

Chemical Analysis Report

TLH-ROC-2021-05-26-01

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

Event Description: **Run 3**
Request ID: **RQ-2021-05-17-52**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 21-JUN-2021 13:21

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

Case Narrative

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

Results for the following analytical groups are included in this report: 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: Spring Creek 50m dstream US19

Collection Date/Time: 05/26/2021 09:25

Field ID: G1TLHR0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250466	EPA 8321B	Aldicarb	0.020	U	ug/L	P398814	
		Aldicarb Sulfone	0.0020	U	ug/L	P398814	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P398814	
		Carbaryl	0.0020	U	ug/L	P398814	
		Carbofuran	0.0020	U	ug/L	P398814	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P398814	
		Methiocarb	0.0020	U	ug/L	P398814	
		Methomyl	0.0020	U	ug/L	P398814	
		Oxamyl	0.0020	U	ug/L	P398814	
		Propoxur	0.0020	U	ug/L	P398814	
2250467		2,4-D	0.0025	I	ug/L	P398813	
		Acesulfame K	0.10	U	ug/L	P398724	
		2,4,5-T	0.0040	U	ug/L	P398813	
		AMPA	0.10	U	ug/L	P398724	
		Sucralose	0.024	I	ug/L	P398724	
		Acetaminophen	0.0080	U	ug/L	P398813	RPD
		Acetamiprid	0.0020	U	ug/L	P398813	
		Endothall	0.25	U	ug/L	P398724	
		Glufosinate	0.10	U	ug/L	P398724	
		Glyphosate	0.12	I	ug/L	P398724	
		Afidopyropen	0.0020	U	ug/L	P398813	
		Bentazon	8.0E-04	U	ug/L	P398813	
		Benzovindiflupyr	0.0020	U	ug/L	P398813	
		Carbamazepine	8.0E-04	U	ug/L	P398813	
		Clothianidin	0.0020	U	ug/L	P398813	
		Dinotefuran	0.0020	U	ug/L	P398813	
		Diuron	0.0020	U	ug/L	P398813	
		Fenuron	0.016	U	ug/L	P398813	
		Fluridone	8.0E-04	U	ug/L	P398813	
		Imazapyr	0.029		ug/L	P398813	
		Hydrocodone	0.0020	U	ug/L	P398813	
		Ibuprofen	0.020	U	ug/L	P398813	
		Imidacloprid	0.0020	U	ug/L	P398813	
		Linuron	0.0040	U	ug/L	P398813	
		Mandestrobin	0.0020	U	ug/L	P398813	
		MCPP	0.0020	U	ug/L	P398813	
		Naproxen	0.0080	U	ug/L	P398813	MS
		Primidone	0.0040	U	ug/L	P398813	
		Pyraclostrobin	0.0020	U	ug/L	P398813	
		Thiamethoxam	0.0020	U	ug/L	P398813	
		Tolfenpyrad	0.0020	U	ug/L	P398813	
		Triclopyr	0.0040	U	ug/L	P398813	
2250468	EPA 8270E	Aldrin	0.72	U	ng/L	P398770	
		Alpha-BHC	0.11	U	ng/L	P398770	

Field ID: G1TLHR0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250468	EPA 8270E	Alpha-Chlordane	0.22	U	ng/L	P398770	
		Beta-BHC	0.11	U	ng/L	P398770	
		Beta-Cyfluthrin**	1.4	U	ng/L	P398770	
		Bifenthrin**	0.55	U	ng/L	P398770	
		Carbophenothion	0.39	U	ng/L	P398770	
		Chlorothalonil	0.55	U	ng/L	P398770	MS
		Cis-Nonachlor**	0.22	U	ng/L	P398770	
		Cypermethrin	1.7	U	ng/L	P398770	
		Dacthal**	0.17	U	ng/L	P398770	
		DDD-p,p'	0.28	U	ng/L	P398770	
		DDE-p,p'	0.22	U	ng/L	P398770	
		DDT-p,p'	0.28	U	ng/L	P398770	
		Delta-BHC	0.44	U	ng/L	P398770	
		Deltamethrin**	1.4	U	ng/L	P398770	
		Dichlobenil**	0.11	U	ng/L	P398770	MS
		Dicofol	1.4	U	ng/L	P398770	
		Dieldrin	0.95	I	ng/L	P398770	
		Endosulfan I	0.44	U	ng/L	P398770	
		Endosulfan II	0.44	U	ng/L	P398770	
		Endosulfan Sulfate	0.33	U	ng/L	P398770	
		Endrin	0.44	U	ng/L	P398770	
		Endrin Aldehyde	0.83	U	ng/L	P398770	
		Endrin Ketone	0.44	U	ng/L	P398770	
		Esfenvalerate**	0.83	U	ng/L	P398770	
		Ethalfuralin**	0.17	U	ng/L	P398770	
		Fenpropathrin**	0.28	UJ	ng/L	P398770	CCV
		Gamma-BHC	0.14	U	ng/L	P398770	
		Gamma-Chlordane	0.22	U	ng/L	P398770	
		Heptachlor	0.22	U	ng/L	P398770	
		Heptachlor Epoxide	0.28	U	ng/L	P398770	
		Hexachlorobenzene	1.1	U	ng/L	P398770	
		Kepone**	5.5	UJ	ng/L	P398770	CCV
		Lambda-Cyhalothrin**	0.83	U	ng/L	P398770	
		Methoxychlor	0.33	UJ	ng/L	P398770	CCV
		MGK-264**	0.22	U	ng/L	P398770	
		Mirex	0.33	U	ng/L	P398770	
		Permethrin	1.8	U	ng/L	P398770	
		Phenothrin**	1.0	U	ng/L	P398770	
		Piperonyl Butoxide**	0.17	U	ng/L	P398770	
		Prallethrin**	2.2	U	ng/L	P398770	
		Tau-Fluvalinate**	0.28	U	ng/L	P398770	
		Tetramethrin**	0.83	U	ng/L	P398770	
		Trans-Nonachlor**	0.22	U	ng/L	P398770	
		Triclosan Methyl**	0.17	U	ng/L	P398770	
		Trifluralin	0.22	U	ng/L	P398770	

Field ID: G1TLHR0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250468	EPA 8276	Chlordane	5.5	U	ng/L	P398770	
		Toxaphene	33	U	ng/L	P398770	
2250469	EPA 8270E	Acetochlor	0.27	U	ng/L	P398911	
		Alachlor	0.27	U	ng/L	P398911	
		Ametryn	0.66	U	ng/L	P398911	
		Atrazine	0.27	U	ng/L	P398911	
		Atrazine Desethyl	1.6	U	ng/L	P398911	RPD
		Azinphos Methyl	2.2	U	ng/L	P398911	MS, RPD
		Azoxystrobin**	0.55	U	ng/L	P398911	
		Bromacil	0.55	U	ng/L	P398911	
		Butylate	0.44	U	ng/L	P398911	
		Caffeine**	8.2	U	ng/L	P398911	
		Carbophenothion	0.55	U	ng/L	P398911	
		Carfentrazone Ethyl**	0.11	U	ng/L	P398911	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P398911	
		Chlorpyrifos Methyl	0.055	U	ng/L	P398911	
		Cyanazine	3.6	U	ng/L	P398911	
		Demeton	1.6	U	ng/L	P398911	
		Diazinon	0.14	U	ng/L	P398911	
		Difenoconazole**	0.66	U	ng/L	P398911	
		Dimethenamid**	0.11	U	ng/L	P398911	
		Disulfoton	0.55	U	ng/L	P398911	
		Dithiopyr**	0.19	U	ng/L	P398911	
		EPTC	1.4	U	ng/L	P398911	
		Ethion	0.16	U	ng/L	P398911	
		Ethoprop	0.11	U	ng/L	P398911	
		Fenamiphos	0.55	U	ng/L	P398911	
		Fenbuconazole**	0.14	U	ng/L	P398911	
		Fipronil	0.27	U	ng/L	P398911	
		Fipronil Desulfinyl**	0.14	U	ng/L	P398911	
		Fipronil Sulfide	0.16	U	ng/L	P398911	
		Fipronil Sulfone	0.16	U	ng/L	P398911	
		Fluazifop-P-butyl**	0.11	U	ng/L	P398911	
		Fludioxonil**	0.14	U	ng/L	P398911	
		Flumioxazin**	1.9	U	ng/L	P398911	
		Flutolanil**	0.11	U	ng/L	P398911	
		Fluxapyroxad**	0.11	U	ng/L	P398911	
		Fonofos	0.22	U	ng/L	P398911	
		Hexazinone	15		ng/L	P398911	
		Imazalil**	0.82	U	ng/L	P398911	
		Iprodione**	0.66	U	ng/L	P398911	
		Malathion	0.38	U	ng/L	P398911	
		Metalaxyl	0.82	U	ng/L	P398911	
		Metolachlor	0.38	U	ng/L	P398911	
		Metribuzin	3.6	U	ng/L	P398911	

Field ID: G1TLHR0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250469	EPA 8270E	Mevinphos	1.2	U	ng/L	P398911	
		Molinate	0.33	U	ng/L	P398911	
		Myclobutanil**	0.27	U	ng/L	P398911	
		Naled**	1.6	UJ	ng/L	P398911	LCS
		Norflurazon	0.55	U	ng/L	P398911	
		Oxadiazon	0.33	U	ng/L	P398911	
		Oxyfluorfen**	0.16	U	ng/L	P398911	
		Parathion Ethyl	0.27	U	ng/L	P398911	
		Parathion Methyl	0.60	U	ng/L	P398911	
		Pendimethalin	1.1	U	ng/L	P398911	
		Phorate	0.58	U	ng/L	P398911	
		Prodiamine**	0.19	U	ng/L	P398911	
		Prometon	0.99	U	ng/L	P398911	
		Prometryn	0.22	U	ng/L	P398911	
		Pronamide**	0.16	U	ng/L	P398911	
		Propiconazole**	0.55	U	ng/L	P398911	
		Pyriproxyfen**	0.14	U	ng/L	P398911	RPD
		Simazine	0.55	U	ng/L	P398911	
		Sulfentrazone**	0.55	U	ng/L	P398911	
		Tebuconazole**	0.55	U	ng/L	P398911	
		Terbufos	0.11	U	ng/L	P398911	
		Terbuthylazine	0.47	U	ng/L	P398911	

Ref. Method and Comment:

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.

Sample Location: Fenholloway River

Collection Date/Time: 05/26/2021 09:45

Field ID: G1TLHR0030

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250461	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P398859	
	EPA 300.0 Rev. 2.1	Chloride	13	A	mg Cl/L	P399476	
		Sulfate	13	A	mg SO4/L	P399479	
	SM 2120 B-2011	Color (true)	170		PCU	P398863	
	SM 2320 B-2011	Total Alkalinity	150	A	mg CaCO3/L	P398969	
	SM 2540 C-2011	TDS	190		mg/L	P399200	
	SM 2540 D-2011	TSS	2	U	mg/L	P399003	
	SM 4500 F-C-2011	Fluoride	0.13		mg F/L	P398972	
2250462	EPA 350.1 Rev. 2.0	Ammonia-N	0.082		mg N/L	P399307	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P399711	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P398887	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P398973	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P399729	
2250463	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P398849	

Ref. Method and Comment:

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P398859

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399307

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399711

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398887

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398973

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398849

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

Reference Method: EPA 8270E
Batch ID: P398770

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P398770

Component	Result	Code	Units
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.35	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E
Batch ID: P398911

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P398911

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P398911

Component	Result	Code	Units
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P398911

Component	Result	Code	Units
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276

Batch ID: P398770

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

Reference Method: EPA 8321B

Batch ID: P398724

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: P398813

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.012	I	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P398813

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: P398814

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: P398863

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P398969

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

Reference Method: SM 2540 C-2011

Batch ID: P399200

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P399003

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P398972

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P399729

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399307

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399711

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398887

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: P398973

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.7		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P398770

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	39.0	34.5	P/P	20 - 150
Alpha-BHC	87.9	89.5	P/P	50 - 150
Alpha-Chlordane	59.7	74.8	P/P	50 - 150
Beta-BHC	102	100	P/P	50 - 150
Beta-Cyfluthrin	130	111	P/P	50 - 150
Bifenthrin	59.1	68.7	P/P	40 - 150
Carbophenothion	62.9	64.3	P/P	20 - 150
Chlorothalonil	110	112	P/P	20 - 150
Cis-Nonachlor	60.9	76.4	P/P	50 - 150
Cypermethrin	123	109	P/P	50 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P398770

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dacthal	72.4	95.2	P/P	50 - 150
DDD-p,p'	54.8	73.4	P/P	50 - 150
DDE-p,p'	59.1	72.7	P/P	50 - 150
DDT-p,p'	71.8	69.4	P/P	50 - 150
Delta-BHC	117	121	P/P	50 - 150
Deltamethrin	125	102	P/P	50 - 150
Dichlobenil	60.2	81.0	P/P	40 - 150
Dicofol	77.2	80.2	P/P	50 - 150
Dieldrin	73.7	76.9	P/P	50 - 150
Endosulfan I	68.7	78.9	P/P	50 - 150
Endosulfan II	97.5	88.3	P/P	50 - 150
Endosulfan Sulfate	73.5	96.6	P/P	50 - 150
Endrin	69.5	78.5	P/P	50 - 150
Endrin Aldehyde	77.1	91.0	P/P	50 - 150
Endrin Ketone	92.6	96.9	P/P	50 - 150
Esfenvalerate	131	110	P/P	50 - 180
Ethalfuralin	71.1	71.1	P/P	50 - 150
Fenpropathrin	77.1	76.3	P/P	50 - 150
Gamma-BHC	90.4	94.1	P/P	50 - 150
Gamma-Chlordane	58.4	72.7	P/P	50 - 150
Heptachlor	79.1	62.0	P/P	50 - 150
Heptachlor Epoxide	61.7	80.0	P/P	50 - 150
Hexachlorobenzene	64.6	58.0	P/P	50 - 150
Kepone	103	129	P/P	30 - 180
Lambda-Cyhalothrin	159	131	P/P	50 - 200
Methoxychlor	98.2	85.2	P/P	50 - 150
MGK-264	57.4	65.6	P/P	30 - 150
Mirex	117	125	P/P	50 - 180
Permethrin	71.6	96.3	P/P	50 - 150
Phenothrin	42.3	45.3	P/P	20 - 150
Piperonyl Butoxide	94.5	102	P/P	50 - 150
Prallethrin	47.8	54.6	P/P	30 - 150
Tau-Fluvalinate	94.3	84.4	P/P	40 - 150
Tetramethrin	50.3	65.2	P/P	30 - 150
Trans-Nonachlor	53.0	71.4	P/P	50 - 150
Triclosan Methyl	79.7	78.2	P/P	50 - 150
Trifluralin	66.6	70.6	P/P	50 - 150

Reference Method: EPA 8270E

Batch ID: P398911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	74.6	77.1	P/P	70 - 121
Alachlor	71.4	73.0	P/P	70 - 119
Ametryn	98.4	89.2	P/P	61 - 135
Atrazine	80.7	86.5	P/P	76 - 123
Atrazine Desethyl	78.6	84.4	P/P	35 - 140
Azinphos Methyl	99.7	89.8	P/P	57 - 163
Azoxystrobin	118	118	P/P	43 - 231
Bromacil	66.6	67.4	P/P	42 - 123
Butylate	45.4	52.0	P/P	34 - 92.0
Caffeine	101	113	P/P	70 - 130

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P398911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbophenothion	70.3	65.8	P/P	61 - 121
Carfentrazone Ethyl	84.6	76.3	P/P	62 - 139
Chlorpyrifos Ethyl	69.3	67.4	P/P	67 - 121
Chlorpyrifos Methyl	72.1	73.1	P/P	67 - 120
Cyanazine	151	154	P/P	20 - 226
Demeton	62.2	80.3	P/P	35 - 125
Diazinon	82.7	85.5	P/P	70 - 122
Difenoconazole	110	100	P/P	56 - 186
Dimethenamid	76.1	78.1	P/P	67 - 119
Disulfoton	61.0	77.9	P/P	47 - 120
Dithiopyr	71.7	72.9	P/P	67 - 118
EPTC	44.3	53.5	P/P	33 - 90.0
Ethion	51.8	58.4	P/P	40 - 133
Ethoprop	83.4	101	P/P	61 - 121
Fenamiphos	86.6	81.3	P/P	31 - 139
Fenbuconazole	90.1	76.9	P/P	66 - 141
Fipronil	83.3	77.3	P/P	62 - 129
Fipronil Desulfinyl	76.9	76.1	P/P	59 - 126
Fipronil Sulfide	80.1	76.6	P/P	63 - 117
Fipronil Sulfone	68.8	68.5	P/P	57 - 117
Fluazifop-P-butyl	81.8	73.5	P/P	63 - 124
Fludioxonil	86.1	77.4	P/P	63 - 123
Flumioxazin	107	106	P/P	34 - 245
Flutolanil	85.8	80.4	P/P	56 - 131
Fluxapyroxad	77.1	68.9	P/P	57 - 117
Fonofos	76.7	90.9	P/P	61 - 116
Hexazinone	80.9	90.1	P/P	55 - 138
Imazalil	84.2	78.0	P/P	33 - 143
Iprodione	78.6	70.5	P/P	59 - 118
Malathion	75.0	77.9	P/P	62 - 138
Metalaxyl	80.6	81.9	P/P	24 - 147
Metolachlor	75.7	74.2	P/P	68 - 118
Metribuzin	88.6	91.0	P/P	20 - 239
Mevinphos	74.1	78.0	P/P	46 - 124
Molinate	57.6	76.7	P/P	46 - 100
Myclobutanil	83.0	74.7	P/P	32 - 149
Naled	30.4	30.7	F/F	32 - 95.0
Norflurazon	77.4	68.9	P/P	57 - 127
Oxadiazon	78.7	75.8	P/P	63 - 118
Oxyfluorfen	77.2	73.5	P/P	69 - 137
Parathion Ethyl	77.7	85.5	P/P	70 - 113
Parathion Methyl	91.6	102	P/P	71 - 130
Pendimethalin	71.0	79.9	P/P	55 - 118
Phorate	74.8	78.3	P/P	46 - 125
Prodiamine	33.6	34.7	P/P	20 - 141
Prometon	80.1	87.5	P/P	54 - 122
Prometryn	85.3	85.5	P/P	66 - 124
Pronamide	84.2	88.5	P/P	79 - 122
Propiconazole	82.5	72.3	P/P	61 - 126
Pyriproxyfen	69.0	65.7	P/P	52 - 131
Simazine	80.4	89.6	P/P	75 - 128
Sulfentrazone	63.8	57.2	P/P	20 - 132

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P398911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Tebuconazole	57.1	58.6	P/P	20 - 116
Terbufos	72.5	80.9	P/P	61 - 117
Terbuthylazine	79.7	83.1	P/P	74 - 116

Reference Method: EPA 8276
Batch ID: P398770

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	93.7	98.8	P/P	56 - 117
Toxaphene	112	114	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P398724

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	119		P	40 - 150
AMPA	92.6		P	40 - 150
Endothall	126		P	40 - 150
Glufosinate	96.5		P	40 - 150
Glyphosate	91.5		P	40 - 150
Sucralose	122		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P398813

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	98.3		P	40 - 150
2,4,5-T	111		P	40 - 150
Acetaminophen	75.2		P	30 - 150
Acetamiprid	81.1		P	40 - 150
Afidopyropen	50.7		P	40 - 150
Bentazon	132		P	30 - 150
Benzovindiflupyr	80.0		P	40 - 150
Carbamazepine	86.6		P	40 - 150
Clothianidin	85.0		P	40 - 150
Dinotefuran	84.6		P	40 - 150
Diuron	70.9		P	40 - 150
Fenuron	106		P	40 - 150
Fluridone	74.0		P	40 - 150
Hydrocodone	80.7		P	40 - 150
Ibuprofen	61.8		P	40 - 150
Imazapyr	85.8		P	40 - 150
Imidacloprid	85.8		P	40 - 150
Linuron	69.5		P	40 - 150
Mandestrobin	72.9		P	40 - 150
MCPP	108		P	40 - 150
Naproxen	47.9		P	40 - 150
Primidone	93.1		P	40 - 150
Pyraclostrobin	74.1		P	40 - 150
Thiamethoxam	83.6		P	40 - 150
Tolfenpyrad	46.9		P	30 - 150
Triclopyr	131		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P398814

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	76.6		P	40 - 150
Aldicarb	60.5		P	30 - 150
Aldicarb Sulfone	87.7		P	40 - 150
Aldicarb Sulfoxide	118		P	40 - 150
Carbaryl	71.2		P	40 - 150
Carbofuran	77.3		P	40 - 150
Methiocarb	45.7		P	40 - 150
Methomyl	103		P	40 - 150
Oxamyl	87.5		P	40 - 150
Propoxur	88.5		P	40 - 150

Reference Method: SM 2120 B-2011

Batch ID: P398863

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P398969

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.5		P	94 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P398972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.4		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P399729

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250461	Chloride	92.8		P	90 - 110
2250718	Chloride	97.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250461	Sulfate	91.8		P	90 - 110
2250718	Sulfate	94.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399307

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250473	Ammonia-N	97.2	98.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250462	NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250275	Total-P	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250025	O-Phosphate-P	96.4	96.7	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P398770

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249847	Aldrin	40.9	43.7	P/P	20 - 170
2249847	Alpha-BHC	92.9	84.4	P/P	50 - 170
2249847	Alpha-Chlordane	59.4	67.6	P/P	50 - 170
2249847	Beta-BHC	130	123	P/P	50 - 170
2249847	Beta-Cyfluthrin	123	109	P/P	50 - 170
2249847	Bifenthrin	62.5	54.4	P/P	40 - 170
2249847	Carbophenothion	55.2	56.1	P/P	20 - 170
2249847	Chlorothalonil	235	190	F/F	20 - 170
2249847	Cis-Nonachlor	64.2	70.0	P/P	50 - 170
2249847	Cypermethrin	103	93.3	P/P	50 - 170
2249847	Dacthal	95.1	87.8	P/P	50 - 170
2249847	DDD-p,p'	70.1	69.9	P/P	50 - 170
2249847	DDE-p,p'	50.7	57.7	P/P	50 - 170
2249847	DDT-p,p'	61.0	62.0	P/P	50 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P398770

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249847	Delta-BHC	141	129	P/P	50 - 170
2249847	Deltamethrin	117	114	P/P	50 - 170
2249847	Dichlobenil	37.4	48.8	F/P	40 - 170
2249847	Dicofol	83.7	86.6	P/P	50 - 170
2249847	Dieldrin	66.4	70.2	P/P	50 - 170
2249847	Endosulfan I	71.7	69.7	P/P	50 - 170
2249847	Endosulfan II	101	84.9	P/P	50 - 170
2249847	Endosulfan Sulfate	122	111	P/P	50 - 170
2249847	Endrin	76.2	72.4	P/P	50 - 170
2249847	Endrin Aldehyde	69.1	68.2	P/P	50 - 170
2249847	Endrin Ketone	121	100	P/P	50 - 170
2249847	Esfenvalerate	108	105	P/P	50 - 180
2249847	Ethalfuralin	58.8	59.3	P/P	50 - 170
2249847	Fenpropathrin	65.2	60.6	P/P	50 - 170
2249847	Gamma-BHC	106	99.5	P/P	50 - 170
2249847	Gamma-Chlordane	55.8	63.7	P/P	50 - 170
2249847	Heptachlor	52.0	52.6	P/P	50 - 170
2249847	Heptachlor Epoxide	75.4	83.9	P/P	50 - 170
2249847	Hexachlorobenzene	54.7	58.1	P/P	50 - 170
2249847	Kepone	166	139	P/P	30 - 180
2249847	Lambda-Cyhalothrin	133	130	P/P	50 - 200
2249847	Methoxychlor	84.5	84.5	P/P	50 - 170
2249847	MGK-264	79.2	78.7	P/P	30 - 170
2249847	Mirex	100	111	P/P	50 - 180
2249847	Permethrin	90.7	92.1	P/P	50 - 170
2249847	Phenothrin	55.8	51.0	P/P	20 - 170
2249847	Piperonyl Butoxide	128	107	P/P	50 - 170
2249847	Prallethrin	58.7	64.9	P/P	30 - 170
2249847	Tau-Fluvalinate	98.3	85.1	P/P	40 - 170
2249847	Tetramethrin	76.3	77.6	P/P	30 - 170
2249847	Trans-Nonachlor	53.8	62.5	P/P	50 - 170
2249847	Triclosan Methyl	69.0	70.4	P/P	50 - 170
2249847	Trifluralin	57.7	58.8	P/P	50 - 170

Reference Method: EPA 8270E

Batch ID: P398911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250788	Acetochlor	77.6	90.1	P/P	66 - 122
2250788	Alachlor	74.8	82.8	P/P	65 - 122
2250788	Azinphos Methyl	105	200	P/F	44 - 174
2250788	Azoxystrobin	125	138	P/P	10 - 268
2250788	Bromacil	68.0	90.3	P/P	31 - 145
2250788	Butylate	43.1	42.4	P/P	15 - 97.0
2250788	Caffeine	102	115	P/P	70 - 130
2250788	Carbophenothion	70.2	68.9	P/P	42 - 129
2250788	Carfentrazone Ethyl	83.8	88.7	P/P	62 - 145
2250788	Chlorpyrifos Ethyl	80.4	77.7	P/P	60 - 124
2250788	Chlorpyrifos Methyl	71.7	75.4	P/P	66 - 119
2250788	Cyanazine	146	175	P/P	17 - 225
2250788	Demeton	83.9	89.4	P/P	36 - 142
2250788	Diazinon	88.2	97.3	P/P	70 - 128

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P398911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250788	Difenoconazole	120	130	P/P	33 - 222
2250788	Dimethenamid	80.3	87.5	P/P	54 - 125
2250788	Disulfoton	75.1	72.7	P/P	49 - 133
2250788	Dithiopyr	78.2	83.3	P/P	55 - 123
2250788	EPTC	43.0	37.4	P/P	19 - 91.0
2250788	Ethion	58.7	66.2	P/P	13 - 143
2250788	Ethoprop	100	104	P/P	49 - 144
2250788	Fenamiphos	81.6	74.7	P/P	32 - 136
2250788	Fenbuconazole	96.3	104	P/P	73 - 148
2250788	Fipronil	85.4	92.2	P/P	57 - 129
2250788	Fipronil Desulfinyl	79.1	84.7	P/P	49 - 127
2250788	Fipronil Sulfide	79.0	78.5	P/P	44 - 127
2250788	Fipronil Sulfone	66.5	67.4	P/P	35 - 126
2250788	Fluazifop-P-butyl	86.2	87.7	P/P	67 - 129
2250788	Fludioxonil	81.1	90.6	P/P	61 - 126
2250788	Flumioxazin	144	164	P/P	38 - 279
2250788	Flutolanil	86.5	88.3	P/P	55 - 136
2250788	Fluxapyroxad	35.3	44.6	P/P	33 - 140
2250788	Fonofos	86.0	90.5	P/P	58 - 125
2250788	Imazalil	162	165	P/P	10 - 221
2250788	Iprodione	79.7	82.7	P/P	32 - 140
2250788	Malathion	81.7	82.8	P/P	52 - 138
2250788	Metalaxyl	83.4	88.1	P/P	46 - 134
2250788	Metolachlor	73.2	83.5	P/P	58 - 122
2250788	Metribuzin	102	109	P/P	16 - 272
2250788	Mevinphos	77.6	89.2	P/P	45 - 140
2250788	Molinate	68.1	67.9	P/P	41 - 103
2250788	Myclobutanil	83.0	90.0	P/P	60 - 134
2250788	Naled	30.1	28.6	P/P	20 - 113
2250788	Norflurazon	75.0	74.3	P/P	51 - 123
2250788	Oxadiazon	69.2	74.6	P/P	44 - 125
2250788	Oxyfluorfen	84.9	101	P/P	66 - 176
2250788	Parathion Ethyl	82.6	91.7	P/P	57 - 132
2250788	Parathion Methyl	94.3	99.5	P/P	59 - 156
2250788	Pendimethalin	85.2	93.3	P/P	59 - 129
2250788	Phorate	99.5	106	P/P	47 - 136
2250788	Prodiamine	46.9	50.2	P/P	10 - 159
2250788	Prometon	88.1	91.7	P/P	59 - 127
2250788	Prometryn	113	126	P/P	59 - 129
2250788	Pronamide	97.6	109	P/P	65 - 145
2250788	Propiconazole	77.2	65.7	P/P	28 - 165
2250788	Pyriproxyfen	70.3	162	P/P	21 - 180
2250788	Simazine	135	138	P/P	63 - 147
2250788	Sulfentrazone	65.3	73.8	P/P	32 - 136
2250788	Tebuconazole	60.6	68.2	P/P	10 - 117
2250788	Terbufos	84.6	91.2	P/P	61 - 131
2250788	Terbutylazine	87.6	96.2	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P398770

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

Reference Method: EPA 8276

Batch ID: P398770

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249919	Chlordane	79.2	77.3	P/P	47 - 128
2249919	Toxaphene	102	102	P/P	11 - 163

Reference Method: EPA 8321B

Batch ID: P398724

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249591	Acesulfame K	115	118	P/P	40 - 150
2249591	AMPA	106	106	P/P	40 - 150
2249591	Endothall	95.0	105	P/P	40 - 150
2249591	Glufosinate	96.5	103	P/P	40 - 150
2249591	Glyphosate	107	108	P/P	40 - 150
2249591	Sucralose	114	116	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P398813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250311	2,4-D	96.1	121	P/P	40 - 150
2250311	2,4,5-T	96.2	83.4	P/P	40 - 150
2250311	Acetaminophen	119	73.7	P/P	30 - 150
2250311	Acetamiprid	78.7	76.4	P/P	40 - 150
2250311	Afidopyropen	48.1	49.9	P/P	40 - 150
2250311	Bentazon	60.5	47.7	P/P	30 - 150
2250311	Benzovindiflupyr	68.6	74.6	P/P	40 - 150
2250311	Carbamazepine	64.9	61.5	P/P	40 - 150
2250311	Clothianidin	71.7	68.6	P/P	40 - 150
2250311	Dinotefuran	89.9	90.7	P/P	40 - 150
2250311	Diuron	44.0	48.5	P/P	40 - 150
2250311	Fenuron	69.5	67.7	P/P	40 - 150
2250311	Fluridone	62.7	69.0	P/P	40 - 150
2250311	Hydrocodone	66.5	64.7	P/P	40 - 150
2250311	Ibuprofen	43.5	57.0	P/P	40 - 150
2250311	Imazapyr	93.6	93.7	P/P	40 - 150
2250311	Imidacloprid	126	133	P/P	40 - 150
2250311	Linuron	55.5	51.7	P/P	40 - 150
2250311	Mandestrobin	66.5	67.3	P/P	40 - 150
2250311	MCPP	96.4	100	P/P	40 - 150
2250311	Naproxen	43.0	37.1	P/F	40 - 150
2250311	Primidone	82.9	83.5	P/P	40 - 150
2250311	Pyraclostrobin	72.2	77.6	P/P	40 - 150
2250311	Thiamethoxam	90.2	83.9	P/P	40 - 150
2250311	Tolfenpyrad	46.4	46.4	P/P	30 - 150
2250311	Triclopyr	109	96.6	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P398814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249594	3-Hydroxycarbofuran	95.5	95.9	P/P	40 - 150
2249594	Aldicarb	80.6	84.0	P/P	30 - 150
2249594	Aldicarb Sulfone	97.3	100	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P398814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2249594	Aldicarb Sulfoxide	122	126	P/P	40 - 150
2249594	Carbaryl	68.6	69.8	P/P	40 - 150
2249594	Carbofuran	84.0	79.3	P/P	40 - 150
2249594	Methiocarb	53.6	53.8	P/P	40 - 150
2249594	Methomyl	103	102	P/P	40 - 150
2249594	Oxamyl	92.3	93.3	P/P	40 - 150
2249594	Propoxur	91.8	84.9	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P398972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250461	Fluoride	97.7	98.4	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P399729

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250478	Organic Carbon	94.6	95.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P398859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250272	Turbidity	2.60	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250461	Chloride	0.637	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250461	Sulfate	1.61	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250473	Ammonia-N	1.23	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399711

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2253743	Kjeldahl Nitrogen	2.16	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P398887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250462	NO2NO3-N	0.296	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P398973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250275	Total-P	0.473	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250025	O-Phosphate-P	0.220	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P398770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249847	Aldrin	6.42	Spike	P	0 - 30
2249847	Alpha-BHC	9.57	Spike	P	0 - 30
2249847	Alpha-Chlordane	12.8	Spike	P	0 - 30
2249847	Beta-BHC	4.99	Spike	P	0 - 30
2249847	Beta-Cyfluthrin	12.1	Spike	P	0 - 30
2249847	Bifenthrin	13.9	Spike	P	0 - 30
2249847	Carbophenothion	1.73	Spike	P	0 - 30
2249847	Chlorothalonil	21.3	Spike	P	0 - 50
2249847	Cis-Nonachlor	8.76	Spike	P	0 - 30
2249847	Cypermethrin	9.43	Spike	P	0 - 30
2249847	Dacthal	7.93	Spike	P	0 - 30
2249847	DDD-p,p'	0.271	Spike	P	0 - 30
2249847	DDE-p,p'	12.8	Spike	P	0 - 30
2249847	DDT-p,p'	1.57	Spike	P	0 - 30
2249847	Delta-BHC	9.18	Spike	P	0 - 30
2249847	Deltamethrin	2.44	Spike	P	0 - 30
2249847	Dichlobenil	26.3	Spike	P	0 - 30
2249847	Dicofol	3.34	Spike	P	0 - 30
2249847	Dieldrin	5.62	Spike	P	0 - 30
2249847	Endosulfan I	2.91	Spike	P	0 - 30
2249847	Endosulfan II	17.8	Spike	P	0 - 30
2249847	Endosulfan Sulfate	9.54	Spike	P	0 - 30
2249847	Endrin	5.07	Spike	P	0 - 30
2249847	Endrin Aldehyde	1.32	Spike	P	0 - 30
2249847	Endrin Ketone	18.9	Spike	P	0 - 30
2249847	Esfenvalerate	2.16	Spike	P	0 - 30
2249847	Ethalfuralin	1.01	Spike	P	0 - 30
2249847	Fenpropathrin	7.27	Spike	P	0 - 30
2249847	Gamma-BHC	6.63	Spike	P	0 - 30
2249847	Gamma-Chlordane	13.1	Spike	P	0 - 30
2249847	Heptachlor	1.12	Spike	P	0 - 30
2249847	Heptachlor Epoxide	10.6	Spike	P	0 - 30
2249847	Hexachlorobenzene	5.97	Spike	P	0 - 30
2249847	Kepone	17.4	Spike	P	0 - 30
2249847	Lambda-Cyhalothrin	2.29	Spike	P	0 - 30
2249847	Methoxychlor	0.0395	Spike	P	0 - 30
2249847	MGK-264	0.695	Spike	P	0 - 30
2249847	Mirex	10.1	Spike	P	0 - 30
2249847	Permethrin	1.50	Spike	P	0 - 30
2249847	Phenothrin	9.05	Spike	P	0 - 30
2249847	Piperonyl Butoxide	17.3	Spike	P	0 - 30
2249847	Prallethrin	10.0	Spike	P	0 - 30
2249847	Tau-Fluvalinate	14.4	Spike	P	0 - 30
2249847	Tetramethrin	1.68	Spike	P	0 - 30
2249847	Trans-Nonachlor	14.8	Spike	P	0 - 30
2249847	Triclosan Methyl	2.03	Spike	P	0 - 30
2249847	Trifluralin	2.00	Spike	P	0 - 30
LFB	Aldrin	12.3	LCS	P	0 - 30
LFB	Alpha-BHC	1.87	LCS	P	0 - 30
LFB	Alpha-Chlordane	22.5	LCS	P	0 - 30
LFB	Beta-BHC	1.77	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P398770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Beta-Cyfluthrin	15.6	LCS	P	0 - 30
LFB	Bifenthrin	15.1	LCS	P	0 - 30
LFB	Carbophenothion	2.22	LCS	P	0 - 30
LFB	Chlorothalonil	2.18	LCS	P	0 - 50
LFB	Cis-Nonachlor	22.6	LCS	P	0 - 30
LFB	Cypermethrin	12.4	LCS	P	0 - 30
LFB	Dacthal	27.2	LCS	P	0 - 30
LFB	DDD-p,p'	29.0	LCS	P	0 - 30
LFB	DDE-p,p'	20.7	LCS	P	0 - 30
LFB	DDT-p,p'	3.38	LCS	P	0 - 30
LFB	Delta-BHC	2.93	LCS	P	0 - 30
LFB	Deltamethrin	20.0	LCS	P	0 - 30
LFB	Dichlobenil	29.5	LCS	P	0 - 30
LFB	Dicofol	3.91	LCS	P	0 - 30
LFB	Dieldrin	4.27	LCS	P	0 - 30
LFB	Endosulfan I	13.8	LCS	P	0 - 30
LFB	Endosulfan II	9.91	LCS	P	0 - 30
LFB	Endosulfan Sulfate	27.2	LCS	P	0 - 30
LFB	Endrin	12.1	LCS	P	0 - 30
LFB	Endrin Aldehyde	16.5	LCS	P	0 - 30
LFB	Endrin Ketone	4.62	LCS	P	0 - 30
LFB	Esfenvalerate	17.9	LCS	P	0 - 30
LFB	Ethalfuralin	0.0	LCS	P	0 - 30
LFB	Fenpropathrin	1.09	LCS	P	0 - 30
LFB	Gamma-BHC	4.08	LCS	P	0 - 30
LFB	Gamma-Chlordane	21.9	LCS	P	0 - 30
LFB	Heptachlor	24.2	LCS	P	0 - 30
LFB	Heptachlor Epoxide	25.8	LCS	P	0 - 30
LFB	Hexachlorobenzene	10.8	LCS	P	0 - 30
LFB	Kepone	22.5	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	18.9	LCS	P	0 - 30
LFB	Methoxychlor	14.2	LCS	P	0 - 30
LFB	MGK-264	13.4	LCS	P	0 - 30
LFB	Mirex	7.33	LCS	P	0 - 30
LFB	Permethrin	29.4	LCS	P	0 - 30
LFB	Phenothrin	6.74	LCS	P	0 - 30
LFB	Piperonyl Butoxide	7.63	LCS	P	0 - 30
LFB	Prallethrin	13.3	LCS	P	0 - 30
LFB	Tau-Fluvalinate	11.0	LCS	P	0 - 30
LFB	Tetramethrin	25.9	LCS	P	0 - 30
LFB	Trans-Nonachlor	29.6	LCS	P	0 - 30
LFB	Triclosan Methyl	1.92	LCS	P	0 - 30
LFB	Trifluralin	5.88	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250788	Acetochlor	14.9	Spike	P	0 - 30
2250788	Alachlor	10.1	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250788	Ametryn	1.95	Spike	P	0 - 30
2250788	Atrazine	3.24	Spike	P	0 - 30
2250788	Atrazine Desethyl	34.8	Spike	F	0 - 30
2250788	Azinphos Methyl	61.9	Spike	F	0 - 30
2250788	Azoxystrobin	8.18	Spike	P	0 - 30
2250788	Bromacil	28.2	Spike	P	0 - 30
2250788	Butylate	1.75	Spike	P	0 - 30
2250788	Caffeine	12.1	Spike	P	0 - 30
2250788	Carbophenothion	1.91	Spike	P	0 - 30
2250788	Carfentrazone Ethyl	5.60	Spike	P	0 - 30
2250788	Chlorpyrifos Ethyl	3.39	Spike	P	0 - 30
2250788	Chlorpyrifos Methyl	5.14	Spike	P	0 - 30
2250788	Cyanazine	18.0	Spike	P	0 - 30
2250788	Demeton	6.33	Spike	P	0 - 30
2250788	Diazinon	9.83	Spike	P	0 - 30
2250788	Difenoconazole	7.56	Spike	P	0 - 30
2250788	Dimethenamid	8.54	Spike	P	0 - 30
2250788	Disulfoton	3.24	Spike	P	0 - 30
2250788	Dithiopyr	6.31	Spike	P	0 - 30
2250788	EPTC	14.0	Spike	P	0 - 30
2250788	Ethion	11.9	Spike	P	0 - 30
2250788	Ethoprop	4.10	Spike	P	0 - 30
2250788	Fenamiphos	8.82	Spike	P	0 - 30
2250788	Fenbuconazole	7.30	Spike	P	0 - 30
2250788	Fipronil	7.62	Spike	P	0 - 30
2250788	Fipronil Desulfinyl	6.81	Spike	P	0 - 30
2250788	Fipronil Sulfide	0.609	Spike	P	0 - 30
2250788	Fipronil Sulfone	1.28	Spike	P	0 - 30
2250788	Fluazifop-P-butyl	1.67	Spike	P	0 - 30
2250788	Fludioxonil	11.1	Spike	P	0 - 30
2250788	Flumioxazin	12.4	Spike	P	0 - 30
2250788	Flutolanil	2.06	Spike	P	0 - 30
2250788	Fluxapyroxad	4.85	Spike	P	0 - 30
2250788	Fonofos	5.13	Spike	P	0 - 30
2250788	Hexazinone	2.14	Spike	P	0 - 30
2250788	Imazalil	2.17	Spike	P	0 - 30
2250788	Iprodione	3.61	Spike	P	0 - 30
2250788	Malathion	1.31	Spike	P	0 - 30
2250788	Metalaxyl	5.50	Spike	P	0 - 30
2250788	Metolachlor	10.9	Spike	P	0 - 30
2250788	Metribuzin	2.66	Spike	P	0 - 30
2250788	Mevinphos	13.9	Spike	P	0 - 30
2250788	Molinate	0.230	Spike	P	0 - 30
2250788	Myclobutanil	8.08	Spike	P	0 - 30
2250788	Naled	5.20	Spike	P	0 - 30
2250788	Norflurazon	1.01	Spike	P	0 - 30
2250788	Oxadiazon	6.64	Spike	P	0 - 30
2250788	Oxyfluorfen	17.4	Spike	P	0 - 30
2250788	Parathion Ethyl	10.4	Spike	P	0 - 30
2250788	Parathion Methyl	5.35	Spike	P	0 - 30
2250788	Pendimethalin	9.07	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250788	Phorate	6.65	Spike	P	0 - 30
2250788	Prodiamine	6.70	Spike	P	0 - 30
2250788	Prometon	3.99	Spike	P	0 - 30
2250788	Prometryn	10.5	Spike	P	0 - 30
2250788	Pronamide	11.4	Spike	P	0 - 30
2250788	Propiconazole	8.82	Spike	P	0 - 30
2250788	Pyriproxyfen	78.8	Spike	F	0 - 30
2250788	Simazine	2.32	Spike	P	0 - 30
2250788	Sulfentrazone	12.3	Spike	P	0 - 30
2250788	Tebuconazole	11.7	Spike	P	0 - 30
2250788	Terbufos	7.47	Spike	P	0 - 30
2250788	Terbuthylazine	9.30	Spike	P	0 - 30
LFB	Acetochlor	3.39	LCS	P	0 - 30
LFB	Alachlor	2.22	LCS	P	0 - 30
LFB	Ametryn	9.80	LCS	P	0 - 30
LFB	Atrazine	7.01	LCS	P	0 - 30
LFB	Atrazine Desethyl	7.13	LCS	P	0 - 30
LFB	Azinphos Methyl	10.4	LCS	P	0 - 30
LFB	Azoxystrobin	0.182	LCS	P	0 - 30
LFB	Bromacil	1.20	LCS	P	0 - 30
LFB	Butylate	13.6	LCS	P	0 - 30
LFB	Caffeine	10.7	LCS	P	0 - 30
LFB	Carbophenothion	6.59	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	10.4	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.83	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.41	LCS	P	0 - 30
LFB	Cyanazine	1.93	LCS	P	0 - 30
LFB	Demeton	25.4	LCS	P	0 - 30
LFB	Diazinon	3.33	LCS	P	0 - 30
LFB	Difenoconazole	8.88	LCS	P	0 - 30
LFB	Dimethenamid	2.69	LCS	P	0 - 30
LFB	Disulfoton	24.3	LCS	P	0 - 30
LFB	Dithiopyr	1.66	LCS	P	0 - 30
LFB	EPTC	18.8	LCS	P	0 - 30
LFB	Ethion	11.9	LCS	P	0 - 30
LFB	Ethoprop	19.4	LCS	P	0 - 30
LFB	Fenamiphos	6.35	LCS	P	0 - 30
LFB	Fenbuconazole	15.8	LCS	P	0 - 30
LFB	Fipronil	7.57	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.05	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.38	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.426	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	10.6	LCS	P	0 - 30
LFB	Fludioxonil	10.6	LCS	P	0 - 30
LFB	Flumioxazin	0.325	LCS	P	0 - 30
LFB	Flutolanil	6.44	LCS	P	0 - 30
LFB	Fluxapyroxad	11.2	LCS	P	0 - 30
LFB	Fonofos	17.0	LCS	P	0 - 30
LFB	Hexazinone	10.8	LCS	P	0 - 30
LFB	Imazalil	7.62	LCS	P	0 - 30
LFB	Iprodione	10.8	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Malathion	3.69	LCS	P	0 - 30
LFB	Metalaxyl	1.60	LCS	P	0 - 30
LFB	Metolachlor	1.99	LCS	P	0 - 30
LFB	Metribuzin	2.66	LCS	P	0 - 30
LFB	Mevinphos	5.08	LCS	P	0 - 30
LFB	Molinate	28.5	LCS	P	0 - 30
LFB	Myclobutanil	10.5	LCS	P	0 - 30
LFB	Naled	0.825	LCS	P	0 - 30
LFB	Norflurazon	11.6	LCS	P	0 - 30
LFB	Oxadiazon	3.69	LCS	P	0 - 30
LFB	Oxyfluorfen	4.86	LCS	P	0 - 30
LFB	Parathion Ethyl	9.58	LCS	P	0 - 30
LFB	Parathion Methyl	10.5	LCS	P	0 - 30
LFB	Pendimethalin	11.8	LCS	P	0 - 30
LFB	Phorate	4.58	LCS	P	0 - 30
LFB	Prodiamine	3.43	LCS	P	0 - 30
LFB	Prometon	8.86	LCS	P	0 - 30
LFB	Prometryn	0.288	LCS	P	0 - 30
LFB	Pronamide	5.05	LCS	P	0 - 30
LFB	Propiconazole	13.2	LCS	P	0 - 30
LFB	Pyriproxyfen	4.87	LCS	P	0 - 30
LFB	Simazine	10.8	LCS	P	0 - 30
LFB	Sulfentrazone	11.0	LCS	P	0 - 30
LFB	Tebuconazole	2.64	LCS	P	0 - 30
LFB	Terbufos	11.0	LCS	P	0 - 30
LFB	Terbutylazine	4.18	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P398770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249919	Chlordane	2.14	Spike	P	0 - 30
2249919	Toxaphene	0.117	Spike	P	0 - 30
LFB	Chlordane	5.27	LCS	P	0 - 30
LFB	Toxaphene	2.13	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P398724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249591	Acesulfame K	2.71	Spike	P	0 - 30
2249591	AMPA	0.200	Spike	P	0 - 30
2249591	Endothall	9.70	Spike	P	0 - 30
2249591	Glufosinate	6.86	Spike	P	0 - 30
2249591	Glyphosate	1.67	Spike	P	0 - 30
2249591	Sucralose	2.00	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P398813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250311	2,4-D	22.8	Spike	P	0 - 30
2250311	2,4,5-T	14.3	Spike	P	0 - 30
2250311	Acetaminophen	47.1	Spike	F	0 - 30
2250311	Acetamiprid	2.90	Spike	P	0 - 30
2250311	Afidopyropen	3.12	Spike	P	0 - 30
2250311	Bentazon	15.1	Spike	P	0 - 30
2250311	Benzovindiflupyr	8.31	Spike	P	0 - 30
2250311	Carbamazepine	5.44	Spike	P	0 - 30
2250311	Clothianidin	4.43	Spike	P	0 - 30
2250311	Dinotefuran	0.861	Spike	P	0 - 30
2250311	Diuron	9.58	Spike	P	0 - 30
2250311	Fenuron	2.71	Spike	P	0 - 30
2250311	Fluridone	9.52	Spike	P	0 - 30
2250311	Hydrocodone	2.73	Spike	P	0 - 30
2250311	Ibuprofen	26.9	Spike	P	0 - 30
2250311	Imazapyr	0.118	Spike	P	0 - 30
2250311	Imidacloprid	5.23	Spike	P	0 - 30
2250311	Linuron	6.93	Spike	P	0 - 30
2250311	Mandestrobin	1.26	Spike	P	0 - 30
2250311	MCP	3.74	Spike	P	0 - 30
2250311	Naproxen	11.2	Spike	P	0 - 30
2250311	Primidone	0.720	Spike	P	0 - 30
2250311	Pyraclostrobin	7.21	Spike	P	0 - 30
2250311	Thiamethoxam	7.22	Spike	P	0 - 30
2250311	Tolfenpyrad	0.0153	Spike	P	0 - 30
2250311	Triclopyr	11.6	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P398814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2249594	3-Hydroxycarbofuran	0.359	Spike	P	0 - 30
2249594	Aldicarb	4.07	Spike	P	0 - 30
2249594	Aldicarb Sulfone	3.07	Spike	P	0 - 30
2249594	Aldicarb Sulfoxide	3.66	Spike	P	0 - 30
2249594	Carbaryl	1.78	Spike	P	0 - 30
2249594	Carbofuran	5.72	Spike	P	0 - 30
2249594	Methiocarb	0.313	Spike	P	0 - 30
2249594	Methomyl	0.923	Spike	P	0 - 30
2249594	Oxamyl	1.13	Spike	P	0 - 30
2249594	Propoxur	7.82	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P398863

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250272	Color (true)	0.423	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P398969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250461	Total Alkalinity	0.440	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P399200

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250322	TDS	3.01	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P399003

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250322	TSS	7.41	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P398972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250461	Fluoride	0.502	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P399729

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250478	Organic Carbon	0.812	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2250466
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	78.6	P	30 - 160

Lab Sample ID: 2250467
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	147	P	30 - 160
EPA 8321B	Acetaminophen-d4	115	P	30 - 160
EPA 8321B	Carbamazepine-d10	111	P	30 - 160
EPA 8321B	Diuron-d6	82.1	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.9	P	30 - 160
EPA 8321B	Primidone-d5	117	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	30 - 160

Lab Sample ID: 2250468
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	56.2	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	33.2	P	30 - 110
EPA 8276	Decachlorobiphenyl	63.8	P	29 - 92.0
EPA 8276	PCNB	64.2	P	43 - 134

Lab Sample ID: 2250469
Field Sample ID: G1TLHR0145

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	58.4	P	20 - 200
EPA 8270E	Simazine-d10	92.2	P	73 - 135
EPA 8270E	Terbufos-d10	86.9	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A105691

Included Lab Sample IDs: 2250463

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A105696

Included Lab Sample IDs: 2250461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A105697

Included Lab Sample IDs: 2250461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.8	99.5	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A105711

Included Lab Sample IDs: 2250462

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

Reference Method: EPA 8321B

Run ID: A105748

Included Lab Sample IDs: 2250467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	109	103	P/P	60 - 160
Endothall	123	121	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A105750

Included Lab Sample IDs: 2250467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	120	124	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A105751

Included Lab Sample IDs: 2250467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	110	102	P/P	60 - 160
Glufosinate	95.4	100	P/P	60 - 160
Glyphosate	103	103	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A105756

Included Lab Sample IDs: 2250461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.2	100	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A105756

Included Lab Sample IDs: 2250461

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A105778

Included Lab Sample IDs: 2250462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	101	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A105787

Included Lab Sample IDs: 2250468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	93.8		P	80 - 120
Toxaphene	100		P	80 - 120

Reference Method: EPA 8321B

Run ID: A105808

Included Lab Sample IDs: 2250467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.6	89.0	P/P	50 - 150
2,4,5-T	143	144	P/P	50 - 150
3-Hydroxycarbofuran	104	95.1	P/P	60 - 150
Acetaminophen	85.9	87.8	P/P	60 - 160
Acetamiprid	102	103	P/P	50 - 150
Afidopyropen	72.5	73.3	P/P	50 - 150
Aldicarb	105	88.4	P/P	60 - 150
Aldicarb Sulfone	96.5	92.1	P/P	50 - 150
Aldicarb Sulfoxide	87.7	90.2	P/P	50 - 150
Bentazon	116	133	P/P	50 - 160
Benzovindiflupyr	93.3	89.1	P/P	50 - 150
Carbamazepine	96.6	95.0	P/P	60 - 150
Carbaryl	99.7	93.2	P/P	60 - 150
Carbofuran	121	99.3	P/P	50 - 150
Clothianidin	97.2	97.8	P/P	60 - 150
Dinotefuran	93.6	91.7	P/P	50 - 150
Diuron	102	107	P/P	60 - 160
Fenuron	91.2	90.3	P/P	60 - 150
Fluridone	94.9	96.1	P/P	60 - 160
Hydrocodone	88.3	89.1	P/P	60 - 150
Ibuprofen	81.4	82.0	P/P	50 - 160
Imazapyr	90.2	99.8	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A105808
Included Lab Sample IDs: 2250467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	93.7	87.5	P/P	60 - 150
Linuron	71.0	75.7	P/P	60 - 150
Mandestrobin	85.0	80.0	P/P	50 - 150
MCPP	102	104	P/P	50 - 150
Methiocarb	77.9	74.6	P/P	50 - 150
Methomyl	96.6	94.1	P/P	50 - 150
Naproxen	78.8	88.5	P/P	50 - 160
Oxamyl	96.8	96.7	P/P	50 - 150
Primidone	96.4	91.7	P/P	60 - 150
Propoxur	116	104	P/P	50 - 150
Pyraclostrobin	91.5	93.7	P/P	60 - 150
Thiamethoxam	96.1	91.7	P/P	50 - 150
Tolfenpyrad	97.1	78.4	P/P	60 - 150
Triclopyr	148	147	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A105853
Included Lab Sample IDs: 2250468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.4		P	80 - 120
Alpha-BHC	99.4		P	80 - 120
Alpha-Chlordane	94.6		P	80 - 120
Beta-BHC	102		P	80 - 120
Beta-Cyfluthrin	102		P	80 - 120
Bifenthrin	103		P	80 - 120
Carbophenothion	100		P	80 - 120
Chlorothalonil	97.5		P	80 - 120
Cis-Nonachlor	101		P	80 - 120
Cypermethrin	102		P	80 - 120
Dacthal	95.3		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	96.4		P	80 - 120
DDT-p,p'	99.8		P	80 - 120
Delta-BHC	102		P	80 - 120
Deltamethrin	99.2		P	80 - 120
Dichlobenil	98.6		P	80 - 120
Dicofol	120		P	80 - 120
Dieldrin	96.1		P	80 - 120
Endosulfan I	95.5		P	80 - 120
Endosulfan II	98.6		P	80 - 120
Endosulfan Sulfate	97.7		P	80 - 120
Endrin	99.8		P	80 - 120
Endrin Aldehyde	102		P	80 - 120
Endrin Ketone	95.5		P	80 - 120
Esfenvalerate	95.3		P	80 - 120
Ethalfuralin	98.8		P	80 - 120
Fenpropathrin	122*		F	80 - 120
Gamma-BHC	99.9		P	80 - 120
Gamma-Chlordane	94.0		P	80 - 120
Heptachlor	97.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A105853
Included Lab Sample IDs: 2250468

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Heptachlor Epoxide	95.4		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Kepone	75.9*		F	80 - 120
Lambda-Cyhalothrin	101		P	80 - 120
Methoxychlor	121*		F	80 - 120
MGK-264	95.3		P	80 - 120
Mirex	103		P	80 - 120
Permethrin	103		P	80 - 120
Phenothrin	92.9		P	80 - 120
Piperonyl Butoxide	97.4		P	80 - 120
Prallethrin	93.9		P	80 - 120
Tau-Fluvalinate	102		P	80 - 120
Tetramethrin	104		P	80 - 120
Trans-Nonachlor	93.3		P	80 - 120
Triclosan Methyl	94.8		P	80 - 120
Trifluralin	98.1		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A105920
Included Lab Sample IDs: 2250462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	97.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A105956
Included Lab Sample IDs: 2250461

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.5	99.8	P/P	90 - 110
Sulfate	98.7	99.4	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A106055
Included Lab Sample IDs: 2250469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	100		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	94.5		P	80 - 120
Atrazine Desethyl	113		P	80 - 120
Azinphos Methyl	97.6		P	80 - 120
Azoxystrobin	102		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	96.3		P	80 - 120
Caffeine	107		P	80 - 120
Carbophenothion	99.2		P	80 - 120
Carfentrazone Ethyl	99.6		P	80 - 120
Chlorpyrifos Ethyl	95.1		P	80 - 120
Chlorpyrifos Methyl	99.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A106055
Included Lab Sample IDs: 2250469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cyanazine	107		P	80 - 120
Demeton	91.6		P	80 - 120
Diazinon	98.8		P	80 - 120
Difenoconazole	106		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	94.6		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	98.6		P	80 - 120
Fenbuconazole	102		P	80 - 120
Fipronil	99.9		P	80 - 120
Fipronil Desulfinyl	98.6		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	104		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	98.2		P	80 - 120
Flumioxazin	104		P	80 - 120
Flutolanil	97.4		P	80 - 120
Fluxapyroxad	98.8		P	80 - 120
Fonofos	94.2		P	80 - 120
Hexazinone	105		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	101		P	80 - 120
Malathion	98.6		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	97.8		P	80 - 120
Mevinphos	95.3		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	97.0		P	80 - 120
Naled	98.7		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	103		P	80 - 120
Oxyfluorfen	100		P	80 - 120
Parathion Ethyl	98.4		P	80 - 120
Parathion Methyl	97.1		P	80 - 120
Pendimethalin	96.9		P	80 - 120
Phorate	98.5		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	98.5		P	80 - 120
Propiconazole	101		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	105		P	80 - 120
Sulfentrazone	98.9		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	95.5		P	80 - 120
Terbutylazine	97.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A106083

Included Lab Sample IDs: 2250462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A106117

Included Lab Sample IDs: 2250462

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	99.1	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	MS
							SMP	
EPA 180.1 Rev. 2.0	Turbidity						2.60	
EPA 300.0 Rev. 2.1	Chloride	97.3		92.8	97.2		0.637	
	Sulfate	96.2		91.8	94.9		1.61	
EPA 350.1 Rev. 2.0	Ammonia-N	97.0		97.2	98.6			1.23
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107						2.16
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100		98.0	98.5			0.296
EPA 365.1 Rev. 2.0	Total-P	103		104	105			0.473
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7		96.4	96.7			0.220
EPA 8270E	Acetochlor	77.1	74.6	77.6	90.1	3.39		14.9
	Alachlor	71.4	73.0	74.8	82.8	2.22		10.1
	Aldrin	39.0	34.5	40.9	43.7	12.3		6.42
	Alpha-BHC	87.9	89.5	92.9	84.4	1.87		9.57
	Alpha-Chlordane	59.7	74.8	59.4	67.6	22.5		12.8
	Ametryn	98.4	89.2			9.80		1.95
	Atrazine	80.7	86.5			7.01		3.24
	Atrazine Desethyl	78.6	84.4			7.13		34.8
	Azinphos Methyl	99.7	89.8	105	200	10.4		61.9
	Azoxystrobin	118	118	125	138	0.182		8.18
	Beta-BHC	102	100	130	123	1.77		4.99
	Beta-Cyfluthrin	130	111	123	109	15.6		12.1
	Bifenthrin	59.1	68.7	62.5	54.4	15.1		13.9
	Bromacil	66.6	67.4	68.0	90.3	1.20		28.2
	Butylate	45.4	52.0	43.1	42.4	13.6		1.75
	Caffeine	101	113	102	115	10.7		12.1
	Carbophenothion	62.9	64.3	55.2	56.1	2.22		1.73
	Carbophenothion	70.3	65.8	70.2	68.9	6.59		1.91
	Carfentrazone Ethyl	84.6	76.3	83.8	88.7	10.4		5.60
	Chlorothalonil	110	112	235	190	2.18		21.3
	Chlorpyrifos Ethyl	69.3	67.4	80.4	77.7	2.83		3.39
	Chlorpyrifos Methyl	72.1	73.1	71.7	75.4	1.41		5.14
	Cis-Nonachlor	60.9	76.4	64.2	70.0	22.6		8.76
	Cyanazine	151	154	146	175	1.93		18.0
	Cypermethrin	123	109	103	93.3	12.4		9.43
	Dacthal	95.2	72.4	95.1	87.8	27.2		7.93
	DDD-p,p'	54.8	73.4	70.1	69.9	29.0		0.271
	DDE-p,p'	59.1	72.7	50.7	57.7	20.7		12.8
	DDT-p,p'	71.8	69.4	61.0	62.0	3.38		1.57
	Delta-BHC	117	121	141	129	2.93		9.18
	Deltamethrin	125	102	117	114	20.0		2.44
	Demeton	62.2	80.3	83.9	89.4	25.4		6.33
	Diazinon	82.7	85.5	88.2	97.3	3.33		9.83
	Dichlobenil	81.0	60.2	37.4	48.8	29.5		26.3
	Dicofol	77.2	80.2	83.7	86.6	3.91		3.34
	Dieldrin	73.7	76.9	66.4	70.2	4.27		5.62
	Difenoconazole	110	100	120	130	8.88		7.56
	Dimethenamid	76.1	78.1	80.3	87.5	2.69		8.54
	Disulfoton	61.0	77.9	75.1	72.7	24.3		3.24
	Dithiopyr	71.7	72.9	78.2	83.3	1.66		6.31
	Endosulfan I	68.7	78.9	71.7	69.7	13.8		2.91
	Endosulfan II	97.5	88.3	101	84.9	9.91		17.8
	Endosulfan Sulfate	73.5	96.6	122	111	27.2		9.54
	Endrin	69.5	78.5	76.2	72.4	12.1		5.07
	Endrin Aldehyde	77.1	91.0	69.1	68.2	16.5		1.32
	Endrin Ketone	96.9	92.6	121	100	4.62		18.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	EPTC	44.3	53.5	43.0	37.4	18.8	14.0
	Esfenvalerate	131	110	108	105	17.9	2.16
	Ethalfuralin	71.1	71.1	58.8	59.3	0.0	1.01
	Ethion	51.8	58.4	58.7	66.2	11.9	11.9
	Ethoprop	83.4	101	100	104	19.4	4.10
	Fenamiphos	86.6	81.3	81.6	74.7	6.35	8.82
	Fenbuconazole	90.1	76.9	96.3	104	15.8	7.30
	Fenpropathrin	77.1	76.3	65.2	60.6	1.09	7.27
	Fipronil	83.3	77.3	85.4	92.2	7.57	7.62
	Fipronil Desulfinyl	76.9	76.1	79.1	84.7	1.05	6.81
	Fipronil Sulfide	80.1	76.6	79.0	78.5	4.38	0.609
	Fipronil Sulfone	68.8	68.5	66.5	67.4	0.426	1.28
	Fluazifop-P-butyl	81.8	73.5	86.2	87.7	10.6	1.67
	Fludioxonil	86.1	77.4	81.1	90.6	10.6	11.1
	Flumioxazin	107	106	144	164	0.325	12.4
	Flutolanil	85.8	80.4	86.5	88.3	6.44	2.06
	Fluxapyroxad	77.1	68.9	35.3	44.6	11.2	4.85
	Fonofos	76.7	90.9	86.0	90.5	17.0	5.13
	Gamma-BHC	90.4	94.1	106	99.5	4.08	6.63
	Gamma-Chlordane	72.7	58.4	55.8	63.7	21.9	13.1
	Heptachlor	79.1	62.0	52.0	52.6	24.2	1.12
	Heptachlor Epoxide	61.7	80.0	75.4	83.9	25.8	10.6
	Hexachlorobenzene	64.6	58.0	54.7	58.1	10.8	5.97
	Hexazinone	80.9	90.1			10.8	2.14
	Imazalil	84.2	78.0	162	165	7.62	2.17
	Iprodione	78.6	70.5	79.7	82.7	10.8	3.61
	Kepone	103	129	166	139	22.5	17.4
	Lambda-Cyhalothrin	159	131	133	130	18.9	2.29
	Malathion	75.0	77.9	81.7	82.8	3.69	1.31
	Metalaxyl	80.6	81.9	83.4	88.1	1.60	5.50
	Methoxychlor	98.2	85.2	84.5	84.5	14.2	0.0395
	Metolachlor	75.7	74.2	73.2	83.5	1.99	10.9
	Metribuzin	88.6	91.0	102	109	2.66	2.66
	Mevinphos	74.1	78.0	77.6	89.2	5.08	13.9
	MGK-264	57.4	65.6	79.2	78.7	13.4	0.695
	Mirex	117	125	100	111	7.33	10.1
	Molinate	57.6	76.7	68.1	67.9	28.5	0.230
	Myclobutanil	83.0	74.7	83.0	90.0	10.5	8.08
	Naled	30.4	30.7	30.1	28.6	0.825	5.20
	Norflurazon	77.4	68.9	75.0	74.3	11.6	1.01
	Oxadiazon	78.7	75.8	69.2	74.6	3.69	6.64
	Oxyfluorfen	77.2	73.5	84.9	101	4.86	17.4
	Parathion Ethyl	77.7	85.5	82.6	91.7	9.58	10.4
	Parathion Methyl	91.6	102	94.3	99.5	10.5	5.35
	Pendimethalin	71.0	79.9	85.2	93.3	11.8	9.07
	Permethrin	71.6	96.3	90.7	92.1	29.4	1.50
	Phenothrin	42.3	45.3	55.8	51.0	6.74	9.05
	Phorate	74.8	78.3	99.5	106	4.58	6.65
	Piperonyl Butoxide	94.5	102	128	107	7.63	17.3
	Prallethrin	47.8	54.6	58.7	64.9	13.3	10.0
	Prodiamine	33.6	34.7	46.9	50.2	3.43	6.70
	Prometon	80.1	87.5	88.1	91.7	8.86	3.99
	Prometryn	85.3	85.5	113	126	0.288	10.5
	Pronamide	84.2	88.5	97.6	109	5.05	11.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Propiconazole	82.5	72.3	77.2	65.7	13.2		8.82
	Pyriproxyfen	69.0	65.7	70.3	162	4.87		78.8
	Simazine	80.4	89.6	135	138	10.8		2.32
	Sulfentrazone	63.8	57.2	65.3	73.8	11.0		12.3
	Tau-Fluvalinate	94.3	84.4	98.3	85.1	11.0		14.4
	Tebuconazole	57.1	58.6	60.6	68.2	2.64		11.7
	Terbufos	72.5	80.9	84.6	91.2	11.0		7.47
	Terbuthylazine	79.7	83.1	87.6	96.2	4.18		9.30
	Tetramethrin	50.3	65.2	76.3	77.6	25.9		1.68
	Trans-Nonachlor	53.0	71.4	53.8	62.5	29.6		14.8
	Triclosan Methyl	79.7	78.2	69.0	70.4	1.92		2.03
	Trifluralin	66.6	70.6	57.7	58.8	5.88		2.00
	Chlordane	93.7	98.8	79.2	77.3	5.27		2.14
EPA 8276	Toxaphene	112	114	102	102	2.13		0.117
EPA 8321B	2,4-D	98.3		96.1	121			22.8
	2,4,5-T	111		96.2	83.4			14.3
	3-Hydroxycarbofuran	76.6		95.5	95.9			0.359
	Acesulfame K	119		115	118			2.71
	Acetaminophen	75.2		119	73.7			47.1
	Acetamiprid	81.1		78.7	76.4			2.90
	Afidopyropen	50.7		48.1	49.9			3.12
	Aldicarb	60.5		80.6	84.0			4.07
	Aldicarb Sulfone	87.7		97.3	100			3.07
	Aldicarb Sulfoxide	118		122	126			3.66
	AMPA	92.6		106	106			0.200
	Bentazon	132		60.5	47.7			15.1
	Benzovindiflupyr	80.0		68.6	74.6			8.31
	Carbamazepine	86.6		64.9	61.5			5.44
	Carbaryl	71.2		68.6	69.8			1.78
	Carbofuran	77.3		84.0	79.3			5.72
	Clothianidin	85.0		71.7	68.6			4.43
	Dinotefuran	84.6		89.9	90.7			0.861
	Diuron	70.9		44.0	48.5			9.58
	Endothall	126		95.0	105			9.70
	Fenuron	106		69.5	67.7			2.71
	Fluridone	74.0		62.7	69.0			9.52
	Glufosinate	96.5		96.5	103			6.86
	Glyphosate	91.5		107	108			1.67
	Hydrocodone	80.7		66.5	64.7			2.73
	Ibuprofen	61.8		43.5	57.0			26.9
	Imazapyr	85.8		93.6	93.7			0.118
	Imidacloprid	85.8		126	133			5.23
	Linuron	69.5		55.5	51.7			6.93
	Mandestrobin	72.9		66.5	67.3			1.26
	MCPP	108		96.4	100			3.74
	Methiocarb	45.7		53.6	53.8			0.313
	Methomyl	103		103	102			0.923
	Naproxen	47.9		43.0	37.1			11.2
	Oxamyl	87.5		92.3	93.3			1.13
	Primidone	93.1		82.9	83.5			0.720
	Propoxur	88.5		91.8	84.9			7.82
	Pyraclostrobin	74.1		72.2	77.6			7.21
	Sucralose	122		114	116			2.00
	Thiamethoxam	83.6		90.2	83.9			7.22

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Tolfenpyrad	46.9	46.4	46.4		0.0153
	Triclopyr	131	109	96.6		11.6
SM 2120 B-2011	Color (true)	100			0.423	
SM 2320 B-2011	Total Alkalinity	98.5			0.440	
SM 2540 C-2011	TDS				3.01	
SM 2540 D-2011	TSS				7.41	
SM 4500 F-C-2011	Fluoride	98.4	97.7	98.4		0.502
SM 5310 B-2011	Organic Carbon	94.8	94.6	95.5		0.812

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2250461
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2250461
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2250461
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2250462
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2250462
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2250462
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2250462
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2250463
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2250468
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2250469
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2250468
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2250466
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2250467
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2250467
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2250461
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2250461
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2250461
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2250461
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2250461
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2250462

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	05/26/2021			05/26/2021 15:34	Yen Ta	2250461
EPA 300.0 Rev. 2.1	05/26/2021			06/09/2021 11:29	Lipi Saha	2250461
EPA 350.1 Rev. 2.0	05/26/2021			06/07/2021 13:45	Ping Hua	2250462
EPA 351.2 Rev. 2.0	05/26/2021	06/15/2021 14:13	Benjamin T. Nordmann	06/16/2021 12:51	Virginia P. Brown	2250462
EPA 353.2 Rev. 2.0	05/26/2021			05/27/2021 09:30	Beverly Y. Sanders	2250462
EPA 365.1 Rev. 2.0	05/26/2021	05/28/2021 13:30	Yen Ta	05/28/2021 16:16	Shengyu Ding	2250462
EPA 365.1 Rev. 2.0 dissolved	05/26/2021			05/26/2021 15:17	Ping Hua	2250463
EPA 8270E	05/26/2021	05/27/2021 08:00	Fe-Val Siddell	06/02/2021 01:00	Arthur Maknenko	2250468
	05/26/2021	06/01/2021 08:00	Fe-Val Siddell	06/09/2021 16:38	Vandana T. Nagar	2250469
EPA 8276	05/26/2021	05/27/2021 08:00	Fe-Val Siddell	05/30/2021 15:38	Michael Poppell	2250468
EPA 8321B	05/26/2021	05/27/2021 11:30	Pramila Ghimire	05/27/2021 13:07	Juyoung Kim	2250467
	05/26/2021	05/27/2021 11:30	Pramila Ghimire	05/27/2021 14:22	Pramila Ghimire	2250467
	05/26/2021	05/27/2021 11:30	Pramila Ghimire	05/27/2021 21:59	Pramila Ghimire	2250467
	05/26/2021	05/27/2021 14:00	Hoor Shaik	05/29/2021 11:12	Juyoung Kim	2250466
	05/26/2021	05/27/2021 14:00	Hoor Shaik	05/29/2021 18:08	Juyoung Kim	2250467
SM 2120 B-2011	05/26/2021			05/26/2021 16:06	Sarah A Nixon	2250461
SM 2320 B-2011	05/26/2021			05/28/2021 05:44	Dale L. Simmons	2250461
SM 2540 C-2011	05/26/2021			05/27/2021 14:42	Yijie Li	2250461
SM 2540 D-2011	05/26/2021			05/27/2021 14:42	Yijie Li	2250461
SM 4500 F-C-2011	05/26/2021			05/28/2021 05:31	Dale L. Simmons	2250461
SM 5310 B-2011	05/26/2021			06/14/2021 21:18	Madeline Gruver	2250462