

Chemical Analysis Report

NW-DIST-2021-08-04-01

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

Event Description: **Reference Stream SCI - McCostill Mill**
Request ID: **RQ-2021-08-02-73**
Customer: **NW-DIST**
Project ID: **SCIREF**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
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Date Certified: 30-AUG-2021 10:29



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: McCostill Mill Creek Below Ebenezer Church Rd. **Collection Date/Time: 08/03/2021 12:00**

Field ID: 33020147

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267043	EPA 180.1 Rev. 2.0	Turbidity	6.9		NTU	P401995	
	EPA 300.0 Rev. 2.1	Chloride	5.6		mg Cl/L	P402411	
		Sulfate	0.85		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	25		PCU	P402001	
	SM 2320 B-2011	Total Alkalinity	1.7	I	mg CaCO3/L	P402115	
	SM 2540 C-2011	TDS	37		mg/L	P402433	
	SM 2540 D-2011	TSS	17		mg/L	P402191	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P402117	
2267044	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P402380	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P402687	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.6		mg N/L	P402103	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P402209	
	SM 5310 B-2011	Organic Carbon	2.6		mg C/L	P402489	
2267045	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401990	
2267049	EPA 8270E	Aldrin	0.67	U	ng/L	P401933	
		Alpha-BHC	0.10	U	ng/L	P401933	
		Alpha-Chlordane	0.20	U	ng/L	P401933	
		Beta-BHC	0.10	U	ng/L	P401933	
		Beta-Cyfluthrin**	1.3	U	ng/L	P401933	
		Bifenthrin**	0.51	U	ng/L	P401933	
		Chlorothalonil	0.51	U	ng/L	P401933	MS
		Cis-Nonachlor**	0.20	U	ng/L	P401933	
		Cypermethrin	1.5	U	ng/L	P401933	
		Dacthal**	0.15	U	ng/L	P401933	
		DDD-p,p'	0.26	U	ng/L	P401933	
		DDE-p,p'	0.20	U	ng/L	P401933	
		DDT-p,p'	0.26	U	ng/L	P401933	
		Delta-BHC	0.41	U	ng/L	P401933	
		Deltamethrin**	1.3	U	ng/L	P401933	MS
		Dichlobenil**	0.10	U	ng/L	P401933	
		Dicofol	1.3	U	ng/L	P401933	
		Diieldrin	0.41	U	ng/L	P401933	
		Endosulfan I	0.41	U	ng/L	P401933	
		Endosulfan II	0.41	U	ng/L	P401933	
		Endosulfan Sulfate	0.31	U	ng/L	P401933	
		Endrin	0.41	U	ng/L	P401933	
		Endrin Aldehyde	0.77	U	ng/L	P401933	
		Endrin Ketone	0.45	I	ng/L	P401933	
		Esfenvalerate**	0.77	U	ng/L	P401933	
		Ethalfuralin**	0.15	U	ng/L	P401933	
		Fenpropathrin**	0.26	U	ng/L	P401933	
		Gamma-BHC	0.13	U	ng/L	P401933	

Field ID: 33020147

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes	
2267049	EPA 8270E	Gamma-Chlordane	0.20	U	ng/L	P401933	CCV, RPD	
		Heptachlor	0.20	U	ng/L	P401933		
		Heptachlor Epoxide	0.26	U	ng/L	P401933		
		Hexachlorobenzene	1.0	U	ng/L	P401933		
		Kepone**	5.1	UJ	ng/L	P401933		
		Lambda-Cyhalothrin**	0.77	U	ng/L	P401933		
		Methoxychlor	0.31	U	ng/L	P401933		
		MGK-264**	0.20	U	ng/L	P401933		
		Mirex	0.72	U	ng/L	P401933		
		Permethrin	1.6	U	ng/L	P401933		
		Phenothrin**	0.92	U	ng/L	P401933		
		Piperonyl Butoxide**	0.15	U	ng/L	P401933		
		Prallethrin**	2.0	U	ng/L	P401933		
		Tau-Fluvalinate**	0.26	U	ng/L	P401933		
		Tetramethrin**	0.77	U	ng/L	P401933		
		Trans-Nonachlor**	0.20	U	ng/L	P401933		
		Triclosan Methyl**	0.15	U	ng/L	P401933		
		Trifluralin	0.20	U	ng/L	P401933		
		EPA 8276	Chlordane	5.1	U	ng/L		P401933
		Toxaphene	31	U	ng/L	P401933		
2267050	EPA 8270E	Acetochlor	0.24	U	ng/L	P402110	LCS	
		Alachlor	5.4		ng/L	P402110		
		Ametryn	0.58	U	ng/L	P402110		
		Atrazine	0.66	I	ng/L	P402110		
		Atrazine Desethyl	1.4	U	ng/L	P402110		
		Azinphos Methyl	1.9	U	ng/L	P402110		
		Azoxystrobin**	0.77	I	ng/L	P402110		
		Bromacil	0.48	U	ng/L	P402110		
		Butylate	0.39	U	ng/L	P402110		
		Caffeine**	18	I	ng/L	P402110		
		Carbophenothion	0.48	U	ng/L	P402110		
		Carfentrazone Ethyl**	0.097	U	ng/L	P402110		
		Chlorpyrifos Ethyl	0.24	U	ng/L	P402110		
		Chlorpyrifos Methyl	0.048	U	ng/L	P402110		
		Cyanazine	3.1	U	ng/L	P402110		
		Demeton	1.4	U	ng/L	P402110		
		Diazinon	0.12	U	ng/L	P402110		
		Difenoconazole**	0.58	U	ng/L	P402110		
		Dimethenamid**	0.097	U	ng/L	P402110		
		Disulfoton	0.48	U	ng/L	P402110		
		Dithiopyr**	0.17	U	ng/L	P402110		
		EPTC	1.2	UJ	ng/L	P402110		
		Ethion	0.14	U	ng/L	P402110		
		Ethoprop	0.097	U	ng/L	P402110		
		Fenamiphos	0.48	U	ng/L	P402110		

Field ID: 33020147

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267050	EPA 8270E	Fenbuconazole**	0.12	U	ng/L	P402110	
		Fipronil	0.24	U	ng/L	P402110	
		Fipronil Desulfinyl**	0.12	U	ng/L	P402110	
		Fipronil Sulfide	0.14	U	ng/L	P402110	
		Fipronil Sulfone	0.14	U	ng/L	P402110	
		Fluazifop-P-butyl**	0.097	U	ng/L	P402110	
		Fludioxonil**	0.12	U	ng/L	P402110	
		Flumioxazin**	1.7	UJ	ng/L	P402110	RPD
		Flutolanil**	0.57		ng/L	P402110	
		Fluxapyroxad**	0.097	UJ	ng/L	P402110	RPD
		Fonofos	0.19	U	ng/L	P402110	
		Hexazinone	0.48	U	ng/L	P402110	
		Imazalil**	0.72	U	ng/L	P402110	
		Iprodione**	0.58	U	ng/L	P402110	
		Malathion	0.34	U	ng/L	P402110	
		Metalaxyl	0.72	U	ng/L	P402110	
		Metolachlor	3.9		ng/L	P402110	
		Metribuzin	3.1	U	ng/L	P402110	
		Mevinphos	1.0	U	ng/L	P402110	
		Molinate	0.29	U	ng/L	P402110	
		Myclobutanil**	0.24	U	ng/L	P402110	
		Naled**	1.4	UJ	ng/L	P402110	LCS
		Norflurazon	2.8		ng/L	P402110	
		Oxadiazon	0.29	U	ng/L	P402110	
		Oxyfluorfen**	0.14	U	ng/L	P402110	
		Parathion Ethyl	0.24	U	ng/L	P402110	
		Parathion Methyl	0.53	U	ng/L	P402110	
		Pendimethalin	0.97	U	ng/L	P402110	
		Phorate	0.51	U	ng/L	P402110	
		Prodiamine**	0.17	UJ	ng/L	P402110	RPD
		Prometon	0.87	U	ng/L	P402110	
		Prometryn	0.19	U	ng/L	P402110	
		Pronamide**	0.14	U	ng/L	P402110	
		Propiconazole**	0.48	U	ng/L	P402110	
		Pyriproxyfen**	0.12	U	ng/L	P402110	
		Simazine	0.48	U	ng/L	P402110	
		Sulfentrazone**	0.48	U	ng/L	P402110	
		Tebuconazole**	0.48	UJ	ng/L	P402110	RPD
		Terbufos	0.097	U	ng/L	P402110	
		Terbuthylazine	0.41	U	ng/L	P402110	
2267053	EPA 8321B	2,4-D	0.0020	U	ug/L	P401979	
		Acesulfame K	0.10	U	ug/L	P401884	
		2,4,5-T	0.0040	U	ug/L	P401979	
		AMPA	0.10	U	ug/L	P401884	
		Acetaminophen	0.0080	U	ug/L	P401979	

Field ID: 33020147

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267053	EPA 8321B	Acetamiprid	0.0020	U	ug/L	P401979	
		Endothall	0.25	U	ug/L	P401884	
		Glufosinate	0.10	U	ug/L	P401884	
		Glyphosate	0.10	U	ug/L	P401884	
		Afidopyropen	0.0020	U	ug/L	P401979	
		Bentazon	8.0E-04	U	ug/L	P401979	
		Sucralose	0.041		ug/L	P401884	
		Benzovindiflupyr	0.0020	U	ug/L	P401979	
		Carbamazepine	8.0E-04	U	ug/L	P401979	
		Clothianidin	0.0021	I	ug/L	P401979	
		Dinotefuran	0.0020	U	ug/L	P401979	
		Diuron	0.0020	U	ug/L	P401979	
		Fenuron	0.016	U	ug/L	P401979	
		Fluridone	8.0E-04	U	ug/L	P401979	
		Imazapyr	0.0044	I	ug/L	P401979	
		Hydrocodone	0.0020	U	ug/L	P401979	
		Ibuprofen	0.020	U	ug/L	P401979	
		Imidacloprid	0.0020	U	ug/L	P401979	
		Linuron	0.0040	U	ug/L	P401979	
		Mandestrobin	0.0020	U	ug/L	P401979	
		MCP	0.0020	U	ug/L	P401979	
		Naproxen	0.0080	U	ug/L	P401979	
		Primidone	0.0040	U	ug/L	P401979	
		Pyraclostrobin	0.0020	U	ug/L	P401979	
		Thiamethoxam	0.0020	U	ug/L	P401979	
		Tolfenpyrad	0.0020	U	ug/L	P401979	
		Triclopyr	0.0040	U	ug/L	P401979	
2267054	EPA 200.7 Rev. 4.4	Barium	57.4		ug/L	P402337	
		Calcium	1.85		mg/L	P402337	
		Iron	450		ug/L	P402337	
		Magnesium	1.71		mg/L	P402337	
		Manganese	24.5		ug/L	P402337	
		Potassium	0.80	I	mg/L	P402337	
		Sodium	2.3		mg/L	P402337	
		Zinc	5.0	U	ug/L	P402337	
	EPA 200.8 Rev. 5.4	Aluminum	272		ug/L	P402337	
		Antimony	0.050	U	ug/L	P402337	
		Arsenic	0.32		ug/L	P402337	
		Beryllium	0.112		ug/L	P402337	
		Boron**	10.8		ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.42	I	ug/L	P402337	
		Copper	0.46	I	ug/L	P402337	
		Lead	0.38	I	ug/L	P402337	
		Nickel	0.99	I	ug/L	P402337	

Field ID: 33020147

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2267054	EPA 200.8 Rev. 5.4	Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
	SM 2340B	Hardness	11.6		mg/L	P402337	

Ref. Method and Comment:

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

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401995

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402337

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402337

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402380

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: P402687

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402103

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402209

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401990

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

Reference Method: EPA 8270E
Batch ID: P401933

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P401933

Component	Result	Code	Units
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.70	U	ng/L
Mirex	0.70	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P401933

Component	Result	Code	Units
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E

Batch ID: P402110

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P402110

Component	Result	Code	Units
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P402110

Component	Result	Code	Units
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
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: P401933

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P401884

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: P401979

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011

Batch ID: P402001

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P402115

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P402433

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P402191

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P402117

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P402489

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: P402337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	90.0		P	85 - 115
Calcium	95.9		P	85 - 115
Iron	98.8		P	85 - 115
Magnesium	100		P	85 - 115
Manganese	90.8		P	85 - 115
Potassium	88.8		P	85 - 115
Sodium	95.9		P	85 - 115
Zinc	88.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402337

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402380

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402687

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P402103

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P402209

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401990

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

Reference Method: EPA 8270E

Batch ID: P401933

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	50.0	52.5	P/P	20 - 150
Alpha-BHC	91.6	94.9	P/P	50 - 150
Alpha-Chlordane	78.9	86.1	P/P	50 - 150
Beta-BHC	106	113	P/P	50 - 150
Beta-Cyfluthrin	109	127	P/P	50 - 150
Bifenthrin	72.0	84.5	P/P	40 - 150
Chlorothalonil	130	141	P/P	20 - 150
Cis-Nonachlor	75.6	84.2	P/P	50 - 150
Cypermethrin	106	124	P/P	50 - 150
Dacthal	92.6	96.8	P/P	50 - 150
DDD-p,p'	72.5	79.4	P/P	50 - 150
DDE-p,p'	77.5	79.1	P/P	50 - 150
DDT-p,p'	87.8	92.1	P/P	50 - 150
Delta-BHC	117	125	P/P	50 - 150
Deltamethrin	112	131	P/P	50 - 150
Dichlobenil	81.7	79.8	P/P	40 - 150
Dicofol	101	107	P/P	50 - 150
Dieldrin	85.4	90.0	P/P	50 - 150
Endosulfan I	76.3	81.8	P/P	50 - 150
Endosulfan II	84.6	93.3	P/P	50 - 150
Endosulfan Sulfate	96.5	111	P/P	50 - 150
Endrin	78.0	87.7	P/P	50 - 150
Endrin Aldehyde	84.1	94.4	P/P	50 - 150
Endrin Ketone	94.1	106	P/P	50 - 150
Esfenvalerate	99.1	117	P/P	50 - 180
Ethalfuralin	71.2	77.5	P/P	50 - 150
Fenpropathrin	87.7	93.3	P/P	50 - 150
Gamma-BHC	98.0	106	P/P	50 - 150
Gamma-Chlordane	73.4	78.1	P/P	50 - 150
Heptachlor	69.3	73.2	P/P	50 - 150
Heptachlor Epoxide	79.6	83.8	P/P	50 - 150
Hexachlorobenzene	67.5	73.2	P/P	50 - 150
Kepone	111	157	P/P	30 - 180
Lambda-Cyhalothrin	111	127	P/P	50 - 200

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P401933

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Methoxychlor	83.4	89.3	P/P	50 - 150
MGK-264	84.3	87.4	P/P	30 - 150
Mirex	56.2	65.8	P/P	50 - 180
Permethrin	95.5	108	P/P	50 - 150
Phenothrin	62.1	76.3	P/P	20 - 150
Piperonyl Butoxide	90.3	106	P/P	50 - 150
Prallethrin	69.9	70.8	P/P	30 - 150
Tau-Fluvalinate	82.9	104	P/P	40 - 150
Tetramethrin	60.0	65.0	P/P	30 - 150
Trans-Nonachlor	75.4	77.7	P/P	50 - 150
Triclosan Methyl	86.1	89.3	P/P	50 - 150
Trifluralin	75.0	77.8	P/P	50 - 150

Reference Method: EPA 8270E

Batch ID: P402110

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	103	89.9	P/P	70 - 121
Alachlor	92.8	80.8	P/P	70 - 119
Ametryn	115	90.8	P/P	61 - 135
Atrazine	107	93.2	P/P	76 - 123
Atrazine Desethyl	69.9	60.3	P/P	35 - 140
Azinphos Methyl	118	103	P/P	57 - 163
Azoxystrobin	112	88.4	P/P	43 - 231
Bromacil	94.9	82.5	P/P	42 - 123
Butylate	37.3	34.5	P/P	34 - 92.0
Caffeine	109	100	P/P	70 - 130
Carbophenothion	116	90.9	P/P	61 - 121
Carfentrazone Ethyl	110	96.1	P/P	62 - 139
Chlorpyrifos Ethyl	98.6	80.2	P/P	67 - 121
Chlorpyrifos Methyl	112	87.9	P/P	67 - 120
Cyanazine	121	102	P/P	20 - 226
Demeton	102	89.7	P/P	35 - 125
Diazinon	107	90.9	P/P	70 - 122
Difenoconazole	183	148	P/P	56 - 186
Dimethenamid	80.0	67.1	P/P	67 - 119
Disulfoton	100	78.7	P/P	47 - 120
Dithiopyr	96.5	78.8	P/P	67 - 118
EPTC	33.8	28.6	P/F	33 - 90.0
Ethion	79.4	76.3	P/P	40 - 133
Ethoprop	96.1	85.1	P/P	61 - 121
Fenamiphos	106	92.1	P/P	31 - 139
Fenbuconazole	126	97.1	P/P	66 - 141
Fipronil	107	90.5	P/P	62 - 129
Fipronil Desulfinyl	108	92.5	P/P	59 - 126
Fipronil Sulfide	106	80.6	P/P	63 - 117
Fipronil Sulfone	83.0	73.5	P/P	57 - 117
Fluazifop-P-butyl	113	86.3	P/P	63 - 124
Fludioxonil	102	96.8	P/P	63 - 123
Flumioxazin	220	153	P/P	34 - 245
Flutolanil	103	91.2	P/P	56 - 131
Fluxapyroxad	81.5	67.9	P/P	57 - 117

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P402110

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fonofos	97.5	78.6	P/P	61 - 116
Hexazinone	99.6	85.7	P/P	55 - 138
Imazalil	108	83.1	P/P	33 - 143
Iprodione	104	91.6	P/P	59 - 118
Malathion	112	91.6	P/P	62 - 138
Metalaxyl	89.3	78.5	P/P	24 - 147
Metolachlor	94.8	82.8	P/P	68 - 118
Metribuzin	113	91.1	P/P	20 - 239
Mevinphos	91.3	80.2	P/P	46 - 124
Molinate	52.6	46.9	P/P	46 - 100
Myclobutanil	96.3	82.6	P/P	32 - 149
Naled	20.3	19.0	F/F	32 - 95.0
Norflurazon	94.5	77.2	P/P	57 - 127
Oxadiazon	88.7	75.4	P/P	63 - 118
Oxyfluorfen	99.0	75.8	P/P	69 - 137
Parathion Ethyl	99.3	83.8	P/P	70 - 113
Parathion Methyl	125	100	P/P	71 - 130
Pendimethalin	78.0	67.7	P/P	55 - 118
Phorate	86.7	69.1	P/P	46 - 125
Prodiamine	125	85.3	P/P	20 - 141
Prometon	101	86.0	P/P	54 - 122
Prometryn	112	98.8	P/P	66 - 124
Pronamide	106	93.0	P/P	79 - 122
Propiconazole	88.3	69.5	P/P	61 - 126
Pyriproxyfen	91.7	79.6	P/P	52 - 131
Simazine	98.8	83.0	P/P	75 - 128
Sulfentrazone	82.5	63.5	P/P	20 - 132
Tebuconazole	39.7	37.0	P/P	20 - 116
Terbufos	109	93.0	P/P	61 - 117
Terbutylazine	97.0	84.3	P/P	74 - 116

Reference Method: EPA 8276

Batch ID: P401933

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	69.2	82.4	P/P	56 - 117
Toxaphene	72.9	71.9	P/P	45 - 116

Reference Method: EPA 8321B

Batch ID: P401884

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	113		P	40 - 150
AMPA	100		P	40 - 150
Endothall	87.3		P	40 - 150
Glufosinate	95.9		P	40 - 150
Glyphosate	102		P	40 - 150
Sucralose	95.0		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P401979

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	129		P	40 - 150
2,4,5-T	130		P	40 - 150
Acetaminophen	105		P	30 - 150
Acetamiprid	106		P	40 - 150
Afidopyropen	93.0		P	40 - 150
Bentazon	137		P	30 - 150
Benzovindiflupyr	115		P	40 - 150
Carbamazepine	107		P	40 - 150
Clothianidin	85.5		P	40 - 150
Dinotefuran	111		P	40 - 150
Diuron	106		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	125		P	40 - 150
Hydrocodone	105		P	40 - 150
Ibuprofen	92.0		P	40 - 150
Imazapyr	130		P	40 - 150
Imidacloprid	108		P	40 - 150
Linuron	95.9		P	40 - 150
Mandestrobin	125		P	40 - 150
MCPP	131		P	40 - 150
Naproxen	103		P	40 - 150
Primidone	97.1		P	40 - 150
Pyraclostrobin	107		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	57.2		P	30 - 150
Triclopyr	124		P	40 - 150

Reference Method: SM 2120 B-2011

Batch ID: P402001

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P402115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	94 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P402117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P402489

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267102	Barium	94.4		P	80 - 120
2267102	Calcium	80.1		P	80 - 120
2267102	Iron	103		P	80 - 120
2267102	Magnesium	84.8		P	80 - 120
2267102	Manganese	96.2		P	80 - 120
2267102	Potassium	90.7		P	80 - 120
2267102	Sodium	82.8		P	80 - 120
2267102	Zinc	97.4		P	80 - 120
2267664	Barium	99.2	100	P/P	80 - 120
2267664	Calcium	97.2	103	P/P	80 - 120
2267664	Iron	102	104	P/P	80 - 120
2267664	Magnesium	104	105	P/P	80 - 120
2267664	Manganese	99.4	101	P/P	80 - 120
2267664	Potassium	98.2	99.0	P/P	80 - 120
2267664	Sodium	96.4	101	P/P	80 - 120
2267664	Zinc	99.3	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267102	Aluminum	99.9		P	80 - 120
2267102	Antimony	106		P	80 - 120
2267102	Arsenic	102		P	80 - 120
2267102	Beryllium	100		P	80 - 120
2267102	Boron	98.0		P	80 - 120
2267102	Cadmium	101		P	80 - 120
2267102	Chromium	105		P	80 - 120
2267102	Copper	100		P	80 - 120
2267102	Lead	103		P	80 - 120
2267102	Nickel	101		P	80 - 120
2267102	Selenium	96.9		P	80 - 120
2267102	Silver	99.5		P	80 - 120
2267102	Thallium	106		P	80 - 120
2267664	Aluminum	98.6	98.6	P/P	80 - 120
2267664	Antimony	102	103	P/P	80 - 120
2267664	Arsenic	98.7	99.3	P/P	80 - 120
2267664	Beryllium	99.9	100	P/P	80 - 120
2267664	Boron	97.5	98.0	P/P	80 - 120
2267664	Cadmium	98.4	98.2	P/P	80 - 120
2267664	Chromium	101	103	P/P	80 - 120
2267664	Copper	101	102	P/P	80 - 120
2267664	Lead	99.6	101	P/P	80 - 120
2267664	Nickel	99.6	101	P/P	80 - 120
2267664	Selenium	97.3	98.2	P/P	80 - 120
2267664	Silver	98.6	111	P/P	80 - 120
2267664	Thallium	102	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402411

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266208	Chloride	95.5		P	90 - 110
2266490	Chloride	97.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266208	Sulfate	95.3		P	90 - 110
2266490	Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267044	Ammonia-N	99.2	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266807	Kjeldahl Nitrogen	103	98.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266807	NO2NO3-N	99.6	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402209

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267082	Total-P	108	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267074	O-Phosphate-P	97.1	98.1	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P401933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267311	Aldrin	40.9	36.2	P/P	20 - 170
2267311	Alpha-BHC	91.9	91.1	P/P	50 - 170
2267311	Alpha-Chlordane	77.7	75.8	P/P	50 - 170
2267311	Beta-BHC	123	124	P/P	50 - 170
2267311	Beta-Cyfluthrin	149	149	P/P	50 - 170
2267311	Bifenthrin	85.8	74.7	P/P	40 - 170
2267311	Chlorothalonil	3.35	3.59	F/F	20 - 170
2267311	Cis-Nonachlor	83.0	81.3	P/P	50 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P401933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267311	Cypermethrin	145	139	P/P	50 - 170
2267311	Dacthal	90.3	90.3	P/P	50 - 170
2267311	DDD-p,p'	74.1	72.7	P/P	50 - 170
2267311	DDE-p,p'	74.1	70.9	P/P	50 - 170
2267311	DDT-p,p'	88.3	86.7	P/P	50 - 170
2267311	Delta-BHC	135	144	P/P	50 - 170
2267311	Deltamethrin	175	193	F/F	50 - 170
2267311	Dichlobenil	56.7	47.4	P/P	40 - 170
2267311	Dicofol	99.0	101	P/P	50 - 170
2267311	Dieldrin	80.2	79.6	P/P	50 - 170
2267311	Endosulfan I	74.4	74.7	P/P	50 - 170
2267311	Endosulfan II	87.3	88.2	P/P	50 - 170
2267311	Endosulfan Sulfate	110	114	P/P	50 - 170
2267311	Endrin	79.9	76.7	P/P	50 - 170
2267311	Endrin Aldehyde	67.1	55.4	P/P	50 - 170
2267311	Endrin Ketone	101	105	P/P	50 - 170
2267311	Esfenvalerate	149	152	P/P	50 - 180
2267311	Ethalfuralin	73.9	74.0	P/P	50 - 170
2267311	Fenpropathrin	93.3	86.2	P/P	50 - 170
2267311	Gamma-BHC	111	114	P/P	50 - 170
2267311	Gamma-Chlordane	72.9	69.6	P/P	50 - 170
2267311	Heptachlor	66.7	63.6	P/P	50 - 170
2267311	Heptachlor Epoxide	79.2	79.3	P/P	50 - 170
2267311	Hexachlorobenzene	61.4	61.5	P/P	50 - 170
2267311	Kepone	157	153	P/P	30 - 180
2267311	Lambda-Cyhalothrin	172	157	P/P	50 - 200
2267311	Methoxychlor	83.0	81.2	P/P	50 - 170
2267311	MGK-264	65.0	77.2	P/P	30 - 170
2267311	Mirex	65.5	59.9	P/P	50 - 180
2267311	Permethrin	124	121	P/P	50 - 170
2267311	Phenothrin	68.7	81.0	P/P	20 - 170
2267311	Piperonyl Butoxide	101	101	P/P	50 - 170
2267311	Prallethrin	71.8	80.7	P/P	30 - 170
2267311	Tau-Fluvalinate	122	136	P/P	40 - 170
2267311	Tetramethrin	73.6	76.4	P/P	30 - 170
2267311	Trans-Nonachlor	75.0	71.2	P/P	50 - 170
2267311	Triclosan Methyl	80.2	77.7	P/P	50 - 170
2267311	Trifluralin	73.8	72.7	P/P	50 - 170

Reference Method: EPA 8270E
Batch ID: P402110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267050	Acetochlor	81.5	89.1	P/P	66 - 122
2267050	Alachlor	71.7	84.4	P/P	65 - 122
2267050	Ametryn	94.8	113	P/P	45 - 173
2267050	Atrazine	94.4	95.9	P/P	70 - 134
2267050	Atrazine Desethyl	71.3	57.6	P/P	25 - 150
2267050	Azinphos Methyl	102	100	P/P	44 - 174
2267050	Azoxystrobin	107	87.5	P/P	10 - 268
2267050	Bromacil	83.9	83.3	P/P	31 - 145
2267050	Butylate	34.6	43.6	P/P	15 - 97.0

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P402110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267050	Caffeine	84.2	89.4	P/P	70 - 130
2267050	Carbophenothion	83.4	87.4	P/P	42 - 129
2267050	Carfentrazone Ethyl	78.4	87.3	P/P	62 - 145
2267050	Chlorpyrifos Ethyl	74.9	77.4	P/P	60 - 124
2267050	Chlorpyrifos Methyl	83.7	86.8	P/P	66 - 119
2267050	Cyanazine	109	102	P/P	17 - 225
2267050	Demeton	92.3	99.1	P/P	36 - 142
2267050	Diazinon	85.1	98.6	P/P	70 - 128
2267050	Difenoconazole	123	147	P/P	33 - 222
2267050	Dimethenamid	60.4	70.1	P/P	54 - 125
2267050	Disulfoton	78.1	81.5	P/P	49 - 133
2267050	Dithiopyr	71.2	81.1	P/P	55 - 123
2267050	EPTC	31.4	38.3	P/P	19 - 91.0
2267050	Ethion	82.9	80.4	P/P	13 - 143
2267050	Ethoprop	92.7	99.1	P/P	49 - 144
2267050	Fenamiphos	84.5	76.7	P/P	32 - 136
2267050	Fenbuconazole	102	109	P/P	73 - 148
2267050	Fipronil	84.5	85.8	P/P	57 - 129
2267050	Fipronil Desulfinyl	79.6	89.9	P/P	49 - 127
2267050	Fipronil Sulfide	71.0	73.4	P/P	44 - 127
2267050	Fipronil Sulfone	71.5	69.9	P/P	35 - 126
2267050	Fluazifop-P-butyl	70.6	90.2	P/P	67 - 129
2267050	Fludioxonil	81.5	79.2	P/P	61 - 126
2267050	Flumioxazin	161	186	P/P	38 - 279
2267050	Flutolanil	74.9	80.5	P/P	55 - 136
2267050	Fluxapyroxad	49.5	73.2	P/P	33 - 140
2267050	Fonofos	73.8	82.1	P/P	58 - 125
2267050	Hexazinone	84.5	89.4	P/P	57 - 148
2267050	Imazalil	97.1	84.4	P/P	10 - 221
2267050	Iprodione	82.5	86.3	P/P	32 - 140
2267050	Malathion	94.2	80.6	P/P	52 - 138
2267050	Metalaxyl	70.2	76.0	P/P	46 - 134
2267050	Metolachlor	69.4	76.7	P/P	58 - 122
2267050	Metribuzin	99.4	92.7	P/P	16 - 272
2267050	Mevinphos	102	111	P/P	45 - 140
2267050	Molinate	53.0	59.6	P/P	41 - 103
2267050	Myclobutanil	76.3	83.4	P/P	60 - 134
2267050	Naled	21.3	25.0	P/P	20 - 113
2267050	Norflurazon	74.0	72.1	P/P	51 - 123
2267050	Oxadiazon	69.5	72.2	P/P	44 - 125
2267050	Oxyfluorfen	81.8	97.4	P/P	66 - 176
2267050	Parathion Ethyl	83.5	88.3	P/P	57 - 132
2267050	Parathion Methyl	112	115	P/P	59 - 156
2267050	Pendimethalin	70.1	69.2	P/P	59 - 129
2267050	Phorate	74.6	82.9	P/P	47 - 136
2267050	Prodiamine	45.4	53.8	P/P	10 - 159
2267050	Prometon	82.1	66.4	P/P	59 - 127
2267050	Prometryn	89.1	86.5	P/P	59 - 129
2267050	Pronamide	89.5	98.6	P/P	65 - 145
2267050	Propiconazole	45.4	58.3	P/P	28 - 165
2267050	Pyriproxyfen	66.9	74.9	P/P	21 - 180
2267050	Simazine	89.3	83.5	P/P	63 - 147

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
 Batch ID: P402110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267050	Sulfentrazone	68.2	70.2	P/P	32 - 136
2267050	Tebuconazole	24.3	37.8	P/P	-8.3 - 117
2267050	Terbufos	93.8	99.2	P/P	61 - 131
2267050	Terbutylazine	84.5	84.4	P/P	62 - 126

Reference Method: EPA 8276
 Batch ID: P401933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267196	Chlordane	79.9	83.4	P/P	47 - 128
2267196	Toxaphene	75.2	72.3	P/P	11 - 163

Reference Method: EPA 8321B
 Batch ID: P401884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266516	Acesulfame K	125	111	P/P	40 - 150
2266516	AMPA	110	116	P/P	40 - 150
2266516	Endothall	92.6	91.0	P/P	40 - 150
2266516	Glufosinate	131	129	P/P	40 - 150
2266516	Glyphosate	110	109	P/P	40 - 150
2266516	Sucralose	95.7	95.6	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P401979

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267099	2,4-D	112	122	P/P	40 - 150
2267099	2,4,5-T	117	122	P/P	40 - 150
2267099	Acetaminophen	132	104	P/P	30 - 150
2267099	Acetamiprid	93.8	95.3	P/P	40 - 150
2267099	Afidopyropen	84.1	78.2	P/P	40 - 150
2267099	Bentazon	89.2	95.3	P/P	30 - 150
2267099	Benzovindiflupyr	94.9	95.0	P/P	40 - 150
2267099	Carbamazepine	98.2	104	P/P	40 - 150
2267099	Clothianidin	71.0	88.7	P/P	40 - 150
2267099	Dinotefuran	123	121	P/P	40 - 150
2267099	Diuron	84.1	86.2	P/P	40 - 150
2267099	Fenuron	82.3	88.7	P/P	40 - 150
2267099	Fluridone	103	103	P/P	40 - 150
2267099	Hydrocodone	94.7	102	P/P	40 - 150
2267099	Ibuprofen	78.7	78.5	P/P	40 - 150
2267099	Imazapyr	124	99.2	P/P	40 - 150
2267099	Imidacloprid	110	106	P/P	40 - 150
2267099	Linuron	78.9	81.3	P/P	40 - 150
2267099	Mandestrobin	102	105	P/P	40 - 150
2267099	MCPP	126	131	P/P	40 - 150
2267099	Naproxen	94.4	93.2	P/P	40 - 150
2267099	Primidone	89.7	88.9	P/P	40 - 150
2267099	Pyraclostrobin	90.1	95.4	P/P	40 - 150
2267099	Thiamethoxam	111	126	P/P	40 - 150
2267099	Tolfenpyrad	51.1	56.4	P/P	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P401979

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267099	Triclopyr	113	121	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P402117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267182	Fluoride	99.6	99.6	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P402489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266484	Organic Carbon	97.0	96.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P401995

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266796	Turbidity	3.31	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402337

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267664	Barium	1.01	Spike	P	0 - 20
2267664	Calcium	3.47	Spike	P	0 - 20
2267664	Iron	1.40	Spike	P	0 - 20
2267664	Magnesium	0.982	Spike	P	0 - 20
2267664	Manganese	1.48	Spike	P	0 - 20
2267664	Potassium	0.903	Spike	P	0 - 20
2267664	Sodium	3.17	Spike	P	0 - 20
2267664	Zinc	1.59	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402337

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267664	Aluminum	0.0371	Spike	P	0 - 20
2267664	Antimony	1.29	Spike	P	0 - 20
2267664	Arsenic	0.615	Spike	P	0 - 20
2267664	Beryllium	0.335	Spike	P	0 - 20
2267664	Boron	0.480	Spike	P	0 - 20
2267664	Cadmium	0.208	Spike	P	0 - 20
2267664	Chromium	2.09	Spike	P	0 - 20
2267664	Copper	0.870	Spike	P	0 - 20
2267664	Lead	1.23	Spike	P	0 - 20
2267664	Nickel	1.33	Spike	P	0 - 20
2267664	Selenium	0.902	Spike	P	0 - 20
2267664	Silver	11.5	Spike	P	0 - 20
2267664	Thallium	1.48	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402411

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266208	Chloride	1.19	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402414

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266208	Sulfate	1.63	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P402380

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267044	Ammonia-N	1.07	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P402687

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266807	Kjeldahl Nitrogen	3.18	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P402103

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266807	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P402209

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267082	Total-P	0.690	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401990

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267074	O-Phosphate-P	0.744	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P401933

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267311	Aldrin	12.4	Spike	P	0 - 30
2267311	Alpha-BHC	0.808	Spike	P	0 - 30
2267311	Alpha-Chlordane	2.45	Spike	P	0 - 30
2267311	Beta-BHC	0.525	Spike	P	0 - 30
2267311	Beta-Cyfluthrin	0.533	Spike	P	0 - 30
2267311	Bifenthrin	13.7	Spike	P	0 - 30
2267311	Chlorothalonil	6.83	Spike	P	0 - 50
2267311	Cis-Nonachlor	2.10	Spike	P	0 - 30
2267311	Cypermethrin	4.46	Spike	P	0 - 30
2267311	Dacthal	0.0657	Spike	P	0 - 30
2267311	DDD-p,p'	1.97	Spike	P	0 - 30
2267311	DDE-p,p'	4.41	Spike	P	0 - 30
2267311	DDT-p,p'	1.84	Spike	P	0 - 30
2267311	Delta-BHC	6.00	Spike	P	0 - 30
2267311	Deltamethrin	9.45	Spike	P	0 - 30
2267311	Dichlobenil	18.0	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P401933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267311	Dicofol	2.54	Spike	P	0 - 30
2267311	Dieldrin	0.776	Spike	P	0 - 30
2267311	Endosulfan I	0.375	Spike	P	0 - 30
2267311	Endosulfan II	1.08	Spike	P	0 - 30
2267311	Endosulfan Sulfate	3.29	Spike	P	0 - 30
2267311	Endrin	4.06	Spike	P	0 - 30
2267311	Endrin Aldehyde	19.2	Spike	P	0 - 30
2267311	Endrin Ketone	3.85	Spike	P	0 - 30
2267311	Esfenvalerate	1.54	Spike	P	0 - 30
2267311	Ethalfuralin	0.156	Spike	P	0 - 30
2267311	Fenpropathrin	7.96	Spike	P	0 - 30
2267311	Gamma-BHC	2.98	Spike	P	0 - 30
2267311	Gamma-Chlordane	4.59	Spike	P	0 - 30
2267311	Heptachlor	4.75	Spike	P	0 - 30
2267311	Heptachlor Epoxide	0.0848	Spike	P	0 - 30
2267311	Hexachlorobenzene	0.189	Spike	P	0 - 30
2267311	Kepone	2.84	Spike	P	0 - 30
2267311	Lambda-Cyhalothrin	8.85	Spike	P	0 - 30
2267311	Methoxychlor	2.21	Spike	P	0 - 30
2267311	MGK-264	17.2	Spike	P	0 - 30
2267311	Mirex	9.03	Spike	P	0 - 30
2267311	Permethrin	2.25	Spike	P	0 - 30
2267311	Phenothrin	16.4	Spike	P	0 - 30
2267311	Piperonyl Butoxide	0.0404	Spike	P	0 - 30
2267311	Prallethrin	11.6	Spike	P	0 - 30
2267311	Tau-Fluvalinate	10.6	Spike	P	0 - 30
2267311	Tetramethrin	3.74	Spike	P	0 - 30
2267311	Trans-Nonachlor	5.14	Spike	P	0 - 30
2267311	Triclosan Methyl	3.10	Spike	P	0 - 30
2267311	Trifluralin	1.54	Spike	P	0 - 30
LFB	Aldrin	4.91	LCS	P	0 - 30
LFB	Alpha-BHC	3.55	LCS	P	0 - 30
LFB	Alpha-Chlordane	8.74	LCS	P	0 - 30
LFB	Beta-BHC	6.28	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	15.2	LCS	P	0 - 30
LFB	Bifenthrin	15.9	LCS	P	0 - 30
LFB	Chlorothalonil	8.73	LCS	P	0 - 50
LFB	Cis-Nonachlor	10.8	LCS	P	0 - 30
LFB	Cypermethrin	15.6	LCS	P	0 - 30
LFB	Dacthal	4.41	LCS	P	0 - 30
LFB	DDD-p,p'	9.21	LCS	P	0 - 30
LFB	DDE-p,p'	2.04	LCS	P	0 - 30
LFB	DDT-p,p'	4.74	LCS	P	0 - 30
LFB	Delta-BHC	6.00	LCS	P	0 - 30
LFB	Deltamethrin	15.5	LCS	P	0 - 30
LFB	Dichlobenil	2.25	LCS	P	0 - 30
LFB	Dicofol	5.75	LCS	P	0 - 30
LFB	Dieldrin	5.20	LCS	P	0 - 30
LFB	Endosulfan I	7.05	LCS	P	0 - 30
LFB	Endosulfan II	9.77	LCS	P	0 - 30
LFB	Endosulfan Sulfate	14.3	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P401933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endrin	11.8	LCS	P	0 - 30
LFB	Endrin Aldehyde	11.6	LCS	P	0 - 30
LFB	Endrin Ketone	11.5	LCS	P	0 - 30
LFB	Esfenvalerate	16.3	LCS	P	0 - 30
LFB	Ethalfuralin	8.46	LCS	P	0 - 30
LFB	Fenpropathrin	6.16	LCS	P	0 - 30
LFB	Gamma-BHC	7.48	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.18	LCS	P	0 - 30
LFB	Heptachlor	5.47	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.13	LCS	P	0 - 30
LFB	Hexachlorobenzene	8.12	LCS	P	0 - 30
LFB	Kepone	34.1	LCS	F	0 - 30
LFB	Lambda-Cyhalothrin	13.6	LCS	P	0 - 30
LFB	Methoxychlor	6.83	LCS	P	0 - 30
LFB	MGK-264	3.57	LCS	P	0 - 30
LFB	Mirex	15.8	LCS	P	0 - 30
LFB	Permethrin	11.9	LCS	P	0 - 30
LFB	Phenothrin	20.5	LCS	P	0 - 30
LFB	Piperonyl Butoxide	16.1	LCS	P	0 - 30
LFB	Prallethrin	1.30	LCS	P	0 - 30
LFB	Tau-Fluvalinate	22.4	LCS	P	0 - 30
LFB	Tetramethrin	8.12	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.99	LCS	P	0 - 30
LFB	Triclosan Methyl	3.71	LCS	P	0 - 30
LFB	Trifluralin	3.73	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P402110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267050	Acetochlor	8.91	Spike	P	0 - 30
2267050	Alachlor	10.2	Spike	P	0 - 30
2267050	Ametryn	17.9	Spike	P	0 - 30
2267050	Atrazine	1.37	Spike	P	0 - 30
2267050	Atrazine Desethyl	21.3	Spike	P	0 - 30
2267050	Azinphos Methyl	1.49	Spike	P	0 - 30
2267050	Azoxystrobin	17.0	Spike	P	0 - 30
2267050	Bromacil	0.715	Spike	P	0 - 30
2267050	Butylate	23.2	Spike	P	0 - 30
2267050	Caffeine	3.98	Spike	P	0 - 30
2267050	Carbophenothion	4.68	Spike	P	0 - 30
2267050	Carfentrazone Ethyl	10.8	Spike	P	0 - 30
2267050	Chlorpyrifos Ethyl	3.19	Spike	P	0 - 30
2267050	Chlorpyrifos Methyl	3.63	Spike	P	0 - 30
2267050	Cyanazine	7.38	Spike	P	0 - 30
2267050	Demeton	7.13	Spike	P	0 - 30
2267050	Diazinon	14.7	Spike	P	0 - 30
2267050	Difenoconazole	18.1	Spike	P	0 - 30
2267050	Dimethenamid	14.9	Spike	P	0 - 30
2267050	Disulfoton	4.27	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P402110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267050	Dithiopyr	13.0	Spike	P	0 - 30
2267050	EPTC	19.9	Spike	P	0 - 30
2267050	Ethion	3.02	Spike	P	0 - 30
2267050	Ethoprop	6.66	Spike	P	0 - 30
2267050	Fenamiphos	9.71	Spike	P	0 - 30
2267050	Fenbuconazole	6.51	Spike	P	0 - 30
2267050	Fipronil	1.53	Spike	P	0 - 30
2267050	Fipronil Desulfinyl	12.1	Spike	P	0 - 30
2267050	Fipronil Sulfide	3.37	Spike	P	0 - 30
2267050	Fipronil Sulfone	2.23	Spike	P	0 - 30
2267050	Fluazifop-P-butyl	24.4	Spike	P	0 - 30
2267050	Fludioxonil	2.94	Spike	P	0 - 30
2267050	Flumioxazin	14.2	Spike	P	0 - 30
2267050	Flutolanil	6.01	Spike	P	0 - 30
2267050	Fluxapyroxad	38.6	Spike	F	0 - 30
2267050	Fonofos	10.7	Spike	P	0 - 30
2267050	Hexazinone	5.70	Spike	P	0 - 30
2267050	Imazalil	13.9	Spike	P	0 - 30
2267050	Iprodione	4.57	Spike	P	0 - 30
2267050	Malathion	15.6	Spike	P	0 - 30
2267050	Metalaxyl	7.86	Spike	P	0 - 30
2267050	Metolachlor	6.88	Spike	P	0 - 30
2267050	Metribuzin	6.90	Spike	P	0 - 30
2267050	Mevinphos	9.05	Spike	P	0 - 30
2267050	Molinate	11.7	Spike	P	0 - 30
2267050	Myclobutanil	8.95	Spike	P	0 - 30
2267050	Naled	16.0	Spike	P	0 - 30
2267050	Norflurazon	1.87	Spike	P	0 - 30
2267050	Oxadiazon	3.78	Spike	P	0 - 30
2267050	Oxyfluorfen	17.4	Spike	P	0 - 30
2267050	Parathion Ethyl	5.62	Spike	P	0 - 30
2267050	Parathion Methyl	2.68	Spike	P	0 - 30
2267050	Pendimethalin	1.32	Spike	P	0 - 30
2267050	Phorate	10.4	Spike	P	0 - 30
2267050	Prodiamine	17.0	Spike	P	0 - 30
2267050	Prometon	21.2	Spike	P	0 - 30
2267050	Prometryn	2.96	Spike	P	0 - 30
2267050	Pronamide	9.66	Spike	P	0 - 30
2267050	Propiconazole	24.8	Spike	P	0 - 30
2267050	Pyriproxyfen	11.3	Spike	P	0 - 30
2267050	Simazine	6.79	Spike	P	0 - 30
2267050	Sulfentrazone	2.84	Spike	P	0 - 30
2267050	Tebuconazole	43.2	Spike	F	0 - 30
2267050	Terbufos	5.63	Spike	P	0 - 30
2267050	Terbutylazine	0.121	Spike	P	0 - 30
LFB	Acetochlor	13.8	LCS	P	0 - 30
LFB	Alachlor	13.7	LCS	P	0 - 30
LFB	Ametryn	23.7	LCS	P	0 - 30
LFB	Atrazine	13.4	LCS	P	0 - 30
LFB	Atrazine Desethyl	14.9	LCS	P	0 - 30
LFB	Azinphos Methyl	13.8	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P402110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Azoxystrobin	23.4	LCS	P	0 - 30
LFB	Bromacil	14.0	LCS	P	0 - 30
LFB	Butylate	7.78	LCS	P	0 - 30
LFB	Caffeine	8.39	LCS	P	0 - 30
LFB	Carbophenothion	24.1	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	13.2	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	20.6	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	24.1	LCS	P	0 - 30
LFB	Cyanazine	17.4	LCS	P	0 - 30
LFB	Demeton	12.8	LCS	P	0 - 30
LFB	Diazinon	16.2	LCS	P	0 - 30
LFB	Difenoconazole	21.0	LCS	P	0 - 30
LFB	Dimethenamid	17.6	LCS	P	0 - 30
LFB	Disulfoton	23.8	LCS	P	0 - 30
LFB	Dithiopyr	20.2	LCS	P	0 - 30
LFB	EPTC	16.7	LCS	P	0 - 30
LFB	Ethion	4.04	LCS	P	0 - 30
LFB	Ethoprop	12.1	LCS	P	0 - 30
LFB	Fenamiphos	14.0	LCS	P	0 - 30
LFB	Fenbuconazole	25.7	LCS	P	0 - 30
LFB	Fipronil	17.0	LCS	P	0 - 30
LFB	Fipronil Desulfinyil	15.1	LCS	P	0 - 30
LFB	Fipronil Sulfide	26.8	LCS	P	0 - 30
LFB	Fipronil Sulfone	12.1	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	26.6	LCS	P	0 - 30
LFB	Fludioxonil	4.83	LCS	P	0 - 30
LFB	Flumioxazin	35.8	LCS	F	0 - 30
LFB	Flutolanil	12.5	LCS	P	0 - 30
LFB	Fluxapyroxad	18.2	LCS	P	0 - 30
LFB	Fonofos	21.5	LCS	P	0 - 30
LFB	Hexazinone	15.0	LCS	P	0 - 30
LFB	Imazalil	25.8	LCS	P	0 - 30
LFB	Iprodione	12.9	LCS	P	0 - 30
LFB	Malathion	20.0	LCS	P	0 - 30
LFB	Metalaxyl	12.8	LCS	P	0 - 30
LFB	Metolachlor	13.5	LCS	P	0 - 30
LFB	Metribuzin	21.4	LCS	P	0 - 30
LFB	Mevinphos	12.9	LCS	P	0 - 30
LFB	Molinate	11.6	LCS	P	0 - 30
LFB	Myclobutanil	15.3	LCS	P	0 - 30
LFB	Naled	6.49	LCS	P	0 - 30
LFB	Norflurazon	20.1	LCS	P	0 - 30
LFB	Oxadiazon	16.2	LCS	P	0 - 30
LFB	Oxyfluorfen	26.5	LCS	P	0 - 30
LFB	Parathion Ethyl	17.0	LCS	P	0 - 30
LFB	Parathion Methyl	22.3	LCS	P	0 - 30
LFB	Pendimethalin	14.2	LCS	P	0 - 30
LFB	Phorate	22.6	LCS	P	0 - 30
LFB	Prodiamine	37.4	LCS	F	0 - 30
LFB	Prometon	16.3	LCS	P	0 - 30
LFB	Prometryn	12.8	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P402110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Pronamide	13.4	LCS	P	0 - 30
LFB	Propiconazole	23.8	LCS	P	0 - 30
LFB	Pyriproxyfen	14.1	LCS	P	0 - 30
LFB	Simazine	17.4	LCS	P	0 - 30
LFB	Sulfentrazone	26.0	LCS	P	0 - 30
LFB	Tebuconazole	6.99	LCS	P	0 - 30
LFB	Terbufos	15.9	LCS	P	0 - 30
LFB	Terbutylazine	14.0	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P401933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267196	Chlordane	4.28	Spike	P	0 - 30
2267196	Toxaphene	3.89	Spike	P	0 - 30
LFB	Chlordane	17.4	LCS	P	0 - 30
LFB	Toxaphene	1.44	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266516	Acesulfame K	12.1	Spike	P	0 - 30
2266516	AMPA	5.11	Spike	P	0 - 30
2266516	Endothall	1.71	Spike	P	0 - 30
2266516	Glufosinate	1.41	Spike	P	0 - 30
2266516	Glyphosate	0.594	Spike	P	0 - 30
2266516	Sucralose	0.170	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401979

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267099	2,4-D	6.04	Spike	P	0 - 30
2267099	2,4,5-T	4.43	Spike	P	0 - 30
2267099	Acetaminophen	16.3	Spike	P	0 - 30
2267099	Acetamiprid	1.55	Spike	P	0 - 30
2267099	Afidopyropen	7.21	Spike	P	0 - 30
2267099	Bentazon	2.85	Spike	P	0 - 30
2267099	Benzovindiflupyr	0.146	Spike	P	0 - 30
2267099	Carbamazepine	5.31	Spike	P	0 - 30
2267099	Clothianidin	16.2	Spike	P	0 - 30
2267099	Dinotefuran	1.54	Spike	P	0 - 30
2267099	Diuron	1.68	Spike	P	0 - 30
2267099	Fenuron	7.48	Spike	P	0 - 30
2267099	Fluridone	0.141	Spike	P	0 - 30
2267099	Hydrocodone	7.01	Spike	P	0 - 30
2267099	Ibuprofen	0.212	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P401979

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267099	Imazapyr	9.78	Spike	P	0 - 30
2267099	Imidacloprid	1.66	Spike	P	0 - 30
2267099	Linuron	3.02	Spike	P	0 - 30
2267099	Mandestrobin	2.01	Spike	P	0 - 30
2267099	MCPP	3.27	Spike	P	0 - 30
2267099	Naproxen	1.24	Spike	P	0 - 30
2267099	Primidone	0.895	Spike	P	0 - 30
2267099	Pyraclostrobin	5.69	Spike	P	0 - 30
2267099	Thiamethoxam	8.84	Spike	P	0 - 30
2267099	Tolfenpyrad	9.89	Spike	P	0 - 30
2267099	Triclopyr	6.61	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P402001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266806	Color (true)	3.13	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P402115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267182	Total Alkalinity	0.584	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P402433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267075	TDS	4.36	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P402117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267182	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P402489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266484	Organic Carbon	0.212	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2267049
Field Sample ID: 33020147

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	73.5	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	39.4	P	30 - 110
EPA 8276	Decachlorobiphenyl	57.3	P	29 - 92.0
EPA 8276	PCNB	62.1	P	43 - 134

Lab Sample ID: 2267050
Field Sample ID: 33020147

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	61.2	P	20 - 200
EPA 8270E	Simazine-d10	108	P	73 - 135
EPA 8270E	Terbufos-d10	99.2	P	58 - 130

Lab Sample ID: 2267053
Field Sample ID: 33020147

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	108	P	30 - 160
EPA 8321B	Acetaminophen-d4	61.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	105	P	30 - 160
EPA 8321B	Diuron-d6	88.2	P	30 - 160
EPA 8321B	Endothall-d6	73.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	82.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.5	P	30 - 160
EPA 8321B	Primidone-d5	83.8	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A107045

Included Lab Sample IDs: 2267045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	98.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A107046

Included Lab Sample IDs: 2267043

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

Reference Method: SM 2120 B-2011

Run ID: A107047

Included Lab Sample IDs: 2267043

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	98.5	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A107050

Included Lab Sample IDs: 2267053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	104	69.2	P/P	60 - 160
Endothall	69.8	66.8	P/P	60 - 160
Sucralose	93.2	96.6	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A107073

Included Lab Sample IDs: 2267053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	100	104	P/P	60 - 160
Glufosinate	99.2	99.9	P/P	60 - 160
Glyphosate	101	106	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107091

Included Lab Sample IDs: 2267044

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

Reference Method: SM 2320 B-2011

Run ID: A107093

Included Lab Sample IDs: 2267043

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.4	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A107093

Included Lab Sample IDs: 2267043

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

Reference Method: EPA 8321B

Run ID: A107122

Included Lab Sample IDs: 2267053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.8	97.0	P/P	50 - 150
2,4,5-T	101	100	P/P	50 - 150
Acetaminophen	107	107	P/P	60 - 160
Acetamiprid	106	108	P/P	50 - 150
Afidopyropen	105	106	P/P	50 - 150
Bentazon	119	122	P/P	50 - 160
Benzovindiflupyr	115	116	P/P	50 - 150
Carbamazepine	110	106	P/P	60 - 150
Clothianidin	95.4	90.1	P/P	60 - 150
Dinotefuran	111	110	P/P	50 - 150
Diuron	117	113	P/P	60 - 160
Fenuron	107	104	P/P	60 - 150
Fluridone	120	120	P/P	60 - 160
Hydrocodone	109	108	P/P	60 - 150
Ibuprofen	109	110	P/P	50 - 160
Imazapyr	122	119	P/P	50 - 150
Imidacloprid	99.6	98.8	P/P	60 - 150
Linuron	111	100	P/P	60 - 150
Mandestrobin	119	122	P/P	50 - 150
MCPP	90.3	90.6	P/P	50 - 150
Naproxen	92.7	93.6	P/P	50 - 160
Primidone	92.9	92.5	P/P	60 - 150
Pyraclostrobin	116	116	P/P	60 - 150
Thiamethoxam	112	111	P/P	50 - 150
Tolfenpyrad	102	103	P/P	60 - 150
Triclopyr	95.2	97.1	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A107142

Included Lab Sample IDs: 2267049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	90.8		P	80 - 120
Alpha-BHC	99.3		P	80 - 120
Alpha-Chlordane	98.0		P	80 - 120
Beta-BHC	103		P	80 - 120
Beta-Cyfluthrin	106		P	80 - 120
Bifenthrin	103		P	80 - 120
Chlorothalonil	107		P	80 - 120
Cis-Nonachlor	107		P	80 - 120
Cypermethrin	107		P	80 - 120
Dacthal	94.3		P	80 - 120
DDD-p,p'	99.9		P	80 - 120
DDE-p,p'	94.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A107142
Included Lab Sample IDs: 2267049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDT-p,p'	91.9		P	80 - 120
Delta-BHC	102		P	80 - 120
Deltamethrin	105		P	80 - 120
Dichlobenil	97.9		P	80 - 120
Dicofol	107		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	92.0		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	108		P	80 - 120
Endrin	103		P	80 - 120
Endrin Aldehyde	110		P	80 - 120
Endrin Ketone	106		P	80 - 120
Esfenvalerate	104		P	80 - 120
Ethalfuralin	96.9		P	80 - 120
Fenpropathrin	106		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	93.2		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	94.6		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Kepone	79.0*		F	80 - 120
Lambda-Cyhalothrin	106		P	80 - 120
Methoxychlor	99.6		P	80 - 120
MGK-264	96.9		P	80 - 120
Mirex	94.6		P	80 - 120
Permethrin	107		P	80 - 120
Phenothrin	101		P	80 - 120
Piperonyl Butoxide	85.4		P	80 - 120
Prallethrin	85.8		P	80 - 120
Tau-Fluvalinate	104		P	80 - 120
Tetramethrin	105		P	80 - 120
Trans-Nonachlor	97.2		P	80 - 120
Triclosan Methyl	94.0		P	80 - 120
Trifluralin	96.3		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A107166
Included Lab Sample IDs: 2267043

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	99.1	P/P	90 - 110
Sulfate	98.3	98.7	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A107168
Included Lab Sample IDs: 2267049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.5		P	80 - 120
Toxaphene	104		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107180

Included Lab Sample IDs: 2267044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107212

Included Lab Sample IDs: 2267044

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107219

Included Lab Sample IDs: 2267054

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.0	94.6	P/P	90 - 110
Calcium	104	99.2	P/P	90 - 110
Iron	103	99.3	P/P	90 - 110
Magnesium	103	99.9	P/P	90 - 110
Manganese	104	99.2	P/P	90 - 110
Potassium	99.8	95.5	P/P	90 - 110
Sodium	102	97.2	P/P	90 - 110
Zinc	104	99.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107222

Included Lab Sample IDs: 2267054

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.0	98.0	P/P	90 - 110
Antimony	101	100	P/P	90 - 110
Arsenic	98.2	97.3	P/P	90 - 110
Beryllium	98.9	98.1	P/P	90 - 110
Boron	95.8	97.1	P/P	90 - 110
Cadmium	98.9	98.3	P/P	90 - 110
Chromium	98.9	98.1	P/P	90 - 110
Copper	96.2	94.8	P/P	90 - 110
Lead	97.0	96.3	P/P	90 - 110
Nickel	96.3	95.4	P/P	90 - 110
Selenium	96.4	96.8	P/P	90 - 110
Silver	94.2	93.8	P/P	90 - 110
Thallium	99.4	98.0	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A107256

Included Lab Sample IDs: 2267044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.7	98.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A107260
Included Lab Sample IDs: 2267050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.0		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	99.0		P	80 - 120
Atrazine	98.1		P	80 - 120
Atrazine Desethyl	109		P	80 - 120
Azinphos Methyl	107		P	80 - 120
Azoxystrobin	103		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	103		P	80 - 120
Caffeine	94.9		P	70 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	98.7		P	80 - 120
Chlorpyrifos Ethyl	98.6		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Cyanazine	101		P	80 - 120
Demeton	113		P	80 - 120
Diazinon	100		P	80 - 120
Difenoconazole	82.1		P	80 - 120
Dimethenamid	97.0		P	80 - 120
Disulfoton	105		P	80 - 120
Dithiopyr	99.4		P	80 - 120
EPTC	102		P	80 - 120
Ethoprop	116		P	80 - 120
Fenamiphos	92.2		P	80 - 120
Fenbuconazole	102		P	80 - 120
Fipronil	95.0		P	80 - 120
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	96.5		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	102		P	80 - 120
Flumioxazin	90.3		P	80 - 120
Flutolanil	97.7		P	80 - 120
Fluxapyroxad	99.4		P	80 - 120
Fonofos	108		P	80 - 120
Hexazinone	99.5		P	80 - 120
Imazalil	101		P	80 - 120
Iprodione	104		P	80 - 120
Malathion	92.7		P	80 - 120
Metalaxyl	99.3		P	80 - 120
Metolachlor	97.8		P	80 - 120
Metribuzin	99.4		P	80 - 120
Mevinphos	119		P	80 - 120
Molinate	104		P	80 - 120
Myclobutanil	94.6		P	80 - 120
Oxadiazon	101		P	80 - 120
Oxyfluorfen	90.9		P	80 - 120
Parathion Ethyl	104		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	97.2		P	80 - 120
Phorate	119		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A107260
Included Lab Sample IDs: 2267050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prodiamine	101		P	80 - 120
Prometon	96.0		P	80 - 120
Prometryn	95.1		P	80 - 120
Pronamide	90.7		P	80 - 120
Propiconazole	96.8		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	99.6		P	80 - 120
Sulfentrazone	92.7		P	80 - 120
Tebuconazole	96.6		P	80 - 120
Terbufos	102		P	80 - 120
Terbuthylazine	94.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A107266
Included Lab Sample IDs: 2267050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethion	98.9		P	80 - 120
Naled	104		P	80 - 120
Norflurazon	90.3		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A107374
Included Lab Sample IDs: 2267044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.0	95.5	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							3.31	
EPA 200.7 Rev. 4.4	Barium	90.0		94.4	99.2	100			1.01
	Calcium	95.9		80.1	97.2	103			3.47
	Iron	98.8		103	102	104			1.40
	Magnesium	100		84.8	104	105			0.982
	Manganese	90.8		96.2	99.4	101			1.48
	Potassium	88.8		90.7	98.2	99.0			0.903
	Sodium	95.9		82.8	96.4	101			3.17
	Zinc	88.8		97.4	99.3	101			1.59
EPA 200.8 Rev. 5.4	Aluminum	101		98.6	98.6	99.9			0.0371
	Antimony	103		102	103	106			1.29
	Arsenic	101		98.7	99.3	102			0.615
	Beryllium	101		99.9	100	100			0.335
	Boron	101		97.5	98.0	98.0			0.480
	Cadmium	99.7		98.4	98.2	101			0.208
	Chromium	102		101	103	105			2.09
	Copper	101		101	102	100			0.870
	Lead	101		99.6	101	103			1.23
	Nickel	102		99.6	101	101			1.33
	Selenium	99.8		97.3	98.2	96.9			0.902
	Silver	102		98.6	111	99.5			11.5
	Thallium	103		102	103	106			1.48
EPA 300.0 Rev. 2.1	Chloride	97.7		95.5	97.5			1.19	
	Sulfate	97.0		95.3	97.3			1.63	
EPA 350.1 Rev. 2.0	Ammonia-N	99.6		99.2	100				1.07
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.1		103	98.9				3.18
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5		99.6	99.6				0.0
EPA 365.1 Rev. 2.0	Total-P	106		108	109				0.690
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		97.1	98.1				0.744
EPA 8270E	Acetochlor	103	89.9	81.5	89.1		13.8		8.91
	Alachlor	92.8	80.8	71.7	84.4		13.7		10.2
	Aldrin	50.0	52.5	40.9	36.2		4.91		12.4
	Alpha-BHC	91.6	94.9	91.9	91.1		3.55		0.808
	Alpha-Chlordane	78.9	86.1	77.7	75.8		8.74		2.45
	Ametryn	115	90.8	94.8	113		23.7		17.9
	Atrazine	107	93.2	94.4	95.9		13.4		1.37
	Atrazine Desethyl	69.9	60.3	71.3	57.6		14.9		21.3
	Azinphos Methyl	118	103	102	100		13.8		1.49
	Azoxystrobin	112	88.4	107	87.5		23.4		17.0
	Beta-BHC	106	113	123	124		6.28		0.525
	Beta-Cyfluthrin	109	127	149	149		15.2		0.533
	Bifenthrin	72.0	84.5	85.8	74.7		15.9		13.7
	Bromacil	94.9	82.5	83.9	83.3		14.0		0.715
	Butylate	37.3	34.5	34.6	43.6		7.78		23.2
	Caffeine	109	100	84.2	89.4		8.39		3.98
	Carbophenothion	116	90.9	83.4	87.4		24.1		4.68
	Carfentrazone Ethyl	110	96.1	78.4	87.3		13.2		10.8
	Chlorothalonil	130	141	3.35	3.59		8.73		6.83
	Chlorpyrifos Ethyl	98.6	80.2	74.9	77.4		20.6		3.19
	Chlorpyrifos Methyl	112	87.9	83.7	86.8		24.1		3.63
	Cis-Nonachlor	75.6	84.2	83.0	81.3		10.8		2.10
	Cyanazine	121	102	109	102		17.4		7.38
	Cypermethrin	106	124	145	139		15.6		4.46
	Dacthal	92.6	96.8	90.3	90.3		4.41		0.0657

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	DDD-p,p'	72.5	79.4	74.1	72.7	9.21	1.97
	DDE-p,p'	77.5	79.1	74.1	70.9	2.04	4.41
	DDT-p,p'	87.8	92.1	88.3	86.7	4.74	1.84
	Delta-BHC	117	125	135	144	6.00	6.00
	Deltamethrin	112	131	175	193	15.5	9.45
	Demeton	102	89.7	92.3	99.1	12.8	7.13
	Diazinon	107	90.9	85.1	98.6	16.2	14.7
	Dichlobenil	81.7	79.8	56.7	47.4	2.25	18.0
	Dicofol	101	107	99.0	101	5.75	2.54
	Dieldrin	85.4	90.0	80.2	79.6	5.20	0.776
	Difenoconazole	183	148	123	147	21.0	18.1
	Dimethenamid	80.0	67.1	60.4	70.1	17.6	14.9
	Disulfoton	100	78.7	78.1	81.5	23.8	4.27
	Dithiopyr	96.5	78.8	71.2	81.1	20.2	13.0
	Endosulfan I	76.3	81.8	74.4	74.7	7.05	0.375
	Endosulfan II	84.6	93.3	87.3	88.2	9.77	1.08
	Endosulfan Sulfate	96.5	111	110	114	14.3	3.29
	Endrin	78.0	87.7	79.9	76.7	11.8	4.06
	Endrin Aldehyde	84.1	94.4	67.1	55.4	11.6	19.2
	Endrin Ketone	94.1	106	101	105	11.5	3.85
	EPTC	33.8	28.6	31.4	38.3	16.7	19.9
	Esfenvalerate	99.1	117	149	152	16.3	1.54
	Ethalfuralin	71.2	77.5	73.9	74.0	8.46	0.156
	Ethion	79.4	76.3	82.9	80.4	4.04	3.02
	Ethoprop	96.1	85.1	92.7	99.1	12.1	6.66
	Fenamiphos	106	92.1	84.5	76.7	14.0	9.71
	Fenbuconazole	126	97.1	102	109	25.7	6.51
	Fenpropathrin	87.7	93.3	93.3	86.2	6.16	7.96
	Fipronil	107	90.5	84.5	85.8	17.0	1.53
	Fipronil Desulfinyl	108	92.5	79.6	89.9	15.1	12.1
	Fipronil Sulfide	106	80.6	71.0	73.4	26.8	3.37
	Fipronil Sulfone	83.0	73.5	71.5	69.9	12.1	2.23
	Fluazifop-P-butyl	113	86.3	70.6	90.2	26.6	24.4
	Fludioxonil	102	96.8	81.5	79.2	4.83	2.94
	Flumioxazin	220	153	161	186	35.8	14.2
	Flutolanil	103	91.2	74.9	80.5	12.5	6.01
	Fluxapyroxad	81.5	67.9	49.5	73.2	18.2	38.6
	Fonofos	97.5	78.6	73.8	82.1	21.5	10.7
	Gamma-BHC	98.0	106	111	114	7.48	2.98
	Gamma-Chlordane	73.4	78.1	72.9	69.6	6.18	4.59
	Heptachlor	69.3	73.2	66.7	63.6	5.47	4.75
	Heptachlor Epoxide	79.6	83.8	79.2	79.3	5.13	0.0848
	Hexachlorobenzene	67.5	73.2	61.4	61.5	8.12	0.189
	Hexazinone	99.6	85.7	84.5	89.4	15.0	5.70
	Imazalil	108	83.1	97.1	84.4	25.8	13.9
	Iprodione	104	91.6	82.5	86.3	12.9	4.57
	Kepone	111	157	157	153	34.1	2.84
	Lambda-Cyhalothrin	111	127	172	157	13.6	8.85
	Malathion	112	91.6	94.2	80.6	20.0	15.6
	Metalaxyl	89.3	78.5	70.2	76.0	12.8	7.86
	Methoxychlor	83.4	89.3	83.0	81.2	6.83	2.21
	Metolachlor	94.8	82.8	69.4	76.7	13.5	6.88
	Metribuzin	113	91.1	99.4	92.7	21.4	6.90
	Mevinphos	91.3	80.2	102	111	12.9	9.05

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	MGK-264	84.3	87.4	65.0	77.2	3.57	17.2
	Mirex	56.2	65.8	65.5	59.9	15.8	9.03
	Molinate	52.6	46.9	53.0	59.6	11.6	11.7
	Myclobutanil	96.3	82.6	76.3	83.4	15.3	8.95
	Naled	20.3	19.0	21.3	25.0	6.49	16.0
	Norflurazon	94.5	77.2	74.0	72.1	20.1	1.87
	Oxadiazon	88.7	75.4	69.5	72.2	16.2	3.78
	Oxyfluorfen	99.0	75.8	81.8	97.4	26.5	17.4
	Parathion Ethyl	99.3	83.8	83.5	88.3	17.0	5.62
	Parathion Methyl	125	100	112	115	22.3	2.68
	Pendimethalin	78.0	67.7	70.1	69.2	14.2	1.32
	Permethrin	95.5	108	124	121	11.9	2.25
	Phenothrin	62.1	76.3	68.7	81.0	20.5	16.4
	Phorate	86.7	69.1	74.6	82.9	22.6	10.4
	Piperonyl Butoxide	90.3	106	101	101	16.1	0.0404
	Prallethrin	69.9	70.8	71.8	80.7	1.30	11.6
	Prodiamine	125	85.3	45.4	53.8	37.4	17.0
	Prometon	101	86.0	82.1	66.4	16.3	21.2
	Prometryn	112	98.8	89.1	86.5	12.8	2.96
	Pronamide	106	93.0	89.5	98.6	13.4	9.66
	Propiconazole	88.3	69.5	45.4	58.3	23.8	24.8
	Pyriproxyfen	91.7	79.6	66.9	74.9	14.1	11.3
	Simazine	98.8	83.0	89.3	83.5	17.4	6.79
	Sulfentrazone	82.5	63.5	68.2	70.2	26.0	2.84
	Tau-Fluvalinate	82.9	104	122	136	22.4	10.6
	Tebuconazole	39.7	37.0	24.3	37.8	6.99	43.2
	Terbufos	109	93.0	93.8	99.2	15.9	5.63
	Terbuthylazine	97.0	84.3	84.5	84.4	14.0	0.121
	Tetramethrin	60.0	65.0	73.6	76.4	8.12	3.74
	Trans-Nonachlor	75.4	77.7	75.0	71.2	2.99	5.14
	Triclosan Methyl	86.1	89.3	80.2	77.7	3.71	3.10
	Trifluralin	75.0	77.8	73.8	72.7	3.73	1.54
EPA 8276	Chlordane	69.2	82.4	79.9	83.4	17.4	4.28
	Toxaphene	72.9	71.9	75.2	72.3	1.44	3.89
EPA 8321B	2,4-D	129		112	122		6.04
	2,4,5-T	130		117	122		4.43
	Acesulfame K	113		125	111		12.1
	Acetaminophen	105		132	104		16.3
	Acetamiprid	106		93.8	95.3		1.55
	Afidopyropen	93.0		84.1	78.2		7.21
	AMPA	100		110	116		5.11
	Bentazon	137		89.2	95.3		2.85
	Benzovindiflupyr	115		94.9	95.0		0.146
	Carbamazepine	107		98.2	104		5.31
	Clothianidin	85.5		71.0	88.7		16.2
	Dinotefuran	111		123	121		1.54
	Diuron	106		84.1	86.2		1.68
	Endothall	87.3		92.6	91.0		1.71
	Fenuron	107		82.3	88.7		7.48
	Fluridone	125		103	103		0.141
	Glufosinate	95.9		131	129		1.41
	Glyphosate	102		110	109		0.594
	Hydrocodone	105		94.7	102		7.01
	Ibuprofen	92.0		78.7	78.5		0.212

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Imazapyr	130	124	99.2			9.78
	Imidacloprid	108	110	106			1.66
	Linuron	95.9	78.9	81.3			3.02
	Mandestrobin	125	102	105			2.01
	MCCP	131	126	131			3.27
	Naproxen	103	94.4	93.2			1.24
	Primidone	97.1	89.7	88.9			0.895
	Pyraclostrobin	107	90.1	95.4			5.69
	Sucralose	95.0	95.7	95.6			0.170
	Thiamethoxam	108	111	126			8.84
	Tolfenpyrad	57.2	51.1	56.4			9.89
	Triclopyr	124	113	121			6.61
SM 2120 B-2011	Color (true)	98.3				3.13	
SM 2320 B-2011	Total Alkalinity	100				0.584	
SM 2540 C-2011	TDS					4.36	
SM 4500 F-C-2011	Fluoride	99.5	99.6	99.6			0.0
SM 5310 B-2011	Organic Carbon	98.3	97.0	96.7			0.212

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2267043
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2267054
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2267054
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2267043
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2267043
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2267044
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2267044
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2267044
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2267044
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2267045
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2267049
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2267050
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2267049
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2267053
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2267043
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2267043
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2267054
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2267043
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2267043
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2267043
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2267044

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	08/04/2021			08/04/2021 15:23	Sarah A Nixon	2267043
EPA 200.7 Rev. 4.4	08/04/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 13:45	Betina Topolski	2267054
EPA 200.8 Rev. 5.4	08/04/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 18:11	Alexander Thompson	2267054
EPA 300.0 Rev. 2.1	08/04/2021			08/11/2021 16:26	Lipi Saha	2267043
EPA 350.1 Rev. 2.0	08/04/2021			08/12/2021 11:54	Ping Hua	2267044
EPA 351.2 Rev. 2.0	08/04/2021	08/19/2021 13:47	Benjamin T. Nordmann	08/20/2021 15:27	Virginia P. Brown	2267044
EPA 353.2 Rev. 2.0	08/04/2021			08/06/2021 11:14	Beverly Y. Sanders	2267044
EPA 365.1 Rev. 2.0	08/04/2021	08/10/2021 13:06	Simonne.V. Calhoun	08/11/2021 11:37	Shengyu Ding	2267044
EPA 365.1 Rev. 2.0 dissolved	08/04/2021			08/04/2021 15:06	Patrick M. Roche	2267045
EPA 8270E	08/04/2021	08/06/2021 08:00	Fe-Val Siddell	08/10/2021 01:05	Arthur Maknenko	2267049
	08/04/2021	08/09/2021 08:00	Fe-Val Siddell	08/10/2021 21:11	Michael Poppell	2267050
	08/04/2021	08/09/2021 08:00	Fe-Val Siddell	08/11/2021 16:58	Michael Poppell	2267050
EPA 8276	08/04/2021	08/06/2021 08:00	Fe-Val Siddell	08/10/2021 01:44	Michael Poppell	2267049
EPA 8321B	08/04/2021	08/04/2021 13:15	Juyoung Kim	08/04/2021 19:12	Juyoung Kim	2267053
	08/04/2021	08/04/2021 13:15	Juyoung Kim	08/05/2021 16:04	Juyoung Kim	2267053
	08/04/2021	08/06/2021 09:00	Hoor Shaik	08/07/2021 20:17	Juyoung Kim	2267053
SM 2120 B-2011	08/04/2021			08/04/2021 15:51	Sarah A Nixon	2267043
SM 2320 B-2011	08/04/2021			08/05/2021 15:51	Dale L. Simmons	2267043
SM 2340B	08/04/2021			08/12/2021 13:45	Betina Topolski	2267054
SM 2540 C-2011	08/04/2021			08/06/2021 15:32	Yijie Li	2267043
SM 2540 D-2011	08/04/2021			08/06/2021 15:32	Yijie Li	2267043
SM 4500 F-C-2011	08/04/2021			08/05/2021 15:51	Dale L. Simmons	2267043
SM 5310 B-2011	08/04/2021			08/14/2021 02:18	Touraj Touran	2267044