

Chemical Analysis Report

CEN-DIST-2020-12-22-02

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

Event Description: **B-19 HA**
Request ID: **RQ-2020-12-21-39**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 13-JAN-2021 18:11



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: Unnamed Ditch @ 100m Us of Madeline Ave.

Collection Date/Time: 12/21/2020 12:29

Field ID: G5CE0092

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2215415	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P391624	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P392040	
		Sulfate	7.4		mg SO4/L	P392042	
	SM 2120 B-2011	Color (true)	100	A	PCU	P391633	
	SM 2320 B-2011	Total Alkalinity	177		mg CaCO3/L	P391745	
	SM 2540 C-2011	TDS	322		mg/L	P391952	
	SM 2540 D-2011	TSS	2	U	mg/L	P391959	
2215416	SM 4500 F-C-2011	Fluoride	0.17		mg F/L	P391747	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.075		mg N/L	P391733	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1	J	mg N/L	P391838	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.23		mg N/L	P391658	
	EPA 365.1 Rev. 2.0	Total-P	0.098		mg P/L	P391689	
2215417	SM 5310 B-2011	Organic Carbon	21		mg C/L	P391750	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.076		mg P/L	P391629	
2215420	EPA 8321B	Aldicarb	0.020	U	ug/L	P391622	
		Aldicarb Sulfone	0.0020	U	ug/L	P391622	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P391622	
		Carbaryl	0.0020	U	ug/L	P391622	
		Carbofuran	0.0020	U	ug/L	P391622	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P391622	
		Methiocarb	0.0020	U	ug/L	P391622	
		Methomyl	0.0020	U	ug/L	P391622	
		Oxamyl	0.0020	U	ug/L	P391622	
		Propoxur	0.0020	U	ug/L	P391622	
		2,4-D	0.015		ug/L	P391621	
		Acesulfame K**	0.10	U	ug/L	P391600	
2215421		AMPA**	0.79		ug/L	P391600	
		Sucralose**	1.4		ug/L	P391600	
		Acetaminophen**	0.0080	U	ug/L	P391621	
		Acetamiprid**	0.0029	I	ug/L	P391621	
		Endothall**	0.25	U	ug/L	P391600	
		Glufosinate**	0.10	U	ug/L	P391600	
		Glyphosate**	0.97		ug/L	P391600	MS
		Afidopyropen**	0.0020	U	ug/L	P391621	
		Bentazon	0.49		ug/L	P391621	MS
		Benzovindiflupyr**	0.0020	U	ug/L	P391621	
		Carbamazepine**	0.0049		ug/L	P391621	
		Clothianidin**	0.0074	I	ug/L	P391621	
		Dinotefuran**	0.0020	I	ug/L	P391621	
		Diuron	0.0020	U	ug/L	P391621	
		Fenuron	0.016	U	ug/L	P391621	
		Fluridone**	0.096		ug/L	P391621	
		Imazapyr**	0.17		ug/L	P391621	

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Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2215421	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P391621	
		Ibuprofen**	0.020	U	ug/L	P391621	
		Imidacloprid	0.032		ug/L	P391621	
		Linuron	0.0040	U	ug/L	P391621	
		Mandestrobin**	0.0020	U	ug/L	P391621	
		MCP	0.0021	I	ug/L	P391621	
		Naproxen**	0.0080	U	ug/L	P391621	RPD
		Primidone**	0.010	I	ug/L	P391621	
		Pyraclostrobin**	0.0020	U	ug/L	P391621	
		Thiamethoxam**	0.0020	U	ug/L	P391621	
		Tolfenpyrad**	0.0020	U	ug/L	P391621	
		Triclopyr**	0.0040	U	ug/L	P391621	
2215422	EPA 8270E	Aldrin	4.3	UJ	ng/L	P391595	RPD
		Alpha-BHC	2.1	U	ng/L	P391595	
		Alpha-Chlordane	1.1	U	ng/L	P391595	
		Beta-BHC	8.6	U	ng/L	P391595	
		Beta-Cyfluthrin**	16	U	ng/L	P391595	
		Bifenthrin**	4.3	U	ng/L	P391595	
		Delta-BHC	8.6	U	ng/L	P391595	
		Gamma-BHC	8.6	U	ng/L	P391595	
		Chlorothalonil	2.1	U	ng/L	P391595	
		Cis-Nonachlor**	1.1	U	ng/L	P391595	
		Cypermethrin	21	U	ng/L	P391595	
		Dacthal**	1.1	U	ng/L	P391595	
		DDD-p,p'	5.4	U	ng/L	P391595	
		DDE-p,p'	5.4	U	ng/L	P391595	
		DDT-p,p'	6.4	U	ng/L	P391595	
		Deltamethrin**	21	U	ng/L	P391595	
		Dicofol	32	UJ	ng/L	P391595	CCV
		Diendrin	4.3	U	ng/L	P391595	
		Endosulfan I	4.3	U	ng/L	P391595	
		Endosulfan II	4.3	U	ng/L	P391595	
		Endosulfan Sulfate	2.1	U	ng/L	P391595	
		Endrin	2.1	U	ng/L	P391595	
		Endrin Aldehyde	2.1	U	ng/L	P391595	
		Endrin Ketone	2.1	U	ng/L	P391595	
		Ethalfuralin**	3.2	U	ng/L	P391595	
		Gamma-Chlordane	1.1	U	ng/L	P391595	
		Dichlobenil**	2.1	U	ng/L	P391595	
		Esfenvalerate**	21	U	ng/L	P391595	
		Fenprothrin**	11	U	ng/L	P391595	
		Heptachlor	1.6	U	ng/L	P391595	
		Heptachlor Epoxide	2.1	U	ng/L	P391595	
		Hexachlorobenzene	2.1	U	ng/L	P391595	
		Lambda-Cyhalothrin**	16	U	ng/L	P391595	

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Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2215422	EPA 8270E	Methoxychlor	4.3	U	ng/L	P391595	RPD
		Mirex	2.1	U	ng/L	P391595	
		MGK-264**	3.2	U	ng/L	P391595	
		Permethrin	11	U	ng/L	P391595	
		Phenothrin**	32	UJ	ng/L	P391595	
		Piperonyl Butoxide**	1.6	U	ng/L	P391595	
		Prallethrin**	27	U	ng/L	P391595	
		Tau-Fluvalinate**	3.7	U	ng/L	P391595	
		Tetramethrin**	8.6	U	ng/L	P391595	
		Trans-Nonachlor**	1.1	U	ng/L	P391595	
		Triclosan Methyl**	1.1	U	ng/L	P391595	
		Trifluralin	2.7	U	ng/L	P391595	
		Chlordane	5.4	U	ng/L	P391595	
		Toxaphene	32	U	ng/L	P391595	
2215423	EPA 8270E	Acetochlor	0.24	U	ng/L	P391594	RPD
		Alachlor	0.24	U	ng/L	P391594	
		Ametryn	4.6		ng/L	P391594	
		Atrazine	160		ng/L	P391594	
		Atrazine Desethyl	14		ng/L	P391594	
		Azinphos Methyl	1.9	U	ng/L	P391594	
		Azoxystrobin**	0.48	UJ	ng/L	P391594	
		Bromacil	0.48	U	ng/L	P391594	
		Butylate	0.38	U	ng/L	P391594	
		Carbophenothion	0.48	U	ng/L	P391594	
		Carfentrazone Ethyl**	0.096	U	ng/L	P391594	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P391594	
		Chlorpyrifos Methyl	0.048	U	ng/L	P391594	
		Cyanazine	3.1	U	ng/L	P391594	
		Demeton	1.4	U	ng/L	P391594	
		Diazinon	0.12	U	ng/L	P391594	
		Difenoconazole**	0.58	U	ng/L	P391594	
		Dimethenamid**	0.096	U	ng/L	P391594	
		Disulfoton	0.48	U	ng/L	P391594	
		Dithiopyr**	0.18	I	ng/L	P391594	
		EPTC	1.2	U	ng/L	P391594	
		Ethion	0.14	UJ	ng/L	P391594	
		Ethoprop	0.096	U	ng/L	P391594	
		Fenamiphos	0.48	U	ng/L	P391594	
		Fenbuconazole**	0.12	U	ng/L	P391594	
		Fipronil	0.77	I	ng/L	P391594	
		Fipronil Desulfinyl**	0.86		ng/L	P391594	
		Fipronil Sulfide	1.9		ng/L	P391594	
		Fipronil Sulfone	3.6		ng/L	P391594	
		Fluazifop-P-butyl**	0.096	U	ng/L	P391594	
		Fludioxonil**	0.12	U	ng/L	P391594	
							LCS, RPD

Field ID: G5CE0092

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2215423	EPA 8270E	Flumioxazin**	150		ng/L	P391594	
		Flutolanil**	0.29	I	ng/L	P391594	
		Fluxapyroxad**	0.096	U	ng/L	P391594	
		Fonofos	0.19	U	ng/L	P391594	
		Hexazinone	0.99	I	ng/L	P391594	
		Imazalil**	0.72	U	ng/L	P391594	
		Iprodione**	0.58	U	ng/L	P391594	
		Malathion	0.34	U	ng/L	P391594	
		Metalaxyl	0.72	U	ng/L	P391594	
		Metolachlor	0.48	U	ng/L	P391594	
		Metribuzin	3.1	U	ng/L	P391594	
		Mevinphos	0.48	U	ng/L	P391594	
		Molinate	0.29	U	ng/L	P391594	
		Myclobutanil**	0.24	U	ng/L	P391594	
		Naled**	1.4	U	ng/L	P391594	
		Norflurazon	0.48	U	ng/L	P391594	
		Oxadiazon	0.17	I	ng/L	P391594	
		Oxyfluorfen**	0.14	U	ng/L	P391594	
		Parathion Ethyl	0.24	U	ng/L	P391594	
		Parathion Methyl	0.53	U	ng/L	P391594	
		Pendimethalin	0.96	U	ng/L	P391594	MS, RPD
		Phorate	0.24	U	ng/L	P391594	
		Prodiamine**	0.17	U	ng/L	P391594	RPD
		Prometon	0.87	U	ng/L	P391594	
		Prometryn	0.19	U	ng/L	P391594	
		Pronamide**	0.14	U	ng/L	P391594	
		Propiconazole**	2.5		ng/L	P391594	
		Pyriproxyfen**	0.12	U	ng/L	P391594	
		Simazine	140		ng/L	P391594	
		Sulfentrazone**	5.3		ng/L	P391594	
		Tebuconazole**	0.81	I	ng/L	P391594	
		Terbufos	0.096	U	ng/L	P391594	
		Terbuthylazine	1.2	I	ng/L	P391594	
2215424	EPA 200.7 Rev. 4.4	Barium	28.7		ug/L	P391761	
		Calcium	76.9		mg/L	P391761	
		Iron	390		ug/L	P391761	
		Magnesium	4.60		mg/L	P391761	
		Potassium	2.5		mg/L	P391761	
		Sodium	30.7		mg/L	P391761	
		Zinc	5.0	U	ug/L	P391761	
	EPA 200.8 Rev. 5.4	Aluminum	50		ug/L	P391761	
		Antimony	0.091	I	ug/L	P391761	
		Arsenic	0.81		ug/L	P391761	
		Beryllium	0.016	I	ug/L	P391761	
		Boron**	42.5		ug/L	P391761	

Field ID: G5CE0092

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2215424	EPA 200.8 Rev. 5.4	Cadmium	0.020	U	ug/L	P391761	
		Chromium	0.64	I	ug/L	P391761	
		Copper	12.5		ug/L	P391761	
		Lead	0.20	U	ug/L	P391761	
		Nickel	0.50	U	ug/L	P391761	
		Selenium	0.22	I	ug/L	P391761	
		Silver	0.010	U	ug/L	P391761	
		Thallium	0.10	U	ug/L	P391761	
		Hardness	211		mg/L	P391761	
	SM 2340B						

Ref. Method and Comment:
 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: Refer to the Lab Analysis Report for an explanation of QC Codes.
 EPA 8270E: 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.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391624

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391761

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391761

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
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 300.0 Rev. 2.1
Batch ID: P392040

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392042

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391733

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391838

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391658

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391689

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391629

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

Reference Method: EPA 8270E
Batch ID: P391594

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P391594

Component	Result	Code	Units
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P391595

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P391595

Component	Result	Code	Units
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dichlobenil	2.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Esfenvalerate	20	U	ng/L
Ethalfuralin	3.0	U	ng/L
Fenpropathrin	10	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
MGK-264	3.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Piperonyl Butoxide	1.5	U	ng/L
Prallethrin	25	U	ng/L
Tau-Fluvalinate	3.5	U	ng/L
Tetramethrin	8.0	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Triclosan Methyl	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276

Batch ID: P391595

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

Reference Method: EPA 8321B

Batch ID: P391600

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P391621

Component	Result	Code	Units
2,4-D	0.0020	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: P391622

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 2120 B-2011

Batch ID: P391633

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P391745

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P391952

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P391959

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P391747

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P391750

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: P391761

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	99.5		P	85 - 115
Calcium	104		P	85 - 115
Iron	102		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	97.6		P	85 - 115
Sodium	103		P	85 - 115
Zinc	97.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391761

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.1		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	103		P	85 - 115
Beryllium	102		P	85 - 115
Boron	99.8		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	97.6		P	85 - 115
Copper	99.7		P	85 - 115
Lead	103		P	85 - 115
Nickel	99.4		P	85 - 115
Selenium	104		P	85 - 115
Silver	108		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392042

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391733

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: P391838

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391658

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391689

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391629

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

Reference Method: EPA 8270E
Batch ID: P391594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	92.0	88.8	P/P	70 - 121
Alachlor	92.4	90.4	P/P	70 - 119
Ametryn	108	132	P/P	61 - 135
Atrazine	98.0	96.9	P/P	76 - 123
Atrazine Desethyl	92.2	95.1	P/P	35 - 140
Azinphos Methyl	142	135	P/P	57 - 163
Azoxystrobin	108	78.1	P/P	43 - 231
Bromacil	82.3	82.8	P/P	42 - 123
Butylate	76.2	68.8	P/P	34 - 92.0
Carbophenothion	92.4	89.0	P/P	61 - 121
Carfentrazone Ethyl	104	101	P/P	62 - 139
Chlorpyrifos Ethyl	81.8	81.0	P/P	67 - 121
Chlorpyrifos Methyl	91.9	93.7	P/P	67 - 120
Cyanazine	133	146	P/P	20 - 226
Demeton	79.1	76.7	P/P	35 - 125
Diazinon	96.1	98.8	P/P	70 - 122
Difenoconazole	104	86.5	P/P	56 - 186
Dimethenamid	87.0	79.2	P/P	67 - 119
Disulfoton	87.9	95.2	P/P	47 - 120
Dithiopyr	82.6	82.0	P/P	67 - 118
EPTC	67.1	56.8	P/P	33 - 90.0
Ethion	49.7	31.6	P/F	40 - 133
Ethoprop	91.3	91.4	P/P	61 - 121
Fenamiphos	95.0	82.9	P/P	31 - 139
Fenbuconazole	105	102	P/P	66 - 141
Fipronil	104	102	P/P	62 - 129
Fipronil Desulfinyl	96.2	96.1	P/P	59 - 126
Fipronil Sulfide	95.3	93.3	P/P	63 - 117
Fipronil Sulfone	76.5	82.9	P/P	57 - 117
Fluazifop-P-butyl	94.8	89.4	P/P	63 - 124
Fludioxonil	96.9	84.9	P/P	63 - 123
Flumioxazin	133	120	P/P	34 - 245
Flutolanil	93.4	89.5	P/P	56 - 131
Fluxapyroxad	89.4	75.6	P/P	57 - 117

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P391594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fonofos	92.3	94.3	P/P	61 - 116
Hexazinone	84.6	83.6	P/P	55 - 138
Imazalil	104	101	P/P	33 - 143
Iprodione	97.4	87.7	P/P	59 - 118
Malathion	86.8	88.4	P/P	62 - 138
Metalaxyl	101	99.1	P/P	24 - 147
Metolachlor	83.7	85.2	P/P	68 - 118
Metribuzin	112	126	P/P	20 - 239
Mevinphos	93.0	89.6	P/P	46 - 124
Molinate	79.9	75.2	P/P	46 - 100
Myclobutanil	95.3	95.4	P/P	32 - 149
Naled	45.2	42.2	P/P	32 - 95.0
Norflurazon	96.1	96.6	P/P	57 - 127
Oxadiazon	86.4	83.8	P/P	63 - 118
Oxyfluorfen	101	91.2	P/P	69 - 137
Parathion Ethyl	83.2	91.9	P/P	70 - 113
Parathion Methyl	111	108	P/P	71 - 130
Pendimethalin	83.3	83.8	P/P	55 - 118
Phorate	75.0	74.8	P/P	46 - 125
Prodiamine	73.9	76.8	P/P	20 - 141
Prometon	88.7	83.2	P/P	54 - 122
Prometryn	94.7	94.9	P/P	66 - 124
Pronamide	93.4	91.6	P/P	79 - 122
Propiconazole	99.2	93.9	P/P	61 - 126
Pyriproxyfen	90.2	85.4	P/P	52 - 131
Simazine	100	113	P/P	75 - 128
Sulfentrazone	69.6	72.6	P/P	20 - 132
Tebuconazole	51.8	42.1	P/P	20 - 116
Terbufos	83.4	85.5	P/P	61 - 117
Terbutylazine	91.5	90.5	P/P	74 - 116

Reference Method: EPA 8270E

Batch ID: P391595

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	27.8	40.8	P/P	20 - 82.0
Alpha-BHC	85.8	87.6	P/P	58 - 130
Alpha-Chlordane	73.5	78.2	P/P	61 - 105
Beta-BHC	94.8	92.8	P/P	53 - 164
Beta-Cyfluthrin	61.0	75.0	P/P	40 - 140
Bifenthrin	55.6	68.0	P/P	44 - 122
Chlorothalonil	63.8	55.8	P/P	20 - 201
Cis-Nonachlor	73.8	79.5	P/P	60 - 110
Cypermethrin	61.4	76.9	P/P	43 - 131
Dacthal	91.9	92.4	P/P	76 - 108
DDD-p,p'	81.6	83.7	P/P	68 - 118
DDE-p,p'	70.9	77.8	P/P	56 - 107
DDT-p,p'	70.5	78.0	P/P	55 - 122
Delta-BHC	126	117	P/P	60 - 181
Deltamethrin	69.5	80.9	P/P	51 - 139
Dichlobenil	77.6	87.0	P/P	20 - 106
Dicofol	113	107	P/P	56 - 130

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P391595

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dieldrin	84.1	83.9	P/P	67 - 111
Endosulfan I	81.8	83.3	P/P	68 - 115
Endosulfan II	84.0	87.2	P/P	69 - 133
Endosulfan Sulfate	86.4	86.6	P/P	65 - 126
Endrin	82.3	85.9	P/P	66 - 118
Endrin Aldehyde	90.2	90.8	P/P	60 - 132
Endrin Ketone	90.7	91.3	P/P	68 - 121
Esfenvalerate	63.2	76.4	P/P	42 - 116
Ethalfuralin	67.8	75.8	P/P	50 - 118
Fenpropathrin	85.4	88.3	P/P	55 - 132
Gamma-BHC	101	101	P/P	65 - 147
Gamma-Chlordane	68.1	75.9	P/P	56 - 103
Heptachlor	60.4	71.5	P/P	47 - 95.0
Heptachlor Epoxide	81.5	84.2	P/P	67 - 107
Hexachlorobenzene	62.9	70.8	P/P	45 - 99.0
Lambda-Cyhalothrin	59.3	70.9	P/P	41 - 135
Methoxychlor	84.9	87.5	P/P	61 - 138
MGK-264	53.3	58.6	P/P	20 - 109
Mirex	51.3	63.8	P/P	36 - 92.0
Permethrin	57.4	70.0	P/P	45 - 111
Phenothrin	30.0	46.4	P/P	22 - 88.0
Piperonyl Butoxide	85.2	95.4	P/P	67 - 120
Prallethrin	48.5	60.0	P/P	28 - 92.0
Tau-Fluvalinate	66.9	83.1	P/P	38 - 145
Tetramethrin	82.2	102	P/P	29 - 150
Trans-Nonachlor	69.5	76.9	P/P	54 - 105
Triclosan Methyl	89.8	89.9	P/P	76 - 115
Trifluralin	66.3	74.4	P/P	53 - 111

Reference Method: EPA 8276

Batch ID: P391595

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	86.1	87.0	P/P	56 - 117
Toxaphene	88.8	88.1	P/P	45 - 116

Reference Method: EPA 8321B

Batch ID: P391600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	112		P	40 - 150
AMPA	65.1		P	40 - 150
Endothall	95.7		P	40 - 150
Glufosinate	102		P	40 - 150
Glyphosate	99.4		P	40 - 140
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P391621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	96.7		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P391621

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	74.2		P	30 - 150
Acetamiprid	91.7		P	30 - 160
Afidopyropen	77.3		P	30 - 160
Bentazon	30.5		P	30 - 150
Benzovindiflupyr	84.3		P	30 - 160
Carbamazepine	104		P	30 - 160
Clothianidin	82.2		P	30 - 160
Dinotefuran	87.9		P	30 - 160
Diuron	82.4		P	30 - 160
Fenuron	97.6		P	30 - 160
Fluridone	89.6		P	30 - 160
Hydrocodone	94.4		P	30 - 160
Ibuprofen	58.2		P	30 - 160
Imazapyr	84.5		P	30 - 160
Imidacloprid	101		P	30 - 160
Linuron	86.0		P	30 - 160
Mandestrobin	105		P	30 - 160
MCPP	105		P	30 - 160
Naproxen	59.5		P	30 - 160
Primidone	89.0		P	30 - 160
Pyraclostrobin	80.0		P	30 - 160
Thiamethoxam	93.4		P	30 - 160
Tolfenpyrad	50.5		P	30 - 160
Triclopyr	101		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P391622

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	78.2		P	30 - 160
Aldicarb	75.9		P	30 - 150
Aldicarb Sulfone	80.3		P	30 - 160
Aldicarb Sulfoxide	111		P	30 - 160
Carbaryl	86.9		P	30 - 160
Carbofuran	77.6		P	30 - 160
Methiocarb	83.4		P	30 - 160
Methomyl	94.6		P	30 - 160
Oxamyl	95.6		P	30 - 160
Propoxur	94.1		P	30 - 160

Reference Method: SM 2120 B-2011

Batch ID: P391633

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P391745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.2		P	93 - 104

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P391747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.7		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P391750

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215481	Barium	103	99.7	P/P	80 - 120
2215481	Calcium	110	106	P/P	80 - 120
2215481	Iron	107	105	P/P	80 - 120
2215481	Magnesium	106	103	P/P	80 - 120
2215481	Potassium	104	101	P/P	80 - 120
2215481	Sodium	105	100	P/P	80 - 120
2215481	Zinc	99.5	97.0	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215481	Aluminum	100	98.8	P/P	80 - 120
2215481	Antimony	105	104	P/P	80 - 120
2215481	Arsenic	103	101	P/P	80 - 120
2215481	Beryllium	97.7	98.9	P/P	80 - 120
2215481	Boron	101	100	P/P	80 - 120
2215481	Cadmium	99.0	98.5	P/P	80 - 120
2215481	Chromium	99.5	97.9	P/P	80 - 120
2215481	Copper	101	99.4	P/P	80 - 120
2215481	Lead	106	104	P/P	80 - 120
2215481	Nickel	100	98.8	P/P	80 - 120
2215481	Selenium	100	97.3	P/P	80 - 120
2215481	Silver	102	104	P/P	80 - 120
2215481	Thallium	104	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392040

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215069	Chloride	99.1		P	90 - 110
2215322	Chloride	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392042

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215069	Sulfate	98.7		P	90 - 110
2215322	Sulfate	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215458	Ammonia-N	97.8	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391838

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215416	Kjeldahl Nitrogen	106	113	P/F	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391658

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215368	NO2NO3-N	97.0	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391689

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215368	Total-P	102	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391629

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215073	O-Phosphate-P	101	100	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P391594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214693	Acetochlor	92.3	84.1	P/P	66 - 122
2214693	Alachlor	94.9	83.7	P/P	65 - 122
2214693	Atrazine	105	94.1	P/P	70 - 134
2214693	Atrazine Desethyl	91.1	87.4	P/P	25 - 150
2214693	Azinphos Methyl	138	133	P/P	44 - 174
2214693	Azoxystrobin	114	126	P/P	10 - 268
2214693	Butylate	62.4	60.2	P/P	15 - 97.0
2214693	Carbophenothion	84.5	82.5	P/P	42 - 129
2214693	Carfentrazone Ethyl	96.4	89.1	P/P	62 - 145
2214693	Chlorpyrifos Ethyl	89.3	96.0	P/P	60 - 124
2214693	Chlorpyrifos Methyl	90.8	90.0	P/P	66 - 119
2214693	Cyanazine	131	126	P/P	17 - 225
2214693	Demeton	77.8	78.5	P/P	36 - 142
2214693	Diazinon	104	91.3	P/P	70 - 128
2214693	Difenoconazole	111	115	P/P	33 - 222
2214693	Dimethenamid	83.5	78.6	P/P	54 - 125
2214693	Disulfoton	102	93.9	P/P	49 - 133
2214693	Dithiopyr	87.5	82.2	P/P	55 - 123
2214693	EPTC	57.7	52.8	P/P	19 - 91.0
2214693	Ethion	49.7	67.6	P/P	13 - 143
2214693	Ethoprop	88.4	86.3	P/P	49 - 144
2214693	Fenamiphos	72.4	58.6	P/P	32 - 136
2214693	Fenbuconazole	103	93.8	P/P	73 - 148
2214693	Fipronil	104	92.1	P/P	57 - 129
2214693	Fipronil Desulfinyl	96.5	86.0	P/P	49 - 127
2214693	Fipronil Sulfide	90.0	89.0	P/P	44 - 127
2214693	Fipronil Sulfone	78.4	74.2	P/P	35 - 126
2214693	Fluazifop-P-butyl	93.2	87.5	P/P	67 - 129
2214693	Fludioxonil	88.9	83.7	P/P	61 - 126
2214693	Flumioxazin	152	154	P/P	38 - 279
2214693	Flutolanil	83.2	83.8	P/P	55 - 136
2214693	Fluxapyroxad	90.5	88.9	P/P	33 - 140
2214693	Fonofos	96.7	87.0	P/P	58 - 125
2214693	Hexazinone	92.8	82.3	P/P	57 - 148

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P391594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214693	Imazalil	110	108	P/P	10 - 221
2214693	Iprodione	82.0	86.6	P/P	32 - 140
2214693	Malathion	88.4	92.9	P/P	52 - 138
2214693	Metalaxyl	109	83.8	P/P	46 - 134
2214693	Metribuzin	132	98.9	P/P	16 - 272
2214693	Mevinphos	88.1	84.9	P/P	45 - 140
2214693	Molinate	74.1	70.5	P/P	41 - 103
2214693	Myclobutanil	91.7	85.7	P/P	60 - 134
2214693	Naled	42.6	41.8	P/P	20 - 113
2214693	Oxadiazon	89.6	70.0	P/P	44 - 125
2214693	Oxyfluorfen	119	113	P/P	66 - 176
2214693	Parathion Ethyl	98.7	90.4	P/P	57 - 132
2214693	Parathion Methyl	119	107	P/P	59 - 156
2214693	Pendimethalin	252	106	F/P	59 - 129
2214693	Phorate	87.8	77.2	P/P	47 - 136
2214693	Prodiamine	63.6	92.5	P/P	10 - 159
2214693	Prometon	87.5	81.8	P/P	59 - 127
2214693	Prometryn	100	87.8	P/P	59 - 129
2214693	Pronamide	105	95.5	P/P	65 - 145
2214693	Pyriproxyfen	95.3	91.0	P/P	21 - 180
2214693	Simazine	107	97.7	P/P	63 - 147
2214693	Sulfentrazon	99.6	77.1	P/P	32 - 136
2214693	Tebuconazole	50.1	54.3	P/P	10 - 117
2214693	Terbufos	92.0	86.9	P/P	61 - 131
2214693	Terbutylazine	91.3	83.2	P/P	62 - 126

Reference Method: EPA 8270E

Batch ID: P391595

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215359	Aldrin	51.0	52.8	P/P	29 - 83.0
2215359	Alpha-BHC	65.3	77.5	P/P	53 - 147
2215359	Alpha-Chlordane	67.9	70.3	P/P	56 - 107
2215359	Beta-BHC	86.7	84.7	P/P	43 - 182
2215359	Beta-Cyfluthrin	90.0	99.6	P/P	42 - 157
2215359	Bifenthrin	65.8	73.7	P/P	52 - 124
2215359	Chlorothalonil	88.6	98.9	P/P	10 - 265
2215359	Cis-Nonachlor	68.1	70.6	P/P	55 - 112
2215359	Cypermethrin	73.4	79.9	P/P	46 - 144
2215359	Dacthal	81.9	82.9	P/P	72 - 110
2215359	DDD-p,p'	69.2	72.8	P/P	58 - 123
2215359	DDE-p,p'	65.5	68.1	P/P	52 - 106
2215359	DDT-p,p'	63.5	68.8	P/P	50 - 127
2215359	Delta-BHC	126	134	P/P	56 - 222
2215359	Deltamethrin	95.7	88.8	P/P	47 - 152
2215359	Dichlobenil	29.1	36.5	P/P	22 - 99.0
2215359	Dicofol	66.0	71.5	P/P	38 - 145
2215359	Dieldrin	72.0	73.4	P/P	59 - 118
2215359	Endosulfan I	74.5	75.5	P/P	64 - 124
2215359	Endosulfan II	90.8	86.7	P/P	52 - 159
2215359	Endosulfan Sulfate	94.4	86.7	P/P	62 - 136
2215359	Endrin	72.3	76.7	P/P	57 - 126

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P391595

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215359	Endrin Aldehyde	57.8	50.1	P/P	41 - 128
2215359	Endrin Ketone	87.2	89.1	P/P	67 - 129
2215359	Esfenvalerate	81.6	88.5	P/P	50 - 120
2215359	Ethalfuralin	63.1	67.3	P/P	41 - 125
2215359	Fenpropathrin	149	141	P/P	40 - 202
2215359	Gamma-BHC	99.2	96.1	P/P	58 - 180
2215359	Gamma-Chlordane	65.2	67.1	P/P	54 - 103
2215359	Heptachlor	60.2	62.3	P/P	46 - 94.0
2215359	Heptachlor Epoxide	71.8	74.7	P/P	62 - 111
2215359	Hexachlorobenzene	58.3	61.4	P/P	42 - 95.0
2215359	Lambda-Cyhalothrin	87.3	97.6	P/P	37 - 162
2215359	Methoxychlor	74.8	79.5	P/P	52 - 143
2215359	MGK-264	71.0	67.9	P/P	37 - 102
2215359	Mirex	55.9	60.6	P/P	43 - 91.0
2215359	Permethrin	64.7	71.3	P/P	48 - 113
2215359	Phenothrin	53.0	57.9	P/P	30 - 104
2215359	Piperonyl Butoxide	77.1	87.9	P/P	67 - 127
2215359	Prallethrin	63.1	63.6	P/P	28 - 102
2215359	Tau-Fluvalinate	94.1	104	P/P	46 - 174
2215359	Tetramethrin	72.4	88.2	P/P	28 - 176
2215359	Trans-Nonachlor	65.1	68.2	P/P	51 - 103
2215359	Triclosan Methyl	75.9	78.7	P/P	67 - 116
2215359	Trifluralin	62.0	66.1	P/P	47 - 118

Reference Method: EPA 8276

Batch ID: P391595

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215422	Chlordane	70.9	71.6	P/P	47 - 128
2215422	Toxaphene	90.1	86.4	P/P	11 - 163

Reference Method: EPA 8321B

Batch ID: P391600

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215358	Acesulfame K	105	105	P/P	40 - 150
2215358	AMPA	75.7	71.1	P/P	40 - 150
2215358	Endothall	116	118	P/P	40 - 150
2215358	Glufosinate	95.9	103	P/P	40 - 150
2215358	Glyphosate	172	160	F/F	40 - 140
2215358	Sucralose	98.7	102	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P391621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214884	2,4-D	77.1	75.2	P/P	30 - 160
2214884	Acetaminophen	66.8	62.0	P/P	30 - 150
2214884	Acetamiprid	84.9	82.6	P/P	30 - 160
2214884	Afidopyropen	61.9	58.2	P/P	30 - 160
2214884	Bentazon	15.7	14.6	F/F	30 - 150
2214884	Benzovindiflupyr	72.5	82.0	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P391621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214884	Carbamazepine	84.8	82.4	P/P	30 - 160
2214884	Clothianidin	80.9	73.4	P/P	30 - 160
2214884	Dinotefuran	104	96.3	P/P	30 - 160
2214884	Diuron	66.1	59.4	P/P	30 - 160
2214884	Fenuron	73.3	69.0	P/P	30 - 160
2214884	Fluridone	66.5	70.6	P/P	30 - 160
2214884	Hydrocodone	88.5	83.2	P/P	30 - 160
2214884	Ibuprofen	53.3	54.1	P/P	30 - 160
2214884	Imazapyr	91.1	88.4	P/P	30 - 160
2214884	Imidacloprid	138	118	P/P	30 - 160
2214884	Linuron	82.7	70.9	P/P	30 - 160
2214884	Mandestrobin	92.7	69.9	P/P	30 - 160
2214884	MCPP	84.2	72.2	P/P	30 - 160
2214884	Naproxen	60.3	32.2	P/P	30 - 160
2214884	Primidone	78.9	67.1	P/P	30 - 160
2214884	Pyraclostrobin	71.7	69.9	P/P	30 - 160
2214884	Thiamethoxam	122	119	P/P	30 - 160
2214884	Tolfenpyrad	47.3	50.0	P/P	30 - 160
2214884	Triclopyr	82.8	83.0	P/P	30 - 160

Reference Method: EPA 8321B
 Batch ID: P391622

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214688	3-Hydroxycarbofuran	55.5	63.6	P/P	30 - 160
2214688	Aldicarb	64.9	58.6	P/P	30 - 150
2214688	Aldicarb Sulfone	71.3	75.0	P/P	30 - 160
2214688	Aldicarb Sulfoxide	43.8	46.2	P/P	30 - 160
2214688	Carbaryl	47.6	50.5	P/P	30 - 160
2214688	Carbofuran	49.8	50.1	P/P	30 - 160
2214688	Methiocarb	63.7	64.8	P/P	30 - 160
2214688	Methomyl	65.5	68.3	P/P	30 - 160
2214688	Oxamyl	71.9	73.3	P/P	30 - 160
2214688	Propoxur	58.2	64.2	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
 Batch ID: P391747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2215319	Fluoride	94.5	95.0	P/P	94 - 107

Reference Method: SM 5310 B-2011
 Batch ID: P391750

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2214867	Organic Carbon	101	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P391624

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215485	Turbidity	4.15	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P391761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215481	Barium	2.91	Spike	P	0 - 20
2215481	Calcium	2.61	Spike	P	0 - 20
2215481	Iron	1.46	Spike	P	0 - 20
2215481	Magnesium	2.46	Spike	P	0 - 20
2215481	Potassium	3.47	Spike	P	0 - 20
2215481	Sodium	3.52	Spike	P	0 - 20
2215481	Zinc	2.50	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P391761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215481	Aluminum	1.39	Spike	P	0 - 20
2215481	Antimony	1.48	Spike	P	0 - 20
2215481	Arsenic	2.54	Spike	P	0 - 20
2215481	Beryllium	1.10	Spike	P	0 - 20
2215481	Boron	0.920	Spike	P	0 - 20
2215481	Cadmium	0.547	Spike	P	0 - 20
2215481	Chromium	1.60	Spike	P	0 - 20
2215481	Copper	1.82	Spike	P	0 - 20
2215481	Lead	1.23	Spike	P	0 - 20
2215481	Nickel	1.39	Spike	P	0 - 20
2215481	Selenium	2.99	Spike	P	0 - 20
2215481	Silver	1.83	Spike	P	0 - 20
2215481	Thallium	0.911	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215322	Chloride	0.578	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P392042

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215322	Sulfate	1.03	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215458	Ammonia-N	2.08	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P391838

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215416	Kjeldahl Nitrogen	3.42	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P391658

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215368	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P391689

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215368	Total-P	1.76	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P391629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215073	O-Phosphate-P	0.498	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P391594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214693	Acetochlor	9.30	Spike	P	0 - 30
2214693	Alachlor	12.5	Spike	P	0 - 30
2214693	Ametryn	8.51	Spike	P	0 - 30
2214693	Atrazine	10.2	Spike	P	0 - 30
2214693	Atrazine Desethyl	4.12	Spike	P	0 - 30
2214693	Azinphos Methyl	4.12	Spike	P	0 - 30
2214693	Azoxystrobin	5.71	Spike	P	0 - 30
2214693	Bromacil	30.0	Spike	P	0 - 30
2214693	Butylate	3.64	Spike	P	0 - 30
2214693	Carbophenothion	2.34	Spike	P	0 - 30
2214693	Carfentrazone Ethyl	7.86	Spike	P	0 - 30
2214693	Chlorpyrifos Ethyl	7.32	Spike	P	0 - 30
2214693	Chlorpyrifos Methyl	0.880	Spike	P	0 - 30
2214693	Cyanazine	3.53	Spike	P	0 - 30
2214693	Demeton	0.973	Spike	P	0 - 30
2214693	Diazinon	12.6	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P391594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214693	Difenoconazole	3.93	Spike	P	0 - 30
2214693	Dimethenamid	6.07	Spike	P	0 - 30
2214693	Disulfoton	8.67	Spike	P	0 - 30
2214693	Dithiopyr	6.23	Spike	P	0 - 30
2214693	EPTC	8.86	Spike	P	0 - 30
2214693	Ethion	30.5	Spike	F	0 - 30
2214693	Ethoprop	2.16	Spike	P	0 - 30
2214693	Fenamiphos	20.9	Spike	P	0 - 30
2214693	Fenbuconazole	9.08	Spike	P	0 - 30
2214693	Fipronil	12.7	Spike	P	0 - 30
2214693	Fipronil Desulfinyl	11.5	Spike	P	0 - 30
2214693	Fipronil Sulfide	1.17	Spike	P	0 - 30
2214693	Fipronil Sulfone	5.47	Spike	P	0 - 30
2214693	Fluazifop-P-butyl	6.31	Spike	P	0 - 30
2214693	Fludioxonil	6.06	Spike	P	0 - 30
2214693	Flumioxazin	0.976	Spike	P	0 - 30
2214693	Flutolanil	0.703	Spike	P	0 - 30
2214693	Fluxapyroxad	1.84	Spike	P	0 - 30
2214693	Fonofos	10.6	Spike	P	0 - 30
2214693	Hexazinone	8.57	Spike	P	0 - 30
2214693	Imazalil	1.51	Spike	P	0 - 30
2214693	Iprodione	5.46	Spike	P	0 - 30
2214693	Malathion	5.00	Spike	P	0 - 30
2214693	Metalaxyl	13.7	Spike	P	0 - 30
2214693	Metolachlor	29.2	Spike	P	0 - 30
2214693	Metribuzin	28.8	Spike	P	0 - 30
2214693	Mevinphos	3.64	Spike	P	0 - 30
2214693	Molinate	4.90	Spike	P	0 - 30
2214693	Myclobutanil	6.75	Spike	P	0 - 30
2214693	Naled	1.92	Spike	P	0 - 30
2214693	Norflurazon	4.25	Spike	P	0 - 30
2214693	Oxadiazon	14.8	Spike	P	0 - 30
2214693	Oxyfluorfen	4.95	Spike	P	0 - 30
2214693	Parathion Ethyl	8.79	Spike	P	0 - 30
2214693	Parathion Methyl	10.4	Spike	P	0 - 30
2214693	Pendimethalin	81.6	Spike	F	0 - 30
2214693	Phorate	12.9	Spike	P	0 - 30
2214693	Prodiamine	37.1	Spike	F	0 - 30
2214693	Prometon	6.76	Spike	P	0 - 30
2214693	Prometryn	13.4	Spike	P	0 - 30
2214693	Pronamide	9.87	Spike	P	0 - 30
2214693	Propiconazole	8.12	Spike	P	0 - 30
2214693	Pyriproxyfen	4.55	Spike	P	0 - 30
2214693	Simazine	9.11	Spike	P	0 - 30
2214693	Sulfentrazone	13.1	Spike	P	0 - 30
2214693	Tebuconazole	7.99	Spike	P	0 - 30
2214693	Terbufos	5.70	Spike	P	0 - 30
2214693	Terbuthylazine	9.33	Spike	P	0 - 30
LFB	Acetochlor	3.58	LCS	P	0 - 30
LFB	Alachlor	2.26	LCS	P	0 - 30
LFB	Ametryn	20.5	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P391594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Atrazine	1.14	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.07	LCS	P	0 - 30
LFB	Azinphos Methyl	4.96	LCS	P	0 - 30
LFB	Azoxystrobin	32.5	LCS	F	0 - 30
LFB	Bromacil	0.640	LCS	P	0 - 30
LFB	Butylate	10.2	LCS	P	0 - 30
LFB	Carbophenothion	3.77	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	2.26	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	0.971	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.86	LCS	P	0 - 30
LFB	Cyanazine	9.05	LCS	P	0 - 30
LFB	Demeton	3.03	LCS	P	0 - 30
LFB	Diazinon	2.72	LCS	P	0 - 30
LFB	Difenoconazole	18.2	LCS	P	0 - 30
LFB	Dimethenamid	9.45	LCS	P	0 - 30
LFB	Disulfoton	7.96	LCS	P	0 - 30
LFB	Dithiopyr	0.736	LCS	P	0 - 30
LFB	EPTC	16.5	LCS	P	0 - 30
LFB	Ethion	44.7	LCS	F	0 - 30
LFB	Ethoprop	0.156	LCS	P	0 - 30
LFB	Fenamiphos	13.6	LCS	P	0 - 30
LFB	Fenbuconazole	2.80	LCS	P	0 - 30
LFB	Fipronil	1.83	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	0.169	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.13	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.99	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	5.85	LCS	P	0 - 30
LFB	Fludioxonil	13.2	LCS	P	0 - 30
LFB	Flumioxazin	10.2	LCS	P	0 - 30
LFB	Flutolanil	4.21	LCS	P	0 - 30
LFB	Fluxapyroxad	16.7	LCS	P	0 - 30
LFB	Fonofos	2.21	LCS	P	0 - 30
LFB	Hexazinone	1.20	LCS	P	0 - 30
LFB	Imazalil	3.86	LCS	P	0 - 30
LFB	Iprodione	10.4	LCS	P	0 - 30
LFB	Malathion	1.77	LCS	P	0 - 30
LFB	Metaxyl	2.13	LCS	P	0 - 30
LFB	Metolachlor	1.88	LCS	P	0 - 30
LFB	Metribuzin	12.3	LCS	P	0 - 30
LFB	Mevinphos	3.70	LCS	P	0 - 30
LFB	Molinate	6.11	LCS	P	0 - 30
LFB	Myclobutanil	0.102	LCS	P	0 - 30
LFB	Naled	6.79	LCS	P	0 - 30
LFB	Norflurazon	0.557	LCS	P	0 - 30
LFB	Oxadiazon	3.04	LCS	P	0 - 30
LFB	Oxyfluorfen	10.2	LCS	P	0 - 30
LFB	Parathion Ethyl	9.97	LCS	P	0 - 30
LFB	Parathion Methyl	2.53	LCS	P	0 - 30
LFB	Pendimethalin	0.593	LCS	P	0 - 30
LFB	Phorate	0.344	LCS	P	0 - 30
LFB	Prodiamine	3.89	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P391594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Prometon	6.43	LCS	P	0 - 30
LFB	Prometryn	0.150	LCS	P	0 - 30
LFB	Pronamide	1.94	LCS	P	0 - 30
LFB	Propiconazole	5.48	LCS	P	0 - 30
LFB	Pyriproxyfen	5.39	LCS	P	0 - 30
LFB	Simazine	12.1	LCS	P	0 - 30
LFB	Sulfentrazone	4.20	LCS	P	0 - 30
LFB	Tebuconazole	20.6	LCS	P	0 - 30
LFB	Terbufos	2.55	LCS	P	0 - 30
LFB	Terbutylazine	1.10	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P391595

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215359	Aldrin	3.55	Spike	P	0 - 30
2215359	Alpha-BHC	17.2	Spike	P	0 - 30
2215359	Alpha-Chlordane	3.57	Spike	P	0 - 30
2215359	Beta-BHC	2.36	Spike	P	0 - 30
2215359	Beta-Cyfluthrin	10.1	Spike	P	0 - 30
2215359	Bifenthrin	11.3	Spike	P	0 - 30
2215359	Chlorothalonil	11.0	Spike	P	0 - 30
2215359	Cis-Nonachlor	3.59	Spike	P	0 - 30
2215359	Cypermethrin	8.43	Spike	P	0 - 30
2215359	Dacthal	1.20	Spike	P	0 - 30
2215359	DDD-p,p'	5.06	Spike	P	0 - 30
2215359	DDE-p,p'	3.91	Spike	P	0 - 30
2215359	DDT-p,p'	7.90	Spike	P	0 - 30
2215359	Delta-BHC	6.51	Spike	P	0 - 30
2215359	Deltamethrin	7.45	Spike	P	0 - 30
2215359	Dichlobenil	22.6	Spike	P	0 - 30
2215359	Dicofol	8.07	Spike	P	0 - 30
2215359	Dieldrin	1.92	Spike	P	0 - 30
2215359	Endosulfan I	1.42	Spike	P	0 - 30
2215359	Endosulfan II	4.66	Spike	P	0 - 30
2215359	Endosulfan Sulfate	8.45	Spike	P	0 - 30
2215359	Endrin	5.89	Spike	P	0 - 30
2215359	Endrin Aldehyde	14.2	Spike	P	0 - 30
2215359	Endrin Ketone	2.09	Spike	P	0 - 30
2215359	Esfenvalerate	8.16	Spike	P	0 - 30
2215359	Ethalfuralin	6.59	Spike	P	0 - 30
2215359	Fenpropathrin	5.70	Spike	P	0 - 30
2215359	Gamma-BHC	3.15	Spike	P	0 - 30
2215359	Gamma-Chlordane	2.79	Spike	P	0 - 30
2215359	Heptachlor	3.47	Spike	P	0 - 30
2215359	Heptachlor Epoxide	3.95	Spike	P	0 - 30
2215359	Hexachlorobenzene	5.14	Spike	P	0 - 30
2215359	Lambda-Cyhalothrin	11.1	Spike	P	0 - 30
2215359	Methoxychlor	5.98	Spike	P	0 - 30
2215359	MGK-264	4.45	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P391595

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215359	Mirex	8.11	Spike	P	0 - 30
2215359	Permethrin	9.74	Spike	P	0 - 30
2215359	Phenothrin	8.90	Spike	P	0 - 30
2215359	Piperonyl Butoxide	13.0	Spike	P	0 - 30
2215359	Prallethrin	0.777	Spike	P	0 - 30
2215359	Tau-Fluvalinate	9.75	Spike	P	0 - 30
2215359	Tetramethrin	19.7	Spike	P	0 - 30
2215359	Trans-Nonachlor	4.69	Spike	P	0 - 30
2215359	Triclosan Methyl	3.53	Spike	P	0 - 30
2215359	Trifluralin	6.32	Spike	P	0 - 30
LFB	Aldrin	38.0	LCS	F	0 - 30
LFB	Alpha-BHC	2.00	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.16	LCS	P	0 - 30
LFB	Beta-BHC	2.17	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	20.6	LCS	P	0 - 30
LFB	Bifenthrin	20.2	LCS	P	0 - 30
LFB	Chlorothalonil	13.4	LCS	P	0 - 30
LFB	Cis-Nonachlor	7.41	LCS	P	0 - 30
LFB	Cypermethrin	22.4	LCS	P	0 - 30
LFB	Dacthal	0.545	LCS	P	0 - 30
LFB	DDD-p,p'	2.50	LCS	P	0 - 30
LFB	DDE-p,p'	9.28	LCS	P	0 - 30
LFB	DDT-p,p'	10.1	LCS	P	0 - 30
LFB	Delta-BHC	7.64	LCS	P	0 - 30
LFB	Deltamethrin	15.2	LCS	P	0 - 30
LFB	Dichlobenil	11.4	LCS	P	0 - 30
LFB	Dicofol	5.66	LCS	P	0 - 30
LFB	Dieldrin	0.185	LCS	P	0 - 30
LFB	Endosulfan I	1.74	LCS	P	0 - 30
LFB	Endosulfan II	3.75	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.199	LCS	P	0 - 30
LFB	Endrin	4.23	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.668	LCS	P	0 - 30
LFB	Endrin Ketone	0.592	LCS	P	0 - 30
LFB	Esfenvalerate	18.9	LCS	P	0 - 30
LFB	Ethalfuralin	11.0	LCS	P	0 - 30
LFB	Fenpropathrin	3.42	LCS	P	0 - 30
LFB	Gamma-BHC	0.293	LCS	P	0 - 30
LFB	Gamma-Chlordane	10.9	LCS	P	0 - 30
LFB	Heptachlor	16.8	LCS	P	0 - 30
LFB	Heptachlor Epoxide	3.27	LCS	P	0 - 30
LFB	Hexachlorobenzene	11.8	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	17.8	LCS	P	0 - 30
LFB	Methoxychlor	2.93	LCS	P	0 - 30
LFB	MGK-264	9.41	LCS	P	0 - 30
LFB	Mirex	21.7	LCS	P	0 - 30
LFB	Permethrin	19.8	LCS	P	0 - 30
LFB	Phenothrin	43.1	LCS	F	0 - 30
LFB	Piperonyl Butoxide	11.3	LCS	P	0 - 30
LFB	Prallethrin	21.3	LCS	P	0 - 30
LFB	Tau-Fluvalinate	21.6	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P391595

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Tetramethrin	21.4	LCS	P	0 - 30
LFB	Trans-Nonachlor	10.1	LCS	P	0 - 30
LFB	Triclosan Methyl	0.150	LCS	P	0 - 30
LFB	Trifluralin	11.4	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P391595

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215422	Chlordane	1.05	Spike	P	0 - 30
2215422	Toxaphene	4.20	Spike	P	0 - 30
LFB	Chlordane	1.08	LCS	P	0 - 30
LFB	Toxaphene	0.831	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P391600

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215358	Acesulfame K	0.330	Spike	P	0 - 30
2215358	AMPA	5.91	Spike	P	0 - 30
2215358	Endothall	1.24	Spike	P	0 - 30
2215358	Glufosinate	6.63	Spike	P	0 - 30
2215358	Glyphosate	7.06	Spike	P	0 - 30
2215358	Sucralose	2.92	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P391621

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214884	2,4-D	2.55	Spike	P	0 - 30
2214884	Acetaminophen	7.36	Spike	P	0 - 30
2214884	Acetamiprid	2.80	Spike	P	0 - 30
2214884	Afidopyrophen	6.16	Spike	P	0 - 30
2214884	Bentazon	7.31	Spike	P	0 - 30
2214884	Benzovindiflupyr	12.3	Spike	P	0 - 30
2214884	Carbamazepine	2.93	Spike	P	0 - 30
2214884	Clothianidin	9.75	Spike	P	0 - 30
2214884	Dinotefuran	7.81	Spike	P	0 - 30
2214884	Diuron	10.6	Spike	P	0 - 30
2214884	Fenuron	6.04	Spike	P	0 - 30
2214884	Fluridone	6.03	Spike	P	0 - 30
2214884	Hydrocodone	6.26	Spike	P	0 - 30
2214884	Ibuprofen	1.64	Spike	P	0 - 30
2214884	Imazapyr	2.99	Spike	P	0 - 30
2214884	Imidacloprid	10.4	Spike	P	0 - 30
2214884	Linuron	15.3	Spike	P	0 - 30
2214884	Mandestrobin	28.1	Spike	P	0 - 30
2214884	MCP	15.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P391621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214884	Naproxen	60.8	Spike	F	0 - 30
2214884	Primidone	16.2	Spike	P	0 - 30
2214884	Pyraclostrobin	2.53	Spike	P	0 - 30
2214884	Thiamethoxam	2.72	Spike	P	0 - 30
2214884	Tolfenpyrad	5.62	Spike	P	0 - 30
2214884	Triclopyr	0.219	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P391622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214688	3-Hydroxycarbofuran	13.5	Spike	P	0 - 30
2214688	Aldicarb	10.1	Spike	P	0 - 30
2214688	Aldicarb Sulfone	5.06	Spike	P	0 - 30
2214688	Aldicarb Sulfoxide	5.31	Spike	P	0 - 30
2214688	Carbaryl	5.79	Spike	P	0 - 30
2214688	Carbofuran	0.650	Spike	P	0 - 30
2214688	Methiocarb	1.62	Spike	P	0 - 30
2214688	Methomyl	4.22	Spike	P	0 - 30
2214688	Oxamyl	1.71	Spike	P	0 - 30
2214688	Propoxur	9.95	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P391633

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215415	Color (true)	1.26	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P391745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215319	Total Alkalinity	1.16	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P391952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215322	TDS	3.85	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P391747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2215319	Fluoride	0.477	Spike	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P391750

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2214867	Organic Carbon	0.172	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2215420
Field Sample ID: G5CE0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	48.1	P	30 - 160

Lab Sample ID: 2215421
Field Sample ID: G5CE0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	59.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	72.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.0	P	30 - 160
EPA 8321B	Diuron-d6	57.3	P	30 - 160
EPA 8321B	Endothall-d6	100	P	40 - 160
EPA 8321B	Endothall-d6	100	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	82.5	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	82.5	P	40 - 160
EPA 8321B	Ibuprofen-d3	46.1	P	30 - 160
EPA 8321B	Primidone-d5	88.5	P	30 - 160
EPA 8321B	Sucralose-d6	44.9	P	30 - 160
EPA 8321B	Sucralose-d6	44.9	P	30 - 160

Lab Sample ID: 2215422
Field Sample ID: G5CE0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	62.9	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	48.4	P	33 - 102
EPA 8276	Decachlorobiphenyl	56.0	P	29 - 92.0
EPA 8276	PCNB	81.6	P	43 - 134

Lab Sample ID: 2215423
Field Sample ID: G5CE0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	98.5	P	73 - 135
EPA 8270E	Terbufos-d10	81.9	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A102728

Included Lab Sample IDs: 2215415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A102730

Included Lab Sample IDs: 2215417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	98.5	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A102732

Included Lab Sample IDs: 2215415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	104	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102742

Included Lab Sample IDs: 2215416

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102784

Included Lab Sample IDs: 2215416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	98.1	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A102789

Included Lab Sample IDs: 2215415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	92.2	93.0	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A102789

Included Lab Sample IDs: 2215415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	99.5	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A102792

Included Lab Sample IDs: 2215416

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102794

Included Lab Sample IDs: 2215416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.7	99.4	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A102824

Included Lab Sample IDs: 2215422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	92.2		P	80 - 120
Toxaphene	95.5		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A102827

Included Lab Sample IDs: 2215424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	102	P/P	95 - 105
Calcium	102	103	P/P	95 - 105
Iron	103	102	P/P	95 - 105
Magnesium	102	100	P/P	95 - 105
Potassium	100	97.5	P/P	95 - 105
Sodium	101	101	P/P	95 - 105
Zinc	103	103	P/P	95 - 105

Reference Method: EPA 8270E

Run ID: A102831

Included Lab Sample IDs: 2215422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.1		P	80 - 120
Alpha-BHC	99.1		P	80 - 120
Alpha-Chlordane	99.9		P	80 - 120
Beta-BHC	89.9		P	80 - 120
Beta-Cyfluthrin	95.8		P	80 - 120
Bifenthrin	96.1		P	80 - 120
Chlorothalonil	80.6		P	80 - 120
Cis-Nonachlor	97.9		P	80 - 120
Cypermethrin	89.9		P	80 - 120
Dacthal	99.9		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	99.2		P	80 - 120
Delta-BHC	95.5		P	80 - 120
Deltamethrin	92.2		P	80 - 120
Dichlobenil	98.4		P	80 - 120
Dicofol	148*		F	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	99.5		P	80 - 120
Endosulfan II	98.6		P	80 - 120
Endosulfan Sulfate	89.4		P	80 - 120
Endrin	98.5		P	80 - 120
Endrin Aldehyde	93.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A102831
Included Lab Sample IDs: 2215422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin Ketone	97.4		P	80 - 120
Esfenvalerate	94.7		P	80 - 120
Ethalfuralin	95.7		P	80 - 120
Fenpropathrin	104		P	80 - 120
Gamma-BHC	100		P	80 - 120
Gamma-Chlordane	99.3		P	80 - 120
Heptachlor	96.7		P	80 - 120
Heptachlor Epoxide	99.4		P	80 - 120
Hexachlorobenzene	98.5		P	80 - 120
Lambda-Cyhalothrin	90.3		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	97.4		P	80 - 120
Mirex	98.1		P	80 - 120
Permethrin	93.4		P	80 - 120
Phenothrin	92.2		P	80 - 120
Piperonyl Butoxide	91.1		P	80 - 120
Prallethrin	88.1		P	80 - 120
Tau-Fluvalinate	95.8		P	80 - 120
Tetramethrin	106		P	80 - 120
Trans-Nonachlor	99.4		P	80 - 120
Triclosan Methyl	99.6		P	80 - 120
Trifluralin	98.1		P	80 - 120

Reference Method: EPA 8321B
Run ID: A102836
Included Lab Sample IDs: 2215421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	141	108	P/P	60 - 160
AMPA	75.6	79.8	P/P	60 - 160
Endothall	85.5	97.5	P/P	60 - 160
Glufosinate	96.1	96.1	P/P	60 - 160
Glyphosate	99.7	100	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A102855
Included Lab Sample IDs: 2215416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.3	100	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A102859
Included Lab Sample IDs: 2215421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	94.3	100	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A102872

Included Lab Sample IDs: 2215424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.8	101	P/P	90 - 110
Antimony	102	101	P/P	90 - 110
Arsenic	102	101	P/P	90 - 110
Beryllium	101	99.2	P/P	90 - 110
Boron	105	106	P/P	90 - 110
Cadmium	100	99.4	P/P	90 - 110
Chromium	97.0	97.2	P/P	90 - 110
Copper	98.0	97.8	P/P	90 - 110
Lead	106	105	P/P	90 - 110
Nickel	98.3	97.8	P/P	90 - 110
Selenium	100	101	P/P	90 - 110
Thallium	103	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102875

Included Lab Sample IDs: 2215415

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.2	99.3	P/P	90 - 110
Sulfate	98.7	98.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102877

Included Lab Sample IDs: 2215421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.5	86.0	P/P	50 - 150
3-Hydroxycarbofuran	107	103	P/P	60 - 150
Acetaminophen	90.6	131	P/P	60 - 160
Acetamiprid	97.1	109	P/P	50 - 150
Afidopyropen	101	111	P/P	50 - 150
Aldicarb	105	109	P/P	60 - 150
Aldicarb Sulfone	104	106	P/P	50 - 150
Aldicarb Sulfoxide	100	97.9	P/P	50 - 150
Benzovindiflupyr	96.6	91.4	P/P	50 - 150
Carbamazepine	117	117	P/P	60 - 150
Carbaryl	112	102	P/P	60 - 150
Carbofuran	104	96.2	P/P	50 - 150
Clothianidin	96.5	112	P/P	60 - 150
Dinotefuran	99.1	101	P/P	50 - 150
Diuron	119	104	P/P	60 - 160
Fenuron	91.2	107	P/P	60 - 150
Fluridone	98.3	109	P/P	60 - 160
Hydrocodone	93.7	109	P/P	60 - 150
Ibuprofen	107	88.7	P/P	50 - 160
Imazapyr	77.0	88.1	P/P	50 - 150
Imidacloprid	81.9	98.5	P/P	60 - 150
Linuron	101	91.6	P/P	60 - 150
Mandestrobin	115	124	P/P	50 - 150
MCPP	94.1	93.3	P/P	50 - 150
Methiocarb	110	117	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A102877
Included Lab Sample IDs: 2215420

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Methomyl	102	102	P/P	50 - 150
Naproxen	115	126	P/P	50 - 160
Oxamyl	110	105	P/P	50 - 150
Primidone	102	106	P/P	60 - 150
Propoxur	125	131	P/P	50 - 150
Pyraclostrobin	105	109	P/P	60 - 150
Thiamethoxam	93.3	108	P/P	50 - 150
Tolfenpyrad	120	117	P/P	60 - 150
Triclopyr	102	91.8	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A102893
Included Lab Sample IDs: 2215424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	101	106	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A102896
Included Lab Sample IDs: 2215421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	115	97.8	P/P	50 - 160

Reference Method: EPA 8270E
Run ID: A102921
Included Lab Sample IDs: 2215423

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.1		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	98.4		P	80 - 120
Atrazine Desethyl	103		P	80 - 120
Azinphos Methyl	91.9		P	80 - 120
Azoxystrobin	94.9		P	80 - 120
Bromacil	97.4		P	80 - 120
Butylate	99.9		P	80 - 120
Carbophenothion	98.7		P	80 - 120
Carfentrazone Ethyl	98.5		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	98.3		P	80 - 120
Cyanazine	105		P	80 - 120
Demeton	95.4		P	80 - 120
Diazinon	99.6		P	80 - 120
Difenoconazole	96.6		P	80 - 120
Dimethenamid	99.1		P	80 - 120
Disulfoton	94.8		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	102		P	80 - 120
Ethion	96.5		P	80 - 120
Ethoprop	99.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A102921
Included Lab Sample IDs: 2215423

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenamiphos	93.0		P	80 - 120
Fenbuconazole	96.7		P	80 - 120
Fipronil	99.0		P	80 - 120
Fipronil Desulfinyl	99.5		P	80 - 120
Fipronil Sulfide	95.6		P	80 - 120
Fipronil Sulfone	96.7		P	80 - 120
Fluazifop-P-butyl	95.6		P	80 - 120
Fludioxonil	97.3		P	80 - 120
Flutolanil	98.1		P	80 - 120
Fluxapyroxad	96.8		P	80 - 120
Fonofos	102		P	80 - 120
Hexazinone	103		P	80 - 120
Imazalil	99.4		P	80 - 120
Iprodione	106		P	80 - 120
Malathion	98.2		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	98.5		P	80 - 120
Metribuzin	94.4		P	80 - 120
Mevinphos	106		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	98.7		P	80 - 120
Naled	107		P	80 - 120
Norflurazon	95.6		P	80 - 120
Oxadiazon	100		P	80 - 120
Oxyfluorfen	97.8		P	80 - 120
Parathion Ethyl	94.3		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	96.8		P	80 - 120
Phorate	105		P	80 - 120
Prodiamine	98.1		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	99.8		P	80 - 120
Pronamide	97.5		P	80 - 120
Propiconazole	94.7		P	80 - 120
Pyriproxyfen	95.8		P	80 - 120
Sulfentrazone	97.1		P	80 - 120
Tebuconazole	100		P	80 - 120
Terbufos	97.2		P	80 - 120
Terbutylazine	97.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A102928
Included Lab Sample IDs: 2215423

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	101		P	80 - 120
Flumioxazin	92.4		P	80 - 120
Simazine	99.7		P	80 - 120

Quality Assurance Report

Calibration Verification

* 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						4.15	
EPA 200.7 Rev. 4.4	Barium	99.5		103	99.7			2.91
	Calcium	104		110	106			2.61
	Iron	102		107	105			1.46
	Magnesium	102		106	103			2.46
	Potassium	97.6		104	101			3.47
	Sodium	103		105	100			3.52
	Zinc	97.7		99.5	97.0			2.50
EPA 200.8 Rev. 5.4	Aluminum	98.1		100	98.8			1.39
	Antimony	104		105	104			1.48
	Arsenic	103		103	101			2.54
	Beryllium	102		97.7	98.9			1.10
	Boron	99.8		101	100			0.920
	Cadmium	100		99.0	98.5			0.547
	Chromium	97.6		99.5	97.9			1.60
	Copper	99.7		101	99.4			1.82
	Lead	103		106	104			1.23
	Nickel	99.4		100	98.8			1.39
	Selenium	104		100	97.3			2.99
	Silver	108		102	104			1.83
	Thallium	101		104	103			0.911
EPA 300.0 Rev. 2.1	Chloride	99.4		97.8	99.1		0.578	
	Sulfate	99.9		97.7	98.7		1.03	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2		97.8	100			2.08
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107		106	113			3.42
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100		97.0	97.0			0.0
EPA 365.1 Rev. 2.0	Total-P	102		102	99.5			1.76
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.6		101	100			0.498
EPA 8270E	Acetochlor	92.0	88.8	92.3	84.1	3.58		9.30
	Alachlor	92.4	90.4	94.9	83.7	2.26		12.5
	Aldrin	27.8	40.8	51.0	52.8	38.0		3.55
	Alpha-BHC	85.8	87.6	65.3	77.5	2.00		17.2
	Alpha-Chlordane	73.5	78.2	67.9	70.3	6.16		3.57
	Ametryn	108	132			20.5		8.51
	Atrazine	98.0	96.9	105	94.1	1.14		10.2
	Atrazine Desethyl	92.2	95.1	91.1	87.4	3.07		4.12
	Azinphos Methyl	142	135	138	133	4.96		4.12
	Azoxystrobin	108	78.1	126	114	32.5		5.71
	Beta-BHC	94.8	92.8	86.7	84.7	2.17		2.36
	Beta-Cyfluthrin	61.0	75.0	90.0	99.6	20.6		10.1
	Bifenthrin	55.6	68.0	65.8	73.7	20.2		11.3
	Bromacil	82.3	82.8			0.640		30.0
	Butylate	76.2	68.8	60.2	62.4	10.2		3.64
	Carbophenothion	92.4	89.0	84.5	82.5	3.77		2.34
	Carfentrazone Ethyl	104	101	96.4	89.1	2.26		7.86
	Chlorothalonil	63.8	55.8	88.6	98.9	13.4		11.0
	Chlorpyrifos Ethyl	81.8	81.0	89.3	96.0	0.971		7.32
	Chlorpyrifos Methyl	91.9	93.7	90.8	90.0	1.86		0.880
	Cis-Nonachlor	73.8	79.5	68.1	70.6	7.41		3.59
	Cyanazine	133	146	131	126	9.05		3.53
	Cypermethrin	61.4	76.9	73.4	79.9	22.4		8.43
	Dacthal	91.9	92.4	81.9	82.9	0.545		1.20
	DDD-p,p'	81.6	83.7	69.2	72.8	2.50		5.06
	DDE-p,p'	70.9	77.8	65.5	68.1	9.28		3.91

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	DDT-p,p'	70.5	78.0	63.5	68.8	10.1	7.90
	Delta-BHC	126	117	126	134	7.64	6.51
	Deltamethrin	69.5	80.9	95.7	88.8	15.2	7.45
	Demeton	79.1	76.7	77.8	78.5	3.03	0.973
	Diazinon	96.1	98.8	104	91.3	2.72	12.6
	Dichlobenil	77.6	87.0	29.1	36.5	11.4	22.6
	Dicofol	113	107	66.0	71.5	5.66	8.07
	Dieldrin	84.1	83.9	72.0	73.4	0.185	1.92
	Difenoconazole	104	86.5	111	115	18.2	3.93
	Dimethenamid	87.0	79.2	83.5	78.6	9.45	6.07
	Disulfoton	87.9	95.2	102	93.9	7.96	8.67
	Dithiopyr	82.6	82.0	87.5	82.2	0.736	6.23
	Endosulfan I	81.8	83.3	74.5	75.5	1.74	1.42
	Endosulfan II	84.0	87.2	90.8	86.7	3.75	4.66
	Endosulfan Sulfate	86.4	86.6	94.4	86.7	0.199	8.45
	Endrin	82.3	85.9	72.3	76.7	4.23	5.89
	Endrin Aldehyde	90.2	90.8	57.8	50.1	0.668	14.2
	Endrin Ketone	90.7	91.3	87.2	89.1	0.592	2.09
	EPTC	67.1	56.8	57.7	52.8	16.5	8.86
	Esfenvalerate	63.2	76.4	81.6	88.5	18.9	8.16
	Ethalfuralin	67.8	75.8	63.1	67.3	11.0	6.59
	Ethion	49.7	31.6	49.7	67.6	44.7	30.5
	Ethoprop	91.3	91.4	88.4	86.3	0.156	2.16
	Fenamiphos	95.0	82.9	72.4	58.6	13.6	20.9
	Fenbuconazole	105	102	103	93.8	2.80	9.08
	Fenpropathrin	85.4	88.3	149	141	3.42	5.70
	Fipronil	104	102	104	92.1	1.83	12.7
	Fipronil Desulfinyl	96.2	96.1	96.5	86.0	0.169	11.5
	Fipronil Sulfide	95.3	93.3	90.0	89.0	2.13	1.17
	Fipronil Sulfone	76.5	82.9	78.4	74.2	7.99	5.47
	Fluazifop-P-butyl	94.8	89.4	93.2	87.5	5.85	6.31
	Fludioxonil	96.9	84.9	88.9	83.7	13.2	6.06
	Flumioxazin	133	120	152	154	10.2	0.976
	Flutolanil	93.4	89.5	83.2	83.8	4.21	0.703
	Fluxapyroxad	89.4	75.6	90.5	88.9	16.7	1.84
	Fonofos	92.3	94.3	96.7	87.0	2.21	10.6
	Gamma-BHC	101	101	99.2	96.1	0.293	3.15
	Gamma-Chlordane	68.1	75.9	65.2	67.1	10.9	2.79
	Heptachlor	60.4	71.5	60.2	62.3	16.8	3.47
	Heptachlor Epoxide	81.5	84.2	71.8	74.7	3.27	3.95
	Hexachlorobenzene	62.9	70.8	58.3	61.4	11.8	5.14
	Hexazinone	84.6	83.6	92.8	82.3	1.20	8.57
	Imazalil	104	101	110	108	3.86	1.51
	Iprodione	97.4	87.7	82.0	86.6	10.4	5.46
	Lambda-Cyhalothrin	59.3	70.9	87.3	97.6	17.8	11.1
	Malathion	86.8	88.4	88.4	92.9	1.77	5.00
	Metalaxyl	101	99.1	109	83.8	2.13	13.7
	Methoxychlor	84.9	87.5	74.8	79.5	2.93	5.98
	Metolachlor	83.7	85.2			1.88	29.2
	Metribuzin	112	126	132	98.9	12.3	28.8
	Mevinphos	93.0	89.6	88.1	84.9	3.70	3.64
	MGK-264	53.3	58.6	71.0	67.9	9.41	4.45
	Mirex	51.3	63.8	55.9	60.6	21.7	8.11
	Molinate	79.9	75.2	74.1	70.5	6.11	4.90

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Myclobutanil	95.3	95.4	91.7	85.7	0.102		6.75
	Naled	45.2	42.2	42.6	41.8	6.79		1.92
	Norflurazon	96.1	96.6			0.557		4.25
	Oxadiazon	86.4	83.8	89.6	70.0	3.04		14.8
	Oxyfluorfen	101	91.2	119	113	10.2		4.95
	Parathion Ethyl	83.2	91.9	98.7	90.4	9.97		8.79
	Parathion Methyl	111	108	119	107	2.53		10.4
	Pendimethalin	83.3	83.8	252	106	0.593		81.6
	Permethrin	57.4	70.0	64.7	71.3	19.8		9.74
	Phenothrin	30.0	46.4	53.0	57.9	43.1		8.90
	Phorate	75.0	74.8	87.8	77.2	0.344		12.9
	Piperonyl Butoxide	85.2	95.4	77.1	87.9	11.3		13.0
	Prallethrin	48.5	60.0	63.1	63.6	21.3		0.777
	Prodiamine	73.9	76.8	63.6	92.5	3.89		37.1
	Prometon	88.7	83.2	87.5	81.8	6.43		6.76
	Prometryn	94.7	94.9	100	87.8	0.150		13.4
	Pronamide	93.4	91.6	105	95.5	1.94		9.87
	Propiconazole	99.2	93.9			5.48		8.12
	Pyriproxyfen	90.2	85.4	95.3	91.0	5.39		4.55
	Simazine	100	113	107	97.7	12.1		9.11
	Sulfentrazone	69.6	72.6	99.6	77.1	4.20		13.1
	Tau-Fluvalinate	66.9	83.1	94.1	104	21.6		9.75
	Tebuconazole	51.8	42.1	50.1	54.3	20.6		7.99
	Terbufos	83.4	85.5	92.0	86.9	2.55		5.70
	Terbuthylazine	91.5	90.5	91.3	83.2	1.10		9.33
	Tetramethrin	82.2	102	72.4	88.2	21.4		19.7
	Trans-Nonachlor	69.5	76.9	65.1	68.2	10.1		4.69
	Triclosan Methyl	89.8	89.9	75.9	78.7	0.150		3.53
	Trifluralin	66.3	74.4	62.0	66.1	11.4		6.32
EPA 8276	Chlordane	86.1	87.0	70.9	71.6	1.08		1.05
	Toxaphene	88.8	88.1	90.1	86.4	0.831		4.20
EPA 8321B	2,4-D	96.7		77.1	75.2			2.55
	3-Hydroxycarbofuran	78.2		55.5	63.6			13.5
	Acesulfame K	112		105	105			0.330
	Acetaminophen	74.2		66.8	62.0			7.36
	Acetamiprid	91.7		84.9	82.6			2.80
	Afidopyropen	77.3		61.9	58.2			6.16
	Aldicarb	75.9		64.9	58.6			10.1
	Aldicarb Sulfone	80.3		71.3	75.0			5.06
	Aldicarb Sulfoxide	111		43.8	46.2			5.31
	AMPA	65.1		75.7	71.1			5.91
	Bentazon	30.5		15.7	14.6			7.31
	Benzovindiflupyr	84.3		72.5	82.0			12.3
	Carbamazepine	104		84.8	82.4			2.93
	Carbaryl	86.9		50.5	47.6			5.79
	Carbofuran	77.6		50.1	49.8			0.650
	Clothianidin	82.2		80.9	73.4			9.75
	Dinotefuran	87.9		104	96.3			7.81
	Diuron	82.4		66.1	59.4			10.6
	Endothall	95.7		116	118			1.24
	Fenuron	97.6		73.3	69.0			6.04
	Fluridone	89.6		66.5	70.6			6.03
	Glufosinate	102		95.9	103			6.63
	Glyphosate	99.4		172	160			7.06

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Hydrocodone	94.4	88.5	83.2		6.26
	Ibuprofen	58.2	53.3	54.1		1.64
	Imazapyr	84.5	91.1	88.4		2.99
	Imidacloprid	101	138	118		10.4
	Linuron	86.0	82.7	70.9		15.3
	Mandestrobin	105	92.7	69.9		28.1
	MCCP	105	84.2	72.2		15.3
	Methiocarb	83.4	64.8	63.7		1.62
	Methomyl	94.6	65.5	68.3		4.22
	Naproxen	59.5	60.3	32.2		60.8
	Oxamyl	95.6	71.9	73.3		1.71
	Primidone	89.0	78.9	67.1		16.2
	Propoxur	94.1	58.2	64.2		9.95
	Pyraclostrobin	80.0	71.7	69.9		2.53
	Sucralose	102	98.7	102		2.92
	Thiamethoxam	93.4	122	119		2.72
	Tolfenpyrad	50.5	47.3	50.0		5.62
	Triclopyr	101	82.8	83.0		0.219
SM 2120 B-2011	Color (true)	102			1.26	
SM 2320 B-2011	Total Alkalinity	97.2			1.16	
SM 2540 C-2011	TDS				3.85	
SM 4500 F-C-2011	Fluoride	96.7	94.5	95.0		0.477
SM 5310 B-2011	Organic Carbon	101	101	101		0.172

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2215415
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2215424
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2215424
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2215415
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2215415
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2215416
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2215416
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2215416
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2215416
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2215417
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2215422
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2215423
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2215422
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2215420
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2215421
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2215421
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2215415
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2215415
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2215424
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2215415
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2215415
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2215415
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2215416

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	12/22/2020			12/22/2020 14:51	Yen Ta	2215415
EPA 200.7 Rev. 4.4	12/22/2020	12/28/2020 14:15	Elliott D. Healy	12/29/2020 16:24	Betina Topolski	2215424
EPA 200.8 Rev. 5.4	12/22/2020	12/28/2020 14:15	Elliott D. Healy	01/04/2021 10:39	Alexander Thompson	2215424
	12/22/2020	12/28/2020 14:15	Elliott D. Healy	01/05/2021 12:19	Alexander Thompson	2215424
EPA 300.0 Rev. 2.1	12/22/2020			01/06/2021 19:02	Lipi Saha	2215415
EPA 350.1 Rev. 2.0	12/22/2020			12/27/2020 14:40	Ping Hua	2215416
EPA 351.2 Rev. 2.0	12/22/2020	12/29/2020 10:24	Yen Ta	12/30/2020 16:44	Virginia P. Brown	2215416
EPA 353.2 Rev. 2.0	12/22/2020			12/23/2020 09:24	Beverly Y. Sanders	2215416
EPA 365.1 Rev. 2.0	12/22/2020	12/23/2020 10:14	Yen Ta	12/28/2020 10:52	Benjamin T. Nordmann	2215416
EPA 365.1 Rev. 2.0 dissolved	12/22/2020			12/22/2020 15:43	Blanca Fach	2215417
EPA 8270E	12/22/2020	12/22/2020 13:30	Fe-Val Siddell	01/05/2021 17:03	Vandana T. Nagar	2215423
	12/22/2020	12/22/2020 13:30	Fe-Val Siddell	12/23/2020 18:26	Vandana T. Nagar	2215423
	12/22/2020	12/28/2020 08:00	Julie Wi	12/29/2020 22:32	Arthur Maknenko	2215422
EPA 8276	12/22/2020	12/28/2020 08:00	Julie Wi	12/30/2020 03:24	Michael Poppell	2215422
EPA 8321B	12/22/2020	12/22/2020 13:45	Rebecca Ware	12/22/2020 16:13	Rebecca Ware	2215421
	12/22/2020	12/22/2020 13:45	Rebecca Ware	12/31/2020 00:10	Rebecca Ware	2215421
	12/22/2020	12/23/2020 09:00	Hoor Shaik	01/05/2021 08:31	Juyoung Kim	2215421
	12/22/2020	12/23/2020 09:00	Hoor Shaik	12/24/2020 06:41	Juyoung Kim	2215420
	12/22/2020	12/23/2020 09:00	Hoor Shaik	12/24/2020 17:40	Juyoung Kim	2215421
SM 2120 B-2011	12/22/2020			12/22/2020 15:53	Benjamin T. Nordmann	2215415
SM 2320 B-2011	12/22/2020			12/23/2020 18:04	Dale L. Simmons	2215415
SM 2340B	12/22/2020			12/29/2020 16:24	Betina Topolski	2215424
SM 2540 C-2011	12/22/2020			12/26/2020 16:45	Yijie Li	2215415
SM 2540 D-2011	12/22/2020			12/26/2020 16:45	Yijie Li	2215415
SM 4500 F-C-2011	12/22/2020			12/23/2020 18:04	Dale L. Simmons	2215415
SM 5310 B-2011	12/22/2020			12/23/2020 23:23	Madeline Gruver	2215416