

Chemical Analysis Report

NW-DIST-2020-10-20-01

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

Event Description: **Pace Run**
Request ID: **RQ-2020-09-21-26**
Customer: **NW-DIST**
Project ID: **SMP**

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

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 12-NOV-2020 15:31



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: Coldwater Creek West Fork on CR 178

Collection Date/Time: 10/19/2020 11:32

Field ID: G4NW0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2203407	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P388976	
	EPA 300.0 Rev. 2.1	Chloride	6.2		mg Cl/L	P389373	
		Sulfate	1.4		mg SO4/L	P389376	
	SM 2120 B-2011	Color (true)	33		PCU	P388984	
	SM 2320 B-2011	Total Alkalinity	4.5		mg CaCO3/L	P389229	
	SM 2540 C-2011	TDS	38		mg/L	P389382	
	SM 2540 D-2011	TSS	2	I	mg/L	P389310	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P389118	
2203408	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P389201	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25		mg N/L	P389188	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.4		mg N/L	P389154	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P389251	
	SM 5310 B-2011	Organic Carbon	2.6		mg C/L	P389069	
2203409	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P388988	

Ref. Method and Comment:

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

Sample Location: Big Coldwater Creek West Fork Upstream of Walling Rd.

Collection Date/Time: 10/19/2020 11:56

Field ID: G4NW0436

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2203404	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P388976	
	EPA 300.0 Rev. 2.1	Chloride	6.2		mg Cl/L	P389373	
		Sulfate	1.5		mg SO4/L	P389376	
	SM 2120 B-2011	Color (true)	31		PCU	P388984	
	SM 2320 B-2011	Total Alkalinity	4.8		mg CaCO3/L	P389229	
	SM 2540 C-2011	TDS	43		mg/L	P389382	
	SM 2540 D-2011	TSS	7	I	mg/L	P389310	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P389118	
2203405	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P389201	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.26		mg N/L	P389188	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.5		mg N/L	P389154	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P389175	
	SM 5310 B-2011	Organic Carbon	2.7		mg C/L	P389069	
2203406	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P388988	
2203421	EPA 200.7 Rev. 4.4	Barium	57.6		ug/L	P389029	
		Calcium	2.82		mg/L	P389029	
		Iron	500		ug/L	P389029	
		Magnesium	1.94		mg/L	P389029	
		Potassium	1.2	I	mg/L	P389029	
		Sodium	2.4		mg/L	P389029	
		Zinc	5.0	U	ug/L	P389029	
	EPA 200.8 Rev. 5.4	Aluminum	119		ug/L	P389029	
		Antimony	0.050	U	ug/L	P389029	
		Arsenic	0.30		ug/L	P389029	
		Beryllium	0.058		ug/L	P389029	
		Boron**	14.8		ug/L	P389029	
		Cadmium	0.020	U	ug/L	P389029	
		Chromium	0.40	U	ug/L	P389029	
		Cobalt	0.494		ug/L	P389029	
		Copper	0.40	U	ug/L	P389029	
		Lead	0.20	U	ug/L	P389029	
		Manganese	38.4		ug/L	P389029	
		Molybdenum	0.15	U	ug/L	P389029	
		Nickel	0.68	I	ug/L	P389029	
		Selenium	0.20	U	ug/L	P389029	
		Silver	0.010	U	ug/L	P389029	
		Thallium	0.10	U	ug/L	P389029	
	SM 2340B	Hardness	15.0		mg/L	P389029	

Ref. Method and Comment:

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

Sample Location: Coldwater Creek West Fork Downstream of Hwy 87

Collection Date/Time: 10/19/2020 11:06

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2203401	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P389373	
		Sulfate	0.96		mg SO4/L	P389376	
	SM 2120 B-2011	Color (true)	28		PCU	P388984	
	SM 2320 B-2011	Total Alkalinity	3.3		mg CaCO3/L	P389229	
	SM 2540 C-2011	TDS	38		mg/L	P389382	
	SM 2540 D-2011	TSS	2	I	mg/L	P389310	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P389118	
2203402	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P389201	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P389187	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.9		mg N/L	P389154	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P389175	
	SM 5310 B-2011	Organic Carbon	2.3		mg C/L	P389069	
2203403	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P388988	
2203416	EPA 8321B	Aldicarb	0.020	U	ug/L	P388916	MS
		Aldicarb Sulfone	0.0020	U	ug/L	P388916	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P388916	MS
		Carbaryl	0.0020	U	ug/L	P388916	MS
		Carbofuran	0.0020	U	ug/L	P388916	MS
		3-Hydroxycarbofuran	0.0020	U	ug/L	P388916	
		Methiocarb	0.0020	U	ug/L	P388916	
		Methomyl	0.0020	U	ug/L	P388916	
		Oxamyl	0.0020	U	ug/L	P388916	
		Propoxur	0.0020	U	ug/L	P388916	MS
2203417		2,4-D	0.0070	I	ug/L	P388895	
		Acesulfame K**	0.10	U	ug/L	P389065	MS
		AMPA**	0.10	U	ug/L	P389065	
		Sucralose**	0.040		ug/L	P389065	
		Acetaminophen**	0.094		ug/L	P388895	
		Acetamiprid**	0.0020	U	ug/L	P388895	
		Endothall**	0.25	U	ug/L	P389065	
		Glufosinate**	0.10	U	ug/L	P389065	
		Glyphosate**	0.10	U	ug/L	P389065	
		Afidopyropen**	0.0020	U	ug/L	P388895	
		Bentazon	0.0011	I	ug/L	P388895	MS
		Benzovindiflupyr**	0.0020	U	ug/L	P388895	
		Carbamazepine**	8.0E-04	U	ug/L	P388895	
		Clothianidin**	0.0022	I	ug/L	P388895	
		Dinotefuran**	0.0043	I	ug/L	P388895	
		Diuron	0.0020	U	ug/L	P388895	MS, RPD
		Fenuron	0.016	U	ug/L	P388895	
		Fluridone**	8.0E-04	U	ug/L	P388895	
		Imazapyr**	0.018		ug/L	P388895	MS

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2203417	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P388895	
		Ibuprofen**	0.020	U	ug/L	P388895	
		Imidacloprid	0.0028	I	ug/L	P388895	
		Linuron	0.0040	U	ug/L	P388895	
		Mandestrobin**	0.0020	U	ug/L	P388895	
		MCP	0.0020	U	ug/L	P388895	
		Naproxen**	0.0080	U	ug/L	P388895	MS
		Primidone**	0.0040	U	ug/L	P388895	RPD
		Pyraclostrobin**	0.0020	U	ug/L	P388895	
		Thiamethoxam**	0.0021	I	ug/L	P388895	
		Tolfenpyrad**	0.0020	U	ug/L	P388895	
		Triclopyr**	0.0040	U	ug/L	P388895	
2203418	EPA 8270E	Aldrin	4.3	U	ng/L	P389028	
		Alpha-BHC	2.2	U	ng/L	P389028	
		Alpha-Chlordane	1.1	U	ng/L	P389028	
		Beta-BHC	8.6	U	ng/L	P389028	
		Beta-Cyfluthrin**	16	UJ	ng/L	P389028	CCV
		Bifenthrin**	4.3	U	ng/L	P389028	
		Delta-BHC	8.6	U	ng/L	P389028	
		Gamma-BHC	8.6	U	ng/L	P389028	
		Chlorothalonil	2.2	U	ng/L	P389028	RPD
		Cis-Nonachlor**	1.1	U	ng/L	P389028	
		Cypermethrin	22	U	ng/L	P389028	
		Dacthal**	1.1	U	ng/L	P389028	
		DDD-p,p'	5.4	U	ng/L	P389028	
		DDE-p,p'	5.4	U	ng/L	P389028	
		DDT-p,p'	6.5	U	ng/L	P389028	
		Deltamethrin**	22	U	ng/L	P389028	
		Dicofol	32	U	ng/L	P389028	
		Dieldrin	4.3	U	ng/L	P389028	
		Endosulfan I	4.3	U	ng/L	P389028	
		Endosulfan II	4.3	U	ng/L	P389028	
		Endosulfan Sulfate	2.2	U	ng/L	P389028	
		Endrin	2.2	U	ng/L	P389028	
		Endrin Aldehyde	2.2	U	ng/L	P389028	
		Endrin Ketone	2.2	U	ng/L	P389028	
		Ethalfuralin**	3.2	U	ng/L	P389028	
		Gamma-Chlordane	1.1	U	ng/L	P389028	
		Dichlobenil**	2.2	U	ng/L	P389028	
		Esfenvalerate**	22	U	ng/L	P389028	
		Fenpropathrin**	11	U	ng/L	P389028	
		Heptachlor	1.6	U	ng/L	P389028	
		Heptachlor Epoxide	2.2	U	ng/L	P389028	
		Hexachlorobenzene	2.2	U	ng/L	P389028	
		Lambda-Cyhalothrin**	16	U	ng/L	P389028	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2203418	EPA 8270E	Methoxychlor	4.3	U	ng/L	P389028	
		Mirex	2.2	U	ng/L	P389028	
		MGK-264**	3.2	UJ	ng/L	P389028	LCS
		Permethrin	11	U	ng/L	P389028	
		Phenothrin**	32	U	ng/L	P389028	
		Piperonyl Butoxide**	1.6	U	ng/L	P389028	
		Prallethrin**	27	U	ng/L	P389028	
		Tau-Fluvalinate**	3.8	U	ng/L	P389028	
		Tetramethrin**	8.6	UJ	ng/L	P389028	LCS
		Trans-Nonachlor**	1.1	U	ng/L	P389028	
		Triclosan Methyl**	1.1	U	ng/L	P389028	
		Trifluralin	2.7	U	ng/L	P389028	
		Chlordane	5.4	U	ng/L	P389028	
		Toxaphene	32	U	ng/L	P389028	
2203419	EPA 8270E	Acetochlor	0.24	U	ng/L	P388906	
		Alachlor	0.24	U	ng/L	P388906	
		Ametryn	0.58	U	ng/L	P388906	
		Atrazine	0.30	I	ng/L	P388906	
		Atrazine Desethyl	1.5	U	ng/L	P388906	
		Azinphos Methyl	1.9	U	ng/L	P388906	
		Azoxystrobin**	0.48	U	ng/L	P388906	
		Bromacil	0.86	I	ng/L	P388906	
		Butylate	0.39	U	ng/L	P388906	
		Carbophenothion	0.48	U	ng/L	P388906	
		Carfentrazone Ethyl**	0.097	U	ng/L	P388906	
		Chlorpyrifos Ethyl	0.24	UJ	ng/L	P388906	LCS
		Chlorpyrifos Methyl	0.048	U	ng/L	P388906	
		Cyanazine	3.1	U	ng/L	P388906	
		Demeton	1.5	U	ng/L	P388906	
		Diazinon	0.12	U	ng/L	P388906	
		Difenoconazole**	0.58	U	ng/L	P388906	
		Dimethenamid**	0.097	U	ng/L	P388906	
		Disulfoton	0.48	U	ng/L	P388906	
		Dithiopyr**	0.097	U	ng/L	P388906	
		EPTC	1.2	U	ng/L	P388906	
		Ethion	0.15	U	ng/L	P388906	
		Ethoprop	0.097	U	ng/L	P388906	
		Fenamiphos	0.48	U	ng/L	P388906	
		Fenbuconazole**	0.12	U	ng/L	P388906	
		Fipronil	1.4		ng/L	P388906	
		Fipronil Desulfinyl**	0.12	U	ng/L	P388906	
		Fipronil Sulfide	0.15	U	ng/L	P388906	
		Fipronil Sulfone	0.15	U	ng/L	P388906	
		Fluazifop-P-butyl**	0.097	U	ng/L	P388906	
		Fludioxonil**	0.12	U	ng/L	P388906	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2203419	EPA 8270E	Flumioxazin**	1.7	U	ng/L	P388906	RPD
		Flutolanil**	0.63		ng/L	P388906	
		Fluxapyroxad**	0.10	I	ng/L	P388906	
		Fonofos	0.19	U	ng/L	P388906	
		Hexazinone	1.2	I	ng/L	P388906	
		Imazalil**	0.73	U	ng/L	P388906	
		Iprodione**	0.58	U	ng/L	P388906	
		Malathion	0.34	U	ng/L	P388906	
		Metalaxyl	0.73	U	ng/L	P388906	
		Metolachlor	12		ng/L	P388906	
		Metribuzin	3.1	U	ng/L	P388906	
		Mevinphos	0.48	U	ng/L	P388906	
		Molinate	0.29	U	ng/L	P388906	
		Myclobutanil**	0.24	U	ng/L	P388906	
		Naled**	1.5	U	ng/L	P388906	
		Norflurazon	1.0	I	ng/L	P388906	
		Oxadiazon	0.29	I	ng/L	P388906	
		Parathion Ethyl	0.24	U	ng/L	P388906	
		Parathion Methyl	0.53	U	ng/L	P388906	
		Pendimethalin	0.97	U	ng/L	P388906	
		Phorate	0.24	U	ng/L	P388906	
		Prodiamine**	0.17	UJ	ng/L	P388906	RPD
		Prometon	0.87	U	ng/L	P388906	
		Prometryn	0.19	U	ng/L	P388906	
		Pronamide**	0.15	U	ng/L	P388906	
		Propiconazole**	0.48	U	ng/L	P388906	
		Pyriproxyfen**	0.12	U	ng/L	P388906	
		Simazine	0.48	U	ng/L	P388906	
		Sulfentrazone**	0.48	U	ng/L	P388906	
		Tebuconazole**	0.48	U	ng/L	P388906	
		Terbufos	0.097	U	ng/L	P388906	
		Terbutylazine	0.41	U	ng/L	P388906	
2203420	EPA 8270E dissolved	Oxyfluorfen**	0.15	U	ng/L	P388906	
	EPA 200.7 Rev. 4.4	Barium	61.0		ug/L	P389029	
		Calcium	2.55		mg/L	P389029	
		Iron	470		ug/L	P389029	
		Magnesium	1.99		mg/L	P389029	
		Potassium	1.1	I	mg/L	P389029	
		Sodium	2.2		mg/L	P389029	
		Zinc	5.0	U	ug/L	P389029	
	EPA 200.8 Rev. 5.4	Aluminum	120		ug/L	P389029	
		Antimony	0.050	U	ug/L	P389029	
		Arsenic	0.29		ug/L	P389029	
		Beryllium	0.056		ug/L	P389029	
		Boron**	14.0		ug/L	P389029	

Field ID: G4NW0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2203420	EPA 200.8 Rev. 5.4	Cadmium	0.020	U	ug/L	P389029	
		Chromium	0.40	U	ug/L	P389029	
		Cobalt	0.548		ug/L	P389029	
		Copper	0.42	I	ug/L	P389029	
		Lead	0.21	I	ug/L	P389029	
		Manganese	30.4		ug/L	P389029	
		Molybdenum	0.15	U	ug/L	P389029	
		Nickel	0.73	I	ug/L	P389029	
		Selenium	0.20	U	ug/L	P389029	
		Silver	0.010	U	ug/L	P389029	
		Thallium	0.10	U	ug/L	P389029	
	SM 2340B	Hardness	14.6		mg/L	P389029	

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.

EPA 8270E: MS accuracy for simazine not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E dissolved: MS accuracy for simazine not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P388976

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P389029

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P389029

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
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	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: P389373

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389376

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389201

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: P389187

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P389188

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P389154

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P389175

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P389251

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P388988

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

Reference Method: EPA 8270E
 Batch ID: P388906

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P388906

Component	Result	Code	Units
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
 Batch ID: P389028

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P389028

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

Reference Method: EPA 8270E dissolved
 Batch ID: P388906

Component	Result	Code	Units
Oxyfluorfen	0.15	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276
Batch ID: P389028

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

Reference Method: EPA 8321B
Batch ID: P388895

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

Reference Method: EPA 8321B
Batch ID: P388916

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P389065

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P389065

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: SM 2120 B-2011
Batch ID: P388984

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P389229

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

Reference Method: SM 2540 C-2011
Batch ID: P389382

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P389310

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P389118

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P389069

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: P389029

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	103		P	85 - 115
Calcium	106		P	85 - 115
Iron	105		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	103		P	85 - 115
Sodium	105		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P389029

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	109		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	101		P	85 - 115
Beryllium	101		P	85 - 115
Boron	104		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	101		P	85 - 115
Cobalt	102		P	85 - 115
Copper	97.6		P	85 - 115
Lead	97.1		P	85 - 115
Manganese	101		P	85 - 115
Molybdenum	100		P	85 - 115
Nickel	98.5		P	85 - 115
Selenium	101		P	85 - 115
Silver	97.4		P	85 - 115
Thallium	98.5		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389373

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389376

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389201

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389187

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P389188

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P389154

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P389175

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P389251

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P388988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.9		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P388906

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	91.1	90.6	P/P	71 - 122
Alachlor	88.7	89.7	P/P	70 - 121
Ametryn	94.9	97.1	P/P	49 - 137
Atrazine	93.7	93.7	P/P	76 - 125
Atrazine Desethyl	90.9	92.6	P/P	31 - 144
Azinphos Methyl	123	123	P/P	67 - 150
Azoxystrobin	90.7	113	P/P	70 - 170
Bromacil	78.0	80.7	P/P	36 - 121
Butylate	48.4	41.8	P/P	33 - 88.0
Carbophenothion	91.5	81.1	P/P	66 - 116
Carfentrazone Ethyl	96.2	91.4	P/P	50 - 150
Chlorpyrifos Ethyl	87.4	72.6	P/F	73 - 117
Chlorpyrifos Methyl	88.7	84.5	P/P	68 - 121
Cyanazine	144	143	P/P	20 - 250
Demeton	84.7	81.4	P/P	30 - 123
Diazinon	90.6	93.2	P/P	70 - 128
Difenoconazole	73.9	87.1	P/P	50 - 150
Dimethenamid	87.7	83.9	P/P	66 - 122
Disulfoton	77.0	77.8	P/P	46 - 124
Dithiopyr	87.2	85.0	P/P	69 - 122
EPTC	49.2	40.4	P/P	31 - 90.0
Ethion	83.3	70.1	P/P	45 - 135

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P388906

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ethoprop	83.5	81.7	P/P	59 - 118
Fenamiphos	80.9	82.3	P/P	30 - 136
Fenbuconazole	105	106	P/P	50 - 150
Fipronil	96.8	94.3	P/P	57 - 127
Fipronil Desulfinyl	92.0	91.0	P/P	51 - 122
Fipronil Sulfide	77.3	84.6	P/P	57 - 119
Fipronil Sulfone	75.5	89.9	P/P	51 - 119
Fluazifop-P-butyl	89.5	83.4	P/P	50 - 150
Fludioxonil	90.4	89.7	P/P	50 - 150
Flumioxazin	139	155	P/P	20 - 250
Flutolanil	90.9	87.0	P/P	50 - 150
Fluxapyroxad	88.1	87.8	P/P	50 - 150
Fonofos	81.9	77.6	P/P	60 - 120
Hexazinone	84.3	83.7	P/P	57 - 142
Imazalil	101	110	P/P	30 - 139
Iprodione	85.7	83.8	P/P	50 - 150
Malathion	88.6	86.9	P/P	67 - 128
Metalaxyl	99.0	96.1	P/P	21 - 148
Metolachlor	91.9	91.0	P/P	70 - 120
Metribuzin	105	107	P/P	20 - 250
Mevinphos	82.0	68.4	P/P	47 - 116
Molinate	66.4	62.5	P/P	41 - 99.0
Myclobutanil	94.9	91.2	P/P	50 - 150
Naled	49.1	46.6	P/P	38 - 97.0
Norflurazon	91.7	93.8	P/P	54 - 127
Oxadiazon	85.2	81.7	P/P	65 - 122
Parathion Ethyl	87.4	83.0	P/P	71 - 113
Parathion Methyl	92.6	89.3	P/P	73 - 129
Pendimethalin	82.9	69.1	P/P	63 - 130
Phorate	83.1	76.0	P/P	48 - 118
Prodiamine	140	103	P/P	20 - 144
Prometon	91.5	86.6	P/P	53 - 120
Prometryn	92.9	92.4	P/P	63 - 119
Pronamide	93.3	96.5	P/P	81 - 122
Propiconazole	88.9	84.7	P/P	62 - 124
Pyriproxyfen	81.8	72.3	P/P	50 - 150
Simazine	92.9	91.2	P/P	77 - 129
Sulfentrazone	90.1	92.0	P/P	20 - 137
Tebuconazole	55.9	52.8	P/P	20 - 118
Terbufos	83.1	78.2	P/P	61 - 119
Terbutylazine	92.9	92.6	P/P	75 - 119

Reference Method: EPA 8270E
Batch ID: P389028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	30.8	30.6	P/P	20 - 87.0
Alpha-BHC	79.3	79.9	P/P	65 - 142
Alpha-Chlordane	72.4	71.7	P/P	58 - 106
Beta-BHC	105	105	P/P	65 - 179
Beta-Cyfluthrin	56.8	60.0	P/P	39 - 153
Bifenthrin	60.1	60.4	P/P	38 - 128

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P389028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorothalonil	26.2	26.8	P/P	20 - 214
Cis-Nonachlor	75.4	73.6	P/P	56 - 113
Cypermethrin	65.3	67.4	P/P	37 - 130
Dacthal	85.3	83.7	P/P	75 - 109
DDD-p,p'	80.9	78.5	P/P	66 - 119
DDE-p,p'	69.8	69.6	P/P	53 - 108
DDT-p,p'	71.3	72.1	P/P	57 - 133
Delta-BHC	128	123	P/P	68 - 187
Deltamethrin	77.2	77.3	P/P	50 - 200
Dichlobenil	76.4	74.2	P/P	25 - 140
Dicofol	111	103	P/P	66 - 123
Dieldrin	78.4	76.4	P/P	65 - 111
Endosulfan I	79.2	78.0	P/P	65 - 115
Endosulfan II	92.8	92.0	P/P	68 - 133
Endosulfan Sulfate	84.2	82.3	P/P	62 - 127
Endrin	81.2	79.3	P/P	64 - 122
Endrin Aldehyde	91.3	87.7	P/P	61 - 132
Endrin Ketone	85.7	85.2	P/P	66 - 120
Esfenvalerate	63.5	64.4	P/P	50 - 150
Ethalfuralin	65.2	67.8	P/P	57 - 127
Fenpropathrin	67.9	67.5	P/P	60 - 160
Gamma-BHC	101	99.7	P/P	71 - 158
Gamma-Chlordane	67.6	67.7	P/P	53 - 106
Heptachlor	60.6	61.1	P/P	45 - 96.0
Heptachlor Epoxide	78.5	77.6	P/P	64 - 109
Hexachlorobenzene	66.3	66.1	P/P	46 - 103
Lambda-Cyhalothrin	65.2	67.2	P/P	38 - 145
Methoxychlor	77.3	78.5	P/P	69 - 149
MGK-264	43.0	40.9	F/F	50 - 150
Mirex	55.2	55.8	P/P	31 - 90.0
Permethrin	61.1	62.3	P/P	41 - 108
Phenothrin	32.0	32.6	P/P	22 - 91.0
Piperonyl Butoxide	83.9	85.0	P/P	50 - 150
Prallethrin	43.0	43.4	P/P	32 - 92.0
Tau-Fluvalinate	75.1	75.1	P/P	50 - 150
Tetramethrin	52.4	54.0	F/F	60 - 160
Trans-Nonachlor	69.4	69.0	P/P	50 - 107
Triclosan Methyl	87.0	86.4	P/P	50 - 150
Trifluralin	66.4	66.2	P/P	58 - 119

Reference Method: EPA 8270E dissolved
Batch ID: P388906

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxyfluorfen	118	103	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P389028

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	97.1	99.4	P/P	47 - 119
Toxaphene	74.7	81.2	P/P	41 - 112

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P388895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	45.5		P	30 - 160
Acetaminophen	53.8		P	30 - 160
Acetamiprid	61.5		P	30 - 160
Afidopyropen	50.6		P	30 - 160
Bentazon	48.3		P	30 - 160
Benzovindiflupyr	65.0		P	30 - 160
Carbamazepine	63.9		P	30 - 160
Clothianidin	101		P	30 - 160
Dinotefuran	84.8		P	30 - 160
Diuron	70.2		P	30 - 160
Fenuron	100		P	30 - 160
Fluridone	83.0		P	30 - 160
Hydrocodone	79.0		P	30 - 160
Ibuprofen	48.4		P	30 - 160
Imazapyr	52.0		P	30 - 160
Imidacloprid	77.2		P	30 - 160
Linuron	61.1		P	30 - 160
Mandestrobin	78.8		P	30 - 160
MCPP	58.1		P	30 - 160
Naproxen	45.5		P	30 - 160
Primidone	90.5		P	30 - 160
Pyraclostrobin	58.8		P	30 - 160
Thiamethoxam	85.6		P	30 - 160
Tolfenpyrad	38.6		P	30 - 160
Triclopyr	50.2		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P388916

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	79.7		P	30 - 160
Aldicarb	48.4		P	30 - 160
Aldicarb Sulfone	83.1		P	30 - 160
Aldicarb Sulfoxide	89.1		P	30 - 160
Carbaryl	63.1		P	30 - 160
Carbofuran	53.5		P	30 - 160
Methiocarb	80.9		P	30 - 160
Methomyl	89.2		P	30 - 160
Oxamyl	88.7		P	30 - 160
Propoxur	50.7		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P389065

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	81.7		P	40 - 150
AMPA	101		P	40 - 150
Endothall	83.7		P	40 - 150
Glufosinate	100		P	40 - 150
Glyphosate	95.2		P	40 - 140
Sucralose	116		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P388984

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

Reference Method: SM 2320 B-2011
Batch ID: P389229

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P389118

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P389069

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P389029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203379	Barium	105		P	80 - 120
2203379	Calcium	104		P	80 - 120
2203379	Iron	107		P	80 - 120
2203379	Magnesium	109		P	80 - 120
2203379	Potassium	103		P	80 - 120
2203379	Sodium	101		P	80 - 120
2203379	Zinc	102		P	80 - 120
2203607	Barium	108	104	P/P	80 - 120
2203607	Calcium	108	106	P/P	80 - 120
2203607	Iron	109	107	P/P	80 - 120
2203607	Magnesium	110	108	P/P	80 - 120
2203607	Potassium	103	102	P/P	80 - 120
2203607	Sodium	101		P	80 - 120
2203607	Zinc	106	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P389029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203379	Aluminum	101		P	80 - 120
2203379	Antimony	99.2		P	80 - 120
2203379	Arsenic	101		P	80 - 120
2203379	Beryllium	99.8		P	80 - 120
2203379	Boron	102		P	80 - 120
2203379	Cadmium	102		P	80 - 120
2203379	Chromium	99.4		P	80 - 120
2203379	Cobalt	100		P	80 - 120
2203379	Copper	96.7		P	80 - 120
2203379	Lead	95.1		P	80 - 120
2203379	Manganese	99.0		P	80 - 120
2203379	Molybdenum	98.6		P	80 - 120
2203379	Nickel	97.4		P	80 - 120
2203379	Selenium	97.0		P	80 - 120
2203379	Silver	96.6		P	80 - 120
2203379	Thallium	98.0		P	80 - 120
2203607	Aluminum	103	104	P/P	80 - 120
2203607	Antimony	102	102	P/P	80 - 120
2203607	Arsenic	100	102	P/P	80 - 120
2203607	Beryllium	96.7	99.2	P/P	80 - 120
2203607	Boron	101	104	P/P	80 - 120
2203607	Cadmium	103	103	P/P	80 - 120
2203607	Chromium	99.7	98.7	P/P	80 - 120
2203607	Cobalt	99.9	99.8	P/P	80 - 120
2203607	Copper	97.3	97.6	P/P	80 - 120
2203607	Lead	95.9	96.2	P/P	80 - 120
2203607	Manganese	99.7	99.9	P/P	80 - 120
2203607	Molybdenum	99.4	99.3	P/P	80 - 120
2203607	Nickel	97.8	98.0	P/P	80 - 120
2203607	Selenium	94.3	95.7	P/P	80 - 120
2203607	Silver	95.7	96.9	P/P	80 - 120
2203607	Thallium	98.0	98.7	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389373

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203363	Chloride	106		P	90 - 110
2203407	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389376

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203363	Sulfate	104		P	90 - 110
2203407	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203408	Ammonia-N	102	98.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389187

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203402	Kjeldahl Nitrogen	101	90.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389188

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203604	Kjeldahl Nitrogen	102	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389154

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202998	NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389175

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203351	Total-P	108	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389251

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203408	Total-P	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P388988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203388	O-Phosphate-P	98.9	98.7	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P388906

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203279	Acetochlor	82.2	85.7	P/P	68 - 126
2203279	Alachlor	79.4	84.2	P/P	66 - 125
2203279	Ametryn	80.3	104	P/P	31 - 182
2203279	Atrazine	86.8	92.0	P/P	68 - 137
2203279	Atrazine Desethyl	80.5	88.3	P/P	13 - 161
2203279	Azinphos Methyl	113	110	P/P	54 - 162
2203279	Azoxystrobin	104	106	P/P	70 - 170
2203279	Bromacil	64.1	70.6	P/P	34 - 144
2203279	Butylate	40.8	52.3	P/P	16 - 92.0
2203279	Carbophenothion	84.9	85.6	P/P	30 - 131
2203279	Carfentrazone Ethyl	83.2	83.7	P/P	50 - 150
2203279	Chlorpyrifos Ethyl	83.3	87.3	P/P	63 - 124
2203279	Chlorpyrifos Methyl	81.7	84.6	P/P	64 - 125
2203279	Cyanazine	134	131	P/P	13 - 245
2203279	Demeton	82.3	79.7	P/P	20 - 154
2203279	Diazinon	82.0	87.7	P/P	66 - 141
2203279	Difenoconazole	75.2	78.8	P/P	50 - 150
2203279	Dimethenamid	77.2	79.2	P/P	50 - 130
2203279	Disulfoton	71.0	74.1	P/P	55 - 130
2203279	Dithiopyr	77.4	82.3	P/P	66 - 122
2203279	EPTC	47.1	50.0	P/P	15 - 93.0
2203279	Ethion	76.7	73.7	P/P	15 - 148
2203279	Ethoprop	75.6	80.4	P/P	59 - 126
2203279	Fenamiphos	86.5	81.1	P/P	39 - 137
2203279	Fenbuconazole	94.8	94.3	P/P	50 - 150
2203279	Fipronil	86.5	88.7	P/P	47 - 131
2203279	Fipronil Desulfiny	82.3	85.9	P/P	43 - 121
2203279	Fipronil Sulfide	76.3	74.0	P/P	29 - 134
2203279	Fipronil Sulfone	92.0	69.6	P/P	19 - 131
2203279	Fluazifop-P-butyl	81.6	86.0	P/P	50 - 150
2203279	Fludioxonil	80.8	84.4	P/P	50 - 150
2203279	Flumioxazin	146	150	P/P	10 - 300
2203279	Flutolanil	78.0	79.7	P/P	50 - 150
2203279	Fluxapyroxad	80.1	79.5	P/P	50 - 150
2203279	Fonofos	77.8	75.2	P/P	62 - 128
2203279	Hexazinone	81.2	82.7	P/P	58 - 154
2203279	Imazalil	78.6	106	P/P	10 - 215
2203279	Iprodione	75.4	75.7	P/P	50 - 150
2203279	Malathion	86.2	86.7	P/P	54 - 135
2203279	Metalaxyl	83.3	90.6	P/P	46 - 136
2203279	Metolachlor	82.7	86.3	P/P	62 - 126
2203279	Metribuzin	105	106	P/P	44 - 277
2203279	Mevinphos	72.7	75.8	P/P	44 - 135
2203279	Molinate	59.5	66.5	P/P	31 - 104
2203279	Myclobutanil	82.7	83.7	P/P	50 - 150
2203279	Naled	47.3	49.2	P/P	33 - 113
2203279	Norflurazon	81.5	84.0	P/P	32 - 134
2203279	Oxadiazon	77.7	81.5	P/P	55 - 123
2203279	Parathion Ethyl	81.6	83.7	P/P	67 - 120
2203279	Parathion Methyl	85.9	88.1	P/P	70 - 140
2203279	Pendimethalin	78.3	81.4	P/P	59 - 145
2203279	Phorate	78.1	80.2	P/P	52 - 127

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
 Batch ID: P388906

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203279	Prodiamine	63.3	81.0	P/P	11 - 157
2203279	Prometon	83.0	86.0	P/P	55 - 130
2203279	Prometryn	74.0	79.9	P/P	55 - 127
2203279	Pronamide	88.7	91.6	P/P	66 - 150
2203279	Propiconazole	79.2	76.6	P/P	14 - 178
2203279	Pyriproxyfen	75.4	71.8	P/P	50 - 150
2203279	Sulfentrazone	82.0	82.8	P/P	21 - 144
2203279	Tebuconazole	49.5	49.8	P/P	10 - 122
2203279	Terbufos	77.6	82.0	P/P	65 - 131
2203279	Terbutylazine	85.8	89.4	P/P	63 - 131

Reference Method: EPA 8270E
 Batch ID: P389028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203484	Aldrin	58.6	56.7	P/P	32 - 82.0
2203484	Alpha-BHC	83.7	85.5	P/P	68 - 157
2203484	Alpha-Chlordane	88.5	86.6	P/P	54 - 108
2203484	Beta-BHC	114	118	P/P	54 - 200
2203484	Beta-Cyfluthrin	82.6	104	P/P	50 - 154
2203484	Bifenthrin	85.5	87.0	P/P	49 - 124
2203484	Chlorothalonil	60.1	101	P/P	10 - 289
2203484	Cis-Nonachlor	89.6	87.9	P/P	53 - 112
2203484	Cypermethrin	96.1	101	P/P	43 - 141
2203484	Dacthal	94.1	93.0	P/P	75 - 112
2203484	DDD-p,p'	95.5	93.3	P/P	58 - 125
2203484	DDE-p,p'	82.4	81.9	P/P	50 - 108
2203484	DDT-p,p'	87.6	91.4	P/P	52 - 140
2203484	Delta-BHC	141	158	P/P	61 - 228
2203484	Deltamethrin	114	121	P/P	50 - 200
2203484	Dichlobenil	79.6	77.9	P/P	25 - 140
2203484	Dicofol	102	103	P/P	59 - 130
2203484	Dieldrin	91.7	90.7	P/P	57 - 121
2203484	Endosulfan I	93.9	98.3	P/P	62 - 123
2203484	Endosulfan II	116	114	P/P	48 - 163
2203484	Endosulfan Sulfate	97.7	103	P/P	63 - 132
2203484	Endrin	91.4	98.3	P/P	58 - 128
2203484	Endrin Aldehyde	96.9	105	P/P	44 - 126
2203484	Endrin Ketone	96.9	99.9	P/P	68 - 127
2203484	Esfenvalerate	85.9	90.2	P/P	50 - 150
2203484	Ethalfuralin	75.5	76.1	P/P	55 - 131
2203484	Fenpropathrin	96.1	106	P/P	60 - 160
2203484	Gamma-BHC	107	109	P/P	54 - 206
2203484	Gamma-Chlordane	82.4	81.2	P/P	52 - 105
2203484	Heptachlor	71.7	71.4	P/P	47 - 94.0
2203484	Heptachlor Epoxide	90.2	89.4	P/P	61 - 113
2203484	Hexachlorobenzene	73.7	73.4	P/P	45 - 100
2203484	Lambda-Cyhalothrin	98.0	103	P/P	37 - 165
2203484	Methoxychlor	87.8	87.3	P/P	63 - 153
2203484	MGK-264	73.9	79.7	P/P	50 - 150
2203484	Mirex	70.5	70.4	P/P	38 - 90.0
2203484	Permethrin	85.3	88.2	P/P	45 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
 Batch ID: P389028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203484	Phenothrin	65.0	66.1	P/P	22 - 118
2203484	Piperonyl Butoxide	101	106	P/P	50 - 150
2203484	Prallethrin	61.4	61.8	P/P	21 - 114
2203484	Tau-Fluvalinate	112	119	P/P	50 - 150
2203484	Tetramethrin	69.0	71.5	P/P	60 - 160
2203484	Trans-Nonachlor	82.0	80.0	P/P	50 - 103
2203484	Triclosan Methyl	99.1	96.6	P/P	50 - 150
2203484	Trifluralin	74.7	74.4	P/P	57 - 122

Reference Method: EPA 8270E dissolved
 Batch ID: P388906

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203279	Oxyfluorfen	107	108	P/P	50 - 150

Reference Method: EPA 8276
 Batch ID: P389028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203933	Chlordane	110	112	P/P	34 - 129
2203933	Toxaphene	108	115	P/P	16 - 148

Reference Method: EPA 8321B
 Batch ID: P388895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202818	2,4-D	40.9	42.4	P/P	30 - 160
2202818	Acetaminophen	85.6	100	P/P	30 - 160
2202818	Acetamiprid	60.5	51.3	P/P	30 - 160
2202818	Afidopyropen	45.1	34.0	P/P	30 - 160
2202818	Bentazon	20.2	19.8	F/F	30 - 160
2202818	Benzovindiflupyr	57.5	49.0	P/P	30 - 160
2202818	Carbamazepine	49.3	39.3	P/P	30 - 160
2202818	Clothianidin	76.6	66.5	P/P	30 - 160
2202818	Dinotefuran	68.1	63.9	P/P	30 - 160
2202818	Diuron	30.1	20.7	P/F	30 - 160
2202818	Fenuron	61.7	70.3	P/P	30 - 160
2202818	Fluridone	66.7	51.6	P/P	30 - 160
2202818	Hydrocodone	56.5	57.6	P/P	30 - 160
2202818	Ibuprofen	36.6	35.8	P/P	30 - 160
2202818	Imazapyr	28.2	26.5	F/F	30 - 160
2202818	Imidacloprid	112	95.4	P/P	30 - 160
2202818	Linuron	53.7	54.4	P/P	30 - 160
2202818	Mandestrobin	64.4	58.6	P/P	30 - 160
2202818	MCP	63.1	58.3	P/P	30 - 160
2202818	Naproxen	32.2	29.6	P/F	30 - 160
2202818	Primidone	63.4	40.6	P/P	30 - 160
2202818	Pyraclostrobin	57.0	50.1	P/P	30 - 160
2202818	Thiamethoxam	83.0	69.4	P/P	30 - 160
2202818	Tolfenpyrad	35.7	32.5	P/P	30 - 160
2202818	Triclopyr	54.4	46.4	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P388916

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2202302	3-Hydroxycarbofuran	48.7	39.3	P/P	30 - 160
2202302	Aldicarb	27.9	24.6	F/F	30 - 160
2202302	Aldicarb Sulfone	36.6	32.8	P/P	30 - 160
2202302	Aldicarb Sulfoxide	11.4	10.6	F/F	30 - 160
2202302	Carbaryl	24.8	22.1	F/F	30 - 160
2202302	Carbofuran	22.0	24.1	F/F	30 - 160
2202302	Methiocarb	49.4	40.9	P/P	30 - 160
2202302	Methomyl	44.5	41.7	P/P	30 - 160
2202302	Oxamyl	38.4	41.3	P/P	30 - 160
2202302	Propoxur	24.7	23.2	F/F	30 - 160

Reference Method: EPA 8321B

Batch ID: P389065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203277	Acesulfame K	27.0	27.2	F/F	40 - 150
2203277	AMPA	98.9	96.6	P/P	40 - 150
2203277	Endothall	79.5	82.6	P/P	40 - 150
2203277	Glufosinate	91.9	89.7	P/P	40 - 150
2203277	Glyphosate	82.4	75.2	P/P	40 - 140
2203277	Sucralose	113	100	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P389118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203350	Fluoride	103	105	P/P	94 - 107

Reference Method: SM 5310 B-2011

Batch ID: P389069

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2203460	Organic Carbon	97.6	97.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P388976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203363	Turbidity	5.35	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P389029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203607	Barium	3.86	Spike	P	0 - 20
2203607	Calcium	1.37	Spike	P	0 - 20
2203607	Iron	1.27	Spike	P	0 - 20
2203607	Magnesium	1.50	Spike	P	0 - 20
2203607	Potassium	0.574	Spike	P	0 - 20
2203607	Sodium	0.0891	Spike	P	0 - 20
2203607	Zinc	3.26	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P389029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203607	Aluminum	1.35	Spike	P	0 - 20
2203607	Antimony	0.260	Spike	P	0 - 20
2203607	Arsenic	1.49	Spike	P	0 - 20
2203607	Beryllium	2.12	Spike	P	0 - 20
2203607	Boron	2.74	Spike	P	0 - 20
2203607	Cadmium	0.0805	Spike	P	0 - 20
2203607	Chromium	0.975	Spike	P	0 - 20
2203607	Cobalt	0.108	Spike	P	0 - 20
2203607	Copper	0.263	Spike	P	0 - 20
2203607	Lead	0.347	Spike	P	0 - 20
2203607	Manganese	0.179	Spike	P	0 - 20
2203607	Molybdenum	0.149	Spike	P	0 - 20
2203607	Nickel	0.263	Spike	P	0 - 20
2203607	Selenium	1.45	Spike	P	0 - 20
2203607	Silver	1.29	Spike	P	0 - 20
2203607	Thallium	0.747	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389373

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203363	Chloride	0.487	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P389376

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203363	Sulfate	0.720	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P389201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203408	Ammonia-N	2.11	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389187

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203402	Kjeldahl Nitrogen	8.50	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P389188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203604	Kjeldahl Nitrogen	1.76	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P389154

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202998	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389175

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203351	Total-P	0.707	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P389251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203408	Total-P	0.937	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P388988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203388	O-Phosphate-P	0.178	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P388906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203279	Acetochlor	4.17	Spike	P	0 - 30
2203279	Alachlor	5.89	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P388906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203279	Ametryn	26.0	Spike	P	0 - 30
2203279	Atrazine	4.27	Spike	P	0 - 30
2203279	Atrazine Desethyl	9.32	Spike	P	0 - 30
2203279	Azinphos Methyl	2.06	Spike	P	0 - 30
2203279	Azoxystrobin	2.67	Spike	P	0 - 30
2203279	Bromacil	9.64	Spike	P	0 - 30
2203279	Butylate	24.7	Spike	P	0 - 30
2203279	Carbophenothion	0.806	Spike	P	0 - 30
2203279	Carfentrazone Ethyl	0.595	Spike	P	0 - 30
2203279	Chlorpyrifos Ethyl	4.68	Spike	P	0 - 30
2203279	Chlorpyrifos Methyl	3.44	Spike	P	0 - 30
2203279	Cyanazine	1.99	Spike	P	0 - 30
2203279	Demeton	3.18	Spike	P	0 - 30
2203279	Diazinon	6.69	Spike	P	0 - 30
2203279	Difenoconazole	4.66	Spike	P	0 - 30
2203279	Dimethenamid	2.56	Spike	P	0 - 30
2203279	Disulfoton	4.25	Spike	P	0 - 30
2203279	Dithiopyr	6.17	Spike	P	0 - 30
2203279	EPTC	5.99	Spike	P	0 - 30
2203279	Ethion	4.01	Spike	P	0 - 30
2203279	Ethoprop	6.16	Spike	P	0 - 30
2203279	Fenamiphos	6.43	Spike	P	0 - 30
2203279	Fenbuconazole	0.573	Spike	P	0 - 30
2203279	Fipronil	2.62	Spike	P	0 - 30
2203279	Fipronil Desulfinyl	4.29	Spike	P	0 - 30
2203279	Fipronil Sulfide	3.09	Spike	P	0 - 30
2203279	Fipronil Sulfone	27.7	Spike	P	0 - 30
2203279	Fluazifop-P-butyl	5.23	Spike	P	0 - 30
2203279	Fludioxonil	4.32	Spike	P	0 - 30
2203279	Flumioxazin	3.03	Spike	P	0 - 30
2203279	Flutolanil	2.20	Spike	P	0 - 30
2203279	Fluxapyroxad	0.756	Spike	P	0 - 30
2203279	Fonofos	3.46	Spike	P	0 - 30
2203279	Hexazinone	1.72	Spike	P	0 - 30
2203279	Imazalil	30.0	Spike	F	0 - 30
2203279	Iprodione	0.308	Spike	P	0 - 30
2203279	Malathion	0.590	Spike	P	0 - 30
2203279	Metalaxyl	8.41	Spike	P	0 - 30
2203279	Metolachlor	4.29	Spike	P	0 - 30
2203279	Metribuzin	0.697	Spike	P	0 - 30
2203279	Mevinphos	4.09	Spike	P	0 - 30
2203279	Molinate	11.1	Spike	P	0 - 30
2203279	Myclobutanil	1.22	Spike	P	0 - 30
2203279	Naled	3.87	Spike	P	0 - 30
2203279	Norflurazon	2.99	Spike	P	0 - 30
2203279	Oxadiazon	4.84	Spike	P	0 - 30
2203279	Parathion Ethyl	2.53	Spike	P	0 - 30
2203279	Parathion Methyl	2.50	Spike	P	0 - 30
2203279	Pendimethalin	3.87	Spike	P	0 - 30
2203279	Phorate	2.67	Spike	P	0 - 30
2203279	Prodiamine	24.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P388906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203279	Prometon	3.58	Spike	P	0 - 30
2203279	Prometryn	7.18	Spike	P	0 - 30
2203279	Pronamide	3.29	Spike	P	0 - 30
2203279	Propiconazole	3.37	Spike	P	0 - 30
2203279	Pyriproxyfen	4.82	Spike	P	0 - 30
2203279	Simazine	1.09	Spike	P	0 - 30
2203279	Sulfentrazone	0.979	Spike	P	0 - 30
2203279	Tebuconazole	0.774	Spike	P	0 - 30
2203279	Terbufos	5.57	Spike	P	0 - 30
2203279	Terbuthylazine	4.00	Spike	P	0 - 30
LFB	Acetochlor	0.557	LCS	P	0 - 30
LFB	Alachlor	1.08	LCS	P	0 - 30
LFB	Ametryn	2.28	LCS	P	0 - 30
LFB	Atrazine	0.0914	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.91	LCS	P	0 - 30
LFB	Azinphos Methyl	0.330	LCS	P	0 - 30
LFB	Azoxystrobin	21.8	LCS	P	0 - 30
LFB	Bromacil	3.34	LCS	P	0 - 30
LFB	Butylate	14.6	LCS	P	0 - 30
LFB	Carbophenothion	12.1	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	5.12	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	18.5	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	4.89	LCS	P	0 - 30
LFB	Cyanazine	0.446	LCS	P	0 - 30
LFB	Demeton	3.96	LCS	P	0 - 30
LFB	Diazinon	2.84	LCS	P	0 - 30
LFB	Difenoconazole	16.4	LCS	P	0 - 30
LFB	Dimethenamid	4.36	LCS	P	0 - 30
LFB	Disulfoton	1.06	LCS	P	0 - 30
LFB	Dithiopyr	2.58	LCS	P	0 - 30
LFB	EPTC	19.7	LCS	P	0 - 30
LFB	Ethion	17.2	LCS	P	0 - 30
LFB	Ethoprop	2.24	LCS	P	0 - 30
LFB	Fenamiphos	1.80	LCS	P	0 - 30
LFB	Fenbuconazole	1.73	LCS	P	0 - 30
LFB	Fipronil	2.68	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.13	LCS	P	0 - 30
LFB	Fipronil Sulfide	9.07	LCS	P	0 - 30
LFB	Fipronil Sulfone	17.4	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	6.98	LCS	P	0 - 30
LFB	Fludioxonil	0.845	LCS	P	0 - 30
LFB	Flumioxazin	11.0	LCS	P	0 - 30
LFB	Flutolanil	4.47	LCS	P	0 - 30
LFB	Fluxapyroxad	0.386	LCS	P	0 - 30
LFB	Fonofos	5.33	LCS	P	0 - 30
LFB	Hexazinone	0.732	LCS	P	0 - 30
LFB	Imazalil	8.49	LCS	P	0 - 30
LFB	Iprodione	2.19	LCS	P	0 - 30
LFB	Malathion	1.96	LCS	P	0 - 30
LFB	Metalaxyl	3.05	LCS	P	0 - 30
LFB	Metolachlor	0.958	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E
Batch ID: P388906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metribuzin	2.19	LCS	P	0 - 30
LFB	Mevinphos	18.1	LCS	P	0 - 30
LFB	Molinate	6.05	LCS	P	0 - 30
LFB	Myclobutanil	3.99	LCS	P	0 - 30
LFB	Naled	5.30	LCS	P	0 - 30
LFB	Norflurazon	2.24	LCS	P	0 - 30
LFB	Oxadiazon	4.15	LCS	P	0 - 30
LFB	Parathion Ethyl	5.14	LCS	P	0 - 30
LFB	Parathion Methyl	3.54	LCS	P	0 - 30
LFB	Pendimethalin	18.1	LCS	P	0 - 30
LFB	Phorate	8.88	LCS	P	0 - 30
LFB	Prodiamine	30.1	LCS	F	0 - 30
LFB	Prometon	5.46	LCS	P	0 - 30
LFB	Prometryn	0.558	LCS	P	0 - 30
LFB	Pronamide	3.37	LCS	P	0 - 30
LFB	Propiconazole	4.86	LCS	P	0 - 30
LFB	Pyriproxyfen	12.3	LCS	P	0 - 30
LFB	Simazine	1.78	LCS	P	0 - 30
LFB	Sulfentrazone	2.05	LCS	P	0 - 30
LFB	Tebuconazole	5.76	LCS	P	0 - 30
LFB	Terbufos	6.10	LCS	P	0 - 30
LFB	Terbutylazine	0.342	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P389028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203484	Aldrin	3.20	Spike	P	0 - 30
2203484	Alpha-BHC	2.17	Spike	P	0 - 30
2203484	Alpha-Chlordane	2.14	Spike	P	0 - 30
2203484	Beta-BHC	3.39	Spike	P	0 - 30
2203484	Beta-Cyfluthrin	22.7	Spike	P	0 - 30
2203484	Bifenthrin	1.74	Spike	P	0 - 30
2203484	Chlorothalonil	50.5	Spike	F	0 - 30
2203484	Cis-Nonachlor	1.90	Spike	P	0 - 30
2203484	Cypermethrin	4.75	Spike	P	0 - 30
2203484	Dacthal	1.18	Spike	P	0 - 30
2203484	DDD-p,p'	2.28	Spike	P	0 - 30
2203484	DDE-p,p'	0.619	Spike	P	0 - 30
2203484	DDT-p,p'	4.27	Spike	P	0 - 30
2203484	Delta-BHC	11.1	Spike	P	0 - 30
2203484	Deltamethrin	6.19	Spike	P	0 - 30
2203484	Dichlobenil	2.14	Spike	P	0 - 30
2203484	Dicofol	0.606	Spike	P	0 - 30
2203484	Dieldrin	1.16	Spike	P	0 - 30
2203484	Endosulfan I	4.56	Spike	P	0 - 30
2203484	Endosulfan II	2.30	Spike	P	0 - 30
2203484	Endosulfan Sulfate	5.37	Spike	P	0 - 30
2203484	Endrin	7.35	Spike	P	0 - 30
2203484	Endrin Aldehyde	8.00	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P389028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203484	Endrin Ketone	3.02	Spike	P	0 - 30
2203484	Esfenvalerate	4.87	Spike	P	0 - 30
2203484	Ethalfuralin	0.797	Spike	P	0 - 30
2203484	Fenpropathrin	9.77	Spike	P	0 - 30
2203484	Gamma-BHC	1.42	Spike	P	0 - 30
2203484	Gamma-Chlordane	1.53	Spike	P	0 - 30
2203484	Heptachlor	0.496	Spike	P	0 - 30
2203484	Heptachlor Epoxide	0.891	Spike	P	0 - 30
2203484	Hexachlorobenzene	0.385	Spike	P	0 - 30
2203484	Lambda-Cyhalothrin	5.44	Spike	P	0 - 30
2203484	Methoxychlor	0.507	Spike	P	0 - 30
2203484	MGK-264	7.66	Spike	P	0 - 30
2203484	Mirex	0.0823	Spike	P	0 - 30
2203484	Permethrin	3.31	Spike	P	0 - 30
2203484	Phenothrin	1.65	Spike	P	0 - 30
2203484	Piperonyl Butoxide	4.06	Spike	P	0 - 30
2203484	Prallethrin	0.587	Spike	P	0 - 30
2203484	Tau-Fluvalinate	5.67	Spike	P	0 - 30
2203484	Tetramethrin	3.53	Spike	P	0 - 30
2203484	Trans-Nonachlor	2.49	Spike	P	0 - 30
2203484	Triclosan Methyl	2.53	Spike	P	0 - 30
2203484	Trifluralin	0.367	Spike	P	0 - 30
LFB	Aldrin	0.721	LCS	P	0 - 30
LFB	Alpha-BHC	0.653	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.883	LCS	P	0 - 30
LFB	Beta-BHC	0.292	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	5.51	LCS	P	0 - 30
LFB	Bifenthrin	0.483	LCS	P	0 - 30
LFB	Chlorothalonil	2.27	LCS	P	0 - 30
LFB	Cis-Nonachlor	2.31	LCS	P	0 - 30
LFB	Cypermethrin	3.23	LCS	P	0 - 30
LFB	Dacthal	1.81	LCS	P	0 - 30
LFB	DDD-p,p'	3.12	LCS	P	0 - 30
LFB	DDE-p,p'	0.312	LCS	P	0 - 30
LFB	DDT-p,p'	1.09	LCS	P	0 - 30
LFB	Delta-BHC	4.12	LCS	P	0 - 30
LFB	Deltamethrin	0.188	LCS	P	0 - 30
LFB	Dichlobenil	2.89	LCS	P	0 - 30
LFB	Dicofol	7.59	LCS	P	0 - 30
LFB	Dieldrin	2.60	LCS	P	0 - 30
LFB	Endosulfan I	1.53	LCS	P	0 - 30
LFB	Endosulfan II	0.859	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.31	LCS	P	0 - 30
LFB	Endrin	2.39	LCS	P	0 - 30
LFB	Endrin Aldehyde	3.99	LCS	P	0 - 30
LFB	Endrin Ketone	0.632	LCS	P	0 - 30
LFB	Esfenvalerate	1.33	LCS	P	0 - 30
LFB	Ethalfuralin	3.91	LCS	P	0 - 30
LFB	Fenpropathrin	0.494	LCS	P	0 - 30
LFB	Gamma-BHC	1.38	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.201	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P389028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Heptachlor	0.782	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.16	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.253	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	2.95	LCS	P	0 - 30
LFB	Methoxychlor	1.56	LCS	P	0 - 30
LFB	MGK-264	5.00	LCS	P	0 - 30
LFB	Mirex	1.09	LCS	P	0 - 30
LFB	Permethrin	1.94	LCS	P	0 - 30
LFB	Phenothrin	2.05	LCS	P	0 - 30
LFB	Piperonyl Butoxide	1.31	LCS	P	0 - 30
LFB	Prallethrin	0.776	LCS	P	0 - 30
LFB	Tau-Fluvalinate	0.0386	LCS	P	0 - 30
LFB	Tetramethrin	3.11	LCS	P	0 - 30
LFB	Trans-Nonachlor	0.653	LCS	P	0 - 30
LFB	Triclosan Methyl	0.703	LCS	P	0 - 30
LFB	Trifluralin	0.409	LCS	P	0 - 30

Reference Method: EPA 8270E dissolved
Batch ID: P388906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203279	Oxyfluorfen	0.813	Spike	P	0 - 30
LFB	Oxyfluorfen	13.6	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P389028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203933	Chlordane	1.91	Spike	P	0 - 30
2203933	Toxaphene	5.96	Spike	P	0 - 30
LFB	Chlordane	2.35	LCS	P	0 - 30
LFB	Toxaphene	8.43	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P388895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202818	2,4-D	2.97	Spike	P	0 - 30
2202818	Acetaminophen	15.7	Spike	P	0 - 30
2202818	Acetamiprid	16.4	Spike	P	0 - 30
2202818	Afidopyropen	28.0	Spike	P	0 - 30
2202818	Bentazon	0.898	Spike	P	0 - 30
2202818	Benzovindiflupyr	15.9	Spike	P	0 - 30
2202818	Carbamazepine	22.4	Spike	P	0 - 30
2202818	Clothianidin	14.1	Spike	P	0 - 30
2202818	Dinotefuran	6.44	Spike	P	0 - 30
2202818	Diuron	31.8	Spike	F	0 - 30
2202818	Fenuron	13.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P388895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202818	Fluridone	20.5	Spike	P	0 - 30
2202818	Hydrocodone	2.04	Spike	P	0 - 30
2202818	Ibuprofen	2.25	Spike	P	0 - 30
2202818	Imazapyr	3.05	Spike	P	0 - 30
2202818	Imidacloprid	15.4	Spike	P	0 - 30
2202818	Linuron	1.34	Spike	P	0 - 30
2202818	Mandestrobin	9.44	Spike	P	0 - 30
2202818	MCCP	8.05	Spike	P	0 - 30
2202818	Naproxen	8.26	Spike	P	0 - 30
2202818	Primidone	43.7	Spike	F	0 - 30
2202818	Pyraclostrobin	12.9	Spike	P	0 - 30
2202818	Thiamethoxam	17.7	Spike	P	0 - 30
2202818	Tolfenpyrad	9.44	Spike	P	0 - 30
2202818	Triclopyr	15.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P388916

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2202302	3-Hydroxycarbofuran	21.6	Spike	P	0 - 30
2202302	Aldicarb	12.5	Spike	P	0 - 30
2202302	Aldicarb Sulfone	10.8	Spike	P	0 - 30
2202302	Aldicarb Sulfoxide	7.67	Spike	P	0 - 30
2202302	Carbaryl	9.17	Spike	P	0 - 30
2202302	Carbofuran	8.92	Spike	P	0 - 30
2202302	Methiocarb	18.9	Spike	P	0 - 30
2202302	Methomyl	6.36	Spike	P	0 - 30
2202302	Oxamyl	7.26	Spike	P	0 - 30
2202302	Propoxur	5.92	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P389065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203277	Acesulfame K	0.737	Spike	P	0 - 30
2203277	AMPA	2.38	Spike	P	0 - 30
2203277	Endothall	3.88	Spike	P	0 - 30
2203277	Glufosinate	2.45	Spike	P	0 - 30
2203277	Glyphosate	9.13	Spike	P	0 - 30
2203277	Sucralose	12.1	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P388984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203350	Color (true)	1.31	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P389229

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2204122	Total Alkalinity	1.10	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P389382

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203456	TDS	1.08	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P389118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203350	Fluoride	2.01	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P389069

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2203460	Organic Carbon	0.116	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2203416
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	69.2	P	30 - 160

Lab Sample ID: 2203417
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	54.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	66.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.1	P	30 - 160
EPA 8321B	Diuron-d6	70.4	P	30 - 160
EPA 8321B	Endothall-d6	90.3	P	30 - 160
EPA 8321B	Endothall-d6	90.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	100	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	100	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.6	P	30 - 160
EPA 8321B	Primidone-d5	97.3	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160

Lab Sample ID: 2203418
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	76.3	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	63.5	P	34 - 106
EPA 8276	Decachlorobiphenyl	53.7	P	26 - 97.0
EPA 8276	PCNB	79.2	P	38 - 141

Lab Sample ID: 2203419
Field Sample ID: G4NW0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	86.4	P	72 - 135
EPA 8270E	Terbufos-d10	81.4	P	57 - 134
EPA 8270E dissolved	Simazine-d10	86.4	P	72 - 135
EPA 8270E dissolved	Terbufos-d10	81.4	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A101640

Included Lab Sample IDs: 2203404, 2203407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.0	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A101644

Included Lab Sample IDs: 2203401, 2203404, 2203407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A101645

Included Lab Sample IDs: 2203403, 2203406, 2203409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	99.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A101652

Included Lab Sample IDs: 2203416

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	88.8	96.2	P/P	60 - 150
Aldicarb	83.0	86.7	P/P	60 - 150
Aldicarb Sulfone	82.3	88.1	P/P	50 - 150
Aldicarb Sulfoxide	96.0	92.4	P/P	50 - 150
Carbaryl	78.4	69.3	P/P	60 - 150
Carbofuran	67.3	60.9	P/P	50 - 150
Methiocarb	77.5	81.2	P/P	50 - 150
Methomyl	91.8	81.1	P/P	50 - 150
Oxamyl	99.5	91.7	P/P	50 - 150
Propoxur	72.4	68.9	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A101671

Included Lab Sample IDs: 2203417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	75.7	80.2	P/P	50 - 150
Acetaminophen	98.3	115	P/P	60 - 160
Acetamiprid	117	118	P/P	50 - 150
Afidopyropen	90.2	94.6	P/P	50 - 150
Bentazon	80.7	80.7	P/P	50 - 160
Benzovindiflupyr	99.9	92.9	P/P	50 - 150
Carbamazepine	109	99.5	P/P	60 - 150
Clothianidin	107	100	P/P	60 - 150
Dinotefuran	92.4	94.8	P/P	50 - 150
Diuron	101	100	P/P	60 - 160
Fenuron	106	110	P/P	60 - 150
Fluridone	97.3	101	P/P	60 - 160
Hydrocodone	98.8	100	P/P	60 - 150
Ibuprofen	79.9	80.9	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A101671

Included Lab Sample IDs: 2203417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	112	113	P/P	50 - 160
Imidacloprid	89.6	96.4	P/P	60 - 150
Linuron	62.6	67.6	P/P	60 - 150
Mandestrobin	101	109	P/P	50 - 150
MCPP	70.2	63.7	P/P	50 - 150
Naproxen	83.3	124	P/P	50 - 160
Primidone	82.2	102	P/P	60 - 150
Pyraclostrobin	97.0	90.9	P/P	60 - 150
Thiamethoxam	91.6	90.1	P/P	50 - 150
Tolfenpyrad	76.5	89.6	P/P	60 - 150
Triclopyr	71.7	79.4	P/P	50 - 150

Reference Method: SM 5310 B-2011

Run ID: A101673

Included Lab Sample IDs: 2203402, 2203405, 2203408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	98.8	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A101694

Included Lab Sample IDs: 2203401, 2203404, 2203407

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A101702

Included Lab Sample IDs: 2203420, 2203421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	100	P/P	90 - 110
Barium	102	100	P/P	90 - 110
Calcium	100	100	P/P	90 - 110
Calcium	99.7	100	P/P	90 - 110
Iron	101	100	P/P	90 - 110
Iron	99.9	101	P/P	90 - 110
Magnesium	100	100	P/P	90 - 110
Magnesium	99.9	100	P/P	90 - 110
Potassium	97.6	98.4	P/P	90 - 110
Potassium	98.4	97.5	P/P	90 - 110
Sodium	99.6	100	P/P	90 - 110
Sodium	100	99.3	P/P	90 - 110
Zinc	101	101	P/P	90 - 110
Zinc	102	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A101706

Included Lab Sample IDs: 2203417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A101706

Included Lab Sample IDs: 2203417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	86.9	75.4	P/P	50 - 160
Endothall	87.7	100	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A101724

Included Lab Sample IDs: 2203402, 2203405, 2203408

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

Reference Method: EPA 8321B

Run ID: A101728

Included Lab Sample IDs: 2203417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.4	98.0	P/P	50 - 160
Glufosinate	86.2	97.1	P/P	50 - 160
Glyphosate	85.6	93.9	P/P	50 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A101736

Included Lab Sample IDs: 2203402, 2203405, 2203408

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

Reference Method: SM 2320 B-2011

Run ID: A101749

Included Lab Sample IDs: 2203401, 2203404, 2203407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A101768

Included Lab Sample IDs: 2203402, 2203405, 2203408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	107	P/P	90 - 110
Kjeldahl Nitrogen	106	109	P/P	90 - 110
Kjeldahl Nitrogen	109	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A101777

Included Lab Sample IDs: 2203420, 2203421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	99.3	99.7	P/P	90 - 110
Arsenic	98.4	97.9	P/P	90 - 110
Beryllium	98.7	99.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A101777

Included Lab Sample IDs: 2203420, 2203421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	101	102	P/P	90 - 110
Cadmium	100	99.2	P/P	90 - 110
Chromium	96.2	95.9	P/P	90 - 110
Cobalt	97.0	97.0	P/P	90 - 110
Copper	94.6	95.7	P/P	90 - 110
Lead	95.4	95.3	P/P	90 - 110
Manganese	97.2	97.6	P/P	90 - 110
Molybdenum	97.9	98.2	P/P	90 - 110
Nickel	96.4	96.7	P/P	90 - 110
Selenium	99.4	98.7	P/P	90 - 110
Silver	99.1	99.2	P/P	90 - 110
Thallium	92.7	91.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A101788

Included Lab Sample IDs: 2203417

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	104	122	P/P	50 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A101798

Included Lab Sample IDs: 2203401, 2203404, 2203407

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A101803

Included Lab Sample IDs: 2203408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	95.2	96.2	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A101818

Included Lab Sample IDs: 2203418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.6		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	98.1		P	80 - 120
Beta-BHC	111		P	80 - 120
Beta-Cyfluthrin	71.8*		F	80 - 120
Bifenthrin	99.0		P	80 - 120
Chlorothalonil	116		P	80 - 120
Cis-Nonachlor	98.6		P	80 - 120
Cypermethrin	93.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A101818
 Included Lab Sample IDs: 2203418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dacthal	97.9		P	80 - 120
DDD-p,p'	99.2		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	106		P	80 - 120
Deltamethrin	99.4		P	80 - 120
Dichlobenil	99.0		P	80 - 120
Dicofol	109		P	80 - 120
Dieldrin	97.8		P	80 - 120
Endosulfan I	90.8		P	80 - 120
Endosulfan II	104		P	80 - 120
Endosulfan Sulfate	96.3		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	99.3		P	80 - 120
Endrin Ketone	94.6		P	80 - 120
Esfenvalerate	89.5		P	80 - 120
Ethalfuralin	95.9		P	80 - 120
Fenpropathrin	91.9		P	80 - 120
Gamma-BHC	107		P	80 - 120
Gamma-Chlordane	97.0		P	80 - 120
Heptachlor	96.2		P	80 - 120
Heptachlor Epoxide	98.4		P	80 - 120
Hexachlorobenzene	105		P	80 - 120
Lambda-Cyhalothrin	93.6		P	80 - 120
Methoxychlor	100		P	80 - 120
MGK-264	92.4		P	80 - 120
Mirex	99.6		P	80 - 120
Permethrin	91.8		P	80 - 120
Phenothrin	91.0		P	80 - 120
Piperonyl Butoxide	89.1		P	80 - 120
Prallethrin	85.3		P	80 - 120
Tau-Fluvalinate	94.6		P	80 - 120
Tetramethrin	87.7		P	80 - 120
Trans-Nonachlor	98.4		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	97.2		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
 Run ID: A101819
 Included Lab Sample IDs: 2203402, 2203405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	92.2	90.0	P/P	90 - 110

Reference Method: EPA 8276
 Run ID: A101822
 Included Lab Sample IDs: 2203418

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.6		P	80 - 120
Toxaphene	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A101828

Included Lab Sample IDs: 2203420, 2203421

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.7	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A101858

Included Lab Sample IDs: 2203419

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	96.7		P	80 - 120
Azinphos Methyl	102		P	80 - 120
Azoxystrobin	93.9		P	80 - 120
Bromacil	99.9		P	80 - 120
Butylate	97.5		P	80 - 120
Carbophenothion	100		P	80 - 120
Carfentrazone Ethyl	103		P	80 - 120
Chlorpyrifos Ethyl	98.7		P	80 - 120
Chlorpyrifos Methyl	94.8		P	80 - 120
Cyanazine	94.8		P	80 - 120
Demeton	96.1		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	95.9		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	93.1		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	98.1		P	80 - 120
Ethion	95.1		P	80 - 120
Ethoprop	94.4		P	80 - 120
Fenamiphos	89.7		P	80 - 120
Fenbuconazole	102		P	80 - 120
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	99.5		P	80 - 120
Fipronil Sulfide	95.8		P	80 - 120
Fipronil Sulfone	93.7		P	80 - 120
Fluazifop-P-butyl	100		P	80 - 120
Fludioxonil	101		P	80 - 120
Flumioxazin	94.9		P	80 - 120
Flutolanil	101		P	80 - 120
Fluxapyroxad	101		P	80 - 120
Fonofos	97.0		P	80 - 120
Hexazinone	99.7		P	80 - 120
Imazalil	101		P	80 - 120
Iprodione	101		P	80 - 120
Malathion	92.2		P	80 - 120
Metaxyl	103		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	97.9		P	80 - 120
Mevinphos	94.2		P	80 - 120
Molinate	98.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A101858
 Included Lab Sample IDs: 2203419

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Myclobutanil	103		P	80 - 120
Naled	98.7		P	80 - 120
Norflurazon	98.4		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	101		P	80 - 120
Parathion Ethyl	95.5		P	80 - 120
Parathion Methyl	91.7		P	80 - 120
Pendimethalin	101		P	80 - 120
Phorate	97.7		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	105		P	80 - 120
Pronamide	98.9		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	99.5		P	80 - 120
Sulfentrazone	99.5		P	80 - 120
Tebuconazole	102		P	80 - 120
Terbufos	96.1		P	80 - 120
Terbutylazine	102		P	80 - 120

Reference Method: EPA 8270E dissolved
 Run ID: A101858
 Included Lab Sample IDs: 2203419

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	96.7		P	80 - 120
Azinphos Methyl	102		P	80 - 120
Azoxystrobin	93.9		P	80 - 120
Bromacil	99.9		P	80 - 120
Butylate	97.5		P	80 - 120
Carbophenothion	100		P	80 - 120
Carfentrazone Ethyl	103		P	80 - 120
Chlorpyrifos Ethyl	98.7		P	80 - 120
Chlorpyrifos Methyl	94.8		P	80 - 120
Cyanazine	94.8		P	80 - 120
Demeton	96.1		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	95.9		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	93.1		P	80 - 120
Dithiopyr	103		P	80 - 120
EPTC	98.1		P	80 - 120
Ethion	95.1		P	80 - 120
Ethoprop	94.4		P	80 - 120
Fenamiphos	89.7		P	80 - 120
Fenbuconazole	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E dissolved

Run ID: A101858

Included Lab Sample IDs: 2203419

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fipronil	102		P	80 - 120
Fipronil Desulfinyl	99.5		P	80 - 120
Fipronil Sulfide	95.8		P	80 - 120
Fipronil Sulfone	93.7		P	80 - 120
Fluazifop-P-butyl	100		P	80 - 120
Fludioxonil	101		P	80 - 120
Flumioxazin	94.9		P	80 - 120
Flutolanil	101		P	80 - 120
Fluxapyroxad	101		P	80 - 120
Fonofos	97.0		P	80 - 120
Hexazinone	99.7		P	80 - 120
Imazalil	101		P	80 - 120
Iprodione	101		P	80 - 120
Malathion	92.2		P	80 - 120
Metaxyl	103		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	97.9		P	80 - 120
Mevinphos	94.2		P	80 - 120
Molinate	98.2		P	80 - 120
Myclobutanil	103		P	80 - 120
Naled	98.7		P	80 - 120
Norflurazon	98.4		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	101		P	80 - 120
Parathion Ethyl	95.5		P	80 - 120
Parathion Methyl	91.7		P	80 - 120
Pendimethalin	101		P	80 - 120
Phorate	97.7		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	105		P	80 - 120
Pronamide	98.9		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	99.5		P	80 - 120
Sulfentrazone	99.5		P	80 - 120
Tebuconazole	102		P	80 - 120
Terbufos	96.1		P	80 - 120
Terbuthylazine	102		P	80 - 120

* 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							5.35	
EPA 200.7 Rev. 4.4	Barium	103		105	108	104			3.86
	Calcium	106		104	108	106			1.37
	Iron	105		107	109	107			1.27
	Magnesium	105		109	110	108			1.50
	Potassium	103		103	103	102			0.574
	Sodium	105		101	101				0.0891
	Zinc	100		102	106	103			3.26
EPA 200.8 Rev. 5.4	Aluminum	109		103	104	101			1.35
	Antimony	103		102	102	99.2			0.260
	Arsenic	101		100	102	101			1.49
	Beryllium	101		96.7	99.2	99.8			2.12
	Boron	104		101	104	102			2.74
	Cadmium	102		103	103	102			0.0805
	Chromium	101		99.7	98.7	99.4			0.975
	Cobalt	102		99.9	99.8	100			0.108
	Copper	97.6		97.3	97.6	96.7			0.263
	Lead	97.1		95.9	96.2	95.1			0.347
	Manganese	101		99.7	99.9	99.0			0.179
	Molybdenum	100		99.4	99.3	98.6			0.149
	Nickel	98.5		97.8	98.0	97.4			0.263
	Selenium	101		94.3	95.7	97.0			1.45
	Silver	97.4		95.7	96.9	96.6			1.29
	Thallium	98.5		98.0	98.7	98.0			0.747
EPA 300.0 Rev. 2.1	Chloride	102		106	103			0.487	
	Sulfate	103		104	103			0.720	
EPA 350.1 Rev. 2.0	Ammonia-N	100		102	98.9				2.11
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106		101	90.6				8.50
	Kjeldahl Nitrogen	107		102	100				1.76
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0		98.5	98.5				0.0
EPA 365.1 Rev. 2.0	Total-P	107		108	107				0.707
	Total-P	103		105	106				0.937
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.9		98.9	98.7				0.178
EPA 8270E	Acetochlor	91.1	90.6	85.7	82.2	0.557			4.17
	Alachlor	88.7	89.7	84.2	79.4	1.08			5.89
	Aldrin	30.8	30.6	58.6	56.7	0.721			3.20
	Alpha-BHC	79.3	79.9	83.7	85.5	0.653			2.17
	Alpha-Chlordane	72.4	71.7	88.5	86.6	0.883			2.14
	Ametryn	94.9	97.1	104	80.3	2.28			26.0
	Atrazine	93.7	93.7	92.0	86.8	0.0914			4.27
	Atrazine Desethyl	90.9	92.6	80.5	88.3	1.91			9.32
	Azinphos Methyl	123	123	113	110	0.330			2.06
	Azoxystrobin	90.7	113	104	106	21.8			2.67
	Beta-BHC	105	105	114	118	0.292			3.39
	Beta-Cyfluthrin	56.8	60.0	82.6	104	5.51			22.7
	Bifenthrin	60.1	60.4	85.5	87.0	0.483			1.74
	Bromacil	78.0	80.7	64.1	70.6	3.34			9.64
	Butylate	48.4	41.8	40.8	52.3	14.6			24.7
	Carbophenothion	91.5	81.1	85.6	84.9	12.1			0.806
	Carfentrazone Ethyl	96.2	91.4	83.7	83.2	5.12			0.595
	Chlorothalonil	26.2	26.8	60.1	101	2.27			50.5
	Chlorpyrifos Ethyl	87.4	72.6	87.3	83.3	18.5			4.68
	Chlorpyrifos Methyl	88.7	84.5	84.6	81.7	4.89			3.44
	Cis-Nonachlor	75.4	73.6	89.6	87.9	2.31			1.90

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Cyanazine	144	143	131	134	0.446		1.99
	Cypermethrin	65.3	67.4	96.1	101	3.23		4.75
	Dacthal	85.3	83.7	94.1	93.0	1.81		1.18
	DDD-p,p'	80.9	78.5	95.5	93.3	3.12		2.28
	DDE-p,p'	69.8	69.6	82.4	81.9	0.312		0.619
	DDT-p,p'	71.3	72.1	87.6	91.4	1.09		4.27
	Delta-BHC	128	123	141	158	4.12		11.1
	Deltamethrin	77.2	77.3	114	121	0.188		6.19
	Demeton	84.7	81.4	79.7	82.3	3.96		3.18
	Diazinon	90.6	93.2	87.7	82.0	2.84		6.69
	Dichlobenil	76.4	74.2	79.6	77.9	2.89		2.14
	Dicofol	111	103	102	103	7.59		0.606
	Dieldrin	78.4	76.4	91.7	90.7	2.60		1.16
	Difenoconazole	73.9	87.1	78.8	75.2	16.4		4.66
	Dimethenamid	87.7	83.9	79.2	77.2	4.36		2.56
	Disulfoton	77.0	77.8	74.1	71.0	1.06		4.25
	Dithiopyr	87.2	85.0	82.3	77.4	2.58		6.17
	Endosulfan I	79.2	78.0	93.9	98.3	1.53		4.56
	Endosulfan II	92.8	92.0	116	114	0.859		2.30
	Endosulfan Sulfate	84.2	82.3	97.7	103	2.31		5.37
	Endrin	81.2	79.3	91.4	98.3	2.39		7.35
	Endrin Aldehyde	91.3	87.7	96.9	105	3.99		8.00
	Endrin Ketone	85.7	85.2	96.9	99.9	0.632		3.02
	EPTC	49.2	40.4	50.0	47.1	19.7		5.99
	Esfenvalerate	63.5	64.4	85.9	90.2	1.33		4.87
	Ethalfuralin	65.2	67.8	75.5	76.1	3.91		0.797
	Ethion	83.3	70.1	73.7	76.7	17.2		4.01
	Ethoprop	83.5	81.7	80.4	75.6	2.24		6.16
	Fenamiphos	80.9	82.3	81.1	86.5	1.80		6.43
	Fenbuconazole	105	106	94.3	94.8	1.73		0.573
	Fenpropathrin	67.9	67.5	96.1	106	0.494		9.77
	Fipronil	96.8	94.3	88.7	86.5	2.68		2.62
	Fipronil Desulfinyl	92.0	91.0	85.9	82.3	1.13		4.29
	Fipronil Sulfide	77.3	84.6	74.0	76.3	9.07		3.09
	Fipronil Sulfone	75.5	89.9	69.6	92.0	17.4		27.7
	Fluazifop-P-butyl	89.5	83.4	86.0	81.6	6.98		5.23
	Fludioxonil	90.4	89.7	84.4	80.8	0.845		4.32
	Flumioxazin	139	155	150	146	11.0		3.03
	Flutolanil	90.9	87.0	79.7	78.0	4.47		2.20
	Fluxapyroxad	88.1	87.8	79.5	80.1	0.386		0.756
	Fonofos	81.9	77.6	75.2	77.8	5.33		3.46
	Gamma-BHC	101	99.7	107	109	1.38		1.42
	Gamma-Chlordane	67.6	67.7	82.4	81.2	0.201		1.53
	Heptachlor	60.6	61.1	71.7	71.4	0.782		0.496
	Heptachlor Epoxide	78.5	77.6	90.2	89.4	1.16		0.891
	Hexachlorobenzene	66.3	66.1	73.7	73.4	0.253		0.385
	Hexazinone	84.3	83.7	82.7	81.2	0.732		1.72
	Imazalil	101	110	106	78.6	8.49		30.0
	Iprodione	85.7	83.8	75.7	75.4	2.19		0.308
	Lambda-Cyhalothrin	65.2	67.2	98.0	103	2.95		5.44
	Malathion	88.6	86.9	86.7	86.2	1.96		0.590
	Metalaxyl	99.0	96.1	90.6	83.3	3.05		8.41
	Methoxychlor	77.3	78.5	87.8	87.3	1.56		0.507
	Metolachlor	91.9	91.0	86.3	82.7	0.958		4.29

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Metribuzin	105	107	106	105	2.19		0.697
	Mevinphos	82.0	68.4	75.8	72.7	18.1		4.09
	MGK-264	43.0	40.9	73.9	79.7	5.00		7.66
	Mirex	55.2	55.8	70.5	70.4	1.09		0.0823
	Molinate	66.4	62.5	66.5	59.5	6.05		11.1
	Myclobutanil	94.9	91.2	83.7	82.7	3.99		1.22
	Naled	49.1	46.6	49.2	47.3	5.30		3.87
	Norflurazon	91.7	93.8	81.5	84.0	2.24		2.99
	Oxadiazon	85.2	81.7	77.7	81.5	4.15		4.84
	Parathion Ethyl	87.4	83.0	81.6	83.7	5.14		2.53
	Parathion Methyl	92.6	89.3	85.9	88.1	3.54		2.50
	Pendimethalin	82.9	69.1	78.3	81.4	18.1		3.87
	Permethrin	61.1	62.3	85.3	88.2	1.94		3.31
	Phenothrin	32.0	32.6	65.0	66.1	2.05		1.65
	Phorate	83.1	76.0	78.1	80.2	8.88		2.67
	Piperonyl Butoxide	83.9	85.0	101	106	1.31		4.06
	Prallethrin	43.0	43.4	61.4	61.8	0.776		0.587
	Prodiamine	140	103	63.3	81.0	30.1		24.5
	Prometon	91.5	86.6	83.0	86.0	5.46		3.58
	Prometryn	92.9	92.4	74.0	79.9	0.558		7.18
	Pronamide	93.3	96.5	88.7	91.6	3.37		3.29
	Propiconazole	88.9	84.7	79.2	76.6	4.86		3.37
	Pyriproxyfen	81.8	72.3	75.4	71.8	12.3		4.82
	Simazine	92.9	91.2			1.78		1.09
	Sulfentrazone	90.1	92.0	82.0	82.8	2.05		0.979
	Tau-Fluvalinate	75.1	75.1	112	119	0.0386		5.67
	Tebuconazole	55.9	52.8	49.5	49.8	5.76		0.774
	Terbufos	83.1	78.2	77.6	82.0	6.10		5.57
	Terbuthylazine	92.9	92.6	85.8	89.4	0.342		4.00
	Tetramethrin	52.4	54.0	69.0	71.5	3.11		3.53
	Trans-Nonachlor	69.4	69.0	82.0	80.0	0.653		2.49
	Triclosan Methyl	87.0	86.4	99.1	96.6	0.703		2.53
	Trifluralin	66.4	66.2	74.7	74.4	0.409		0.367
EPA 8270E dissolved	Oxyfluorfen	118	103	107	108	13.6		0.813
EPA 8276	Chlordane	97.1	99.4	110	112	2.35		1.91
	Toxaphene	74.7	81.2	108	115	8.43		5.96
EPA 8321B	2,4-D	45.5		40.9	42.4			2.97
	3-Hydroxycarbofuran	79.7		48.7	39.3			21.6
	Acesulfame K	81.7		27.0	27.2			0.737
	Acetaminophen	53.8		85.6	100			15.7
	Acetamiprid	61.5		60.5	51.3			16.4
	Afidopyropen	50.6		45.1	34.0			28.0
	Aldicarb	48.4		27.9	24.6			12.5
	Aldicarb Sulfone	83.1		36.6	32.8			10.8
	Aldicarb Sulfoxide	89.1		11.4	10.6			7.67
	AMPA	101		98.9	96.6			2.38
	Bentazon	48.3		20.2	19.8			0.898
	Benzovindiflupyr	65.0		57.5	49.0			15.9
	Carbamazepine	63.9		49.3	39.3			22.4
	Carbaryl	63.1		24.8	22.1			9.17
	Carbofuran	53.5		22.0	24.1			8.92
	Clothianidin	101		76.6	66.5			14.1
	Dinotefuran	84.8		68.1	63.9			6.44
	Diuron	70.2		30.1	20.7			31.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Endothall	83.7	79.5	82.6		3.88
	Fenuron	100	61.7	70.3		13.0
	Fluridone	83.0	66.7	51.6		20.5
	Glufosinate	100	91.9	89.7		2.45
	Glyphosate	95.2	82.4	75.2		9.13
	Hydrocodone	79.0	56.5	57.6		2.04
	Ibuprofen	48.4	36.6	35.8		2.25
	Imazapyr	52.0	28.2	26.5		3.05
	Imidacloprid	77.2	112	95.4		15.4
	Linuron	61.1	53.7	54.4		1.34
	Mandestrobin	78.8	64.4	58.6		9.44
	MCPP	58.1	63.1	58.3		8.05
	Methiocarb	80.9	49.4	40.9		18.9
	Methomyl	89.2	44.5	41.7		6.36
	Naproxen	45.5	32.2	29.6		8.26
	Oxamyl	88.7	38.4	41.3		7.26
	Primidone	90.5	63.4	40.6		43.7
	Propoxur	50.7	24.7	23.2		5.92
	Pyraclostrobin	58.8	57.0	50.1		12.9
	Sucralose	116	113	100		12.1
	Thiamethoxam	85.6	83.0	69.4		17.7
	Tolfenpyrad	38.6	35.7	32.5		9.44
	Triclopyr	50.2	54.4	46.4		15.9
SM 2120 B-2011	Color (true)	100			1.31	
SM 2320 B-2011	Total Alkalinity	101			1.10	
SM 2540 C-2011	TDS				1.08	
SM 4500 F-C-2011	Fluoride	99.3	103	105		2.01
SM 5310 B-2011	Organic Carbon	99.3	97.6	97.7		0.116

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2203404, 2203407
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2203420, 2203421
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2203420, 2203421
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2203401, 2203404, 2203407
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2203401, 2203404, 2203407
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2203402, 2203405, 2203408
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2203402, 2203405, 2203408
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2203402, 2203405, 2203408
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2203402, 2203405, 2203408
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2203403, 2203406, 2203409
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2203418
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2203419
EPA 8270E dissolved	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2203419
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2203418
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2203416
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2203417
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2203417
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2203401, 2203404, 2203407

Reference Method Descriptions

Method	Description	Associated Samples
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2203401, 2203404, 2203407
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2203420, 2203421
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2203401, 2203404, 2203407
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2203401, 2203404, 2203407
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2203401, 2203404, 2203407
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2203402, 2203405, 2203408

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	10/20/2020			10/20/2020 16:02	Yen Ta	2203404, 2203407
EPA 200.7 Rev. 4.4	10/20/2020	10/21/2020 15:25	Elliott D. Healy	10/22/2020 16:17	Betina Topolski	2203420
	10/20/2020	10/21/2020 15:25	Elliott D. Healy	10/22/2020 16:50	Betina Topolski	2203421
EPA 200.8 Rev. 5.4	10/20/2020	10/21/2020 15:25	Elliott D. Healy	10/26/2020 17:12	Alexander Thompson	2203420
	10/20/2020	10/21/2020 15:25	Elliott D. Healy	10/26/2020 17:19	Alexander Thompson	2203421
	10/20/2020	10/21/2020 15:25	Elliott D. Healy	10/28/2020 16:18	Alexander Thompson	2203420
	10/20/2020	10/21/2020 15:25	Elliott D. Healy	10/28/2020 16:22	Alexander Thompson	2203421
EPA 300.0 Rev. 2.1	10/20/2020			10/27/2020 23:00	Lipi Saha	2203407
	10/20/2020			10/28/2020 00:58	Lipi Saha	2203401
	10/20/2020			10/28/2020 01:38	Lipi Saha	2203404
EPA 350.1 Rev. 2.0	10/20/2020			10/24/2020 16:40	Ping Hua	2203408
	10/20/2020			10/24/2020 17:00	Ping Hua	2203402
	10/20/2020			10/24/2020 17:02	Ping Hua	2203405
EPA 351.2 Rev. 2.0	10/20/2020	10/23/2020 14:00	David Boose	10/26/2020 12:03	Elliott Rodriguez	2203402
	10/20/2020	10/23/2020 14:00	David Boose	10/26/2020 12:34	Elliott Rodriguez	2203405
	10/20/2020	10/23/2020 14:00	David Boose	10/26/2020 12:39	Elliott Rodriguez	2203408
EPA 353.2 Rev. 2.0	10/20/2020			10/23/2020 11:35	Beverly Y. Sanders	2203402
	10/20/2020			10/23/2020 11:37	Beverly Y. Sanders	2203405
	10/20/2020			10/23/2020 11:38	Beverly Y. Sanders	2203408
EPA 365.1 Rev. 2.0	10/20/2020	10/23/2020 15:15	Shengyu Wang	10/28/2020 12:13	Shengyu Wang	2203402
	10/20/2020	10/23/2020 15:15	Shengyu Wang	10/28/2020 12:14	Shengyu Wang	2203405
	10/20/2020	10/26/2020 13:20	Yen Ta	10/27/2020 15:12	Shengyu Wang	2203408
EPA 365.1 Rev. 2.0 dissolved	10/20/2020			10/20/2020 16:34	Samantha Davila	2203403
	10/20/2020			10/20/2020 16:35	Samantha Davila	2203406
	10/20/2020			10/20/2020 16:36	Samantha Davila	2203409
EPA 8270E	10/20/2020	10/20/2020 13:00	Fe-Val Siddell	10/21/2020 19:52	Vandana T. Nagar	2203419
	10/20/2020	10/22/2020 08:30	Rasheda Ghaffari	10/27/2020 22:18	Arthur Maknenko	2203418
EPA 8270E dissolved	10/20/2020	10/20/2020 13:00	Fe-Val Siddell	10/21/2020 19:52	Vandana T. Nagar	2203419
EPA 8276	10/20/2020	10/22/2020 08:30	Rasheda Ghaffari	10/27/2020 03:29	Michael Poppell	2203418
EPA 8321B	10/20/2020	10/20/2020 13:30	Hoor Shaik	10/21/2020 01:51	Juyoung Kim	2203416
	10/20/2020	10/20/2020 13:30	Hoor Shaik	10/22/2020 03:50	Juyoung Kim	2203417
	10/20/2020	10/22/2020 10:00	Rebecca Ware	10/22/2020 14:03	Rebecca Ware	2203417
	10/20/2020	10/22/2020 10:00	Rebecca Ware	10/23/2020 10:57	Rebecca Ware	2203417
	10/20/2020	10/22/2020 10:00	Rebecca Ware	10/26/2020 12:58	Rebecca Ware	2203417
SM 2120 B-2011	10/20/2020			10/20/2020 17:14	Benjamin T. Nordmann	2203401
	10/20/2020			10/20/2020 17:15	Benjamin T. Nordmann	2203404
	10/20/2020			10/20/2020 17:16	Benjamin T. Nordmann	2203407
SM 2320 B-2011	10/20/2020			10/24/2020 01:02	Samantha Davila	2203401
	10/20/2020			10/24/2020 01:10	Samantha Davila	2203404
	10/20/2020			10/24/2020 01:18	Samantha Davila	2203407

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2340B	10/20/2020			10/22/2020 16:17	Betina Topolski	2203420
	10/20/2020			10/22/2020 16:50	Betina Topolski	2203421
SM 2540 C-2011	10/20/2020			10/21/2020 15:19	Yijie Li	2203401, 2203404, 2203407
SM 2540 D-2011	10/20/2020			10/21/2020 15:19	Yijie Li	2203401, 2203404, 2203407
SM 4500 F-C-2011	10/20/2020			10/22/2020 10:14	Samantha Davila	2203401
	10/20/2020			10/22/2020 10:23	Samantha Davila	2203404
	10/20/2020			10/22/2020 10:33	Samantha Davila	2203407
SM 5310 B-2011	10/20/2020			10/21/2020 23:48	Lauren Lees	2203402
	10/20/2020			10/22/2020 00:01	Lauren Lees	2203405
	10/20/2020			10/22/2020 00:13	Lauren Lees	2203408