

Chemical Analysis Report

NE-DIST-2021-06-16-01

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

Event Description: **LSJR Palatka**
Request ID: **RQ-2021-06-14-08**
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: Liang Lin, Environmental Administrator

Date Certified: 13-JUL-2021 11:32

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored 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: Mill Branch @ McCormick Rd.

Collection Date/Time: 06/15/2021 11:10

Field ID: 20030681

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255373	EPA 8321B	2,4-D	0.0028	I	ug/L	P399742	
		Acesulfame K	0.10	U	ug/L	P399865	
		AMPA	0.33	I	ug/L	P399865	
		2,4,5-T	0.0040	U	ug/L	P399742	MS
		Acetaminophen	0.0080	U	ug/L	P399742	
		Acetamiprid	0.0020	U	ug/L	P399742	
		Endothall	0.25	U	ug/L	P399865	
		Glufosinate	0.10	U	ug/L	P399865	
		Glyphosate	1.5		ug/L	P399865	
		Afidopyropen	0.0020	U	ug/L	P399742	
		Bentazon	0.014		ug/L	P399742	
		Sucralose	0.015	I	ug/L	P399865	
		Benzovindiflupyr	0.0020	U	ug/L	P399742	
		Carbamazepine	8.0E-04	U	ug/L	P399742	
		Clothianidin	0.0020	I	ug/L	P399742	
		Dinotefuran	0.0020	U	ug/L	P399742	
		Diuron	0.0020	U	ug/L	P399742	
		Fenuron	0.016	U	ug/L	P399742	
		Fluridone	8.0E-04	U	ug/L	P399742	
		Imazapyr	0.014	I	ug/L	P399742	
		Hydrocodone	0.0020	U	ug/L	P399742	
		Ibuprofen	0.020	U	ug/L	P399742	
		Imidacloprid	0.017		ug/L	P399742	MS
		Linuron	0.0040	U	ug/L	P399742	
		Mandestrobin	0.0020	U	ug/L	P399742	
		MCPP	0.0020	U	ug/L	P399742	MS
		Naproxen	0.0080	U	ug/L	P399742	
		Primidone	0.011	I	ug/L	P399742	
		Pyraclostrobin	0.0020	U	ug/L	P399742	
		Thiamethoxam	0.010		ug/L	P399742	
		Tolfenpyrad	0.0020	U	ug/L	P399742	
		Triclopyr	0.0040	U	ug/L	P399742	MS
2255376	EPA 8270E	Acetochlor	0.25	U	ng/L	P399912	
		Alachlor	0.25	U	ng/L	P399912	
		Ametryn	0.59	U	ng/L	P399912	
		Atrazine	1.5		ng/L	P399912	
		Atrazine Desethyl	1.5	U	ng/L	P399912	
		Azinphos Methyl	2.0	U	ng/L	P399912	
		Azoxystrobin**	90		ng/L	P399912	
		Bromacil	0.49	U	ng/L	P399912	
		Butylate	0.39	U	ng/L	P399912	
		Caffeine**	7.4	U	ng/L	P399912	
		Carbophenothion	0.49	U	ng/L	P399912	
		Carfentrazone Ethyl**	0.099	U	ng/L	P399912	

Field ID: 20030681

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255376	EPA 8270E	Chlorpyrifos Ethyl	0.25	U	ng/L	P399912	
		Chlorpyrifos Methyl	0.049	U	ng/L	P399912	
		Cyanazine	3.2	U	ng/L	P399912	
		Demeton	1.5	UJ	ng/L	P399912	LCS
		Diazinon	0.12	U	ng/L	P399912	
		Difenoconazole**	6.4		ng/L	P399912	
		Dimethenamid**	0.099	U	ng/L	P399912	
		Disulfoton	0.49	U	ng/L	P399912	
		Dithiopyr**	0.17	U	ng/L	P399912	
		EPTC	1.2	U	ng/L	P399912	
		Ethion	0.15	U	ng/L	P399912	RPD
		Ethoprop	1.1		ng/L	P399912	
		Fenamiphos	0.49	U	ng/L	P399912	
		Fenbuconazole**	0.12	U	ng/L	P399912	
		Fipronil	0.45	I	ng/L	P399912	
		Fipronil Desulfinyl**	0.53		ng/L	P399912	
		Fipronil Sulfide	2.3		ng/L	P399912	
		Fipronil Sulfone	4.5		ng/L	P399912	
		Fluazifop-P-butyl**	0.099	U	ng/L	P399912	
		Fludioxonil**	6.0		ng/L	P399912	
		Flumioxazin**	1.7	U	ng/L	P399912	
		Flutolanil**	0.099	U	ng/L	P399912	
		Fluxapyroxad**	7.3		ng/L	P399912	
		Fonofos	0.20	U	ng/L	P399912	
		Hexazinone	3.3		ng/L	P399912	
		Imazalil**	0.74	U	ng/L	P399912	
		Iprodione**	0.59	U	ng/L	P399912	
		Malathion	0.34	U	ng/L	P399912	
		Metalaxyl	4.7		ng/L	P399912	
		Metolachlor	24		ng/L	P399912	
		Metribuzin	49		ng/L	P399912	
		Mevinphos	1.0	U	ng/L	P399912	
		Molinate	0.30	U	ng/L	P399912	
		Myclobutanil**	0.25	U	ng/L	P399912	
		Naled**	1.5	U	ng/L	P399912	
		Norflurazon	0.49	U	ng/L	P399912	
		Oxadiazon	0.37	I	ng/L	P399912	
		Oxyfluorfen**	0.15	U	ng/L	P399912	
		Parathion Ethyl	0.25	U	ng/L	P399912	
		Parathion Methyl	0.54	U	ng/L	P399912	
		Pendimethalin	0.99	U	ng/L	P399912	
		Phorate	0.52	U	ng/L	P399912	MS
		Prodiamine**	0.17	U	ng/L	P399912	
		Prometon	0.89	U	ng/L	P399912	
		Prometryn	0.20	U	ng/L	P399912	

Field ID: 20030681

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255376	EPA 8270E	Pronamide**	0.15	U	ng/L	P399912	
		Propiconazole**	30		ng/L	P399912	
		Pyriproxyfen**	0.12	U	ng/L	P399912	
		Simazine	0.49	U	ng/L	P399912	
		Sulfentrazone**	0.49	U	ng/L	P399912	
		Tebuconazole**	0.49	UJ	ng/L	P399912	RPD
		Terbufos	0.099	U	ng/L	P399912	
		Terbutylazine	0.42	U	ng/L	P399912	
2255378	EPA 200.7 Rev. 4.4	Barium	33.1		ug/L	P399987	
		Calcium	111		mg/L	P399987	
		Iron	940		ug/L	P399987	
		Magnesium	48.8		mg/L	P399987	
		Manganese	68.7		ug/L	P399987	
		Potassium	7.9		mg/L	P399987	
		Sodium	168		mg/L	P399987	
		Zinc	7.8	I	ug/L	P399987	
	EPA 200.8 Rev. 5.4	Aluminum	103		ug/L	P399987	
		Antimony	0.11	I	ug/L	P399987	
		Arsenic	1.06		ug/L	P399987	
		Beryllium	0.038	I	ug/L	P399987	
		Boron**	73.1		ug/L	P399987	
		Cadmium	0.024	I	ug/L	P399987	
		Chromium	0.77	I	ug/L	P399987	
		Copper	1.27		ug/L	P400451	
		Lead	0.23	I	ug/L	P399987	
		Nickel	0.69	I	ug/L	P400451	
		Selenium	0.20	U	ug/L	P399987	
		Silver	0.010	U	ug/L	P399987	
		Thallium	0.10	U	ug/L	P399987	
		Hardness	477		mg/L	P399987	

Ref. Method and Comment:

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: MS accuracy for atrazine and hexazinone 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.

Sample Location: Mill BR @ Old San Mateo Rd.

Collection Date/Time: 06/15/2021 11:30

Field ID: 20030577

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255359	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P399811	
	EPA 300.0 Rev. 2.1	Chloride	560		mg Cl/L	P399976	
		Sulfate	270		mg SO4/L	P399979	
	SM 2120 B-2011	Color (true)	80		PCU	P399814	
	SM 2320 B-2011	Total Alkalinity	103	J	mg CaCO3/L	P400153	LCS
	SM 2540 C-2011	TDS	1.45E+03		mg/L	P400232	
	SM 2540 D-2011	TSS	4	I	mg/L	P400047	
	SM 4500 F-C-2011	Fluoride	0.39		mg F/L	P400621	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.48		mg N/L	P400288	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P399936	
2255360	EPA 353.2 Rev. 2.0	NO2NO3-N	0.85		mg N/L	P399868	
	EPA 365.1 Rev. 2.0	Total-P	0.35		mg P/L	P400214	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P400251	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.24		mg P/L	P399787	
	EPA 8321B	Aldicarb	0.020	U	ug/L	P399841	
2255371		Aldicarb Sulfone	0.0020	U	ug/L	P399841	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P399841	
		Carbaryl	0.0020	U	ug/L	P399841	
		Carbofuran	0.0020	U	ug/L	P399841	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P399841	
		Methiocarb	0.0020	U	ug/L	P399841	
		Methomyl	0.0020	U	ug/L	P399841	
		Oxamyl	0.0020	U	ug/L	P399841	
		Propoxur	0.0020	U	ug/L	P399841	
		2,4-D	0.0021	I	ug/L	P399742	
2255372		Acesulfame K	0.10	U	ug/L	P399865	
		AMPA	0.24	I	ug/L	P399865	
		2,4,5-T	0.0040	U	ug/L	P399742	MS
		Acetaminophen	0.0080	U	ug/L	P399742	
		Acetamiprid	0.0020	U	ug/L	P399742	
		Endothall	0.25	U	ug/L	P399865	
		Glufosinate	0.10	U	ug/L	P399865	
		Glyphosate	0.87		ug/L	P399865	
		Afidopyropen	0.0020	U	ug/L	P399742	
		Bentazon	0.0088		ug/L	P399742	
		Sucralose	0.033	I	ug/L	P399865	
		Benzovindiflupyr	0.0020	U	ug/L	P399742	
		Carbamazepine	8.0E-04	U	ug/L	P399742	
		Clothianidin	0.0065	I	ug/L	P399742	
		Dinotefuran	0.0020	U	ug/L	P399742	
		Diuron	0.0020	U	ug/L	P399742	
		Fenuron	0.016	U	ug/L	P399742	
		Fluridone	8.0E-04	U	ug/L	P399742	

Field ID: 20030577

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255372	EPA 8321B	Imazapyr	0.025		ug/L	P399742	
		Hydrocodone	0.0020	U	ug/L	P399742	
		Ibuprofen	0.020	U	ug/L	P399742	
		Imidacloprid	0.057		ug/L	P399742	MS
		Linuron	0.0040	U	ug/L	P399742	
		Mandestrobin	0.0020	U	ug/L	P399742	
		MCPP	0.0020	U	ug/L	P399742	MS
		Naproxen	0.0080	U	ug/L	P399742	
		Primidone	0.012	I	ug/L	P399742	
		Pyraclostrobin	0.0020	U	ug/L	P399742	
		Thiamethoxam	0.015		ug/L	P399742	
		Tolfenpyrad	0.0020	U	ug/L	P399742	
		Triclopyr	0.0040	U	ug/L	P399742	MS
		Aldrin	0.69	U	ng/L	P400016	
2255374	EPA 8270E	Alpha-BHC	0.11	U	ng/L	P400016	
		Alpha-Chlordane	0.44	I	ng/L	P400016	
		Beta-BHC	0.11	U	ng/L	P400016	
		Beta-Cyfluthrin**	2.4	I	ng/L	P400016	
		Bifenthrin**	0.78	I	ng/L	P400016	
		Chlorothalonil	0.53	U	ng/L	P400016	
		Cis-Nonachlor**	0.41	I	ng/L	P400016	
		Cypermethrin	2.5	I	ng/L	P400016	
		Dacthal**	0.16	U	ng/L	P400016	
		DDD-p,p'	0.27	I	ng/L	P400016	
		DDE-p,p'	0.34	I	ng/L	P400016	
		DDT-p,p'	0.46	I	ng/L	P400016	
		Delta-BHC	0.43	U	ng/L	P400016	
		Deltamethrin**	2.0	I	ng/L	P400016	
		Dichlobenil**	0.11	U	ng/L	P400016	
		Dicofol	1.3	U	ng/L	P400016	
		Dieldrin	0.60	I	ng/L	P400016	
		Endosulfan I	0.43	U	ng/L	P400016	
		Endosulfan II	0.43	U	ng/L	P400016	
		Endosulfan Sulfate	0.32	U	ng/L	P400016	
		Endrin	0.43	U	ng/L	P400016	
		Endrin Aldehyde	0.80	U	ng/L	P400016	
		Endrin Ketone	0.43	U	ng/L	P400016	
		Esfenvalerate**	1.2	I	ng/L	P400016	
		Ethalfuralin**	0.16	U	ng/L	P400016	
		Fenpropathrin**	0.27	U	ng/L	P400016	
		Gamma-BHC	0.13	U	ng/L	P400016	
		Gamma-Chlordane	0.42	I	ng/L	P400016	
		Heptachlor	0.28	I	ng/L	P400016	
		Heptachlor Epoxide	0.33	I	ng/L	P400016	
		Hexachlorobenzene	1.1	U	ng/L	P400016	

Field ID: 20030577

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255374	EPA 8270E	Kepone**	5.3	U	ng/L	P400016	RPD
		Lambda-Cyhalothrin**	2.2	I	ng/L	P400016	
		Methoxychlor	0.32	U	ng/L	P400016	
		MGK-264**	0.21	U	ng/L	P400016	
		Mirex	0.56	I	ng/L	P400016	
		Permethrin	2.8	I	ng/L	P400016	
		Phenothrin**	0.96	U	ng/L	P400016	
		Piperonyl Butoxide**	0.17	IJ	ng/L	P400016	LCS
		Prallethrin**	2.1	U	ng/L	P400016	
		Tau-Fluvalinate**	0.27	U	ng/L	P400016	
		Tetramethrin**	0.80	U	ng/L	P400016	
		Trans-Nonachlor**	0.35	I	ng/L	P400016	
		Triclosan Methyl**	0.16	U	ng/L	P400016	
		Trifluralin	0.21	U	ng/L	P400016	
		Chlordane	10	I	ng/L	P400016	
2255375	EPA 8270E	Toxaphene	32	U	ng/L	P400016	
		Acetochlor	0.25	U	ng/L	P399912	
		Alachlor	0.25	U	ng/L	P399912	
		Ametryn	0.60	U	ng/L	P399912	
		Atrazine	1.7		ng/L	P399912	
		Atrazine Desethyl	1.5	U	ng/L	P399912	
		Azinphos Methyl	2.0	U	ng/L	P399912	
		Azoxystrobin**	100		ng/L	P399912	
		Bromacil	0.50	U	ng/L	P399912	
		Butylate	0.40	U	ng/L	P399912	
		Caffeine**	7.5	U	ng/L	P399912	
		Carbophenothion	0.50	U	ng/L	P399912	
		Carfentrazone Ethyl**	0.099	U	ng/L	P399912	
		Chlorpyrifos Ethyl	0.29	I	ng/L	P399912	
		Chlorpyrifos Methyl	0.050	U	ng/L	P399912	
		Cyanazine	3.2	U	ng/L	P399912	
		Demeton	1.5	UJ	ng/L	P399912	LCS
		Diazinon	0.12	U	ng/L	P399912	
		Difenoconazole**	10		ng/L	P399912	
		Dimethenamid**	0.099	U	ng/L	P399912	
		Disulfoton	0.50	U	ng/L	P399912	
		Dithiopyr**	0.17	U	ng/L	P399912	
		EPTC	1.2	U	ng/L	P399912	
		Ethion	0.15	U	ng/L	P399912	RPD
		Ethoprop	1.2		ng/L	P399912	
		Fenamiphos	0.50	U	ng/L	P399912	
		Fenbuconazole**	0.12	U	ng/L	P399912	
		Fipronil	1.3		ng/L	P399912	
		Fipronil Desulfinyl**	1.0		ng/L	P399912	
		Fipronil Sulfide	4.1		ng/L	P399912	

Field ID: 20030577

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255375	EPA 8270E	Fipronil Sulfone	8.5		ng/L	P399912	
		Fluazifop-P-butyl**	0.099	U	ng/L	P399912	
		Fludioxonil**	6.8		ng/L	P399912	
		Flumioxazin**	1.7	U	ng/L	P399912	
		Flutolanil**	0.099	U	ng/L	P399912	
		Fluxapyroxad**	33		ng/L	P399912	
		Fonofos	0.20	U	ng/L	P399912	
		Hexazinone	16		ng/L	P399912	
		Imazalil**	0.75	U	ng/L	P399912	
		Iprodione**	0.60	U	ng/L	P399912	
		Malathion	0.35	U	ng/L	P399912	
		Metalaxyl	16		ng/L	P399912	
		Metolachlor	22		ng/L	P399912	
		Metribuzin	88		ng/L	P399912	
		Mevinphos	1.0	U	ng/L	P399912	
		Molinate	0.30	U	ng/L	P399912	
		Myclobutanil**	0.25	U	ng/L	P399912	
		Naled**	1.5	U	ng/L	P399912	
		Norflurazon	0.50	U	ng/L	P399912	
		Oxadiazon	0.53	I	ng/L	P399912	
		Oxyfluorfen**	0.15	U	ng/L	P399912	
		Parathion Ethyl	0.25	U	ng/L	P399912	
		Parathion Methyl	0.55	U	ng/L	P399912	
		Pendimethalin	1.2	I	ng/L	P399912	
		Phorate	0.52	U	ng/L	P399912	MS
		Prodiamine**	0.17	U	ng/L	P399912	
		Prometon	0.89	U	ng/L	P399912	
		Prometryn	0.20	U	ng/L	P399912	
		Pronamide**	0.15	U	ng/L	P399912	
		Propiconazole**	22		ng/L	P399912	
		Pyriproxyfen**	0.12	U	ng/L	P399912	
		Simazine	0.50	U	ng/L	P399912	
		Sulfentrazone**	0.50	U	ng/L	P399912	
		Tebuconazole**	0.50	UJ	ng/L	P399912	RPD
		Terbufos	0.099	U	ng/L	P399912	
		Terbuthylazine	0.42	U	ng/L	P399912	
2255377	EPA 200.7 Rev. 4.4	Barium	36.1		ug/L	P399987	
		Calcium	146		mg/L	P399987	
		Iron	730		ug/L	P399987	
		Magnesium	65.8		mg/L	P399987	
		Manganese	79.9		ug/L	P399987	
		Potassium	12.1		mg/L	P399987	
		Sodium	285		mg/L	P399987	
		Zinc	22		ug/L	P399987	
	EPA 200.8 Rev. 5.4	Aluminum	99		ug/L	P399987	

Field ID: 20030577

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2255377	EPA 200.8 Rev. 5.4	Antimony	0.19	I	ug/L	P399987	
		Arsenic	1.47		ug/L	P399987	
		Beryllium	0.018	I	ug/L	P399987	
		Boron**	113		ug/L	P399987	
		Cadmium	0.031	I	ug/L	P399987	
		Chromium	0.85	I	ug/L	P399987	
		Copper	2.81		ug/L	P400451	
		Lead	0.34	I	ug/L	P399987	
		Nickel	0.76	I	ug/L	P400451	
		Selenium	0.20	U	ug/L	P399987	
		Silver	0.010	U	ug/L	P400573	
		Thallium	0.10	U	ug/L	P399987	
	SM 2340B	Hardness	634		mg/L	P399987	

Ref. Method and Comment:

SM 2320 B-2011: Refer to the Lab Analysis Report for an explanation of QC Codes.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch relative percent difference is unavailable because of analytical difficulties.

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

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

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P399811

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P399987

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P399987

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P400451

Component	Result	Code	Units
Copper	0.40	U	ug/L
Nickel	0.50	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P400573

Component	Result	Code	Units
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399976

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399979

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400288

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399936

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399868

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400214

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399787

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

Reference Method: EPA 8270E
Batch ID: P399912

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399912

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399912

Component	Result	Code	Units
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
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

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P399912

Component	Result	Code	Units
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
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E

Batch ID: P400016

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	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P400016

Component	Result	Code	Units
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: P400016

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

Reference Method: EPA 8321B

Batch ID: P399742

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	0.016	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: P399841

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P399841

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: P399865

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: SM 2120 B-2011

Batch ID: P399814

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P400153

Component	Result	Code	Units
Total Alkalinity	0.72	I	mg CaCO3/L

Reference Method: SM 2540 C-2011

Batch ID: P400232

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P400047

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P400621

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P400251

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: P399987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	109		P	85 - 115
Iron	110		P	85 - 115
Magnesium	111		P	85 - 115
Manganese	104		P	85 - 115
Potassium	103		P	85 - 115
Sodium	103		P	85 - 115
Zinc	98.5		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P399987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	105		P	85 - 115
Beryllium	104		P	85 - 115
Boron	106		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	99.9		P	85 - 115
Lead	114		P	85 - 115
Selenium	103		P	85 - 115
Silver	99.6		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P400451

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	108		P	80 - 120
Nickel	108		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P400573

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399976

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399979

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.2		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P400288

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P399936

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	108		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P399868

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P400214

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P399787

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

Reference Method: EPA 8270E
 Batch ID: P399912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	112	100	P/P	70 - 121
Alachlor	108	95.5	P/P	70 - 119
Ametryn	94.7	97.1	P/P	61 - 135
Atrazine	99.8	100	P/P	76 - 123
Atrazine Desethyl	72.3	69.9	P/P	35 - 140
Azinphos Methyl	111	127	P/P	57 - 163
Azoxystrobin	97.1	102	P/P	43 - 231
Bromacil	91.6	86.9	P/P	42 - 123
Butylate	59.9	60.0	P/P	34 - 92.0
Caffeine	81.7	78.3	P/P	70 - 130
Carbophenothion	103	101	P/P	61 - 121
Carfentrazone Ethyl	120	110	P/P	62 - 139
Chlorpyrifos Ethyl	90.4	86.6	P/P	67 - 121
Chlorpyrifos Methyl	87.8	89.0	P/P	67 - 120
Cyanazine	118	109	P/P	20 - 226
Demeton	30.3	29.9	F/F	35 - 125
Diazinon	100	97.8	P/P	70 - 122
Difenoconazole	126	151	P/P	56 - 186
Dimethenamid	84.9	77.7	P/P	67 - 119
Disulfoton	74.9	74.0	P/P	47 - 120
Dithiopyr	96.5	85.1	P/P	67 - 118
EPTC	39.2	40.9	P/P	33 - 90.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P399912

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ethion	90.6	80.9	P/P	40 - 133
Ethoprop	77.0	83.1	P/P	61 - 121
Fenamiphos	97.6	95.4	P/P	31 - 139
Fenbuconazole	114	106	P/P	66 - 141
Fipronil	110	97.9	P/P	62 - 129
Fipronil Desulfinyl	117	101	P/P	59 - 126
Fipronil Sulfide	92.1	85.1	P/P	63 - 117
Fipronil Sulfone	89.4	81.1	P/P	57 - 117
Fluazifop-P-butyl	103	97.4	P/P	63 - 124
Fludioxonil	108	95.8	P/P	63 - 123
Flumioxazin	137	164	P/P	34 - 245
Flutolanil	102	90.3	P/P	56 - 131
Fluxapyroxad	99.3	86.1	P/P	57 - 117
Fonofos	77.7	81.6	P/P	61 - 116
Hexazinone	94.4	89.1	P/P	55 - 138
Imazalil	102	95.2	P/P	33 - 143
Iprodione	111	101	P/P	59 - 118
Malathion	105	105	P/P	62 - 138
Metalaxyl	105	93.6	P/P	24 - 147
Metolachlor	106	96.2	P/P	68 - 118
Metribuzin	98.6	98.9	P/P	20 - 239
Mevinphos	63.0	69.8	P/P	46 - 124
Molinate	49.2	56.4	P/P	46 - 100
Myclobutanil	98.4	92.4	P/P	32 - 149
Naled	38.8	43.8	P/P	32 - 95.0
Norflurazon	97.9	87.3	P/P	57 - 127
Oxadiazon	97.9	87.5	P/P	63 - 118
Oxyfluorfen	112	112	P/P	69 - 137
Parathion Ethyl	88.5	89.8	P/P	70 - 113
Parathion Methyl	99.8	104	P/P	71 - 130
Pendimethalin	86.8	89.0	P/P	55 - 118
Phorate	103	105	P/P	46 - 125
Prodiamine	44.1	48.4	P/P	20 - 141
Prometon	91.9	86.5	P/P	54 - 122
Prometryn	98.7	92.3	P/P	66 - 124
Pronamide	97.1	95.9	P/P	79 - 122
Propiconazole	104	88.2	P/P	61 - 126
Pyriproxyfen	97.3	93.5	P/P	52 - 131
Simazine	86.7	86.5	P/P	75 - 128
Sulfentrazone	85.9	77.1	P/P	20 - 132
Tebuconazole	94.3	63.7	P/P	20 - 116
Terbufos	91.3	93.5	P/P	61 - 117
Terbutylazine	102	89.6	P/P	74 - 116

Reference Method: EPA 8270E
Batch ID: P400016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	47.9	49.8	P/P	20 - 150
Alpha-BHC	84.3	84.0	P/P	50 - 150
Alpha-Chlordane	73.0	77.0	P/P	50 - 150
Beta-BHC	93.2	90.8	P/P	50 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P400016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	62.6	63.4	P/P	50 - 150
Bifenthrin	49.2	52.5	P/P	40 - 150
Chlorothalonil	74.9	72.6	P/P	20 - 150
Cis-Nonachlor	66.5	67.7	P/P	50 - 150
Cypermethrin	64.6	68.1	P/P	50 - 150
Dacthal	84.8	87.1	P/P	50 - 150
DDD-p,p'	67.7	69.2	P/P	50 - 150
DDE-p,p'	73.1	76.6	P/P	50 - 150
DDT-p,p'	69.6	70.1	P/P	50 - 150
Delta-BHC	87.5	85.1	P/P	50 - 150
Deltamethrin	68.4	68.1	P/P	50 - 150
Dichlobenil	53.8	53.8	P/P	40 - 150
Dicofol	67.5	71.9	P/P	50 - 150
Dieldrin	78.5	80.5	P/P	50 - 150
Endosulfan I	78.2	78.0	P/P	50 - 150
Endosulfan II	67.4	69.9	P/P	50 - 150
Endosulfan Sulfate	79.8	71.9	P/P	50 - 150
Endrin	70.8	73.0	P/P	50 - 150
Endrin Aldehyde	64.3	64.0	P/P	50 - 150
Endrin Ketone	81.6	82.4	P/P	50 - 150
Esfenvalerate	62.1	63.2	P/P	50 - 180
Ethalfuralin	70.4	72.1	P/P	50 - 150
Fenpropathrin	62.1	62.1	P/P	50 - 150
Gamma-BHC	87.8	89.2	P/P	50 - 150
Gamma-Chlordane	71.6	71.2	P/P	50 - 150
Heptachlor	67.0	67.5	P/P	50 - 150
Heptachlor Epoxide	75.7	79.7	P/P	50 - 150
Hexachlorobenzene	65.3	67.2	P/P	50 - 150
Kepone	68.1	63.8	P/P	30 - 180
Lambda-Cyhalothrin	57.2	58.1	P/P	50 - 200
Methoxychlor	76.8	79.7	P/P	50 - 150
MGK-264	69.8	69.4	P/P	30 - 150
Mirex	111	119	P/P	50 - 180
Permethrin	66.7	71.6	P/P	50 - 150
Phenothrin	46.0	53.1	P/P	20 - 150
Piperonyl Butoxide	43.1	42.4	F/F	50 - 150
Prallethrin	58.3	57.1	P/P	30 - 150
Tau-Fluvalinate	50.6	51.0	P/P	40 - 150
Tetramethrin	65.8	69.7	P/P	30 - 150
Trans-Nonachlor	71.9	76.3	P/P	50 - 150
Triclosan Methyl	78.9	81.0	P/P	50 - 150
Trifluralin	68.9	68.9	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P400016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	94.9	93.0	P/P	56 - 117
Toxaphene	84.9	88.0	P/P	45 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P399742

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	106		P	30 - 160
2,4,5-T	99.3		P	30 - 160
Acetaminophen	60.6		P	30 - 150
Acetamiprid	78.4		P	30 - 160
Afidopyropen	73.3		P	30 - 160
Bentazon	39.2		P	30 - 150
Benzovindiflupyr	78.0		P	30 - 160
Carbamazepine	76.5		P	30 - 160
Clothianidin	77.5		P	30 - 160
Dinotefuran	68.1		P	30 - 160
Diuron	66.8		P	30 - 160
Fenuron	85.5		P	30 - 160
Fluridone	83.2		P	30 - 160
Hydrocodone	81.6		P	30 - 160
Ibuprofen	65.1		P	30 - 160
Imazapyr	91.7		P	30 - 160
Imidacloprid	72.3		P	30 - 160
Linuron	59.6		P	30 - 160
Mandestrobin	88.0		P	30 - 160
MCPP	147		P	30 - 160
Naproxen	81.4		P	30 - 160
Primidone	86.5		P	30 - 160
Pyraclostrobin	62.0		P	30 - 160
Thiamethoxam	52.4		P	30 - 160
Tolfenpyrad	47.0		P	30 - 160
Triclopyr	112		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P399841

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	79.4		P	30 - 160
Aldicarb	70.9		P	30 - 150
Aldicarb Sulfone	56.2		P	30 - 160
Aldicarb Sulfoxide	97.3		P	30 - 160
Carbaryl	73.7		P	30 - 160
Carbofuran	69.6		P	30 - 160
Methiocarb	68.2		P	30 - 160
Methomyl	90.4		P	30 - 160
Oxamyl	85.7		P	30 - 160
Propoxur	75.2		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P399865

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	80.5		P	40 - 150
AMPA	99.4		P	40 - 150
Endothall	71.4		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	103		P	40 - 150
Sucralose	102		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P399814

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P400153

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	107		F	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P400621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P400251

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P399987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255313	Barium	101		P	80 - 120
2255313	Calcium	104		P	80 - 120
2255313	Iron	108		P	80 - 120
2255313	Magnesium	107		P	80 - 120
2255313	Manganese	102		P	80 - 120
2255313	Potassium	107		P	80 - 120
2255313	Sodium	100		P	80 - 120
2255313	Zinc	97.8		P	80 - 120
2255626	Barium	103	104	P/P	80 - 120
2255626	Calcium	111	111	P/P	80 - 120
2255626	Iron	112	112	P/P	80 - 120
2255626	Magnesium	113	112	P/P	80 - 120
2255626	Manganese	105	105	P/P	80 - 120
2255626	Potassium	109	108	P/P	80 - 120
2255626	Sodium	110	107	P/P	80 - 120
2255626	Zinc	98.4	99.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P399987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255313	Aluminum	104		P	80 - 120
2255313	Antimony	102		P	80 - 120
2255313	Arsenic	103		P	80 - 120
2255313	Beryllium	102		P	80 - 120
2255313	Boron	109		P	80 - 120
2255313	Cadmium	100		P	80 - 120
2255313	Chromium	99.5		P	80 - 120
2255313	Lead	118		P	80 - 120
2255313	Selenium	102		P	80 - 120
2255313	Silver	100		P	80 - 120
2255313	Thallium	105		P	80 - 120
2255626	Aluminum	102	102	P/P	80 - 120
2255626	Antimony	102	101	P/P	80 - 120
2255626	Arsenic	104	102	P/P	80 - 120
2255626	Beryllium	103	104	P/P	80 - 120
2255626	Boron	105	106	P/P	80 - 120
2255626	Cadmium	99.0	98.8	P/P	80 - 120
2255626	Chromium	99.8	98.8	P/P	80 - 120
2255626	Lead	116	115	P/P	80 - 120
2255626	Selenium	102	101	P/P	80 - 120
2255626	Silver	101	100	P/P	80 - 120
2255626	Thallium	105	104	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P400451

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255346	Copper	106	109	P/P	80 - 120
2255346	Nickel	106	108	P/P	80 - 120
2255828	Copper	107		P	80 - 120
2255828	Nickel	107		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P400573

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2257773	Silver	102		P	80 - 120
2258458	Silver	100	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399976

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255302	Chloride	98.2		P	90 - 110
2255489	Chloride	94.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399979

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255302	Sulfate	97.2		P	90 - 110
2255489	Sulfate	95.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255303	Ammonia-N	97.4	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399936

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255110	Kjeldahl Nitrogen	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399868

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255343	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255388	Total-P	108	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399787

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255304	O-Phosphate-P	96.8	98.3	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P399912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255159	Acetochlor	106	113	P/P	66 - 122

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P399912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255159	Alachlor	90.7	103	P/P	65 - 122
2255159	Ametryn	92.9	86.5	P/P	45 - 173
2255159	Atrazine Desethyl	80.5	85.1	P/P	25 - 150
2255159	Azinphos Methyl	129	122	P/P	44 - 174
2255159	Azoxystrobin	107	123	P/P	10 - 268
2255159	Bromacil	82.3	94.6	P/P	31 - 145
2255159	Butylate	71.4	95.5	P/P	15 - 97.0
2255159	Caffeine	103	104	P/P	70 - 130
2255159	Carbophenothion	94.6	98.7	P/P	42 - 129
2255159	Carfentrazone Ethyl	101	104	P/P	62 - 145
2255159	Chlorpyrifos Ethyl	85.7	92.4	P/P	60 - 124
2255159	Chlorpyrifos Methyl	87.6	90.9	P/P	66 - 119
2255159	Cyanazine	97.9	110	P/P	17 - 225
2255159	Demeton	46.6	48.6	P/P	36 - 142
2255159	Diazinon	99.1	109	P/P	70 - 128
2255159	Difenoconazole	148	137	P/P	33 - 222
2255159	Dimethenamid	78.1	79.8	P/P	54 - 125
2255159	Disulfoton	91.9	69.4	P/P	49 - 133
2255159	Dithiopyr	84.4	96.9	P/P	55 - 123
2255159	EPTC	44.3	52.8	P/P	19 - 91.0
2255159	Ethion	63.7	44.2	P/P	13 - 143
2255159	Ethoprop	87.1	97.5	P/P	49 - 144
2255159	Fenamiphos	85.6	80.8	P/P	32 - 136
2255159	Fenbuconazole	101	107	P/P	73 - 148
2255159	Fipronil	95.2	96.4	P/P	57 - 129
2255159	Fipronil Desulfinyl	95.1	100	P/P	49 - 127
2255159	Fipronil Sulfide	76.0	73.8	P/P	44 - 127
2255159	Fipronil Sulfone	72.8	85.0	P/P	35 - 126
2255159	Fluazifop-P-butyl	90.7	97.8	P/P	67 - 129
2255159	Fludioxonil	90.9	92.8	P/P	61 - 126
2255159	Flumioxazin	173	172	P/P	38 - 279
2255159	Flutolanil	80.6	85.9	P/P	55 - 136
2255159	Fluxapyroxad	86.2	80.0	P/P	33 - 140
2255159	Fonofos	81.4	92.2	P/P	58 - 125
2255159	Imazalil	114	95.1	P/P	10 - 221
2255159	Iprodione	95.3	96.5	P/P	32 - 140
2255159	Malathion	96.5	103	P/P	52 - 138
2255159	Metaxyl	87.8	96.1	P/P	46 - 134
2255159	Metolachlor	92.6	102	P/P	58 - 122
2255159	Metribuzin	96.8	119	P/P	16 - 272
2255159	Mevinphos	76.6	87.6	P/P	45 - 140
2255159	Molinate	61.2	72.5	P/P	41 - 103
2255159	Myclobutanil	86.6	88.3	P/P	60 - 134
2255159	Naled	50.8	58.4	P/P	20 - 113
2255159	Norflurazon	86.0	88.9	P/P	51 - 123
2255159	Oxadiazon	85.0	86.2	P/P	44 - 125
2255159	Oxyfluorfen	113	106	P/P	66 - 176
2255159	Parathion Ethyl	87.5	96.7	P/P	57 - 132
2255159	Parathion Methyl	101	115	P/P	59 - 156
2255159	Pendimethalin	93.3	102	P/P	59 - 129
2255159	Phorate	145	161	F/F	47 - 136
2255159	Prodiamine	58.1	63.2	P/P	10 - 159

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P399912

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255159	Prometon	84.3	96.3	P/P	59 - 127
2255159	Prometryn	85.0	89.4	P/P	59 - 129
2255159	Pronamide	100	108	P/P	65 - 145
2255159	Propiconazole	86.1	92.5	P/P	28 - 165
2255159	Pyriproxyfen	88.0	116	P/P	21 - 180
2255159	Simazine	92.4	109	P/P	63 - 147
2255159	Sulfentrazone	79.8	83.9	P/P	32 - 136
2255159	Tebuconazole	66.0	53.5	P/P	10 - 117
2255159	Terbufos	98.5	110	P/P	61 - 131
2255159	Terbuthylazine	70.6	79.5	P/P	62 - 126

Reference Method: EPA 8270E

Batch ID: P400016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255687	Aldrin	68.8	61.3	P/P	20 - 170
2255687	Alpha-BHC	92.2	90.4	P/P	50 - 170
2255687	Alpha-Chlordane	93.3	85.4	P/P	50 - 170
2255687	Beta-BHC	97.6	92.5	P/P	50 - 170
2255687	Beta-Cyfluthrin	138	128	P/P	50 - 170
2255687	Bifenthrin	101	95.3	P/P	40 - 170
2255687	Chlorothalonil	118	124	P/P	20 - 170
2255687	Cis-Nonachlor	89.9	75.7	P/P	50 - 170
2255687	Cypermethrin	140	115	P/P	50 - 170
2255687	Dacthal	90.7	83.2	P/P	50 - 170
2255687	DDD-p,p'	96.4	75.4	P/P	50 - 170
2255687	DDE-p,p'	92.2	83.8	P/P	50 - 170
2255687	DDT-p,p'	116	94.1	P/P	50 - 170
2255687	Delta-BHC	108	107	P/P	50 - 170
2255687	Deltamethrin	158	155	P/P	50 - 170
2255687	Dichlobenil	87.5	78.2	P/P	40 - 170
2255687	Dicofol	86.6	73.6	P/P	50 - 170
2255687	Dieldrin	82.1	78.3	P/P	50 - 170
2255687	Endosulfan I	87.2	81.2	P/P	50 - 170
2255687	Endosulfan II	85.3	73.4	P/P	50 - 170
2255687	Endosulfan Sulfate	75.4	69.4	P/P	50 - 170
2255687	Endrin	84.4	75.6	P/P	50 - 170
2255687	Endrin Aldehyde	71.6	58.4	P/P	50 - 170
2255687	Endrin Ketone	89.5	78.3	P/P	50 - 170
2255687	Esfenvalerate	149	140	P/P	50 - 180
2255687	Ethalfuralin	87.0	78.1	P/P	50 - 170
2255687	Fenpropathrin	97.2	85.5	P/P	50 - 170
2255687	Gamma-BHC	98.4	94.1	P/P	50 - 170
2255687	Gamma-Chlordane	87.3	77.5	P/P	50 - 170
2255687	Heptachlor	84.7	76.4	P/P	50 - 170
2255687	Heptachlor Epoxide	84.3	77.1	P/P	50 - 170
2255687	Hexachlorobenzene	81.2	73.5	P/P	50 - 170
2255687	Lambda-Cyhalothrin	132	117	P/P	50 - 200
2255687	Methoxychlor	97.6	88.3	P/P	50 - 170
2255687	MGK-264	87.5	80.9	P/P	30 - 170
2255687	Mirex	170	145	P/P	50 - 180
2255687	Permethrin	146	138	P/P	50 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P400016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255687	Phenothrin	97.2	92.8	P/P	20 - 170
2255687	Piperonyl Butoxide	59.8	55.6	P/P	50 - 170
2255687	Prallethrin	78.0	69.9	P/P	30 - 170
2255687	Tau-Fluvalinate	108	94.6	P/P	40 - 170
2255687	Tetramethrin	92.3	85.5	P/P	30 - 170
2255687	Trans-Nonachlor	93.2	80.8	P/P	50 - 170
2255687	Triclosan Methyl	88.9	80.3	P/P	50 - 170
2255687	Trifluralin	85.9	76.3	P/P	50 - 170

Reference Method: EPA 8276

Batch ID: P400016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255632	Chlordane	90.2	102	P/P	47 - 128
2255632	Toxaphene	92.3	105	P/P	11 - 163

Reference Method: EPA 8321B

Batch ID: P399742

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2254386	2,4-D	127	139	P/P	30 - 160
2254386	2,4,5-T	150	161	P/F	30 - 160
2254386	Acetaminophen	48.3	51.9	P/P	30 - 150
2254386	Acetamiprid	90.4	85.9	P/P	30 - 160
2254386	Afidopyropen	81.3	86.6	P/P	30 - 160
2254386	Benzovindiflupyr	73.8	78.6	P/P	30 - 160
2254386	Carbamazepine	77.5	70.6	P/P	30 - 160
2254386	Clothianidin	109	101	P/P	30 - 160
2254386	Dinotefuran	97.4	98.4	P/P	30 - 160
2254386	Diuron	69.0	64.6	P/P	30 - 160
2254386	Fenuron	79.8	81.6	P/P	30 - 160
2254386	Fluridone	86.1	82.8	P/P	30 - 160
2254386	Hydrocodone	83.6	87.4	P/P	30 - 160
2254386	Ibuprofen	65.0	85.4	P/P	30 - 160
2254386	Imidacloprid	157	162	P/F	30 - 160
2254386	Linuron	74.5	80.2	P/P	30 - 160
2254386	Mandestrobin	92.8	97.3	P/P	30 - 160
2254386	MCPP	199	213	F/F	30 - 160
2254386	Naproxen	94.0	101	P/P	30 - 160
2254386	Primidone	104	85.9	P/P	30 - 160
2254386	Pyraclostrobin	74.7	65.6	P/P	30 - 160
2254386	Thiamethoxam	119	116	P/P	30 - 160
2254386	Tolfenpyrad	48.4	64.3	P/P	30 - 160
2254386	Triclopyr	155	161	P/F	30 - 160

Reference Method: EPA 8321B

Batch ID: P399841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255371	3-Hydroxycarbofuran	80.2	80.4	P/P	30 - 160
2255371	Aldicarb	78.9	71.8	P/P	30 - 150
2255371	Aldicarb Sulfone	89.5	84.1	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P399841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255371	Aldicarb Sulfoxide	55.2	50.5	P/P	30 - 160
2255371	Carbaryl	51.1	48.8	P/P	30 - 160
2255371	Carbofuran	52.2	49.7	P/P	30 - 160
2255371	Methiocarb	71.0	59.7	P/P	30 - 160
2255371	Methomyl	78.4	73.8	P/P	30 - 160
2255371	Oxamyl	75.7	74.8	P/P	30 - 160
2255371	Propoxur	56.3	52.0	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P399865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255020	Acesulfame K	84.0	86.4	P/P	40 - 150
2255020	AMPA	95.1	97.3	P/P	40 - 150
2255020	Endothall	70.2	82.7	P/P	40 - 150
2255020	Glufosinate	103	105	P/P	40 - 150
2255020	Glyphosate	106	111	P/P	40 - 150
2255020	Sucralose	99.7	103	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P400621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2257021	Fluoride	103	103	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P400251

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2255306	Organic Carbon	96.3	96.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P399811

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255107	Turbidity	2.43	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P399987

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255626	Barium	0.818	Spike	P	0 - 20
2255626	Calcium	0.0361	Spike	P	0 - 20
2255626	Iron	0.0727	Spike	P	0 - 20
2255626	Magnesium	0.296	Spike	P	0 - 20
2255626	Manganese	0.738	Spike	P	0 - 20
2255626	Potassium	1.28	Spike	P	0 - 20
2255626	Sodium	2.36	Spike	P	0 - 20
2255626	Zinc	1.20	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P399987

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255626	Aluminum	0.0119	Spike	P	0 - 20
2255626	Antimony	1.45	Spike	P	0 - 20
2255626	Arsenic	1.74	Spike	P	0 - 20
2255626	Beryllium	0.853	Spike	P	0 - 20
2255626	Boron	0.622	Spike	P	0 - 20
2255626	Cadmium	0.112	Spike	P	0 - 20
2255626	Chromium	1.00	Spike	P	0 - 20
2255626	Lead	1.23	Spike	P	0 - 20
2255626	Selenium	0.706	Spike	P	0 - 20
2255626	Silver	0.321	Spike	P	0 - 20
2255626	Thallium	1.00	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P400451

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255346	Copper	2.93	Spike	P	0 - 20
2255346	Nickel	1.87	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P400573

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2258458	Silver	0.631	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255489	Chloride	0.298	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399979

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255489	Sulfate	4.28	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P400288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255303	Ammonia-N	0.577	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255343	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P400214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255388	Total-P	0.675	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P399787

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255304	O-Phosphate-P	1.54	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255159	Acetochlor	6.40	Spike	P	0 - 30
2255159	Alachlor	13.0	Spike	P	0 - 30
2255159	Ametryn	7.11	Spike	P	0 - 30
2255159	Atrazine	5.98	Spike	P	0 - 30
2255159	Atrazine Desethyl	5.55	Spike	P	0 - 30
2255159	Azinphos Methyl	5.80	Spike	P	0 - 30
2255159	Azoxystrobin	14.3	Spike	P	0 - 30
2255159	Bromacil	13.8	Spike	P	0 - 30
2255159	Butylate	28.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255159	Caffeine	0.609	Spike	P	0 - 30
2255159	Carbophenothion	4.23	Spike	P	0 - 30
2255159	Carfentrazone Ethyl	2.37	Spike	P	0 - 30
2255159	Chlorpyrifos Ethyl	7.52	Spike	P	0 - 30
2255159	Chlorpyrifos Methyl	3.66	Spike	P	0 - 30
2255159	Cyanazine	11.6	Spike	P	0 - 30
2255159	Demeton	4.32	Spike	P	0 - 30
2255159	Diazinon	9.75	Spike	P	0 - 30
2255159	Difenoconazole	7.65	Spike	P	0 - 30
2255159	Dimethenamid	2.14	Spike	P	0 - 30
2255159	Disulfoton	27.9	Spike	P	0 - 30
2255159	Dithiopyr	13.7	Spike	P	0 - 30
2255159	EPTC	17.5	Spike	P	0 - 30
2255159	Ethion	36.0	Spike	F	0 - 30
2255159	Ethoprop	11.3	Spike	P	0 - 30
2255159	Fenamiphos	5.74	Spike	P	0 - 30
2255159	Fenbuconazole	6.02	Spike	P	0 - 30
2255159	Fipronil	1.21	Spike	P	0 - 30
2255159	Fipronil Desulfanyl	5.09	Spike	P	0 - 30
2255159	Fipronil Sulfide	2.98	Spike	P	0 - 30
2255159	Fipronil Sulfone	14.0	Spike	P	0 - 30
2255159	Fluazifop-P-butyl	7.60	Spike	P	0 - 30
2255159	Fludioxonil	2.07	Spike	P	0 - 30
2255159	Flumioxazin	0.614	Spike	P	0 - 30
2255159	Flutolanil	6.30	Spike	P	0 - 30
2255159	Fluxapyroxad	7.13	Spike	P	0 - 30
2255159	Fonofos	12.5	Spike	P	0 - 30
2255159	Hexazinone	11.3	Spike	P	0 - 30
2255159	Imazalil	18.0	Spike	P	0 - 30
2255159	Iprodione	1.27	Spike	P	0 - 30
2255159	Malathion	6.59	Spike	P	0 - 30
2255159	Metalaxyl	9.00	Spike	P	0 - 30
2255159	Metolachlor	8.99	Spike	P	0 - 30
2255159	Metribuzin	20.6	Spike	P	0 - 30
2255159	Mevinphos	13.3	Spike	P	0 - 30
2255159	Molinate	16.9	Spike	P	0 - 30
2255159	Myclobutanil	1.95	Spike	P	0 - 30
2255159	Naled	13.8	Spike	P	0 - 30
2255159	Norflurazon	3.32	Spike	P	0 - 30
2255159	Oxadiazon	1.44	Spike	P	0 - 30
2255159	Oxyfluorfen	6.65	Spike	P	0 - 30
2255159	Parathion Ethyl	9.93	Spike	P	0 - 30
2255159	Parathion Methyl	12.8	Spike	P	0 - 30
2255159	Pendimethalin	9.34	Spike	P	0 - 30
2255159	Phorate	10.4	Spike	P	0 - 30
2255159	Prodiamine	8.44	Spike	P	0 - 30
2255159	Prometon	13.2	Spike	P	0 - 30
2255159	Prometryn	5.11	Spike	P	0 - 30
2255159	Pronamide	7.47	Spike	P	0 - 30
2255159	Propiconazole	7.17	Spike	P	0 - 30
2255159	Pyriproxyfen	27.1	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255159	Simazine	11.8	Spike	P	0 - 30
2255159	Sulfentrazone	5.04	Spike	P	0 - 30
2255159	Tebuconazole	21.0	Spike	P	0 - 30
2255159	Terbufos	11.1	Spike	P	0 - 30
2255159	Terbutylazine	9.44	Spike	P	0 - 30
LFB	Acetochlor	11.4	LCS	P	0 - 30
LFB	Alachlor	12.6	LCS	P	0 - 30
LFB	Ametryn	2.42	LCS	P	0 - 30
LFB	Atrazine	0.128	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.36	LCS	P	0 - 30
LFB	Azinphos Methyl	13.7	LCS	P	0 - 30
LFB	Azoxystrobin	5.38	LCS	P	0 - 30
LFB	Bromacil	5.23	LCS	P	0 - 30
LFB	Butylate	0.124	LCS	P	0 - 30
LFB	Caffeine	4.29	LCS	P	0 - 30
LFB	Carbophenothion	1.88	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	8.87	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.35	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.33	LCS	P	0 - 30
LFB	Cyanazine	7.70	LCS	P	0 - 30
LFB	Demeton	1.47	LCS	P	0 - 30
LFB	Diazinon	2.54	LCS	P	0 - 30
LFB	Difenoconazole	17.6	LCS	P	0 - 30
LFB	Dimethenamid	8.82	LCS	P	0 - 30
LFB	Disulfoton	1.21	LCS	P	0 - 30
LFB	Dithiopyr	12.5	LCS	P	0 - 30
LFB	EPTC	4.26	LCS	P	0 - 30
LFB	Ethion	11.3	LCS	P	0 - 30
LFB	Ethoprop	7.51	LCS	P	0 - 30
LFB	Fenamiphos	2.32	LCS	P	0 - 30
LFB	Fenbuconazole	7.51	LCS	P	0 - 30
LFB	Fipronil	11.3	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	15.5	LCS	P	0 - 30
LFB	Fipronil Sulfide	7.97	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.84	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	5.89	LCS	P	0 - 30
LFB	Fludioxonil	12.2	LCS	P	0 - 30
LFB	Flumioxazin	18.4	LCS	P	0 - 30
LFB	Flutolanil	12.6	LCS	P	0 - 30
LFB	Fluxapyroxad	14.3	LCS	P	0 - 30
LFB	Fonofos	4.88	LCS	P	0 - 30
LFB	Hexazinone	5.77	LCS	P	0 - 30
LFB	Imazalil	6.82	LCS	P	0 - 30
LFB	Iprodione	10.1	LCS	P	0 - 30
LFB	Malathion	0.621	LCS	P	0 - 30
LFB	Metalaxyl	11.3	LCS	P	0 - 30
LFB	Metolachlor	9.20	LCS	P	0 - 30
LFB	Metribuzin	0.245	LCS	P	0 - 30
LFB	Mevinphos	10.2	LCS	P	0 - 30
LFB	Molinate	13.6	LCS	P	0 - 30
LFB	Myclobutanil	6.26	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P399912

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Naled	12.1	LCS	P	0 - 30
LFB	Norflurazon	11.4	LCS	P	0 - 30
LFB	Oxadiazon	11.2	LCS	P	0 - 30
LFB	Oxyfluorfen	0.167	LCS	P	0 - 30
LFB	Parathion Ethyl	1.44	LCS	P	0 - 30
LFB	Parathion Methyl	3.66	LCS	P	0 - 30
LFB	Pendimethalin	2.39	LCS	P	0 - 30
LFB	Phorate	1.38	LCS	P	0 - 30
LFB	Prodiamine	9.34	LCS	P	0 - 30
LFB	Prometon	6.14	LCS	P	0 - 30
LFB	Prometryn	6.69	LCS	P	0 - 30
LFB	Pronamide	1.28	LCS	P	0 - 30
LFB	Propiconazole	16.8	LCS	P	0 - 30
LFB	Pyriproxyfen	3.97	LCS	P	0 - 30
LFB	Simazine	0.195	LCS	P	0 - 30
LFB	Sulfentrazone	10.9	LCS	P	0 - 30
LFB	Tebuconazole	38.7	LCS	F	0 - 30
LFB	Terbufos	2.35	LCS	P	0 - 30
LFB	Terbutylazine	13.0	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P400016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255687	Aldrin	11.6	Spike	P	0 - 30
2255687	Alpha-BHC	2.02	Spike	P	0 - 30
2255687	Alpha-Chlordane	8.86	Spike	P	0 - 30
2255687	Beta-BHC	5.40	Spike	P	0 - 30
2255687	Beta-Cyfluthrin	7.64	Spike	P	0 - 30
2255687	Bifenthrin	6.14	Spike	P	0 - 30
2255687	Chlorothalonil	4.37	Spike	P	0 - 50
2255687	Cis-Nonachlor	17.1	Spike	P	0 - 30
2255687	Cypermethrin	19.5	Spike	P	0 - 30
2255687	Dacthal	8.62	Spike	P	0 - 30
2255687	DDD-p,p'	24.4	Spike	P	0 - 30
2255687	DDE-p,p'	9.61	Spike	P	0 - 30
2255687	DDT-p,p'	21.0	Spike	P	0 - 30
2255687	Delta-BHC	1.19	Spike	P	0 - 30
2255687	Deltamethrin	1.76	Spike	P	0 - 30
2255687	Dichlobenil	11.1	Spike	P	0 - 30
2255687	Dicofol	16.2	Spike	P	0 - 30
2255687	Dieldrin	3.59	Spike	P	0 - 30
2255687	Endosulfan I	7.11	Spike	P	0 - 30
2255687	Endosulfan II	14.9	Spike	P	0 - 30
2255687	Endosulfan Sulfate	8.25	Spike	P	0 - 30
2255687	Endrin	11.1	Spike	P	0 - 30
2255687	Endrin Aldehyde	20.3	Spike	P	0 - 30
2255687	Endrin Ketone	13.4	Spike	P	0 - 30
2255687	Esfenvalerate	6.60	Spike	P	0 - 30
2255687	Ethalfuralin	10.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P400016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255687	Fenpropathrin	12.8	Spike	P	0 - 30
2255687	Gamma-BHC	4.54	Spike	P	0 - 30
2255687	Gamma-Chlordane	11.0	Spike	P	0 - 30
2255687	Heptachlor	10.2	Spike	P	0 - 30
2255687	Heptachlor Epoxide	7.88	Spike	P	0 - 30
2255687	Hexachlorobenzene	9.97	Spike	P	0 - 30
2255687	Kepone	51.8	Spike	F	0 - 30
2255687	Lambda-Cyhalothrin	9.14	Spike	P	0 - 30
2255687	Methoxychlor	9.96	Spike	P	0 - 30
2255687	MGK-264	7.85	Spike	P	0 - 30
2255687	Mirex	15.4	Spike	P	0 - 30
2255687	Permethrin	5.72	Spike	P	0 - 30
2255687	Phenothrin	4.66	Spike	P	0 - 30
2255687	Piperonyl Butoxide	7.20	Spike	P	0 - 30
2255687	Prallethrin	10.9	Spike	P	0 - 30
2255687	Tau-Fluvalinate	13.3	Spike	P	0 - 30
2255687	Tetramethrin	7.68	Spike	P	0 - 30
2255687	Trans-Nonachlor	14.4	Spike	P	0 - 30
2255687	Triclosan Methyl	10.1	Spike	P	0 - 30
2255687	Trifluralin	11.9	Spike	P	0 - 30
LFB	Aldrin	3.80	LCS	P	0 - 30
LFB	Alpha-BHC	0.318	LCS	P	0 - 30
LFB	Alpha-Chlordane	5.38	LCS	P	0 - 30
LFB	Beta-BHC	2.64	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	1.27	LCS	P	0 - 30
LFB	Bifenthrin	6.49	LCS	P	0 - 30
LFB	Chlorothalonil	3.09	LCS	P	0 - 50
LFB	Cis-Nonachlor	1.70	LCS	P	0 - 30
LFB	Cypermethrin	5.18	LCS	P	0 - 30
LFB	Dacthal	2.66	LCS	P	0 - 30
LFB	DDD-p,p'	2.12	LCS	P	0 - 30
LFB	DDE-p,p'	4.61	LCS	P	0 - 30
LFB	DDT-p,p'	0.688	LCS	P	0 - 30
LFB	Delta-BHC	2.75	LCS	P	0 - 30
LFB	Deltamethrin	0.517	LCS	P	0 - 30
LFB	Dichlobenil	0.107	LCS	P	0 - 30
LFB	Dicofol	6.41	LCS	P	0 - 30
LFB	Dieldrin	2.53	LCS	P	0 - 30
LFB	Endosulfan I	0.289	LCS	P	0 - 30
LFB	Endosulfan II	3.60	LCS	P	0 - 30
LFB	Endosulfan Sulfate	10.4	LCS	P	0 - 30
LFB	Endrin	2.95	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.467	LCS	P	0 - 30
LFB	Endrin Ketone	0.925	LCS	P	0 - 30
LFB	Esfenvalerate	1.89	LCS	P	0 - 30
LFB	Ethalfuralin	2.36	LCS	P	0 - 30
LFB	Fenpropathrin	0.0226	LCS	P	0 - 30
LFB	Gamma-BHC	1.60	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.617	LCS	P	0 - 30
LFB	Heptachlor	0.641	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.05	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P400016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Hexachlorobenzene	2.96	LCS	P	0 - 30
LFB	Kepone	6.40	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	1.67	LCS	P	0 - 30
LFB	Methoxychlor	3.78	LCS	P	0 - 30
LFB	MGK-264	0.527	LCS	P	0 - 30
LFB	Mirex	6.80	LCS	P	0 - 30
LFB	Permethrin	7.09	LCS	P	0 - 30
LFB	Phenothrin	14.2	LCS	P	0 - 30
LFB	Piperonyl Butoxide	1.73	LCS	P	0 - 30
LFB	Prallethrin	1.95	LCS	P	0 - 30
LFB	Tau-Fluvalinate	0.741	LCS	P	0 - 30
LFB	Tetramethrin	5.72	LCS	P	0 - 30
LFB	Trans-Nonachlor	5.88	LCS	P	0 - 30
LFB	Triclosan Methyl	2.69	LCS	P	0 - 30
LFB	Trifluralin	0.0488	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P400016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255632	Chlordane	12.3	Spike	P	0 - 30
2255632	Toxaphene	12.4	Spike	P	0 - 30
LFB	Chlordane	1.99	LCS	P	0 - 30
LFB	Toxaphene	3.57	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P399742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2254386	2,4-D	8.10	Spike	P	0 - 30
2254386	2,4,5-T	7.63	Spike	P	0 - 30
2254386	Acetaminophen	5.02	Spike	P	0 - 30
2254386	Acetamiprid	5.13	Spike	P	0 - 30
2254386	Afidopyropen	6.35	Spike	P	0 - 30
2254386	Bentazon	11.4	Spike	P	0 - 30
2254386	Benzovindiflupyr	6.22	Spike	P	0 - 30
2254386	Carbamazepine	4.66	Spike	P	0 - 30
2254386	Clothianidin	7.29	Spike	P	0 - 30
2254386	Dinotefuran	1.06	Spike	P	0 - 30
2254386	Diuron	6.65	Spike	P	0 - 30
2254386	Fenuron	2.17	Spike	P	0 - 30
2254386	Fluridone	2.03	Spike	P	0 - 30
2254386	Hydrocodone	4.45	Spike	P	0 - 30
2254386	Ibuprofen	27.1	Spike	P	0 - 30
2254386	Imazapyr	2.51	Spike	P	0 - 30
2254386	Imidacloprid	3.25	Spike	P	0 - 30
2254386	Linuron	7.30	Spike	P	0 - 30
2254386	Mandestrobin	4.70	Spike	P	0 - 30
2254386	MCP	6.70	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P399742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2254386	Naproxen	7.41	Spike	P	0 - 30
2254386	Primidone	11.6	Spike	P	0 - 30
2254386	Pyraclostrobin	13.0	Spike	P	0 - 30
2254386	Thiamethoxam	3.17	Spike	P	0 - 30
2254386	Tolfenpyrad	28.3	Spike	P	0 - 30
2254386	Triclopyr	3.84	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255371	3-Hydroxycarbofuran	0.349	Spike	P	0 - 30
2255371	Aldicarb	9.34	Spike	P	0 - 30
2255371	Aldicarb Sulfone	6.21	Spike	P	0 - 30
2255371	Aldicarb Sulfoxide	8.78	Spike	P	0 - 30
2255371	Carbaryl	4.65	Spike	P	0 - 30
2255371	Carbofuran	4.94	Spike	P	0 - 30
2255371	Methiocarb	17.2	Spike	P	0 - 30
2255371	Methomyl	6.04	Spike	P	0 - 30
2255371	Oxamyl	1.26	Spike	P	0 - 30
2255371	Propoxur	7.90	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399865

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255020	Acesulfame K	2.82	Spike	P	0 - 30
2255020	AMPA	2.28	Spike	P	0 - 30
2255020	Endothall	16.3	Spike	P	0 - 30
2255020	Glufosinate	1.33	Spike	P	0 - 30
2255020	Glyphosate	4.62	Spike	P	0 - 30
2255020	Sucralose	2.76	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P399814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255342	Color (true)	3.46	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P400153

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255387	Total Alkalinity	0.495	Sample	P	0 - 5.2

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P400232

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255342	TDS	8.96	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P400621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2257021	Fluoride	0.469	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P400251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2255306	Organic Carbon	0.0473	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2255371
Field Sample ID: 20030577

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	51.6	P	30 - 160

Lab Sample ID: 2255372
Field Sample ID: 20030577

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	135	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	74.3	P	30 - 160
EPA 8321B	Diuron-d6	66.7	P	30 - 160
EPA 8321B	Endothall-d6	69.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	37.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	65.6	P	30 - 160
EPA 8321B	Primidone-d5	81.3	P	30 - 160
EPA 8321B	Sucralose-d6	99.2	P	30 - 160

Lab Sample ID: 2255373
Field Sample ID: 20030681

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	139	P	30 - 160
EPA 8321B	Acetaminophen-d4	77.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.9	P	30 - 160
EPA 8321B	Diuron-d6	63.2	P	30 - 160
EPA 8321B	Endothall-d6	66.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	53.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.5	P	30 - 160
EPA 8321B	Primidone-d5	88.7	P	30 - 160
EPA 8321B	Sucralose-d6	88.8	P	30 - 160

Lab Sample ID: 2255374
Field Sample ID: 20030577

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	102	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	46.2	P	30 - 110
EPA 8276	Decachlorobiphenyl	71.2	P	29 - 92.0
EPA 8276	PCNB	98.8	P	43 - 134

Lab Sample ID: 2255375
Field Sample ID: 20030577

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	60.7	P	20 - 200
EPA 8270E	Simazine-d10	117	P	73 - 135
EPA 8270E	Terbufos-d10	97.4	P	58 - 130

Lab Sample ID: 2255376
Field Sample ID: 20030681

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	62.9	P	20 - 200

Quality Assurance Report Surrogates

Lab Sample ID: 2255376
Field Sample ID: 20030681

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	111	P	73 - 135
EPA 8270E	Terbufos-d10	94.8	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A106105

Included Lab Sample IDs: 2255359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A106113

Included Lab Sample IDs: 2255361

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.5	96.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A106120

Included Lab Sample IDs: 2255359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A106121

Included Lab Sample IDs: 2255359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A106142

Included Lab Sample IDs: 2255360

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A106190

Included Lab Sample IDs: 2255372, 2255373

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.2	82.6	P/P	60 - 160
Glufosinate	95.5	89.7	P/P	60 - 160
Glyphosate	99.1	93.6	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A106192

Included Lab Sample IDs: 2255372, 2255373

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.2	76.7	P/P	60 - 160
Endothall	75.7	82.8	P/P	60 - 160
Sucralose	110	107	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A106199

Included Lab Sample IDs: 2255372, 2255373

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.7	84.5	P/P	50 - 150
2,4,5-T	102	93.6	P/P	50 - 150
3-Hydroxycarbofuran	108	103	P/P	60 - 150
Acetaminophen	79.2	77.0	P/P	60 - 160
Acetamiprid	101	95.6	P/P	50 - 150
Afidopyropen	127	120	P/P	50 - 150
Aldicarb	103	105	P/P	60 - 150
Aldicarb Sulfone	99.2	99.0	P/P	50 - 150
Aldicarb Sulfoxide	98.6	102	P/P	50 - 150
Bentazon	102	101	P/P	50 - 160
Benzovindiflupyr	106	87.7	P/P	50 - 160
Carbamazepine	115	106	P/P	60 - 150
Carbaryl	116	113	P/P	60 - 150
Carbofuran	93.3	91.7	P/P	50 - 150
Clothianidin	104	91.5	P/P	60 - 150
Dinotefuran	87.7	88.4	P/P	50 - 150
Diuron	104	101	P/P	60 - 160
Fenuron	99.6	102	P/P	60 - 150
Fluridone	126	125	P/P	60 - 160
Hydrocodone	104	103	P/P	60 - 150
Ibuprofen	71.3	83.9	P/P	50 - 160
Imazapyr	106	86.3	P/P	50 - 150
Imidacloprid	87.7	92.3	P/P	60 - 150
Linuron	124	109	P/P	60 - 150
Mandestrobin	113	110	P/P	50 - 150
MCPP	116	115	P/P	50 - 150
Methiocarb	125		P	50 - 150
Methomyl	101	104	P/P	50 - 150
Naproxen	119	93.2	P/P	50 - 160
Oxamyl	94.0	97.8	P/P	50 - 150
Primidone	112	100	P/P	60 - 150
Propoxur	104	96.1	P/P	50 - 150
Pyraclostrobin	90.6	96.3	P/P	60 - 150
Thiamethoxam	93.9	94.5	P/P	50 - 150
Tolfenpyrad	115	109	P/P	60 - 150
Triclopyr	105	110	P/P	50 - 150

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A106231

Included Lab Sample IDs: 2255377, 2255378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	97.2	97.2	P/P	90 - 110
Calcium	99.8	101	P/P	90 - 110
Iron	99.9	101	P/P	90 - 110
Magnesium	98.7	99.6	P/P	90 - 110
Manganese	101	101	P/P	90 - 110
Potassium	97.1	98.9	P/P	90 - 110
Sodium	98.3	99.9	P/P	90 - 110
Zinc	98.6	97.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A106244

Included Lab Sample IDs: 2255360

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	92.2	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A106248

Included Lab Sample IDs: 2255359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	106	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A106290

Included Lab Sample IDs: 2255374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Piperonyl Butoxide	90.3		P	80 - 120

Reference Method: EPA 8270E

Run ID: A106291

Included Lab Sample IDs: 2255374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.5		P	80 - 120
Alpha-BHC	99.3		P	80 - 120
Alpha-Chlordane	99.2		P	80 - 120
Beta-BHC	97.0		P	80 - 120
Beta-Cyfluthrin	99.1		P	80 - 120
Bifenthrin	91.0		P	80 - 120
Chlorothalonil	97.3		P	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	97.5		P	80 - 120
Dacthal	99.0		P	80 - 120
DDD-p,p'	96.2		P	80 - 120
DDE-p,p'	95.9		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	97.7		P	80 - 120
Deltamethrin	95.6		P	80 - 120
Dichlobenil	97.7		P	80 - 120
Dicofol	98.9		P	80 - 120
Dieldrin	95.6		P	80 - 120
Endosulfan I	99.6		P	80 - 120
Endosulfan II	93.2		P	80 - 120
Endosulfan Sulfate	95.1		P	80 - 120
Endrin	96.9		P	80 - 120
Endrin Aldehyde	98.7		P	80 - 120
Endrin Ketone	98.6		P	80 - 120
Esfenvalerate	99.6		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	96.2		P	80 - 120
Gamma-BHC	98.1		P	80 - 120
Gamma-Chlordane	99.2		P	80 - 120
Heptachlor	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A106291
Included Lab Sample IDs: 2255374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Heptachlor Epoxide	97.7		P	80 - 120
Hexachlorobenzene	96.2		P	80 - 120
Kepone	86.6		P	80 - 120
Lambda-Cyhalothrin	99.9		P	80 - 120
Methoxychlor	94.7		P	80 - 120
MGK-264	97.7		P	80 - 120
Mirex	94.9		P	80 - 120
Permethrin	96.9		P	80 - 120
Phenothrin	95.6		P	80 - 120
Prallethrin	97.2		P	80 - 120
Tau-Fluvalinate	98.7		P	80 - 120
Tetramethrin	91.1		P	80 - 120
Trans-Nonachlor	97.6		P	80 - 120
Triclosan Methyl	98.8		P	80 - 120
Trifluralin	99.1		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A106304
Included Lab Sample IDs: 2255360

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.3	97.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A106315
Included Lab Sample IDs: 2255360

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A106327
Included Lab Sample IDs: 2255360

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	99.1	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A106329
Included Lab Sample IDs: 2255374

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.2		P	80 - 120
Toxaphene	99.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A106356
Included Lab Sample IDs: 2255377, 2255378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	94.8	97.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A106356

Included Lab Sample IDs: 2255377, 2255378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	98.1	97.9	P/P	90 - 110
Arsenic	99.2	98.0	P/P	90 - 110
Beryllium	93.7	92.2	P/P	90 - 110
Boron	97.0	101	P/P	90 - 110
Cadmium	96.2	96.3	P/P	90 - 110
Chromium	95.0	94.7	P/P	90 - 110
Selenium	98.0	97.7	P/P	90 - 110
Silver	97.4	97.5	P/P	90 - 110
Thallium	94.0	94.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A106377

Included Lab Sample IDs: 2255377, 2255378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	105	107	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A106446

Included Lab Sample IDs: 2255377, 2255378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	102	102	P/P	90 - 110
Nickel	103	103	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A106448

Included Lab Sample IDs: 2255375, 2255376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	103		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	99.2		P	80 - 120
Atrazine	98.1		P	80 - 120
Atrazine Desethyl	106		P	80 - 120
Azinphos Methyl	94.7		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	106		P	80 - 120
Caffeine	86.0		P	80 - 120
Carbophenothion	102		P	80 - 120
Carfentrazone Ethyl	100		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	99.2		P	80 - 120
Cyanazine	107		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	96.8		P	80 - 120
Difenoconazole	88.5		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	97.1		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A106448

Included Lab Sample IDs: 2255375, 2255376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethion	98.8		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	96.6		P	80 - 120
Fenbuconazole	101		P	80 - 120
Fipronil	100		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	98.3		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	101		P	80 - 120
Flumioxazin	93.2		P	80 - 120
Flutolanil	104		P	80 - 120
Fluxapyroxad	102		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	106		P	80 - 120
Iprodione	115		P	80 - 120
Malathion	91.7		P	80 - 120
Metalaxyl	106		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	102		P	80 - 120
Mevinphos	99.7		P	80 - 120
Molinate	102		P	80 - 120
Myclobutanil	101		P	80 - 120
Naled	103		P	80 - 120
Norflurazon	102		P	80 - 120
Oxadiazon	106		P	80 - 120
Oxyfluorfen	97.7		P	80 - 120
Parathion Ethyl	102		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	109		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	93.9		P	80 - 120
Prometon	99.6		P	80 - 120
Prometryn	108		P	80 - 120
Pronamide	96.3		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	106		P	80 - 120
Sulfentrazone	94.2		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	103		P	80 - 120
Terbutylazine	103		P	80 - 120

Reference Method: EPA 8270E

Run ID: A106451

Included Lab Sample IDs: 2255375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azoxystrobin	97.8		P	80 - 120
Fluxapyroxad	96.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A106463
Included Lab Sample IDs: 2255376

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azoxystrobin	99.3		P	80 - 120

Reference Method: SM 4500 F-C-2011
Run ID: A106477
Included Lab Sample IDs: 2255359

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	104	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A106493
Included Lab Sample IDs: 2255377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	98.7	99.0	P/P	90 - 110

* 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							2.43	
EPA 200.7 Rev. 4.4	Barium	102		101	103	104			0.818
	Calcium	109		104	111	111			0.0361
	Iron	110		108	112	112			0.0727
	Magnesium	111		107	113	112			0.296
	Manganese	104		102	105	105			0.738
	Potassium	103		107	109	108			1.28
	Sodium	103		100	110	107			2.36
	Zinc	98.5		97.8	98.4	99.6			1.20
EPA 200.8 Rev. 5.4	Aluminum	102		102	102	104			0.0119
	Antimony	102		102	101	102			1.45
	Arsenic	105		104	102	103			1.74
	Beryllium	104		103	104	102			0.853
	Boron	106		105	106	109			0.622
	Cadmium	101		99.0	98.8	100			0.112
	Chromium	99.9		99.8	98.8	99.5			1.00
	Copper	108		106	109	107			2.93
	Lead	114		116	115	118			1.23
	Nickel	108		106	108	107			1.87
	Selenium	103		102	101	102			0.706
	Silver	99.6		101	100	100			0.321
	Silver	100		102	100	101			0.631
	Thallium	103		105	104	105			1.00
EPA 300.0 Rev. 2.1	Chloride	98.6		94.9	98.2			0.298	
	Sulfate	98.2		95.2	97.2			4.28	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2		97.4	98.0				0.577
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108		103					
EPA 353.2 Rev. 2.0	NO2NO3-N	102		102	102				0.0
EPA 365.1 Rev. 2.0	Total-P	105		108	108				0.675
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		96.8	98.3				1.54
EPA 8270E	Acetochlor	112	100	106	113		11.4		6.40
	Alachlor	108	95.5	90.7	103		12.6		13.0
	Aldrin	49.8	47.9	68.8	61.3	3.80			11.6
	Alpha-BHC	84.0	84.3	92.2	90.4	0.318			2.02
	Alpha-Chlordane	77.0	73.0	93.3	85.4	5.38			8.86
	Ametryn	94.7	97.1	92.9	86.5	2.42			7.11
	Atrazine	99.8	100			0.128			5.98
	Atrazine Desethyl	72.3	69.9	80.5	85.1	3.36			5.55
	Azinphos Methyl	111	127	129	122	13.7			5.80
	Azoxystrobin	97.1	102	107	123	5.38			14.3
	Beta-BHC	90.8	93.2	97.6	92.5	2.64			5.40
	Beta-Cyfluthrin	63.4	62.6	138	128	1.27			7.64
	Bifenthrin	52.5	49.2	101	95.3	6.49			6.14
	Bromacil	91.6	86.9	82.3	94.6	5.23			13.8
	Butylate	59.9	60.0	71.4	95.5	0.124			28.9
	Caffeine	81.7	78.3	103	104	4.29			0.609
	Carbophenothion	103	101	94.6	98.7	1.88			4.23
	Carfentrazone Ethyl	120	110	101	104	8.87			2.37
	Chlorothalonil	72.6	74.9	118	124	3.09			4.37
	Chlorpyrifos Ethyl	90.4	86.6	85.7	92.4	4.35			7.52
	Chlorpyrifos Methyl	87.8	89.0	87.6	90.9	1.33			3.66
	Cis-Nonachlor	67.7	66.5	89.9	75.7	1.70			17.1
	Cyanazine	118	109	97.9	110	7.70			11.6
	Cypermethrin	68.1	64.6	140	115	5.18			19.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Dacthal	87.1	84.8	90.7	83.2	2.66	8.62
	DDD-p,p'	69.2	67.7	96.4	75.4	2.12	24.4
	DDE-p,p'	76.6	73.1	92.2	83.8	4.61	9.61
	DDT-p,p'	70.1	69.6	116	94.1	0.688	21.0
	Delta-BHC	85.1	87.5	108	107	2.75	1.19
	Deltamethrin	68.1	68.4	158	155	0.517	1.76
	Demeton	30.3	29.9	46.6	48.6	1.47	4.32
	Diazinon	100	97.8	99.1	109	2.54	9.75
	Dichlobenil	53.8	53.8	87.5	78.2	0.107	11.1
	Dicofol	71.9	67.5	86.6	73.6	6.41	16.2
	Dieldrin	80.5	78.5	82.1	78.3	2.53	3.59
	Difenoconazole	126	151	148	137	17.6	7.65
	Dimethenamid	84.9	77.7	78.1	79.8	8.82	2.14
	Disulfoton	74.9	74.0	91.9	69.4	1.21	27.9
	Dithiopyr	96.5	85.1	84.4	96.9	12.5	13.7
	Endosulfan I	78.0	78.2	87.2	81.2	0.289	7.11
	Endosulfan II	69.9	67.4	85.3	73.4	3.60	14.9
	Endosulfan Sulfate	71.9	79.8	75.4	69.4	10.4	8.25
	Endrin	73.0	70.8	84.4	75.6	2.95	11.1
	Endrin Aldehyde	64.0	64.3	71.6	58.4	0.467	20.3
	Endrin Ketone	82.4	81.6	89.5	78.3	0.925	13.4
	EPTC	39.2	40.9	44.3	52.8	4.26	17.5
	Esfenvalerate	63.2	62.1	149	140	1.89	6.60
	Ethalfuralin	72.1	70.4	87.0	78.1	2.36	10.8
	Ethion	90.6	80.9	63.7	44.2	11.3	36.0
	Ethoprop	77.0	83.1	87.1	97.5	7.51	11.3
	Fenamiphos	97.6	95.4	85.6	80.8	2.32	5.74
	Fenbuconazole	114	106	101	107	7.51	6.02
	Fenpropathrin	62.1	62.1	97.2	85.5	0.0226	12.8
	Fipronil	110	97.9	95.2	96.4	11.3	1.21
	Fipronil Desulfinyl	117	101	95.1	100	15.5	5.09
	Fipronil Sulfide	92.1	85.1	76.0	73.8	7.97	2.98
	Fipronil Sulfone	89.4	81.1	72.8	85.0	9.84	14.0
	Fluazifop-P-butyl	103	97.4	90.7	97.8	5.89	7.60
	Fludioxonil	108	95.8	90.9	92.8	12.2	2.07
	Flumioxazin	137	164	173	172	18.4	0.614
	Flutolanil	102	90.3	80.6	85.9	12.6	6.30
	Fluxapyroxad	99.3	86.1	86.2	80.0	14.3	7.13
	Fonofos	77.7	81.6	81.4	92.2	4.88	12.5
	Gamma-BHC	89.2	87.8	98.4	94.1	1.60	4.54
	Gamma-Chlordane	71.2	71.6	87.3	77.5	0.617	11.0
	Heptachlor	67.5	67.0	84.7	76.4	0.641	10.2
	Heptachlor Epoxide	79.7	75.7	84.3	77.1	5.05	7.88
	Hexachlorobenzene	67.2	65.3	81.2	73.5	2.96	9.97
	Hexazinone	94.4	89.1			5.77	11.3
	Imazalil	102	95.2	114	95.1	6.82	18.0
	Iprodione	111	101	95.3	96.5	10.1	1.27
	Kepone	63.8	68.1			6.40	51.8
	Lambda-Cyhalothrin	58.1	57.2	132	117	1.67	9.14
	Malathion	105	105	96.5	103	0.621	6.59
	Metalaxyl	105	93.6	87.8	96.1	11.3	9.00
	Methoxychlor	79.7	76.8	97.6	88.3	3.78	9.96
	Metolachlor	106	96.2	92.6	102	9.20	8.99
	Metribuzin	98.6	98.9	96.8	119	0.245	20.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Mevinphos	63.0	69.8	76.6	87.6	10.2	13.3
	MGK-264	69.4	69.8	87.5	80.9	0.527	7.85
	Mirex	119	111	170	145	6.80	15.4
	Molinate	49.2	56.4	61.2	72.5	13.6	16.9
	Myclobutanil	98.4	92.4	86.6	88.3	6.26	1.95
	Naled	38.8	43.8	50.8	58.4	12.1	13.8
	Norflurazon	97.9	87.3	86.0	88.9	11.4	3.32
	Oxadiazon	97.9	87.5	85.0	86.2	11.2	1.44
	Oxyfluorfen	112	112	113	106	0.167	6.65
	Parathion Ethyl	88.5	89.8	87.5	96.7	1.44	9.93
	Parathion Methyl	99.8	104	101	115	3.66	12.8
	Pendimethalin	86.8	89.0	93.3	102	2.39	9.34
	Permethrin	66.7	71.6	146	138	7.09	5.72
	Phenothrin	46.0	53.1	97.2	92.8	14.2	4.66
	Phorate	103	105	145	161	1.38	10.4
	Piperonyl Butoxide	43.1	42.4	59.8	55.6	1.73	7.20
	Prallethrin	58.3	57.1	78.0	69.9	1.95	10.9
	Prodiamine	44.1	48.4	58.1	63.2	9.34	8.44
	Prometon	91.9	86.5	84.3	96.3	6.14	13.2
	Prometryn	98.7	92.3	85.0	89.4	6.69	5.11
	Pronamide	97.1	95.9	100	108	1.28	7.47
	Propiconazole	104	88.2	86.1	92.5	16.8	7.17
	Pyriproxyfen	97.3	93.5	88.0	116	3.97	27.1
	Simazine	86.7	86.5	92.4	109	0.195	11.8
	Sulfentrazone	85.9	77.1	79.8	83.9	10.9	5.04
	Tau-Fluvalinate	50.6	51.0	108	94.6	0.741	13.3
	Tebuconazole	94.3	63.7	66.0	53.5	38.7	21.0
	Terbufos	91.3	93.5	98.5	110	2.35	11.1
	Terbuthylazine	102	89.6	70.6	79.5	13.0	9.44
	Tetramethrin	65.8	69.7	92.3	85.5	5.72	7.68
	Trans-Nonachlor	71.9	76.3	93.2	80.8	5.88	14.4
	Triclosan Methyl	78.9	81.0	88.9	80.3	2.69	10.1
	Trifluralin	68.9	68.9	85.9	76.3	0.0488	11.9
EPA 8276	Chlordane	94.9	93.0	90.2	102	1.99	12.3
	Toxaphene	84.9	88.0	92.3	105	3.57	12.4
EPA 8321B	2,4-D	106		127	139		8.10
	2,4,5-T	99.3		150	161		7.63
	3-Hydroxycarbofuran	79.4		80.2	80.4		0.349
	Acesulfame K	80.5		84.0	86.4		2.82
	Acetaminophen	60.6		48.3	51.9		5.02
	Acetamiprid	78.4		90.4	85.9		5.13
	Afidopyropen	73.3		81.3	86.6		6.35
	Aldicarb	70.9		78.9	71.8		9.34
	Aldicarb Sulfone	56.2		89.5	84.1		6.21
	Aldicarb Sulfoxide	97.3		55.2	50.5		8.78
	AMPA	99.4		95.1	97.3		2.28
	Bentazon	39.2					11.4
	Benzovindiflupyr	78.0		73.8	78.6		6.22
	Carbamazepine	76.5		77.5	70.6		4.66
	Carbaryl	73.7		51.1	48.8		4.65
	Carbofuran	69.6		52.2	49.7		4.94
	Clothianidin	77.5		109	101		7.29
	Dinotefuran	68.1		97.4	98.4		1.06
	Diuron	66.8		69.0	64.6		6.65

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8321B	Endothall	71.4	70.2	82.7		
	Fenuron	85.5	79.8	81.6		
	Fluridone	83.2	86.1	82.8		
	Glufosinate	101	103	105		
	Glyphosate	103	106	111		
	Hydrocodone	81.6	83.6	87.4		
	Ibuprofen	65.1	65.0	85.4		
	Imazapyr	91.7				
	Imidacloprid	72.3	157	162		
	Linuron	59.6	74.5	80.2		
	Mandestrobin	88.0	92.8	97.3		
	MCPP	147	199	213		
	Methiocarb	68.2	71.0	59.7		
	Methomyl	90.4	78.4	73.8		
	Naproxen	81.4	94.0	101		
	Oxamyl	85.7	75.7	74.8		
	Primidone	86.5	104	85.9		
	Propoxur	75.2	56.3	52.0		
	Pyraclostrobin	62.0	74.7	65.6		
	Sucralose	102	99.7	103		
	Thiamethoxam	52.4	119	116		
	Tolfenpyrad	47.0	48.4	64.3		
	Triclopyr	112	155	161		
SM 2120 B-2011	Color (true)	101				3.46
SM 2320 B-2011	Total Alkalinity	107				0.495
SM 2540 C-2011	TDS					8.96
SM 4500 F-C-2011	Fluoride	101	103	103		0.469
SM 5310 B-2011	Organic Carbon	97.6	96.3	96.3		0.0473

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2255359
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2255377, 2255378
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2255377, 2255378
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2255359
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2255359
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2255360
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2255360
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2255360
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2255360
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2255361
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2255374
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2255375, 2255376
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2255374
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2255371
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2255372, 2255373
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2255359
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2255359
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2255377, 2255378

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2255359
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2255359
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2255359
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2255360

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	06/16/2021			06/16/2021 15:55	Sarah A Nixon	2255359
EPA 200.7 Rev. 4.4	06/16/2021	06/21/2021 13:15	Elliott D. Healy	06/22/2021 15:24	Josef B Mick	2255377
	06/16/2021	06/21/2021 13:15	Elliott D. Healy	06/22/2021 15:32	Josef B Mick	2255377
	06/16/2021	06/21/2021 13:15	Elliott D. Healy	06/22/2021 15:40	Josef B Mick	2255378
	06/16/2021	06/21/2021 13:15	Elliott D. Healy	06/22/2021 15:47	Josef B Mick	2255378
EPA 200.8 Rev. 5.4	06/16/2021	06/21/2021 13:15	Elliott D. Healy	06/29/2021 15:39	Alexander Thompson	2255377
	06/16/2021	06/21/2021 13:15	Elliott D. Healy	06/29/2021 15:49	Alexander Thompson	2255378
	06/16/2021	06/21/2021 13:15	Elliott D. Healy	06/30/2021 14:02	Alexander Thompson	2255377
	06/16/2021	06/21/2021 13:15	Elliott D. Healy	06/30/2021 14:08	Alexander Thompson	2255378
	06/16/2021	07/01/2021 13:10	Elliott D. Healy	07/02/2021 23:53	Alexander Thompson	2255377
	06/16/2021	07/01/2021 13:10	Elliott D. Healy	07/02/2021 23:59	Alexander Thompson	2255378
	06/16/2021	07/06/2021 13:45	Elliott D. Healy	07/07/2021 15:56	Alexander Thompson	2255377
EPA 300.0 Rev. 2.1	06/16/2021			06/18/2021 18:06	Lipi Saha	2255359
EPA 350.1 Rev. 2.0	06/16/2021			06/28/2021 13:47	Ping Hua	2255360
EPA 351.2 Rev. 2.0	06/16/2021	06/18/2021 14:20	Benjamin T. Nordmann	06/23/2021 16:02	Letuzia M De Oliveira	2255360
EPA 353.2 Rev. 2.0	06/16/2021			06/17/2021 10:37	Beverly Y. Sanders	2255360
EPA 365.1 Rev. 2.0	06/16/2021	06/25/2021 12:24	Madeline Gruver	06/28/2021 09:23	Shengyu Ding	2255360
EPA 365.1 Rev. 2.0 dissolved	06/16/2021			06/16/2021 12:21	Ping Hua	2255361
EPA 8270E	06/16/2021	06/18/2021 08:00	Rasheda Ghaffari	06/22/2021 19:42	Michael Poppell	2255374
	06/16/2021	06/18/2021 08:00	Rasheda Ghaffari	06/24/2021 19:44	Michael Poppell	2255374
	06/16/2021	06/21/2021 08:00	Fe-Val Siddell	06/22/2021 16:34	Vandana T. Nagar	2255375
	06/16/2021	06/21/2021 08:00	Fe-Val Siddell	06/22/2021 16:59	Vandana T. Nagar	2255376
	06/16/2021	06/21/2021 08:00	Fe-Val Siddell	06/29/2021 20:05	Vandana T. Nagar	2255375
	06/16/2021	06/21/2021 08:00	Fe-Val Siddell	07/06/2021 15:51	Vandana T. Nagar	2255376
EPA 8276	06/16/2021	06/18/2021 08:00	Rasheda Ghaffari	06/27/2021 03:21	Chiran X. Ghimire	2255374
EPA 8321B	06/16/2021	06/16/2021 14:00	Hoor Shaik	06/21/2021 10:19	Juyoung Kim	2255372
	06/16/2021	06/16/2021 14:00	Hoor Shaik	06/21/2021 10:54	Juyoung Kim	2255373
	06/16/2021	06/18/2021 11:00	Juyoung Kim	06/18/2021 15:33	Juyoung Kim	2255372
	06/16/2021	06/18/2021 11:00	Juyoung Kim	06/18/2021 15:47	Juyoung Kim	2255373
	06/16/2021	06/18/2021 11:00	Juyoung Kim	06/18/2021 23:02	Juyoung Kim	2255372
	06/16/2021	06/18/2021 11:00	Juyoung Kim	06/18/2021 23:13	Juyoung Kim	2255373
	06/16/2021	06/21/2021 09:00	Hoor Shaik	06/21/2021 20:08	Juyoung Kim	2255371
SM 2120 B-2011	06/16/2021			06/16/2021 16:48	Madeline Gruver	2255359
SM 2320 B-2011	06/16/2021			06/23/2021 21:16	Patrick M. Roche	2255359
SM 2340B	06/16/2021			06/22/2021 15:24	Josef B Mick	2255377
	06/16/2021			06/22/2021 15:40	Josef B Mick	2255378
SM 2540 C-2011	06/16/2021			06/18/2021 15:41	Yijie Li	2255359
SM 2540 D-2011	06/16/2021			06/18/2021 15:41	Yijie Li	2255359
SM 4500 F-C-2011	06/16/2021			07/07/2021 06:13	Patrick M. Roche	2255359
SM 5310 B-2011	06/16/2021			06/24/2021 08:33	Madeline Gruver	2255360