

Chemical Analysis Report

SE-DIST-2021-04-27-03

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

Event Description: **SMP - Stuart Boat**
Request ID: **RQ-2021-03-15-38**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Drew Liddick

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Certified by: Colin Wright, Program Administrator

Date Certified: 21-MAY-2021 10:09

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

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients 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: Bessey Creek @ Mouth

Collection Date/Time: 04/26/2021 13:00

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2243028	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P397272	
	SM 2320 B-2011	Total Alkalinity	157		mg CaCO3/L	P397862	
	SM 2540 D-2011	TSS	6	IA	mg/L	P397596	
	SM 4500 F-C-2011	Fluoride	0.53		mg F/L	P397642	
2243029	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P397634	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.73		mg N/L	P397547	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P397321	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P397310	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P397483	
2243030	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.092		mg P/L	P397261	
2243033	EPA 8321B	Aldicarb	0.020	U	ug/L	P397284	
		Aldicarb Sulfone	0.0020	U	ug/L	P397284	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P397284	
		Carbaryl	0.0020	U	ug/L	P397284	
		Carbofuran	0.0020	U	ug/L	P397284	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P397284	
		Methiocarb	0.0020	U	ug/L	P397284	
		Methomyl	0.016		ug/L	P397284	
		Oxamyl	0.0020	U	ug/L	P397284	
		Propoxur	0.0020	U	ug/L	P397284	
2243034		Acesulfame K	0.10	U	ug/L	P397199	
		2,4-D	0.059		ug/L	P397178	
		AMPA	1.0	U	ug/L	P397199	
		2,4,5-T	0.0040	U	ug/L	P397178	
		Sucralose	0.30		ug/L	P397199	
		Acetaminophen	0.0080	U	ug/L	P397178	
		Endothall	0.25	U	ug/L	P397199	
		Acetamiprid	0.0020	U	ug/L	P397178	
		Glufosinate	1.0	U	ug/L	P397199	
		Glyphosate	1.0	U	ug/L	P397199	
		Afidopyropen	0.0020	U	ug/L	P397178	
		Bentazon	0.035		ug/L	P397178	
		Benzovindiflupyr	0.0020	U	ug/L	P397178	
		Carbamazepine	0.0011	I	ug/L	P397178	
		Clothianidin	0.0020	U	ug/L	P397178	
		Dinotefuran	0.0020	U	ug/L	P397178	
		Diuron	0.16		ug/L	P397178	
		Fenuron	0.016	U	ug/L	P397178	
		Fluridone	0.0057		ug/L	P397178	
		Imazapyr	0.11		ug/L	P397178	
		Hydrocodone	0.0020	U	ug/L	P397178	
		Ibuprofen	0.020	U	ug/L	P397178	RPD
		Imidacloprid	0.031		ug/L	P397178	MS

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2243034	EPA 8321B	Linuron	0.0040	U	ug/L	P397178	
		Mandestrobin	0.0020	U	ug/L	P397178	
		MCP	0.0020	U	ug/L	P397178	MS
		Naproxen	0.0080	U	ug/L	P397178	
		Primidone	0.0040	U	ug/L	P397178	
		Pyraclostrobin	0.0020	U	ug/L	P397178	
		Thiamethoxam	0.0068	I	ug/L	P397178	MS
		Tolfenpyrad	0.0020	U	ug/L	P397178	
		Triclopyr	0.0040	U	ug/L	P397178	
2243035	EPA 8270E	Aldrin	0.68	U	ng/L	P397215	
		Alpha-BHC	0.10	U	ng/L	P397215	
		Alpha-Chlordane	0.21	U	ng/L	P397215	
		Beta-BHC	0.10	U	ng/L	P397215	
		Beta-Cyfluthrin**	1.3	U	ng/L	P397215	
		Bifenthrin**	0.52	U	ng/L	P397215	
		Carbophenothion	0.37	UJ	ng/L	P397215	LCS
		Chlorothalonil	0.62	I	ng/L	P397215	
		Cis-Nonachlor**	0.21	U	ng/L	P397215	
		Cypermethrin	1.6	U	ng/L	P397215	
		Dacthal**	0.16	U	ng/L	P397215	
		DDD-p,p'	0.26	U	ng/L	P397215	
		DDE-p,p'	0.21	U	ng/L	P397215	
		DDT-p,p'	0.26	U	ng/L	P397215	
		Delta-BHC	0.42	U	ng/L	P397215	
		Deltamethrin**	1.3	U	ng/L	P397215	
		Dichlobenil**	0.10	U	ng/L	P397215	
		Dicofol	1.3	U	ng/L	P397215	MS
		Dieldrin	0.42	U	ng/L	P397215	
		Endosulfan I	0.42	U	ng/L	P397215	
		Endosulfan II	0.42	U	ng/L	P397215	
		Endosulfan Sulfate	0.31	U	ng/L	P397215	
		Endrin	0.42	U	ng/L	P397215	MS, RPD
		Endrin Aldehyde	0.78	U	ng/L	P397215	MS, RPD
		Endrin Ketone	0.42	U	ng/L	P397215	RPD
		Esfenvalerate**	0.78	U	ng/L	P397215	
		Ethalfuralin**	0.16	U	ng/L	P397215	
		Fenpropathrin**	0.26	U	ng/L	P397215	
		Gamma-BHC	0.13	U	ng/L	P397215	
		Gamma-Chlordane	0.21	U	ng/L	P397215	
		Heptachlor	0.21	U	ng/L	P397215	
		Heptachlor Epoxide	0.26	U	ng/L	P397215	
		Hexachlorobenzene	1.0	U	ng/L	P397215	
		Kepone**	5.2	U	ng/L	P397215	RPD
		Lambda-Cyhalothrin**	0.78	U	ng/L	P397215	
		Methoxychlor	0.31	U	ng/L	P397215	

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Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2243035	EPA 8270E	MGK-264**	0.21	UJ	ng/L	P397215	LCS, RPD
		Mirex	0.31	U	ng/L	P397215	
		Permethrin	1.7	U	ng/L	P397215	
		Phenothrin**	0.94	UJ	ng/L	P397215	LCS
		Piperonyl Butoxide**	0.16	U	ng/L	P397215	MS, RPD
		Prallethrin**	2.1	UJ	ng/L	P397215	LCS
		Tau-Fluvalinate**	0.26	U	ng/L	P397215	
		Tetramethrin**	0.78	UJ	ng/L	P397215	LCS, MS, RPD
		Trans-Nonachlor**	0.21	U	ng/L	P397215	
		Triclosan Methyl**	0.16	U	ng/L	P397215	
		Trifluralin	0.21	U	ng/L	P397215	
		Chlordane	5.2	UJ	ng/L	P397215	LCS
		Toxaphene	31	U	ng/L	P397215	
		Acetochlor	0.27	U	ng/L	P397411	
2243036	EPA 8270E	Alachlor	0.27	U	ng/L	P397411	
		Ametryn	6.0		ng/L	P397411	MS
		Atrazine	150		ng/L	P397411	
		Atrazine Desethyl	21		ng/L	P397411	
		Azinphos Methyl	2.1	U	ng/L	P397411	
		Azoxystrobin**	3.3		ng/L	P397411	
		Bromacil	2.7		ng/L	P397411	
		Butylate	0.42	U	ng/L	P397411	
		Caffeine**	63		ng/L	P397411	
		Carbophenothion	0.53	U	ng/L	P397411	
		Carfentrazone Ethyl**	0.11	U	ng/L	P397411	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P397411	
		Chlorpyrifos Methyl	0.053	U	ng/L	P397411	
		Cyanazine	3.4	U	ng/L	P397411	
		Demeton	1.6	U	ng/L	P397411	
		Diazinon	0.13	U	ng/L	P397411	
		Difenoconazole**	0.64	U	ng/L	P397411	
		Dimethenamid**	0.11	U	ng/L	P397411	
		Disulfoton	0.53	U	ng/L	P397411	
		Dithiopyr**	0.22	I	ng/L	P397411	
		EPTC	1.3	U	ng/L	P397411	
		Ethion	0.16	U	ng/L	P397411	
		Ethoprop	0.11	U	ng/L	P397411	
		Fenamiphos	0.53	U	ng/L	P397411	
		Fenbuconazole**	0.13	U	ng/L	P397411	
		Fipronil	0.27	U	ng/L	P397411	
		Fipronil Desulfinyl**	0.28	I	ng/L	P397411	
		Fipronil Sulfide	0.16	U	ng/L	P397411	
		Fipronil Sulfone	0.37	I	ng/L	P397411	
		Fluazifop-P-butyl**	0.11	U	ng/L	P397411	

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2243036	EPA 8270E	Fludioxonil**	0.13	U	ng/L	P397411	RPD
		Flumioxazin**	1.9	UJ	ng/L	P397411	
		Flutolanil**	0.74		ng/L	P397411	
		Fluxapyroxad**	0.90		ng/L	P397411	
		Fonofos	0.21	U	ng/L	P397411	
		Hexazinone	20		ng/L	P397411	
		Imazalil**	0.80	U	ng/L	P397411	
		Iprodione**	0.64	U	ng/L	P397411	
		Malathion	0.37	U	ng/L	P397411	
		Metalaxyl	2.1	I	ng/L	P397411	
		Metolachlor	150		ng/L	P397411	
		Metribuzin	6.7	I	ng/L	P397411	
		Mevinphos	1.1	U	ng/L	P397411	
		Molinate	0.32	U	ng/L	P397411	
		Myclobutanil**	0.27	U	ng/L	P397411	
		Naled**	1.6	U	ng/L	P397411	
		Norflurazon	16		ng/L	P397411	
		Oxadiazon	7.1		ng/L	P397411	
		Oxyfluorfen**	0.16	U	ng/L	P397411	
		Parathion Ethyl	0.27	U	ng/L	P397411	
		Parathion Methyl	0.58	U	ng/L	P397411	
		Pendimethalin	1.1	U	ng/L	P397411	
		Phorate	0.56	U	ng/L	P397411	
		Prodiamine**	0.19	UJ	ng/L	P397411	
		Prometon	0.95	U	ng/L	P397411	
		Prometryn	0.21	U	ng/L	P397411	
		Pronamide**	0.16	U	ng/L	P397411	
		Propiconazole**	7.8		ng/L	P397411	
		Pyriproxyfen**	0.13	U	ng/L	P397411	
		Simazine	1.9	I	ng/L	P397411	
		Sulfentrazone**	15		ng/L	P397411	
		Tebuconazole**	0.64	I	ng/L	P397411	
		Terbufos	0.11	U	ng/L	P397411	
		Terbuthylazine	0.45	U	ng/L	P397411	
2243037	EPA 200.7 Rev. 4.4	Aluminum	180	U	ug/L	P397248	
		Calcium	207		mg/L	P397248	
		Chromium	6.5	I	ug/L	P397248	
		Iron	110	I	ug/L	P397248	
		Magnesium	451		mg/L	P397248	
		Manganese	14		ug/L	P397248	
		Zinc	15	U	ug/L	P397248	
	EPA 200.8 Rev. 5.4	Antimony	0.20	U	ug/L	P397248	
		Arsenic	2.6		ug/L	P397248	
		Beryllium	0.10	U	ug/L	P397248	
		Cadmium	0.080	U	ug/L	P397248	

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2243037	EPA 200.8 Rev. 5.4	Copper	2.2	I	ug/L	P397248	
		Lead	0.80	U	ug/L	P397248	
		Nickel	2.0	U	ug/L	P397248	
		Selenium	2.0	U	ug/L	P397248	
		Silver	0.040	U	ug/L	P397248	
		Thallium	0.40	U	ug/L	P397248	

Ref. Method and Comment:
 SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
 EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
 EPA 8321B: MDL for some parameters elevated due to matrix interference.
 EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.
 EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
 EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.
 EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.
 EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium and magnesium are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P397272

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397248

Component	Result	Code	Units
Aluminum	60	U	ug/L
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397248

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397634

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397547

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397321

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397310

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397261

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8270E
Batch ID: P397215

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
Carbophenothion	0.35	U	ng/L
Chlorothalonil	0.50	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'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	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	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.30	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P397215

Component	Result	Code	Units
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E
Batch ID: P397411

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P397411

Component	Result	Code	Units
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P397411

Component	Result	Code	Units
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8276

Batch ID: P397215

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

Reference Method: EPA 8321B

Batch ID: P397178

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P397178

Component	Result	Code	Units
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P397199

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B

Batch ID: P397284

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: SM 2320 B-2011

Batch ID: P397862

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P397596

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P397642

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P397483

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397248

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Calcium	98.5		P	85 - 115
Chromium	96.5		P	85 - 115
Iron	107		P	85 - 115
Magnesium	94.5		P	85 - 115
Manganese	102		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397248

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Antimony	97.5		P	85 - 115
Arsenic	96.8		P	85 - 115
Beryllium	86.8		P	85 - 115
Cadmium	97.4		P	85 - 115
Copper	96.8		P	85 - 115
Lead	95.7		P	85 - 115
Nickel	93.1		P	85 - 115
Selenium	96.5		P	85 - 115
Silver	98.4		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397634

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397547

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	100		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P397310

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P397261

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.8		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P397215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	21.1	21.6	P/P	20 - 150
Alpha-BHC	96.9	95.6	P/P	50 - 150
Alpha-Chlordane	71.8	71.9	P/P	50 - 150
Beta-BHC	108	108	P/P	50 - 150
Beta-Cyfluthrin	62.3	62.4	P/P	50 - 150
Bifenthrin	46.7	47.6	P/P	40 - 150
Carbophenothion	21.1	19.5	P/F	20 - 150
Chlorothalonil	24.5	26.9	P/P	20 - 150
Cis-Nonachlor	68.5	69.5	P/P	50 - 150
Cypermethrin	58.3	66.9	P/P	50 - 150
Dacthal	90.9	89.3	P/P	50 - 150
DDD-p,p'	71.3	72.8	P/P	50 - 150
DDE-p,p'	67.6	66.5	P/P	50 - 150
DDT-p,p'	65.6	66.6	P/P	50 - 150
Delta-BHC	107	108	P/P	50 - 150
Deltamethrin	66.4	68.3	P/P	50 - 150
Dichlobenil	69.8	61.8	P/P	40 - 150
Dicofol	72.9	71.0	P/P	50 - 150
Dieldrin	75.1	74.4	P/P	50 - 150
Endosulfan I	74.4	73.7	P/P	50 - 150
Endosulfan II	78.6	79.6	P/P	50 - 150
Endosulfan Sulfate	89.1	86.5	P/P	50 - 150
Endrin	74.2	75.5	P/P	50 - 150
Endrin Aldehyde	92.0	91.1	P/P	50 - 150
Endrin Ketone	90.2	90.0	P/P	50 - 150
Esfenvalerate	66.0	69.7	P/P	50 - 150
Ethalfuralin	68.5	67.6	P/P	50 - 150
Fenpropathrin	56.4	57.8	P/P	50 - 150
Gamma-BHC	102	102	P/P	50 - 150
Gamma-Chlordane	64.4	65.8	P/P	50 - 150
Heptachlor	59.5	58.3	P/P	50 - 150
Heptachlor Epoxide	75.7	77.8	P/P	50 - 150
Hexachlorobenzene	59.2	57.8	P/P	50 - 150
Kepone	92.3	95.0	P/P	50 - 150
Lambda-Cyhalothrin	73.7	76.3	P/P	50 - 150
Methoxychlor	75.8	74.7	P/P	50 - 150
MGK-264	43.2	44.1	F/F	50 - 150
Mirex	100	102	P/P	50 - 150
Permethrin	62.5	63.7	P/P	50 - 150
Phenothrin	23.5	21.0	F/F	30 - 150
Piperonyl Butoxide	74.9	75.0	P/P	50 - 150
Prallethrin	29.0	30.3	F/F	40 - 150
Tau-Fluvalinate	47.8	49.0	P/P	40 - 150
Tetramethrin	36.0	36.3	F/F	40 - 150
Trans-Nonachlor	68.8	70.4	P/P	50 - 150
Triclosan Methyl	73.5	74.3	P/P	50 - 150
Trifluralin	66.9	67.6	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P397411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P397411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	92.7	87.8	P/P	70 - 121
Alachlor	94.5	92.4	P/P	70 - 119
Ametryn	99.9	89.9	P/P	61 - 135
Atrazine	97.8	97.1	P/P	76 - 123
Atrazine Desethyl	77.5	75.7	P/P	35 - 140
Azinphos Methyl	104	109	P/P	57 - 163
Azoxystrobin	133	153	P/P	43 - 231
Bromacil	74.7	79.7	P/P	42 - 123
Butylate	55.3	49.3	P/P	34 - 92.0
Caffeine	108	105	P/P	70 - 130
Carbophenothion	98.8	106	P/P	61 - 121
Carfentrazone Ethyl	87.9	92.9	P/P	62 - 139
Chlorpyrifos Ethyl	94.7	92.1	P/P	67 - 121
Chlorpyrifos Methyl	92.7	93.7	P/P	67 - 120
Cyanazine	96.9	98.6	P/P	20 - 226
Demeton	81.1	75.9	P/P	35 - 125
Diazinon	94.2	90.2	P/P	70 - 122
Difenoconazole	125	131	P/P	56 - 186
Dimethenamid	92.5	87.6	P/P	67 - 119
Disulfoton	81.6	81.8	P/P	47 - 120
Dithiopyr	83.5	89.2	P/P	67 - 118
EPTC	51.9	49.8	P/P	33 - 90.0
Ethion	78.2	74.8	P/P	40 - 133
Ethoprop	83.6	80.4	P/P	61 - 121
Fenamiphos	91.7	95.7	P/P	31 - 139
Fenbuconazole	97.9	98.8	P/P	66 - 141
Fipronil	91.2	90.4	P/P	62 - 129
Fipronil Desulfinyl	89.9	88.3	P/P	59 - 126
Fipronil Sulfide	82.6	83.5	P/P	63 - 117
Fipronil Sulfone	82.3	85.0	P/P	57 - 117
Fluazifop-P-butyl	90.6	97.7	P/P	63 - 124
Fludioxonil	87.6	93.2	P/P	63 - 123
Flumioxazin	112	77.2	P/P	34 - 245
Flutolanil	87.2	85.0	P/P	56 - 131
Fluxapyroxad	86.1	89.0	P/P	57 - 117
Fonofos	88.2	84.0	P/P	61 - 116
Hexazinone	92.3	89.8	P/P	55 - 138
Imazalil	101	116	P/P	33 - 143
Iprodione	72.7	62.5	P/P	59 - 118
Malathion	97.0	97.3	P/P	62 - 138
Metalaxyl	93.3	90.6	P/P	24 - 147
Metolachlor	90.4	84.6	P/P	68 - 118
Metribuzin	88.4	97.8	P/P	20 - 239
Mevinphos	81.4	78.4	P/P	46 - 124
Molinate	64.6	60.0	P/P	46 - 100
Myclobutanil	87.4	88.7	P/P	32 - 149
Naled	40.7	37.6	P/P	32 - 95.0
Norflurazon	96.6	97.1	P/P	57 - 127
Oxadiazon	94.6	95.7	P/P	63 - 118
Oxyfluorfen	106	104	P/P	69 - 137
Parathion Ethyl	83.8	91.5	P/P	70 - 113
Parathion Methyl	94.9	99.2	P/P	71 - 130

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P397411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pendimethalin	94.7	97.8	P/P	55 - 118
Phorate	79.2	79.7	P/P	46 - 125
Prodiamine	55.2	94.7	P/P	20 - 141
Prometon	91.3	88.1	P/P	54 - 122
Prometryn	90.5	93.4	P/P	66 - 124
Pronamide	92.9	95.0	P/P	79 - 122
Propiconazole	88.9	93.8	P/P	61 - 126
Pyriproxyfen	83.9	85.2	P/P	52 - 131
Simazine	92.6	94.8	P/P	75 - 128
Sulfentrazone	44.9	34.9	P/P	20 - 132
Tebuconazole	68.1	63.8	P/P	20 - 116
Terbufos	87.3	84.4	P/P	61 - 117
Terbuthylazine	98.0	93.9	P/P	74 - 116

Reference Method: EPA 8276
Batch ID: P397215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	110	123	P/F	56 - 117
Toxaphene	85.8	91.5	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P397178

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	158		P	30 - 160
2,4,5-T	133		P	30 - 160
Acetaminophen	99.2		P	30 - 150
Acetamiprid	103		P	30 - 160
Afidopyropen	84.6		P	30 - 160
Bentazon	48.6		P	30 - 150
Benzovindiflupyr	104		P	30 - 160
Carbamazepine	106		P	30 - 160
Clothianidin	115		P	30 - 160
Dinotefuran	113		P	30 - 160
Diuron	78.6		P	30 - 160
Fenuron	112		P	30 - 160
Fluridone	122		P	30 - 160
Hydrocodone	123		P	30 - 160
Ibuprofen	109		P	30 - 160
Imazapyr	123		P	30 - 160
Imidacloprid	132		P	30 - 160
Linuron	83.7		P	30 - 160
Mandestrobin	91.4		P	30 - 160
MCPP	152		P	30 - 160
Naproxen	86.4		P	30 - 160
Primidone	101		P	30 - 160
Pyraclostrobin	90.8		P	30 - 160
Thiamethoxam	138		P	30 - 160
Tolfenpyrad	74.3		P	30 - 160
Triclopyr	150		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P397199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.2		P	40 - 150
AMPA	80.6		P	40 - 150
Endothall	87.2		P	40 - 150
Glufosinate	81.5		P	40 - 150
Glyphosate	98.4		P	40 - 140
Sucralose	106		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P397284

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	107		P	30 - 160
Aldicarb	107		P	30 - 150
Aldicarb Sulfone	109		P	30 - 160
Aldicarb Sulfoxide	77.6		P	30 - 160
Carbaryl	81.1		P	30 - 160
Carbofuran	87.6		P	30 - 160
Methiocarb	72.8		P	30 - 160
Methomyl	97.1		P	30 - 160
Oxamyl	103		P	30 - 160
Propoxur	81.2		P	30 - 160

Reference Method: SM 2320 B-2011
Batch ID: P397862

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.2		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P397642

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.7		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P397483

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P397248

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242672	Aluminum	98.8	100	P/P	70 - 130
2242672	Chromium	91.7	92.3	P/P	70 - 130
2242672	Iron	106	108	P/P	70 - 130
2242672	Manganese	99.5	101	P/P	70 - 130
2242672	Zinc	105	106	P/P	70 - 130
2243037	Aluminum	100		P	70 - 130
2243037	Chromium	93.3		P	70 - 130
2243037	Iron	111		P	70 - 130
2243037	Manganese	99.6		P	70 - 130
2243037	Zinc	101		P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P397248

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242672	Antimony	103	102	P/P	70 - 130
2242672	Arsenic	109	108	P/P	70 - 130
2242672	Beryllium	91.0	86.2	P/P	70 - 130
2242672	Cadmium	96.0	95.4	P/P	70 - 130
2242672	Copper	110	110	P/P	70 - 130
2242672	Lead	103	102	P/P	70 - 130
2242672	Nickel	93.3	94.3	P/P	70 - 130
2242672	Selenium	102	102	P/P	70 - 130
2242672	Silver	91.9	92.7	P/P	70 - 130
2242672	Thallium	110	111	P/P	70 - 130
2243037	Antimony	103		P	70 - 130
2243037	Arsenic	111		P	70 - 130
2243037	Beryllium	104		P	70 - 130
2243037	Cadmium	97.2		P	70 - 130
2243037	Copper	118		P	70 - 130
2243037	Lead	104		P	70 - 130
2243037	Nickel	99.6		P	70 - 130
2243037	Selenium	98.9		P	70 - 130
2243037	Silver	92.8		P	70 - 130
2243037	Thallium	110		P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P397634

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243029	Ammonia-N	98.4	95.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P397547

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243029	Kjeldahl Nitrogen	107	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P397321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P397321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242703	NO2NO3-N	97.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P397261

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243030	O-Phosphate-P	98.3	98.4	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P397215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242102	Aldrin	107	102	P/P	20 - 170
2242102	Alpha-BHC	89.2	92.8	P/P	50 - 170
2242102	Alpha-Chlordane	70.8	80.8	P/P	50 - 170
2242102	Beta-BHC	94.1	96.1	P/P	50 - 170
2242102	Beta-Cyfluthrin	85.2	83.4	P/P	50 - 170
2242102	Bifenthrin	56.5	62.8	P/P	40 - 170
2242102	Carbophenothion	48.7	51.7	P/P	20 - 170
2242102	Chlorothalonil	161	160	P/P	20 - 170
2242102	Cis-Nonachlor	72.7	83.3	P/P	50 - 170
2242102	Cypermethrin	77.1	72.9	P/P	50 - 170
2242102	Dacthal	60.6	59.0	P/P	50 - 170
2242102	DDD-p,p'	77.8	71.8	P/P	50 - 170
2242102	DDE-p,p'	61.3	68.6	P/P	50 - 170
2242102	DDT-p,p'	63.5	70.5	P/P	50 - 170
2242102	Delta-BHC	121	115	P/P	50 - 170
2242102	Deltamethrin	87.8	80.1	P/P	50 - 170
2242102	Dichlobenil	52.9	63.2	P/P	40 - 170
2242102	Dicofol	59.3	47.5	P/F	50 - 170
2242102	Dieldrin	72.3	78.6	P/P	50 - 170
2242102	Endosulfan I	54.7	58.4	P/P	50 - 170
2242102	Endosulfan II	79.5	87.9	P/P	50 - 170
2242102	Endosulfan Sulfate	86.2	87.7	P/P	50 - 170
2242102	Endrin	76.5	23.7	P/F	50 - 170
2242102	Endrin Aldehyde	72.3	0.822	P/F	50 - 170
2242102	Endrin Ketone	93.7	165	P/P	50 - 170
2242102	Esfenvalerate	86.3	81.4	P/P	50 - 170
2242102	Ethalfuralin	61.2	73.1	P/P	50 - 170
2242102	Fenpropathrin	62.1	56.2	P/P	50 - 170
2242102	Gamma-BHC	95.0	95.2	P/P	50 - 170
2242102	Gamma-Chlordane	68.8	77.0	P/P	50 - 170
2242102	Heptachlor	70.6	84.1	P/P	50 - 170
2242102	Heptachlor Epoxide	59.3	60.4	P/P	50 - 170
2242102	Hexachlorobenzene	63.2	62.5	P/P	50 - 170
2242102	Kepone	65.2	139	P/P	50 - 170
2242102	Lambda-Cyhalothrin	102	89.7	P/P	50 - 170
2242102	Methoxychlor	68.0	79.8	P/P	50 - 170
2242102	MGK-264	93.6	69.0	P/P	50 - 170
2242102	Mirex	115	148	P/P	50 - 170
2242102	Permethrin	82.9	71.6	P/P	50 - 170
2242102	Phenothrin	87.2	95.0	P/P	30 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P397215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242102	Piperonyl Butoxide	92.1	0.440	P/F	50 - 170
2242102	Prallethrin	57.6	52.5	P/P	40 - 170
2242102	Tau-Fluvalinate	67.1	58.8	P/P	40 - 170
2242102	Tetramethrin	59.2	35.1	P/F	40 - 170
2242102	Trans-Nonachlor	61.5	72.8	P/P	50 - 170
2242102	Triclosan Methyl	71.3	75.1	P/P	50 - 170
2242102	Trifluralin	67.4	71.1	P/P	50 - 170

Reference Method: EPA 8270E

Batch ID: P397411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242785	Acetochlor	99.0	87.4	P/P	66 - 122
2242785	Alachlor	100	80.7	P/P	65 - 122
2242785	Ametryn	210	222	F/F	45 - 173
2242785	Atrazine Desethyl	59.9	50.2	P/P	25 - 150
2242785	Azinphos Methyl	113	98.9	P/P	44 - 174
2242785	Bromacil	90.9	87.5	P/P	31 - 145
2242785	Butylate	41.4	40.0	P/P	15 - 97.0
2242785	Caffeine	105	112	P/P	70 - 130
2242785	Carbophenothion	77.5	81.5	P/P	42 - 129
2242785	Carfentrazone Ethyl	68.9	76.8	P/P	62 - 145
2242785	Chlorpyrifos Ethyl	98.1	75.3	P/P	60 - 124
2242785	Chlorpyrifos Methyl	96.1	82.0	P/P	66 - 119
2242785	Cyanazine	99.9	92.9	P/P	17 - 225
2242785	Demeton	86.4	82.8	P/P	36 - 142
2242785	Diazinon	93.7	80.1	P/P	70 - 128
2242785	Difenoconazole	132	107	P/P	33 - 222
2242785	Dimethenamid	82.7	76.7	P/P	54 - 125
2242785	Disulfoton	85.1	69.6	P/P	49 - 133
2242785	Dithiopyr	84.3	75.3	P/P	55 - 123
2242785	EPTC	53.3	48.9	P/P	19 - 91.0
2242785	Ethion	64.8	73.0	P/P	13 - 143
2242785	Ethoprop	102	88.7	P/P	49 - 144
2242785	Fenamiphos	90.1	80.1	P/P	32 - 136
2242785	Fenbuconazole	105	82.2	P/P	73 - 148
2242785	Fipronil	91.7	84.0	P/P	57 - 129
2242785	Fipronil Desulfinyl	78.5	73.3	P/P	49 - 127
2242785	Fipronil Sulfide	81.9	72.5	P/P	44 - 127
2242785	Fipronil Sulfone	81.0	69.7	P/P	35 - 126
2242785	Fluazifop-P-butyl	83.2	74.9	P/P	67 - 129
2242785	Fludioxonil	101	81.7	P/P	61 - 126
2242785	Flumioxazin	152	119	P/P	38 - 279
2242785	Flutolanil	63.5	61.9	P/P	55 - 136
2242785	Fluxapyroxad	81.6	81.7	P/P	33 - 140
2242785	Fonofos	88.3	84.2	P/P	58 - 125
2242785	Hexazinone	93.2	88.9	P/P	57 - 148
2242785	Imazalil	67.2	67.2	P/P	10 - 221
2242785	Iprodione	80.0	75.9	P/P	32 - 140
2242785	Malathion	97.7	90.0	P/P	52 - 138
2242785	Metalaxyl	91.4	77.8	P/P	46 - 134
2242785	Metolachlor	82.2	74.4	P/P	58 - 122

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P397411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242785	Metribuzin	126	97.6	P/P	16 - 272
2242785	Mevinphos	100	87.4	P/P	45 - 140
2242785	Molinate	71.3	63.9	P/P	41 - 103
2242785	Naled	48.6	45.1	P/P	20 - 113
2242785	Norflurazon	93.7	75.6	P/P	51 - 123
2242785	Oxadiazon	64.2	52.3	P/P	44 - 125
2242785	Oxyfluorfen	67.2	81.0	P/P	66 - 176
2242785	Parathion Ethyl	107	96.7	P/P	57 - 132
2242785	Parathion Methyl	128	109	P/P	59 - 156
2242785	Pendimethalin	117	99.6	P/P	59 - 129
2242785	Phorate	108	80.4	P/P	47 - 136
2242785	Prodiamine	55.3	49.7	P/P	10 - 159
2242785	Prometon	93.7	82.5	P/P	59 - 127
2242785	Prometryn	81.5	70.7	P/P	59 - 129
2242785	Pronamide	89.2	82.8	P/P	65 - 145
2242785	Propiconazole	78.1	58.6	P/P	28 - 165
2242785	Pyriproxyfen	69.9	68.1	P/P	21 - 180
2242785	Simazine	130	106	P/P	63 - 147
2242785	Sulfentrazone	84.3	73.1	P/P	32 - 136
2242785	Tebuconazole	39.9	58.5	P/P	10 - 117
2242785	Terbufos	91.5	80.6	P/P	61 - 131
2242785	Terbutylazine	91.9	86.6	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P397215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242904	Chlordane	99.9	115	P/P	47 - 128
2242904	Toxaphene	82.1	108	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P397178

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242748	2,4,5-T	133	133	P/P	30 - 160
2242748	Acetaminophen	76.1	68.7	P/P	30 - 150
2242748	Acetamiprid	115	114	P/P	30 - 160
2242748	Afidopyropen	110	101	P/P	30 - 160
2242748	Benzovindiflupyr	99.0	92.5	P/P	30 - 160
2242748	Carbamazepine	97.1	90.2	P/P	30 - 160
2242748	Clothianidin	119	117	P/P	30 - 160
2242748	Dinotefuran	157	139	P/P	30 - 160
2242748	Diuron	65.3	59.4	P/P	30 - 160
2242748	Fenuron	110	100	P/P	30 - 160
2242748	Hydrocodone	125	121	P/P	30 - 160
2242748	Ibuprofen	102	70.2	P/P	30 - 160
2242748	Imidacloprid	240	219	F/F	30 - 160
2242748	Linuron	92.8	76.5	P/P	30 - 160
2242748	Mandestrobin	112	96.4	P/P	30 - 160
2242748	MCP	167	157	F/P	30 - 160
2242748	Naproxen	97.7	79.2	P/P	30 - 160
2242748	Primidone	113	131	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P397178

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2242748	Pyraclostrobin	98.1	87.3	P/P	30 - 160
2242748	Thiamethoxam	193	190	F/F	30 - 160
2242748	Tolfenpyrad	74.2	73.5	P/P	30 - 160
2242748	Triclopyr	141	131	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P397199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241899	Acesulfame K	64.6	69.6	P/P	40 - 150
2241899	AMPA	97.2	103	P/P	40 - 150
2241899	Endothall	76.8	86.7	P/P	40 - 150
2241899	Glufosinate	95.4	93.6	P/P	40 - 150
2241899	Glyphosate	76.9	76.6	P/P	40 - 140
2241899	Sucralose	50.3	50.1	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P397284

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243020	3-Hydroxycarbofuran	115	109	P/P	30 - 160
2243020	Aldicarb	135	135	P/P	30 - 150
2243020	Aldicarb Sulfone	132	123	P/P	30 - 160
2243020	Aldicarb Sulfoxide	40.1	36.9	P/P	30 - 160
2243020	Carbaryl	61.8	62.5	P/P	30 - 160
2243020	Carbofuran	70.8	67.7	P/P	30 - 160
2243020	Methiocarb	78.0	69.4	P/P	30 - 160
2243020	Methomyl	102	95.8	P/P	30 - 160
2243020	Oxamyl	107	102	P/P	30 - 160
2243020	Propoxur	63.8	62.0	P/P	30 - 160

Reference Method: SM 4500 F-C-2011

Batch ID: P397642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2244317	Fluoride	97.1	97.1	P/P	94 - 107

Reference Method: SM 5310 B-2011

Batch ID: P397483

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2243404	Organic Carbon	92.4	94.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P397272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242913	Turbidity	12.1	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P397248

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242672	Aluminum	1.60	Spike	P	0 - 20
2242672	Calcium	1.05	Spike	P	0 - 20
2242672	Chromium	0.612	Spike	P	0 - 20
2242672	Iron	1.60	Spike	P	0 - 20
2242672	Magnesium	1.56	Spike	P	0 - 20
2242672	Manganese	1.70	Spike	P	0 - 20
2242672	Zinc	1.34	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P397248

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242672	Antimony	1.01	Spike	P	0 - 20
2242672	Arsenic	0.345	Spike	P	0 - 20
2242672	Beryllium	5.36	Spike	P	0 - 20
2242672	Cadmium	0.608	Spike	P	0 - 20
2242672	Copper	0.723	Spike	P	0 - 20
2242672	Lead	1.11	Spike	P	0 - 20
2242672	Nickel	0.543	Spike	P	0 - 20
2242672	Selenium	0.287	Spike	P	0 - 20
2242672	Silver	0.777	Spike	P	0 - 20
2242672	Thallium	0.365	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243029	Ammonia-N	2.84	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397547

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243029	Kjeldahl Nitrogen	0.0303	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P397321

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242703	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P397310

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242669	Total-P	0.0720	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P397261

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243030	O-Phosphate-P	0.0526	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P397215

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242102	Aldrin	4.38	Spike	P	0 - 30
2242102	Alpha-BHC	3.91	Spike	P	0 - 30
2242102	Alpha-Chlordane	13.2	Spike	P	0 - 30
2242102	Beta-BHC	2.07	Spike	P	0 - 30
2242102	Beta-Cyfluthrin	2.17	Spike	P	0 - 30
2242102	Bifenthrin	10.4	Spike	P	0 - 30
2242102	Carbophenothion	6.04	Spike	P	0 - 30
2242102	Chlorothalonil	0.324	Spike	P	0 - 50
2242102	Cis-Nonachlor	13.7	Spike	P	0 - 30
2242102	Cypermethrin	5.61	Spike	P	0 - 30
2242102	Dacthal	2.68	Spike	P	0 - 30
2242102	DDD-p,p'	7.98	Spike	P	0 - 30
2242102	DDE-p,p'	11.2	Spike	P	0 - 30
2242102	DDT-p,p'	10.5	Spike	P	0 - 30
2242102	Delta-BHC	4.87	Spike	P	0 - 30
2242102	Deltamethrin	9.11	Spike	P	0 - 30
2242102	Dichlobenil	17.8	Spike	P	0 - 30
2242102	Dicofol	22.1	Spike	P	0 - 30
2242102	Dieldrin	8.37	Spike	P	0 - 30
2242102	Endosulfan I	6.50	Spike	P	0 - 30
2242102	Endosulfan II	10.1	Spike	P	0 - 30
2242102	Endosulfan Sulfate	1.77	Spike	P	0 - 30
2242102	Endrin	105	Spike	F	0 - 30
2242102	Endrin Aldehyde	196	Spike	F	0 - 30
2242102	Endrin Ketone	55.1	Spike	F	0 - 30
2242102	Esfenvalerate	5.89	Spike	P	0 - 30
2242102	Ethalfuralin	17.7	Spike	P	0 - 30
2242102	Fenpropathrin	9.87	Spike	P	0 - 30
2242102	Gamma-BHC	0.210	Spike	P	0 - 30
2242102	Gamma-Chlordane	11.2	Spike	P	0 - 30
2242102	Heptachlor	17.4	Spike	P	0 - 30
2242102	Heptachlor Epoxide	1.88	Spike	P	0 - 30
2242102	Hexachlorobenzene	1.08	Spike	P	0 - 30
2242102	Kepone	72.4	Spike	F	0 - 30
2242102	Lambda-Cyhalothrin	12.5	Spike	P	0 - 30
2242102	Methoxychlor	16.0	Spike	P	0 - 30
2242102	MGK-264	30.3	Spike	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P397215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242102	Mirex	25.1	Spike	P	0 - 30
2242102	Permethrin	14.7	Spike	P	0 - 30
2242102	Phenothrin	8.62	Spike	P	0 - 30
2242102	Piperonyl Butoxide	198	Spike	F	0 - 30
2242102	Prallethrin	9.17	Spike	P	0 - 30
2242102	Tau-Fluvalinate	13.1	Spike	P	0 - 30
2242102	Tetramethrin	51.0	Spike	F	0 - 30
2242102	Trans-Nonachlor	16.8	Spike	P	0 - 30
2242102	Triclosan Methyl	5.28	Spike	P	0 - 30
2242102	Trifluralin	5.35	Spike	P	0 - 30
LFB	Aldrin	2.09	LCS	P	0 - 30
LFB	Alpha-BHC	1.36	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.0858	LCS	P	0 - 30
LFB	Beta-BHC	0.0385	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	0.183	LCS	P	0 - 30
LFB	Bifenthrin	1.86	LCS	P	0 - 30
LFB	Carbophenothion	7.94	LCS	P	0 - 30
LFB	Chlorothalonil	9.36	LCS	P	0 - 50
LFB	Cis-Nonachlor	1.39	LCS	P	0 - 30
LFB	Cypermethrin	13.7	LCS	P	0 - 30
LFB	Dacthal	1.73	LCS	P	0 - 30
LFB	DDD-p,p'	2.17	LCS	P	0 - 30
LFB	DDE-p,p'	1.72	LCS	P	0 - 30
LFB	DDT-p,p'	1.60	LCS	P	0 - 30
LFB	Delta-BHC	0.590	LCS	P	0 - 30
LFB	Deltamethrin	2.74	LCS	P	0 - 30
LFB	Dichlobenil	12.2	LCS	P	0 - 30
LFB	Dicofol	2.58	LCS	P	0 - 30
LFB	Dieldrin	0.981	LCS	P	0 - 30
LFB	Endosulfan I	1.02	LCS	P	0 - 30
LFB	Endosulfan II	1.24	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.90	LCS	P	0 - 30
LFB	Endrin	1.74	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.882	LCS	P	0 - 30
LFB	Endrin Ketone	0.260	LCS	P	0 - 30
LFB	Esfenvalerate	5.56	LCS	P	0 - 30
LFB	Ethalfuralin	1.28	LCS	P	0 - 30
LFB	Fenpropathrin	2.48	LCS	P	0 - 30
LFB	Gamma-BHC	0.365	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.13	LCS	P	0 - 30
LFB	Heptachlor	2.13	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.64	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.34	LCS	P	0 - 30
LFB	Kepone	2.92	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	3.51	LCS	P	0 - 30
LFB	Methoxychlor	1.52	LCS	P	0 - 30
LFB	MGK-264	2.08	LCS	P	0 - 30
LFB	Mirex	1.53	LCS	P	0 - 30
LFB	Permethrin	1.89	LCS	P	0 - 30
LFB	Phenothrin	11.6	LCS	P	0 - 30
LFB	Piperonyl Butoxide	0.116	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P397215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Prallethrin	4.65	LCS	P	0 - 30
LFB	Tau-Fluvalinate	2.65	LCS	P	0 - 30
LFB	Tetramethrin	0.775	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.25	LCS	P	0 - 30
LFB	Triclosan Methyl	1.04	LCS	P	0 - 30
LFB	Trifluralin	0.997	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P397411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242785	Acetochlor	12.5	Spike	P	0 - 30
2242785	Alachlor	21.8	Spike	P	0 - 30
2242785	Ametryn	5.28	Spike	P	0 - 30
2242785	Atrazine	3.54	Spike	P	0 - 30
2242785	Atrazine Desethyl	12.1	Spike	P	0 - 30
2242785	Azinphos Methyl	13.3	Spike	P	0 - 30
2242785	Azoxystrobin	4.94	Spike	P	0 - 30
2242785	Bromacil	3.80	Spike	P	0 - 30
2242785	Butylate	3.59	Spike	P	0 - 30
2242785	Caffeine	6.36	Spike	P	0 - 30
2242785	Carbophenothion	5.04	Spike	P	0 - 30
2242785	Carfentrazone Ethyl	10.8	Spike	P	0 - 30
2242785	Chlorpyrifos Ethyl	26.3	Spike	P	0 - 30
2242785	Chlorpyrifos Methyl	15.9	Spike	P	0 - 30
2242785	Cyanazine	7.28	Spike	P	0 - 30
2242785	Demeton	4.30	Spike	P	0 - 30
2242785	Diazinon	15.7	Spike	P	0 - 30
2242785	Difenoconazole	21.2	Spike	P	0 - 30
2242785	Dimethenamid	7.50	Spike	P	0 - 30
2242785	Disulfoton	20.0	Spike	P	0 - 30
2242785	Dithiopyr	11.3	Spike	P	0 - 30
2242785	EPTC	8.51	Spike	P	0 - 30
2242785	Ethion	11.9	Spike	P	0 - 30
2242785	Ethoprop	13.9	Spike	P	0 - 30
2242785	Fenamiphos	11.7	Spike	P	0 - 30
2242785	Fenbuconazole	24.7	Spike	P	0 - 30
2242785	Fipronil	8.76	Spike	P	0 - 30
2242785	Fipronil Desulfinyl	6.42	Spike	P	0 - 30
2242785	Fipronil Sulfide	8.54	Spike	P	0 - 30
2242785	Fipronil Sulfone	12.8	Spike	P	0 - 30
2242785	Fluazifop-P-butyl	10.5	Spike	P	0 - 30
2242785	Fludioxonil	21.1	Spike	P	0 - 30
2242785	Flumioxazin	24.6	Spike	P	0 - 30
2242785	Flutolanil	2.16	Spike	P	0 - 30
2242785	Fluxapyroxad	0.158	Spike	P	0 - 30
2242785	Fonofos	4.80	Spike	P	0 - 30
2242785	Hexazinone	4.80	Spike	P	0 - 30
2242785	Imazalil	0.0335	Spike	P	0 - 30
2242785	Iprodione	5.28	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P397411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242785	Malathion	8.16	Spike	P	0 - 30
2242785	Metalaxyl	16.1	Spike	P	0 - 30
2242785	Metolachlor	10.0	Spike	P	0 - 30
2242785	Metribuzin	25.4	Spike	P	0 - 30
2242785	Mevinphos	13.7	Spike	P	0 - 30
2242785	Molinate	10.9	Spike	P	0 - 30
2242785	Myclobutanil	1.77	Spike	P	0 - 30
2242785	Naled	7.44	Spike	P	0 - 30
2242785	Norflurazon	21.4	Spike	P	0 - 30
2242785	Oxadiazon	17.4	Spike	P	0 - 30
2242785	Oxyfluorfen	18.6	Spike	P	0 - 30
2242785	Parathion Ethyl	10.6	Spike	P	0 - 30
2242785	Parathion Methyl	15.5	Spike	P	0 - 30
2242785	Pendimethalin	16.2	Spike	P	0 - 30
2242785	Phorate	28.9	Spike	P	0 - 30
2242785	Prodiamine	10.7	Spike	P	0 - 30
2242785	Prometon	11.2	Spike	P	0 - 30
2242785	Prometryn	14.2	Spike	P	0 - 30
2242785	Pronamide	7.34	Spike	P	0 - 30
2242785	Propiconazole	21.7	Spike	P	0 - 30
2242785	Pyriproxyfen	2.53	Spike	P	0 - 30
2242785	Simazine	20.1	Spike	P	0 - 30
2242785	Sulfentrazone	8.57	Spike	P	0 - 30
2242785	Tebuconazole	13.5	Spike	P	0 - 30
2242785	Terbufos	12.7	Spike	P	0 - 30
2242785	Terbuthylazine	6.00	Spike	P	0 - 30
LFB	Acetochlor	5.45	LCS	P	0 - 30
LFB	Alachlor	2.24	LCS	P	0 - 30
LFB	Ametryn	10.5	LCS	P	0 - 30
LFB	Atrazine	0.777	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.35	LCS	P	0 - 30
LFB	Azinphos Methyl	4.83	LCS	P	0 - 30
LFB	Azoxystrobin	14.2	LCS	P	0 - 30
LFB	Bromacil	6.52	LCS	P	0 - 30
LFB	Butylate	11.6	LCS	P	0 - 30
LFB	Caffeine	3.45	LCS	P	0 - 30
LFB	Carbophenothion	6.62	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	5.57	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.86	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.13	LCS	P	0 - 30
LFB	Cyanazine	1.79	LCS	P	0 - 30
LFB	Demeton	6.62	LCS	P	0 - 30
LFB	Diazinon	4.31	LCS	P	0 - 30
LFB	Difenoconazole	5.20	LCS	P	0 - 30
LFB	Dimethenamid	5.43	LCS	P	0 - 30
LFB	Disulfoton	0.226	LCS	P	0 - 30
LFB	Dithiopyr	6.66	LCS	P	0 - 30
LFB	EPTC	4.11	LCS	P	0 - 30
LFB	Ethion	4.38	LCS	P	0 - 30
LFB	Ethoprop	3.95	LCS	P	0 - 30
LFB	Fenamiphos	4.25	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P397411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fenbuconazole	0.886	LCS	P	0 - 30
LFB	Fipronil	0.886	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.85	LCS	P	0 - 30
LFB	Fipronil Sulfide	1.00	LCS	P	0 - 30
LFB	Fipronil Sulfone	3.23	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	7.59	LCS	P	0 - 30
LFB	Fludioxonil	6.22	LCS	P	0 - 30
LFB	Flumioxazin	36.7	LCS	F	0 - 30
LFB	Flutolanil	2.55	LCS	P	0 - 30
LFB	Fluxapyroxad	3.42	LCS	P	0 - 30
LFB	Fonofos	4.91	LCS	P	0 - 30
LFB	Hexazinone	2.78	LCS	P	0 - 30
LFB	Imazalil	13.3	LCS	P	0 - 30
LFB	Iprodione	15.0	LCS	P	0 - 30
LFB	Malathion	0.293	LCS	P	0 - 30
LFB	Metalaxyl	2.90	LCS	P	0 - 30
LFB	Metolachlor	6.60	LCS	P	0 - 30
LFB	Metribuzin	10.0	LCS	P	0 - 30
LFB	Mevinphos	3.73	LCS	P	0 - 30
LFB	Molinate	7.46	LCS	P	0 - 30
LFB	Myclobutanil	1.41	LCS	P	0 - 30
LFB	Naled	7.91	LCS	P	0 - 30
LFB	Norflurazon	0.512	LCS	P	0 - 30
LFB	Oxadiazon	1.08	LCS	P	0 - 30
LFB	Oxyfluorfen	1.90	LCS	P	0 - 30
LFB	Parathion Ethyl	8.73	LCS	P	0 - 30
LFB	Parathion Methyl	4.42	LCS	P	0 - 30
LFB	Pendimethalin	3.18	LCS	P	0 - 30
LFB	Phorate	0.601	LCS	P	0 - 30
LFB	Prodiamine	52.7	LCS	F	0 - 30
LFB	Prometon	3.50	LCS	P	0 - 30
LFB	Prometryn	3.15	LCS	P	0 - 30
LFB	Pronamide	2.21	LCS	P	0 - 30
LFB	Propiconazole	5.44	LCS	P	0 - 30
LFB	Pyriproxyfen	1.53	LCS	P	0 - 30
LFB	Simazine	2.33	LCS	P	0 - 30
LFB	Sulfentrazone	25.1	LCS	P	0 - 30
LFB	Tebuconazole	6.47	LCS	P	0 - 30
LFB	Terbufos	3.43	LCS	P	0 - 30
LFB	Terbutylazine	4.27	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P397215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242904	Chlordane	14.1	Spike	P	0 - 30
2242904	Toxaphene	27.2	Spike	P	0 - 30
LFB	Chlordane	10.9	LCS	P	0 - 30
LFB	Toxaphene	6.34	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P397178

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2242748	2,4-D	13.1	Spike	P	0 - 30
2242748	2,4,5-T	0.240	Spike	P	0 - 30
2242748	Acetaminophen	6.34	Spike	P	0 - 30
2242748	Acetamiprid	1.15	Spike	P	0 - 30
2242748	Afidopyropen	8.41	Spike	P	0 - 30
2242748	Bentazon	10.0	Spike	P	0 - 30
2242748	Benzovindiflupyr	6.88	Spike	P	0 - 30
2242748	Carbamazepine	7.35	Spike	P	0 - 30
2242748	Clothianidin	1.46	Spike	P	0 - 30
2242748	Dinotefuran	12.2	Spike	P	0 - 30
2242748	Diuron	8.74	Spike	P	0 - 30
2242748	Fenuron	9.17	Spike	P	0 - 30
2242748	Fluridone	12.9	Spike	P	0 - 30
2242748	Hydrocodone	3.42	Spike	P	0 - 30
2242748	Ibuprofen	36.6	Spike	F	0 - 30
2242748	Imazapyr	21.2	Spike	P	0 - 30
2242748	Imidacloprid	8.57	Spike	P	0 - 30
2242748	Linuron	19.2	Spike	P	0 - 30
2242748	Mandestrobin	15.2	Spike	P	0 - 30
2242748	MCPP	5.72	Spike	P	0 - 30
2242748	Naproxen	20.9	Spike	P	0 - 30
2242748	Primidone	14.7	Spike	P	0 - 30
2242748	Pyraclostrobin	11.7	Spike	P	0 - 30
2242748	Thiamethoxam	1.55	Spike	P	0 - 30
2242748	Tolfenpyrad	0.894	Spike	P	0 - 30
2242748	Triclopyr	7.50	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P397199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241899	Acesulfame K	7.51	Spike	P	0 - 30
2241899	AMPA	5.48	Spike	P	0 - 30
2241899	Endothall	12.0	Spike	P	0 - 30
2241899	Glufosinate	1.99	Spike	P	0 - 30
2241899	Glyphosate	0.365	Spike	P	0 - 30
2241899	Sucralose	0.408	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P397284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243020	3-Hydroxycarbofuran	5.45	Spike	P	0 - 30
2243020	Aldicarb	0.178	Spike	P	0 - 30
2243020	Aldicarb Sulfone	7.17	Spike	P	0 - 30
2243020	Aldicarb Sulfoxide	8.28	Spike	P	0 - 30
2243020	Carbaryl	1.13	Spike	P	0 - 30
2243020	Carbofuran	4.49	Spike	P	0 - 30
2243020	Methiocarb	11.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P397284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243020	Methomyl	6.70	Spike	P	0 - 30
2243020	Oxamyl	4.64	Spike	P	0 - 30
2243020	Propoxur	2.81	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P397862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243252	Total Alkalinity	3.39	Sample	P	0 - 8.1

Reference Method: SM 4500 F-C-2011
Batch ID: P397642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2244317	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P397483

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2243404	Organic Carbon	1.98	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2243033
Field Sample ID: G2SE0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	69.9	P	30 - 160

Lab Sample ID: 2243034
Field Sample ID: G2SE0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	133	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	101	P	30 - 160
EPA 8321B	Diuron-d6	65.0	P	30 - 160
EPA 8321B	Endothall-d6	68.8	P	40 - 160
EPA 8321B	Endothall-d6	68.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	98.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	98.8	P	40 - 160
EPA 8321B	Ibuprofen-d3	80.2	P	30 - 160
EPA 8321B	Primidone-d5	98.6	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Lab Sample ID: 2243035
Field Sample ID: G2SE0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	61.0	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	42.0	P	30 - 110
EPA 8276	Decachlorobiphenyl	54.7	P	29 - 92.0
EPA 8276	PCNB	85.1	P	43 - 134

Lab Sample ID: 2243036
Field Sample ID: G2SE0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	55.7	P	20 - 200
EPA 8270E	Simazine-d10	102	P	73 - 135
EPA 8270E	Terbufos-d10	81.4	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A105024

Included Lab Sample IDs: 2243030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A105028

Included Lab Sample IDs: 2243028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.5	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A105051

Included Lab Sample IDs: 2243029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105066

Included Lab Sample IDs: 2243037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	99.5	98.6	P/P	90 - 110
Cadmium	96.9	96.0	P/P	90 - 110
Copper	105	109	P/P	90 - 110
Lead	98.5	98.9	P/P	90 - 110
Nickel	99.9	102	P/P	90 - 110
Silver	97.8	98.1	P/P	90 - 110
Thallium	98.9	99.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A105072

Included Lab Sample IDs: 2243034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	86.8	94.2	P/P	40 - 160
AMPA	73.5	74.7	P/P	40 - 160
Endothall	98.4	98.4	P/P	40 - 160
Glufosinate	73.7	81.4	P/P	40 - 160
Glyphosate	87.4	85.9	P/P	40 - 160

Reference Method: EPA 8321B

Run ID: A105083

Included Lab Sample IDs: 2243034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	110	109	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A105094

Included Lab Sample IDs: 2243037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	99.2	P/P	90 - 110
Calcium	104	106	P/P	90 - 110
Chromium	100	100	P/P	90 - 110
Manganese	102	100	P/P	90 - 110
Zinc	102	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A105095

Included Lab Sample IDs: 2243037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	99.9	P/P	90 - 110
Beryllium	97.7	96.4	P/P	90 - 110
Selenium	98.5	96.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A105098

Included Lab Sample IDs: 2243034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.4	102	P/P	50 - 150
2,4,5-T	117	127	P/P	50 - 150
3-Hydroxycarbofuran	130	131	P/P	60 - 150
Acetaminophen	113	116	P/P	60 - 160
Acetamiprid	123	126	P/P	50 - 150
Afidopyropen	128	125	P/P	50 - 150
Aldicarb	91.6	105	P/P	60 - 150
Aldicarb Sulfone	122	120	P/P	50 - 150
Aldicarb Sulfoxide	105	115	P/P	50 - 150
Bentazon	148	134	P/P	50 - 160
Benzovindiflupyr	122	110	P/P	50 - 160
Carbamazepine	125	114	P/P	60 - 150
Carbaryl	120	123	P/P	60 - 150
Carbofuran	108	114	P/P	50 - 150
Clothianidin	117	132	P/P	60 - 150
Dinotefuran	127	128	P/P	50 - 150
Diuron	128	134	P/P	60 - 160
Fenuron	111	117	P/P	60 - 150
Fluridone	129	122	P/P	60 - 160
Hydrocodone	138	132	P/P	60 - 150
Ibuprofen	96.1	116	P/P	50 - 160
Imazapyr	121	120	P/P	50 - 150
Imidacloprid	126	108	P/P	60 - 150
Linuron	112	106	P/P	60 - 150
Mandestrobin	115	121	P/P	50 - 150
MCPP	113	110	P/P	50 - 150
Methiocarb	117	121	P/P	50 - 150
Methomyl	121	120	P/P	50 - 150
Naproxen	132	151	P/P	50 - 160
Oxamyl	120	122	P/P	50 - 150
Primidone	130	126	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A105098
Included Lab Sample IDs: 2243033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Propoxur	116	114	P/P	50 - 150
Pyraclostrobin	127	121	P/P	60 - 150
Thiamethoxam	143	136	P/P	50 - 150
Tolfenpyrad	130	108	P/P	60 - 150
Triclopyr	118	123	P/P	50 - 150

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A105101
Included Lab Sample IDs: 2243037

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A105103
Included Lab Sample IDs: 2243029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	104	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A105109
Included Lab Sample IDs: 2243029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	94.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A105117
Included Lab Sample IDs: 2243029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.6	98.7	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A105126
Included Lab Sample IDs: 2243035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.1		P	80 - 120
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	96.9		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	99.1		P	80 - 120
Bifenthrin	99.1		P	80 - 120
Carbophenothion	94.0		P	80 - 120
Chlorothalonil	85.0		P	80 - 120
Cis-Nonachlor	98.5		P	80 - 120
Cypermethrin	100		P	80 - 120
Dacthal	96.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A105126
Included Lab Sample IDs: 2243035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDD-p,p'	100		P	80 - 120
DDE-p,p'	96.9		P	80 - 120
DDT-p,p'	99.6		P	80 - 120
Delta-BHC	98.8		P	80 - 120
Deltamethrin	97.7		P	80 - 120
Dichlobenil	82.6		P	80 - 120
Dicofol	93.0		P	80 - 120
Dieldrin	95.4		P	80 - 120
Endosulfan I	97.7		P	80 - 120
Endosulfan II	99.0		P	80 - 120
Endosulfan Sulfate	106		P	80 - 120
Endrin	99.9		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	96.7		P	80 - 120
Esfenvalerate	98.7		P	80 - 120
Ethalfuralin	99.7		P	80 - 120
Fenpropathrin	98.0		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	95.4		P	80 - 120
Heptachlor	95.2		P	80 - 120
Heptachlor Epoxide	96.2		P	80 - 120
Hexachlorobenzene	96.6		P	80 - 120
Kepone	96.9		P	80 - 120
Lambda-Cyhalothrin	100		P	80 - 120
Methoxychlor	97.0		P	80 - 120
MGK-264	104		P	80 - 120
Mirex	101		P	80 - 120
Permethrin	99.5		P	80 - 120
Phenothrin	104		P	80 - 120
Piperonyl Butoxide	96.1		P	80 - 120
Prallethrin	97.5		P	80 - 120
Tau-Fluvalinate	97.7		P	80 - 120
Tetramethrin	96.5		P	80 - 120
Trans-Nonachlor	97.4		P	80 - 120
Triclosan Methyl	95.9		P	80 - 120
Trifluralin	101		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105166
Included Lab Sample IDs: 2243029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.6	100	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A105174
Included Lab Sample IDs: 2243028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276
Run ID: A105244
Included Lab Sample IDs: 2243035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.8		P	80 - 120
Toxaphene	98.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A105254
Included Lab Sample IDs: 2243036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	94.8		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine Desethyl	101		P	80 - 120
Azinphos Methyl	95.5		P	80 - 120
Azoxystrobin	96.0		P	80 - 120
Bromacil	98.7		P	80 - 120
Butylate	97.3		P	80 - 120
Caffeine	102		P	80 - 120
Carbophenothion	100		P	80 - 120
Carfentrazone Ethyl	87.1		P	80 - 120
Chlorpyrifos Ethyl	98.5		P	80 - 120
Chlorpyrifos Methyl	95.1		P	80 - 120
Cyanazine	97.0		P	80 - 120
Demeton	91.5		P	80 - 120
Diazinon	98.9		P	80 - 120
Difenoconazole	92.7		P	80 - 120
Dimethenamid	93.7		P	80 - 120
Disulfoton	91.4		P	80 - 120
Dithiopyr	97.1		P	80 - 120
EPTC	97.3		P	80 - 120
Ethion	88.5		P	80 - 120
Ethoprop	98.2		P	80 - 120
Fenamiphos	85.2		P	80 - 120
Fenbuconazole	95.2		P	80 - 120
Fipronil	92.1		P	80 - 120
Fipronil Desulfinyl	95.8		P	80 - 120
Fipronil Sulfide	93.2		P	80 - 120
Fipronil Sulfone	90.4		P	80 - 120
Fluazifop-P-butyl	89.7		P	80 - 120
Fludioxonil	93.0		P	80 - 120
Flumioxazin	92.0		P	80 - 120
Flutolanil	93.1		P	80 - 120
Fluxapyroxad	91.7		P	80 - 120
Fonofos	95.9		P	80 - 120
Hexazinone	96.8		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	94.3		P	80 - 120
Malathion	89.4		P	80 - 120
Metalaxyl	104		P	80 - 120
Metribuzin	90.7		P	80 - 120
Mevinphos	97.5		P	80 - 120
Molinate	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A105254
 Included Lab Sample IDs: 2243036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Myclobutanil	93.2		P	80 - 120
Naled	101		P	80 - 120
Norflurazon	96.7		P	80 - 120
Oxadiazon	97.2		P	80 - 120
Oxyfluorfen	94.0		P	80 - 120
Parathion Ethyl	91.6		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	97.6		P	80 - 120
Phorate	99.2		P	80 - 120
Prodiamine	95.4		P	80 - 120
Prometon	98.9		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	99.7		P	80 - 120
Propiconazole	96.5		P	80 - 120
Pyriproxyfen	89.4		P	80 - 120
Simazine	88.8		P	80 - 120
Sulfentrazone	82.7		P	80 - 120
Tebuconazole	93.3		P	80 - 120
Terbufos	92.8		P	80 - 120
Terbutylazine	100		P	80 - 120

Reference Method: SM 2320 B-2011
 Run ID: A105263
 Included Lab Sample IDs: 2243028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.8	98.2	P/P	90 - 110

Reference Method: EPA 8270E
 Run ID: A105269
 Included Lab Sample IDs: 2243036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	106		P	80 - 120
Metolachlor	108		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 180.1 Rev. 2.0	Turbidity							12.1	
EPA 200.7 Rev. 4.4	Aluminum	100		98.8	100	100			1.60
	Calcium	98.5							1.05
	Chromium	96.5		91.7	92.3	93.3			0.612
	Iron	107		111	106	108			1.60
	Magnesium	94.5							1.56
	Manganese	102		99.5	101	99.6			1.70
	Zinc	100		105	106	101			1.34
EPA 200.8 Rev. 5.4	Antimony	97.5		103	102	103			1.01
	Arsenic	96.8		109	108	111			0.345
	Beryllium	86.8		91.0	86.2	104			5.36
	Cadmium	97.4		96.0	95.4	97.2			0.608
	Copper	96.8		110	110	118			0.723
	Lead	95.7		103	102	104			1.11
	Nickel	93.1		93.3	94.3	99.6			0.543
	Selenium	96.5		102	102	98.9			0.287
	Silver	98.4		91.9	92.7	92.8			0.777
	Thallium	103		110	111	110			0.365
EPA 350.1 Rev. 2.0	Ammonia-N	98.0		98.4	95.2				2.84
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		107	107				0.0303
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0		97.5					0.0
EPA 365.1 Rev. 2.0	Total-P	106							0.0720
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.8		98.3	98.4				0.0526
EPA 8270E	Acetochlor	92.7	87.8	99.0	87.4		5.45		12.5
	Alachlor	94.5	92.4	100	80.7		2.24		21.8
	Aldrin	21.1	21.6	107	102		2.09		4.38
	Alpha-BHC	96.9	95.6	89.2	92.8		1.36		3.91
	Alpha-Chlordane	71.8	71.9	70.8	80.8		0.0858		13.2
	Ametryn	99.9	89.9	210	222		10.5		5.28
	Atrazine	97.8	97.1				0.777		3.54
	Atrazine Desethyl	77.5	75.7	50.2	59.9		2.35		12.1
	Azinphos Methyl	104	109	98.9	113		4.83		13.3
	Azoxystrobin	133	153				14.2		4.94
	Beta-BHC	108	108	94.1	96.1		0.0385		2.07
	Beta-Cyfluthrin	62.3	62.4	85.2	83.4		0.183		2.17
	Bifenthrin	46.7	47.6	56.5	62.8		1.86		10.4
	Bromacil	74.7	79.7	87.5	90.9		6.52		3.80
	Butylate	55.3	49.3	40.0	41.4		11.6		3.59
	Caffeine	108	105	105	112		3.45		6.36
	Carbophenothion	21.1	19.5	48.7	51.7		7.94		6.04
	Carbophenothion	98.8	106	77.5	81.5		6.62		5.04
	Carfentrazone Ethyl	87.9	92.9	68.9	76.8		5.57		10.8
	Chlorothalonil	24.5	26.9	161	160		9.36		0.324
	Chlorpyrifos Ethyl	94.7	92.1	98.1	75.3		2.86		26.3
	Chlorpyrifos Methyl	92.7	93.7	96.1	82.0		1.13		15.9
	Cis-Nonachlor	68.5	69.5	72.7	83.3		1.39		13.7
	Cyanazine	96.9	98.6	99.9	92.9		1.79		7.28
	Cypermethrin	58.3	66.9	77.1	72.9		13.7		5.61
	Dacthal	90.9	89.3	60.6	59.0		1.73		2.68
	DDD-p,p'	71.3	72.8	77.8	71.8		2.17		7.98
	DDE-p,p'	67.6	66.5	61.3	68.6		1.72		11.2
	DDT-p,p'	65.6	66.6	63.5	70.5		1.60		10.5
	Delta-BHC	107	108	121	115		0.590		4.87
	Deltamethrin	66.4	68.3	87.8	80.1		2.74		9.11

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Demeton	81.1	75.9	86.4	82.8	6.62	4.30
	Diazinon	94.2	90.2	93.7	80.1	4.31	15.7
	Dichlobenil	69.8	61.8	52.9	63.2	12.2	17.8
	Dicofol	72.9	71.0	59.3	47.5	2.58	22.1
	Dieldrin	75.1	74.4	72.3	78.6	0.981	8.37
	Difenoconazole	125	131	132	107	5.20	21.2
	Dimethenamid	92.5	87.6	82.7	76.7	5.43	7.50
	Disulfoton	81.6	81.8	85.1	69.6	0.226	20.0
	Dithiopyr	83.5	89.2	84.3	75.3	6.66	11.3
	Endosulfan I	74.4	73.7	54.7	58.4	1.02	6.50
	Endosulfan II	78.6	79.6	79.5	87.9	1.24	10.1
	Endosulfan Sulfate	89.1	86.5	86.2	87.7	2.90	1.77
	Endrin	74.2	75.5	76.5	23.7	1.74	105
	Endrin Aldehyde	92.0	91.1	72.3	0.822	0.882	196
	Endrin Ketone	90.2	90.0	93.7	165	0.260	55.1
	EPTC	51.9	49.8	53.3	48.9	4.11	8.51
	Esfenvalerate	66.0	69.7	86.3	81.4	5.56	5.89
	Ethalfuralin	68.5	67.6	61.2	73.1	1.28	17.7
	Ethion	78.2	74.8	64.8	73.0	4.38	11.9
	Ethoprop	83.6	80.4	102	88.7	3.95	13.9
	Fenamiphos	91.7	95.7	90.1	80.1	4.25	11.7
	Fenbuconazole	97.9	98.8	105	82.2	0.886	24.7
	Fenpropathrin	56.4	57.8	62.1	56.2	2.48	9.87
	Fipronil	91.2	90.4	91.7	84.0	0.886	8.76
	Fipronil Desulfinyl	89.9	88.3	78.5	73.3	1.85	6.42
	Fipronil Sulfide	82.6	83.5	81.9	72.5	1.00	8.54
	Fipronil Sulfone	82.3	85.0	81.0	69.7	3.23	12.8
	Fluazifop-P-butyl	90.6	97.7	83.2	74.9	7.59	10.5
	Fludioxonil	87.6	93.2	101	81.7	6.22	21.1
	Flumioxazin	112	77.2	152	119	36.7	24.6
	Flutolanil	87.2	85.0	63.5	61.9	2.55	2.16
	Fluxapyroxad	86.1	89.0	81.6	81.7	3.42	0.158
	Fonofos	88.2	84.0	88.3	84.2	4.91	4.80
	Gamma-BHC	102	102	95.0	95.2	0.365	0.210
	Gamma-Chlordane	64.4	65.8	68.8	77.0	2.13	11.2
	Heptachlor	59.5	58.3	70.6	84.1	2.13	17.4
	Heptachlor Epoxide	75.7	77.8	59.3	60.4	2.64	1.88
	Hexachlorobenzene	59.2	57.8	63.2	62.5	2.34	1.08
	Hexazinone	92.3	89.8	93.2	88.9	2.78	4.80
	Imazalil	101	116	67.2	67.2	13.3	0.0335
	Iprodione	72.7	62.5	80.0	75.9	15.0	5.28
	Kepone	92.3	95.0	65.2	139	2.92	72.4
	Lambda-Cyhalothrin	73.7	76.3	102	89.7	3.51	12.5
	Malathion	97.0	97.3	97.7	90.0	0.293	8.16
	Metalaxyl	93.3	90.6	91.4	77.8	2.90	16.1
	Methoxychlor	75.8	74.7	68.0	79.8	1.52	16.0
	Metolachlor	90.4	84.6	82.2	74.4	6.60	10.0
	Metribuzin	88.4	97.8	126	97.6	10.0	25.4
	Mevinphos	81.4	78.4	100	87.4	3.73	13.7
	MGK-264	43.2	44.1	93.6	69.0	2.08	30.3
	Mirex	100	102	115	148	1.53	25.1
	Molinate	64.6	60.0	71.3	63.9	7.46	10.9
	Myclobutanil	87.4	88.7			1.41	1.77
	Naled	40.7	37.6	48.6	45.1	7.91	7.44

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	MS
						SMP	
		LCS		LCS			
EPA 8270E	Norflurazon	96.6	97.1	75.6	93.7	0.512	21.4
	Oxadiazon	94.6	95.7	52.3	64.2	1.08	17.4
	Oxyfluorfen	106	104	81.0	67.2	1.90	18.6
	Parathion Ethyl	83.8	91.5	96.7	107	8.73	10.6
	Parathion Methyl	94.9	99.2	109	128	4.42	15.5
	Pendimethalin	94.7	97.8	99.6	117	3.18	16.2
	Permethrin	62.5	63.7	82.9	71.6	1.89	14.7
	Phenothrin	23.5	21.0	87.2	95.0	11.6	8.62
	Phorate	79.2	79.7	80.4	108	0.601	28.9
	Piperonyl Butoxide	74.9	75.0	92.1	0.440	0.116	198
	Prallethrin	29.0	30.3	57.6	52.5	4.65	9.17
	Prodiamine	55.2	94.7	49.7	55.3	52.7	10.7
	Prometon	91.3	88.1	82.5	93.7	3.50	11.2
	Prometryn	90.5	93.4	70.7	81.5	3.15	14.2
	Pronamide	92.9	95.0	82.8	89.2	2.21	7.34
	Propiconazole	88.9	93.8	58.6	78.1	5.44	21.7
	Pyriproxyfen	83.9	85.2	68.1	69.9	1.53	2.53
	Simazine	92.6	94.8	106	130	2.33	20.1
	Sulfentrazone	44.9	34.9	73.1	84.3	25.1	8.57
	Tau-Fluvalinate	47.8	49.0	67.1	58.8	2.65	13.1
	Tebuconazole	68.1	63.8	58.5	39.9	6.47	13.5
	Terbufos	87.3	84.4	80.6	91.5	3.43	12.7
	Terbutylazine	98.0	93.9	86.6	91.9	4.27	6.00
	Tetramethrin	36.0	36.3	59.2	35.1	0.775	51.0
	Trans-Nonachlor	68.8	70.4	61.5	72.8	2.25	16.8
	Triclosan Methyl	73.5	74.3	71.3	75.1	1.04	5.28
	Trifluralin	66.9	67.6	67.4	71.1	0.997	5.35
EPA 8276	Chlordane	110	123	99.9	115	10.9	14.1
	Toxaphene	85.8	91.5	82.1	108	6.34	27.2
EPA 8321B	2,4-D	158					13.1
	2,4,5-T	133		133	133		0.240
	3-Hydroxycarbofuran	107		115	109		5.45
	Acesulfame K	99.2		64.6	69.6		7.51
	Acetaminophen	99.2		76.1	68.7		6.34
	Acetamiprid	103		115	114		1.15
	Afidopyropen	84.6		110	101		8.41
	Aldicarb	107		135	135		0.178
	Aldicarb Sulfone	109		132	123		7.17
	Aldicarb Sulfoxide	77.6		40.1	36.9		8.28
	AMPA	80.6		97.2	103		5.48
	Bentazon	48.6					10.0
	Benzovindiflupyr	104		99.0	92.5		6.88
	Carbamazepine	106		97.1	90.2		7.35
	Carbaryl	81.1		61.8	62.5		1.13
	Carbofuran	87.6		70.8	67.7		4.49
	Clothianidin	115		119	117		1.46
	Dinotefuran	113		157	139		12.2
	Diuron	78.6		65.3	59.4		8.74
	Endothall	87.2		76.8	86.7		12.0
	Fenuron	112		110	100		9.17
	Fluridone	122					12.9
	Glufosinate	81.5		95.4	93.6		1.99
	Glyphosate	98.4		76.9	76.6		0.365
	Hydrocodone	123		125	121		3.42

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Ibuprofen	109	102	70.2			36.6
	Imazapyr	123					21.2
	Imidacloprid	132	240	219			8.57
	Linuron	83.7	92.8	76.5			19.2
	Mandestrobin	91.4	112	96.4			15.2
	MCPP	152	167	157			5.72
	Methiocarb	72.8	78.0	69.4			11.7
	Methomyl	97.1	102	95.8			6.70
	Naproxen	86.4	97.7	79.2			20.9
	Oxamyl	103	107	102			4.64
	Primidone	101	113	131			14.7
	Propoxur	81.2	63.8	62.0			2.81
	Pyraclostrobin	90.8	98.1	87.3			11.7
	Sucralose	106	50.3	50.1			0.408
	Thiamethoxam	138	193	190			1.55
	Tolfenpyrad	74.3	74.2	73.5			0.894
	Triclopyr	150	141	131			7.50
SM 2320 B-2011	Total Alkalinity	99.2				3.39	
SM 4500 F-C-2011	Fluoride	97.7	97.1	97.1			0.0
SM 5310 B-2011	Organic Carbon	95.2	92.4	94.5			1.98

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2243028
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2243037
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2243037
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2243029
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2243029
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2243029
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2243029
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2243030
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2243035
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2243036
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2243035
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2243033
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2243034
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2243034
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2243028
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2243028
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2243028
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2243029

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/27/2021			04/27/2021 15:48	Yen Ta	2243028
EPA 200.7 Rev. 4.4	04/27/2021	04/27/2021 15:15	Elliott D. Healy	04/29/2021 21:45	Betina Topolski	2243037
	04/27/2021	04/27/2021 15:15	Elliott D. Healy	04/30/2021 10:35	Betina Topolski	2243037
	04/27/2021	04/27/2021 15:15	Elliott D. Healy	04/30/2021 10:42	Betina Topolski	2243037
	04/27/2021	04/27/2021 15:15	Elliott D. Healy	04/28/2021 17:47	Alexander Thompson	2243037
EPA 200.8 Rev. 5.4	04/27/2021	04/27/2021 15:15	Elliott D. Healy	04/29/2021 14:10	Alexander Thompson	2243037
	04/27/2021	05/03/2021 13:05	Benjamin T. Nordmann	05/04/2021 18:07	Ping Hua	2243029
EPA 350.1 Rev. 2.0	04/27/2021			05/04/2021 13:00	Virginia P. Brown	2243029
EPA 351.2 Rev. 2.0	04/27/2021			04/28/2021 12:54	Beverly Y. Sanders	2243029
EPA 353.2 Rev. 2.0	04/27/2021			04/29/2021 12:24	Shengyu Ding	2243029
EPA 365.1 Rev. 2.0	04/27/2021	04/28/2021 14:55	Yen Ta	04/27/2021 16:18	Blanca Fach	2243030
EPA 365.1 Rev. 2.0 dissolved	04/27/2021			04/30/2021 23:06	Vandana T. Nagar	2243035
EPA 8270E	04/27/2021	04/28/2021 08:00	Rasheda Ghaffari	05/03/2021 21:18	Michael Poppell	2243036
	04/27/2021	04/30/2021 08:25	Chiran X. Ghimire	05/06/2021 13:54	Michael Poppell	2243036
	04/27/2021	04/30/2021 08:25	Chiran X. Ghimire	05/06/2021 17:39	Arthur Maknenko	2243035
EPA 8276	04/27/2021	04/28/2021 08:00	Rasheda Ghaffari	04/28/2021 14:19	Rebecca Ware	2243034
EPA 8321B	04/27/2021	04/27/2021 16:20	Rebecca Ware	04/28/2021 14:46	Rebecca Ware	2243034
	04/27/2021	04/27/2021 16:20	Rebecca Ware	04/29/2021 06:19	Rebecca Ware	2243034
	04/27/2021	04/27/2021 16:20	Rebecca Ware	05/01/2021 18:07	Juyoung Kim	2243034
	04/27/2021	04/28/2021 15:00	Hoor Shaik	05/03/2021 20:27	Juyoung Kim	2243034
	04/27/2021	04/28/2021 15:00	Hoor Shaik	05/02/2021 05:05	Juyoung Kim	2243033
	04/27/2021	04/29/2021 09:00	Hoor Shaik	05/09/2021 15:16	Dale L. Simmons	2243028
	04/27/2021			04/30/2021 15:17	Yijie Li	2243028
SM 2320 B-2011	04/27/2021			05/04/2021 21:01	Dale L. Simmons	2243028
SM 2540 D-2011	04/27/2021			04/30/2021 07:13	Madeline Gruver	2243029
SM 4500 F-C-2011	04/27/2021					
SM 5310 B-2011	04/27/2021					