445740	Acetaminophen	76.6	81.4	P/P	30 - 150
2445740	Acetamiprid	57.2	58.4	P/P	40 - 150
2445740	Afidopyropen	77.5	71.8	P/P	30 - 150
2445740	Bentazon	41.4	31.5	P/P	30 - 150
2445740	Benzovindiflupyr	75.8	75.4	P/P	40 - 150
2445740	Carbamazepine	59.0	55.9	P/P	40 - 150
2445740	Clothianidin	62.6	66.0	P/P	40 - 150
2445740	Dinotefuran	64.2	67.6	P/P	40 - 150
2445740	Diuron	44.7	49.6	P/P	40 - 150
2445740	Fenuron	39.8	39.5	F/F	40 - 150
2445740	Fluridone	60.8	57.5	P/P	40 - 150
2445740	Hydrocodone	62.7	64.0	P/P	40 - 150
2445740	Ibuprofen	64.3	70.7	P/P	40 - 150
2445740	Imazapyr	68.6	58.3	P/P	40 - 150
2445740	Imidacloprid	89.3	89.2	P/P	40 - 150
2445740	Linuron	59.9	60.2	P/P	40 - 150
2445740	Mandestrobin	78.2	79.2	P/P	40 - 150
2445740	MCP	101	108	P/P	40 - 150
2445740	Naproxen	61.2	62.3	P/P	40 - 150
2445740	Primidone	57.5	59.8	P/P	40 - 150
2445740	Pyraclostrobin	73.5	74.7	P/P	40 - 150
2445740	Silvex	96.9	103	P/P	40 - 150
2445740	Thiamethoxam	71.8	74.1	P/P	40 - 150
2445740	Tolfenpyrad	52.0	52.0	P/P	30 - 150
2445740	Triclopyr	98.9	110	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P436713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445500	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	9.58	Spike	P	0 - 30
2445500	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	2.38	Spike	P	0 - 35
2445500	Acetochlor	5.14	Spike	P	0 - 28
2445500	Alachlor	27.8	Spike	P	0 - 30
2445500	Ametryn	26.1	Spike	P	0 - 32
2445500	Atrazine	4.01	Spike	P	0 - 33
2445500	Atrazine Desethyl	9.58	Spike	P	0 - 36
2445500	Avobenzone	11.5	Spike	P	0 - 35
2445500	Azinphos Methyl	15.7	Spike	P	0 - 62
2445500	Azoxystrobin	9.87	Spike	P	0 - 39
2445500	Bromacil	30.2	Spike	P	0 - 33
2445500	Butylate	5.57	Spike	P	0 - 51
2445500	Caffeine	6.56	Spike	P	0 - 100
2445500	Carbophenothion	5.03	Spike	P	0 - 34
2445500	Carfentrazone Ethyl	7.34	Spike	P	0 - 33
2445500	Chlorfenapyr	22.4	Spike	P	0 - 28
2445500	Chlorpyrifos Ethyl	16.9	Spike	P	0 - 31
2445500	Chlorpyrifos Methyl	17.5	Spike	P	0 - 27
2445500	Coumaphos	1.33	Spike	P	0 - 62
2445500	Cyanazine	8.52	Spike	P	0 - 48
2445500	Cyprodinil	6.62	Spike	P	0 - 29
2445500	Dechlorane 602	3.13	Spike	P	0 - 60
2445500	Dechlorane 603	5.31	Spike	P	0 - 40
2445500	Dechlorane Plus	9.80	Spike	P	0 - 38
2445500	Demeton	19.0	Spike	P	0 - 33
2445500	Diazinon	1.13	Spike	P	0 - 32
2445500	Difenoconazole	16.6	Spike	P	0 - 71
2445500	Dimethenamid	1.35	Spike	P	0 - 60
2445500	Dimethomorph	14.9	Spike	P	0 - 61
2445500	Disulfoton	28.5	Spike	P	0 - 30
2445500	Dithiopyr	24.0	Spike	P	0 - 28
2445500	EPTC	14.3	Spike	P	0 - 56
2445500	Ethion	6.22	Spike	P	0 - 79
2445500	Ethoprop	1.52	Spike	P	0 - 31
2445500	Etridiazole	6.85	Spike	P	0 - 43
2445500	Fenamiphos	28.9	Spike	P	0 - 43
2445500	Fenbuconazole	12.4	Spike	P	0 - 79
2445500	Fipronil	30.5	Spike	P	0 - 46
2445500	Fipronil Desulfinyl	23.5	Spike	P	0 - 36
2445500	Fipronil Sulfide	26.7	Spike	P	0 - 34
2445500	Fipronil Sulfone	54.8	Spike	F	0 - 47
2445500	Fluazifop-P-butyl	22.0	Spike	P	0 - 38
2445500	Fludioxonil	28.8	Spike	P	0 - 29
2445500	Flumioxazin	9.52	Spike	P	0 - 63
2445500	Flutolanil	13.1	Spike	P	0 - 36
2445500	Fluxapyroxad	37.9	Spike	P	0 - 65
2445500	Fonofos	25.9	Spike	P	0 - 35
2445500	Hexabromobenzene	5.77	Spike	P	0 - 41
2445500	Hexazinone	5.26	Spike	P	0 - 31
2445500	Imazalil	29.7	Spike	P	0 - 52
2445500	Iprodione	19.9	Spike	P	0 - 49

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P436713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445500	Loratadine	4.52	Spike	P	0 - 59
2445500	Malathion	22.8	Spike	P	0 - 77
2445500	Metalaxyl	18.0	Spike	P	0 - 76
2445500	Metolachlor	23.0	Spike	P	0 - 29
2445500	Metribuzin	45.6	Spike	P	0 - 51
2445500	Mevinphos	1.45	Spike	P	0 - 31
2445500	Molinate	24.0	Spike	P	0 - 39
2445500	Myclobutanil	8.37	Spike	P	0 - 34
2445500	Naled	12.0	Spike	P	0 - 37
2445500	Napropamide	3.29	Spike	P	0 - 100
2445500	Norflurazon	8.87	Spike	P	0 - 54
2445500	Octinoxate	0.192	Spike	P	0 - 35
2445500	Oxadiazon	20.6	Spike	P	0 - 34
2445500	Oxybenzone	5.04	Spike	P	0 - 35
2445500	Oxyfluorfen	44.2	Spike	F	0 - 28
2445500	Parathion Ethyl	0.972	Spike	P	0 - 31
2445500	Parathion Methyl	15.2	Spike	P	0 - 29
2445500	PBB-153	17.5	Spike	P	0 - 49
2445500	PBDE-47	5.40	Spike	P	0 - 36
2445500	PBDE-99	6.46	Spike	P	0 - 46
2445500	Pendimethalin	3.42	Spike	P	0 - 31
2445500	Pentabromotoluene	1.68	Spike	P	0 - 16
2445500	Phenytoin	6.16	Spike	P	0 - 100
2445500	Phorate	1.92	Spike	P	0 - 36
2445500	Prodiamine	5.67	Spike	P	0 - 68
2445500	Prometon	7.63	Spike	P	0 - 35
2445500	Prometryn	8.65	Spike	P	0 - 33
2445500	Pronamide	16.5	Spike	P	0 - 24
2445500	Propanil	0.683	Spike	P	0 - 28
2445500	Propargite	14.9	Spike	P	0 - 53
2445500	Propiconazole	22.3	Spike	P	0 - 44
2445500	Pyraflufen Ethyl	0.406	Spike	P	0 - 61
2445500	Pyridaben	39.3	Spike	P	0 - 43
2445500	Pyriproxyfen	4.99	Spike	P	0 - 82
2445500	Simazine	7.75	Spike	P	0 - 29
2445500	Stirophos	5.97	Spike	P	0 - 100
2445500	Sulfentrazone	9.84	Spike	P	0 - 64
2445500	Tebuconazole	18.0	Spike	P	0 - 76
2445500	Terbufos	32.4	Spike	F	0 - 29
2445500	Terbutylazine	22.1	Spike	P	0 - 28
2445500	Tetradecachloro-m-terphenyl	4.24	Spike	P	0 - 42
2445500	Thiobencarb	15.0	Spike	P	0 - 26
2445500	Tri-o-cresyl Phosphate	2.38	Spike	P	0 - 24
2445500	Triadimefon	7.06	Spike	P	0 - 40
2445500	Tris(1-chloro-2-propyl) phosphate (TCPP)	3.66	Spike	P	0 - 30
2445500	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	8.36	Spike	P	0 - 22
2445500	Tris(2-chloroethyl) phosphate (TCEP)	13.5	Spike	P	0 - 15

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P436712

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445805	Acesulfame K	6.67	Spike	P	0 - 30
2445805	AMPA	3.71	Spike	P	0 - 30
2445805	Endothall	1.39	Spike	P	0 - 30
2445805	Glufosinate	1.78	Spike	P	0 - 30
2445805	Glyphosate	0.240	Spike	P	0 - 30
2445805	Sucralose	0.810	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P436749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445740	2,4-D	2.01	Spike	P	0 - 30
2445740	2,4,5-T	2.99	Spike	P	0 - 30
2445740	Acetaminophen	6.04	Spike	P	0 - 30
2445740	Acetamiprid	2.11	Spike	P	0 - 30
2445740	Afidopyropen	7.54	Spike	P	0 - 30
2445740	Bentazon	4.38	Spike	P	0 - 30
2445740	Benzovindiflupyr	0.636	Spike	P	0 - 30
2445740	Carbamazepine	5.47	Spike	P	0 - 30
2445740	Clothianidin	5.28	Spike	P	0 - 30
2445740	Dinotefuran	5.11	Spike	P	0 - 30
2445740	Diuron	8.10	Spike	P	0 - 30
2445740	Fenuron	0.765	Spike	P	0 - 30
2445740	Fluridone	4.13	Spike	P	0 - 30
2445740	Hydrocodone	2.11	Spike	P	0 - 30
2445740	Ibuprofen	9.52	Spike	P	0 - 30
2445740	Imazapyr	6.38	Spike	P	0 - 30
2445740	Imidacloprid	0.116	Spike	P	0 - 30
2445740	Linuron	0.396	Spike	P	0 - 30
2445740	Mandestrobin	1.34	Spike	P	0 - 30
2445740	MCPP	6.35	Spike	P	0 - 30
2445740	Naproxen	1.79	Spike	P	0 - 30
2445740	Primidone	3.90	Spike	P	0 - 30
2445740	Pyraclostrobin	1.60	Spike	P	0 - 30
2445740	Silvex	6.26	Spike	P	0 - 30
2445740	Thiamethoxam	3.19	Spike	P	0 - 30
2445740	Tolfenpyrad	0.113	Spike	P	0 - 30
2445740	Triclopyr	11.0	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2445805
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	93.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	53.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.5	P	30 - 160
EPA 8321B	Diuron-d6	36.8	P	30 - 160
EPA 8321B	Endothall-d6	80.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	72.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	68.0	P	30 - 160
EPA 8321B	Primidone-d5	43.9	P	30 - 160
EPA 8321B	Sucralose-d6	97.6	P	30 - 160

Lab Sample ID: 2445813
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	57.9	P	20 - 200
EPA 8270E	Simazine-d10	74.3	P	58 - 137
EPA 8270E	Terbufos-d10	71.7	P	50 - 134
EPA 8270E	Terphenyl-d14	87.3	P	44 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A122307
Included Lab Sample IDs: 2445805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	86.0	94.0	P/P	60 - 160
Sucralose	99.6	101	P/P	60 - 160

Reference Method: EPA 8270E
Run ID: A122330
Included Lab Sample IDs: 2445813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	94.5		P	80 - 120
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	88.8		P	80 - 120
Avobenzone	89.6		P	80 - 120
Dechlorane 602	98.3		P	80 - 120
Dechlorane 603	93.8		P	80 - 120
Dechlorane Plus	94.0		P	80 - 120
Hexabromobenzene	91.0		P	80 - 120
Octinoxate	90.6		P	80 - 120
Oxybenzone	93.2		P	80 - 120
PBB-153	87.2		P	80 - 120
PBDE-47	89.3		P	80 - 120
PBDE-99	88.5		P	80 - 120
Pentabromotoluene	96.0		P	80 - 120
Tetradecachloro-m-terphenyl	90.4		P	80 - 120
Tri-o-cresyl Phosphate	94.0		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	96.1		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	95.1		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	97.6		P	80 - 120

Reference Method: EPA 8321B
Run ID: A122336
Included Lab Sample IDs: 2445805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	92.1	93.0	P/P	60 - 160
Endothall	81.6	85.0	P/P	60 - 160
Glufosinate	93.4	88.4	P/P	60 - 160
Glyphosate	93.1	95.2	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A122346
Included Lab Sample IDs: 2445805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.2	88.9	P/P	50 - 150
2,4,5-T	100	91.1	P/P	50 - 150
Acetaminophen	114	110	P/P	60 - 160
Acetamiprid	108	111	P/P	50 - 150
Afidopyropen	131	125	P/P	50 - 150
Bentazon	102	98.5	P/P	50 - 160
Benzovindiflupyr	107	107	P/P	50 - 150
Carbamazepine	107	103	P/P	60 - 150
Clothianidin	110	109	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A122346
Included Lab Sample IDs: 2445805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dinotefuran	109	107	P/P	50 - 150
Diuron	109	108	P/P	60 - 160
Fenuron	109	111	P/P	60 - 150
Fluridone	117	117	P/P	60 - 160
Hydrocodone	115	116	P/P	60 - 150
Ibuprofen	109	111	P/P	50 - 160
Imazapyr	90.9	95.4	P/P	50 - 150
Imidacloprid	99.9	103	P/P	60 - 150
Linuron	122	116	P/P	60 - 150
Mandestrobin	111	104	P/P	50 - 150
MCPP	101	88.8	P/P	50 - 150
Naproxen	130	60.7	P/P	50 - 160
Primidone	104	101	P/P	60 - 150
Pyraclostrobin	109	106	P/P	60 - 150
Silvex	97.7	84.5	P/P	50 - 150
Thiamethoxam	109	113	P/P	50 - 150
Tolfenpyrad	102	102	P/P	60 - 150
Triclopyr	94.0	96.4	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A122612
Included Lab Sample IDs: 2445813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	79.0*		F	80 - 120
Alachlor	90.3		P	80 - 120
Ametryn	117		P	80 - 120
Atrazine	99.4		P	80 - 120
Atrazine Desethyl	101		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Azoxystrobin	94.1		P	80 - 120
Bromacil	92.4		P	80 - 120
Butylate	109		P	80 - 120
Caffeine	102		P	80 - 120
Carbophenothion	105		P	80 - 120
Carfentrazone Ethyl	93.5		P	80 - 120
Chlorfenapyr	89.4		P	80 - 120
Chlorpyrifos Ethyl	83.0		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Coumaphos	113		P	80 - 120
Cyanazine	91.3		P	80 - 120
Cyprodinil	84.0		P	80 - 120
Demeton	105		P	80 - 120
Diazinon	93.4		P	80 - 120
Difenoconazole	105		P	80 - 120
Dimethenamid	85.3		P	80 - 120
Dimethomorph	111		P	80 - 120
Disulfoton	96.3		P	80 - 120
Dithiopyr	97.0		P	80 - 120
EPTC	109		P	80 - 120
Ethion	93.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A122612
Included Lab Sample IDs: 2445813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethoprop	94.4		P	80 - 120
Etridiazole	97.2		P	80 - 120
Fenamiphos	84.7		P	80 - 120
Fenbuconazole	87.8		P	80 - 120
Fipronil	87.9		P	80 - 120
Fipronil Desulfinyl	83.2		P	80 - 120
Fipronil Sulfide	109		P	80 - 120
Fipronil Sulfone	103		P	80 - 120
Fluazifop-P-butyl	111		P	80 - 120
Fludioxonil	97.2		P	80 - 120
Flumioxazin	118		P	80 - 120
Flutolanil	90.6		P	80 - 120
Fluxapyroxad	104		P	80 - 120
Fonofos	86.2		P	80 - 120
Hexazinone	95.5		P	80 - 120
Imazalil	95.0		P	80 - 120
Iprodione	80.9		P	80 - 120
Loratadine	102		P	80 - 120
Malathion	80.9		P	80 - 120
Metalaxyl	111		P	80 - 120
Metolachlor	94.1		P	80 - 120
Metribuzin	110		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	98.4		P	80 - 120
Myclobutanil	89.8		P	80 - 120
Naled	96.6		P	80 - 120
Napropamide	94.9		P	80 - 120
Norflurazon	103		P	80 - 120
Oxadiazon	93.9		P	80 - 120
Oxyfluorfen	102		P	80 - 120
Parathion Ethyl	94.1		P	80 - 120
Parathion Methyl	94.5		P	80 - 120
Pendimethalin	98.6		P	80 - 120
Phenytol	85.8		P	80 - 120
Phorate	102		P	80 - 120
Prodiamine	60.0*		F	80 - 120
Prometon	107		P	80 - 120
Prometryn	97.3		P	80 - 120
Pronamide	92.1		P	80 - 120
Propanil	100		P	80 - 120
Propargite	94.9		P	80 - 120
Propiconazole	95.0		P	80 - 120
Pyraflufen Ethyl	118		P	80 - 120
Pyridaben	97.3		P	80 - 120
Pyriproxyfen	93.1		P	80 - 120
Simazine	101		P	80 - 120
Stirophos	112		P	80 - 120
Sulfentrazone	98.4		P	80 - 120
Tebuconazole	93.7		P	80 - 120
Terbufos	104		P	80 - 120
Terbutylazine	86.4		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E
Run ID: A122612
Included Lab Sample IDs: 2445813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thiobencarb	91.6		P	80 - 120
Triadimefon	105		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 8270E	2-(2H-benzotriazol-2-yl)-4,6-ditertpe ntylphenol (UV-328)	73.6	56.1	61.8		9.58
	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	20.1	74.6	72.8		2.38
	Acetochlor	68.0	88.0	83.6		5.14
	Alachlor	81.1	76.0	101		27.8
	Ametryn	111	98.0	75.3		26.1
	Atrazine	118	108	104		4.01
	Atrazine Desethyl	107	74.4	81.8		9.58
	Avobenzone	108	92.2	103		11.5
	Azinphos Methyl	53.8	148	174		15.7
	Azoxystrobin	85.3	87.1	96.6		9.87
	Bromacil	93.0	80.1	59.1		30.2
	Butylate	59.7	70.7	74.8		5.57
	Caffeine	146	110	118		6.56
	Carbophenothion	118	66.3	69.7		5.03
	Carfentrazone Ethyl	95.7	69.4	74.7		7.34
	Chlorfenapyr	75.2	77.2	61.7		22.4
	Chlorpyrifos Ethyl	108	72.2	60.9		16.9
	Chlorpyrifos Methyl	99.6	84.4	70.8		17.5
	Coumaphos	113	74.8	73.8		1.33
	Cyanazine	88.9	102	93.6		8.52
	Cyprodinil	89.0	78.3	83.6		6.62
	Dechlorane 602	57.5	40.1	41.4		3.13
	Dechlorane 603	82.3	76.0	80.1		5.31
	Dechlorane Plus	75.2	71.9	65.2		9.80
	Demeton	89.3	98.5	119		19.0
	Diazinon	98.3	88.4	89.4		1.13
	Difenoconazole	64.5	145	123		16.6
	Dimethenamid	83.5	85.8	87.0		1.35
	Dimethomorph	150	199	172		14.9
	Disulfoton	80.3	112	83.9		28.5
	Dithiopyr	91.2	84.5	66.4		24.0
	EPTC	56.0	59.6	51.7		14.3
	Ethion	63.8	62.4	58.7		6.22
	Ethoprop	93.4	102	101		1.52
	Etridiazole	66.7	79.3	84.9		6.85
	Fenamiphos	112	74.4	53.0		28.9
	Fenbuconazole	53.1	74.9	84.9		12.4
	Fipronil	66.2	69.9	51.4		30.5
	Fipronil Desulfinyl	73.5	58.8	46.4		23.5
	Fipronil Sulfide	65.7	59.1	45.2		26.7
	Fipronil Sulfone	90.7	141	80.3		54.8
	Fluazifop-P-butyl	95.4	72.1	57.8		22.0
	Fludioxonil	82.5	86.6	64.8		28.8
	Flumioxazin	56.5	154	140		9.52
	Flutolanil	71.9	71.2	62.0		13.1
	Fluxapyroxad	92.6	137	93.3		37.9
	Fonofos	87.8	90.8	69.9		25.9
	Hexabromobenzene	71.2	88.5	93.7		5.77
	Hexazinone	108	104	99.1		5.26
	Imazalil	115	58.0	43.0		29.7
	Iprodione	110	89.4	73.3		19.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Loratadine	147	64.0	66.9		4.52
	Malathion	125	125	99.5		22.8
	Metalaxyl	93.0	93.2	112		18.0
	Metolachlor	103	91.5	68.9		23.0
	Metribuzin	12.8	51.2	81.5		45.6
	Mevinphos	102	96.2	94.8		1.45
	Molinate	72.5	65.9	83.8		24.0
	Myclobutanil	76.9	103	94.5		8.37
	Naled	51.4	55.4	62.4		12.0
	Napropamide	73.1	69.8	72.1		3.29
	Norflurazon	81.3	70.9	64.9		8.87
	Octinoxate	113	101	101		0.192
	Oxadiazon	77.0	65.8	53.5		20.6
	Oxybenzone	117	103	109		5.04
	Oxyfluorfen	99.8	183	117		44.2
	Parathion Ethyl	109	115	114		0.972
	Parathion Methyl	133	107	91.4		15.2
	PBB-153	31.3	72.6	86.6		17.5
	PBDE-47	79.5	62.6	59.3		5.40
	PBDE-99	51.6	55.1	58.8		6.46
	Pendimethalin	133	113	109		3.42
	Pentabromotoluene	85.3	85.6	84.2		1.68
	Phenytoin	55.8	42.0	44.6		6.16
	Phorate	104	134	131		1.92
	Prodiamine	54.1	65.7	62.1		5.67
	Prometon	101	145	134		7.63
	Prometryn	92.5	91.9	84.3		8.65
	Pronamide	106	124	105		16.5
	Propanil	116	99.8	99.2		0.683
	Propargite	87.0	93.6	80.6		14.9
	Propiconazole	63.7	73.4	58.7		22.3
	Pyraflufen Ethyl	88.3	47.1	46.8		0.406
	Pyridaben	90.7	146	98.1		39.3
	Pyriproxyfen	56.0	79.9	76.0		4.99
	Simazine	108	112	104		7.75
	Stirophos	91.6	58.9	55.5		5.97
	Sulfentrazone	110	46.2	41.9		9.84
	Tebuconazole	68.0	53.1	42.3		18.0
	Terbufos	98.5	116	83.7		32.4
	Terbutylazine	70.6	111	89.0		22.1
	Tetradecachloro-m-terphenyl	132	143	137		4.24
	Thiobencarb	93.5	96.2	82.8		15.0
	Tri-o-cresyl Phosphate	98.3	94.3	96.6		2.38
	Triadimefon	125	66.2	61.7		7.06
	Tris(1-chloro-2-propyl) phosphate (TCPP)	127	122	118		3.66
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	99.1	91.9	84.5		8.36
	Tris(2-chloroethyl) phosphate (TCEP)	107	97.5	112		13.5
EPA 8321B	2,4-D	73.5	90.0	92.7		2.01
	2,4,5-T	76.8	104	107		2.99
	Acesulfame K	84.6	103	110		6.67
	Acetaminophen	95.7	76.6	81.4		6.04

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Acetamiprid	89.0	57.2	58.4		2.11
	Afidopyropen	82.5	77.5	71.8		7.54
	AMPA	88.4	52.7	49.7		3.71
	Bentazon	97.0	41.4	31.5		4.38
	Benzovindiflupyr	87.8	75.8	75.4		0.636
	Carbamazepine	84.6	59.0	55.9		5.47
	Clothianidin	95.4	62.6	66.0		5.28
	Dinotefuran	105	64.2	67.6		5.11
	Diuron	80.7	44.7	49.6		8.10
	Endothall	93.9	96.6	98.0		1.39
	Fenuron	98.5	39.8	39.5		0.765
	Fluridone	95.8	60.8	57.5		4.13
	Glufosinate	96.5	83.4	81.9		1.78
	Glyphosate	99.0	102	101		0.240
	Hydrocodone	100	62.7	64.0		2.11
	Ibuprofen	84.3	64.3	70.7		9.52
	Imazapyr	88.2	68.6	58.3		6.38
	Imidacloprid	87.4	89.3	89.2		0.116
	Linuron	82.0	59.9	60.2		0.396
	Mandestrobin	86.4	78.2	79.2		1.34
	MCPP	89.4	101	108		6.35
	Naproxen	70.2	61.2	62.3		1.79
	Primidone	94.0	57.5	59.8		3.90
	Pyraclostrobin	87.9	73.5	74.7		1.60
	Silvex	83.2	96.9	103		6.26
	Sucralose	90.8	99.5	100		0.810
	Thiamethoxam	95.3	71.8	74.1		3.19
	Tolfenpyrad	62.5	52.0	52.0		0.113
	Triclopyr	79.2	98.9	110		11.0

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2445813
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2445813
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2445805

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	10/18/2023	10/20/2023 08:00	Fe-Val Siddell	10/23/2023 19:14	Vandana T. Nagar	2445813
	10/18/2023	10/20/2023 08:00	Fe-Val Siddell	10/24/2023 20:14	Arthur Maknenko	2445813
EPA 8321B	10/18/2023	10/20/2023 12:00	Hana Lee	10/23/2023 10:27	Tae K Lee	2445805
	10/18/2023	10/20/2023 12:00	Hana Lee	10/24/2023 00:18	Tae K Lee	2445805
	10/18/2023	10/24/2023 08:30	Hoor Shaik	10/24/2023 20:18	Juyoung Kim	2445805
	10/18/2023	10/24/2023 08:30	Hoor Shaik	10/25/2023 11:36	Juyoung Kim	2445805