

Chemical Analysis Report

NW-DIST-2021-09-30-01

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

Event Description: **Santa Rosa Run**
Request ID: **RQ-2021-09-20-20**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda K Butler

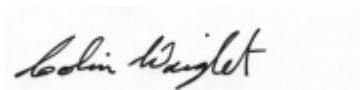
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This Report replaces the previous Report Serial Number: 0133509

Report Comment: The Practical Quantitation Limit associated with the analyte pendimethalin was corrected in the LIMS database. There are no changes from the previous report.

Revision certified by: Colin Wright, Program Administrator

Date Certified: 08-NOV-2021 08:42



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: Discharge from Tiger Point Golf Course at
Maplewood Drive**

Collection Date/Time: 09/29/2021 10:30

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2279577	EPA 180.1 Rev. 2.0	Turbidity	1.5	A	NTU	P404423	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P404663	
		Sulfate	7.6		mg SO4/L	P404666	
	SM 2120 B-2011	Color (true)	100		PCU	P404414	
	SM 2320 B-2011	Total Alkalinity	33		mg CaCO3/L	P404824	
	SM 2540 C-2011	TDS	111		mg/L	P404939	
	SM 2540 D-2011	TSS	2	I	mg/L	P404897	
	SM 4500 F-C-2011	Fluoride	0.048	I	mg F/L	P404695	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.23		mg N/L	P404888	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P404515	MS
2279578	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P404574	
	EPA 365.1 Rev. 2.0	Total-P	0.24		mg P/L	P404621	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P404603	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.20		mg P/L	P404409	
	EPA 8321B	Aldicarb	0.020	U	ug/L	P404483	
2279588		Aldicarb Sulfone	0.0020	U	ug/L	P404483	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P404483	
		Carbaryl	0.0020	U	ug/L	P404483	
		Carbofuran	0.0020	U	ug/L	P404483	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P404483	
		Methiocarb	0.0020	U	ug/L	P404483	
		Methomyl	0.0020	U	ug/L	P404483	
		Oxamyl	0.0020	U	ug/L	P404483	
		Propoxur	0.0020	U	ug/L	P404483	
		2,4-D	0.0031	I	ug/L	P404499	
2279589		Acesulfame K	0.10	U	ug/L	P404276	
		2,4,5-T	0.0040	U	ug/L	P404499	
		AMPA	0.32	I	ug/L	P404276	
		Acetaminophen	0.032		ug/L	P404499	RPD
		Acetamiprid	0.0021	I	ug/L	P404499	
		Endothall	0.25	U	ug/L	P404276	
		Glufosinate	0.10	U	ug/L	P404276	
		Glyphosate	0.30	I	ug/L	P404276	
		Afidopyropen	0.0020	U	ug/L	P404499	
		Bentazon	0.0078		ug/L	P404499	
		Sucralose	11		ug/L	P404276	
		Benzovindiflupyr	0.0020	U	ug/L	P404499	
		Carbamazepine	0.010		ug/L	P404499	
		Clothianidin	0.0020	U	ug/L	P404499	
		Dinotefuran	0.0074	I	ug/L	P404499	
		Diuron	0.0020	U	ug/L	P404499	
		Fenuron	0.016	U	ug/L	P404499	

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2279589	EPA 8321B	Fluridone	8.0E-04	U	ug/L	P404499	
		Imazapyr	0.024		ug/L	P404499	
		Hydrocodone	0.0020	U	ug/L	P404499	
		Ibuprofen	0.020	U	ug/L	P404499	
		Imidacloprid	0.014		ug/L	P404499	
		Linuron	0.0040	U	ug/L	P404499	
		Mandestrobin	0.0020	U	ug/L	P404499	
		MCPP	0.010		ug/L	P404499	
		Naproxen	0.0080	U	ug/L	P404499	
		Primidone	0.037		ug/L	P404499	
		Pyraclostrobin	0.0020	U	ug/L	P404499	
		Thiamethoxam	0.0020	U	ug/L	P404499	
		Tolfenpyrad	0.0020	U	ug/L	P404499	
		Triclopyr	0.0040	U	ug/L	P404499	
2279590	EPA 8270E	Aldrin	0.74	U	ng/L	P404453	
		Alpha-BHC	0.11	U	ng/L	P404453	
		Alpha-Chlordane	0.23	U	ng/L	P404453	
		Beta-BHC	0.11	U	ng/L	P404453	
		Beta-Cyfluthrin**	1.4	U	ng/L	P404453	
		Bifenthrin**	0.57	U	ng/L	P404453	
		Chlorothalonil	0.57	U	ng/L	P404453	RPD
		Cis-Nonachlor**	0.23	U	ng/L	P404453	
		Cypermethrin	1.7	U	ng/L	P404453	
		Dacthal**	0.17	U	ng/L	P404453	
		DDD-p,p'	0.28	U	ng/L	P404453	
		DDE-p,p'	0.23	U	ng/L	P404453	
		DDT-p,p'	0.28	U	ng/L	P404453	
		Delta-BHC	0.45	U	ng/L	P404453	
		Deltamethrin**	1.4	U	ng/L	P404453	
		Dichlobenil**	0.33	I	ng/L	P404453	
		Dicofol	1.4	U	ng/L	P404453	
		Diieldrin	0.40	UQ	ng/L	P405049	
		Endosulfan I	0.45	U	ng/L	P404453	
		Endosulfan II	0.45	U	ng/L	P404453	
		Endosulfan Sulfate	0.34	U	ng/L	P404453	
		Endrin	0.45	U	ng/L	P404453	
		Endrin Aldehyde	0.85	U	ng/L	P404453	
		Endrin Ketone	0.45	U	ng/L	P404453	
		Esfenvalerate**	0.85	U	ng/L	P404453	
		Ethalfuralin**	0.17	U	ng/L	P404453	
		Fenpropathrin**	0.28	U	ng/L	P404453	
		Gamma-BHC	0.14	U	ng/L	P404453	
		Gamma-Chlordane	0.31	I	ng/L	P404453	
		Heptachlor	0.23	U	ng/L	P404453	
		Heptachlor Epoxide	0.28	U	ng/L	P404453	

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes	
2279590	EPA 8270E	Hexachlorobenzene	1.1	U	ng/L	P404453		
		Kepone**	5.7	UJ	ng/L	P404453	CCV	
		Lambda-Cyhalothrin**	0.85	U	ng/L	P404453		
		Methoprene**	0.85	UJ	ng/L	P404453	LCS	
		Methoxychlor	0.34	U	ng/L	P404453		
		MGK-264**	0.23	U	ng/L	P404453		
		Mirex	0.80	U	ng/L	P404453		
		Oxychlordane**	0.34	U	ng/L	P404453		
		Permethrin	1.8	U	ng/L	P404453		
		Phenothrin**	1.0	U	ng/L	P404453		
		Piperonyl Butoxide**	0.17	UJ	ng/L	P404453	RPD	
		Prallethrin**	2.3	U	ng/L	P404453		
		Tau-Fluvalinate**	0.28	U	ng/L	P404453		
		Tetramethrin**	0.85	U	ng/L	P404453		
		Trans-Nonachlor**	0.23	U	ng/L	P404453		
		Triclosan Methyl**	0.17	U	ng/L	P404453		
		Trifluralin	0.23	U	ng/L	P404453		
		EPA 8276	Chlordane	3.3	I	ng/L	P404453	
			Toxaphene	17	U	ng/L	P404453	
		2279591	EPA 8270E	Acetochlor	0.26	U	ng/L	P404389
Alachlor	0.26			U	ng/L	P404389		
Ametryn	0.62			U	ng/L	P404389		
Atrazine	1.7				ng/L	P404389		
Atrazine Desethyl	1.6			U	ng/L	P404389		
Azinphos Methyl	2.1			U	ng/L	P404389		
Azoxystrobin**	0.52			U	ng/L	P404389		
Bromacil	0.52			U	ng/L	P404389		
Butylate	0.42			U	ng/L	P404389		
Caffeine**	7.8			U	ng/L	P404389		
Carbophenothion	0.52			U	ng/L	P404389		
Carfentrazone Ethyl**	0.10			U	ng/L	P404389		
Chlorpyrifos Ethyl	0.26			U	ng/L	P404389		
Chlorpyrifos Methyl	0.052			U	ng/L	P404389		
Cyanazine	3.4			U	ng/L	P404389		
Demeton	1.6			U	ng/L	P404389		
Diazinon	0.13			U	ng/L	P404389		
Difenoconazole**	0.62			U	ng/L	P404389		
Dimethenamid**	0.10			U	ng/L	P404389		
Disulfoton	0.52			U	ng/L	P404389		
Dithiopyr**	0.18			U	ng/L	P404389		
EPTC	1.3			U	ng/L	P404389		
Ethion	0.16			U	ng/L	P404389		
Ethoprop	0.10			U	ng/L	P404389		
Fenamiphos	0.52			U	ng/L	P404389		

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2279591	EPA 8270E	Fenbuconazole**	0.13	UJ	ng/L	P404389	LCS, MS, RPD
		Fipronil	7.7		ng/L	P404389	
		Fipronil Desulfinyl**	2.2		ng/L	P404389	
		Fipronil Sulfide	32		ng/L	P404389	
		Fipronil Sulfone	31		ng/L	P404389	
		Fluazifop-P-butyl**	0.10	U	ng/L	P404389	
		Fludioxonil**	0.13	U	ng/L	P404389	
		Flumioxazin**	1.8	U	ng/L	P404389	
		Flutolanil**	0.10	U	ng/L	P404389	
		Fluxapyroxad**	0.17	I	ng/L	P404389	
		Fonofos	0.21	U	ng/L	P404389	
		Hexazinone	0.87	I	ng/L	P404389	
		Imazalil**	0.78	U	ng/L	P404389	
		Iprodione**	0.62	U	ng/L	P404389	
		Malathion	0.36	UJ	ng/L	P404389	RPD
		Metaxyl	0.78	U	ng/L	P404389	
		Metolachlor	0.36	U	ng/L	P404389	
		Metribuzin	3.4	U	ng/L	P404389	
		Mevinphos	1.1	U	ng/L	P404389	
		Molinate	0.31	U	ng/L	P404389	
		Myclobutanil**	0.26	U	ng/L	P404389	
		Naled**	1.6	UJ	ng/L	P404389	LCS
		Norflurazon	0.52	U	ng/L	P404389	
		Oxadiazon	3.7	J	ng/L	P404389	MS
		Oxyfluorfen**	0.16	U	ng/L	P404389	
		Parathion Ethyl	0.26	U	ng/L	P404389	
		Parathion Methyl	0.57	U	ng/L	P404389	
		Pendimethalin	1.0	U	ng/L	P404389	
		Phorate	0.55	U	ng/L	P404389	
		Prodiamine**	0.18	U	ng/L	P404389	
		Prometon	0.94	U	ng/L	P404389	
		Prometryn	0.21	U	ng/L	P404389	
		Pronamide**	0.16	U	ng/L	P404389	
		Propiconazole**	0.52	U	ng/L	P404389	
		Pyriproxyfen**	0.13	U	ng/L	P404389	
		Simazine	0.55	I	ng/L	P404389	
		Sulfentrazone**	28		ng/L	P404389	
		Tebuconazole**	2.3		ng/L	P404389	
		Terbufos	0.10	U	ng/L	P404389	
		Terbutylazine	0.44	U	ng/L	P404389	
2279592	EPA 200.7 Rev. 4.4	Barium	6.1		ug/L	P404485	
		Calcium	9.39		mg/L	P404485	
		Iron	290		ug/L	P404485	
		Magnesium	3.95		mg/L	P404485	

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2279592	EPA 200.7 Rev. 4.4	Manganese	9.9		ug/L	P404485	
		Potassium	3.6		mg/L	P404485	
		Sodium	16.2		mg/L	P404485	
		Zinc	5.0	U	ug/L	P404485	
	EPA 200.8 Rev. 5.4	Aluminum	183		ug/L	P404485	
		Antimony	0.079	I	ug/L	P404485	
		Arsenic	5.83		ug/L	P404485	
		Beryllium	0.010	U	ug/L	P404485	
		Boron**	75.5		ug/L	P404485	
		Cadmium	0.020	U	ug/L	P404485	
		Chromium	0.89	I	ug/L	P404485	
		Copper	1.84		ug/L	P404485	
		Lead	0.20	U	ug/L	P404485	
		Nickel	0.58	I	ug/L	P404485	
		Selenium	0.20	U	ug/L	P404485	
		Silver	0.010	U	ug/L	P404485	
		Thallium	0.10	U	ug/L	P404485	
	SM 2340B	Hardness	39.7		mg/L	P404485	

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: Preparation expired for dieltrin due to need for re-extraction. Insufficient sample available to perform duplicate matrix spikes for re-extraction. 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: Williams Creek Upstream of Hwy 98

Collection Date/Time: 09/29/2021 11:30

Field ID: G4NW0531

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2279580	EPA 180.1 Rev. 2.0	Turbidity	22		NTU	P404423	
	EPA 300.0 Rev. 2.1	Chloride	17	A	mg Cl/L	P404662	
		Sulfate	4.2	A	mg SO4/L	P404665	
		Color (true)	110	J	PCU	P404414	
	SM 2320 B-2011	Total Alkalinity	5.1		mg CaCO3/L	P404824	
	SM 2540 C-2011	TDS	62		mg/L	P404939	
	SM 2540 D-2011	TSS	30		mg/L	P404897	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P404695	
2279581	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P404888	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P404516	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P404574	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P404621	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P404603	
2279582	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P404410	

Ref. Method and Comment:

SM 2120 B-2011: The result may be biased high because of matrix interference.

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P404423

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P404485

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: P404485

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: P404662

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404663

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404665

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404666

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P404888

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P404515

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P404516

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P404574

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P404621

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P404409

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P404410

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

Reference Method: EPA 8270E
Batch ID: P404389

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: P404389

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 Desulfanyl	0.12	U	ng/L
Fipronil Desulfanyl	0.12	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P404389

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

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P404389

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
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E

Batch ID: P404453

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

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P404453

Component	Result	Code	Units
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
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
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
Methoprene	0.75	U	ng/L
Methoprene	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
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
Permethrin	1.6	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P404453

Component	Result	Code	Units
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
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: P405049

Component	Result	Code	Units
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L

Reference Method: EPA 8276

Batch ID: P404453

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P404276

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: P404483

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L

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Method Blank Results

Reference Method: EPA 8321B

Batch ID: P404483

Component	Result	Code	Units
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B

Batch ID: P404499

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: P404414

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P404824

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: P404939

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P404897

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P404695

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P404603

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: P404485

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	100		P	85 - 115
Iron	106		P	85 - 115
Magnesium	105		P	85 - 115
Manganese	100		P	85 - 115
Potassium	100		P	85 - 115
Sodium	95.5		P	85 - 115
Zinc	96.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P404485

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	105		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	105		P	85 - 115
Boron	106		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	96.2		P	85 - 115
Copper	99.8		P	85 - 115
Lead	98.6		P	85 - 115
Nickel	103		P	85 - 115
Selenium	98.5		P	85 - 115
Silver	103		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404663

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404665

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404666

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P404888

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P404515

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P404516

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P404574

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P404621

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P404409

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P404410

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.4		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P404389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	105	98.2	P/P	70 - 121
Alachlor	93.1	90.0	P/P	70 - 119
Ametryn	99.2	102	P/P	61 - 135
Atrazine	97.0	92.3	P/P	76 - 123
Atrazine Desethyl	67.4	69.3	P/P	35 - 140
Azinphos Methyl	132	129	P/P	57 - 163
Azoxystrobin	93.5	97.7	P/P	43 - 231
Bromacil	74.4	78.3	P/P	42 - 123
Butylate	47.6	37.8	P/P	34 - 92.0
Caffeine	96.9	110	P/P	70 - 130

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P404389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbophenothion	93.0	101	P/P	61 - 121
Carfentrazone Ethyl	107	104	P/P	62 - 139
Chlorpyrifos Ethyl	78.0	87.1	P/P	67 - 121
Chlorpyrifos Methyl	83.8	89.6	P/P	67 - 120
Cyanazine	114	106	P/P	20 - 226
Demeton	78.8	76.8	P/P	35 - 125
Diazinon	101	94.7	P/P	70 - 122
Difenoconazole	130	128	P/P	56 - 186
Dimethenamid	85.1	77.6	P/P	67 - 119
Disulfoton	72.1	82.3	P/P	47 - 120
Dithiopyr	83.0	90.0	P/P	67 - 118
EPTC	49.3	48.3	P/P	33 - 90.0
Ethion	81.0	76.4	P/P	40 - 133
Ethoprop	86.9	83.7	P/P	61 - 121
Fenamiphos	81.9	98.1	P/P	31 - 139
Fenbuconazole	63.9	63.2	F/F	66 - 141
Fipronil	103	102	P/P	62 - 129
Fipronil Desulfinyl	108	105	P/P	59 - 126
Fipronil Sulfide	70.9	85.6	P/P	63 - 117
Fipronil Sulfone	75.4	93.4	P/P	57 - 117
Fluazifop-P-butyl	107	101	P/P	63 - 124
Fludioxonil	97.2	93.2	P/P	63 - 123
Flumioxazin	87.5	92.9	P/P	34 - 245
Flutolanil	80.9	89.1	P/P	56 - 131
Fluxapyroxad	97.8	93.0	P/P	57 - 117
Fonofos	79.5	82.0	P/P	61 - 116
Hexazinone	81.3	84.1	P/P	55 - 138
Imazalil	126	120	P/P	33 - 143
Iprodione	98.7	96.8	P/P	59 - 118
Malathion	88.5	102	P/P	62 - 138
Metalaxyl	96.9	94.7	P/P	24 - 147
Metolachlor	95.9	94.6	P/P	68 - 118
Metribuzin	101	103	P/P	20 - 239
Mevinphos	75.8	78.4	P/P	46 - 124
Molinate	67.4	66.6	P/P	46 - 100
Myclobutanil	95.4	94.5	P/P	32 - 149
Naled	30.8	31.9	F/F	32 - 95.0
Norflurazon	80.3	91.4	P/P	57 - 127
Oxadiazon	81.0	82.9	P/P	63 - 118
Oxyfluorfen	104	94.9	P/P	69 - 137
Parathion Ethyl	84.1	84.7	P/P	70 - 113
Parathion Methyl	98.5	92.3	P/P	71 - 130
Pendimethalin	73.3	70.8	P/P	55 - 118
Phorate	73.8	75.3	P/P	46 - 125
Prodiamine	42.3	38.7	P/P	20 - 141
Prometon	86.3	83.3	P/P	54 - 122
Prometryn	83.3	90.5	P/P	66 - 124
Pronamide	102	97.2	P/P	79 - 122
Propiconazole	76.1	86.7	P/P	61 - 126
Pyriproxyfen	89.0	82.6	P/P	52 - 131
Simazine	87.0	94.0	P/P	75 - 128
Sulfentrazone	101	94.2	P/P	20 - 132

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P404389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Tebuconazole	67.7	64.8	P/P	20 - 116
Terbufos	95.6	98.8	P/P	61 - 117
Terbutylazine	103	98.7	P/P	74 - 116

Reference Method: EPA 8270E
Batch ID: P404453

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	35.0	33.5	P/P	20 - 83.0
Alpha-BHC	86.4	86.3	P/P	74 - 108
Alpha-Chlordane	64.3	67.1	P/P	53 - 109
Beta-BHC	98.4	103	P/P	64 - 139
Beta-Cyfluthrin	60.5	66.5	P/P	27 - 171
Bifenthrin	38.3	39.2	P/P	20 - 124
Chlorothalonil	77.2	96.0	P/P	20 - 182
Cis-Nonachlor	58.1	61.0	P/P	46 - 110
Cypermethrin	60.6	62.2	P/P	35 - 160
Dacthal	80.3	84.6	P/P	70 - 115
DDD-p,p'	65.3	65.6	P/P	51 - 108
DDE-p,p'	62.6	62.6	P/P	51 - 104
DDT-p,p'	61.2	63.8	P/P	52 - 107
Delta-BHC	101	106	P/P	73 - 146
Deltamethrin	84.1	87.8	P/P	20 - 190
Dichlobenil	86.6	85.6	P/P	30 - 100
Dicofol	65.2	70.0	P/P	52 - 110
Endosulfan I	63.9	70.2	P/P	61 - 106
Endosulfan II	67.9	73.0	P/P	57 - 122
Endosulfan Sulfate	82.4	82.4	P/P	58 - 122
Endrin	60.0	67.5	P/P	34 - 125
Endrin Aldehyde	62.2	71.7	P/P	40 - 120
Endrin Ketone	89.4	86.3	P/P	51 - 138
Esfenvalerate	56.3	57.8	P/P	20 - 193
Ethalfuralin	62.3	64.4	P/P	51 - 99.0
Fenpropathrin	51.3	57.7	P/P	40 - 116
Gamma-BHC	83.0	85.9	P/P	74 - 116
Gamma-Chlordane	59.1	59.6	P/P	49 - 105
Heptachlor	57.1	54.3	P/P	45 - 98.0
Heptachlor Epoxide	66.6	66.7	P/P	61 - 106
Hexachlorobenzene	67.1	65.2	P/P	41 - 96.0
Kepone	102	101	P/P	27 - 179
Lambda-Cyhalothrin	43.0	45.5	P/P	20 - 199
Methoprene	39.0	44.3	F/F	50 - 150
Methoxychlor	71.2	72.4	P/P	61 - 111
MGK-264	63.3	68.4	P/P	20 - 124
Mirex	38.9	36.2	P/P	20 - 199
Oxychlordane	63.3	67.1	P/P	50 - 150
Permethrin	43.5	49.2	P/P	31 - 155
Phenothrin	33.9	30.0	P/P	20 - 100
Piperonyl Butoxide	72.8	104	P/P	20 - 144
Prallethrin	56.3	56.6	P/P	20 - 103
Tau-Fluvalinate	49.7	51.3	P/P	24 - 133
Tetramethrin	60.9	62.9	P/P	20 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P404453

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Trans-Nonachlor	58.7	58.8	P/P	49 - 105
Triclosan Methyl	71.6	73.8	P/P	60 - 111
Trifluralin	62.2	62.4	P/P	53 - 97.0

Reference Method: EPA 8270E
Batch ID: P405049

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dieldrin	81.8	83.6	P/P	57 - 111

Reference Method: EPA 8276
Batch ID: P404453

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	82.7	82.6	P/P	56 - 117
Toxaphene	70.9	78.6	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P404276

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	79.8		P	40 - 150
AMPA	92.7		P	40 - 160
Endothall	69.3		P	40 - 150
Glufosinate	97.9		P	40 - 160
Glyphosate	88.3		P	40 - 160
Sucralose	66.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P404483

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	101		P	40 - 150
Aldicarb	50.9		P	30 - 150
Aldicarb Sulfone	103		P	40 - 150
Aldicarb Sulfoxide	120		P	40 - 150
Carbaryl	97.3		P	40 - 150
Carbofuran	101		P	40 - 150
Methiocarb	77.7		P	40 - 150
Methomyl	103		P	40 - 150
Oxamyl	102		P	40 - 150
Propoxur	99.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P404499

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	79.5		P	40 - 150
2,4,5-T	75.3		P	40 - 150
Acetaminophen	83.4		P	30 - 150
Acetamiprid	77.5		P	40 - 150
Afidopyropen	68.7		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P404499

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bentazon	103		P	30 - 150
Benzovindiflupyr	69.2		P	40 - 150
Carbamazepine	85.9		P	40 - 150
Clothianidin	86.5		P	40 - 150
Dinotefuran	88.8		P	40 - 150
Diuron	95.8		P	40 - 150
Fenuron	86.4		P	40 - 150
Fluridone	77.0		P	40 - 150
Hydrocodone	92.7		P	40 - 150
Ibuprofen	70.3		P	40 - 150
Imazapyr	78.3		P	40 - 150
Imidacloprid	85.3		P	40 - 150
Linuron	79.7		P	40 - 150
Mandestrobin	74.0		P	40 - 150
MCPP	79.4		P	40 - 150
Naproxen	83.1		P	40 - 150
Primidone	72.6		P	40 - 150
Pyraclostrobin	62.7		P	40 - 150
Thiamethoxam	87.3		P	40 - 150
Tolfenpyrad	40.6		P	30 - 150
Triclopyr	81.8		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P404414

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.3		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P404824

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P404695

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P404603

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P404485

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279381	Barium	102	103	P/P	80 - 120
2279381	Calcium	96.8		P	80 - 120
2279381	Iron	105	107	P/P	80 - 120
2279381	Magnesium	103	105	P/P	80 - 120
2279381	Manganese	99.8	99.8	P/P	80 - 120
2279381	Potassium	101	103	P/P	80 - 120
2279381	Sodium	105	104	P/P	80 - 120
2279381	Zinc	96.5	95.8	P/P	80 - 120
2279759	Barium	104		P	80 - 120
2279759	Calcium	99.2		P	80 - 120
2279759	Iron	108		P	80 - 120
2279759	Magnesium	107		P	80 - 120
2279759	Manganese	101		P	80 - 120
2279759	Potassium	103		P	80 - 120
2279759	Sodium	103		P	80 - 120
2279759	Zinc	99.0		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P404485

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279381	Aluminum	100	97.5	P/P	80 - 120
2279381	Antimony	112	112	P/P	80 - 120
2279381	Arsenic	99.8	96.7	P/P	80 - 120
2279381	Beryllium	99.5	93.1	P/P	80 - 120
2279381	Boron	106	102	P/P	80 - 120
2279381	Cadmium	107	103	P/P	80 - 120
2279381	Chromium	103	99.2	P/P	80 - 120
2279381	Copper	93.3	90.6	P/P	80 - 120
2279381	Lead	98.6	96.6	P/P	80 - 120
2279381	Nickel	96.8	93.5	P/P	80 - 120
2279381	Selenium	98.4	95.6	P/P	80 - 120
2279381	Silver	103	99.3	P/P	80 - 120
2279381	Thallium	106	103	P/P	80 - 120
2279759	Aluminum	102		P	80 - 120
2279759	Antimony	110		P	80 - 120
2279759	Arsenic	99.8		P	80 - 120
2279759	Beryllium	102		P	80 - 120
2279759	Boron	108		P	80 - 120
2279759	Cadmium	102		P	80 - 120
2279759	Chromium	96.5		P	80 - 120
2279759	Copper	97.5		P	80 - 120
2279759	Lead	99.1		P	80 - 120
2279759	Nickel	99.7		P	80 - 120
2279759	Selenium	96.6		P	80 - 120
2279759	Silver	101		P	80 - 120
2279759	Thallium	107		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P404662

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: P404662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279580	Chloride	99.0		P	90 - 110
2279748	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404663

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279363	Chloride	101		P	90 - 110
2279431	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404665

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279580	Sulfate	100		P	90 - 110
2279748	Sulfate	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404666

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279363	Sulfate	103		P	90 - 110
2279431	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P404888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279544	Ammonia-N	98.4	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P404515

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279549	Kjeldahl Nitrogen	89.1	91.6	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P404516

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279644	Kjeldahl Nitrogen	99.2	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P404574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279544	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P404621

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P404621

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279544	Total-P	107	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P404409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279446	O-Phosphate-P	96.0	95.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P404410

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279617	O-Phosphate-P	97.5	96.1	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P404389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279591	Acetochlor	78.2	92.6	P/P	66 - 122
2279591	Alachlor	74.4	78.5	P/P	65 - 122
2279591	Ametryn	91.2	93.7	P/P	45 - 173
2279591	Atrazine	73.0	82.8	P/P	70 - 134
2279591	Atrazine Desethyl	54.6	64.7	P/P	25 - 150
2279591	Azinphos Methyl	165	133	P/P	44 - 174
2279591	Azoxystrobin	90.6	95.9	P/P	10 - 268
2279591	Bromacil	70.8	80.3	P/P	31 - 145
2279591	Butylate	50.2	47.7	P/P	15 - 97.0
2279591	Caffeine	113	108	P/P	70 - 130
2279591	Carbophenothion	90.1	85.2	P/P	42 - 129
2279591	Carfentrazone Ethyl	82.2	88.9	P/P	62 - 145
2279591	Chlorpyrifos Ethyl	111	108	P/P	60 - 124
2279591	Chlorpyrifos Methyl	101	101	P/P	66 - 119
2279591	Cyanazine	81.4	97.1	P/P	17 - 225
2279591	Demeton	121	118	P/P	36 - 142
2279591	Diazinon	82.8	97.8	P/P	70 - 128
2279591	Difenoconazole	62.8	67.3	P/P	33 - 222
2279591	Dimethenamid	67.6	77.7	P/P	54 - 125
2279591	Disulfoton	89.3	79.1	P/P	49 - 133
2279591	Dithiopyr	76.8	89.9	P/P	55 - 123
2279591	EPTC	42.7	43.9	P/P	19 - 91.0
2279591	Ethion	101	98.3	P/P	13 - 143
2279591	Ethoprop	92.7	94.1	P/P	49 - 144
2279591	Fenamiphos	99.9	96.3	P/P	32 - 136
2279591	Fenbuconazole	147	60.4	P/F	73 - 148
2279591	Fipronil Desulfinyl	69.3	84.2	P/P	49 - 127
2279591	Fluazifop-P-butyl	70.9	82.1	P/P	67 - 129
2279591	Fludioxonil	70.1	89.6	P/P	61 - 126
2279591	Flumioxazin	232	254	P/P	38 - 279
2279591	Flutolanil	57.1	69.8	P/P	55 - 136
2279591	Fluxapyroxad	87.4	90.9	P/P	33 - 140
2279591	Fonofos	84.7	89.2	P/P	58 - 125
2279591	Hexazinone	96.6	97.7	P/P	57 - 148

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P404389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279591	Imazalil	67.6	84.7	P/P	10 - 221
2279591	Iprodione	96.7	96.6	P/P	32 - 140
2279591	Malathion	122	88.3	P/P	52 - 138
2279591	Metalaxyl	65.7	77.8	P/P	46 - 134
2279591	Metolachlor	76.4	92.2	P/P	58 - 122
2279591	Metribuzin	95.9	101	P/P	16 - 272
2279591	Mevinphos	108	107	P/P	45 - 140
2279591	Molinate	67.4	69.6	P/P	41 - 103
2279591	Myclobutanil	78.2	90.8	P/P	60 - 134
2279591	Naled	35.1	35.1	P/P	20 - 113
2279591	Norflurazon	67.4	75.1	P/P	51 - 123
2279591	Oxadiazon	36.0	50.9	F/P	44 - 125
2279591	Oxyfluorfen	81.7	94.6	P/P	66 - 176
2279591	Parathion Ethyl	87.2	94.3	P/P	57 - 132
2279591	Parathion Methyl	102	103	P/P	59 - 156
2279591	Pendimethalin	82.3	85.5	P/P	59 - 129
2279591	Phorate	103	115	P/P	47 - 136
2279591	Prodiamine	88.6	108	P/P	10 - 159
2279591	Prometon	79.1	92.2	P/P	59 - 127
2279591	Prometryn	70.1	77.5	P/P	59 - 129
2279591	Pronamide	75.3	84.8	P/P	65 - 145
2279591	Propiconazole	86.8	100	P/P	28 - 165
2279591	Pyriproxyfen	38.1	41.7	P/P	21 - 180
2279591	Simazine	67.8	74.3	P/P	63 - 147
2279591	Tebuconazole	93.2	112	P/P	10 - 117
2279591	Terbufos	117	118	P/P	61 - 131
2279591	Terbutylazine	75.6	83.9	P/P	62 - 126

Reference Method: EPA 8270E
Batch ID: P404453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279306	Aldrin	43.9	45.4	P/P	10 - 94.0
2279306	Alpha-BHC	91.3	85.7	P/P	71 - 108
2279306	Alpha-Chlordane	70.5	68.3	P/P	42 - 115
2279306	Beta-BHC	103	98.8	P/P	56 - 161
2279306	Beta-Cyfluthrin	101	114	P/P	46 - 190
2279306	Bifenthrin	49.8	51.1	P/P	19 - 126
2279306	Chlorothalonil	27.5	55.3	P/P	10 - 262
2279306	Cis-Nonachlor	66.8	63.7	P/P	44 - 112
2279306	Cypermethrin	86.6	96.7	P/P	40 - 178
2279306	Dacthal	83.3	83.3	P/P	60 - 119
2279306	DDD-p,p'	71.6	69.7	P/P	40 - 114
2279306	DDE-p,p'	63.5	65.6	P/P	22 - 125
2279306	DDT-p,p'	65.9	68.1	P/P	39 - 110
2279306	Delta-BHC	112	115	P/P	64 - 174
2279306	Deltamethrin	143	157	P/P	10 - 227
2279306	Dichlobenil	53.8	45.8	P/P	20 - 99.0
2279306	Dicofol	74.6	71.6	P/P	43 - 115
2279306	Endosulfan I	68.2	70.9	P/P	52 - 110
2279306	Endosulfan II	73.9	71.4	P/P	53 - 127
2279306	Endosulfan Sulfate	85.8	76.8	P/P	44 - 135

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P404453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279306	Endrin	71.6	65.8	P/P	36 - 122
2279306	Endrin Aldehyde	66.7	56.1	P/P	23 - 115
2279306	Endrin Ketone	84.0	79.5	P/P	46 - 147
2279306	Esfenvalerate	98.3	106	P/P	25 - 217
2279306	Ethalfuralin	71.8	67.2	P/P	46 - 99.0
2279306	Fenpropathrin	72.0	73.8	P/P	42 - 121
2279306	Gamma-BHC	93.5	95.8	P/P	63 - 131
2279306	Gamma-Chlordane	67.5	68.0	P/P	40 - 108
2279306	Heptachlor	61.1	63.1	P/P	38 - 98.0
2279306	Heptachlor Epoxide	69.0	69.0	P/P	39 - 124
2279306	Hexachlorobenzene	72.5	66.1	P/P	37 - 96.0
2279306	Kepone	65.3	64.9	P/P	10 - 216
2279306	Lambda-Cyhalothrin	95.2	98.4	P/P	21 - 220
2279306	Methoprene	75.0	79.9	P/P	50 - 170
2279306	Methoxychlor	70.8	69.9	P/P	56 - 118
2279306	MGK-264	85.5	90.9	P/P	28 - 125
2279306	Mirex	49.8	51.3	P/P	10 - 203
2279306	Oxychlordane	75.8	76.9	P/P	50 - 170
2279306	Permethrin	59.2	70.9	P/P	42 - 173
2279306	Phenothrin	61.9	62.7	P/P	10 - 140
2279306	Piperonyl Butoxide	113	111	P/P	10 - 158
2279306	Prallethrin	91.8	96.5	P/P	19 - 119
2279306	Tau-Fluvalinate	93.0	95.8	P/P	27 - 164
2279306	Tetramethrin	101	88.9	P/P	16 - 130
2279306	Trans-Nonachlor	65.8	64.9	P/P	43 - 105
2279306	Triclosan Methyl	72.0	69.8	P/P	50 - 113
2279306	Trifluralin	71.7	66.5	P/P	48 - 98.0

Reference Method: EPA 8270E
Batch ID: P405049

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279312	Dieldrin	88.4		P	31 - 131

Reference Method: EPA 8276
Batch ID: P404453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279335	Chlordane	86.4	82.9	P/P	47 - 128
2279335	Toxaphene	78.4	82.3	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P404276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2278459	Acesulfame K	105	112	P/P	40 - 150
2278459	AMPA	96.6	94.8	P/P	40 - 160
2278459	Endothall	94.8	96.1	P/P	40 - 150
2278459	Glufosinate	101	103	P/P	40 - 160
2278459	Glyphosate	80.4	79.9	P/P	40 - 160
2278459	Sucralose	77.1	76.4	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P404483

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279588	3-Hydroxycarbofuran	94.3	102	P/P	40 - 150
2279588	Aldicarb	76.0	70.7	P/P	30 - 150
2279588	Aldicarb Sulfone	107	108	P/P	40 - 150
2279588	Aldicarb Sulfoxide	44.4	45.1	P/P	40 - 150
2279588	Carbaryl	71.7	65.4	P/P	40 - 150
2279588	Carbofuran	79.1	84.8	P/P	40 - 150
2279588	Methiocarb	76.3	73.6	P/P	40 - 150
2279588	Methomyl	83.6	85.5	P/P	40 - 150
2279588	Oxamyl	90.7	94.3	P/P	40 - 150
2279588	Propoxur	71.0	75.9	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P404499

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2278894	2,4-D	114	118	P/P	40 - 150
2278894	2,4,5-T	114	125	P/P	40 - 150
2278894	Acetaminophen	93.9	137	P/P	30 - 150
2278894	Acetamiprid	83.5	97.2	P/P	40 - 150
2278894	Afidopyropen	66.7	82.2	P/P	40 - 150
2278894	Bentazon	104	116	P/P	30 - 150
2278894	Benzovindiflupyr	89.2	97.7	P/P	40 - 150
2278894	Carbamazepine	98.4	118	P/P	40 - 150
2278894	Clothianidin	108	126	P/P	40 - 150
2278894	Dinotefuran	101	120	P/P	40 - 150
2278894	Diuron	94.0	116	P/P	40 - 150
2278894	Fenuron	97.4	107	P/P	40 - 150
2278894	Fluridone	88.3	97.4	P/P	40 - 150
2278894	Hydrocodone	84.2	111	P/P	40 - 150
2278894	Ibuprofen	98.8	113	P/P	40 - 150
2278894	Imazapyr	104	137	P/P	40 - 150
2278894	Imidacloprid	106	135	P/P	40 - 150
2278894	Linuron	75.3	85.4	P/P	40 - 150
2278894	Mandestrobin	90.0	104	P/P	40 - 150
2278894	MCP	119	128	P/P	40 - 150
2278894	Naproxen	115	115	P/P	40 - 150
2278894	Primidone	96.1	109	P/P	40 - 150
2278894	Pyraclostrobin	78.2	91.4	P/P	40 - 150
2278894	Thiamethoxam	109	121	P/P	40 - 150
2278894	Tolfenpyrad	51.1	51.2	P/P	30 - 150
2278894	Triclopyr	91.5	113	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P404695

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2280397	Fluoride	100	99.3	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P404603

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

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P404603

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2279440	Organic Carbon	94.3	94.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P404423

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279577	Turbidity	1.33	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P404485

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279381	Barium	0.579	Spike	P	0 - 20
2279381	Calcium	0.392	Spike	P	0 - 20
2279381	Iron	1.62	Spike	P	0 - 20
2279381	Magnesium	1.72	Spike	P	0 - 20
2279381	Manganese	0.000847	Spike	P	0 - 20
2279381	Potassium	1.95	Spike	P	0 - 20
2279381	Sodium	0.196	Spike	P	0 - 20
2279381	Zinc	0.739	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P404485

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279381	Aluminum	2.68	Spike	P	0 - 20
2279381	Antimony	0.107	Spike	P	0 - 20
2279381	Arsenic	3.11	Spike	P	0 - 20
2279381	Beryllium	6.29	Spike	P	0 - 20
2279381	Boron	4.12	Spike	P	0 - 20
2279381	Cadmium	3.20	Spike	P	0 - 20
2279381	Chromium	2.89	Spike	P	0 - 20
2279381	Copper	2.94	Spike	P	0 - 20
2279381	Lead	2.03	Spike	P	0 - 20
2279381	Nickel	3.46	Spike	P	0 - 20
2279381	Selenium	2.92	Spike	P	0 - 20
2279381	Silver	3.24	Spike	P	0 - 20
2279381	Thallium	2.31	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P404662

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279580	Chloride	0.836	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P404663

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279363	Chloride	0.829	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279580	Sulfate	3.77	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P404666

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279363	Sulfate	0.471	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P404888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279544	Ammonia-N	0.173	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P404515

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279549	Kjeldahl Nitrogen	1.36	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P404516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279644	Kjeldahl Nitrogen	1.73	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P404574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279544	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P404621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279544	Total-P	2.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P404409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279446	O-Phosphate-P	0.826	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P404410

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279617	O-Phosphate-P	0.918	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P404389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279591	Acetochlor	16.9	Spike	P	0 - 30
2279591	Alachlor	5.38	Spike	P	0 - 30
2279591	Ametryn	2.71	Spike	P	0 - 30
2279591	Atrazine	8.21	Spike	P	0 - 30
2279591	Atrazine Desethyl	16.9	Spike	P	0 - 30
2279591	Azinphos Methyl	21.4	Spike	P	0 - 30
2279591	Azoxystrobin	5.75	Spike	P	0 - 30
2279591	Bromacil	12.6	Spike	P	0 - 30
2279591	Butylate	5.08	Spike	P	0 - 30
2279591	Caffeine	4.28	Spike	P	0 - 30
2279591	Carbophenothion	5.62	Spike	P	0 - 30
2279591	Carfentrazone Ethyl	7.92	Spike	P	0 - 30
2279591	Chlorpyrifos Ethyl	2.45	Spike	P	0 - 30
2279591	Chlorpyrifos Methyl	0.246	Spike	P	0 - 30
2279591	Cyanazine	17.6	Spike	P	0 - 30
2279591	Demeton	1.80	Spike	P	0 - 30
2279591	Diazinon	16.5	Spike	P	0 - 30
2279591	Difenoconazole	6.97	Spike	P	0 - 30
2279591	Dimethenamid	13.9	Spike	P	0 - 30
2279591	Disulfoton	12.1	Spike	P	0 - 30
2279591	Dithiopyr	15.8	Spike	P	0 - 30
2279591	EPTC	2.67	Spike	P	0 - 30
2279591	Ethion	2.92	Spike	P	0 - 30
2279591	Ethoprop	1.54	Spike	P	0 - 30
2279591	Fenamiphos	3.63	Spike	P	0 - 30
2279591	Fenbuconazole	83.7	Spike	F	0 - 30
2279591	Fipronil	10.1	Spike	P	0 - 30
2279591	Fipronil Desulfinyl	11.5	Spike	P	0 - 30
2279591	Fipronil Sulfide	15.3	Spike	P	0 - 30
2279591	Fipronil Sulfone	14.5	Spike	P	0 - 30
2279591	Fluazifop-P-butyl	14.7	Spike	P	0 - 30
2279591	Fludioxonil	24.4	Spike	P	0 - 30
2279591	Flumioxazin	9.32	Spike	P	0 - 30
2279591	Flutolanil	20.1	Spike	P	0 - 30
2279591	Fluxapyroxad	3.82	Spike	P	0 - 30
2279591	Fonofos	5.14	Spike	P	0 - 30
2279591	Hexazinone	1.07	Spike	P	0 - 30
2279591	Imazalil	22.4	Spike	P	0 - 30
2279591	Iprodione	0.0905	Spike	P	0 - 30
2279591	Malathion	32.1	Spike	F	0 - 30
2279591	Metalaxyl	16.9	Spike	P	0 - 30
2279591	Metolachlor	18.8	Spike	P	0 - 30
2279591	Metribuzin	5.01	Spike	P	0 - 30
2279591	Mevinphos	0.940	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P404389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279591	Molinate	3.26	Spike	P	0 - 30
2279591	Myclobutanil	14.9	Spike	P	0 - 30
2279591	Naled	0.166	Spike	P	0 - 30
2279591	Norflurazon	10.8	Spike	P	0 - 30
2279591	Oxadiazon	11.2	Spike	P	0 - 30
2279591	Oxyfluorfen	14.6	Spike	P	0 - 30
2279591	Parathion Ethyl	7.74	Spike	P	0 - 30
2279591	Parathion Methyl	1.18	Spike	P	0 - 30
2279591	Pendimethalin	3.76	Spike	P	0 - 30
2279591	Phorate	11.5	Spike	P	0 - 30
2279591	Prodiamine	19.4	Spike	P	0 - 30
2279591	Prometon	15.2	Spike	P	0 - 30
2279591	Prometryn	10.1	Spike	P	0 - 30
2279591	Pronamide	11.8	Spike	P	0 - 30
2279591	Propiconazole	14.4	Spike	P	0 - 30
2279591	Pyriproxyfen	8.90	Spike	P	0 - 30
2279591	Simazine	7.67	Spike	P	0 - 30
2279591	Sulfentrazone	5.57	Spike	P	0 - 30
2279591	Tebuconazole	15.3	Spike	P	0 - 30
2279591	Terbufos	1.33	Spike	P	0 - 30
2279591	Terbuthylazine	10.3	Spike	P	0 - 30
LFB	Acetochlor	6.67	LCS	P	0 - 30
LFB	Alachlor	3.47	LCS	P	0 - 30
LFB	Ametryn	2.33	LCS	P	0 - 30
LFB	Atrazine	4.97	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.83	LCS	P	0 - 30
LFB	Azinphos Methyl	2.47	LCS	P	0 - 30
LFB	Azoxystrobin	4.35	LCS	P	0 - 30
LFB	Bromacil	5.09	LCS	P	0 - 30
LFB	Butylate	22.9	LCS	P	0 - 30
LFB	Caffeine	13.0	LCS	P	0 - 30
LFB	Carbophenothion	8.12	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	3.29	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	11.0	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	6.66	LCS	P	0 - 30
LFB	Cyanazine	7.47	LCS	P	0 - 30
LFB	Demeton	2.55	LCS	P	0 - 30
LFB	Diazinon	6.79	LCS	P	0 - 30
LFB	Difenoconazole	1.16	LCS	P	0 - 30
LFB	Dimethenamid	9.15	LCS	P	0 - 30
LFB	Disulfoton	13.2	LCS	P	0 - 30
LFB	Dithiopyr	8.00	LCS	P	0 - 30
LFB	EPTC	1.97	LCS	P	0 - 30
LFB	Ethion	5.82	LCS	P	0 - 30
LFB	Ethoprop	3.79	LCS	P	0 - 30
LFB	Fenamiphos	17.9	LCS	P	0 - 30
LFB	Fenbuconazole	1.07	LCS	P	0 - 30
LFB	Fipronil	0.921	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	2.78	LCS	P	0 - 30
LFB	Fipronil Sulfide	18.7	LCS	P	0 - 30
LFB	Fipronil Sulfone	21.4	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P404389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fluazifop-P-butyl	6.29	LCS	P	0 - 30
LFB	Fludioxonil	4.26	LCS	P	0 - 30
LFB	Flumioxazin	6.03	LCS	P	0 - 30
LFB	Flutolanil	9.68	LCS	P	0 - 30
LFB	Fluxapyroxad	5.11	LCS	P	0 - 30
LFB	Fonofos	3.13	LCS	P	0 - 30
LFB	Hexazinone	3.41	LCS	P	0 - 30
LFB	Imazalil	4.85	LCS	P	0 - 30
LFB	Iprodione	1.94	LCS	P	0 - 30
LFB	Malathion	13.9	LCS	P	0 - 30
LFB	Metalaxyl	2.38	LCS	P	0 - 30
LFB	Metolachlor	1.46	LCS	P	0 - 30
LFB	Metribuzin	1.60	LCS	P	0 - 30
LFB	Mevinphos	3.45	LCS	P	0 - 30
LFB	Molinate	1.15	LCS	P	0 - 30
LFB	Myclobutanil	0.879	LCS	P	0 - 30
LFB	Naled	3.37	LCS	P	0 - 30
LFB	Norflurazon	13.0	LCS	P	0 - 30
LFB	Oxadiazon	2.34	LCS	P	0 - 30
LFB	Oxyfluorfen	9.41	LCS	P	0 - 30
LFB	Parathion Ethyl	0.668	LCS	P	0 - 30
LFB	Parathion Methyl	6.43	LCS	P	0 - 30
LFB	Pendimethalin	3.56	LCS	P	0 - 30
LFB	Phorate	2.02	LCS	P	0 - 30
LFB	Prodiamine	8.81	LCS	P	0 - 30
LFB	Prometon	3.48	LCS	P	0 - 30
LFB	Prometryn	8.35	LCS	P	0 - 30
LFB	Pronamide	4.95	LCS	P	0 - 30
LFB	Propiconazole	13.0	LCS	P	0 - 30
LFB	Pyriproxyfen	7.39	LCS	P	0 - 30
LFB	Simazine	7.71	LCS	P	0 - 30
LFB	Sulfentrazone	7.22	LCS	P	0 - 30
LFB	Tebuconazole	4.43	LCS	P	0 - 30
LFB	Terbufos	3.29	LCS	P	0 - 30
LFB	Terbuthylazine	4.51	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P404453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279306	Aldrin	3.23	Spike	P	0 - 30
2279306	Alpha-BHC	6.27	Spike	P	0 - 30
2279306	Alpha-Chlordane	3.11	Spike	P	0 - 30
2279306	Beta-BHC	4.53	Spike	P	0 - 30
2279306	Beta-Cyfluthrin	12.2	Spike	P	0 - 30
2279306	Bifenthrin	1.78	Spike	P	0 - 30
2279306	Chlorothalonil	67.1	Spike	F	0 - 50
2279306	Cis-Nonachlor	4.78	Spike	P	0 - 30
2279306	Cypermethrin	11.0	Spike	P	0 - 30
2279306	Dacthal	0.0638	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P404453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279306	DDD-p,p'	2.64	Spike	P	0 - 30
2279306	DDE-p,p'	3.17	Spike	P	0 - 30
2279306	DDT-p,p'	3.27	Spike	P	0 - 30
2279306	Delta-BHC	2.70	Spike	P	0 - 30
2279306	Deltamethrin	8.83	Spike	P	0 - 30
2279306	Dichlobenil	16.1	Spike	P	0 - 30
2279306	Dicofol	4.18	Spike	P	0 - 30
2279306	Endosulfan I	4.00	Spike	P	0 - 30
2279306	Endosulfan II	3.43	Spike	P	0 - 30
2279306	Endosulfan Sulfate	11.1	Spike	P	0 - 30
2279306	Endrin	8.43	Spike	P	0 - 30
2279306	Endrin Aldehyde	17.2	Spike	P	0 - 30
2279306	Endrin Ketone	5.52	Spike	P	0 - 30
2279306	Esfenvalerate	7.45	Spike	P	0 - 30
2279306	Ethalfuralin	6.55	Spike	P	0 - 30
2279306	Fenpropathrin	2.37	Spike	P	0 - 30
2279306	Gamma-BHC	2.39	Spike	P	0 - 30
2279306	Gamma-Chlordane	0.765	Spike	P	0 - 30
2279306	Heptachlor	3.24	Spike	P	0 - 30
2279306	Heptachlor Epoxide	0.0	Spike	P	0 - 30
2279306	Hexachlorobenzene	9.22	Spike	P	0 - 30
2279306	Kepone	0.659	Spike	P	0 - 30
2279306	Lambda-Cyhalothrin	3.39	Spike	P	0 - 30
2279306	Methoprene	6.39	Spike	P	0 - 30
2279306	Methoxychlor	1.27	Spike	P	0 - 30
2279306	MGK-264	6.17	Spike	P	0 - 30
2279306	Mirex	2.95	Spike	P	0 - 30
2279306	Oxychlordane	1.39	Spike	P	0 - 30
2279306	Permethrin	18.0	Spike	P	0 - 30
2279306	Phenothrin	1.27	Spike	P	0 - 30
2279306	Piperonyl Butoxide	1.75	Spike	P	0 - 30
2279306	Prallethrin	4.92	Spike	P	0 - 30
2279306	Tau-Fluvalinate	2.96	Spike	P	0 - 30
2279306	Tetramethrin	12.5	Spike	P	0 - 30
2279306	Trans-Nonachlor	1.36	Spike	P	0 - 30
2279306	Triclosan Methyl	3.05	Spike	P	0 - 30
2279306	Trifluralin	7.60	Spike	P	0 - 30
LFB	Aldrin	4.55	LCS	P	0 - 30
LFB	Alpha-BHC	0.0724	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.26	LCS	P	0 - 30
LFB	Beta-BHC	4.89	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	9.35	LCS	P	0 - 30
LFB	Bifenthrin	2.46	LCS	P	0 - 30
LFB	Chlorothalonil	21.7	LCS	P	0 - 50
LFB	Cis-Nonachlor	4.77	LCS	P	0 - 30
LFB	Cypermethrin	2.70	LCS	P	0 - 30
LFB	Dacthal	5.31	LCS	P	0 - 30
LFB	DDD-p,p'	0.434	LCS	P	0 - 30
LFB	DDE-p,p'	0.0274	LCS	P	0 - 30
LFB	DDT-p,p'	4.12	LCS	P	0 - 30
LFB	Delta-BHC	4.55	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P404453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Deltamethrin	4.23	LCS	P	0 - 30
LFB	Dichlobenil	1.15	LCS	P	0 - 30
LFB	Dicofol	7.09	LCS	P	0 - 30
LFB	Endosulfan I	9.46	LCS	P	0 - 30
LFB	Endosulfan II	7.24	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.0711	LCS	P	0 - 30
LFB	Endrin	11.8	LCS	P	0 - 30
LFB	Endrin Aldehyde	14.3	LCS	P	0 - 30
LFB	Endrin Ketone	3.55	LCS	P	0 - 30
LFB	Esfenvalerate	2.61	LCS	P	0 - 30
LFB	Ethalfuralin	3.17	LCS	P	0 - 30
LFB	Fenpropathrin	11.7	LCS	P	0 - 30
LFB	Gamma-BHC	3.44	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.729	LCS	P	0 - 30
LFB	Heptachlor	5.05	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.138	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.87	LCS	P	0 - 30
LFB	Kepone	1.36	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	5.61	LCS	P	0 - 30
LFB	Methoprene	12.8	LCS	P	0 - 30
LFB	Methoxychlor	1.69	LCS	P	0 - 30
LFB	MGK-264	7.75	LCS	P	0 - 30
LFB	Mirex	7.13	LCS	P	0 - 30
LFB	Oxychlordane	5.85	LCS	P	0 - 30
LFB	Permethrin	12.5	LCS	P	0 - 30
LFB	Phenothrin	12.3	LCS	P	0 - 30
LFB	Piperonyl Butoxide	35.2	LCS	F	0 - 30
LFB	Prallethrin	0.453	LCS	P	0 - 30
LFB	Tau-Fluvalinate	3.13	LCS	P	0 - 30
LFB	Tetramethrin	3.22	LCS	P	0 - 30
LFB	Trans-Nonachlor	0.245	LCS	P	0 - 30
LFB	Triclosan Methyl	2.92	LCS	P	0 - 30
LFB	Trifluralin	0.262	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P405049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dieldrin	2.21	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P404453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279335	Chlordane	4.11	Spike	P	0 - 30
2279335	Toxaphene	4.90	Spike	P	0 - 30
LFB	Chlordane	0.0755	LCS	P	0 - 30
LFB	Toxaphene	10.2	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P404276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2278459	Acesulfame K	6.01	Spike	P	0 - 30
2278459	AMPA	1.90	Spike	P	0 - 30
2278459	Endothall	1.35	Spike	P	0 - 30
2278459	Glufosinate	1.93	Spike	P	0 - 30
2278459	Glyphosate	0.672	Spike	P	0 - 30
2278459	Sucralose	0.911	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P404483

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279588	3-Hydroxycarbofuran	7.48	Spike	P	0 - 30
2279588	Aldicarb	7.29	Spike	P	0 - 30
2279588	Aldicarb Sulfone	0.513	Spike	P	0 - 30
2279588	Aldicarb Sulfoxide	1.44	Spike	P	0 - 30
2279588	Carbaryl	9.16	Spike	P	0 - 30
2279588	Carbofuran	7.01	Spike	P	0 - 30
2279588	Methiocarb	3.60	Spike	P	0 - 30
2279588	Methomyl	2.23	Spike	P	0 - 30
2279588	Oxamyl	3.86	Spike	P	0 - 30
2279588	Propoxur	6.70	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P404499

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2278894	2,4-D	3.34	Spike	P	0 - 30
2278894	2,4,5-T	9.33	Spike	P	0 - 30
2278894	Acetaminophen	37.3	Spike	F	0 - 30
2278894	Acetamiprid	15.2	Spike	P	0 - 30
2278894	Afidopyropen	20.9	Spike	P	0 - 30
2278894	Bentazon	11.2	Spike	P	0 - 30
2278894	Benzovindiflupyr	9.08	Spike	P	0 - 30
2278894	Carbamazepine	17.9	Spike	P	0 - 30
2278894	Clothianidin	15.1	Spike	P	0 - 30
2278894	Dinotefuran	17.4	Spike	P	0 - 30
2278894	Diuron	20.6	Spike	P	0 - 30
2278894	Fenuron	9.73	Spike	P	0 - 30
2278894	Fluridone	9.81	Spike	P	0 - 30
2278894	Hydrocodone	27.2	Spike	P	0 - 30
2278894	Ibuprofen	13.3	Spike	P	0 - 30
2278894	Imazapyr	24.8	Spike	P	0 - 30
2278894	Imidacloprid	23.8	Spike	P	0 - 30
2278894	Linuron	12.6	Spike	P	0 - 30
2278894	Mandestrobin	14.5	Spike	P	0 - 30
2278894	MCP	7.54	Spike	P	0 - 30
2278894	Naproxen	0.256	Spike	P	0 - 30
2278894	Primidone	12.9	Spike	P	0 - 30
2278894	Pyraclostrobin	15.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P404499

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2278894	Thiamethoxam	10.7	Spike	P	0 - 30
2278894	Tolfenpyrad	0.144	Spike	P	0 - 30
2278894	Triclopyr	21.4	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
 Batch ID: P404414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279642	Color (true)	1.06	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
 Batch ID: P404824

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279434	Total Alkalinity	1.17	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
 Batch ID: P404939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279435	TDS	0.482	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P404695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2280397	Fluoride	0.480	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
 Batch ID: P404603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2279440	Organic Carbon	0.0	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2279588
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	89.5	P	30 - 160

Lab Sample ID: 2279589
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	144	P	30 - 160
EPA 8321B	Acetaminophen-d4	111	P	30 - 160
EPA 8321B	Carbamazepine-d10	118	P	30 - 160
EPA 8321B	Diuron-d6	99.6	P	30 - 160
EPA 8321B	Endothall-d6	94.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	93.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	76.2	P	30 - 160
EPA 8321B	Primidone-d5	114	P	30 - 160
EPA 8321B	Sucralose-d6	77.6	P	30 - 160

Lab Sample ID: 2279590
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	76.5	P	29 - 123
EPA 8270E	Decachlorobiphenyl	83.5	P	29 - 123
EPA 8270E	Tetrachloro-m-xylene	79.6	P	24 - 97.0
EPA 8270E	Tetrachloro-m-xylene	73.2	P	24 - 97.0
EPA 8276	Decachlorobiphenyl	79.5	P	29 - 92.0
EPA 8276	PCNB	87.8	P	43 - 134

Lab Sample ID: 2279591
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	75.3	P	20 - 200
EPA 8270E	Simazine-d10	120	P	73 - 135
EPA 8270E	Terbufos-d10	127	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A108080

Included Lab Sample IDs: 2279579, 2279582

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.5	98.5	P/P	90 - 110
O-Phosphate-P	97.8	97.7	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A108081

Included Lab Sample IDs: 2279577, 2279580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A108088

Included Lab Sample IDs: 2279577, 2279580

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

Reference Method: EPA 8321B

Run ID: A108094

Included Lab Sample IDs: 2279589

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	99.7	100	P/P	60 - 160
Glufosinate	111	104	P/P	60 - 160
Glyphosate	102	96.5	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A108117

Included Lab Sample IDs: 2279589

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	80.3	118	P/P	60 - 160
Endothall	86.5	78.3	P/P	60 - 160
Sucralose	82.6	83.4	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A108137

Included Lab Sample IDs: 2279592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	96.3	99.1	P/P	90 - 110
Calcium	98.3	97.4	P/P	90 - 110
Iron	99.8	98.8	P/P	90 - 110
Magnesium	99.1	98.3	P/P	90 - 110
Manganese	99.7	101	P/P	90 - 110
Potassium	99.7	99.0	P/P	90 - 110
Sodium	99.5	99.1	P/P	90 - 110
Zinc	96.4	96.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A108146

Included Lab Sample IDs: 2279578, 2279581

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A108154

Included Lab Sample IDs: 2279578, 2279581

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	94.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A108158

Included Lab Sample IDs: 2279592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.3	98.0	P/P	90 - 110
Arsenic	97.0	96.1	P/P	90 - 110
Beryllium	93.6	93.2	P/P	90 - 110
Boron	105	107	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	96.7	96.7	P/P	90 - 110
Copper	91.1	90.3	P/P	90 - 110
Lead	94.4	94.2	P/P	90 - 110
Nickel	94.8	94.1	P/P	90 - 110
Selenium	101	99.5	P/P	90 - 110
Silver	99.0	98.7	P/P	90 - 110
Thallium	100	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A108176

Included Lab Sample IDs: 2279578, 2279581

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.7	95.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A108179

Included Lab Sample IDs: 2279577, 2279580

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

Reference Method: SM 4500 F-C-2011

Run ID: A108185

Included Lab Sample IDs: 2279577, 2279580

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A108187

Included Lab Sample IDs: 2279592

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	104	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A108203

Included Lab Sample IDs: 2279578, 2279581

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.3	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A108214

Included Lab Sample IDs: 2279591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	106		P	80 - 120
Atrazine	97.9		P	80 - 120
Atrazine Desethyl	109		P	80 - 120
Azinphos Methyl	90.4		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	108		P	80 - 120
Butylate	97.8		P	80 - 120
Caffeine	98.7		P	80 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	104		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	96.1		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	98.3		P	80 - 120
Difenoconazole	95.2		P	80 - 120
Dimethenamid	100		P	80 - 120
Disulfoton	102		P	80 - 120
Dithiopyr	99.2		P	80 - 120
EPTC	101		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	105		P	80 - 120
Fenamiphos	104		P	80 - 120
Fenbuconazole	95.8		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fipronil Sulfone	106		P	80 - 120
Fluazifop-P-butyl	107		P	80 - 120
Fludioxonil	92.2		P	80 - 120
Flumioxazin	96.7		P	80 - 120
Flutolanil	101		P	80 - 120
Fluxapyroxad	99.0		P	80 - 120
Fonofos	98.6		P	80 - 120
Hexazinone	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A108214
 Included Lab Sample IDs: 2279591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazalil	98.0		P	80 - 120
Iprodione	90.7		P	80 - 120
Malathion	95.8		P	80 - 120
Metalaxyl	98.8		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	105		P	80 - 120
Mevinphos	105		P	80 - 120
Molinate	103		P	80 - 120
Myclobutanil	105		P	80 - 120
Naled	105		P	80 - 120
Norflurazon	97.0		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	100		P	80 - 120
Parathion Ethyl	104		P	80 - 120
Parathion Methyl	98.8		P	80 - 120
Pendimethalin	101		P	80 - 120
Phorate	112		P	80 - 120
Prodiamine	97.1		P	80 - 120
Prometon	95.3		P	80 - 120
Prometryn	98.2		P	80 - 120
Pronamide	89.0		P	80 - 120
Propiconazole	99.9		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	91.4		P	80 - 120
Sulfentrazone	106		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	98.1		P	80 - 120
Terbutylazine	100		P	80 - 120

Reference Method: EPA 8270E
 Run ID: A108248
 Included Lab Sample IDs: 2279590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	103		P	80 - 120
Alpha-BHC	99.2		P	80 - 120
Alpha-Chlordane	103		P	80 - 120
Beta-BHC	97.3		P	80 - 120
Beta-Cyfluthrin	99.9		P	80 - 120
Bifenthrin	100		P	80 - 120
Chlorothalonil	117		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	93.4		P	80 - 120
Dacthal	112		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	105		P	80 - 120
DDT-p,p'	97.0		P	80 - 120
Delta-BHC	97.1		P	80 - 120
Deltamethrin	99.3		P	80 - 120
Dichlobenil	98.9		P	80 - 120
Dicofol	110		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A108248
Included Lab Sample IDs: 2279590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endosulfan I	106		P	80 - 120
Endosulfan II	104		P	80 - 120
Endosulfan Sulfate	105		P	80 - 120
Endrin	98.3		P	80 - 120
Endrin Aldehyde	92.7		P	80 - 120
Endrin Ketone	107		P	80 - 120
Esfenvalerate	97.7		P	80 - 120
Ethalfuralin	103		P	80 - 120
Fenpropathrin	106		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	105		P	80 - 120
Heptachlor Epoxide	113		P	80 - 120
Hexachlorobenzene	107		P	80 - 120
Kepone	56.4*		F	80 - 120
Lambda-Cyhalothrin	99.2		P	80 - 120
Methoprene	95.1		P	80 - 120
Methoxychlor	98.0		P	80 - 120
MGK-264	100		P	80 - 120
Mirex	99.2		P	80 - 120
Oxychlordane	99.0		P	80 - 120
Permethrin	97.1		P	80 - 120
Phenothrin	96.9		P	80 - 120
Piperonyl Butoxide	93.4		P	80 - 120
Prallethrin	104		P	80 - 120
Tau-Fluvalinate	93.6		P	80 - 120
Tetramethrin	94.8		P	80 - 120
Trans-Nonachlor	111		P	80 - 120
Triclosan Methyl	112		P	80 - 120
Trifluralin	98.9		P	80 - 120

Reference Method: SM 2320 B-2011
Run ID: A108253
Included Lab Sample IDs: 2279577, 2279580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.6	96.8	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A108255
Included Lab Sample IDs: 2279589

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	83.1	80.6	P/P	50 - 150
2,4,5-T	87.1	88.4	P/P	50 - 150
3-Hydroxycarbofuran	97.8	102	P/P	60 - 150
Acetaminophen	89.2	87.4	P/P	60 - 160
Acetamiprid	89.0	103	P/P	50 - 150
Afidopyropen	101	96.2	P/P	50 - 150
Aldicarb	86.1	98.2	P/P	60 - 150
Aldicarb Sulfone	98.5	104	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A108255
Included Lab Sample IDs: 2279588

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldicarb Sulfoxide	110	103	P/P	50 - 150
Bentazon	116	108	P/P	50 - 160
Benzovindiflupyr	71.1	86.5	P/P	50 - 150
Carbamazepine	104	104	P/P	60 - 150
Carbaryl	80.4	97.4	P/P	60 - 150
Carbofuran	109	101	P/P	50 - 150
Clothianidin	108	104	P/P	60 - 150
Dinotefuran	107	112	P/P	50 - 150
Diuron	121	121	P/P	60 - 160
Fenuron	98.9	99.5	P/P	60 - 150
Fluridone	95.5	95.7	P/P	60 - 160
Hydrocodone	101	106	P/P	60 - 150
Ibuprofen	61.5	77.7	P/P	50 - 160
Imazapyr	99.5	95.5	P/P	50 - 150
Imidacloprid	104	109	P/P	60 - 150
Linuron	108	95.3	P/P	60 - 150
Mandestrobin	87.2	93.5	P/P	50 - 150
MCPP	89.4	96.7	P/P	50 - 150
Methiocarb	91.2	95.1	P/P	50 - 150
Methomyl	97.8	98.9	P/P	50 - 150
Naproxen	80.1	128	P/P	50 - 160
Oxamyl	103	101	P/P	50 - 150
Primidone	92.1	88.5	P/P	60 - 150
Propoxur	93.2	94.9	P/P	50 - 150
Pyraclostrobin	84.0	88.0	P/P	60 - 150
Thiamethoxam	95.1	99.0	P/P	50 - 150
Tolfenpyrad	85.5	96.8	P/P	60 - 150
Triclopyr	95.3	86.3	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A108272
Included Lab Sample IDs: 2279578, 2279581

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	97.8	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A108372
Included Lab Sample IDs: 2279590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dieldrin	115		P	80 - 120

Reference Method: EPA 8276
Run ID: A108374
Included Lab Sample IDs: 2279590

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.9		P	80 - 120
Toxaphene	99.5		P	80 - 120

Quality Assurance Report

Calibration Verification

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							1.33	
EPA 200.7 Rev. 4.4	Barium	102		102	103	104			0.579
	Calcium	100		96.8	99.2				0.392
	Iron	106		105	107	108			1.62
	Magnesium	105		103	105	107			1.72
	Manganese	100		99.8	99.8	101			0.0008
	Potassium	100		101	103	103			1.95
	Sodium	95.5		105	104	103			0.196
	Zinc	96.9		96.5	95.8	99.0			0.739
EPA 200.8 Rev. 5.4	Aluminum	101		102	100	97.5			2.68
	Antimony	105		110	112	112			0.107
	Arsenic	102		99.8	99.8	96.7			3.11
	Beryllium	105		102	99.5	93.1			6.29
	Boron	106		108	106	102			4.12
	Cadmium	102		102	107	103			3.20
	Chromium	96.2		96.5	103	99.2			2.89
	Copper	99.8		97.5	93.3	90.6			2.94
	Lead	98.6		99.1	98.6	96.6			2.03
	Nickel	103		99.7	96.8	93.5			3.46
	Selenium	98.5		96.6	98.4	95.6			2.92
	Silver	103		101	103	99.3			3.24
	Thallium	104		107	106	103			2.31
EPA 300.0 Rev. 2.1	Chloride	98.9		99.0	101			0.836	
	Chloride	100		101	101			0.829	
	Sulfate	101		100	103			3.77	
	Sulfate	103		103	102			0.471	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8		98.4	98.2				0.173
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		89.1	91.6				1.36
	Kjeldahl Nitrogen	95.5		99.2	102				1.73
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102		102	102				0.0
EPA 365.1 Rev. 2.0	Total-P	104		107	104				2.02
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.8		96.0	95.0				0.826
	O-Phosphate-P	98.4		97.5	96.1				0.918
EPA 8270E	Acetochlor	105	98.2	92.6	78.2	6.67			16.9
	Alachlor	93.1	90.0	78.5	74.4	3.47			5.38
	Aldrin	35.0	33.5	43.9	45.4	4.55			3.23
	Alpha-BHC	86.4	86.3	91.3	85.7	0.0724			6.27
	Alpha-Chlordane	64.3	67.1	70.5	68.3	4.26			3.11
	Ametryn	99.2	102	93.7	91.2	2.33			2.71
	Atrazine	97.0	92.3	73.0	82.8	4.97			8.21
	Atrazine Desethyl	67.4	69.3	64.7	54.6	2.83			16.9
	Azinphos Methyl	132	129	165	133	2.47			21.4
	Azoxystrobin	93.5	97.7	95.9	90.6	4.35			5.75
	Beta-BHC	98.4	103	103	98.8	4.89			4.53
	Beta-Cyfluthrin	60.5	66.5	101	114	9.35			12.2
	Bifenthrin	38.3	39.2	49.8	51.1	2.46			1.78
	Bromacil	74.4	78.3	80.3	70.8	5.09			12.6
	Butylate	47.6	37.8	47.7	50.2	22.9			5.08
	Caffeine	96.9	110	108	113	13.0			4.28
	Carbophenothion	93.0	101	85.2	90.1	8.12			5.62
	Carfentrazone Ethyl	107	104	88.9	82.2	3.29			7.92
	Chlorothalonil	77.2	96.0	27.5	55.3	21.7			67.1
	Chlorpyrifos Ethyl	78.0	87.1	108	111	11.0			2.45
	Chlorpyrifos Methyl	83.8	89.6	101	101	6.66			0.246

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Cis-Nonachlor	58.1	61.0	66.8	63.7	4.77		4.78
	Cyanazine	114	106	97.1	81.4	7.47		17.6
	Cypermethrin	60.6	62.2	86.6	96.7	2.70		11.0
	Dacthal	80.3	84.6	83.3	83.3	5.31		0.0638
	DDD-p,p'	65.3	65.6	69.7	71.6	0.434		2.64
	DDE-p,p'	62.6	62.6	65.6	63.5	0.0274		3.17
	DDT-p,p'	61.2	63.8	68.1	65.9	4.12		3.27
	Delta-BHC	101	106	115	112	4.55		2.70
	Deltamethrin	84.1	87.8	157	143	4.23		8.83
	Demeton	78.8	76.8	118	121	2.55		1.80
	Diazinon	101	94.7	97.8	82.8	6.79		16.5
	Dichlobenil	86.6	85.6	45.8	53.8	1.15		16.1
	Dicofol	65.2	70.0	71.6	74.6	7.09		4.18
	Dieldrin	81.8	83.6	88.4		2.21		
	Difenoconazole	130	128	67.3	62.8	1.16		6.97
	Dimethenamid	85.1	77.6	77.7	67.6	9.15		13.9
	Disulfoton	72.1	82.3	79.1	89.3	13.2		12.1
	Dithiopyr	83.0	90.0	89.9	76.8	8.00		15.8
	Endosulfan I	63.9	70.2	70.9	68.2	9.46		4.00
	Endosulfan II	67.9	73.0	71.4	73.9	7.24		3.43
	Endosulfan Sulfate	82.4	82.4	76.8	85.8	0.0711		11.1
	Endrin	60.0	67.5	65.8	71.6	11.8		8.43
	Endrin Aldehyde	62.2	71.7	56.1	66.7	14.3		17.2
	Endrin Ketone	89.4	86.3	79.5	84.0	3.55		5.52
	EPTC	49.3	48.3	43.9	42.7	1.97		2.67
	Esfenvalerate	56.3	57.8	106	98.3	2.61		7.45
	Ethalfuralin	62.3	64.4	71.8	67.2	3.17		6.55
	Ethion	81.0	76.4	98.3	101	5.82		2.92
	Ethoprop	86.9	83.7	94.1	92.7	3.79		1.54
	Fenamiphos	81.9	98.1	96.3	99.9	17.9		3.63
	Fenbuconazole	63.9	63.2	147	60.4	1.07		83.7
	Fenpropathrin	51.3	57.7	73.8	72.0	11.7		2.37
	Fipronil	103	102			0.921		10.1
	Fipronil Desulfinyl	108	105	84.2	69.3	2.78		11.5
	Fipronil Sulfide	70.9	85.6			18.7		15.3
	Fipronil Sulfone	75.4	93.4			21.4		14.5
	Fluazifop-P-butyl	107	101	82.1	70.9	6.29		14.7
	Fludioxonil	97.2	93.2	89.6	70.1	4.26		24.4
	Flumioxazin	87.5	92.9	254	232	6.03		9.32
	Flutolanil	80.9	89.1	69.8	57.1	9.68		20.1
	Fluxapyroxad	97.8	93.0	87.4	90.9	5.11		3.82
	Fonofos	79.5	82.0	89.2	84.7	3.13		5.14
	Gamma-BHC	83.0	85.9	95.8	93.5	3.44		2.39
	Gamma-Chlordane	59.1	59.6	68.0	67.5	0.729		0.765
	Heptachlor	57.1	54.3	63.1	61.1	5.05		3.24
	Heptachlor Epoxide	66.6	66.7	69.0	69.0	0.138		0.0
	Hexachlorobenzene	67.1	65.2	66.1	72.5	2.87		9.22
	Hexazinone	81.3	84.1	97.7	96.6	3.41		1.07
	Imazalil	126	120	84.7	67.6	4.85		22.4
	Iprodione	98.7	96.8	96.7	96.6	1.94		0.0905
	Kepone	102	101	64.9	65.3	1.36		0.659
	Lambda-Cyhalothrin	43.0	45.5	98.4	95.2	5.61		3.39
	Malathion	88.5	102	122	88.3	13.9		32.1
	Metalaxyl	96.9	94.7	77.8	65.7	2.38		16.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Methoprene	39.0	44.3	79.9	75.0	12.8	6.39
	Methoxychlor	71.2	72.4	69.9	70.8	1.69	1.27
	Metolachlor	95.9	94.6	92.2	76.4	1.46	18.8
	Metribuzin	101	103	101	95.9	1.60	5.01
	Mevinphos	75.8	78.4	107	108	3.45	0.940
	MGK-264	63.3	68.4	90.9	85.5	7.75	6.17
	Mirex	38.9	36.2	51.3	49.8	7.13	2.95
	Molinate	67.4	66.6	69.6	67.4	1.15	3.26
	Myclobutanil	95.4	94.5	90.8	78.2	0.879	14.9
	Naled	30.8	31.9	35.1	35.1	3.37	0.166
	Norflurazon	80.3	91.4	75.1	67.4	13.0	10.8
	Oxadiazon	81.0	82.9	50.9	36.0	2.34	11.2
	Oxychlordane	63.3	67.1	76.9	75.8	5.85	1.39
	Oxyfluorfen	104	94.9	94.6	81.7	9.41	14.6
	Parathion Ethyl	84.1	84.7	94.3	87.2	0.668	7.74
	Parathion Methyl	98.5	92.3	103	102	6.43	1.18
	Pendimethalin	73.3	70.8	85.5	82.3	3.56	3.76
	Permethrin	43.5	49.2	70.9	59.2	12.5	18.0
	Phenothrin	33.9	30.0	62.7	61.9	12.3	1.27
	Phorate	73.8	75.3	115	103	2.02	11.5
	Piperonyl Butoxide	72.8	104	111	113	35.2	1.75
	Prallethrin	56.3	56.6	96.5	91.8	0.453	4.92
	Prodiamine	42.3	38.7	88.6	108	8.81	19.4
	Prometon	86.3	83.3	79.1	92.2	3.48	15.2
	Prometryn	83.3	90.5	70.1	77.5	8.35	10.1
	Pronamide	102	97.2	75.3	84.8	4.95	11.8
	Propiconazole	76.1	86.7	86.8	100	13.0	14.4
	Pyriproxyfen	89.0	82.6	38.1	41.7	7.39	8.90
	Simazine	87.0	94.0	67.8	74.3	7.71	7.67
	Sulfentrazone	101	94.2			7.22	5.57
	Tau-Fluvalinate	49.7	51.3	95.8	93.0	3.13	2.96
	Tebuconazole	67.7	64.8	93.2	112	4.43	15.3
	Terbufos	95.6	98.8	117	118	3.29	1.33
	Terbuthylazine	103	98.7	75.6	83.9	4.51	10.3
	Tetramethrin	60.9	62.9	88.9	101	3.22	12.5
	Trans-Nonachlor	58.7	58.8	64.9	65.8	0.245	1.36
	Triclosan Methyl	71.6	73.8	69.8	72.0	2.92	3.05
	Trifluralin	62.2	62.4	66.5	71.7	0.262	7.60
EPA 8276	Chlordane	82.7	82.6	86.4	82.9	0.0755	4.11
	Toxaphene	70.9	78.6	78.4	82.3	10.2	4.90
EPA 8321B	2,4-D	79.5		114	118		3.34
	2,4,5-T	75.3		114	125		9.33
	3-Hydroxycarbofuran	101		94.3	102		7.48
	Acesulfame K	79.8		105	112		6.01
	Acetaminophen	83.4		93.9	137		37.3
	Acetamiprid	77.5		83.5	97.2		15.2
	Afidopyropen	68.7		66.7	82.2		20.9
	Aldicarb	50.9		76.0	70.7		7.29
	Aldicarb Sulfone	103		107	108		0.513
	Aldicarb Sulfoxide	120		44.4	45.1		1.44
	AMPA	92.7		96.6	94.8		1.90
	Bentazon	103		104	116		11.2
	Benzovindiflupyr	69.2		89.2	97.7		9.08
	Carbamazepine	85.9		98.4	118		17.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Carbaryl	97.3	71.7	65.4			9.16
	Carbofuran	101	79.1	84.8			7.01
	Clothianidin	86.5	108	126			15.1
	Dinotefuran	88.8	101	120			17.4
	Diuron	95.8	94.0	116			20.6
	Endothall	69.3	94.8	96.1			1.35
	Fenuron	86.4	97.4	107			9.73
	Fluridone	77.0	88.3	97.4			9.81
	Glufosinate	97.9	101	103			1.93
	Glyphosate	88.3	80.4	79.9			0.672
	Hydrocodone	92.7	84.2	111			27.2
	Ibuprofen	70.3	98.8	113			13.3
	Imazapyr	78.3	104	137			24.8
	Imidacloprid	85.3	106	135			23.8
	Linuron	79.7	75.3	85.4			12.6
	Mandestrobin	74.0	90.0	104			14.5
	MCPP	79.4	119	128			7.54
	Methiocarb	77.7	76.3	73.6			3.60
	Methomyl	103	83.6	85.5			2.23
	Naproxen	83.1	115	115			0.256
	Oxamyl	102	90.7	94.3			3.86
	Primidone	72.6	96.1	109			12.9
	Propoxur	99.8	71.0	75.9			6.70
	Pyraclostrobin	62.7	78.2	91.4			15.5
	Sucralose	66.8	77.1	76.4			0.911
	Thiamethoxam	87.3	109	121			10.7
	Tolfenpyrad	40.6	51.1	51.2			0.144
	Triclopyr	81.8	91.5	113			21.4
SM 2120 B-2011	Color (true)	99.3				1.06	
SM 2320 B-2011	Total Alkalinity	104				1.17	
SM 2540 C-2011	TDS					0.482	
SM 4500 F-C-2011	Fluoride	100	100	99.3			0.480
SM 5310 B-2011	Organic Carbon	96.0	94.3	94.3			0.0

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2279577, 2279580
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2279592
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2279592
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2279577, 2279580
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2279577, 2279580
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2279578, 2279581
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2279578, 2279581
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2279578, 2279581
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2279578, 2279581
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2279579, 2279582
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2279590
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2279591
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2279590

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2279588
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2279589
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2279577, 2279580
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2279577, 2279580
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2279592
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2279577, 2279580
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2279577, 2279580
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2279577, 2279580
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2279578, 2279581

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	09/30/2021			09/30/2021 15:46	Khloe J Berg	2279577, 2279580
EPA 200.7 Rev. 4.4	09/30/2021	10/04/2021 10:30	Emily M Philpot	10/04/2021 20:17	Josef B Mick	2279592
EPA 200.8 Rev. 5.4	09/30/2021	10/04/2021 10:30	Emily M Philpot	10/05/2021 18:00	Alexander Thompson	2279592
	09/30/2021	10/04/2021 10:30	Emily M Philpot	10/06/2021 15:18	Alexander Thompson	2279592
EPA 300.0 Rev. 2.1	09/30/2021			10/05/2021 13:08	Roberta Tatti	2279580
	09/30/2021			10/05/2021 23:36	Roberta Tatti	2279577
EPA 350.1 Rev. 2.0	09/30/2021			10/08/2021 13:39	Ping Hua	2279578
	09/30/2021			10/08/2021 13:41	Ping Hua	2279581
EPA 351.2 Rev. 2.0	09/30/2021	10/04/2021 17:50	Benjamin T. Nordmann	10/06/2021 11:36	Alexandra J Mattheus	2279578
	09/30/2021	10/04/2021 17:50	Benjamin T. Nordmann	10/06/2021 11:41	Alexandra J Mattheus	2279581
EPA 353.2 Rev. 2.0	09/30/2021			10/05/2021 09:51	Beverly Y. Sanders	2279578
	09/30/2021			10/05/2021 09:52	Beverly Y. Sanders	2279581
EPA 365.1 Rev. 2.0	09/30/2021	10/06/2021 12:50	Simonne.V. Calhoun	10/07/2021 10:26	Lipi Saha	2279578
	09/30/2021	10/06/2021 12:50	Simonne.V. Calhoun	10/07/2021 10:27	Lipi Saha	2279581
EPA 365.1 Rev. 2.0 dissolved	09/30/2021			09/30/2021 14:37	James L Waggeberby	2279579
	09/30/2021			09/30/2021 15:00	James L Waggeberby	2279582
EPA 8270E	09/30/2021	10/01/2021 08:00	Fe-Val Siddell	10/05/2021 14:22	Vandana T. Nagar	2279591
	09/30/2021	10/01/2021 08:00	Fe-Val Siddell	10/05/2021 18:09	Vandana T. Nagar	2279591
	09/30/2021	10/04/2021 08:00	Rasheda Ghaffari	10/09/2021 01:38	Arthur Maknenko	2279590
	09/30/2021	10/14/2021 08:30	Rasheda Ghaffari	10/17/2021 02:42	Arthur Maknenko	2279590
EPA 8276	09/30/2021	10/04/2021 08:00	Rasheda Ghaffari	10/08/2021 15:31	Michael Poppell	2279590
EPA 8321B	09/30/2021	09/30/2021 13:00	Juyoung Kim	09/30/2021 19:01	Juyoung Kim	2279589
	09/30/2021	09/30/2021 13:00	Juyoung Kim	10/01/2021 15:17	Manjita Shrestha	2279589
	09/30/2021	10/04/2021 09:00	Hoor Shaik	10/09/2021 08:34	Juyoung Kim	2279588
	09/30/2021	10/05/2021 09:00	Hoor Shaik	10/09/2021 17:48	Juyoung Kim	2279589
SM 2120 B-2011	09/30/2021			09/30/2021 15:41	Benjamin T. Nordmann	2279577
	09/30/2021			09/30/2021 15:42	Benjamin T. Nordmann	2279580
SM 2320 B-2011	09/30/2021			10/08/2021 22:27	Dale L. Simmons	2279577
	09/30/2021			10/08/2021 22:34	Dale L. Simmons	2279580
SM 2340B	09/30/2021			10/04/2021 20:17	Josef B Mick	2279592
SM 2540 C-2011	09/30/2021			10/04/2021 14:45	Yijie Li	2279577, 2279580
SM 2540 D-2011	09/30/2021			10/04/2021 14:45	Yijie Li	2279577, 2279580
SM 4500 F-C-2011	09/30/2021			10/06/2021 18:17	Dale L. Simmons	2279577
	09/30/2021			10/06/2021 18:24	Dale L. Simmons	2279580
SM 5310 B-2011	09/30/2021			10/05/2021 01:30	Khloe J Berg	2279578
	09/30/2021			10/05/2021 01:40	Khloe J Berg	2279581