

Chemical Analysis Report

NE-DIST-2023-12-07-01

Florida DEP Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

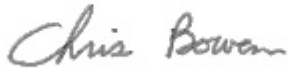
Event Description: **Thomas Creek Deploy**
Request ID: **RQ-2023-12-04-33**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

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Certified by: Chris Bowen, Environmental Administrator

Date Certified: 04-JAN-2024 16:14



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: Thomas Creek 60 MI below City Prison

Collection Date/Time: 12/06/2023 10:30

Field ID: G4NE0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455471	EPA 8321B	Aldicarb	0.020	U	ug/L	P438625	
		Aldicarb Sulfone	0.0020	U	ug/L	P438625	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P438625	
		Carbaryl	0.0020	U	ug/L	P438625	
		Carbofuran	0.0020	U	ug/L	P438625	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P438625	
		Methiocarb	0.0020	U	ug/L	P438625	
		Methomyl	0.0020	U	ug/L	P438625	
		Oxamyl	0.0020	U	ug/L	P438625	
		Propoxur	0.0020	U	ug/L	P438625	
2455472		2,4-D	0.0020	U	ug/L	P438687	
		Acesulfame K	0.10	U	ug/L	P438624	
		2,4,5-T	0.0040	U	ug/L	P438687	
		AMPA	0.32	I	ug/L	P438624	
		Acetaminophen	0.0080	U	ug/L	P438687	
		Acetamiprid	0.0020	U	ug/L	P438687	
		Endothall	0.25	U	ug/L	P438624	
		Glufosinate	0.10	U	ug/L	P438624	
		Glyphosate	0.10	U	ug/L	P438624	
		Afidopyropen	0.0020	U	ug/L	P438687	
		Bentazon	8.0E-04	U	ug/L	P438687	
		Sucralose	0.069		ug/L	P438624	
		Benzovindiflupyr	0.0020	U	ug/L	P438687	
		Carbamazepine	8.0E-04	U	ug/L	P438687	
		Clothianidin	0.0020	U	ug/L	P438687	
		Dinotefuran	0.0020	U	ug/L	P438687	
		Diuron	0.0020	U	ug/L	P438687	
		Fenuron	0.032	U	ug/L	P438687	
		Fluridone	8.0E-04	U	ug/L	P438687	
		Imazapyr	0.12		ug/L	P438687	
		Hydrocodone	0.0020	U	ug/L	P438687	
		Ibuprofen	0.080	U	ug/L	P438687	
		Imidacloprid	0.0020	U	ug/L	P438687	
		Linuron	0.0040	U	ug/L	P438687	
		Mandestrobin	0.0020	U	ug/L	P438687	
		MCPP	0.0020	U	ug/L	P438687	
		Naproxen	0.0080	U	ug/L	P438687	
		Primidone	0.0040	U	ug/L	P438687	
		Pyraclostrobin	0.0020	U	ug/L	P438687	
		Silvex	0.0040	U	ug/L	P438687	
		Thiamethoxam	0.0020	U	ug/L	P438687	
		Tolfenpyrad	0.0020	U	ug/L	P438687	
		Triclopyr	0.0040	U	ug/L	P438687	
2455473	EPA 8270E	Aldrin	0.68	U	ng/L	P438886	

Field ID: G4NE0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455473	EPA 8270E	Alpha-BHC	0.10	U	ng/L	P438886	
		Alpha-Chlordane	0.21	U	ng/L	P438886	
		PCB-1016	2.1	U	ng/L	P438886	
		Beta-BHC	0.10	U	ng/L	P438886	
		PCB-1221	2.1	U	ng/L	P438886	
		Beta-Cyfluthrin	1.3	U	ng/L	P438886	
		PCB-1232	2.1	U	ng/L	P438886	
		Bifenthrin	0.52	U	ng/L	P438886	
		PCB-1242	2.1	U	ng/L	P438886	
		PCB-1248	2.1	U	ng/L	P438886	
		Chlorothalonil	3.8	U	ng/L	P438886	
		PCB-1254	2.1	U	ng/L	P438886	
		Cis-Nonachlor	0.21	U	ng/L	P438886	
		PCB-1260	2.1	U	ng/L	P438886	
		Cypermethrin	1.6	U	ng/L	P438886	
		Dacthal	0.16	U	ng/L	P438886	
		DDD-p,p'	0.26	U	ng/L	P438886	
		DDE-p,p'	0.21	U	ng/L	P438886	
		DDT-p,p'	0.83	U	ng/L	P438886	
		Delta-BHC	0.42	U	ng/L	P438886	
		Deltamethrin	1.3	UJ	ng/L	P438886	LCS, RPD
		Dichlobenil	0.26	U	ng/L	P438886	
		Dicofol	1.3	U	ng/L	P438886	
		Dieldrin	0.42	U	ng/L	P438886	
		Endosulfan I	0.42	U	ng/L	P438886	
		Endosulfan II	0.94	U	ng/L	P438886	
		Endosulfan Sulfate	0.31	U	ng/L	P438886	
		Endrin	0.94	U	ng/L	P438886	
		Endrin Aldehyde	0.78	U	ng/L	P438886	
		Endrin Ketone	0.42	U	ng/L	P438886	
		Esfenvalerate	0.78	U	ng/L	P438886	
		Ethalfuralin	0.16	U	ng/L	P438886	
		Fenpropathrin	0.26	U	ng/L	P438886	
		Gamma-BHC	0.13	U	ng/L	P438886	
		Gamma-Chlordane	0.21	U	ng/L	P438886	
		Heptachlor	0.21	U	ng/L	P438886	
		Heptachlor Epoxide	0.26	U	ng/L	P438886	
		Hexachlorobenzene**	1.0	U	ng/L	P438886	
		Kepone	14	U	ng/L	P438886	
		Lambda-Cyhalothrin	0.78	U	ng/L	P438886	
		Methoprene	0.78	U	ng/L	P438886	
		Methoxychlor	0.31	U	ng/L	P438886	
		MGK-264	0.21	U	ng/L	P438886	
		Mirex	0.36	U	ng/L	P438886	
		Oxychlordane	0.31	U	ng/L	P438886	

Field ID: G4NE0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455473	EPA 8270E	Permethrin	1.7	U	ng/L	P438886	
		Phenothrin	0.94	U	ng/L	P438886	
		Piperonyl Butoxide	0.27	I	ng/L	P438886	
		Prallethrin	2.1	U	ng/L	P438886	
		Tau-Fluvalinate	0.26	U	ng/L	P438886	
		Tetramethrin	0.78	U	ng/L	P438886	
		Trans-Nonachlor	0.21	U	ng/L	P438886	MS
		Triclosan Methyl	0.16	U	ng/L	P438886	
		Trifluralin	0.21	U	ng/L	P438886	
		Chlordane	2.1	U	ng/L	P438886	
	EPA 8276	Toxaphene	16	U	ng/L	P438886	
		Oxybenzone**	10	U	ng/L	P438700	RPD
		Acetochlor	0.21	U	ng/L	P438700	
		Octinoxate**	160	U	ng/L	P438700	RPD
		Alachlor	0.42	U	ng/L	P438700	
		Avobenzone**	100	U	ng/L	P438700	
		Ametryn	1.1	U	ng/L	P438700	
		Atrazine	10		ng/L	P438700	
		PBDE-47**	4.2	U	ng/L	P438700	RPD
		Atrazine Desethyl	1.4	U	ng/L	P438700	
	EPA 8270E	PBDE-99**	5.2	U	ng/L	P438700	
		Azinphos Methyl	3.1	U	ng/L	P438700	
		Tri-o-cresyl Phosphate**	6.3	U	ng/L	P438700	RPD
		Azoxystrobin	0.42	U	ng/L	P438700	
		Bromacil	0.63	U	ng/L	P438700	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P438700	
		Butylate	0.47	U	ng/L	P438700	
		Dechlorane Plus**	31	U	ng/L	P438700	RPD
		Caffeine**	12	I	ng/L	P438700	
		Dechlorane 602**	5.2	U	ng/L	P438700	RPD
		Carbophenothion	0.52	UJ	ng/L	P438700	LCS
		Dechlorane 603**	4.2	U	ng/L	P438700	RPD
		Carfentrazone Ethyl	0.16	U	ng/L	P438700	
		Hexabromobenzene**	6.3	U	ng/L	P438700	
		Chlorfenapyr	0.31	U	ng/L	P438700	
		PBB-153**	6.3	U	ng/L	P438700	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P438700	
		Pentabromotoluene**	3.1	U	ng/L	P438700	RPD
		Chlorpyrifos Methyl	0.10	UJ	ng/L	P438700	LCS
		Tris(2-chloroethyl) phosphate (TCEP)**	57	U	ng/L	P438700	
		Coumaphos	1.1	U	ng/L	P438700	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	26	U	ng/L	P438700	
		Cyanazine	5.2	U	ng/L	P438700	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.6	U	ng/L	P438700	

Field ID: G4NE0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455474	EPA 8270E	Cyprodinil	0.21	U	ng/L	P438700	
		Tetradecachloro-m-terphenyl**	7.8	U	ng/L	P438700	RPD
		Demeton	3.7	U	ng/L	P438700	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	63	U	ng/L	P438700	MS, RPD
		Diazinon	0.13	U	ng/L	P438700	
		Difenoconazole	0.63	U	ng/L	P438700	MS
		Dimethenamid	0.10	U	ng/L	P438700	
		Dimethomorph	0.31	U	ng/L	P438700	
		Disulfoton	0.63	U	ng/L	P438700	
		Dithiopyr	1.0	U	ng/L	P438700	
		EPTC	0.52	U	ng/L	P438700	
		Ethion	0.31	U	ng/L	P438700	
		Ethoprop	0.13	U	ng/L	P438700	
		Etridiazole	0.10	U	ng/L	P438700	
		Fenamiphos	0.47	U	ng/L	P438700	
		Fenbuconazole	0.52	U	ng/L	P438700	MS, RPD
		Fipronil	0.21	U	ng/L	P438700	
		Fipronil Desulfinyl**	0.10	U	ng/L	P438700	
		Fipronil Sulfide	0.10	U	ng/L	P438700	
		Fipronil Sulfone	0.10	U	ng/L	P438700	
		Fluazifop-P-butyl	0.10	U	ng/L	P438700	
		Fludioxonil	0.10	U	ng/L	P438700	
		Flumioxazin	3.1	U	ng/L	P438700	
		Flutolanil	0.10	U	ng/L	P438700	
		Fluxapyroxad	0.26	U	ng/L	P438700	
		Fonofos	0.16	U	ng/L	P438700	
		Hexazinone	0.52	U	ng/L	P438700	
		Imazalil	0.68	U	ng/L	P438700	
		Iprodione	0.52	UJ	ng/L	P438700	CCV
		Loratadine**	0.31	U	ng/L	P438700	
		Malathion	0.37	U	ng/L	P438700	
		Metalaxyl	0.52	U	ng/L	P438700	
		Metolachlor	0.78	U	ng/L	P438700	
		Metribuzin	0.42	U	ng/L	P438700	
		Mevinphos	1.0	U	ng/L	P438700	
		Molinate	0.26	U	ng/L	P438700	
		Myclobutanil	0.37	U	ng/L	P438700	
		Naled	2.6	U	ng/L	P438700	
		Napropamide	0.73	U	ng/L	P438700	
		Norflurazon	1.0	U	ng/L	P438700	
		Oxadiazon	0.37	U	ng/L	P438700	
		Oxyfluorfen	0.21	U	ng/L	P438700	
		Parathion Ethyl	0.16	U	ng/L	P438700	
		Parathion Methyl	0.21	U	ng/L	P438700	

Field ID: G4NE0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455474	EPA 8270E	Pendimethalin	1.8	U	ng/L	P438700	MS
		Phenytain**	5.5	U	ng/L	P438700	
		Phorate	0.26	U	ng/L	P438700	
		Prodiamine	0.21	U	ng/L	P438700	
		Prometon	3.1	U	ng/L	P438700	
		Prometryn	0.37	U	ng/L	P438700	
		Pronamide	0.10	U	ng/L	P438700	
		Propanil	0.10	U	ng/L	P438700	
		Propargite	0.84	U	ng/L	P438700	
		Propiconazole	0.63	U	ng/L	P438700	
		Pyraflufen Ethyl	0.31	U	ng/L	P438700	
		Pyridaben	1.5	U	ng/L	P438700	
		Pyriproxyfen	0.26	U	ng/L	P438700	
		Simazine	0.26	U	ng/L	P438700	
		Stirophos	0.42	U	ng/L	P438700	
		Sulfentrazone	1.5	U	ng/L	P438700	
		Tebuconazole	1.5	U	ng/L	P438700	
		Terbufos	0.21	U	ng/L	P438700	
		Terbuthylazine	0.21	U	ng/L	P438700	
		Thiobencarb	0.52	U	ng/L	P438700	
		Triadimefon	0.16	U	ng/L	P438700	
2455479	EPA 200.7 Rev. 4.4	Calcium	8.32		mg/L	P438706	
		Chromium	1.0	U	ug/L	P438706	
		Iron	580		ug/L	P438706	
		Magnesium	4.89		mg/L	P438706	
		Potassium	2.1		mg/L	P438706	
		Sodium	26.3		mg/L	P438706	
		Strontium	43.6		ug/L	P438706	
		Tin	3.0	U	ug/L	P438706	
		Titanium	1.3	I	ug/L	P438706	
		Vanadium	2.0	U	ug/L	P438706	
		Zinc	22		ug/L	P438706	
	EPA 200.8 Rev. 5.4	Aluminum	354		ug/L	P438706	
		Antimony	0.060	I	ug/L	P438706	
		Arsenic	0.52		ug/L	P438706	
		Barium	11.1		ug/L	P438706	
		Beryllium	0.028	I	ug/L	P438706	
		Boron	32.7		ug/L	P438706	
		Cadmium	0.020	U	ug/L	P438706	
		Cobalt	0.138		ug/L	P438706	
		Copper	0.71	I	ug/L	P438706	
		Lead	0.41		ug/L	P438706	
		Manganese	10.0		ug/L	P438706	
		Molybdenum	0.16	I	ug/L	P438706	
		Nickel	0.54	I	ug/L	P438706	

Field ID: G4NE0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455479	EPA 200.8 Rev. 5.4	Selenium	0.20	U	ug/L	P438706	
		Silver	0.019	I	ug/L	P438706	
		Thallium	0.10	U	ug/L	P438706	
	SM 2340 B-2011	Hardness	40.9		mg/L	P438706	

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 200.7 Rev. 4.4

Batch ID: P438706

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P438706

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	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: P438700

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P438700

Component	Result	Code	Units
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P438700

Component	Result	Code	Units
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
Terbutylazine	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 8270E

Batch ID: P438886

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P438886

Component	Result	Code	Units
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P438886

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P438624

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P438624

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: P438625

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: P438687

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 200.7 Rev. 4.4

Batch ID: P438706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	110		P	85 - 115
Chromium	100		P	85 - 115
Iron	111		P	85 - 115
Magnesium	112		P	85 - 115
Potassium	101		P	85 - 115
Sodium	99.2		P	85 - 115
Strontium	97.7		P	85 - 115
Tin	98.1		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	98.2		P	85 - 115
Zinc	94.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P438706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.8		P	85 - 115
Antimony	98.9		P	85 - 115
Arsenic	97.0		P	85 - 115
Barium	98.4		P	85 - 115
Beryllium	103		P	85 - 115
Boron	103		P	85 - 115
Cadmium	98.0		P	85 - 115
Cobalt	98.2		P	85 - 115
Copper	96.5		P	85 - 115
Lead	101		P	85 - 115
Manganese	95.0		P	85 - 115
Molybdenum	97.2		P	85 - 115
Nickel	96.3		P	85 - 115
Selenium	97.6		P	85 - 115
Silver	104		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 8270E

Batch ID: P438700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	66.5		P	50 - 150
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	92.9		P	37 - 154
Acetochlor	108		P	64 - 124
Alachlor	84.2		P	61 - 118
Ametryn	101		P	47 - 158
Atrazine	101		P	68 - 121
Atrazine Desethyl	103		P	30 - 119
Avobenzone	107		P	48 - 193
Azinphos Methyl	140		P	30 - 194
Azoxystrobin	106		P	58 - 154
Bromacil	105		P	47 - 126
Butylate	63.6		P	31 - 83.0
Caffeine	113		P	10 - 180
Carbophenothion	156		F	59 - 133
Carfentrazone Ethyl	140		P	59 - 147

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P438700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorfenapyr	108		P	52 - 118
Chlorpyrifos Ethyl	107		P	59 - 119
Chlorpyrifos Methyl	141		F	65 - 123
Coumaphos	160		P	11 - 223
Cyanazine	107		P	63 - 250
Cyprodinil	126		P	52 - 143
Dechlorane 602	57.2		P	23 - 142
Dechlorane 603	128		P	51 - 171
Dechlorane Plus	107		P	46 - 161
Demeton	64.8		P	42 - 119
Diazinon	119		P	67 - 132
Difenoconazole	101		P	12 - 204
Dimethenamid	98.2		P	53 - 113
Dimethomorph	147		P	13 - 238
Disulfoton	116		P	56 - 126
Dithiopyr	91.0		P	58 - 127
EPTC	56.9		P	31 - 78.0
Ethion	70.1		P	24 - 127
Ethoprop	91.6		P	60 - 118
Etridiazole	83.5		P	32 - 91.0
Fenamiphos	112		P	54 - 129
Fenbuconazole	70.2		P	31 - 162
Fipronil	96.9		P	56 - 131
Fipronil Desulfinyl	79.1		P	58 - 132
Fipronil Sulfide	112		P	51 - 123
Fipronil Sulfone	113		P	50 - 125
Fluazifop-P-butyl	131		P	52 - 132
Fludioxonil	92.3		P	52 - 129
Flumioxazin	126		P	34 - 250
Flutolanil	119		P	45 - 128
Fluxapyroxad	108		P	31 - 150
Fonofos	90.1		P	60 - 116
Hexabromobenzene	91.7		P	52 - 165
Hexazinone	80.1		P	59 - 120
Imazalil	108		P	39 - 134
Iprodione	113		P	39 - 243
Loratadine	146		P	10 - 240
Malathion	128		P	53 - 145
Metalaxyl	78.6		P	59 - 120
Metolachlor	114		P	64 - 122
Metribuzin	96.1		P	33 - 128
Mevinphos	104		P	48 - 119
Molinate	67.1		P	42 - 89.0
Myclobutanil	99.2		P	54 - 129
Naled	50.5		P	10 - 138
Napropamide	86.0		P	40 - 122
Norflurazon	108		P	49 - 132
Octinoxate	113		P	29 - 176
Oxadiazon	96.7		P	50 - 115
Oxybenzone	112		P	45 - 145
Oxyfluorfen	129		P	62 - 149
Parathion Ethyl	85.2		P	68 - 119

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P438700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Methyl	96.7		P	68 - 147
PBB-153	89.6		P	42 - 179
PBDE-47	92.7		P	44 - 141
PBDE-99	95.3		P	36 - 141
Pendimethalin	121		P	59 - 158
Pentabromotoluene	97.4		P	58 - 148
Phenytoin	30.1		P	10 - 151
Phorate	84.8		P	44 - 124
Prodiamine	114		P	10 - 136
Prometon	79.6		P	45 - 131
Prometryn	137		P	52 - 140
Pronamide	122		P	70 - 129
Propanil	113		P	54 - 144
Propargite	80.1		P	10 - 191
Propiconazole	86.8		P	49 - 128
Pyraflufen Ethyl	136		P	46 - 141
Pyridaben	36.3		P	29 - 198
Pyriproxyfen	72.8		P	33 - 221
Simazine	98.3		P	62 - 119
Stirophos	113		P	13 - 144
Sulfentrazone	104		P	12 - 152
Tebuconazole	52.3		P	10 - 135
Terbufos	94.1		P	67 - 136
Terbuthylazine	90.5		P	66 - 113
Tetradecachloro-m-terphenyl	165		P	30 - 235
Thiobencarb	107		P	51 - 125
Tri-o-cresyl Phosphate	115		P	50 - 150
Triadimefon	104		P	57 - 118
Tris(1-chloro-2-propyl) phosphate (TCPP)	97.3		P	60 - 160
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	95.0		P	66 - 141
Tris(2-chloroethyl) phosphate (TCEP)	93.8		P	59 - 166

Reference Method: EPA 8270E

Batch ID: P438886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	40.8		P	30 - 96.0
Alpha-BHC	78.5		P	70 - 109
Alpha-Chlordane	61.8		P	45 - 107
Beta-BHC	84.4		P	64 - 138
Beta-Cyfluthrin	50.7		P	17 - 141
Bifenthrin	31.6		P	10 - 113
Chlorothalonil	87.4		P	26 - 180
Cis-Nonachlor	57.7		P	37 - 102
Cypermethrin	45.7		P	20 - 133
Dacthal	83.1		P	69 - 114
DDD-p,p'	59.4		P	42 - 105
DDE-p,p'	70.5		P	42 - 106
DDT-p,p'	60.0		P	42 - 107
Delta-BHC	90.8		P	67 - 144
Deltamethrin	12.1		F	15 - 149
Dichlobenil	76.4		P	46 - 117

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P438886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	63.4		P	34 - 114
Dieldrin	62.3		P	50 - 108
Endosulfan I	67.9		P	55 - 104
Endosulfan II	75.8		P	51 - 111
Endosulfan Sulfate	86.7		P	56 - 121
Endrin	62.5		P	10 - 106
Endrin Aldehyde	78.0		P	34 - 114
Endrin Ketone	94.2		P	63 - 177
Esfenvalerate	52.1		P	29 - 143
Ethalfuralin	86.6		P	46 - 96.0
Fenpropathrin	56.0		P	28 - 115
Gamma-BHC	77.3		P	65 - 121
Gamma-Chlordane	59.2		P	39 - 103
Heptachlor	56.0		P	39 - 94.0
Heptachlor Epoxide	92.5		P	54 - 104
Hexachlorobenzene	61.6		P	36 - 100
Kepone	124		P	10 - 225
Lambda-Cyhalothrin	41.4		P	10 - 135
Methoprene	41.0		P	10 - 109
Methoxychlor	64.4		P	52 - 112
MGK-264	71.6		P	44 - 117
Mirex	50.2		P	20 - 90.0
Oxychlordane	68.8		P	44 - 102
PCB-1016	69.4		P	45 - 107
PCB-1260	79.3		P	40 - 112
Permethrin	48.0		P	18 - 135
Phenothrin	37.3		P	10 - 102
Piperonyl Butoxide	79.2		P	28 - 156
Prallethrin	60.5		P	28 - 113
Tau-Fluvalinate	43.2		P	10 - 123
Tetramethrin	53.1		P	18 - 158
Trans-Nonachlor	77.1		P	39 - 104
Triclosan Methyl	64.3		P	54 - 108
Trifluralin	63.6		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P438886

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	74.4		P	52 - 117
Toxaphene	83.5		P	44 - 125

Reference Method: EPA 8321B

Batch ID: P438624

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	119		P	40 - 150
AMPA	106		P	40 - 160
Endothall	92.3		P	40 - 160
Glufosinate	101		P	40 - 160
Glyphosate	94.4		P	40 - 160
Sucralose	106		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P438625

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	91.8		P	40 - 150
Aldicarb	65.0		P	30 - 150
Aldicarb Sulfone	102		P	40 - 150
Aldicarb Sulfoxide	121		P	40 - 150
Carbaryl	71.2		P	40 - 150
Carbofuran	72.5		P	40 - 150
Methiocarb	73.2		P	40 - 150
Methomyl	89.4		P	40 - 150
Oxamyl	93.0		P	40 - 150
Propoxur	71.8		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P438687

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	108		P	40 - 150
2,4,5-T	90.4		P	40 - 150
Acetaminophen	90.3		P	30 - 150
Acetamiprid	88.2		P	40 - 150
Afidopyropen	72.6		P	30 - 150
Bentazon	72.5		P	30 - 150
Benzovindiflupyr	86.6		P	40 - 150
Carbamazepine	87.4		P	40 - 150
Clothianidin	93.4		P	40 - 150
Dinotefuran	107		P	40 - 150
Diuron	84.5		P	40 - 150
Fenuron	108		P	40 - 150
Fluridone	90.9		P	40 - 150
Hydrocodone	95.4		P	40 - 150
Ibuprofen	70.8		P	40 - 150
Imazapyr	92.0		P	40 - 150
Imidacloprid	91.5		P	40 - 150
Linuron	86.1		P	40 - 150
Mandestrobin	97.7		P	40 - 150
MCPP	98.0		P	40 - 150
Naproxen	64.9		P	40 - 150
Primidone	85.6		P	40 - 150
Pyraclostrobin	84.0		P	40 - 150
Silvex	92.5		P	40 - 150
Thiamethoxam	96.3		P	40 - 150
Tolfenpyrad	48.7		P	30 - 150
Triclopyr	91.8		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P438706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454849	Calcium	109	109	P/P	80 - 120
2454849	Chromium	89.7	90.4	P/P	80 - 120
2454849	Iron	108	109	P/P	80 - 120
2454849	Magnesium	109	111	P/P	80 - 120
2454849	Potassium	99.5	99.4	P/P	80 - 120
2454849	Sodium	97.1		P	80 - 120
2454849	Strontium	96.5	96.9	P/P	80 - 120
2454849	Tin	96.6	97.0	P/P	80 - 120
2454849	Titanium	104	104	P/P	80 - 120
2454849	Vanadium	99.1	98.9	P/P	80 - 120
2454849	Zinc	93.2	91.6	P/P	80 - 120
2455252	Calcium	105		P	80 - 120
2455252	Chromium	99.7		P	80 - 120
2455252	Iron	111		P	80 - 120
2455252	Magnesium	112		P	80 - 120
2455252	Potassium	101		P	80 - 120
2455252	Sodium	100		P	80 - 120
2455252	Strontium	98.6		P	80 - 120
2455252	Tin	99.0		P	80 - 120
2455252	Titanium	103		P	80 - 120
2455252	Vanadium	99.2		P	80 - 120
2455252	Zinc	94.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P438706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454849	Aluminum	97.8	95.7	P/P	80 - 120
2454849	Antimony	96.9	96.4	P/P	80 - 120
2454849	Arsenic	95.3	95.6	P/P	80 - 120
2454849	Barium	97.5	96.7	P/P	80 - 120
2454849	Beryllium	106	104	P/P	80 - 120
2454849	Boron	101	97.6	P/P	80 - 120
2454849	Cadmium	97.6	95.5	P/P	80 - 120
2454849	Cobalt	96.9	96.2	P/P	80 - 120
2454849	Copper	95.0	95.4	P/P	80 - 120
2454849	Lead	101	99.9	P/P	80 - 120
2454849	Manganese	90.9	90.2	P/P	80 - 120
2454849	Molybdenum	96.1	96.5	P/P	80 - 120
2454849	Nickel	83.0	83.0	P/P	80 - 120
2454849	Selenium	95.1	94.9	P/P	80 - 120
2454849	Silver	101	102	P/P	80 - 120
2454849	Thallium	103	103	P/P	80 - 120
2455252	Aluminum	90.2		P	80 - 120
2455252	Antimony	97.2		P	80 - 120
2455252	Arsenic	96.7		P	80 - 120
2455252	Barium	95.9		P	80 - 120
2455252	Beryllium	96.5		P	80 - 120
2455252	Boron	103		P	80 - 120
2455252	Cadmium	95.8		P	80 - 120
2455252	Cobalt	97.0		P	80 - 120
2455252	Copper	95.7		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P438706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455252	Lead	99.9		P	80 - 120
2455252	Manganese	99.7		P	80 - 120
2455252	Molybdenum	96.3		P	80 - 120
2455252	Nickel	95.1		P	80 - 120
2455252	Selenium	92.8		P	80 - 120
2455252	Silver	102		P	80 - 120
2455252	Thallium	101		P	80 - 120

Reference Method: EPA 8270E

Batch ID: P438700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455623	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	69.6	49.3	P/F	50 - 150
2455623	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	64.7	54.1	P/P	29 - 155
2455623	Acetochlor	98.2	93.2	P/P	60 - 124
2455623	Alachlor	75.5	77.9	P/P	54 - 122
2455623	Ametryn	135	111	P/P	51 - 208
2455623	Atrazine	105	109	P/P	57 - 131
2455623	Atrazine Desethyl	104	107	P/P	13 - 124
2455623	Avobenzone	64.7	54.2	P/P	35 - 187
2455623	Azinphos Methyl	103	130	P/P	43 - 276
2455623	Azoxystrobin	79.9	118	P/P	52 - 300
2455623	Bromacil	87.5	90.4	P/P	44 - 134
2455623	Butylate	72.4	70.0	P/P	23 - 82.0
2455623	Caffeine	142	138	P/P	10 - 277
2455623	Carbophenothion	105	87.6	P/P	47 - 135
2455623	Carfentrazone Ethyl	90.3	78.5	P/P	46 - 147
2455623	Chlorfenapyr	72.5	89.9	P/P	43 - 114
2455623	Chlorpyrifos Ethyl	117	112	P/P	47 - 124
2455623	Chlorpyrifos Methyl	111	107	P/P	60 - 135
2455623	Coumaphos	86.8	98.3	P/P	10 - 222
2455623	Cyanazine	102	105	P/P	10 - 257
2455623	Cyprodinil	111	120	P/P	42 - 148
2455623	Dechlorane 602	53.8	28.1	P/P	14 - 133
2455623	Dechlorane 603	111	48.8	P/P	18 - 191
2455623	Dechlorane Plus	84.7	52.3	P/P	23 - 154
2455623	Demeton	60.7	62.5	P/P	41 - 137
2455623	Diazinon	129	123	P/P	64 - 139
2455623	Difenoconazole	45.5	58.9	F/P	46 - 254
2455623	Dimethenamid	75.4	71.4	P/P	47 - 117
2455623	Dimethomorph	105	168	P/P	14 - 255
2455623	Disulfoton	112	120	P/P	52 - 130
2455623	Dithiopyr	114	117	P/P	40 - 121
2455623	EPTC	66.0	65.5	P/P	19 - 78.0
2455623	Ethion	74.4	35.1	P/P	12 - 124
2455623	Ethoprop	96.2	104	P/P	68 - 144
2455623	Etridiazole	77.7	65.6	P/P	26 - 96.0
2455623	Fenamiphos	80.2	84.3	P/P	41 - 129
2455623	Fenbuconazole	21.9	76.5	F/P	26 - 169
2455623	Fipronil	114	101	P/P	46 - 145
2455623	Fipronil Desulfinyl	94.7	75.2	P/P	47 - 136
2455623	Fipronil Sulfide	94.7	80.8	P/P	41 - 127

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P438700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455623	Fipronil Sulfone	124	90.5	P/P	35 - 133
2455623	Fluazifop-P-butyl	100	76.2	P/P	46 - 131
2455623	Fludioxonil	68.3	81.8	P/P	51 - 124
2455623	Flumioxazin	48.2	79.5	P/P	10 - 289
2455623	Flutolanil	78.8	102	P/P	34 - 130
2455623	Fluxapyroxad	71.3	50.0	P/P	10 - 197
2455623	Fonofos	101	101	P/P	42 - 131
2455623	Hexabromobenzene	77.9	59.2	P/P	47 - 178
2455623	Hexazinone	96.9	91.3	P/P	64 - 125
2455623	Imazalil	75.5	105	P/P	37 - 252
2455623	Iprodione	66.6	69.4	P/P	34 - 265
2455623	Loratadine	87.6	144	P/P	20 - 231
2455623	Malathion	93.3	132	P/P	34 - 164
2455623	Metalaxyl	107	96.8	P/P	49 - 125
2455623	Metolachlor	113	119	P/P	54 - 125
2455623	Metribuzin	82.8	137	P/P	51 - 139
2455623	Mevinphos	92.4	99.2	P/P	46 - 130
2455623	Molinate	71.6	74.4	P/P	39 - 93.0
2455623	Myclobutanil	84.2	66.1	P/P	50 - 130
2455623	Naled	49.2	46.4	P/P	10 - 150
2455623	Napropamide	71.3	35.9	P/P	10 - 109
2455623	Norflurazon	68.3	75.2	P/P	36 - 134
2455623	Octinoxate	158	93.6	P/P	18 - 170
2455623	Oxadiazon	75.7	76.9	P/P	43 - 112
2455623	Oxybenzone	149	68.0	P/P	33 - 154
2455623	Oxyfluorfen	98.4	90.4	P/P	62 - 154
2455623	Parathion Ethyl	89.6	95.9	P/P	65 - 120
2455623	Parathion Methyl	83.9	103	P/P	77 - 185
2455623	PBB-153	53.4	51.1	P/P	23 - 193
2455623	PBDE-47	111	54.8	P/P	31 - 139
2455623	PBDE-99	71.7	55.4	P/P	24 - 138
2455623	Pendimethalin	139	167	P/F	50 - 146
2455623	Pentabromotoluene	134	58.7	P/P	54 - 152
2455623	Phenytoin	29.9	29.4	P/P	10 - 157
2455623	Phorate	72.6	79.8	P/P	54 - 161
2455623	Prodiamine	119	91.9	P/P	29 - 160
2455623	Prometon	85.7	108	P/P	38 - 145
2455623	Prometryn	99.5	124	P/P	32 - 151
2455623	Pronamide	118	113	P/P	61 - 140
2455623	Propanil	98.9	94.6	P/P	50 - 147
2455623	Propargite	54.4	54.7	P/P	10 - 190
2455623	Propiconazole	60.3	67.5	P/P	30 - 146
2455623	Pyraflufen Ethyl	67.4	77.2	P/P	30 - 147
2455623	Pyridaben	78.7	98.0	P/P	15 - 195
2455623	Pyriproxyfen	45.6	59.9	P/P	31 - 218
2455623	Simazine	108	110	P/P	45 - 139
2455623	Stirophos	74.7	50.1	P/P	10 - 134
2455623	Sulfentrazone	75.4	84.0	P/P	53 - 186
2455623	Tebuconazole	41.4	28.2	P/P	10 - 133
2455623	Terbufos	96.8	96.5	P/P	65 - 151
2455623	Terbutylazine	91.1	85.0	P/P	62 - 117
2455623	Tetradecachloro-m-terphenyl	173	104	P/P	10 - 260

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P438700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455623	Thiobencarb	72.8	86.1	P/P	48 - 122
2455623	Tri-o-cresyl Phosphate	121	72.1	P/P	32 - 151
2455623	Triadimefon	97.5	78.2	P/P	46 - 124
2455623	Tris(1-chloro-2-propyl) phosphate (TCPP)	83.7	93.4	P/P	51 - 154
2455623	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	80.1	91.8	P/P	59 - 147
2455623	Tris(2-chloroethyl) phosphate (TCEP)	94.1	100	P/P	65 - 156

Reference Method: EPA 8270E

Batch ID: P438886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455277	Aldrin	58.5	49.0	P/P	24 - 81.0
2455277	Alpha-BHC	78.9	75.0	P/P	65 - 110
2455277	Alpha-Chlordane	70.7	59.6	P/P	43 - 119
2455277	Beta-BHC	84.7	80.9	P/P	54 - 165
2455277	Beta-Cyfluthrin	74.8	77.4	P/P	27 - 165
2455277	Bifenthrin	50.0	56.3	P/P	17 - 117
2455277	Chlorothalonil	142	124	P/P	10 - 255
2455277	Cis-Nonachlor	56.1	45.7	P/P	34 - 98.0
2455277	Cypermethrin	70.3	70.1	P/P	25 - 143
2455277	Dacthal	81.1	81.6	P/P	55 - 139
2455277	DDD-p,p'	51.4	48.7	P/P	30 - 109
2455277	DDE-p,p'	74.1	67.7	P/P	35 - 106
2455277	DDT-p,p'	59.9	56.2	P/P	41 - 101
2455277	Delta-BHC	102	89.5	P/P	58 - 165
2455277	Deltamethrin	74.3	22.0	P/P	10 - 194
2455277	Dichlobenil	42.5	40.8	P/P	22 - 114
2455277	Dicofol	63.7	58.3	P/P	17 - 133
2455277	Dieldrin	56.4	55.0	P/P	45 - 129
2455277	Endosulfan I	75.5	67.5	P/P	49 - 104
2455277	Endosulfan II	59.9	55.3	P/P	37 - 117
2455277	Endosulfan Sulfate	77.1	73.3	P/P	38 - 128
2455277	Endrin	50.5	49.9	P/P	35 - 116
2455277	Endrin Aldehyde	60.5	47.9	P/P	19 - 108
2455277	Endrin Ketone	90.5	82.9	P/P	44 - 134
2455277	Esfenvalerate	87.9	108	P/P	27 - 176
2455277	Ethalfuralin	92.8	86.7	P/P	49 - 100
2455277	Fenpropathrin	65.8	62.1	P/P	34 - 117
2455277	Gamma-BHC	98.2	85.3	P/P	59 - 129
2455277	Gamma-Chlordane	62.2	61.6	P/P	33 - 107
2455277	Heptachlor	47.3	43.2	P/P	37 - 94.0
2455277	Heptachlor Epoxide	92.2	88.7	P/P	38 - 118
2455277	Hexachlorobenzene	61.5	61.4	P/P	35 - 97.0
2455277	Kepone	120	100	P/P	10 - 221
2455277	Lambda-Cyhalothrin	75.0	77.8	P/P	23 - 190
2455277	Methoprene	62.3	61.4	P/P	21 - 109
2455277	Methoxychlor	60.7	58.5	P/P	46 - 118
2455277	MGK-264	85.4	77.0	P/P	39 - 122
2455277	Mirex	70.7	64.3	P/P	25 - 90.0
2455277	Oxychlordane	66.7	59.5	P/P	42 - 100
2455277	Permethrin	71.6	78.0	P/P	33 - 181
2455277	Phenothrin	77.9	64.0	P/P	12 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P438886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455277	Piperonyl Butoxide	70.2	72.9	P/P	10 - 178
2455277	Prallethrin	54.8	60.7	P/P	24 - 122
2455277	Tau-Fluvalinate	81.3	99.7	P/P	13 - 151
2455277	Tetramethrin	60.7	63.4	P/P	16 - 172
2455277	Trans-Nonachlor	100	88.4	F/P	39 - 100
2455277	Triclosan Methyl	58.6	52.9	P/P	43 - 110
2455277	Trifluralin	60.8	61.7	P/P	45 - 94.0
2455361	PCB-1016	57.4	63.7	P/P	45 - 107
2455361	PCB-1260	78.7	88.3	P/P	40 - 112

Reference Method: EPA 8276

Batch ID: P438886

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455361	Chlordane	71.3	77.0	P/P	43 - 123
2455361	Toxaphene	88.6	95.7	P/P	27 - 156

Reference Method: EPA 8321B

Batch ID: P438624

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455247	Acesulfame K	116	115	P/P	40 - 150
2455247	AMPA	68.5	68.9	P/P	40 - 160
2455247	Endothall	95.6	80.9	P/P	40 - 160
2455247	Glufosinate	95.2	95.6	P/P	40 - 160
2455247	Glyphosate	55.7	41.5	P/P	40 - 160
2455247	Sucralose	100	99.9	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P438625

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455118	3-Hydroxycarbofuran	89.8	76.4	P/P	40 - 150
2455118	Aldicarb	70.7	62.0	P/P	30 - 150
2455118	Aldicarb Sulfone	99.1	94.4	P/P	40 - 150
2455118	Aldicarb Sulfoxide	43.9	44.1	P/P	40 - 150
2455118	Carbaryl	69.3	63.9	P/P	40 - 150
2455118	Carbofuran	63.5	62.2	P/P	40 - 150
2455118	Methiocarb	58.4	58.1	P/P	40 - 150
2455118	Methomyl	85.4	82.5	P/P	40 - 150
2455118	Oxamyl	89.3	84.9	P/P	40 - 150
2455118	Propoxur	62.7	63.2	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P438687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455247	2,4-D	103	90.1	P/P	40 - 150
2455247	2,4,5-T	82.2	89.7	P/P	40 - 150
2455247	Acetaminophen	90.6	85.2	P/P	30 - 150
2455247	Acetamiprid	66.7	68.4	P/P	40 - 150
2455247	Afidopyropen	67.0	71.8	P/P	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P438687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455247	Bentazon	36.9	37.1	P/P	30 - 150
2455247	Benzovindiflupyr	79.8	78.7	P/P	40 - 150
2455247	Carbamazepine	70.9	69.5	P/P	40 - 150
2455247	Clothianidin	98.1	97.9	P/P	40 - 150
2455247	Dinotefuran	99.7	97.1	P/P	40 - 150
2455247	Diuron	67.6	66.0	P/P	40 - 150
2455247	Fenuron	77.9	90.2	P/P	40 - 150
2455247	Fluridone	79.6	81.4	P/P	40 - 150
2455247	Hydrocodone	85.5	83.2	P/P	40 - 150
2455247	Ibuprofen	69.9	63.0	P/P	40 - 150
2455247	Imazapyr	89.9	86.9	P/P	40 - 150
2455247	Imidacloprid	110	112	P/P	40 - 150
2455247	Linuron	77.3	67.2	P/P	40 - 150
2455247	Mandestrobin	87.4	88.6	P/P	40 - 150
2455247	MCP	88.6	91.1	P/P	40 - 150
2455247	Naproxen	74.2	60.9	P/P	40 - 150
2455247	Primidone	94.2	96.9	P/P	40 - 150
2455247	Pyraclostrobin	78.1	74.2	P/P	40 - 150
2455247	Silvex	85.5	87.8	P/P	40 - 150
2455247	Thiamethoxam	91.5	93.4	P/P	40 - 150
2455247	Tolfenpyrad	48.6	48.8	P/P	30 - 150
2455247	Triclopyr	79.2	90.4	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P438706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454849	Calcium	0.315	Spike	P	0 - 20
2454849	Chromium	0.674	Spike	P	0 - 20
2454849	Iron	0.593	Spike	P	0 - 20
2454849	Magnesium	0.913	Spike	P	0 - 20
2454849	Potassium	0.0834	Spike	P	0 - 20
2454849	Sodium	0.623	Spike	P	0 - 20
2454849	Strontium	0.396	Spike	P	0 - 20
2454849	Tin	0.503	Spike	P	0 - 20
2454849	Titanium	0.125	Spike	P	0 - 20
2454849	Vanadium	0.223	Spike	P	0 - 20
2454849	Zinc	1.60	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P438706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454849	Aluminum	1.79	Spike	P	0 - 20
2454849	Antimony	0.472	Spike	P	0 - 20
2454849	Arsenic	0.261	Spike	P	0 - 20
2454849	Barium	0.751	Spike	P	0 - 20
2454849	Beryllium	1.75	Spike	P	0 - 20
2454849	Boron	2.40	Spike	P	0 - 20
2454849	Cadmium	2.12	Spike	P	0 - 20
2454849	Cobalt	0.647	Spike	P	0 - 20
2454849	Copper	0.365	Spike	P	0 - 20
2454849	Lead	1.25	Spike	P	0 - 20
2454849	Manganese	0.653	Spike	P	0 - 20
2454849	Molybdenum	0.395	Spike	P	0 - 20
2454849	Nickel	0.0495	Spike	P	0 - 20
2454849	Selenium	0.190	Spike	P	0 - 20
2454849	Silver	1.21	Spike	P	0 - 20
2454849	Thallium	0.112	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P438700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455623	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	34.2	Spike	F	0 - 30
2455623	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	17.8	Spike	P	0 - 35
2455623	Acetochlor	5.22	Spike	P	0 - 28
2455623	Alachlor	3.15	Spike	P	0 - 30
2455623	Ametryn	19.3	Spike	P	0 - 32
2455623	Atrazine	3.72	Spike	P	0 - 33
2455623	Atrazine Desethyl	2.29	Spike	P	0 - 36
2455623	Avobenzone	17.7	Spike	P	0 - 35
2455623	Azinphos Methyl	22.8	Spike	P	0 - 62
2455623	Azoxystrobin	38.6	Spike	P	0 - 39
2455623	Bromacil	3.28	Spike	P	0 - 33
2455623	Butylate	3.31	Spike	P	0 - 51

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P438700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455623	Caffeine	3.45	Spike	P	0 - 100
2455623	Carbophenothion	18.0	Spike	P	0 - 34
2455623	Carfentrazone Ethyl	14.0	Spike	P	0 - 33
2455623	Chlorfenapyr	21.5	Spike	P	0 - 28
2455623	Chlorpyrifos Ethyl	4.30	Spike	P	0 - 31
2455623	Chlorpyrifos Methyl	2.93	Spike	P	0 - 27
2455623	Coumaphos	12.4	Spike	P	0 - 62
2455623	Cyanazine	3.51	Spike	P	0 - 48
2455623	Cyprodinil	7.53	Spike	P	0 - 29
2455623	Dechlorane 602	62.8	Spike	F	0 - 60
2455623	Dechlorane 603	78.1	Spike	F	0 - 40
2455623	Dechlorane Plus	47.4	Spike	F	0 - 38
2455623	Demeton	2.80	Spike	P	0 - 33
2455623	Diazinon	4.29	Spike	P	0 - 32
2455623	Difenoconazole	25.7	Spike	P	0 - 71
2455623	Dimethenamid	5.52	Spike	P	0 - 60
2455623	Dimethomorph	46.1	Spike	P	0 - 61
2455623	Disulfoton	7.69	Spike	P	0 - 30
2455623	Dithiopyr	2.42	Spike	P	0 - 28
2455623	EPTC	0.761	Spike	P	0 - 56
2455623	Ethion	71.9	Spike	P	0 - 79
2455623	Ethoprop	7.54	Spike	P	0 - 31
2455623	Etridiazole	16.9	Spike	P	0 - 43
2455623	Fenamiphos	5.04	Spike	P	0 - 43
2455623	Fenbuconazole	111	Spike	F	0 - 79
2455623	Fipronil	12.3	Spike	P	0 - 46
2455623	Fipronil Desulfiny	23.0	Spike	P	0 - 36
2455623	Fipronil Sulfide	15.9	Spike	P	0 - 34
2455623	Fipronil Sulfone	30.9	Spike	P	0 - 47
2455623	Fluazifop-P-butyl	27.2	Spike	P	0 - 38
2455623	Fludioxonil	18.0	Spike	P	0 - 29
2455623	Flumioxazin	35.5	Spike	P	0 - 63
2455623	Flutolanil	25.6	Spike	P	0 - 36
2455623	Fluxapyroxad	35.2	Spike	P	0 - 65
2455623	Fonofos	0.222	Spike	P	0 - 35
2455623	Hexabromobenzene	27.3	Spike	P	0 - 41
2455623	Hexazinone	4.16	Spike	P	0 - 31
2455623	Imazalil	32.4	Spike	P	0 - 52
2455623	Iprodione	4.12	Spike	P	0 - 49
2455623	Loratadine	49.0	Spike	P	0 - 59
2455623	Malathion	34.5	Spike	P	0 - 77
2455623	Metalaxyl	9.96	Spike	P	0 - 76
2455623	Metolachlor	5.92	Spike	P	0 - 29
2455623	Metribuzin	49.6	Spike	P	0 - 51
2455623	Mevinphos	7.12	Spike	P	0 - 31
2455623	Molinate	3.90	Spike	P	0 - 39
2455623	Myclobutanil	24.1	Spike	P	0 - 34
2455623	Naled	5.87	Spike	P	0 - 37
2455623	Napropamide	66.1	Spike	P	0 - 100
2455623	Norflurazon	9.51	Spike	P	0 - 54
2455623	Octinoxate	51.2	Spike	F	0 - 35

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P438700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455623	Oxadiazon	1.57	Spike	P	0 - 34
2455623	Oxybenzone	74.7	Spike	F	0 - 35
2455623	Oxyfluorfen	8.49	Spike	P	0 - 28
2455623	Parathion Ethyl	6.76	Spike	P	0 - 31
2455623	Parathion Methyl	20.8	Spike	P	0 - 29
2455623	PBB-153	4.35	Spike	P	0 - 49
2455623	PBDE-47	68.1	Spike	F	0 - 36
2455623	PBDE-99	25.8	Spike	P	0 - 46
2455623	Pendimethalin	18.2	Spike	P	0 - 31
2455623	Pentabromotoluene	78.2	Spike	F	0 - 16
2455623	Phenytoin	1.48	Spike	P	0 - 100
2455623	Phorate	9.42	Spike	P	0 - 36
2455623	Prodiamine	25.7	Spike	P	0 - 68
2455623	Prometon	22.9	Spike	P	0 - 35
2455623	Prometryn	21.8	Spike	P	0 - 33
2455623	Pronamide	4.26	Spike	P	0 - 24
2455623	Propanil	4.41	Spike	P	0 - 28
2455623	Propargite	0.534	Spike	P	0 - 53
2455623	Propiconazole	11.3	Spike	P	0 - 44
2455623	Pyraflufen Ethyl	13.6	Spike	P	0 - 61
2455623	Pyridaben	21.8	Spike	P	0 - 43
2455623	Pyriproxyfen	27.2	Spike	P	0 - 82
2455623	Simazine	2.07	Spike	P	0 - 29
2455623	Stiropfos	39.4	Spike	P	0 - 100
2455623	Sulfentrazone	10.8	Spike	P	0 - 64
2455623	Tebuconazole	37.8	Spike	P	0 - 76
2455623	Terbufos	0.359	Spike	P	0 - 29
2455623	Terbutylazine	6.92	Spike	P	0 - 28
2455623	Tetradecachloro-m-terphenyl	50.1	Spike	F	0 - 42
2455623	Thiobencarb	16.8	Spike	P	0 - 26
2455623	Tri-o-cresyl Phosphate	50.8	Spike	F	0 - 24
2455623	Triadimefon	21.9	Spike	P	0 - 40
2455623	Tris(1-chloro-2-propyl) phosphate (TCPP)	8.37	Spike	P	0 - 30
2455623	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	13.6	Spike	P	0 - 22
2455623	Tris(2-chloroethyl) phosphate (TCEP)	6.44	Spike	P	0 - 15

Reference Method: EPA 8270E

Batch ID: P438886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455277	Aldrin	17.5	Spike	P	0 - 41
2455277	Alpha-BHC	5.07	Spike	P	0 - 25
2455277	Alpha-Chlordane	17.1	Spike	P	0 - 32
2455277	Beta-BHC	4.55	Spike	P	0 - 33
2455277	Beta-Cyfluthrin	3.34	Spike	P	0 - 43
2455277	Bifenthrin	11.8	Spike	P	0 - 52
2455277	Chlorothalonil	13.4	Spike	P	0 - 82
2455277	Cis-Nonachlor	20.5	Spike	P	0 - 33
2455277	Cypermethrin	0.274	Spike	P	0 - 51
2455277	Dacthal	0.557	Spike	P	0 - 27

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P438886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455277	DDD-p,p'	5.54	Spike	P	0 - 39
2455277	DDE-p,p'	9.00	Spike	P	0 - 31
2455277	DDT-p,p'	6.46	Spike	P	0 - 29
2455277	Delta-BHC	13.0	Spike	P	0 - 35
2455277	Deltamethrin	109	Spike	F	0 - 100
2455277	Dichlobenil	4.25	Spike	P	0 - 40
2455277	Dicofol	8.93	Spike	P	0 - 37
2455277	Dieldrin	2.51	Spike	P	0 - 27
2455277	Endosulfan I	11.3	Spike	P	0 - 23
2455277	Endosulfan II	7.96	Spike	P	0 - 34
2455277	Endosulfan Sulfate	5.08	Spike	P	0 - 36
2455277	Endrin	1.24	Spike	P	0 - 45
2455277	Endrin Aldehyde	23.3	Spike	P	0 - 76
2455277	Endrin Ketone	8.78	Spike	P	0 - 43
2455277	Esfenvalerate	20.7	Spike	P	0 - 51
2455277	Ethalfuralin	6.86	Spike	P	0 - 22
2455277	Fenpropathrin	5.65	Spike	P	0 - 49
2455277	Gamma-BHC	14.1	Spike	P	0 - 28
2455277	Gamma-Chlordane	0.902	Spike	P	0 - 40
2455277	Heptachlor	9.17	Spike	P	0 - 29
2455277	Heptachlor Epoxide	3.88	Spike	P	0 - 33
2455277	Hexachlorobenzene	0.0864	Spike	P	0 - 36
2455277	Kepone	17.9	Spike	P	0 - 85
2455277	Lambda-Cyhalothrin	3.68	Spike	P	0 - 55
2455277	Methoprene	1.56	Spike	P	0 - 53
2455277	Methoxychlor	3.69	Spike	P	0 - 50
2455277	MGK-264	10.3	Spike	P	0 - 43
2455277	Mirex	9.48	Spike	P	0 - 40
2455277	Oxychlordane	11.4	Spike	P	0 - 31
2455277	Permethrin	8.63	Spike	P	0 - 50
2455277	Phenothrin	19.5	Spike	P	0 - 58
2455277	Piperonyl Butoxide	3.76	Spike	P	0 - 100
2455277	Prallethrin	10.1	Spike	P	0 - 39
2455277	Tau-Fluvalinate	20.4	Spike	P	0 - 54
2455277	Tetramethrin	4.27	Spike	P	0 - 51
2455277	Trans-Nonachlor	12.8	Spike	P	0 - 39
2455277	Triclosan Methyl	10.3	Spike	P	0 - 31
2455277	Trifluralin	1.56	Spike	P	0 - 22
2455361	PCB-1016	10.4	Spike	P	0 - 25
2455361	PCB-1260	11.5	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P438886

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455361	Chlordane	7.71	Spike	P	0 - 28
2455361	Toxaphene	7.67	Spike	P	0 - 27

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P438624

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455247	Acesulfame K	1.02	Spike	P	0 - 30
2455247	AMPA	0.572	Spike	P	0 - 30
2455247	Endothall	16.7	Spike	P	0 - 30
2455247	Glufosinate	0.475	Spike	P	0 - 30
2455247	Glyphosate	29.3	Spike	P	0 - 30
2455247	Sucralose	0.0924	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P438625

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455118	3-Hydroxycarbofuran	16.1	Spike	P	0 - 30
2455118	Aldicarb	13.1	Spike	P	0 - 30
2455118	Aldicarb Sulfone	4.85	Spike	P	0 - 30
2455118	Aldicarb Sulfoxide	0.503	Spike	P	0 - 30
2455118	Carbaryl	8.02	Spike	P	0 - 30
2455118	Carbofuran	2.04	Spike	P	0 - 30
2455118	Methiocarb	0.450	Spike	P	0 - 30
2455118	Methomyl	3.46	Spike	P	0 - 30
2455118	Oxamyl	5.02	Spike	P	0 - 30
2455118	Propoxur	0.809	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P438687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455247	2,4-D	13.4	Spike	P	0 - 30
2455247	2,4,5-T	8.78	Spike	P	0 - 30
2455247	Acetaminophen	6.18	Spike	P	0 - 30
2455247	Acetamiprid	2.56	Spike	P	0 - 30
2455247	Afidopyropen	6.99	Spike	P	0 - 30
2455247	Bentazon	0.473	Spike	P	0 - 30
2455247	Benzovindiflupyr	1.38	Spike	P	0 - 30
2455247	Carbamazepine	1.87	Spike	P	0 - 30
2455247	Clothianidin	0.182	Spike	P	0 - 30
2455247	Dinotefuran	2.65	Spike	P	0 - 30
2455247	Diuron	2.30	Spike	P	0 - 30
2455247	Fenuron	14.7	Spike	P	0 - 30
2455247	Fluridone	2.17	Spike	P	0 - 30
2455247	Hydrocodone	2.82	Spike	P	0 - 30
2455247	Ibuprofen	10.3	Spike	P	0 - 30
2455247	Imazapyr	3.44	Spike	P	0 - 30
2455247	Imidacloprid	1.43	Spike	P	0 - 30
2455247	Linuron	13.9	Spike	P	0 - 30
2455247	Mandestrobin	1.39	Spike	P	0 - 30
2455247	MCPP	2.79	Spike	P	0 - 30
2455247	Naproxen	19.6	Spike	P	0 - 30
2455247	Primidone	2.83	Spike	P	0 - 30
2455247	Pyraclostrobin	5.18	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P438687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455247	Silvex	2.65	Spike	P	0 - 30
2455247	Thiamethoxam	2.03	Spike	P	0 - 30
2455247	Tolfenpyrad	0.260	Spike	P	0 - 30
2455247	Triclopyr	13.2	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2455471
Field Sample ID: G4NE0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	45.9	P	30 - 160

Lab Sample ID: 2455472
Field Sample ID: G4NE0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	90.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	53.7	P	30 - 160
EPA 8321B	Diuron-d6	49.0	P	30 - 160
EPA 8321B	Endothall-d6	91.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	85.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.1	P	30 - 160
EPA 8321B	Primidone-d5	60.3	P	30 - 160
EPA 8321B	Sucralose-d6	98.3	P	30 - 160

Lab Sample ID: 2455473
Field Sample ID: G4NE0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	69.1	P	37 - 129
EPA 8270E	Decachlorobiphenyl	65.6	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	34.7	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	49.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	65.9	P	28 - 102
EPA 8276	PCNB	93.3	P	49 - 115

Lab Sample ID: 2455474
Field Sample ID: G4NE0008

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	54.6	P	20 - 200
EPA 8270E	Simazine-d10	86.5	P	58 - 137
EPA 8270E	Terbufos-d10	78.0	P	50 - 134
EPA 8270E	Terphenyl-d14	59.0	P	44 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A123094
Included Lab Sample IDs: 2455472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	113	117	P/P	60 - 160
Endothall	93.3	90.8	P/P	60 - 160
Glufosinate	99.3	102	P/P	60 - 160
Glyphosate	97.0	97.5	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A123117
Included Lab Sample IDs: 2455472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	117	115	P/P	60 - 160
Sucralose	106	103	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A123144
Included Lab Sample IDs: 2455479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.7	97.5	P/P	90 - 110
Antimony	96.2	96.2	P/P	90 - 110
Arsenic	97.7	96.1	P/P	90 - 110
Barium	94.7	94.2	P/P	90 - 110
Boron	103	101	P/P	90 - 110
Cadmium	96.1	96.6	P/P	90 - 110
Cobalt	97.3	99.1	P/P	90 - 110
Copper	96.3	96.5	P/P	90 - 110
Lead	98.9	99.9	P/P	90 - 110
Molybdenum	96.3	97.5	P/P	90 - 110
Nickel	97.0	97.8	P/P	90 - 110
Selenium	95.0	94.9	P/P	90 - 110
Silver	100	100	P/P	90 - 110
Thallium	98.8	98.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A123170
Included Lab Sample IDs: 2455479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	100	103	P/P	90 - 110
Manganese	102	102	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A123171
Included Lab Sample IDs: 2455472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.8	110	P/P	50 - 150
2,4,5-T	99.8	90.7	P/P	50 - 150
3-Hydroxycarbofuran	106	109	P/P	60 - 150
Acetaminophen	108	100	P/P	60 - 160
Acetamiprid	108	107	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A123171
Included Lab Sample IDs: 2455472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Afidopyropen	93.0	101	P/P	50 - 150
Aldicarb	102	90.0	P/P	60 - 150
Aldicarb Sulfone	106	108	P/P	50 - 150
Aldicarb Sulfoxide	107	108	P/P	50 - 150
Bentazon	95.4	93.5	P/P	50 - 160
Benzovindiflupyr	104	104	P/P	50 - 150
Carbamazepine	111	109	P/P	60 - 150
Carbaryl	112	117	P/P	60 - 150
Carbofuran	114	111	P/P	50 - 150
Clothianidin	111	105	P/P	60 - 150
Dinotefuran	108	110	P/P	50 - 150
Diuron	111	109	P/P	60 - 160
Fenuron	106	106	P/P	60 - 150
Fluridone	108	112	P/P	60 - 160
Hydrocodone	111	109	P/P	60 - 150
Ibuprofen	116	86.2	P/P	50 - 160
Imazapyr	84.7	96.0	P/P	50 - 150
Imidacloprid	102	102	P/P	60 - 150
Linuron	106	101	P/P	60 - 150
Mandestrobin	111	110	P/P	50 - 150
MCPP	98.2	101	P/P	50 - 150
Methiocarb	106	114	P/P	50 - 150
Methomyl	105	105	P/P	50 - 150
Naproxen	82.8	69.6	P/P	50 - 160
Oxamyl	108	108	P/P	50 - 150
Primidone	98.9	100	P/P	60 - 150
Propoxur	112	112	P/P	50 - 150
Pyraclostrobin	106	105	P/P	60 - 150
Silvex	102	102	P/P	50 - 150
Thiamethoxam	114	113	P/P	50 - 150
Tolfenpyrad	96.4	97.4	P/P	60 - 150
Triclopyr	91.5	109	P/P	50 - 150

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A123206
Included Lab Sample IDs: 2455479

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	101	P/P	90 - 110
Chromium	101	101	P/P	90 - 110
Iron	102	101	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	100	101	P/P	90 - 110
Sodium	97.7	96.7	P/P	90 - 110
Strontium	98.4	99.1	P/P	90 - 110
Tin	101	102	P/P	90 - 110
Titanium	103	103	P/P	90 - 110
Vanadium	99.4	99.3	P/P	90 - 110
Zinc	99.5	99.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123258
Included Lab Sample IDs: 2455473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	102		P	80 - 120
PCB-1260	98.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A123370
Included Lab Sample IDs: 2455473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.3		P	80 - 120
Alpha-BHC	95.6		P	80 - 120
Alpha-Chlordane	98.0		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	98.1		P	80 - 120
Bifenthrin	89.5		P	80 - 120
Chlorothalonil	102		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	99.3		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	94.0		P	80 - 120
DDE-p,p'	107		P	80 - 120
DDT-p,p'	96.2		P	80 - 120
Delta-BHC	98.8		P	80 - 120
Deltamethrin	100		P	80 - 120
Dichlobenil	99.5		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	97.2		P	80 - 120
Endosulfan I	99.8		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	96.4		P	80 - 120
Endrin	102		P	80 - 120
Endrin Aldehyde	102		P	80 - 120
Endrin Ketone	102		P	80 - 120
Esfenvalerate	97.5		P	80 - 120
Ethalfuralin	104		P	80 - 120
Fenpropathrin	90.1		P	80 - 120
Gamma-BHC	106		P	80 - 120
Gamma-Chlordane	107		P	80 - 120
Heptachlor	96.9		P	80 - 120
Heptachlor Epoxide	110		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Kepone	104		P	80 - 120
Lambda-Cyhalothrin	99.5		P	80 - 120
Methoprene	99.7		P	80 - 120
Methoxychlor	90.4		P	80 - 120
MGK-264	107		P	80 - 120
Mirex	102		P	80 - 120
Oxychlordane	101		P	80 - 120
Permethrin	98.6		P	80 - 120
Phenothrin	102		P	80 - 120
Piperonyl Butoxide	92.3		P	80 - 120
Prallethrin	98.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123370
Included Lab Sample IDs: 2455473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tau-Fluvalinate	97.1		P	80 - 120
Tetramethrin	97.3		P	80 - 120
Trans-Nonachlor	109		P	80 - 120
Triclosan Methyl	94.5		P	80 - 120
Trifluralin	103		P	80 - 120

Reference Method: EPA 8276
Run ID: A123381
Included Lab Sample IDs: 2455473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	104		P	80 - 120
Toxaphene	107		P	80 - 120

Reference Method: EPA 8270E
Run ID: A123488
Included Lab Sample IDs: 2455474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	95.9		P	80 - 120
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.3		P	80 - 120
Avobenzone	93.1		P	80 - 120
Dechlorane 602	105		P	80 - 120
Dechlorane 603	109		P	80 - 120
Dechlorane Plus	111		P	80 - 120
Hexabromobenzene	94.5		P	80 - 120
Octinoxate	94.6		P	80 - 120
Oxybenzone	93.1		P	80 - 120
PBB-153	91.2		P	80 - 120
PBDE-47	95.3		P	80 - 120
PBDE-99	99.0		P	80 - 120
Pentabromotoluene	92.8		P	80 - 120
Tetradecachloro-m-terphenyl	90.4		P	80 - 120
Tri-o-cresyl Phosphate	97.3		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	96.3		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	98.1		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	96.0		P	80 - 120

Reference Method: EPA 8270E
Run ID: A123491
Included Lab Sample IDs: 2455474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	85.7		P	80 - 120
Alachlor	90.4		P	80 - 120
Ametryn	106		P	80 - 120
Atrazine	97.1		P	80 - 120
Atrazine Desethyl	107		P	80 - 120
Azinphos Methyl	95.9		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	104		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123491
Included Lab Sample IDs: 2455474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Butylate	97.8		P	80 - 120
Caffeine	118		P	80 - 120
Carbophenothion	88.0		P	80 - 120
Carfentrazone Ethyl	92.6		P	80 - 120
Chlorfenapyr	99.9		P	80 - 120
Chlorpyrifos Ethyl	89.6		P	80 - 120
Chlorpyrifos Methyl	87.8		P	80 - 120
Coumaphos	109		P	80 - 120
Cyanazine	94.0		P	80 - 120
Cyprodinil	104		P	80 - 120
Demeton	91.5		P	80 - 120
Diazinon	95.7		P	80 - 120
Difenoconazole	97.2		P	80 - 120
Dimethenamid	93.8		P	80 - 120
Dimethomorph	105		P	80 - 120
Disulfoton	97.1		P	80 - 120
Dithiopyr	111		P	80 - 120
EPTC	98.3		P	80 - 120
Ethion	99.9		P	80 - 120
Ethoprop	101		P	80 - 120
Etridiazole	96.8		P	80 - 120
Fenamiphos	103		P	80 - 120
Fenbuconazole	93.9		P	80 - 120
Fipronil	106		P	80 - 120
Fipronil Desulfinyl	97.9		P	80 - 120
Fipronil Sulfide	93.9		P	80 - 120
Fipronil Sulfone	119		P	80 - 120
Fluazifop-P-butyl	109		P	80 - 120
Fludioxonil	109		P	80 - 120
Flumioxazin	95.5		P	80 - 120
Flutolanil	82.3		P	80 - 120
Fluxapyroxad	99.4		P	80 - 120
Fonofos	84.5		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	116		P	80 - 120
Iprodione	78.5*		F	80 - 120
Loratadine	98.3		P	80 - 120
Malathion	92.4		P	80 - 120
Metalaxyl	90.1		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	89.5		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	89.6		P	80 - 120
Myclobutanil	100		P	80 - 120
Naled	115		P	80 - 120
Napropamide	107		P	80 - 120
Norflurazon	116		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	90.9		P	80 - 120
Parathion Ethyl	101		P	80 - 120
Parathion Methyl	90.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123491
Included Lab Sample IDs: 2455474

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pendimethalin	111		P	80 - 120
Phenytoin	101		P	80 - 120
Phorate	89.1		P	80 - 120
Prodiamine	80.7		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	111		P	80 - 120
Pronamide	103		P	80 - 120
Propanil	87.0		P	80 - 120
Propargite	101		P	80 - 120
Propiconazole	90.7		P	80 - 120
Pyraflufen Ethyl	106		P	80 - 120
Pyridaben	103		P	80 - 120
Pyriproxyfen	96.4		P	80 - 120
Simazine	90.0		P	80 - 120
Stirophos	87.1		P	80 - 120
Sulfentrazone	106		P	80 - 120
Tebuconazole	107		P	80 - 120
Terbufos	84.9		P	80 - 120
Terbutylazine	81.9		P	80 - 120
Thiobencarb	101		P	80 - 120
Triadimefon	104		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	Calcium	110	109	109	105			0.315
	Chromium	100	89.7	90.4	99.7			0.674
	Iron	111	108	109	111			0.593
	Magnesium	112	109	111	112			0.913
	Potassium	101	99.5	99.4	101			0.0834
	Sodium	99.2	97.1	100				0.623
	Strontium	97.7	96.5	96.9	98.6			0.396
	Tin	98.1	96.6	97.0	99.0			0.503
	Titanium	102	104	104	103			0.125
	Vanadium	98.2	99.1	98.9	99.2			0.223
	Zinc	94.9	93.2	91.6	94.5			1.60
EPA 200.8 Rev. 5.4	Aluminum	97.8	97.8	95.7	90.2			1.79
	Antimony	98.9	96.9	96.4	97.2			0.472
	Arsenic	97.0	95.3	95.6	96.7			0.261
	Barium	98.4	97.5	96.7	95.9			0.751
	Beryllium	103	106	104	96.5			1.75
	Boron	103	101	97.6	103			2.40
	Cadmium	98.0	97.6	95.5	95.8			2.12
	Cobalt	98.2	96.9	96.2	97.0			0.647
	Copper	96.5	95.0	95.4	95.7			0.365
	Lead	101	101	99.9	99.9			1.25
	Manganese	95.0	90.9	90.2	99.7			0.653
	Molybdenum	97.2	96.1	96.5	96.3			0.395
	Nickel	96.3	83.0	83.0	95.1			0.0495
	Selenium	97.6	95.1	94.9	92.8			0.190
	Silver	104	101	102	102			1.21
	Thallium	101	103	103	101			0.112
EPA 8270E	2-(2H-benzotriazol-2-yl)-4,6-ditertpe ntylphenol (UV-328)	66.5	69.6	49.3				34.2
	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	92.9	64.7	54.1				17.8
	Acetochlor	108	98.2	93.2				5.22
	Alachlor	84.2	75.5	77.9				3.15
	Aldrin	40.8	58.5	49.0				17.5
	Alpha-BHC	78.5	78.9	75.0				5.07
	Alpha-Chlordane	61.8	70.7	59.6				17.1
	Ametryn	101	135	111				19.3
	Atrazine	101	105	109				3.72
	Atrazine Desethyl	103	104	107				2.29
	Avobenzone	107	64.7	54.2				17.7
	Azinphos Methyl	140	103	130				22.8
	Azoxystrobin	106	79.9	118				38.6
	Beta-BHC	84.4	84.7	80.9				4.55
	Beta-Cyfluthrin	50.7	74.8	77.4				3.34
	Bifenthrin	31.6	50.0	56.3				11.8
	Bromacil	105	87.5	90.4				3.28
	Butylate	63.6	72.4	70.0				3.31
	Caffeine	113	142	138				3.45
	Carbophenothion	156	105	87.6				18.0
	Carfentrazone Ethyl	140	90.3	78.5				14.0
	Chlorfenapyr	108	72.5	89.9				21.5
	Chlorothalonil	87.4	142	124				13.4
	Chlorpyrifos Ethyl	107	117	112				4.30

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS	MS		
EPA 8270E	Chlorpyrifos Methyl	141	111	107		2.93
	Cis-Nonachlor	57.7	56.1	45.7		20.5
	Coumaphos	160	86.8	98.3		12.4
	Cyanazine	107	102	105		3.51
	Cypermethrin	45.7	70.3	70.1		0.274
	Cyprodinil	126	111	120		7.53
	Dacthal	83.1	81.1	81.6		0.557
	DDD-p,p'	59.4	51.4	48.7		5.54
	DDE-p,p'	70.5	74.1	67.7		9.00
	DDT-p,p'	60.0	59.9	56.2		6.46
	Dechlorane 602	57.2	53.8	28.1		62.8
	Dechlorane 603	128	111	48.8		78.1
	Dechlorane Plus	107	84.7	52.3		47.4
	Delta-BHC	90.8	102	89.5		13.0
	Deltamethrin	12.1	74.3	22.0		109
	Demeton	64.8	60.7	62.5		2.80
	Diazinon	119	129	123		4.29
	Dichlobenil	76.4	42.5	40.8		4.25
	Dicofol	63.4	63.7	58.3		8.93
	Dieldrin	62.3	56.4	55.0		2.51
	Difenoconazole	101	45.5	58.9		25.7
	Dimethenamid	98.2	75.4	71.4		5.52
	Dimethomorph	147	105	168		46.1
	Disulfoton	116	112	120		7.69
	Dithiopyr	91.0	114	117		2.42
	Endosulfan I	67.9	75.5	67.5		11.3
	Endosulfan II	75.8	59.9	55.3		7.96
	Endosulfan Sulfate	86.7	77.1	73.3		5.08
	Endrin	62.5	50.5	49.9		1.24
	Endrin Aldehyde	78.0	60.5	47.9		23.3
	Endrin Ketone	94.2	90.5	82.9		8.78
	EPTC	56.9	66.0	65.5		0.761
	Esfenvalerate	52.1	87.9	108		20.7
	Ethalfuralin	86.6	92.8	86.7		6.86
	Ethion	70.1	74.4	35.1		71.9
	Ethoprop	91.6	96.2	104		7.54
	Etridiazole	83.5	77.7	65.6		16.9
	Fenamiphos	112	80.2	84.3		5.04
	Fenbuconazole	70.2	21.9	76.5		111
	Fenpropathrin	56.0	65.8	62.1		5.65
	Fipronil	96.9	114	101		12.3
	Fipronil Desulfinyl	79.1	94.7	75.2		23.0
	Fipronil Sulfide	112	94.7	80.8		15.9
	Fipronil Sulfone	113	124	90.5		30.9
	Fluazifop-P-butyl	131	100	76.2		27.2
	Fludioxonil	92.3	68.3	81.8		18.0
	Flumioxazin	126	48.2	79.5		35.5
	Flutolanil	119	78.8	102		25.6
	Fluxapyroxad	108	71.3	50.0		35.2
	Fonofos	90.1	101	101		0.222
	Gamma-BHC	77.3	98.2	85.3		14.1
	Gamma-Chlordane	59.2	62.2	61.6		0.902
	Heptachlor	56.0	47.3	43.2		9.17
	Heptachlor Epoxide	92.5	92.2	88.7		3.88

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Hexabromobenzene	91.7	77.9	59.2		27.3
	Hexachlorobenzene	61.6	61.5	61.4		0.0864
	Hexazinone	80.1	96.9	91.3		4.16
	Imazalil	108	75.5	105		32.4
	Iprodione	113	66.6	69.4		4.12
	Kepone	124	120	100		17.9
	Lambda-Cyhalothrin	41.4	75.0	77.8		3.68
	Loratadine	146	87.6	144		49.0
	Malathion	128	93.3	132		34.5
	Metalaxyl	78.6	107	96.8		9.96
	Methoprene	41.0	62.3	61.4		1.56
	Methoxychlor	64.4	60.7	58.5		3.69
	Metolachlor	114	113	119		5.92
	Metribuzin	96.1	82.8	137		49.6
	Mevinphos	104	92.4	99.2		7.12
	MGK-264	71.6	85.4	77.0		10.3
	Mirex	50.2	70.7	64.3		9.48
	Molinate	67.1	71.6	74.4		3.90
	Myclobutanil	99.2	84.2	66.1		24.1
	Naled	50.5	49.2	46.4		5.87
	Napropamide	86.0	71.3	35.9		66.1
	Norflurazon	108	68.3	75.2		9.51
	Octinoxate	113	158	93.6		51.2
	Oxadiazon	96.7	75.7	76.9		1.57
	Oxybenzone	112	149	68.0		74.7
	Oxychlordane	68.8	66.7	59.5		11.4
	Oxyfluorfen	129	98.4	90.4		8.49
	Parathion Ethyl	85.2	89.6	95.9		6.76
	Parathion Methyl	96.7	83.9	103		20.8
	PBB-153	89.6	53.4	51.1		4.35
	PBDE-47	92.7	111	54.8		68.1
	PBDE-99	95.3	71.7	55.4		25.8
	PCB-1016	69.4	57.4	63.7		10.4
	PCB-1260	79.3	78.7	88.3		11.5
	Pendimethalin	121	139	167		18.2
	Pentabromotoluene	97.4	134	58.7		78.2
	Permethrin	48.0	71.6	78.0		8.63
	Phenothrin	37.3	77.9	64.0		19.5
	Phenytoin	30.1	29.9	29.4		1.48
	Phorate	84.8	72.6	79.8		9.42
	Piperonyl Butoxide	79.2	70.2	72.9		3.76
	Prallethrin	60.5	54.8	60.7		10.1
	Prodiamine	114	119	91.9		25.7
	Prometon	79.6	85.7	108		22.9
	Prometryn	137	99.5	124		21.8
	Pronamide	122	118	113		4.26
	Propanil	113	98.9	94.6		4.41
	Propargite	80.1	54.4	54.7		0.534
	Propiconazole	86.8	60.3	67.5		11.3
	Pyraflufen Ethyl	136	67.4	77.2		13.6
	Pyridaben	36.3	78.7	98.0		21.8
	Pyriproxyfen	72.8	45.6	59.9		27.2
	Simazine	98.3	108	110		2.07
	Stirophos	113	74.7	50.1		39.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Sulfentrazone	104	75.4	84.0			10.8
	Tau-Fluvalinate	43.2	81.3	99.7			20.4
	Tebuconazole	52.3	41.4	28.2			37.8
	Terbufos	94.1	96.8	96.5			0.359
	Terbutylazine	90.5	91.1	85.0			6.92
	Tetradecachloro-m-terphenyl	165	173	104			50.1
	Tetramethrin	53.1	60.7	63.4			4.27
	Thiobencarb	107	72.8	86.1			16.8
	Trans-Nonachlor	77.1	100	88.4			12.8
	Tri-o-cresyl Phosphate	115	121	72.1			50.8
	Triadimefon	104	78.2	97.5			21.9
	Triclosan Methyl	64.3	58.6	52.9			10.3
	Trifluralin	63.6	60.8	61.7			1.56
	Tris(1-chloro-2-propyl) phosphate (TCPP)	97.3	83.7	93.4			8.37
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	95.0	80.1	91.8			13.6
	Tris(2-chloroethyl) phosphate (TCEP)	93.8	94.1	100			6.44
EPA 8276	Chlordane	74.4	71.3	77.0			7.71
	Toxaphene	83.5	88.6	95.7			7.67
EPA 8321B	2,4-D	108	103	90.1			13.4
	2,4,5-T	90.4	82.2	89.7			8.78
	3-Hydroxycarbofuran	91.8	89.8	76.4			16.1
	Acesulfame K	119	116	115			1.02
	Acetaminophen	90.3	90.6	85.2			6.18
	Acetamiprid	88.2	66.7	68.4			2.56
	Afidopyropen	72.6	67.0	71.8			6.99
	Aldicarb	65.0	70.7	62.0			13.1
	Aldicarb Sulfone	102	99.1	94.4			4.85
	Aldicarb Sulfoxide	121	43.9	44.1			0.503
	AMPA	106	68.5	68.9			0.572
	Bentazon	72.5	36.9	37.1			0.473
	Benzovindiflupyr	86.6	79.8	78.7			1.38
	Carbamazepine	87.4	70.9	69.5			1.87
	Carbaryl	71.2	69.3	63.9			8.02
	Carbofuran	72.5	63.5	62.2			2.04
	Clothianidin	93.4	98.1	97.9			0.182
	Dinotefuran	107	99.7	97.1			2.65
	Diuron	84.5	67.6	66.0			2.30
	Endothall	92.3	95.6	80.9			16.7
	Fenuron	108	77.9	90.2			14.7
	Fluridone	90.9	79.6	81.4			2.17
	Glufosinate	101	95.2	95.6			0.475
	Glyphosate	94.4	55.7	41.5			29.3
	Hydrocodone	95.4	85.5	83.2			2.82
	Ibuprofen	70.8	69.9	63.0			10.3
	Imazapyr	92.0	89.9	86.9			3.44
	Imidacloprid	91.5	110	112			1.43
	Linuron	86.1	77.3	67.2			13.9
	Mandestrobin	97.7	87.4	88.6			1.39
	MCPP	98.0	88.6	91.1			2.79
	Methiocarb	73.2	58.4	58.1			0.450
	Methomyl	89.4	85.4	82.5			3.46

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Naproxen	64.9	74.2	60.9		19.6
	Oxamyl	93.0	89.3	84.9		5.02
	Primidone	85.6	94.2	96.9		2.83
	Propoxur	71.8	62.7	63.2		0.809
	Pyraclostrobin	84.0	78.1	74.2		5.18
	Silvex	92.5	85.5	87.8		2.65
	Sucralose	106	100	99.9		0.0924
	Thiamethoxam	96.3	91.5	93.4		2.03
	Tolfenpyrad	48.7	48.6	48.8		0.260
	Triclopyr	91.8	79.2	90.4		13.2

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2455479
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2455479
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2455474
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2455473
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2455474
EPA 8270E	PCBs in water matrices by GC/MS/MS	2455473
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2455473
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2455471
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2455472
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2455479

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	12/07/2023	12/08/2023 12:10	George D Taylor	12/13/2023 19:15	Chase Roberts	2455479
EPA 200.8 Rev. 5.4	12/07/2023	12/08/2023 12:10	George D Taylor	12/11/2023 20:44	Conrad Hartmann	2455479
EPA 8270E	12/07/2023	12/08/2023 12:10	George D Taylor	12/13/2023 02:48	Conrad Hartmann	2455479
	12/07/2023	12/12/2023 08:00	Fe-Val Siddell	01/03/2024 23:06	Arthur Maknenko	2455474
	12/07/2023	12/12/2023 08:00	Fe-Val Siddell	12/19/2023 18:35	Vandana T. Nagar	2455474
	12/07/2023	12/12/2023 08:30	Rasheda Ghaffari	12/15/2023 00:29	Lipi Saha	2455473
	12/07/2023	12/12/2023 08:30	Rasheda Ghaffari	12/21/2023 00:03	Julie Wi	2455473
EPA 8276	12/07/2023	12/12/2023 08:30	Rasheda Ghaffari	12/21/2023 10:06	Arthur Maknenko	2455473
EPA 8321B	12/07/2023	12/07/2023 15:30	Tae K Lee	12/08/2023 04:17	Hana Lee	2455472
	12/07/2023	12/07/2023 15:30	Tae K Lee	12/08/2023 17:35	Hana Lee	2455472
	12/07/2023	12/11/2023 09:00	Hoor Shaik	12/12/2023 22:40	Juyoung Kim	2455472
	12/07/2023	12/12/2023 09:00	Hoor Shaik	12/13/2023 06:05	Juyoung Kim	2455471
SM 2340 B-2011	12/07/2023			12/13/2023 19:15	Chase Roberts	2455479