

Chemical Analysis Report

SO-DIST-2020-12-01-01

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

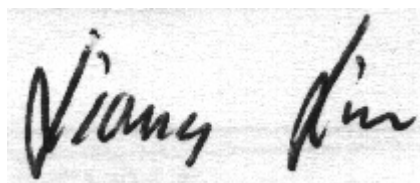
Event Description: **Manuel and Carrell**
Request ID: **RQ-2020-11-30-16**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 18-DEC-2020 16:18

A handwritten signature in black ink, appearing to read "Liang Lin", 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: Manuel Branch @ Neighborhood Park

Collection Date/Time: 11/30/2020 09:45

Field ID: G1SD0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2209646	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P390575	
	EPA 300.0 Rev. 2.1	Chloride	98		mg Cl/L	P390744	
		Sulfate	28		mg SO4/L	P390746	
	SM 2120 B-2011	Color (true)	69		PCU	P390566	
	SM 2320 B-2011	Total Alkalinity	197		mg CaCO3/L	P390627	
	SM 2540 C-2011	TDS	426		mg/L	P391143	
	SM 2540 D-2011	TSS	2	U	mg/L	P390952	
	SM 4500 F-C-2011	Fluoride	0.21		mg F/L	P390629	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P391075	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P390710	
2209647	EPA 353.2 Rev. 2.0	NO2NO3-N	0.23		mg N/L	P390594	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P390665	
	SM 5310 B-2011	Organic Carbon	8.9		mg C/L	P390753	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.094		mg P/L	P390578	MS
	EPA 8321B	Aldicarb	0.020	U	ug/L	P390749	
2209648		Aldicarb Sulfone	0.0020	U	ug/L	P390749	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P390749	
		Carbaryl	0.0020	U	ug/L	P390749	
		Carbofuran	0.0020	U	ug/L	P390749	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P390749	
		Methiocarb	0.0020	U	ug/L	P390749	
		Methomyl	0.0020	U	ug/L	P390749	
		Oxamyl	0.0020	U	ug/L	P390749	
		Propoxur	0.0020	U	ug/L	P390749	
		2,4-D	0.0020	U	ug/L	P390561	
2209655		Acesulfame K**	0.23	I	ug/L	P390593	MS
		AMPA**	0.12	I	ug/L	P390593	
		Sucralose**	0.41		ug/L	P390593	
		Acetaminophen**	0.0080	U	ug/L	P390561	
		Acetamiprid**	0.0020	U	ug/L	P390561	
		Endothall**	0.25	U	ug/L	P390593	
		Glufosinate**	0.10	U	ug/L	P390593	
		Glyphosate**	0.10	U	ug/L	P390593	
		Afidopyropen**	0.0020	U	ug/L	P390561	
		Bentazon	0.040		ug/L	P390561	
		Benzovindiflupyr**	0.0020	U	ug/L	P390561	
		Carbamazepine**	8.0E-04	U	ug/L	P390561	
		Clothianidin**	0.0020	U	ug/L	P390561	
		Dinotefuran**	0.0020	U	ug/L	P390561	
		Diuron	0.0020	U	ug/L	P390561	
		Fenuron	0.016	U	ug/L	P390561	
		Fluridone**	8.0E-04	U	ug/L	P390561	
		Imazapyr**	0.071		ug/L	P390561	

Field ID: G1SD0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2209655	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P390561	
		Ibuprofen**	0.020	U	ug/L	P390561	
		Imidacloprid	0.0020	U	ug/L	P390561	
		Linuron	0.0040	U	ug/L	P390561	
		Mandestrobin**	0.0020	U	ug/L	P390561	
		MCP	0.0032	I	ug/L	P390561	
		Naproxen**	0.0080	U	ug/L	P390561	
		Primidone**	0.0040	U	ug/L	P390561	
		Pyraclostrobin**	0.0020	U	ug/L	P390561	
		Thiamethoxam**	0.0020	U	ug/L	P390561	
		Tolfenpyrad**	0.0020	U	ug/L	P390561	RPD
2209657	EPA 8270E	Triclopyr**	0.0040	U	ug/L	P390561	
		Aldrin	4.6	U	ng/L	P390556	
		Alpha-BHC	2.3	U	ng/L	P390556	
		Alpha-Chlordane	1.1	U	ng/L	P390556	
		Beta-BHC	9.2	U	ng/L	P390556	
		Beta-Cyfluthrin**	17	U	ng/L	P390556	
		Bifenthrin**	4.6	U	ng/L	P390556	
		Delta-BHC	9.2	U	ng/L	P390556	
		Gamma-BHC	9.2	U	ng/L	P390556	
		Chlorothalonil	2.3	U	ng/L	P390556	MS, RPD
		Cis-Nonachlor**	1.1	U	ng/L	P390556	
		Cypermethrin	23	U	ng/L	P390556	
		Dacthal**	1.1	U	ng/L	P390556	
		DDD-p,p'	5.7	U	ng/L	P390556	
		DDE-p,p'	5.7	U	ng/L	P390556	
		DDT-p,p'	6.9	U	ng/L	P390556	
		Deltamethrin**	23	U	ng/L	P390556	
		Dicofol	34	U	ng/L	P390556	
		Dieldrin	4.6	U	ng/L	P390556	
		Endosulfan I	4.6	U	ng/L	P390556	
		Endosulfan II	4.6	U	ng/L	P390556	
		Endosulfan Sulfate	2.3	U	ng/L	P390556	
		Endrin	2.3	U	ng/L	P390556	
		Endrin Aldehyde	2.3	U	ng/L	P390556	
		Endrin Ketone	2.3	U	ng/L	P390556	
		Ethalfuralin**	3.4	U	ng/L	P390556	
		Gamma-Chlordane	1.1	U	ng/L	P390556	
		Dichlobenil**	2.3	U	ng/L	P390556	
		Esfenvalerate**	23	U	ng/L	P390556	
		Fenprothrin**	11	U	ng/L	P390556	
		Heptachlor	1.7	U	ng/L	P390556	
		Heptachlor Epoxide	2.3	U	ng/L	P390556	
		Hexachlorobenzene	2.3	U	ng/L	P390556	
		Lambda-Cyhalothrin**	17	U	ng/L	P390556	

Field ID: G1SD0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2209657	EPA 8270E	Methoxychlor	4.6	U	ng/L	P390556	
		Mirex	2.3	U	ng/L	P390556	
		MGK-264**	3.4	U	ng/L	P390556	
		Permethrin	11	U	ng/L	P390556	
		Phenothrin**	34	U	ng/L	P390556	
		Piperonyl Butoxide**	1.7	U	ng/L	P390556	
		Prallethrin**	29	U	ng/L	P390556	
		Tau-Fluvalinate**	4.0	U	ng/L	P390556	
		Tetramethrin**	9.2	U	ng/L	P390556	
		Trans-Nonachlor**	1.1	U	ng/L	P390556	
		Triclosan Methyl**	1.1	U	ng/L	P390556	
		Trifluralin	2.9	U	ng/L	P390556	
		Chlordane	5.7	U	ng/L	P390556	
		Toxaphene	34	U	ng/L	P390556	
2209658	EPA 8270E	Acetochlor	0.26	U	ng/L	P390603	
		Alachlor	0.26	U	ng/L	P390603	
		Ametryn	0.62	U	ng/L	P390603	
		Atrazine	0.29	I	ng/L	P390603	
		Atrazine Desethyl	2.1	I	ng/L	P390603	
		Azinphos Methyl	2.1	U	ng/L	P390603	
		Azoxystrobin**	0.51	U	ng/L	P390603	
		Bromacil	0.51	U	ng/L	P390603	
		Butylate	0.41	U	ng/L	P390603	
		Carbophenothion	0.51	U	ng/L	P390603	
		Carfentrazone Ethyl**	0.10	U	ng/L	P390603	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P390603	
		Chlorpyrifos Methyl	0.051	U	ng/L	P390603	
		Cyanazine	3.3	U	ng/L	P390603	
		Demeton	1.5	U	ng/L	P390603	
		Diazinon	0.13	U	ng/L	P390603	
		Difenoconazole**	0.62	U	ng/L	P390603	
		Dimethenamid**	0.10	U	ng/L	P390603	
		Disulfoton	0.51	U	ng/L	P390603	
		Dithiopyr**	0.10	U	ng/L	P390603	
		EPTC	1.3	U	ng/L	P390603	
		Ethion	0.15	U	ng/L	P390603	
		Ethoprop	0.10	U	ng/L	P390603	
		Fenamiphos	0.51	U	ng/L	P390603	
		Fenbuconazole**	0.13	U	ng/L	P390603	
		Fipronil	0.26	U	ng/L	P390603	
		Fipronil Desulfinyl**	0.13	U	ng/L	P390603	
		Fipronil Sulfide	1.2		ng/L	P390603	
		Fipronil Sulfone	0.92		ng/L	P390603	
		Fluazifop-P-butyl**	0.10	U	ng/L	P390603	
		Fludioxonil**	0.13	U	ng/L	P390603	

Field ID: G1SD0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2209658	EPA 8270E	Flumioxazin**	1.8	U	ng/L	P390603	
		Flutolanil**	0.10	U	ng/L	P390603	
		Fluxapyroxad**	0.10	U	ng/L	P390603	
		Fonofos	0.21	U	ng/L	P390603	
		Hexazinone	14		ng/L	P390603	
		Imazalil**	0.77	U	ng/L	P390603	
		Iprodione**	0.62	U	ng/L	P390603	
		Malathion	0.36	U	ng/L	P390603	
		Metalaxyl	0.77	U	ng/L	P390603	
		Metolachlor	0.51	U	ng/L	P390603	
		Metribuzin	3.3	U	ng/L	P390603	
		Mevinphos	0.51	U	ng/L	P390603	
		Molinate	0.31	U	ng/L	P390603	
		Myclobutanil**	0.26	U	ng/L	P390603	
		Naled**	1.5	U	ng/L	P390603	
		Norflurazon	0.51	U	ng/L	P390603	
		Oxadiazon	1.4		ng/L	P390603	
		Oxyfluorfen**	0.15	U	ng/L	P390603	
		Parathion Ethyl	0.26	U	ng/L	P390603	
		Parathion Methyl	0.56	U	ng/L	P390603	
		Pendimethalin	1.0	U	ng/L	P390603	
		Phorate	0.26	UJ	ng/L	P390603	LCS, MS
		Prodiamine**	0.18	U	ng/L	P390603	
		Prometon	0.92	U	ng/L	P390603	
		Prometryn	0.21	UJ	ng/L	P390603	LCS
		Pronamide**	0.15	U	ng/L	P390603	
		Propiconazole**	1.6	I	ng/L	P390603	
		Pyriproxyfen**	0.13	U	ng/L	P390603	
		Simazine	0.51	U	ng/L	P390603	
		Sulfentrazone**	17		ng/L	P390603	
		Tebuconazole**	0.51	U	ng/L	P390603	
		Terbufos	0.10	U	ng/L	P390603	
		Terbuthylazine	0.44	U	ng/L	P390603	
2209667	EPA 200.7 Rev. 4.4	Barium	17.2		ug/L	P390569	
		Calcium	78.8		mg/L	P390569	
		Iron	450		ug/L	P390569	
		Magnesium	8.98		mg/L	P390569	
		Potassium	3.7		mg/L	P390569	
		Sodium	53.5		mg/L	P390569	
		Zinc	5.0	U	ug/L	P390569	
	EPA 200.8 Rev. 5.4	Aluminum	31		ug/L	P390569	
		Antimony	0.15	I	ug/L	P390569	
		Arsenic	2.21		ug/L	P390569	
		Boron**	79.2		ug/L	P390569	
		Cadmium	0.020	U	ug/L	P390569	

Field ID: G1SD0070

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2209667	EPA 200.8 Rev. 5.4	Chromium	0.86	I	ug/L	P390569	
		Copper	0.65	I	ug/L	P390569	
		Lead	0.65		ug/L	P390569	
		Nickel	0.50	U	ug/L	P390569	
		Selenium	0.28	I	ug/L	P390569	
		Silver	0.010	U	ug/L	P390569	
		Thallium	0.10	U	ug/L	P390569	
		Hardness	234		mg/L	P390569	
	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: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
 EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Carrell Canal

Collection Date/Time: 11/30/2020 09:30

Field ID: G3SD0167

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2209656	EPA 8321B	2,4-D	1.3		ug/L	P390561	
		Acesulfame K**	0.10	U	ug/L	P390593	MS
		AMPA**	1.1		ug/L	P390593	
		Sucralose**	0.43		ug/L	P390593	
		Acetaminophen**	0.0080	U	ug/L	P390561	
		Acetamiprid**	0.0020	U	ug/L	P390561	
		Endothall**	0.25	U	ug/L	P390593	
		Glufosinate**	0.10	U	ug/L	P390593	
		Glyphosate**	12		ug/L	P390593	
		Afidopyropen**	0.0020	U	ug/L	P390561	
		Bentazon	0.18		ug/L	P390561	
		Benzovindiflupyr**	0.0020	U	ug/L	P390561	
		Carbamazepine**	0.0012	I	ug/L	P390561	
		Clothianidin**	0.0020	U	ug/L	P390561	
		Dinotefuran**	0.0020	U	ug/L	P390561	
		Diuron	0.0020	U	ug/L	P390561	
		Fenuron	0.016	U	ug/L	P390561	
		Fluridone**	0.0033		ug/L	P390561	
		Imazapyr**	0.026		ug/L	P390561	
		Hydrocodone**	0.0020	U	ug/L	P390561	
		Ibuprofen**	0.020	U	ug/L	P390561	
		Imidacloprid	0.0056	I	ug/L	P390561	
		Linuron	0.0040	U	ug/L	P390561	
		Mandestrobin**	0.0020	U	ug/L	P390561	
		MCPP	0.0040	I	ug/L	P390561	
		Naproxen**	0.0080	U	ug/L	P390561	
		Primidone**	0.0040	U	ug/L	P390561	
		Pyraclostrobin**	0.0020	U	ug/L	P390561	
		Thiamethoxam**	0.0020	U	ug/L	P390561	
		Tolfenpyrad**	0.0020	U	ug/L	P390561	RPD
		Triclopyr**	0.0040	U	ug/L	P390561	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P390575

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P390569

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: P390569

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	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: P390744

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390746

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391075

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: P390710

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P390594

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P390665

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P390578

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

Reference Method: EPA 8270E
 Batch ID: P390556

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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P390556

Component	Result	Code	Units
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 8270E

Batch ID: P390603

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
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P390603

Component	Result	Code	Units
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 8276
Batch ID: P390556

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

Reference Method: EPA 8321B
Batch ID: P390561

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyrophen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P390561

Component	Result	Code	Units
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: P390593

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

Reference Method: EPA 8321B

Batch ID: P390749

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: P390566

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P390627

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

Reference Method: SM 2540 C-2011
Batch ID: P391143

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P390952

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P390629

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P390753

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: P390569

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	105		P	85 - 115
Calcium	103		P	85 - 115
Iron	105		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	100		P	85 - 115
Sodium	107		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P390569

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	100		P	85 - 115
Arsenic	103		P	85 - 115
Boron	95.4		P	85 - 115
Cadmium	98.7		P	85 - 115
Chromium	100		P	85 - 115
Copper	101		P	85 - 115
Lead	98.3		P	85 - 115
Nickel	99.4		P	85 - 115
Selenium	102		P	85 - 115
Silver	105		P	85 - 115
Thallium	99.1		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390744

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390746

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391075

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390710

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	101		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P390594

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P390665

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P390578

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

Reference Method: EPA 8270E
 Batch ID: P390556

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	35.3	37.8	P/P	20 - 87.0
Alpha-BHC	87.8	86.0	P/P	65 - 142
Alpha-Chlordane	73.1	72.5	P/P	58 - 106
Beta-BHC	101	105	P/P	65 - 179
Beta-Cyfluthrin	81.3	80.4	P/P	39 - 153
Bifenthrin	60.7	62.6	P/P	38 - 128
Chlorothalonil	27.6	21.6	P/P	20 - 214
Cis-Nonachlor	73.5	74.5	P/P	56 - 113
Cypermethrin	68.9	70.5	P/P	37 - 130
Dacthal	87.7	85.5	P/P	75 - 109
DDD-p,p'	78.2	80.5	P/P	66 - 119
DDE-p,p'	68.3	68.9	P/P	53 - 108
DDT-p,p'	73.1	71.8	P/P	57 - 133
Delta-BHC	110	105	P/P	68 - 187
Deltamethrin	79.1	80.4	P/P	50 - 200
Dichlobenil	79.3	76.5	P/P	25 - 140
Dicofol	94.3	96.4	P/P	66 - 123
Dieldrin	80.6	79.4	P/P	65 - 111
Endosulfan I	84.2	86.1	P/P	65 - 115
Endosulfan II	88.3	94.6	P/P	68 - 133
Endosulfan Sulfate	86.5	82.1	P/P	62 - 127
Endrin	81.1	82.0	P/P	64 - 122
Endrin Aldehyde	93.8	85.8	P/P	61 - 132
Endrin Ketone	85.2	82.0	P/P	66 - 120
Esfenvalerate	63.1	67.8	P/P	50 - 150
Ethalfuralin	71.5	68.8	P/P	57 - 127
Fenpropathrin	84.1	91.9	P/P	60 - 160
Gamma-BHC	96.9	95.6	P/P	71 - 158
Gamma-Chlordane	67.8	67.7	P/P	53 - 106
Heptachlor	57.8	59.1	P/P	45 - 96.0
Heptachlor Epoxide	78.9	79.0	P/P	64 - 109
Hexachlorobenzene	54.7	56.7	P/P	46 - 103
Lambda-Cyhalothrin	78.6	77.3	P/P	38 - 145
Methoxychlor	82.3	82.9	P/P	69 - 149

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P390556

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MGK-264	63.1	61.0	P/P	50 - 150
Mirex	48.2	49.2	P/P	31 - 90.0
Permethrin	59.8	61.1	P/P	41 - 108
Phenothrin	39.8	41.2	P/P	22 - 91.0
Piperonyl Butoxide	90.1	87.0	P/P	50 - 150
Prallethrin	62.8	60.0	P/P	32 - 92.0
Tau-Fluvalinate	85.0	88.3	P/P	50 - 150
Tetramethrin	101	107	P/P	60 - 160
Trans-Nonachlor	67.4	68.8	P/P	50 - 107
Triclosan Methyl	86.8	88.2	P/P	50 - 150
Trifluralin	67.6	67.5	P/P	58 - 119

Reference Method: EPA 8270E
Batch ID: P390603

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	103	103	P/P	71 - 122
Alachlor	107	111	P/P	70 - 121
Ametryn	122	124	P/P	49 - 137
Atrazine	102	102	P/P	76 - 125
Atrazine Desethyl	110	109	P/P	31 - 144
Azinphos Methyl	145	133	P/P	67 - 150
Azoxystrobin	125	116	P/P	70 - 170
Bromacil	101	99.3	P/P	36 - 121
Butylate	75.3	66.9	P/P	33 - 88.0
Carbophenothion	93.0	95.5	P/P	66 - 116
Carfentrazone Ethyl	120	124	P/P	50 - 150
Chlorpyrifos Ethyl	89.5	95.9	P/P	73 - 117
Chlorpyrifos Methyl	95.5	102	P/P	68 - 121
Cyanazine	127	119	P/P	20 - 250
Demeton	93.9	85.4	P/P	30 - 123
Diazinon	108	111	P/P	70 - 128
Difenoconazole	124	127	P/P	50 - 150
Dimethenamid	100	103	P/P	66 - 122
Disulfoton	86.1	92.2	P/P	46 - 124
Dithiopyr	95.1	96.3	P/P	69 - 122
EPTC	66.4	68.1	P/P	31 - 90.0
Ethion	59.2	64.4	P/P	45 - 135
Ethoprop	92.1	93.9	P/P	59 - 118
Fenamiphos	88.4	102	P/P	30 - 136
Fenbuconazole	109	110	P/P	50 - 150
Fipronil	120	122	P/P	57 - 127
Fipronil Desulfinyl	112	111	P/P	51 - 122
Fipronil Sulfide	95.7	97.6	P/P	57 - 119
Fipronil Sulfone	75.0	78.5	P/P	51 - 119
Fluazifop-P-butyl	108	106	P/P	50 - 150
Fludioxonil	110	110	P/P	50 - 150
Flumioxazin	114	117	P/P	20 - 250
Flutolanil	108	107	P/P	50 - 150
Fluxapyroxad	97.9	96.8	P/P	50 - 150
Fonofos	83.3	83.0	P/P	60 - 120
Hexazinone	90.2	92.0	P/P	57 - 142

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P390603

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imazalil	85.9	88.5	P/P	30 - 139
Iprodione	75.7	98.0	P/P	50 - 150
Malathion	91.3	94.3	P/P	67 - 128
Metalaxyl	107	108	P/P	21 - 148
Metolachlor	103	102	P/P	70 - 120
Metribuzin	118	122	P/P	20 - 250
Mevinphos	87.6	89.5	P/P	47 - 116
Molinate	84.3	83.1	P/P	41 - 99.0
Myclobutanil	111	115	P/P	50 - 150
Naled	47.7	51.4	P/P	38 - 97.0
Norflurazon	108	108	P/P	54 - 127
Oxadiazon	99.7	99.3	P/P	65 - 122
Oxyfluorfen	101	104	P/P	50 - 150
Parathion Ethyl	91.8	88.4	P/P	71 - 113
Parathion Methyl	102	103	P/P	73 - 129
Pendimethalin	83.0	87.9	P/P	63 - 130
Phorate	111	120	P/F	48 - 118
Prodiamine	74.3	84.6	P/P	20 - 144
Prometon	96.9	96.8	P/P	53 - 120
Prometryn	119	117	F/P	63 - 119
Pronamide	109	101	P/P	81 - 122
Propiconazole	113	113	P/P	62 - 124
Pyriproxyfen	96.8	96.4	P/P	50 - 150
Simazine	100	100	P/P	77 - 129
Sulfentrazone	98.7	102	P/P	20 - 137
Tebuconazole	62.4	61.5	P/P	20 - 118
Terbufos	85.3	90.4	P/P	61 - 119
Terbutylazine	97.9	100	P/P	75 - 119

Reference Method: EPA 8276
Batch ID: P390556

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	79.6	78.8	P/P	47 - 119
Toxaphene	79.1	73.8	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P390561

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.4		P	30 - 160
Acetaminophen	69.6		P	30 - 150
Acetamiprid	79.3		P	30 - 160
Afidopyropen	67.9		P	30 - 160
Bentazon	31.2		P	30 - 150
Benzovindiflupyr	82.1		P	30 - 160
Carbamazepine	66.2		P	30 - 160
Clothianidin	76.2		P	30 - 160
Dinotefuran	74.6		P	30 - 160
Diuron	49.6		P	30 - 160
Fenuron	87.2		P	30 - 160
Fluridone	81.0		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P390561

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hydrocodone	84.7		P	30 - 160
Ibuprofen	55.3		P	30 - 160
Imazapyr	65.0		P	30 - 160
Imidacloprid	79.4		P	30 - 160
Linuron	66.7		P	30 - 160
Mandestrobin	84.6		P	30 - 160
MCPP	89.2		P	30 - 160
Naproxen	51.3		P	30 - 160
Primidone	65.1		P	30 - 160
Pyraclostrobin	57.3		P	30 - 160
Thiamethoxam	83.9		P	30 - 160
Tolfenpyrad	45.2		P	30 - 160
Triclopyr	55.9		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P390593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	84.9		P	40 - 150
AMPA	102		P	40 - 150
Endothall	108		P	40 - 150
Glufosinate	98.0		P	40 - 150
Glyphosate	111		P	40 - 140
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P390749

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	88.4		P	30 - 160
Aldicarb	65.1		P	30 - 160
Aldicarb Sulfone	68.2		P	30 - 160
Aldicarb Sulfoxide	64.3		P	30 - 160
Carbaryl	79.2		P	30 - 160
Carbofuran	68.3		P	30 - 160
Methiocarb	78.9		P	30 - 160
Methomyl	80.3		P	30 - 160
Oxamyl	85.8		P	30 - 160
Propoxur	67.6		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P390566

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

Reference Method: SM 2320 B-2011
Batch ID: P390627

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.3		P	93 - 104

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P390629

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P390753

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P390569

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209578	Barium	105	101	P/P	80 - 120
2209578	Calcium	102		P	80 - 120
2209578	Iron	109	103	P/P	80 - 120
2209578	Magnesium	105	98.6	P/P	80 - 120
2209578	Potassium	102	97.9	P/P	80 - 120
2209578	Sodium	108	106	P/P	80 - 120
2209578	Zinc	99.7	96.5	P/P	80 - 120
2209746	Barium	104		P	80 - 120
2209746	Calcium	96.6		P	80 - 120
2209746	Iron	108		P	80 - 120
2209746	Magnesium	97.4		P	80 - 120
2209746	Potassium	104		P	80 - 120
2209746	Sodium	103		P	80 - 120
2209746	Zinc	97.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P390569

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209578	Aluminum	101	99.4	P/P	80 - 120
2209578	Antimony	101	103	P/P	80 - 120
2209578	Arsenic	104	103	P/P	80 - 120
2209578	Boron	100	99.1	P/P	80 - 120
2209578	Cadmium	99.6	102	P/P	80 - 120
2209578	Chromium	101	102	P/P	80 - 120
2209578	Copper	96.3	96.1	P/P	80 - 120
2209578	Lead	97.7	97.3	P/P	80 - 120
2209578	Nickel	98.7	98.6	P/P	80 - 120
2209578	Selenium	102	102	P/P	80 - 120
2209578	Silver	103	104	P/P	80 - 120
2209578	Thallium	101	101	P/P	80 - 120
2209746	Aluminum	97.0		P	80 - 120
2209746	Antimony	105		P	80 - 120
2209746	Arsenic	104		P	80 - 120
2209746	Boron	96.8		P	80 - 120
2209746	Cadmium	101		P	80 - 120
2209746	Chromium	102		P	80 - 120
2209746	Copper	97.4		P	80 - 120
2209746	Lead	97.2		P	80 - 120
2209746	Nickel	98.4		P	80 - 120
2209746	Selenium	103		P	80 - 120
2209746	Silver	105		P	80 - 120
2209746	Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209572	Chloride	102		P	90 - 110
2209782	Chloride	101		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390746

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209572	Sulfate	102		P	90 - 110
2209782	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391075

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210395	Ammonia-N	95.8	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209574	NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390665

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209604	Total-P	105	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390578

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209596	O-Phosphate-P	89.5	89.5	F/F	90 - 110

Reference Method: EPA 8270E
Batch ID: P390556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209639	Aldrin	63.4	61.1	P/P	32 - 82.0
2209639	Alpha-BHC	91.1	86.9	P/P	68 - 157
2209639	Alpha-Chlordane	84.6	81.3	P/P	54 - 108
2209639	Beta-BHC	117	104	P/P	54 - 200
2209639	Beta-Cyfluthrin	122	116	P/P	50 - 154
2209639	Bifenthrin	88.3	86.3	P/P	49 - 124
2209639	Chlorothalonil	18.3	8.94	P/F	10 - 289
2209639	Cis-Nonachlor	86.9	82.3	P/P	53 - 112
2209639	Cypermethrin	100	93.6	P/P	43 - 141
2209639	Dacthal	94.2	89.6	P/P	75 - 112
2209639	DDD-p,p'	90.3	85.3	P/P	58 - 125
2209639	DDE-p,p'	80.0	77.3	P/P	50 - 108
2209639	DDT-p,p'	84.0	83.6	P/P	52 - 140
2209639	Delta-BHC	160	134	P/P	61 - 228
2209639	Deltamethrin	121	109	P/P	50 - 200
2209639	Dichlobenil	55.0	48.5	P/P	25 - 140
2209639	Dicofol	95.2	98.3	P/P	59 - 130
2209639	Dieldrin	89.6	84.4	P/P	57 - 121
2209639	Endosulfan I	98.7	96.1	P/P	62 - 123
2209639	Endosulfan II	108	96.6	P/P	48 - 163
2209639	Endosulfan Sulfate	99.6	91.4	P/P	63 - 132

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P390556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209639	Endrin	94.6	87.0	P/P	58 - 128
2209639	Endrin Aldehyde	61.1	60.9	P/P	44 - 126
2209639	Endrin Ketone	95.7	89.3	P/P	68 - 127
2209639	Esfenvalerate	93.1	90.7	P/P	50 - 150
2209639	Ethalfuralin	79.1	77.9	P/P	55 - 131
2209639	Fenpropathrin	110	108	P/P	60 - 160
2209639	Gamma-BHC	111	102	P/P	54 - 206
2209639	Gamma-Chlordane	82.2	78.0	P/P	52 - 105
2209639	Heptachlor	71.8	67.4	P/P	47 - 94.0
2209639	Heptachlor Epoxide	89.6	85.0	P/P	61 - 113
2209639	Hexachlorobenzene	66.3	64.1	P/P	45 - 100
2209639	Lambda-Cyhalothrin	127	113	P/P	37 - 165
2209639	Methoxychlor	90.0	84.4	P/P	63 - 153
2209639	MGK-264	74.6	66.3	P/P	50 - 150
2209639	Mirex	75.6	73.1	P/P	38 - 90.0
2209639	Permethrin	82.9	79.8	P/P	45 - 112
2209639	Phenothrin	71.3	69.5	P/P	22 - 118
2209639	Piperonyl Butoxide	99.9	96.7	P/P	50 - 150
2209639	Prallethrin	68.9	63.7	P/P	21 - 114
2209639	Tau-Fluvalinate	140	132	P/P	50 - 150
2209639	Tetramethrin	138	129	P/P	60 - 160
2209639	Trans-Nonachlor	81.8	78.0	P/P	50 - 103
2209639	Triclosan Methyl	95.1	91.4	P/P	50 - 150
2209639	Trifluralin	78.1	74.9	P/P	57 - 122

Reference Method: EPA 8270E
Batch ID: P390603

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209928	Acetochlor	95.9	94.2	P/P	68 - 126
2209928	Alachlor	94.1	92.5	P/P	66 - 125
2209928	Ametryn	104	103	P/P	31 - 182
2209928	Atrazine	102	95.6	P/P	68 - 137
2209928	Atrazine Desethyl	87.4	83.8	P/P	13 - 161
2209928	Azinphos Methyl	133	128	P/P	54 - 162
2209928	Azoxystrobin	88.5	88.0	P/P	70 - 170
2209928	Bromacil	86.1	85.9	P/P	34 - 144
2209928	Butylate	57.9	47.0	P/P	16 - 92.0
2209928	Carbophenothion	94.9	91.3	P/P	30 - 131
2209928	Carfentrazone Ethyl	109	106	P/P	50 - 150
2209928	Chlorpyrifos Ethyl	93.0	89.0	P/P	63 - 124
2209928	Chlorpyrifos Methyl	97.2	95.7	P/P	64 - 125
2209928	Cyanazine	114	105	P/P	13 - 245
2209928	Demeton	88.4	86.7	P/P	20 - 154
2209928	Diazinon	101	97.0	P/P	66 - 141
2209928	Difenoconazole	110	105	P/P	50 - 150
2209928	Dimethenamid	92.9	89.2	P/P	50 - 130
2209928	Disulfoton	90.2	87.1	P/P	55 - 130
2209928	Dithiopyr	85.9	82.4	P/P	66 - 122
2209928	EPTC	58.4	57.2	P/P	15 - 93.0
2209928	Ethion	60.7	60.4	P/P	15 - 148
2209928	Ethoprop	91.5	89.5	P/P	59 - 126

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P390603

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209928	Fenamiphos	93.4	92.4	P/P	39 - 137
2209928	Fenbuconazole	105	95.8	P/P	50 - 150
2209928	Fipronil	107	103	P/P	47 - 131
2209928	Fipronil Desulfinyl	98.0	92.2	P/P	43 - 121
2209928	Fipronil Sulfide	89.6	91.6	P/P	29 - 134
2209928	Fipronil Sulfone	73.2	82.5	P/P	19 - 131
2209928	Fluazifop-P-butyl	100	93.9	P/P	50 - 150
2209928	Fludioxonil	96.4	89.9	P/P	50 - 150
2209928	Flumioxazin	107	103	P/P	10 - 300
2209928	Flutolanil	96.2	93.9	P/P	50 - 150
2209928	Fluxapyroxad	88.9	84.7	P/P	50 - 150
2209928	Fonofos	89.7	88.0	P/P	62 - 128
2209928	Hexazinone	90.0	86.7	P/P	58 - 154
2209928	Imazalil	76.5	69.2	P/P	10 - 215
2209928	Iprodione	92.4	86.4	P/P	50 - 150
2209928	Malathion	86.8	90.4	P/P	54 - 135
2209928	Metalaxyl	95.9	93.2	P/P	46 - 136
2209928	Metolachlor	91.6	90.6	P/P	62 - 126
2209928	Metribuzin	104	101	P/P	44 - 277
2209928	Mevinphos	86.9	86.8	P/P	44 - 135
2209928	Molinate	73.1	70.9	P/P	31 - 104
2209928	Myclobutanil	96.6	95.6	P/P	50 - 150
2209928	Naled	44.0	43.5	P/P	33 - 113
2209928	Norflurazon	92.6	92.1	P/P	32 - 134
2209928	Oxadiazon	90.3	85.2	P/P	55 - 123
2209928	Oxyfluorfen	104	99.4	P/P	50 - 150
2209928	Parathion Ethyl	93.7	95.4	P/P	67 - 120
2209928	Parathion Methyl	92.0	91.8	P/P	70 - 140
2209928	Pendimethalin	92.1	89.1	P/P	59 - 145
2209928	Phorate	154	153	F/F	52 - 127
2209928	Prodiamine	60.7	58.2	P/P	11 - 157
2209928	Prometon	95.4	93.0	P/P	55 - 130
2209928	Prometryn	106	103	P/P	55 - 127
2209928	Pronamide	107	102	P/P	66 - 150
2209928	Propiconazole	99.8	95.3	P/P	14 - 178
2209928	Pyriproxyfen	92.3	86.7	P/P	50 - 150
2209928	Simazine	98.5	99.1	P/P	58 - 159
2209928	Sulfentrazone	89.0	88.6	P/P	21 - 144
2209928	Tebuconazole	56.1	52.3	P/P	10 - 122
2209928	Terbufos	97.5	90.6	P/P	65 - 131
2209928	Terbutylazine	96.5	90.7	P/P	63 - 131

Reference Method: EPA 8276
Batch ID: P390556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209728	Chlordane	97.6	88.5	P/P	34 - 129
2209728	Toxaphene	74.4	80.7	P/P	16 - 148

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P390561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209599	2,4-D	97.1	80.2	P/P	30 - 160
2209599	Acetaminophen	39.3	41.0	P/P	30 - 150
2209599	Acetamiprid	51.2	49.5	P/P	30 - 160
2209599	Afidopyropen	63.9	62.1	P/P	30 - 160
2209599	Bentazon	79.7	68.9	P/P	30 - 150
2209599	Benzovindiflupyr	82.7	69.1	P/P	30 - 160
2209599	Carbamazepine	43.9	40.8	P/P	30 - 160
2209599	Clothianidin	38.1	36.4	P/P	30 - 160
2209599	Dinotefuran	59.4	56.2	P/P	30 - 160
2209599	Diuron	37.5	44.9	P/P	30 - 160
2209599	Fenuron	56.8	54.2	P/P	30 - 160
2209599	Fluridone	77.9	75.1	P/P	30 - 160
2209599	Hydrocodone	83.9	81.4	P/P	30 - 160
2209599	Ibuprofen	60.5	46.5	P/P	30 - 160
2209599	Imazapyr	75.1	63.1	P/P	30 - 160
2209599	Imidacloprid	75.4	68.4	P/P	30 - 160
2209599	Linuron	62.3	55.9	P/P	30 - 160
2209599	Mandestrobin	87.9	77.5	P/P	30 - 160
2209599	MCP	116	94.6	P/P	30 - 160
2209599	Naproxen	52.5	39.4	P/P	30 - 160
2209599	Primidone	42.0	39.2	P/P	30 - 160
2209599	Pyraclostrobin	56.0	47.7	P/P	30 - 160
2209599	Thiamethoxam	69.2	64.4	P/P	30 - 160
2209599	Tolfenpyrad	63.3	44.3	P/P	30 - 160
2209599	Triclopyr	102	79.9	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P390593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209745	Acesulfame K	17.9	18.9	F/F	40 - 150
2209745	AMPA	99.1	91.1	P/P	40 - 150
2209745	Endothall	134	135	P/P	40 - 150
2209745	Glufosinate	110	108	P/P	40 - 150
2209745	Glyphosate	97.9	96.1	P/P	40 - 140
2209745	Sucralose	103	109	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P390749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209588	3-Hydroxycarbofuran	57.7	63.6	P/P	30 - 160
2209588	Aldicarb	53.0	43.6	P/P	30 - 160
2209588	Aldicarb Sulfone	41.1	45.6	P/P	30 - 160
2209588	Aldicarb Sulfoxide	38.3	31.7	P/P	30 - 160
2209588	Carbaryl	37.2	37.9	P/P	30 - 160
2209588	Carbofuran	33.6	35.8	P/P	30 - 160
2209588	Methiocarb	47.3	46.0	P/P	30 - 160
2209588	Methomyl	69.0	67.3	P/P	30 - 160
2209588	Oxamyl	70.5	66.5	P/P	30 - 160
2209588	Propoxur	32.9	30.1	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P390629

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209572	Fluoride	102	99.3	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P390753

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209871	Organic Carbon	101	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P390575

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209573	Turbidity	9.13	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P390569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209578	Barium	3.26	Spike	P	0 - 20
2209578	Calcium	1.31	Spike	P	0 - 20
2209578	Iron	5.13	Spike	P	0 - 20
2209578	Magnesium	4.36	Spike	P	0 - 20
2209578	Potassium	4.22	Spike	P	0 - 20
2209578	Sodium	1.16	Spike	P	0 - 20
2209578	Zinc	3.24	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P390569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209578	Aluminum	1.06	Spike	P	0 - 20
2209578	Antimony	1.87	Spike	P	0 - 20
2209578	Arsenic	0.822	Spike	P	0 - 20
2209578	Boron	1.05	Spike	P	0 - 20
2209578	Cadmium	1.98	Spike	P	0 - 20
2209578	Chromium	0.653	Spike	P	0 - 20
2209578	Copper	0.118	Spike	P	0 - 20
2209578	Lead	0.361	Spike	P	0 - 20
2209578	Nickel	0.0924	Spike	P	0 - 20
2209578	Selenium	0.400	Spike	P	0 - 20
2209578	Silver	1.33	Spike	P	0 - 20
2209578	Thallium	0.118	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209572	Chloride	1.25	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209572	Sulfate	0.856	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210395	Ammonia-N	1.09	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209694	Kjeldahl Nitrogen	7.62	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209574	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209604	Total-P	1.64	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390578

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209596	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P390556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209639	Aldrin	3.79	Spike	P	0 - 30
2209639	Alpha-BHC	4.64	Spike	P	0 - 30
2209639	Alpha-Chlordane	4.05	Spike	P	0 - 30
2209639	Beta-BHC	11.6	Spike	P	0 - 30
2209639	Beta-Cyfluthrin	5.42	Spike	P	0 - 30
2209639	Bifenthrin	2.32	Spike	P	0 - 30
2209639	Chlorothalonil	68.6	Spike	F	0 - 30
2209639	Cis-Nonachlor	5.36	Spike	P	0 - 30
2209639	Cypermethrin	6.54	Spike	P	0 - 30
2209639	Dacthal	4.99	Spike	P	0 - 30
2209639	DDD-p,p'	5.71	Spike	P	0 - 30
2209639	DDE-p,p'	3.38	Spike	P	0 - 30
2209639	DDT-p,p'	0.461	Spike	P	0 - 30
2209639	Delta-BHC	18.0	Spike	P	0 - 30
2209639	Deltamethrin	10.2	Spike	P	0 - 30
2209639	Dichlobenil	12.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P390556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209639	Dicofol	3.19	Spike	P	0 - 30
2209639	Dieldrin	6.06	Spike	P	0 - 30
2209639	Endosulfan I	2.70	Spike	P	0 - 30
2209639	Endosulfan II	11.3	Spike	P	0 - 30
2209639	Endosulfan Sulfate	8.60	Spike	P	0 - 30
2209639	Endrin	8.40	Spike	P	0 - 30
2209639	Endrin Aldehyde	0.440	Spike	P	0 - 30
2209639	Endrin Ketone	6.86	Spike	P	0 - 30
2209639	Esfenvalerate	2.61	Spike	P	0 - 30
2209639	Ethalfuralin	1.49	Spike	P	0 - 30
2209639	Fenpropathrin	2.49	Spike	P	0 - 30
2209639	Gamma-BHC	8.58	Spike	P	0 - 30
2209639	Gamma-Chlordane	5.27	Spike	P	0 - 30
2209639	Heptachlor	6.25	Spike	P	0 - 30
2209639	Heptachlor Epoxide	5.16	Spike	P	0 - 30
2209639	Hexachlorobenzene	3.43	Spike	P	0 - 30
2209639	Lambda-Cyhalothrin	11.8	Spike	P	0 - 30
2209639	Methoxychlor	6.45	Spike	P	0 - 30
2209639	MGK-264	11.7	Spike	P	0 - 30
2209639	Mirex	3.30	Spike	P	0 - 30
2209639	Permethrin	3.77	Spike	P	0 - 30
2209639	Phenothrin	2.63	Spike	P	0 - 30
2209639	Piperonyl Butoxide	3.22	Spike	P	0 - 30
2209639	Prallethrin	7.90	Spike	P	0 - 30
2209639	Tau-Fluvalinate	6.40	Spike	P	0 - 30
2209639	Tetramethrin	6.51	Spike	P	0 - 30
2209639	Trans-Nonachlor	4.75	Spike	P	0 - 30
2209639	Triclosan Methyl	3.96	Spike	P	0 - 30
2209639	Trifluralin	4.16	Spike	P	0 - 30
LFB	Aldrin	6.88	LCS	P	0 - 30
LFB	Alpha-BHC	2.11	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.814	LCS	P	0 - 30
LFB	Beta-BHC	3.25	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	1.08	LCS	P	0 - 30
LFB	Bifenthrin	3.07	LCS	P	0 - 30
LFB	Chlorothalonil	24.4	LCS	P	0 - 30
LFB	Cis-Nonachlor	1.33	LCS	P	0 - 30
LFB	Cypermethrin	2.24	LCS	P	0 - 30
LFB	Dacthal	2.56	LCS	P	0 - 30
LFB	DDD-p,p'	2.97	LCS	P	0 - 30
LFB	DDE-p,p'	0.843	LCS	P	0 - 30
LFB	DDT-p,p'	1.85	LCS	P	0 - 30
LFB	Delta-BHC	4.09	LCS	P	0 - 30
LFB	Deltamethrin	1.69	LCS	P	0 - 30
LFB	Dichlobenil	3.64	LCS	P	0 - 30
LFB	Dicofol	2.24	LCS	P	0 - 30
LFB	Dieldrin	1.44	LCS	P	0 - 30
LFB	Endosulfan I	2.25	LCS	P	0 - 30
LFB	Endosulfan II	6.93	LCS	P	0 - 30
LFB	Endosulfan Sulfate	5.21	LCS	P	0 - 30
LFB	Endrin	1.14	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P390556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endrin Aldehyde	8.90	LCS	P	0 - 30
LFB	Endrin Ketone	3.90	LCS	P	0 - 30
LFB	Esfenvalerate	7.17	LCS	P	0 - 30
LFB	Ethalfuralin	3.76	LCS	P	0 - 30
LFB	Fenpropathrin	8.91	LCS	P	0 - 30
LFB	Gamma-BHC	1.37	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.118	LCS	P	0 - 30
LFB	Heptachlor	2.35	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.134	LCS	P	0 - 30
LFB	Hexachlorobenzene	3.68	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	1.63	LCS	P	0 - 30
LFB	Methoxychlor	0.695	LCS	P	0 - 30
LFB	MGK-264	3.34	LCS	P	0 - 30
LFB	Mirex	1.97	LCS	P	0 - 30
LFB	Permethrin	2.18	LCS	P	0 - 30
LFB	Phenothrin	3.42	LCS	P	0 - 30
LFB	Piperonyl Butoxide	3.50	LCS	P	0 - 30
LFB	Prallethrin	4.55	LCS	P	0 - 30
LFB	Tau-Fluvalinate	3.87	LCS	P	0 - 30
LFB	Tetramethrin	5.60	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.02	LCS	P	0 - 30
LFB	Triclosan Methyl	1.57	LCS	P	0 - 30
LFB	Trifluralin	0.158	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P390603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209928	Acetochlor	1.77	Spike	P	0 - 30
2209928	Alachlor	1.72	Spike	P	0 - 30
2209928	Ametryn	1.22	Spike	P	0 - 30
2209928	Atrazine	6.16	Spike	P	0 - 30
2209928	Atrazine Desethyl	3.67	Spike	P	0 - 30
2209928	Azinphos Methyl	3.91	Spike	P	0 - 30
2209928	Azoxystrobin	0.528	Spike	P	0 - 30
2209928	Bromacil	0.272	Spike	P	0 - 30
2209928	Butylate	20.7	Spike	P	0 - 30
2209928	Carbophenothion	3.89	Spike	P	0 - 30
2209928	Carfentrazone Ethyl	3.13	Spike	P	0 - 30
2209928	Chlorpyrifos Ethyl	4.39	Spike	P	0 - 30
2209928	Chlorpyrifos Methyl	1.56	Spike	P	0 - 30
2209928	Cyanazine	8.12	Spike	P	0 - 30
2209928	Demeton	1.92	Spike	P	0 - 30
2209928	Diazinon	4.19	Spike	P	0 - 30
2209928	Difenoconazole	4.54	Spike	P	0 - 30
2209928	Dimethenamid	4.07	Spike	P	0 - 30
2209928	Disulfoton	3.45	Spike	P	0 - 30
2209928	Dithiopyr	4.07	Spike	P	0 - 30
2209928	EPTC	2.05	Spike	P	0 - 30
2209928	Ethion	0.418	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P390603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209928	Ethoprop	2.25	Spike	P	0 - 30
2209928	Fenamiphos	1.06	Spike	P	0 - 30
2209928	Fenbuconazole	8.86	Spike	P	0 - 30
2209928	Fipronil	3.87	Spike	P	0 - 30
2209928	Fipronil Desulfinyl	6.06	Spike	P	0 - 30
2209928	Fipronil Sulfide	2.24	Spike	P	0 - 30
2209928	Fipronil Sulfone	11.9	Spike	P	0 - 30
2209928	Fluazifop-P-butyl	6.50	Spike	P	0 - 30
2209928	Fludioxonil	6.97	Spike	P	0 - 30
2209928	Flumioxazin	3.56	Spike	P	0 - 30
2209928	Flutolanil	2.38	Spike	P	0 - 30
2209928	Fluxapyroxad	4.89	Spike	P	0 - 30
2209928	Fonofos	1.95	Spike	P	0 - 30
2209928	Hexazinone	3.83	Spike	P	0 - 30
2209928	Imazalil	10.0	Spike	P	0 - 30
2209928	Iprodione	6.68	Spike	P	0 - 30
2209928	Malathion	4.13	Spike	P	0 - 30
2209928	Metalaxyl	2.92	Spike	P	0 - 30
2209928	Metolachlor	1.04	Spike	P	0 - 30
2209928	Metribuzin	3.02	Spike	P	0 - 30
2209928	Mevinphos	0.161	Spike	P	0 - 30
2209928	Molinate	3.10	Spike	P	0 - 30
2209928	Myclobutanil	1.06	Spike	P	0 - 30
2209928	Naled	0.983	Spike	P	0 - 30
2209928	Norflurazon	0.571	Spike	P	0 - 30
2209928	Oxadiazon	5.77	Spike	P	0 - 30
2209928	Oxyfluorfen	4.55	Spike	P	0 - 30
2209928	Parathion Ethyl	1.80	Spike	P	0 - 30
2209928	Parathion Methyl	0.166	Spike	P	0 - 30
2209928	Pendimethalin	3.29	Spike	P	0 - 30
2209928	Phorate	0.392	Spike	P	0 - 30
2209928	Prodiamine	4.31	Spike	P	0 - 30
2209928	Prometon	2.58	Spike	P	0 - 30
2209928	Prometryn	2.85	Spike	P	0 - 30
2209928	Pronamide	4.00	Spike	P	0 - 30
2209928	Propiconazole	4.65	Spike	P	0 - 30
2209928	Pyriproxyfen	6.28	Spike	P	0 - 30
2209928	Simazine	0.590	Spike	P	0 - 30
2209928	Sulfentrazone	0.466	Spike	P	0 - 30
2209928	Tebuconazole	6.99	Spike	P	0 - 30
2209928	Terbufos	7.30	Spike	P	0 - 30
2209928	Terbutylazine	6.15	Spike	P	0 - 30
LFB	Acetochlor	0.0763	LCS	P	0 - 30
LFB	Alachlor	3.26	LCS	P	0 - 30
LFB	Ametryn	1.99	LCS	P	0 - 30
LFB	Atrazine	0.122	LCS	P	0 - 30
LFB	Atrazine Desethyl	0.389	LCS	P	0 - 30
LFB	Azinphos Methyl	8.34	LCS	P	0 - 30
LFB	Azoxystrobin	7.44	LCS	P	0 - 30
LFB	Bromacil	1.24	LCS	P	0 - 30
LFB	Butylate	11.9	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P390603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Carbophenothion	2.58	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	3.08	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	6.94	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	7.03	LCS	P	0 - 30
LFB	Cyanazine	6.58	LCS	P	0 - 30
LFB	Demeton	9.43	LCS	P	0 - 30
LFB	Diazinon	2.00	LCS	P	0 - 30
LFB	Difenoconazole	2.12	LCS	P	0 - 30
LFB	Dimethenamid	2.65	LCS	P	0 - 30
LFB	Disulfoton	6.84	LCS	P	0 - 30
LFB	Dithiopyr	1.25	LCS	P	0 - 30
LFB	EPTC	2.51	LCS	P	0 - 30
LFB	Ethion	8.49	LCS	P	0 - 30
LFB	Ethoprop	1.97	LCS	P	0 - 30
LFB	Fenamiphos	14.6	LCS	P	0 - 30
LFB	Fenbuconazole	1.11	LCS	P	0 - 30
LFB	Fipronil	1.30	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	0.989	LCS	P	0 - 30
LFB	Fipronil Sulfide	1.93	LCS	P	0 - 30
LFB	Fipronil Sulfone	4.63	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	2.53	LCS	P	0 - 30
LFB	Fludioxonil	0.0817	LCS	P	0 - 30
LFB	Flumioxazin	2.39	LCS	P	0 - 30
LFB	Flutolanil	0.848	LCS	P	0 - 30
LFB	Fluxapyroxad	1.12	LCS	P	0 - 30
LFB	Fonofos	0.436	LCS	P	0 - 30
LFB	Hexazinone	1.98	LCS	P	0 - 30
LFB	Imazalil	2.98	LCS	P	0 - 30
LFB	Iprodione	25.7	LCS	P	0 - 30
LFB	Malathion	3.19	LCS	P	0 - 30
LFB	Metalaxyl	1.28	LCS	P	0 - 30
LFB	Metolachlor	0.869	LCS	P	0 - 30
LFB	Metribuzin	3.83	LCS	P	0 - 30
LFB	Mevinphos	2.16	LCS	P	0 - 30
LFB	Molinate	1.37	LCS	P	0 - 30
LFB	Myclobutanil	2.89	LCS	P	0 - 30
LFB	Naled	7.57	LCS	P	0 - 30
LFB	Norflurazon	0.153	LCS	P	0 - 30
LFB	Oxadiazon	0.493	LCS	P	0 - 30
LFB	Oxyfluorfen	3.73	LCS	P	0 - 30
LFB	Parathion Ethyl	3.78	LCS	P	0 - 30
LFB	Parathion Methyl	0.845	LCS	P	0 - 30
LFB	Pendimethalin	5.70	LCS	P	0 - 30
LFB	Phorate	7.17	LCS	P	0 - 30
LFB	Prodiamine	13.0	LCS	P	0 - 30
LFB	Prometon	0.180	LCS	P	0 - 30
LFB	Prometryn	2.34	LCS	P	0 - 30
LFB	Pronamide	7.80	LCS	P	0 - 30
LFB	Propiconazole	0.0166	LCS	P	0 - 30
LFB	Pyriproxyfen	0.399	LCS	P	0 - 30
LFB	Simazine	0.204	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
 Batch ID: P390603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Sulfentrazone	3.06	LCS	P	0 - 30
LFB	Tebuconazole	1.53	LCS	P	0 - 30
LFB	Terbufos	5.81	LCS	P	0 - 30
LFB	Terbutylazine	2.27	LCS	P	0 - 30

Reference Method: EPA 8276
 Batch ID: P390556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209728	Chlordane	9.74	Spike	P	0 - 30
2209728	Toxaphene	8.01	Spike	P	0 - 30
LFB	Chlordane	0.999	LCS	P	0 - 30
LFB	Toxaphene	6.96	LCS	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P390561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209599	2,4-D	19.1	Spike	P	0 - 30
2209599	Acetaminophen	4.34	Spike	P	0 - 30
2209599	Acetamiprid	3.43	Spike	P	0 - 30
2209599	Afidopyrophen	2.90	Spike	P	0 - 30
2209599	Bentazon	12.0	Spike	P	0 - 30
2209599	Benzovindiflupyr	17.9	Spike	P	0 - 30
2209599	Carbamazepine	7.37	Spike	P	0 - 30
2209599	Clothianidin	4.45	Spike	P	0 - 30
2209599	Dinotefuran	5.59	Spike	P	0 - 30
2209599	Diuron	17.9	Spike	P	0 - 30
2209599	Fenuron	4.71	Spike	P	0 - 30
2209599	Fluridone	3.62	Spike	P	0 - 30
2209599	Hydrocodone	3.07	Spike	P	0 - 30
2209599	Ibuprofen	26.1	Spike	P	0 - 30
2209599	Imazapyr	17.4	Spike	P	0 - 30
2209599	Imidacloprid	6.55	Spike	P	0 - 30
2209599	Linuron	10.9	Spike	P	0 - 30
2209599	Mandestrobin	12.6	Spike	P	0 - 30
2209599	MCP	20.5	Spike	P	0 - 30
2209599	Naproxen	28.7	Spike	P	0 - 30
2209599	Primidone	6.91	Spike	P	0 - 30
2209599	Pyraclostrobin	16.0	Spike	P	0 - 30
2209599	Thiamethoxam	6.90	Spike	P	0 - 30
2209599	Tolfenpyrad	35.4	Spike	F	0 - 30
2209599	Triclopyr	24.3	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P390593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P390593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209745	Acesulfame K	5.38	Spike	P	0 - 30
2209745	AMPA	8.45	Spike	P	0 - 30
2209745	Endothall	0.718	Spike	P	0 - 30
2209745	Glufosinate	2.43	Spike	P	0 - 30
2209745	Glyphosate	1.85	Spike	P	0 - 30
2209745	Sucralose	6.17	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P390749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209588	3-Hydroxycarbofuran	9.88	Spike	P	0 - 30
2209588	Aldicarb	19.4	Spike	P	0 - 30
2209588	Aldicarb Sulfone	10.3	Spike	P	0 - 30
2209588	Aldicarb Sulfoxide	18.9	Spike	P	0 - 30
2209588	Carbaryl	1.85	Spike	P	0 - 30
2209588	Carbofuran	6.41	Spike	P	0 - 30
2209588	Methiocarb	2.74	Spike	P	0 - 30
2209588	Methomyl	2.48	Spike	P	0 - 30
2209588	Oxamyl	5.87	Spike	P	0 - 30
2209588	Propoxur	9.02	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P390566

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209572	Color (true)	3.78	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P390627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209572	Total Alkalinity	0.572	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P391143

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209594	TDS	6.35	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P390629

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209572	Fluoride	2.01	Spike	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P390753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209871	Organic Carbon	0.290	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2209654
Field Sample ID: G1SD0070

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	47.4	P	30 - 160

Lab Sample ID: 2209655
Field Sample ID: G1SD0070

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	49.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	53.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	47.8	P	30 - 160
EPA 8321B	Diuron-d6	42.2	P	30 - 160
EPA 8321B	Endothall-d6	112	P	40 - 160
EPA 8321B	Endothall-d6	112	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	40 - 160
EPA 8321B	Ibuprofen-d3	44.5	P	30 - 160
EPA 8321B	Primidone-d5	54.5	P	30 - 160
EPA 8321B	Sucralose-d6	91.0	P	30 - 160
EPA 8321B	Sucralose-d6	91.0	P	30 - 160

Lab Sample ID: 2209656
Field Sample ID: G3SD0167

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	73.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	46.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	45.6	P	30 - 160
EPA 8321B	Diuron-d6	41.2	P	30 - 160
EPA 8321B	Endothall-d6	119	P	40 - 160
EPA 8321B	Endothall-d6	119	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	86.1	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	86.1	P	40 - 160
EPA 8321B	Ibuprofen-d3	45.4	P	30 - 160
EPA 8321B	Primidone-d5	49.5	P	30 - 160
EPA 8321B	Sucralose-d6	74.8	P	30 - 160
EPA 8321B	Sucralose-d6	74.8	P	30 - 160

Lab Sample ID: 2209657
Field Sample ID: G1SD0070

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	75.9	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	70.1	P	34 - 106
EPA 8276	Decachlorobiphenyl	48.6	P	26 - 97.0
EPA 8276	PCNB	92.6	P	38 - 141

Lab Sample ID: 2209658
Field Sample ID: G1SD0070

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	95.1	P	72 - 135
EPA 8270E	Terbufos-d10	99.9	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B-2011

Run ID: A102353

Included Lab Sample IDs: 2209646

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A102354

Included Lab Sample IDs: 2209646

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	103	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A102355

Included Lab Sample IDs: 2209648

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A102364

Included Lab Sample IDs: 2209647

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

Reference Method: SM 2320 B-2011

Run ID: A102378

Included Lab Sample IDs: 2209646

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	98.7	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A102378

Included Lab Sample IDs: 2209646

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	105	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A102397

Included Lab Sample IDs: 2209655, 2209656

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	108	105	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A102409

Included Lab Sample IDs: 2209646

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276
Run ID: A102413
Included Lab Sample IDs: 2209657

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	100		P	80 - 120
Toxaphene	101		P	80 - 120

Reference Method: EPA 8321B
Run ID: A102417
Included Lab Sample IDs: 2209655, 2209656

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	94.9	80.4	P/P	60 - 160
AMPA	95.0	101	P/P	60 - 160
Endothall	117	108	P/P	60 - 160
Glufosinate	105	99.9	P/P	60 - 160
Glyphosate	136	118	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A102421
Included Lab Sample IDs: 2209647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	106	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A102430
Included Lab Sample IDs: 2209667

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	100	P/P	90 - 110
Antimony	97.6	96.9	P/P	90 - 110
Arsenic	103	102	P/P	90 - 110
Boron	102	103	P/P	90 - 110
Cadmium	101	99.0	P/P	90 - 110
Copper	99.4	97.7	P/P	90 - 110
Lead	98.3	98.2	P/P	90 - 110
Nickel	99.0	96.8	P/P	90 - 110
Selenium	104	102	P/P	90 - 110
Silver	99.9	98.5	P/P	90 - 110
Thallium	98.1	97.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A102434
Included Lab Sample IDs: 2209667

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	104	P/P	95 - 105
Calcium	103	102	P/P	95 - 105
Iron	104	104	P/P	95 - 105
Magnesium	102	100	P/P	95 - 105
Potassium	100	99.6	P/P	95 - 105
Sodium	104	104	P/P	95 - 105
Zinc	103	101	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A102441

Included Lab Sample IDs: 2209647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	99.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A102480

Included Lab Sample IDs: 2209657

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.7		P	80 - 120
Alpha-BHC	105		P	80 - 120
Alpha-Chlordane	98.5		P	80 - 120
Beta-BHC	103		P	80 - 120
Beta-Cyfluthrin	93.7		P	80 - 120
Bifenthrin	96.8		P	80 - 120
Chlorothalonil	102		P	80 - 120
Cis-Nonachlor	98.6		P	80 - 120
Cypermethrin	92.1		P	80 - 120
Dacthal	99.9		P	80 - 120
DDD-p,p'	98.3		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	109		P	80 - 120
Delta-BHC	105		P	80 - 120
Deltamethrin	94.0		P	80 - 120
Dichlobenil	99.0		P	80 - 120
Dicofol	93.8		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	99.1		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	103		P	80 - 120
Endrin	97.5		P	80 - 120
Endrin Aldehyde	106		P	80 - 120
Endrin Ketone	98.7		P	80 - 120
Esfenvalerate	90.7		P	80 - 120
Ethalfuralin	96.6		P	80 - 120
Fenpropathrin	97.8		P	80 - 120
Gamma-BHC	103		P	80 - 120
Gamma-Chlordane	98.5		P	80 - 120
Heptachlor	96.2		P	80 - 120
Heptachlor Epoxide	99.2		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Lambda-Cyhalothrin	89.9		P	80 - 120
Methoxychlor	99.8		P	80 - 120
MGK-264	99.2		P	80 - 120
Mirex	101		P	80 - 120
Permethrin	94.6		P	80 - 120
Phenothrin	93.2		P	80 - 120
Piperonyl Butoxide	89.8		P	80 - 120
Prallethrin	89.2		P	80 - 120
Tau-Fluvalinate	96.3		P	80 - 120
Tetramethrin	96.6		P	80 - 120
Trans-Nonachlor	98.1		P	80 - 120
Triclosan Methyl	99.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A102480
Included Lab Sample IDs: 2209657

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Trifluralin	97.0		P	80 - 120

Reference Method: EPA 8321B
Run ID: A102481
Included Lab Sample IDs: 2209655, 2209656

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	67.4	62.4	P/P	50 - 150
2,4-D	71.2	63.4	P/P	50 - 150
Acetaminophen	115	115	P/P	60 - 160
Acetamiprid	102	104	P/P	50 - 150
Afidopyropen	112	96.5	P/P	50 - 150
Bentazon	69.0	92.0	P/P	50 - 160
Bentazon	75.5	74.1	P/P	50 - 160
Benzovindiflupyr	107	111	P/P	50 - 150
Carbamazepine	98.8	105	P/P	60 - 150
Clothianidin	114	98.9	P/P	60 - 150
Dinotefuran	99.4	102	P/P	50 - 150
Diuron	89.8	80.2	P/P	60 - 160
Fenuron	108	100	P/P	60 - 150
Fluridone	115	110	P/P	60 - 160
Hydrocodone	102	106	P/P	60 - 150
Ibuprofen	108	78.7	P/P	50 - 160
Imazapyr	80.6	93.8	P/P	50 - 150
Imidacloprid	91.1	95.8	P/P	60 - 150
Linuron	105	106	P/P	60 - 150
Mandestrobin	107	112	P/P	50 - 150
MCPP	80.1	77.6	P/P	50 - 150
Naproxen	67.1	75.3	P/P	50 - 160
Primidone	100	96.7	P/P	60 - 150
Pyraclostrobin	91.1	88.0	P/P	60 - 150
Thiamethoxam	100	95.4	P/P	50 - 150
Tolfenpyrad	105	99.4	P/P	60 - 150
Triclopyr	85.8	81.7	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A102482
Included Lab Sample IDs: 2209667

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	97.9	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A102501
Included Lab Sample IDs: 2209647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.3	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A102522
Included Lab Sample IDs: 2209658

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.6		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	99.1		P	80 - 120
Atrazine Desethyl	90.0		P	80 - 120
Azinphos Methyl	111		P	80 - 120
Azoxystrobin	93.9		P	80 - 120
Bromacil	96.9		P	80 - 120
Butylate	95.6		P	80 - 120
Carbophenothion	102		P	80 - 120
Carfentrazone Ethyl	94.1		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	105		P	80 - 120
Cyanazine	96.6		P	80 - 120
Demeton	108		P	80 - 120
Diazinon	99.5		P	80 - 120
Difenoconazole	95.0		P	80 - 120
Dimethenamid	96.5		P	80 - 120
Disulfoton	96.8		P	80 - 120
Dithiopyr	96.2		P	80 - 120
EPTC	98.8		P	80 - 120
Ethion	103		P	80 - 120
Ethoprop	103		P	80 - 120
Fenamiphos	95.9		P	80 - 120
Fenbuconazole	90.4		P	80 - 120
Fipronil	95.3		P	80 - 120
Fipronil Desulfinyl	96.8		P	80 - 120
Fipronil Sulfide	99.0		P	80 - 120
Fipronil Sulfone	99.3		P	80 - 120
Fluazifop-P-butyl	94.5		P	80 - 120
Fludioxonil	91.0		P	80 - 120
Flumioxazin	96.4		P	80 - 120
Flutolanil	88.3		P	80 - 120
Fluxapyroxad	93.8		P	80 - 120
Fonofos	107		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	96.4		P	80 - 120
Iprodione	104		P	80 - 120
Malathion	100		P	80 - 120
Metaxyl	98.7		P	80 - 120
Metolachlor	98.0		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	96.3		P	80 - 120
Myclobutanil	95.8		P	80 - 120
Naled	111		P	80 - 120
Norflurazon	93.7		P	80 - 120
Oxadiazon	95.3		P	80 - 120
Oxyfluorfen	99.5		P	80 - 120
Parathion Ethyl	101		P	80 - 120
Parathion Methyl	99.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A102522

Included Lab Sample IDs: 2209658

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pendimethalin	95.5		P	80 - 120
Phorate	105		P	80 - 120
Prodiamine	98.1		P	80 - 120
Prometon	99.8		P	80 - 120
Prometryn	97.4		P	80 - 120
Pronamide	95.6		P	80 - 120
Propiconazole	96.3		P	80 - 120
Pyriproxyfen	95.9		P	80 - 120
Simazine	98.4		P	80 - 120
Sulfentrazone	92.3		P	80 - 120
Tebuconazole	94.2		P	80 - 120
Terbufos	104		P	80 - 120
Terbutylazine	100		P	80 - 120

Reference Method: EPA 8321B

Run ID: A102532

Included Lab Sample IDs: 2209654

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	119	111	P/P	60 - 150
Aldicarb	106	77.6	P/P	60 - 150
Aldicarb Sulfone	93.8	108	P/P	50 - 150
Aldicarb Sulfoxide	102	103	P/P	50 - 150
Carbaryl	100	105	P/P	60 - 150
Carbofuran	106	103	P/P	50 - 150
Methiocarb	93.4	103	P/P	50 - 150
Methomyl	101	125	P/P	50 - 150
Oxamyl	104	110	P/P	50 - 150
Propoxur	100	108	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102553

Included Lab Sample IDs: 2209647

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.2	96.8	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							9.13	
EPA 200.7 Rev. 4.4	Barium	105		105	101	104			3.26
	Calcium	103		102	96.6				1.31
	Iron	105		109	103	108			5.13
	Magnesium	104		105	98.6	97.4			4.36
	Potassium	100		102	97.9	104			4.22
	Sodium	107		108	106	103			1.16
	Zinc	101		99.7	96.5	97.5			3.24
EPA 200.8 Rev. 5.4	Aluminum	101		101	99.4	97.0			1.06
	Antimony	100		101	103	105			1.87
	Arsenic	103		104	103	104			0.822
	Boron	95.4		100	99.1	96.8			1.05
	Cadmium	98.7		99.6	102	101			1.98
	Chromium	100		101	102	102			0.653
	Copper	101		96.3	96.1	97.4			0.118
	Lead	98.3		97.7	97.3	97.2			0.361
	Nickel	99.4		98.7	98.6	98.4			0.0924
	Selenium	102		102	102	103			0.400
	Silver	105		103	104	105			1.33
	Thallium	99.1		101	101	101			0.118
EPA 300.0 Rev. 2.1	Chloride	101		102	101			1.25	
	Sulfate	102		102	102			0.856	
EPA 350.1 Rev. 2.0	Ammonia-N	98.2		95.8	97.0				1.09
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101							7.62
EPA 353.2 Rev. 2.0	NO2NO3-N	101		99.5	99.5				0.0
EPA 365.1 Rev. 2.0	Total-P	104		105	108				1.64
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.1		89.5	89.5				0.0
EPA 8270E	Acetochlor	103	103	95.9	94.2		0.0763		1.77
	Alachlor	107	111	94.1	92.5		3.26		1.72
	Aldrin	35.3	37.8	63.4	61.1		6.88		3.79
	Alpha-BHC	87.8	86.0	91.1	86.9		2.11		4.64
	Alpha-Chlordane	73.1	72.5	84.6	81.3		0.814		4.05
	Ametryn	122	124	104	103		1.99		1.22
	Atrazine	102	102	102	95.6		0.122		6.16
	Atrazine Desethyl	110	109	87.4	83.8		0.389		3.67
	Azinphos Methyl	145	133	133	128		8.34		3.91
	Azoxystrobin	125	116	88.5	88.0		7.44		0.528
	Beta-BHC	101	105	117	104		3.25		11.6
	Beta-Cyfluthrin	81.3	80.4	122	116		1.08		5.42
	Bifenthrin	60.7	62.6	88.3	86.3		3.07		2.32
	Bromacil	101	99.3	86.1	85.9		1.24		0.272
	Butylate	75.3	66.9	57.9	47.0		11.9		20.7
	Carbophenothion	93.0	95.5	94.9	91.3		2.58		3.89
	Carfentrazone Ethyl	120	124	109	106		3.08		3.13
	Chlorothalonil	27.6	21.6	18.3	8.94		24.4		68.6
	Chlorpyrifos Ethyl	89.5	95.9	93.0	89.0		6.94		4.39
	Chlorpyrifos Methyl	95.5	102	97.2	95.7		7.03		1.56
	Cis-Nonachlor	73.5	74.5	86.9	82.3		1.33		5.36
	Cyanazine	127	119	114	105		6.58		8.12
	Cypermethrin	68.9	70.5	100	93.6		2.24		6.54
	Dacthal	87.7	85.5	94.2	89.6		2.56		4.99
	DDD-p,p'	78.2	80.5	90.3	85.3		2.97		5.71
	DDE-p,p'	68.3	68.9	80.0	77.3		0.843		3.38
	DDT-p,p'	73.1	71.8	84.0	83.6		1.85		0.461

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Delta-BHC	110	105	160	134	4.09	18.0
	Deltamethrin	79.1	80.4	121	109	1.69	10.2
	Demeton	93.9	85.4	88.4	86.7	9.43	1.92
	Diazinon	108	111	101	97.0	2.00	4.19
	Dichlobenil	79.3	76.5	55.0	48.5	3.64	12.5
	Dicofol	94.3	96.4	95.2	98.3	2.24	3.19
	Dieldrin	80.6	79.4	89.6	84.4	1.44	6.06
	Difenoconazole	124	127	110	105	2.12	4.54
	Dimethenamid	100	103	92.9	89.2	2.65	4.07
	Disulfoton	86.1	92.2	90.2	87.1	6.84	3.45
	Dithiopyr	95.1	96.3	85.9	82.4	1.25	4.07
	Endosulfan I	84.2	86.1	98.7	96.1	2.25	2.70
	Endosulfan II	88.3	94.6	108	96.6	6.93	11.3
	Endosulfan Sulfate	86.5	82.1	99.6	91.4	5.21	8.60
	Endrin	81.1	82.0	94.6	87.0	1.14	8.40
	Endrin Aldehyde	93.8	85.8	61.1	60.9	8.90	0.440
	Endrin Ketone	85.2	82.0	95.7	89.3	3.90	6.86
	EPTC	66.4	68.1	58.4	57.2	2.51	2.05
	Esfenvalerate	63.1	67.8	93.1	90.7	7.17	2.61
	Ethalfuralin	71.5	68.8	79.1	77.9	3.76	1.49
	Ethion	59.2	64.4	60.7	60.4	8.49	0.418
	Ethoprop	92.1	93.9	91.5	89.5	1.97	2.25
	Fenamiphos	88.4	102	93.4	92.4	14.6	1.06
	Fenbuconazole	109	110	105	95.8	1.11	8.86
	Fenpropathrin	84.1	91.9	110	108	8.91	2.49
	Fipronil	120	122	107	103	1.30	3.87
	Fipronil Desulfinyl	112	111	98.0	92.2	0.989	6.06
	Fipronil Sulfide	95.7	97.6	89.6	91.6	1.93	2.24
	Fipronil Sulfone	75.0	78.5	73.2	82.5	4.63	11.9
	Fluazifop-P-butyl	108	106	100	93.9	2.53	6.50
	Fludioxonil	110	110	96.4	89.9	0.0817	6.97
	Flumioxazin	114	117	107	103	2.39	3.56
	Flutolanil	108	107	96.2	93.9	0.848	2.38
	Fluxapyroxad	97.9	96.8	88.9	84.7	1.12	4.89
	Fonofos	83.3	83.0	89.7	88.0	0.436	1.95
	Gamma-BHC	96.9	95.6	111	102	1.37	8.58
	Gamma-Chlordane	67.8	67.7	82.2	78.0	0.118	5.27
	Heptachlor	57.8	59.1	71.8	67.4	2.35	6.25
	Heptachlor Epoxide	78.9	79.0	89.6	85.0	0.134	5.16
	Hexachlorobenzene	54.7	56.7	66.3	64.1	3.68	3.43
	Hexazinone	90.2	92.0	90.0	86.7	1.98	3.83
	Imazalil	85.9	88.5	76.5	69.2	2.98	10.0
	Iprodione	75.7	98.0	92.4	86.4	25.7	6.68
	Lambda-Cyhalothrin	78.6	77.3	127	113	1.63	11.8
	Malathion	91.3	94.3	86.8	90.4	3.19	4.13
	Metalaxyl	107	108	95.9	93.2	1.28	2.92
	Methoxychlor	82.3	82.9	90.0	84.4	0.695	6.45
	Metolachlor	103	102	91.6	90.6	0.869	1.04
	Metribuzin	118	122	104	101	3.83	3.02
	Mevinphos	87.6	89.5	86.9	86.8	2.16	0.161
	MGK-264	63.1	61.0	74.6	66.3	3.34	11.7
	Mirex	48.2	49.2	75.6	73.1	1.97	3.30
	Molinate	84.3	83.1	73.1	70.9	1.37	3.10
	Myclobutanil	111	115	96.6	95.6	2.89	1.06

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Naled	47.7	51.4	44.0	43.5	7.57		0.983
	Norflurazon	108	108	92.6	92.1	0.153		0.571
	Oxadiazon	99.7	99.3	90.3	85.2	0.493		5.77
	Oxyfluorfen	101	104	104	99.4	3.73		4.55
	Parathion Ethyl	91.8	88.4	93.7	95.4	3.78		1.80
	Parathion Methyl	102	103	92.0	91.8	0.845		0.166
	Pendimethalin	83.0	87.9	92.1	89.1	5.70		3.29
	Permethrin	59.8	61.1	82.9	79.8	2.18		3.77
	Phenothrin	39.8	41.2	71.3	69.5	3.42		2.63
	Phorate	111	120	154	153	7.17		0.392
	Piperonyl Butoxide	90.1	87.0	99.9	96.7	3.50		3.22
	Prallethrin	62.8	60.0	68.9	63.7	4.55		7.90
	Prodiamine	74.3	84.6	60.7	58.2	13.0		4.31
	Prometon	96.9	96.8	95.4	93.0	0.180		2.58
	Prometryn	119	117	106	103	2.34		2.85
	Pronamide	109	101	107	102	7.80		4.00
	Propiconazole	113	113	99.8	95.3	0.0166		4.65
	Pyriproxyfen	96.8	96.4	92.3	86.7	0.399		6.28
	Simazine	100	100	98.5	99.1	0.204		0.590
	Sulfentrazone	98.7	102	89.0	88.6	3.06		0.466
	Tau-Fluvalinate	85.0	88.3	140	132	3.87		6.40
	Tebuconazole	62.4	61.5	56.1	52.3	1.53		6.99
	Terbufos	85.3	90.4	97.5	90.6	5.81		7.30
	Terbuthylazine	97.9	100	96.5	90.7	2.27		6.15
	Tetramethrin	101	107	138	129	5.60		6.51
	Trans-Nonachlor	67.4	68.8	81.8	78.0	2.02		4.75
	Triclosan Methyl	86.8	88.2	95.1	91.4	1.57		3.96
	Trifluralin	67.6	67.5	78.1	74.9	0.158		4.16
EPA 8276	Chlordane	79.6	78.8	97.6	88.5	0.999		9.74
	Toxaphene	79.1	73.8	74.4	80.7	6.96		8.01
EPA 8321B	2,4-D	81.4		97.1	80.2			19.1
	3-Hydroxycarbofuran	88.4		57.7	63.6			9.88
	Acesulfame K	84.9		17.9	18.9			5.38
	Acetaminophen	69.6		39.3	41.0			4.34
	Acetamiprid	79.3		51.2	49.5			3.43
	Afidopyropen	67.9		63.9	62.1			2.90
	Aldicarb	65.1		53.0	43.6			19.4
	Aldicarb Sulfone	68.2		41.1	45.6			10.3
	Aldicarb Sulfoxide	64.3		38.3	31.7			18.9
	AMPA	102		99.1	91.1			8.45
	Bentazon	31.2		79.7	68.9			12.0
	Benzovindiflupyr	82.1		82.7	69.1			17.9
	Carbamazepine	66.2		43.9	40.8			7.37
	Carbaryl	79.2		37.2	37.9			1.85
	Carbofuran	68.3		33.6	35.8			6.41
	Clothianidin	76.2		38.1	36.4			4.45
	Dinotefuran	74.6		59.4	56.2			5.59
	Diuron	49.6		37.5	44.9			17.9
	Endothall	108		134	135			0.718
	Fenuron	87.2		56.8	54.2			4.71
	Fluridone	81.0		77.9	75.1			3.62
	Glufosinate	98.0		110	108			2.43
	Glyphosate	111		97.9	96.1			1.85
	Hydrocodone	84.7		83.9	81.4			3.07

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Ibuprofen	55.3	60.5	46.5		26.1
	Imazapyr	65.0	75.1	63.1		17.4
	Imidacloprid	79.4	75.4	68.4		6.55
	Linuron	66.7	62.3	55.9		10.9
	Mandestrobin	84.6	87.9	77.5		12.6
	MCCP	89.2	116	94.6		20.5
	Methiocarb	78.9	47.3	46.0		2.74
	Methomyl	80.3	69.0	67.3		2.48
	Naproxen	51.3	52.5	39.4		28.7
	Oxamyl	85.8	70.5	66.5		5.87
	Primidone	65.1	42.0	39.2		6.91
	Propoxur	67.6	32.9	30.1		9.02
	Pyraclostrobin	57.3	56.0	47.7		16.0
	Sucralose	102	103	109		6.17
	Thiamethoxam	83.9	69.2	64.4		6.90
	Tolfenpyrad	45.2	63.3	44.3		35.4
	Triclopyr	55.9	102	79.9		24.3
SM 2120 B-2011	Color (true)	102			3.78	
SM 2320 B-2011	Total Alkalinity	99.3			0.572	
SM 2540 C-2011	TDS				6.35	
SM 4500 F-C-2011	Fluoride	98.8	102	99.3		2.01
SM 5310 B-2011	Organic Carbon	98.7	101	100		0.290

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2209646
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2209667
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2209667
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2209646
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2209646
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2209647
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2209647
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2209647
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2209647
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2209648
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2209657
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2209658
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2209657
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2209654
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2209655, 2209656
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2209655, 2209656
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2209646
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2209646
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2209667
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2209646
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2209646
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2209646
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2209647

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	12/01/2020			12/01/2020 16:17	Yen Ta	2209646
EPA 200.7 Rev. 4.4	12/01/2020	12/01/2020 16:00	Elliott D. Healy	12/04/2020 14:52	Betina Topolski	2209667
EPA 200.8 Rev. 5.4	12/01/2020	12/01/2020 16:00	Elliott D. Healy	12/04/2020 14:45	Alexander Thompson	2209667
	12/01/2020	12/01/2020 16:00	Elliott D. Healy	12/08/2020 14:06	Alexander Thompson	2209667
EPA 300.0 Rev. 2.1	12/01/2020			12/04/2020 15:11	Lipi Saha	2209646
EPA 350.1 Rev. 2.0	12/01/2020			12/13/2020 11:24	Ping Hua	2209647
EPA 351.2 Rev. 2.0	12/01/2020	12/04/2020 13:24	David Boose	12/09/2020 15:00	Julia Storbeck	2209647
EPA 353.2 Rev. 2.0	12/01/2020			12/02/2020 10:03	Beverly Y. Sanders	2209647
EPA 365.1 Rev. 2.0	12/01/2020	12/03/2020 13:21	Yen Ta	12/04/2020 13:18	Benjamin T. Nordmann	2209647
EPA 365.1 Rev. 2.0 dissolved	12/01/2020			12/01/2020 16:15	Blanca Fach	2209648
EPA 8270E	12/01/2020	12/02/2020 08:00	Fe-Val Siddell	12/08/2020 22:42	Arthur Maknenko	2209657
	12/01/2020	12/03/2020 08:30	Rasheda Ghaffari	12/04/2020 20:16	Vandana T. Nagar	2209658
EPA 8276	12/01/2020	12/02/2020 08:00	Fe-Val Siddell	12/04/2020 02:31	Michael Poppell	2209657
EPA 8321B	12/01/2020	12/02/2020 11:00	Rebecca Ware	12/02/2020 23:56	Rebecca Ware	2209655
	12/01/2020	12/02/2020 11:00	Rebecca Ware	12/03/2020 00:08	Rebecca Ware	2209656
	12/01/2020	12/02/2020 11:00	Rebecca Ware	12/04/2020 00:17	Rebecca Ware	2209655
	12/01/2020	12/02/2020 11:00	Rebecca Ware	12/04/2020 00:30	Rebecca Ware	2209656
	12/01/2020	12/02/2020 14:00	Hoor Shaik	12/10/2020 00:36	Juyoung Kim	2209655
	12/01/2020	12/02/2020 14:00	Hoor Shaik	12/10/2020 01:11	Juyoung Kim	2209656
	12/01/2020	12/02/2020 14:00	Hoor Shaik	12/10/2020 11:02	Juyoung Kim	2209656
	12/01/2020	12/07/2020 08:30	Hoor Shaik	12/10/2020 03:43	Juyoung Kim	2209654
SM 2120 B-2011	12/01/2020			12/01/2020 14:57	Benjamin T. Nordmann	2209646
SM 2320 B-2011	12/01/2020			12/02/2020 17:34	Dale L. Simmons	2209646
SM 2340B	12/01/2020			12/04/2020 14:52	Betina Topolski	2209667
SM 2540 C-2011	12/01/2020			12/04/2020 15:10	Yijie Li	2209646
SM 2540 D-2011	12/01/2020			12/04/2020 15:10	Yijie Li	2209646
SM 4500 F-C-2011	12/01/2020			12/02/2020 17:34	Dale L. Simmons	2209646
SM 5310 B-2011	12/01/2020			12/03/2020 19:57	Madeline Gruver	2209647