

Chemical Analysis Report

TLH-ROC-2020-08-25-01

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

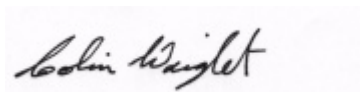
Event Description: **Run 3**
Request ID: **RQ-2020-07-13-32**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
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Certified by: Colin Wright, Program Administrator

Date Certified: 15-SEP-2020 10:41

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

Case Narrative

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

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Moore Branch @ Cody Church Rd.

Collection Date/Time: 08/25/2020 08:40

Field ID: G1TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192023	EPA 180.1 Rev. 2.0	Turbidity	2.4		NTU	P386525	
	EPA 300.0 Rev. 2.1	Chloride	5.4		mg Cl/L	P387059	
		Sulfate	1.9		mg SO4/L	P387064	
	SM 2120 B-2011	Color (true)	120		PCU	P386528	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P386621	
	SM 2540 C-2011	TDS	40		mg/L	P386993	
	SM 2540 D-2011	TSS	2	I	mg/L	P386986	
	SM 4500 F-C-2011	Fluoride	0.038	I	mg F/L	P386623	
2192024	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P387015	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P386610	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P386543	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P386613	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P386595	
2192025	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.027		mg P/L	P386546	
2192033	EPA 8321B	Aldicarb	0.020	U	ug/L	P386554	
		Aldicarb Sulfone	0.0020	U	ug/L	P386554	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P386554	MS
		Carbaryl	0.0020	U	ug/L	P386554	
		Carbofuran	0.0020	U	ug/L	P386554	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P386554	
		Methiocarb	0.0020	U	ug/L	P386554	
		Methomyl	0.0020	U	ug/L	P386554	
		Oxamyl	0.0020	U	ug/L	P386554	
		Propoxur	0.0020	U	ug/L	P386554	
		2,4-D	0.0020	U	ug/L	P386554	
		Acesulfame K**	0.10	U	ug/L	P386539	MS
2192034		AMPA**	0.10	U	ug/L	P386539	
		Sucralose**	0.010	U	ug/L	P386539	RPD
		Acetaminophen**	0.0080	U	ug/L	P386554	
		Acetamiprid**	0.0020	U	ug/L	P386554	
		Endothall**	0.25	U	ug/L	P386539	
		Glufosinate**	0.10	U	ug/L	P386539	
		Glyphosate**	0.10	U	ug/L	P386539	
		Afidopyropen**	0.0020	U	ug/L	P386554	
		Bentazon	8.0E-04	U	ug/L	P386554	
		Benzovindiflupyr**	0.0020	U	ug/L	P386554	
		Carbamazepine**	8.0E-04	U	ug/L	P386554	
		Clothianidin**	0.0020	U	ug/L	P386554	
		Dinotefuran**	0.0020	U	ug/L	P386554	
		Diuron	0.0020	U	ug/L	P386554	
		Fenuron	0.016	U	ug/L	P386554	
		Fluridone**	8.0E-04	U	ug/L	P386554	
		Imazapyr**	0.0040	U	ug/L	P386554	

Field ID: G1TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192034	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P386554	
		Ibuprofen**	0.020	U	ug/L	P386554	
		Imidacloprid	0.0020	U	ug/L	P386554	
		Linuron	0.0040	U	ug/L	P386554	
		Mandestrobin**	0.0020	U	ug/L	P386554	
		MCP	0.0020	U	ug/L	P386554	
		Naproxen**	0.0080	U	ug/L	P386554	
		Primidone**	0.0040	U	ug/L	P386554	
		Pyraclostrobin**	0.0020	U	ug/L	P386554	
		Thiamethoxam**	0.0020	U	ug/L	P386554	
		Tolfenpyrad**	0.0020	U	ug/L	P386554	
		Triclopyr**	0.0040	U	ug/L	P386554	
2192036	EPA 8270E	Aldrin	4.7	U	ng/L	P386513	
		Alpha-BHC	2.4	U	ng/L	P386513	
		Alpha-Chlordane	1.2	U	ng/L	P386513	
		Beta-BHC	9.5	U	ng/L	P386513	
		Beta-Cyfluthrin**	18	U	ng/L	P386513	
		Bifenthrin**	4.7	U	ng/L	P386513	
		Delta-BHC	9.5	U	ng/L	P386513	
		Gamma-BHC	9.5	U	ng/L	P386513	
		Chlorothalonil	2.4	U	ng/L	P386513	
		Cis-Nonachlor**	1.2	U	ng/L	P386513	
		Cypermethrin	24	U	ng/L	P386513	
		Dacthal**	1.2	U	ng/L	P386513	
		DDD-p,p'	5.9	U	ng/L	P386513	
		DDE-p,p'	5.9	U	ng/L	P386513	
		DDT-p,p'	7.1	U	ng/L	P386513	
		Deltamethrin**	24	U	ng/L	P386513	
		Dicofol	36	U	ng/L	P386513	
		Dieldrin	4.7	U	ng/L	P386513	
		Endosulfan I	4.7	U	ng/L	P386513	
		Endosulfan II	4.7	U	ng/L	P386513	
		Endosulfan Sulfate	2.4	U	ng/L	P386513	
		Endrin	2.4	U	ng/L	P386513	
		Endrin Aldehyde	2.4	U	ng/L	P386513	RPD
		Endrin Ketone	2.4	U	ng/L	P386513	
		Ethalfuralin**	3.6	U	ng/L	P386513	
		Gamma-Chlordane	1.2	U	ng/L	P386513	
		Heptachlor	1.8	U	ng/L	P386513	
		Heptachlor Epoxide	2.4	U	ng/L	P386513	
		Hexachlorobenzene	2.4	U	ng/L	P386513	
		Lambda-Cyhalothrin**	18	U	ng/L	P386513	
		Methoxychlor	4.7	U	ng/L	P386513	
		Mirex	2.4	U	ng/L	P386513	
		Permethrin	12	U	ng/L	P386513	

Field ID: G1TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192036	EPA 8270E	Phenothrin**	36	U	ng/L	P386513	
		Prallethrin**	30	U	ng/L	P386513	
		Trans-Nonachlor**	1.2	U	ng/L	P386513	
		Trifluralin	3.0	U	ng/L	P386513	
		Chlordane	5.9	U	ng/L	P386513	
2192037	EPA 8270E	Toxaphene	36	U	ng/L	P386513	
		Acetochlor	0.25	U	ng/L	P386604	
		Alachlor	0.25	U	ng/L	P386604	MS
		Ametryn	0.60	U	ng/L	P386604	
		Atrazine	0.25	U	ng/L	P386604	
		Atrazine Desethyl	1.5	U	ng/L	P386604	
		Azinphos Methyl	2.0	U	ng/L	P386604	
		Bromacil	0.50	U	ng/L	P386604	
		Butylate	0.40	U	ng/L	P386604	RPD
		Carbophenothion	0.50	U	ng/L	P386604	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P386604	
		Chlorpyrifos Methyl	0.050	U	ng/L	P386604	
		Cyanazine	3.2	U	ng/L	P386604	
		Demeton	1.5	U	ng/L	P386604	
		Diazinon	0.12	U	ng/L	P386604	
		Dimethenamid**	0.099	U	ng/L	P386604	
		Disulfoton	0.50	U	ng/L	P386604	
		Dithiopyr**	0.099	U	ng/L	P386604	
		EPTC	1.2	U	ng/L	P386604	
		Ethion	0.15	U	ng/L	P386604	
		Ethoprop	0.099	U	ng/L	P386604	
		Fenamiphos	0.50	U	ng/L	P386604	
		Fipronil	0.25	U	ng/L	P386604	
		Fipronil Desulfinyl**	0.12	U	ng/L	P386604	
		Fipronil Sulfide	0.15	U	ng/L	P386604	
		Fipronil Sulfone	0.15	U	ng/L	P386604	
		Flumioxazin**	1.7	U	ng/L	P386604	
		Fonofos	0.20	U	ng/L	P386604	
		Hexazinone	0.50	U	ng/L	P386604	
		Imazalil**	0.74	U	ng/L	P386604	MS, RPD
		Malathion	0.35	U	ng/L	P386604	
		Metalaxyl	0.74	U	ng/L	P386604	
		Metolachlor	0.50	U	ng/L	P386604	
		Metribuzin	3.2	U	ng/L	P386604	
		Mevinphos	0.50	U	ng/L	P386604	
		Molinate	0.30	U	ng/L	P386604	
		Naled**	1.5	U	ng/L	P386604	
		Norflurazon	0.50	U	ng/L	P386604	
		Oxadiazon	0.099	U	ng/L	P386604	
		Parathion Ethyl	0.25	U	ng/L	P386604	

Field ID: G1TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192037	EPA 8270E	Parathion Methyl	0.55	U	ng/L	P386604	RPD
		Pendimethalin	0.99	U	ng/L	P386604	
		Phorate	0.25	U	ng/L	P386604	
		Prodiamine**	0.17	U	ng/L	P386604	
		Prometon	0.89	U	ng/L	P386604	
		Prometryn	0.20	U	ng/L	P386604	
		Pronamide**	0.15	U	ng/L	P386604	
		Propiconazole**	0.50	U	ng/L	P386604	
		Simazine	0.50	U	ng/L	P386604	
		Sulfentrazone**	0.50	U	ng/L	P386604	
		Tebuconazole**	0.50	U	ng/L	P386604	
		Terbufos	0.099	U	ng/L	P386604	
		Terbuthylazine	0.42	U	ng/L	P386604	
2192038	EPA 200.7 Rev. 4.4	Barium	22.4		ug/L	P386556	
		Calcium	1.41		mg/L	P386556	
		Iron	1.01E+03		ug/L	P386556	
		Magnesium	0.79		mg/L	P386556	
		Potassium	0.30	U	mg/L	P386556	
		Sodium	3.0		mg/L	P386556	
		Zinc	5.0	U	ug/L	P386556	
	EPA 200.8 Rev. 5.4	Aluminum	480		ug/L	P386556	
		Antimony	0.050	U	ug/L	P386556	
		Arsenic	0.35		ug/L	P386556	
		Boron**	15.3		ug/L	P386556	
		Cadmium	0.028	I	ug/L	P386556	
		Chromium	0.66	I	ug/L	P386556	
		Copper	0.40	U	ug/L	P386556	
		Lead	0.21	I	ug/L	P386556	
		Nickel	0.61	I	ug/L	P386556	
		Selenium	0.20	U	ug/L	P386556	
		Silver	0.010	U	ug/L	P386556	
		Thallium	0.10	U	ug/L	P386556	
	SM 2340B	Hardness	6.8		mg/L	P386556	

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: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked.

Sample Location: Bailey Mill Creek @ Wilson Rd.

Collection Date/Time: 08/25/2020 09:55

Field ID: G1TLHR0081

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192026	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P386525	
	EPA 300.0 Rev. 2.1	Chloride	4.8		mg Cl/L	P387059	
		Sulfate	1.1		mg SO4/L	P387064	
	SM 2120 B-2011	Color (true)	240		PCU	P386528	
	SM 2320 B-2011	Total Alkalinity	58		mg CaCO3/L	P386621	
	SM 2540 C-2011	TDS	121		mg/L	P386993	
	SM 2540 D-2011	TSS	2	U	mg/L	P386986	
	SM 4500 F-C-2011	Fluoride	0.057	I	mg F/L	P386623	
2192027	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P387015	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P386610	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P386543	
	EPA 365.1 Rev. 2.0	Total-P	0.042		mg P/L	P386613	
	SM 5310 B-2011	Organic Carbon	34		mg C/L	P386595	
2192028	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P386544	
2192035	EPA 8321B	2,4-D	0.0020	U	ug/L	P386554	
		Acesulfame K**	0.10	U	ug/L	P386539	MS
		AMPA**	0.10	U	ug/L	P386539	
		Sucralose**	0.010	U	ug/L	P386539	RPD
		Acetaminophen**	0.0080	U	ug/L	P386554	
		Acetamiprid**	0.0020	U	ug/L	P386554	
		Endothall**	0.25	U	ug/L	P386539	
		Glufosinate**	0.10	U	ug/L	P386539	
		Glyphosate**	0.10	U	ug/L	P386539	
		Afidopyrophen**	0.0020	U	ug/L	P386554	
		Bentazon	8.0E-04	U	ug/L	P386554	
		Benzovindiflupyr**	0.0020	U	ug/L	P386554	
		Carbamazepine**	8.0E-04	U	ug/L	P386554	
		Clothianidin**	0.0020	U	ug/L	P386554	
		Dinotefuran**	0.0020	U	ug/L	P386554	
		Diuron	0.0020	U	ug/L	P386554	
		Fenuron	0.016	U	ug/L	P386554	
		Fluridone**	8.0E-04	U	ug/L	P386554	
		Imazapyr**	0.0040	U	ug/L	P386554	
		Hydrocodone**	0.0020	U	ug/L	P386554	
		Ibuprofen**	0.020	U	ug/L	P386554	
		Imidacloprid	0.0020	U	ug/L	P386554	
		Linuron	0.0040	U	ug/L	P386554	
		Mandestrobin**	0.0020	U	ug/L	P386554	
		MCP	0.0020	U	ug/L	P386554	
		Naproxen**	0.0080	U	ug/L	P386554	
		Primidone**	0.0040	U	ug/L	P386554	
		Pyraclostrobin**	0.0020	U	ug/L	P386554	
		Thiamethoxam**	0.0020	U	ug/L	P386554	

Field ID: G1TLHR0081

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2192035	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P386554	
		Triclopyr**	0.0040	U	ug/L	P386554	

Ref. Method and Comment:

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: P386525

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P386556

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: P386556

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387059

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387064

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387015

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: P386610

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386543

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386613

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386544

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386546

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

Reference Method: EPA 8270E
Batch ID: P386513

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P386513

Component	Result	Code	Units
Endrin Ketone	2.0	U	ng/L
Ethalfuralin	3.0	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
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Prallethrin	25	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E

Batch ID: P386604

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
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	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
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
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
Flumioxazin	1.8	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P386604

Component	Result	Code	Units
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	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
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P386513

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

Reference Method: EPA 8321B
Batch ID: P386539

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: P386554

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P386554

Component	Result	Code	Units
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	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
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	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: P386528

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P386621

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

Reference Method: SM 2540 C-2011

Batch ID: P386993

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P386986

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P386623

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P386595

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: P386556

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	100		P	85 - 115
Calcium	105		P	85 - 115
Iron	104		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	101		P	85 - 115
Sodium	104		P	85 - 115
Zinc	97.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P386556

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.3		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	104		P	85 - 115
Boron	99.8		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	106		P	85 - 115
Copper	103		P	85 - 115
Lead	109		P	85 - 115
Nickel	103		P	85 - 115
Selenium	99.3		P	85 - 115
Silver	109		P	85 - 115
Thallium	107		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387059

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387064

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387015

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: P386610

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P386543

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: P386613

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P386544

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P386546

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.9		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P386513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	67.0	63.3	P/P	20 - 87.0
Alpha-BHC	79.6	85.2	P/P	65 - 142
Alpha-Chlordane	85.4	85.0	P/P	58 - 106
Beta-BHC	81.7	89.5	P/P	65 - 179
Beta-Cyfluthrin	80.4	71.7	P/P	39 - 153
Bifenthrin	87.3	77.7	P/P	38 - 128
Chlorothalonil	63.2	80.9	P/P	20 - 214
Cis-Nonachlor	90.2	85.5	P/P	56 - 113
Cypermethrin	98.5	81.7	P/P	37 - 130
Dacthal	91.8	93.2	P/P	75 - 109
DDD-p,p'	94.7	91.0	P/P	66 - 119
DDE-p,p'	87.1	87.5	P/P	53 - 108
DDT-p,p'	102	88.7	P/P	57 - 133
Delta-BHC	115	123	P/P	68 - 187
Deltamethrin	99.2	85.2	P/P	50 - 200
Dicofol	96.5	97.0	P/P	66 - 123
Dieldrin	87.2	92.8	P/P	65 - 111
Endosulfan I	86.0	88.3	P/P	65 - 115
Endosulfan II	97.7	97.3	P/P	68 - 133
Endosulfan Sulfate	98.7	87.6	P/P	62 - 127
Endrin	88.1	86.7	P/P	64 - 122
Endrin Aldehyde	70.1	83.7	P/P	61 - 132
Endrin Ketone	93.9	87.5	P/P	66 - 120
Ethalfuralin	75.5	74.2	P/P	57 - 127
Gamma-BHC	88.2	92.8	P/P	71 - 158
Gamma-Chlordane	82.0	79.5	P/P	53 - 106
Heptachlor	72.9	69.8	P/P	45 - 96.0
Heptachlor Epoxide	87.0	88.4	P/P	64 - 109

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P386513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hexachlorobenzene	69.1	63.0	P/P	46 - 103
Lambda-Cyhalothrin	89.4	73.4	P/P	38 - 145
Methoxychlor	85.5	83.5	P/P	69 - 149
Mirex	70.0	65.0	P/P	31 - 90.0
Permethrin	88.7	78.4	P/P	41 - 108
Phenothrin	79.2	67.8	P/P	22 - 91.0
Prallethrin	73.4	63.7	P/P	32 - 92.0
Trans-Nonachlor	82.5	81.4	P/P	50 - 107
Trifluralin	74.6	73.5	P/P	58 - 119

Reference Method: EPA 8270E

Batch ID: P386604

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	85.5	94.2	P/P	71 - 122
Alachlor	87.7	93.0	P/P	70 - 121
Ametryn	93.1	116	P/P	49 - 137
Atrazine	94.5	104	P/P	76 - 125
Atrazine Desethyl	89.9	97.7	P/P	31 - 144
Azinphos Methyl	104	109	P/P	67 - 150
Bromacil	91.4	99.9	P/P	36 - 121
Butylate	43.7	49.0	P/P	33 - 88.0
Carbophenothion	100	104	P/P	66 - 116
Chlorpyrifos Ethyl	90.1	95.7	P/P	73 - 117
Chlorpyrifos Methyl	81.0	88.3	P/P	68 - 121
Cyanazine	101	96.6	P/P	20 - 250
Demeton	73.9	73.5	P/P	30 - 123
Diazinon	87.3	93.8	P/P	70 - 128
Dimethenamid	86.4	95.1	P/P	66 - 122
Disulfoton	74.8	72.3	P/P	46 - 124
Dithiopyr	91.3	98.5	P/P	69 - 122
EPTC	44.3	49.1	P/P	31 - 90.0
Ethion	102	106	P/P	45 - 135
Ethoprop	75.3	72.4	P/P	59 - 118
Fenamiphos	96.6	92.9	P/P	30 - 136
Fipronil	95.8	104	P/P	57 - 127
Fipronil Desulfinyl	97.1	106	P/P	51 - 122
Fipronil Sulfide	98.0	102	P/P	57 - 119
Fipronil Sulfone	95.3	102	P/P	51 - 119
Flumioxazin	119	130	P/P	20 - 250
Fonofos	70.4	71.3	P/P	60 - 120
Hexazinone	102	108	P/P	57 - 142
Imazalil	130	106	P/P	30 - 139
Malathion	93.5	91.6	P/P	67 - 128
Metalaxyl	93.6	100	P/P	21 - 148
Metolachlor	90.8	97.8	P/P	70 - 120
Metribuzin	103	110	P/P	20 - 250
Mevinphos	66.4	60.2	P/P	47 - 116
Molinate	51.8	54.6	P/P	41 - 99.0
Naled	53.3	50.0	P/P	38 - 97.0
Norflurazon	93.7	105	P/P	54 - 127
Oxadiazon	92.7	101	P/P	65 - 122

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P386604

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	89.8	90.4	P/P	71 - 113
Parathion Methyl	89.6	97.6	P/P	73 - 129
Pendimethalin	103	101	P/P	63 - 130
Phorate	60.1	62.6	P/P	48 - 118
Prodiamine	141	127	P/P	20 - 144
Prometon	83.3	98.4	P/P	53 - 120
Prometryn	93.3	105	P/P	63 - 119
Pronamide	88.6	114	P/P	81 - 122
Propiconazole	94.0	104	P/P	62 - 124
Simazine	105	121	P/P	77 - 129
Sulfentrazone	65.0	69.5	P/P	20 - 137
Tebuconazole	94.2	102	P/P	20 - 118
Terbufos	75.2	78.5	P/P	61 - 119
Terbutylazine	92.3	97.1	P/P	75 - 119

Reference Method: EPA 8276

Batch ID: P386513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	93.4	94.7	P/P	47 - 119
Toxaphene	97.2	94.4	P/P	41 - 112

Reference Method: EPA 8321B

Batch ID: P386539

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	77.3		P	40 - 150
AMPA	92.1		P	40 - 150
Endothall	85.0		P	40 - 150
Glufosinate	89.5		P	40 - 150
Glyphosate	78.3		P	40 - 140
Sucralose	97.0		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P386554

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	128		P	30 - 160
3-Hydroxycarbofuran	85.3		P	40 - 150
Acetaminophen	85.6		P	30 - 160
Acetamiprid	77.4		P	30 - 160
Afidopyropen	55.8		P	30 - 160
Aldicarb	64.5		P	30 - 150
Aldicarb Sulfone	94.4		P	40 - 150
Aldicarb Sulfoxide	105		P	40 - 150
Bentazon	74.7		P	30 - 160
Benzovindiflupyr	76.5		P	30 - 160
Carbamazepine	63.3		P	30 - 160
Carbaryl	67.5		P	40 - 150
Carbofuran	56.2		P	40 - 150
Clothianidin	79.6		P	30 - 160
Dinotefuran	97.3		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P386554

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	67.4		P	30 - 160
Fenuron	94.2		P	30 - 160
Fluridone	77.8		P	30 - 160
Hydrocodone	84.2		P	30 - 160
Ibuprofen	95.3		P	30 - 160
Imazapyr	92.1		P	30 - 160
Imidacloprid	95.7		P	30 - 160
Linuron	72.0		P	30 - 160
Mandestrobin	78.2		P	30 - 160
MCPP	135		P	30 - 160
Methiocarb	58.0		P	40 - 150
Methomyl	103		P	40 - 150
Naproxen	89.5		P	30 - 160
Oxamyl	93.5		P	40 - 150
Primidone	86.4		P	30 - 160
Propoxur	60.7		P	40 - 150
Pyraclostrobin	62.6		P	30 - 160
Thiamethoxam	97.2		P	30 - 160
Tolfenpyrad	45.9		P	30 - 160
Triclopyr	114		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P386528

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.5		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P386621

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

Reference Method: SM 4500 F-C-2011
Batch ID: P386623

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P386595

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P386556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191963	Barium	104	103	P/P	80 - 120
2191963	Calcium	102		P	80 - 120
2191963	Iron	108	108	P/P	80 - 120
2191963	Magnesium	102	103	P/P	80 - 120
2191963	Potassium	100	101	P/P	80 - 120
2191963	Sodium	102		P	80 - 120
2191963	Zinc	103	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P386556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191963	Aluminum	97.6	99.2	P/P	80 - 120
2191963	Antimony	104	104	P/P	80 - 120
2191963	Arsenic	107	107	P/P	80 - 120
2191963	Boron	99.0	102	P/P	80 - 120
2191963	Cadmium	104	102	P/P	80 - 120
2191963	Chromium	109	109	P/P	80 - 120
2191963	Copper	103	101	P/P	80 - 120
2191963	Lead	111	112	P/P	80 - 120
2191963	Nickel	103	101	P/P	80 - 120
2191963	Selenium	99.6	101	P/P	80 - 120
2191963	Silver	108	108	P/P	80 - 120
2191963	Thallium	110	112	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191971	Chloride	97.5		P	90 - 110
2192041	Chloride	97.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387064

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191971	Sulfate	95.2		P	90 - 110
2192041	Sulfate	95.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387015

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192024	Ammonia-N	98.6	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386610

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192000	Kjeldahl Nitrogen	105	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P386543

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192000	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P386613

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192024	Total-P	107	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P386544

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192058	O-Phosphate-P	102	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P386546

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192025	O-Phosphate-P	101	102	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P386513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191699	Aldrin	61.2	58.8	P/P	32 - 82.0
2191699	Alpha-BHC	85.2	82.5	P/P	68 - 157
2191699	Alpha-Chlordane	75.4	74.8	P/P	54 - 108
2191699	Beta-BHC	93.1	96.1	P/P	54 - 200
2191699	Beta-Cyfluthrin	102	102	P/P	50 - 154
2191699	Bifenthrin	90.5	87.2	P/P	49 - 124
2191699	Chlorothalonil	85.2	92.1	P/P	10 - 289
2191699	Cis-Nonachlor	80.1	80.1	P/P	53 - 112
2191699	Cypermethrin	111	116	P/P	43 - 141
2191699	Dacthal	89.4	87.8	P/P	75 - 112
2191699	DDD-p,p'	79.1	82.5	P/P	58 - 125
2191699	DDE-p,p'	70.7	73.3	P/P	50 - 108
2191699	DDT-p,p'	80.9	85.7	P/P	52 - 140
2191699	Delta-BHC	133	133	P/P	61 - 228
2191699	Deltamethrin	117	113	P/P	50 - 200
2191699	Dicofol	61.5	73.0	P/P	59 - 130
2191699	Dieldrin	76.3	77.1	P/P	57 - 121
2191699	Endosulfan I	82.2	83.6	P/P	62 - 123
2191699	Endosulfan II	93.8	90.5	P/P	48 - 163
2191699	Endosulfan Sulfate	108	106	P/P	63 - 132
2191699	Endrin	81.6	77.9	P/P	58 - 128
2191699	Endrin Aldehyde	102	55.0	P/P	44 - 126
2191699	Endrin Ketone	97.0	108	P/P	68 - 127
2191699	Ethalfuralin	70.2	65.8	P/P	55 - 131
2191699	Gamma-BHC	98.2	97.5	P/P	54 - 206
2191699	Gamma-Chlordane	72.1	72.3	P/P	52 - 105
2191699	Heptachlor	63.9	60.7	P/P	47 - 94.0
2191699	Heptachlor Epoxide	79.5	78.9	P/P	61 - 113

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P386513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191699	Hexachlorobenzene	56.2	56.7	P/P	45 - 100
2191699	Lambda-Cyhalothrin	108	100	P/P	37 - 165
2191699	Methoxychlor	76.5	73.7	P/P	63 - 153
2191699	Mirex	62.2	62.3	P/P	38 - 90.0
2191699	Permethrin	85.5	85.7	P/P	45 - 112
2191699	Phenothrin	78.5	80.9	P/P	22 - 118
2191699	Prallethrin	83.9	79.7	P/P	21 - 114
2191699	Trans-Nonachlor	63.4	62.4	P/P	50 - 103
2191699	Trifluralin	67.3	64.9	P/P	57 - 122

Reference Method: EPA 8270E

Batch ID: P386604

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192191	Acetochlor	78.3	71.1	P/P	68 - 126
2192191	Alachlor	71.0	63.6	P/F	66 - 125
2192191	Azinphos Methyl	148	130	P/P	54 - 162
2192191	Bromacil	98.3	89.4	P/P	34 - 144
2192191	Butylate	59.5	41.6	P/P	16 - 92.0
2192191	Carbophenothion	89.8	87.1	P/P	30 - 131
2192191	Chlorpyrifos Ethyl	85.3	88.8	P/P	63 - 124
2192191	Chlorpyrifos Methyl	85.8	85.3	P/P	64 - 125
2192191	Cyanazine	98.9	90.7	P/P	13 - 245
2192191	Demeton	86.5	103	P/P	20 - 154
2192191	Diazinon	88.9	82.7	P/P	66 - 141
2192191	Dimethenamid	81.2	75.4	P/P	50 - 130
2192191	Disulfoton	80.0	73.6	P/P	55 - 130
2192191	Dithiopyr	78.6	72.8	P/P	66 - 122
2192191	EPTC	51.6	46.7	P/P	15 - 93.0
2192191	Ethion	88.6	79.4	P/P	15 - 148
2192191	Ethoprop	83.5	80.8	P/P	59 - 126
2192191	Fenamiphos	75.0	76.5	P/P	39 - 137
2192191	Fipronil	103	95.4	P/P	47 - 131
2192191	Fipronil Desulfinyl	93.7	86.0	P/P	43 - 121
2192191	Fipronil Sulfide	96.7	97.5	P/P	29 - 134
2192191	Fipronil Sulfone	115	110	P/P	19 - 131
2192191	Flumioxazin	188	187	P/P	10 - 300
2192191	Fonofos	81.8	77.3	P/P	62 - 128
2192191	Hexazinone	89.1	94.2	P/P	58 - 154
2192191	Imazalil	521	64.3	F/P	10 - 215
2192191	Malathion	95.2	92.6	P/P	54 - 135
2192191	Metalaxyl	85.0	77.6	P/P	46 - 136
2192191	Metribuzin	118	118	P/P	44 - 277
2192191	Mevinphos	77.4	79.5	P/P	44 - 135
2192191	Molinate	68.4	65.3	P/P	31 - 104
2192191	Naled	64.0	55.9	P/P	33 - 113
2192191	Norflurazon	78.8	74.1	P/P	32 - 134
2192191	Oxadiazon	75.6	66.9	P/P	55 - 123
2192191	Parathion Ethyl	86.8	93.8	P/P	67 - 120
2192191	Parathion Methyl	93.4	92.1	P/P	70 - 140
2192191	Pendimethalin	109	110	P/P	59 - 145
2192191	Phorate	89.6	99.9	P/P	52 - 127

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P386604

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192191	Prodiamine	134	93.3	P/P	11 - 157
2192191	Prometon	79.6	77.4	P/P	55 - 130
2192191	Prometryn	89.0	81.8	P/P	55 - 127
2192191	Pronamide	81.4	85.3	P/P	66 - 150
2192191	Propiconazole	94.3	81.0	P/P	14 - 178
2192191	Tebuconazole	31.1	41.8	P/P	10 - 122
2192191	Terbufos	90.8	89.1	P/P	65 - 131
2192191	Terbutylazine	88.9	80.2	P/P	63 - 131

Reference Method: EPA 8276
Batch ID: P386513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192006	Chlordane	78.5	97.8	P/P	34 - 129
2192006	Toxaphene	88.4	109	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P386539

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192007	Acesulfame K	31.4	31.9	F/F	40 - 150
2192007	AMPA	85.1	88.8	P/P	40 - 150
2192007	Endothall	114	101	P/P	40 - 150
2192007	Glufosinate	85.9	89.9	P/P	40 - 150
2192007	Glyphosate	74.3	81.8	P/P	40 - 140
2192007	Sucralose	41.7	70.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P386554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191680	3-Hydroxycarbofuran	52.9	56.1	P/P	40 - 150
2191680	Aldicarb	58.6	50.4	P/P	30 - 150
2191680	Aldicarb Sulfone	65.5	73.1	P/P	40 - 150
2191680	Aldicarb Sulfoxide	36.6	40.7	F/P	40 - 150
2191680	Carbaryl	46.5	47.7	P/P	40 - 150
2191680	Carbofuran	41.9	43.6	P/P	40 - 150
2191680	Methiocarb	50.0	51.6	P/P	40 - 150
2191680	Methomyl	67.4	71.0	P/P	40 - 150
2191680	Oxamyl	65.1	74.7	P/P	40 - 150
2191680	Propoxur	42.0	42.2	P/P	40 - 150
2191761	2,4-D	121	128	P/P	30 - 160
2191761	Acetaminophen	103	106	P/P	30 - 160
2191761	Acetamiprid	83.4	85.8	P/P	30 - 160
2191761	Afidopyropen	55.4	56.4	P/P	30 - 160
2191761	Bentazon	70.3	81.2	P/P	30 - 160
2191761	Benzovindiflupyr	73.1	73.1	P/P	30 - 160
2191761	Carbamazepine	59.1	60.4	P/P	30 - 160
2191761	Clothianidin	95.7	92.8	P/P	30 - 160
2191761	Dinotefuran	112	113	P/P	30 - 160
2191761	Diuron	60.4	64.9	P/P	30 - 160
2191761	Fenuron	86.6	90.1	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P386554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191761	Fluridone	78.0	73.2	P/P	30 - 160
2191761	Hydrocodone	88.7	90.3	P/P	30 - 160
2191761	Ibuprofen	75.0	88.3	P/P	30 - 160
2191761	Imazapyr	103	132	P/P	30 - 160
2191761	Imidacloprid	142	132	P/P	30 - 160
2191761	Linuron	69.0	70.5	P/P	30 - 160
2191761	Mandestrobin	75.3	76.5	P/P	30 - 160
2191761	MCPP	134	132	P/P	30 - 160
2191761	Naproxen	89.4	76.4	P/P	30 - 160
2191761	Primidone	107	108	P/P	30 - 160
2191761	Pyraclostrobin	62.4	61.4	P/P	30 - 160
2191761	Thiamethoxam	128	127	P/P	30 - 160
2191761	Tolfenpyrad	47.8	58.3	P/P	30 - 160
2191761	Triclopyr	103	120	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P386623

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2192055	Fluoride	95.0	96.8	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P386595

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2191946	Organic Carbon	102	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P386525

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191990	Turbidity	4.34	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P386556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191963	Barium	0.818	Spike	P	0 - 20
2191963	Calcium	0.532	Spike	P	0 - 20
2191963	Iron	0.0506	Spike	P	0 - 20
2191963	Magnesium	0.745	Spike	P	0 - 20
2191963	Potassium	0.438	Spike	P	0 - 20
2191963	Sodium	0.518	Spike	P	0 - 20
2191963	Zinc	1.23	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P386556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191963	Aluminum	1.68	Spike	P	0 - 20
2191963	Antimony	0.730	Spike	P	0 - 20
2191963	Arsenic	0.251	Spike	P	0 - 20
2191963	Boron	1.89	Spike	P	0 - 20
2191963	Cadmium	2.34	Spike	P	0 - 20
2191963	Chromium	0.639	Spike	P	0 - 20
2191963	Copper	1.18	Spike	P	0 - 20
2191963	Lead	0.0644	Spike	P	0 - 20
2191963	Nickel	1.55	Spike	P	0 - 20
2191963	Selenium	1.80	Spike	P	0 - 20
2191963	Silver	0.480	Spike	P	0 - 20
2191963	Thallium	1.53	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191971	Chloride	1.33	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P387064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191971	Sulfate	1.13	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192024	Ammonia-N	0.101	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P386610

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192000	Kjeldahl Nitrogen	1.23	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P386543

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192000	NO2NO3-N	0.962	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P386613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192024	Total-P	0.628	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386544

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192058	O-Phosphate-P	2.05	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P386546

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192025	O-Phosphate-P	1.31	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P386513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191699	Aldrin	4.10	Spike	P	0 - 30
2191699	Alpha-BHC	3.24	Spike	P	0 - 30
2191699	Alpha-Chlordane	0.804	Spike	P	0 - 30
2191699	Beta-BHC	3.14	Spike	P	0 - 30
2191699	Beta-Cyfluthrin	0.431	Spike	P	0 - 30
2191699	Bifenthrin	3.68	Spike	P	0 - 30
2191699	Chlorothalonil	7.85	Spike	P	0 - 30
2191699	Cis-Nonachlor	0.0154	Spike	P	0 - 30
2191699	Cypermethrin	4.00	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P386513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191699	Dacthal	1.84	Spike	P	0 - 30
2191699	DDD-p,p'	4.12	Spike	P	0 - 30
2191699	DDE-p,p'	3.55	Spike	P	0 - 30
2191699	DDT-p,p'	5.73	Spike	P	0 - 30
2191699	Delta-BHC	0.242	Spike	P	0 - 30
2191699	Deltamethrin	3.57	Spike	P	0 - 30
2191699	Dicofol	17.2	Spike	P	0 - 30
2191699	Dieldrin	1.00	Spike	P	0 - 30
2191699	Endosulfan I	1.58	Spike	P	0 - 30
2191699	Endosulfan II	3.53	Spike	P	0 - 30
2191699	Endosulfan Sulfate	1.50	Spike	P	0 - 30
2191699	Endrin	4.58	Spike	P	0 - 30
2191699	Endrin Aldehyde	60.3	Spike	F	0 - 30
2191699	Endrin Ketone	10.5	Spike	P	0 - 30
2191699	Ethalfuralin	6.43	Spike	P	0 - 30
2191699	Gamma-BHC	0.749	Spike	P	0 - 30
2191699	Gamma-Chlordane	0.205	Spike	P	0 - 30
2191699	Heptachlor	5.21	Spike	P	0 - 30
2191699	Heptachlor Epoxide	0.693	Spike	P	0 - 30
2191699	Hexachlorobenzene	0.875	Spike	P	0 - 30
2191699	Lambda-Cyhalothrin	7.40	Spike	P	0 - 30
2191699	Methoxychlor	3.70	Spike	P	0 - 30
2191699	Mirex	0.181	Spike	P	0 - 30
2191699	Permethrin	0.133	Spike	P	0 - 30
2191699	Phenothrin	3.05	Spike	P	0 - 30
2191699	Prallethrin	5.09	Spike	P	0 - 30
2191699	Trans-Nonachlor	1.61	Spike	P	0 - 30
2191699	Trifluralin	3.61	Spike	P	0 - 30
LFB	Aldrin	5.76	LCS	P	0 - 30
LFB	Alpha-BHC	6.80	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.540	LCS	P	0 - 30
LFB	Beta-BHC	9.06	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	11.4	LCS	P	0 - 30
LFB	Bifenthrin	11.6	LCS	P	0 - 30
LFB	Chlorothalonil	24.5	LCS	P	0 - 30
LFB	Cis-Nonachlor	5.24	LCS	P	0 - 30
LFB	Cypermethrin	18.6	LCS	P	0 - 30
LFB	Dacthal	1.57	LCS	P	0 - 30
LFB	DDD-p,p'	4.01	LCS	P	0 - 30
LFB	DDE-p,p'	0.461	LCS	P	0 - 30
LFB	DDT-p,p'	13.6	LCS	P	0 - 30
LFB	Delta-BHC	7.01	LCS	P	0 - 30
LFB	Deltamethrin	15.2	LCS	P	0 - 30
LFB	Dicofol	0.610	LCS	P	0 - 30
LFB	Dieldrin	6.29	LCS	P	0 - 30
LFB	Endosulfan I	2.64	LCS	P	0 - 30
LFB	Endosulfan II	0.377	LCS	P	0 - 30
LFB	Endosulfan Sulfate	11.9	LCS	P	0 - 30
LFB	Endrin	1.56	LCS	P	0 - 30
LFB	Endrin Aldehyde	17.8	LCS	P	0 - 30
LFB	Endrin Ketone	7.12	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P386513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Ethalfuralin	1.74	LCS	P	0 - 30
LFB	Gamma-BHC	5.08	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.13	LCS	P	0 - 30
LFB	Heptachlor	4.23	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.63	LCS	P	0 - 30
LFB	Hexachlorobenzene	9.23	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	19.6	LCS	P	0 - 30
LFB	Methoxychlor	2.45	LCS	P	0 - 30
LFB	Mirex	7.32	LCS	P	0 - 30
LFB	Permethrin	12.4	LCS	P	0 - 30
LFB	Phenothrin	15.6	LCS	P	0 - 30
LFB	Prallethrin	14.1	LCS	P	0 - 30
LFB	Trans-Nonachlor	1.33	LCS	P	0 - 30
LFB	Trifluralin	1.46	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P386604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192191	Acetochlor	9.55	Spike	P	0 - 30
2192191	Alachlor	11.0	Spike	P	0 - 30
2192191	Ametryn	3.61	Spike	P	0 - 30
2192191	Atrazine	22.0	Spike	P	0 - 30
2192191	Atrazine Desethyl	10.8	Spike	P	0 - 30
2192191	Azinphos Methyl	12.8	Spike	P	0 - 30
2192191	Bromacil	9.47	Spike	P	0 - 30
2192191	Butylate	35.5	Spike	F	0 - 30
2192191	Carbophenothion	3.02	Spike	P	0 - 30
2192191	Chlorpyrifos Ethyl	4.11	Spike	P	0 - 30
2192191	Chlorpyrifos Methyl	0.679	Spike	P	0 - 30
2192191	Cyanazine	8.65	Spike	P	0 - 30
2192191	Demeton	17.0	Spike	P	0 - 30
2192191	Diazinon	7.17	Spike	P	0 - 30
2192191	Dimethenamid	7.49	Spike	P	0 - 30
2192191	Disulfoton	8.24	Spike	P	0 - 30
2192191	Dithiopyr	7.25	Spike	P	0 - 30
2192191	EPTC	9.94	Spike	P	0 - 30
2192191	Ethion	11.0	Spike	P	0 - 30
2192191	Ethoprop	3.36	Spike	P	0 - 30
2192191	Fenamiphos	2.03	Spike	P	0 - 30
2192191	Fipronil	7.61	Spike	P	0 - 30
2192191	Fipronil Desulfinyl	6.48	Spike	P	0 - 30
2192191	Fipronil Sulfide	0.656	Spike	P	0 - 30
2192191	Fipronil Sulfone	1.96	Spike	P	0 - 30
2192191	Flumioxazin	0.601	Spike	P	0 - 30
2192191	Fonofos	5.73	Spike	P	0 - 30
2192191	Hexazinone	5.03	Spike	P	0 - 30
2192191	Imazalil	156	Spike	F	0 - 30
2192191	Malathion	2.72	Spike	P	0 - 30
2192191	Metalaxyl	9.16	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P386604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192191	Metolachlor	8.14	Spike	P	0 - 30
2192191	Metribuzin	0.344	Spike	P	0 - 30
2192191	Mevinphos	2.67	Spike	P	0 - 30
2192191	Molinate	4.73	Spike	P	0 - 30
2192191	Naled	13.4	Spike	P	0 - 30
2192191	Norflurazon	6.09	Spike	P	0 - 30
2192191	Oxadiazon	8.55	Spike	P	0 - 30
2192191	Parathion Ethyl	7.81	Spike	P	0 - 30
2192191	Parathion Methyl	1.40	Spike	P	0 - 30
2192191	Pendimethalin	0.634	Spike	P	0 - 30
2192191	Phorate	11.0	Spike	P	0 - 30
2192191	Prodiamine	36.2	Spike	F	0 - 30
2192191	Prometon	2.78	Spike	P	0 - 30
2192191	Prometryn	8.38	Spike	P	0 - 30
2192191	Pronamide	4.63	Spike	P	0 - 30
2192191	Propiconazole	12.3	Spike	P	0 - 30
2192191	Simazine	7.45	Spike	P	0 - 30
2192191	Sulfentrazone	1.33	Spike	P	0 - 30
2192191	Tebuconazole	29.6	Spike	P	0 - 30
2192191	Terbufos	1.86	Spike	P	0 - 30
2192191	Terbutylazine	10.3	Spike	P	0 - 30
LFB	Acetochlor	9.71	LCS	P	0 - 30
LFB	Alachlor	5.82	LCS	P	0 - 30
LFB	Ametryn	21.5	LCS	P	0 - 30
LFB	Atrazine	9.48	LCS	P	0 - 30
LFB	Atrazine Desethyl	8.34	LCS	P	0 - 30
LFB	Azinphos Methyl	5.09	LCS	P	0 - 30
LFB	Bromacil	8.87	LCS	P	0 - 30
LFB	Butylate	11.3	LCS	P	0 - 30
LFB	Carbophenothion	4.00	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	6.01	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	8.67	LCS	P	0 - 30
LFB	Cyanazine	3.99	LCS	P	0 - 30
LFB	Demeton	0.558	LCS	P	0 - 30
LFB	Diazinon	7.17	LCS	P	0 - 30
LFB	Dimethenamid	9.60	LCS	P	0 - 30
LFB	Disulfoton	3.42	LCS	P	0 - 30
LFB	Dithiopyr	7.58	LCS	P	0 - 30
LFB	EPTC	10.4	LCS	P	0 - 30
LFB	Ethion	3.54	LCS	P	0 - 30
LFB	Ethoprop	3.84	LCS	P	0 - 30
LFB	Fenamiphos	3.90	LCS	P	0 - 30
LFB	Fipronil	8.38	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	8.64	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.17	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.74	LCS	P	0 - 30
LFB	Flumioxazin	9.35	LCS	P	0 - 30
LFB	Fonofos	1.18	LCS	P	0 - 30
LFB	Hexazinone	6.20	LCS	P	0 - 30
LFB	Imazalil	20.3	LCS	P	0 - 30
LFB	Malathion	2.07	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P386604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metalaxyl	6.82	LCS	P	0 - 30
LFB	Metolachlor	7.44	LCS	P	0 - 30
LFB	Metribuzin	6.08	LCS	P	0 - 30
LFB	Mevinphos	9.73	LCS	P	0 - 30
LFB	Molinate	5.31	LCS	P	0 - 30
LFB	Naled	6.41	LCS	P	0 - 30
LFB	Norflurazon	11.6	LCS	P	0 - 30
LFB	Oxadiazon	8.70	LCS	P	0 - 30
LFB	Parathion Ethyl	0.720	LCS	P	0 - 30
LFB	Parathion Methyl	8.51	LCS	P	0 - 30
LFB	Pendimethalin	2.27	LCS	P	0 - 30
LFB	Phorate	4.15	LCS	P	0 - 30
LFB	Prodiamine	10.0	LCS	P	0 - 30
LFB	Prometon	16.6	LCS	P	0 - 30
LFB	Prometryn	11.6	LCS	P	0 - 30
LFB	Pronamide	25.4	LCS	P	0 - 30
LFB	Propiconazole	9.93	LCS	P	0 - 30
LFB	Simazine	14.7	LCS	P	0 - 30
LFB	Sulfentrazone	6.75	LCS	P	0 - 30
LFB	Tebuconazole	7.79	LCS	P	0 - 30
LFB	Terbufos	4.34	LCS	P	0 - 30
LFB	Terbutylazine	5.03	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P386513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192006	Chlordane	21.8	Spike	P	0 - 30
2192006	Toxaphene	21.0	Spike	P	0 - 30
LFB	Chlordane	1.46	LCS	P	0 - 30
LFB	Toxaphene	2.86	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P386539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192007	Acesulfame K	1.69	Spike	P	0 - 30
2192007	AMPA	3.43	Spike	P	0 - 30
2192007	Endothall	12.2	Spike	P	0 - 30
2192007	Glufosinate	4.58	Spike	P	0 - 30
2192007	Glyphosate	5.36	Spike	P	0 - 30
2192007	Sucralose	38.6	Spike	F	0 - 30

Reference Method: EPA 8321B

Batch ID: P386554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191680	3-Hydroxycarbofuran	5.82	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P386554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191680	Aldicarb	14.9	Spike	P	0 - 30
2191680	Aldicarb Sulfone	10.9	Spike	P	0 - 30
2191680	Aldicarb Sulfoxide	10.6	Spike	P	0 - 30
2191680	Carbaryl	2.54	Spike	P	0 - 30
2191680	Carbofuran	3.93	Spike	P	0 - 30
2191680	Methiocarb	3.26	Spike	P	0 - 30
2191680	Methomyl	5.23	Spike	P	0 - 30
2191680	Oxamyl	9.93	Spike	P	0 - 30
2191680	Propoxur	0.505	Spike	P	0 - 30
2191761	2,4-D	5.72	Spike	P	0 - 30
2191761	Acetaminophen	3.22	Spike	P	0 - 30
2191761	Acetamiprid	2.87	Spike	P	0 - 30
2191761	Afidopyropen	1.87	Spike	P	0 - 30
2191761	Bentazon	14.5	Spike	P	0 - 30
2191761	Benzovindiflupyr	0.00820	Spike	P	0 - 30
2191761	Carbamazepine	2.21	Spike	P	0 - 30
2191761	Clothianidin	3.07	Spike	P	0 - 30
2191761	Dinotefuran	0.801	Spike	P	0 - 30
2191761	Diuron	7.21	Spike	P	0 - 30
2191761	Fenuron	3.97	Spike	P	0 - 30
2191761	Fluridone	5.15	Spike	P	0 - 30
2191761	Hydrocodone	1.83	Spike	P	0 - 30
2191761	Ibuprofen	16.3	Spike	P	0 - 30
2191761	Imazapyr	25.2	Spike	P	0 - 30
2191761	Imidacloprid	6.80	Spike	P	0 - 30
2191761	Linuron	2.18	Spike	P	0 - 30
2191761	Mandestrobin	1.53	Spike	P	0 - 30
2191761	MCPP	1.37	Spike	P	0 - 30
2191761	Naproxen	15.7	Spike	P	0 - 30
2191761	Primidone	0.789	Spike	P	0 - 30
2191761	Pyraclostrobin	1.70	Spike	P	0 - 30
2191761	Thiamethoxam	0.828	Spike	P	0 - 30
2191761	Tolfenpyrad	19.6	Spike	P	0 - 30
2191761	Triclopyr	14.8	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P386528

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191996	Color (true)	0.692	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P386621

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192055	Total Alkalinity	0.680	Sample	P	0 - 8.1

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P386993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191971	TDS	0.866	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P386623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2192055	Fluoride	0.915	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P386595

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2191946	Organic Carbon	0.0720	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2192033
Field Sample ID: G1TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	39.4	P	30 - 160

Lab Sample ID: 2192034
Field Sample ID: G1TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	112	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	54.6	P	30 - 160
EPA 8321B	Diuron-d6	57.8	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	57.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	57.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	103	P	30 - 160
EPA 8321B	Primidone-d5	94.3	P	30 - 160
EPA 8321B	Sucralose-d6	66.4	P	30 - 160
EPA 8321B	Sucralose-d6	66.4	P	30 - 160

Lab Sample ID: 2192035
Field Sample ID: G1TLHR0081

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	109	P	30 - 160
EPA 8321B	Acetaminophen-d4	70.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	53.5	P	30 - 160
EPA 8321B	Diuron-d6	49.9	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	67.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	67.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	105	P	30 - 160
EPA 8321B	Primidone-d5	83.7	P	30 - 160
EPA 8321B	Sucralose-d6	87.6	P	30 - 160
EPA 8321B	Sucralose-d6	87.6	P	30 - 160

Lab Sample ID: 2192036
Field Sample ID: G1TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	89.5	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	60.1	P	34 - 106
EPA 8276	Decachlorobiphenyl	67.0	P	26 - 97.0
EPA 8276	PCNB	84.1	P	38 - 141

Lab Sample ID: 2192037
Field Sample ID: G1TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	112	P	72 - 135
EPA 8270E	Terbufos-d10	92.1	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A100641

Included Lab Sample IDs: 2192023, 2192026

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

Reference Method: SM 2120 B-2011

Run ID: A100642

Included Lab Sample IDs: 2192023, 2192026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.5	99.4	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A100651

Included Lab Sample IDs: 2192024, 2192027

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A100652

Included Lab Sample IDs: 2192025, 2192028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.5	P/P	90 - 110
O-Phosphate-P	99.5	99.4	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A100665

Included Lab Sample IDs: 2192024, 2192027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	102	99.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100670

Included Lab Sample IDs: 2192034, 2192035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	98.4	97.2	P/P	60 - 160
Glufosinate	87.7	93.0	P/P	60 - 160
Glyphosate	79.7	87.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A100671

Included Lab Sample IDs: 2192034, 2192035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	92.9	84.0	P/P	60 - 160
Endothall	97.3	102	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A100675

Included Lab Sample IDs: 2192023, 2192026

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

Reference Method: SM 4500 F-C-2011

Run ID: A100675

Included Lab Sample IDs: 2192023, 2192026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A100700

Included Lab Sample IDs: 2192024, 2192027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	105	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100703

Included Lab Sample IDs: 2192034, 2192035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	95.5	97.3	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A100715

Included Lab Sample IDs: 2192038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	101	P/P	90 - 110
Arsenic	105	106	P/P	90 - 110
Boron	101	105	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	104	103	P/P	90 - 110
Copper	98.9	98.8	P/P	90 - 110
Lead	107	106	P/P	90 - 110
Nickel	99.6	99.1	P/P	90 - 110
Selenium	102	103	P/P	90 - 110
Silver	109	109	P/P	90 - 110
Thallium	104	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A100716

Included Lab Sample IDs: 2192038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	92.1	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A100721

Included Lab Sample IDs: 2192038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	104	105	P/P	90 - 110
Calcium	101	103	P/P	90 - 110
Iron	104	105	P/P	90 - 110
Magnesium	101	103	P/P	90 - 110
Potassium	99.9	101	P/P	90 - 110
Sodium	100	101	P/P	90 - 110
Zinc	103	104	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A100750

Included Lab Sample IDs: 2192036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	99.4		P	80 - 120
Beta-BHC	95.4		P	80 - 120
Beta-Cyfluthrin	97.2		P	80 - 120
Bifenthrin	98.7		P	80 - 120
Chlorothalonil	100		P	80 - 120
Cis-Nonachlor	99.1		P	80 - 120
Cypermethrin	96.5		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	110		P	80 - 120
Delta-BHC	105		P	80 - 120
Deltamethrin	102		P	80 - 120
Dicofol	106		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	98.2		P	80 - 120
Endosulfan II	104		P	80 - 120
Endosulfan Sulfate	109		P	80 - 120
Endrin	97.3		P	80 - 120
Endrin Aldehyde	108		P	80 - 120
Endrin Ketone	93.3		P	80 - 120
Ethalfuralin	99.5		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	97.8		P	80 - 120
Heptachlor	96.3		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Lambda-Cyhalothrin	99.4		P	80 - 120
Methoxychlor	94.0		P	80 - 120
Mirex	95.4		P	80 - 120
Permethrin	95.2		P	80 - 120
Phenothrin	92.1		P	80 - 120
Prallethrin	86.3		P	80 - 120
Trans-Nonachlor	98.5		P	80 - 120
Trifluralin	97.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A100758

Included Lab Sample IDs: 2192034, 2192035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	115	141	P/P	50 - 150
2,4-D	119	115	P/P	50 - 150
3-Hydroxycarbofuran	112	108	P/P	60 - 150
Acetaminophen	118	125	P/P	60 - 160
Acetaminophen	125	124	P/P	60 - 160
Acetamiprid	126	127	P/P	50 - 150
Acetamiprid	127	126	P/P	50 - 150
Afidopyropen	82.3	94.8	P/P	50 - 150
Afidopyropen	94.8	96.8	P/P	50 - 150
Aldicarb	87.9	96.8	P/P	60 - 150
Aldicarb Sulfone	110	114	P/P	50 - 150
Aldicarb Sulfoxide	118	115	P/P	50 - 150
Bentazon	94.1	142	P/P	50 - 160
Benzovindiflupyr	122	122	P/P	50 - 150
Benzovindiflupyr	122	121	P/P	50 - 150
Carbamazepine	109	112	P/P	60 - 150
Carbamazepine	112	111	P/P	60 - 150
Carbaryl	131	104	P/P	60 - 150
Carbofuran	124	112	P/P	50 - 150
Clothianidin	109	112	P/P	60 - 150
Clothianidin	112	109	P/P	60 - 150
Dinotefuran	111	108	P/P	50 - 150
Dinotefuran	115	111	P/P	50 - 150
Diuron	112	111	P/P	60 - 160
Diuron	125	112	P/P	60 - 160
Fenuron	121	129	P/P	60 - 150
Fenuron	129	128	P/P	60 - 150
Fluridone	87.8	112	P/P	60 - 160
Hydrocodone	117	118	P/P	60 - 150
Hydrocodone	118	120	P/P	60 - 150
Ibuprofen	143	71.1	P/P	50 - 160
Ibuprofen	71.1	119	P/P	50 - 160
Imazapyr	106	105	P/P	50 - 150
Imidacloprid	104	115	P/P	60 - 150
Imidacloprid	115	112	P/P	60 - 150
Linuron	117	124	P/P	60 - 150
Linuron	124	116	P/P	60 - 150
Mandestrobin	124	127	P/P	50 - 150
Mandestrobin	127	120	P/P	50 - 150
MCPP	119	140	P/P	50 - 150
MCPP	140	132	P/P	50 - 150
Methiocarb	114	113	P/P	50 - 150
Methomyl	115	114	P/P	50 - 150
Naproxen	107	138	P/P	50 - 160
Naproxen	138	65.1	P/P	50 - 160
Oxamyl	113	118	P/P	50 - 150
Primidone	106	124	P/P	60 - 150
Primidone	124	120	P/P	60 - 150
Propoxur	118	111	P/P	50 - 150
Pyraclostrobin	112	119	P/P	60 - 150
Pyraclostrobin	119	116	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A100758

Included Lab Sample IDs: 2192034, 2192035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thiamethoxam	131	133	P/P	50 - 150
Thiamethoxam	135	131	P/P	50 - 150
Tolfenpyrad	111	115	P/P	60 - 150
Tolfenpyrad	115	119	P/P	60 - 150
Triclopyr	116	118	P/P	50 - 150
Triclopyr	118	126	P/P	50 - 150

Reference Method: EPA 8276

Run ID: A100764

Included Lab Sample IDs: 2192036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	90.0		P	80 - 120
Toxaphene	110		P	80 - 120

Reference Method: EPA 8321B

Run ID: A100781

Included Lab Sample IDs: 2192035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	129	158	P/P	50 - 160
Fluridone	110	110	P/P	60 - 160
Imazapyr	111	138	P/P	50 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A100799

Included Lab Sample IDs: 2192024, 2192027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	97.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A100832

Included Lab Sample IDs: 2192024, 2192027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100843

Included Lab Sample IDs: 2192023, 2192026

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

Reference Method: EPA 8270E

Run ID: A100919

Included Lab Sample IDs: 2192037

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

Calibration Verification

Reference Method: EPA 8270E
 Run ID: A100919
 Included Lab Sample IDs: 2192037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.5		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	98.1		P	80 - 120
Atrazine Desethyl	96.1		P	80 - 120
Azinphos Methyl	102		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	92.9		P	80 - 120
Carbophenothion	100		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	99.4		P	80 - 120
Cyanazine	97.3		P	80 - 120
Demeton	95.1		P	80 - 120
Diazinon	96.8		P	80 - 120
Dimethenamid	98.7		P	80 - 120
Disulfoton	96.3		P	80 - 120
Dithiopyr	99.5		P	80 - 120
EPTC	94.5		P	80 - 120
Ethion	100		P	80 - 120
Ethoprop	99.2		P	80 - 120
Fenamiphos	106		P	80 - 120
Fipronil	99.6		P	80 - 120
Fipronil Desulfinyl	100		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fipronil Sulfone	97.3		P	80 - 120
Flumioxazin	93.4		P	80 - 120
Fonofos	96.4		P	80 - 120
Hexazinone	107		P	80 - 120
Imazalil	108		P	80 - 120
Malathion	100		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	96.7		P	80 - 120
Metribuzin	97.0		P	80 - 120
Mevinphos	97.1		P	80 - 120
Molinate	94.2		P	80 - 120
Naled	92.8		P	80 - 120
Norflurazon	98.7		P	80 - 120
Oxadiazon	97.7		P	80 - 120
Parathion Ethyl	92.5		P	80 - 120
Parathion Methyl	103		P	80 - 120
Pendimethalin	92.7		P	80 - 120
Phorate	99.8		P	80 - 120
Prodiamine	90.7		P	80 - 120
Prometon	97.1		P	80 - 120
Prometryn	98.1		P	80 - 120
Pronamide	99.4		P	80 - 120
Propiconazole	99.5		P	80 - 120
Simazine	113		P	80 - 120
Sulfentrazone	101		P	80 - 120
Tebuconazole	99.4		P	80 - 120
Terbufos	98.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A100919

Included Lab Sample IDs: 2192037

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Terbutylazine	99.8		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						4.34	
EPA 200.7 Rev. 4.4	Barium	100		104	103			0.818
	Calcium	105		102				0.532
	Iron	104		108	108			0.0506
	Magnesium	102		102	103			0.745
	Potassium	101		100	101			0.438
	Sodium	104		102				0.518
	Zinc	97.9		103	101			1.23
EPA 200.8 Rev. 5.4	Aluminum	97.3		97.6	99.2			1.68
	Antimony	102		104	104			0.730
	Arsenic	104		107	107			0.251
	Boron	99.8		99.0	102			1.89
	Cadmium	101		104	102			2.34
	Chromium	106		109	109			0.639
	Copper	103		103	101			1.18
	Lead	109		111	112			0.0644
	Nickel	103		103	101			1.55
	Selenium	99.3		99.6	101			1.80
	Silver	109		108	108			0.480
	Thallium	107		110	112			1.53
EPA 300.0 Rev. 2.1	Chloride	97.3		97.5	97.5		1.33	
	Sulfate	96.6		95.2	95.4		1.13	
EPA 350.1 Rev. 2.0	Ammonia-N	100		98.6	98.4			0.101
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104		105	106			1.23
EPA 353.2 Rev. 2.0	NO2NO3-N	102		104	104			0.962
EPA 365.1 Rev. 2.0	Total-P	105		107	108			0.628
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		102	99.7			2.05
	O-Phosphate-P	99.9		101	102			1.31
EPA 8270E	Acetochlor	85.5	94.2	78.3	71.1	9.71		9.55
	Alachlor	87.7	93.0	71.0	63.6	5.82		11.0
	Aldrin	67.0	63.3	61.2	58.8	5.76		4.10
	Alpha-BHC	79.6	85.2	85.2	82.5	6.80		3.24
	Alpha-Chlordane	85.4	85.0	75.4	74.8	0.540		0.804
	Ametryn	93.1	116			21.5		3.61
	Atrazine	94.5	104			9.48		22.0
	Atrazine Desethyl	89.9	97.7			8.34		10.8
	Azinphos Methyl	104	109	148	130	5.09		12.8
	Beta-BHC	81.7	89.5	93.1	96.1	9.06		3.14
	Beta-Cyfluthrin	80.4	71.7	102	102	11.4		0.431
	Bifenthrin	87.3	77.7	90.5	87.2	11.6		3.68
	Bromacil	91.4	99.9	98.3	89.4	8.87		9.47
	Butylate	43.7	49.0	59.5	41.6	11.3		35.5
	Carbophenothion	100	104	89.8	87.1	4.00		3.02
	Chlorothalonil	63.2	80.9	85.2	92.1	24.5		7.85
	Chlorpyrifos Ethyl	90.1	95.7	85.3	88.8	6.01		4.11
	Chlorpyrifos Methyl	81.0	88.3	85.8	85.3	8.67		0.679
	Cis-Nonachlor	90.2	85.5	80.1	80.1	5.24		0.0154
	Cyanazine	101	96.6	98.9	90.7	3.99		8.65
	Cypermethrin	98.5	81.7	111	116	18.6		4.00
	Dacthal	91.8	93.2	89.4	87.8	1.57		1.84
	DDD-p,p'	94.7	91.0	79.1	82.5	4.01		4.12
	DDE-p,p'	87.1	87.5	70.7	73.3	0.461		3.55
	DDT-p,p'	102	88.7	80.9	85.7	13.6		5.73
	Delta-BHC	115	123	133	133	7.01		0.242

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Deltamethrin	99.2	85.2	117	113	15.2	3.57
	Demeton	73.9	73.5	86.5	103	0.558	17.0
	Diazinon	87.3	93.8	88.9	82.7	7.17	7.17
	Dicofol	96.5	97.0	61.5	73.0	0.610	17.2
	Dieldrin	87.2	92.8	76.3	77.1	6.29	1.00
	Dimethenamid	86.4	95.1	81.2	75.4	9.60	7.49
	Disulfoton	74.8	72.3	80.0	73.6	3.42	8.24
	Dithiopyr	91.3	98.5	78.6	72.8	7.58	7.25
	Endosulfan I	86.0	88.3	82.2	83.6	2.64	1.58
	Endosulfan II	97.7	97.3	93.8	90.5	0.377	3.53
	Endosulfan Sulfate	98.7	87.6	108	106	11.9	1.50
	Endrin	88.1	86.7	81.6	77.9	1.56	4.58
	Endrin Aldehyde	70.1	83.7	102	55.0	17.8	60.3
	Endrin Ketone	93.9	87.5	97.0	108	7.12	10.5
	EPTC	44.3	49.1	51.6	46.7	10.4	9.94
	Ethalfuralin	75.5	74.2	70.2	65.8	1.74	6.43
	Ethion	102	106	88.6	79.4	3.54	11.0
	Ethoprop	75.3	72.4	83.5	80.8	3.84	3.36
	Fenamiphos	96.6	92.9	75.0	76.5	3.90	2.03
	Fipronil	95.8	104	103	95.4	8.38	7.61
	Fipronil Desulfinyl	97.1	106	93.7	86.0	8.64	6.48
	Fipronil Sulfide	98.0	102	96.7	97.5	4.17	0.656
	Fipronil Sulfone	95.3	102	115	110	6.74	1.96
	Flumioxazin	119	130	188	187	9.35	0.601
	Fonofos	70.4	71.3	81.8	77.3	1.18	5.73
	Gamma-BHC	88.2	92.8	98.2	97.5	5.08	0.749
	Gamma-Chlordane	82.0	79.5	72.1	72.3	3.13	0.205
	Heptachlor	72.9	69.8	63.9	60.7	4.23	5.21
	Heptachlor Epoxide	87.0	88.4	79.5	78.9	1.63	0.693
	Hexachlorobenzene	69.1	63.0	56.2	56.7	9.23	0.875
	Hexazinone	102	108	89.1	94.2	6.20	5.03
	Imazalil	130	106	521	64.3	20.3	156
	Lambda-Cyhalothrin	89.4	73.4	108	100	19.6	7.40
	Malathion	93.5	91.6	95.2	92.6	2.07	2.72
	Metalaxyl	93.6	100	85.0	77.6	6.82	9.16
	Methoxychlor	85.5	83.5	76.5	73.7	2.45	3.70
	Metolachlor	90.8	97.8			7.44	8.14
	Metribuzin	103	110	118	118	6.08	0.344
	Mevinphos	66.4	60.2	77.4	79.5	9.73	2.67
	Mirex	70.0	65.0	62.2	62.3	7.32	0.181
	Molinate	51.8	54.6	68.4	65.3	5.31	4.73
	Naled	53.3	50.0	64.0	55.9	6.41	13.4
	Norflurazon	93.7	105	78.8	74.1	11.6	6.09
	Oxadiazon	92.7	101	75.6	66.9	8.70	8.55
	Parathion Ethyl	89.8	90.4	86.8	93.8	0.720	7.81
	Parathion Methyl	89.6	97.6	93.4	92.1	8.51	1.40
	Pendimethalin	103	101	109	110	2.27	0.634
	Permethrin	88.7	78.4	85.5	85.7	12.4	0.133
	Phenothrin	79.2	67.8	78.5	80.9	15.6	3.05
	Phorate	60.1	62.6	89.6	99.9	4.15	11.0
	Prallethrin	73.4	63.7	83.9	79.7	14.1	5.09
	Prodiamine	141	127	134	93.3	10.0	36.2
	Prometon	83.3	98.4	79.6	77.4	16.6	2.78
	Prometryn	93.3	105	89.0	81.8	11.6	8.38

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Pronamide	88.6	114	81.4	85.3	25.4		4.63
	Propiconazole	94.0	104	94.3	81.0	9.93		12.3
	Simazine	105	121			14.7		7.45
	Sulfentrazone	65.0	69.5			6.75		1.33
	Tebuconazole	94.2	102	31.1	41.8	7.79		29.6
	Terbufos	75.2	78.5	90.8	89.1	4.34		1.86
	Terbutylazine	92.3	97.1	88.9	80.2	5.03		10.3
	Trans-Nonachlor	82.5	81.4	63.4	62.4	1.33		1.61
	Trifluralin	74.6	73.5	67.3	64.9	1.46		3.61
EPA 8276	Chlordane	93.4	94.7	78.5	97.8	1.46		21.8
	Toxaphene	97.2	94.4	88.4	109	2.86		21.0
EPA 8321B	2,4-D	128		121	128			5.72
	3-Hydroxycarbofuran	85.3		52.9	56.1			5.82
	Acesulfame K	77.3		31.4	31.9			1.69
	Acetaminophen	85.6		103	106			3.22
	Acetamiprid	77.4		83.4	85.8			2.87
	Afidopyropen	55.8		55.4	56.4			1.87
	Aldicarb	64.5		58.6	50.4			14.9
	Aldicarb Sulfone	94.4		65.5	73.1			10.9
	Aldicarb Sulfoxide	105		36.6	40.7			10.6
	AMPA	92.1		85.1	88.8			3.43
	Bentazon	74.7		70.3	81.2			14.5
	Benzovindiflupyr	76.5		73.1	73.1			0.0082
	Carbamazepine	63.3		59.1	60.4			2.21
	Carbaryl	67.5		46.5	47.7			2.54
	Carbofuran	56.2		41.9	43.6			3.93
	Clothianidin	79.6		95.7	92.8			3.07
	Dinotefuran	97.3		112	113			0.801
	Diuron	67.4		60.4	64.9			7.21
	Endothall	85.0		114	101			12.2
	Fenuron	94.2		86.6	90.1			3.97
	Fluridone	77.8		78.0	73.2			5.15
	Glufosinate	89.5		85.9	89.9			4.58
	Glyphosate	78.3		74.3	81.8			5.36
	Hydrocodone	84.2		88.7	90.3			1.83
	Ibuprofen	95.3		75.0	88.3			16.3
	Imazapyr	92.1		103	132			25.2
	Imidacloprid	95.7		142	132			6.80
	Linuron	72.0		69.0	70.5			2.18
	Mandestrobin	78.2		75.3	76.5			1.53
	MCPP	135		134	132			1.37
	Methiocarb	58.0		50.0	51.6			3.26
	Methomyl	103		67.4	71.0			5.23
	Naproxen	89.5		89.4	76.4			15.7
	Oxamyl	93.5		65.1	74.7			9.93
	Primidone	86.4		107	108			0.789
	Propoxur	60.7		42.0	42.2			0.505
	Pyraclostrobin	62.6		62.4	61.4			1.70
	Sucralose	97.0		41.7	70.3			38.6
	Thiamethoxam	97.2		128	127			0.828
	Tolfenpyrad	45.9		47.8	58.3			19.6
	Triclopyr	114		103	120			14.8
SM 2120 B-2011	Color (true)	97.5					0.692	
SM 2320 B-2011	Total Alkalinity	104					0.680	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
					LCS	
SM 2540 C-2011	TDS				0.866	
SM 4500 F-C-2011	Fluoride	97.1	95.0	96.8		0.915
SM 5310 B-2011	Organic Carbon	100	102	101		0.0720

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2192023, 2192026
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2192038
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2192038
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2192023, 2192026
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2192023, 2192026
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2192024, 2192027
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2192024, 2192027
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2192024, 2192027
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2192024, 2192027
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2192025, 2192028
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2192036
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2192037
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2192036
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2192033
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2192034, 2192035
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2192034, 2192035
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2192023, 2192026
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2192023, 2192026
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2192038
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2192023, 2192026
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2192023, 2192026
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2192023, 2192026
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2192024, 2192027

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	08/25/2020			08/25/2020 16:17	Yen Ta	2192023, 2192026
EPA 200.7 Rev. 4.4	08/25/2020	08/26/2020 14:10	Elliott D. Healy	08/27/2020 15:37	Betina Topolski	2192038
EPA 200.8 Rev. 5.4	08/25/2020	08/26/2020 14:10	Elliott D. Healy	08/29/2020 02:43	Alexander Thompson	2192038
	08/25/2020	08/26/2020 14:10	Elliott D. Healy	08/30/2020 01:05	Alexander Thompson	2192038
EPA 300.0 Rev. 2.1	08/25/2020			09/04/2020 20:10	Julia Storbeck	2192023
	08/25/2020			09/04/2020 20:22	Julia Storbeck	2192026
EPA 350.1 Rev. 2.0	08/25/2020			09/05/2020 10:49	Ping Hua	2192024
	08/25/2020			09/05/2020 10:59	Ping Hua	2192027
EPA 351.2 Rev. 2.0	08/25/2020	08/27/2020 10:15	Sima Feizi	08/28/2020 10:48	Virginia P. Brown	2192024
	08/25/2020	08/27/2020 10:15	Sima Feizi	08/28/2020 10:50	Virginia P. Brown	2192027
EPA 353.2 Rev. 2.0	08/25/2020			08/26/2020 09:57	Beverly Y. Sanders	2192024
	08/25/2020			08/26/2020 09:58	Beverly Y. Sanders	2192027
EPA 365.1 Rev. 2.0	08/25/2020	08/27/2020 11:54	Yen Ta	09/03/2020 10:47	Lipi Saha	2192024
	08/25/2020	08/27/2020 11:54	Yen Ta	09/03/2020 10:48	Lipi Saha	2192027
EPA 365.1 Rev. 2.0 dissolved	08/25/2020			08/26/2020 09:56	Blanca Fach	2192028
	08/25/2020			08/26/2020 10:05	Blanca Fach	2192025
EPA 8270E	08/25/2020	08/26/2020 08:00	Fe-Val Siddell	08/31/2020 23:49	Michael Poppell	2192036
	08/25/2020	08/28/2020 09:00	Fe-Val Siddell	09/02/2020 16:18	Vandana T. Nagar	2192037
EPA 8276	08/25/2020	08/26/2020 08:00	Fe-Val Siddell	08/28/2020 08:56	Arthur Maknenko	2192036
EPA 8321B	08/25/2020	08/26/2020 09:15	Rebecca Ware	08/26/2020 10:49	Rebecca Ware	2192034
	08/25/2020	08/26/2020 09:15	Rebecca Ware	08/26/2020 11:00	Rebecca Ware	2192035
	08/25/2020	08/26/2020 09:15	Rebecca Ware	08/26/2020 17:07	Rebecca Ware	2192034
	08/25/2020	08/26/2020 09:15	Rebecca Ware	08/26/2020 17:20	Rebecca Ware	2192035
	08/25/2020	08/26/2020 09:15	Rebecca Ware	08/27/2020 15:18	Rebecca Ware	2192034
	08/25/2020	08/26/2020 09:15	Rebecca Ware	08/27/2020 15:30	Rebecca Ware	2192035
	08/25/2020	08/27/2020 08:30	Hoor Shaik	08/29/2020 10:35	Juyoung Kim	2192033
	08/25/2020	08/27/2020 08:30	Hoor Shaik	08/29/2020 16:56	Juyoung Kim	2192034
	08/25/2020	08/27/2020 08:30	Hoor Shaik	08/29/2020 18:05	Juyoung Kim	2192035
	08/25/2020	08/27/2020 08:30	Hoor Shaik	09/01/2020 14:24	Juyoung Kim	2192035
SM 2120 B-2011	08/25/2020			08/25/2020 16:12	Benjamin T. Nordmann	2192023
	08/25/2020			08/25/2020 16:14	Benjamin T. Nordmann	2192026
SM 2320 B-2011	08/25/2020			08/26/2020 19:38	Dale L. Simmons	2192023
	08/25/2020			08/26/2020 19:51	Dale L. Simmons	2192026
SM 2340B	08/25/2020			08/27/2020 15:37	Betina Topolski	2192038
SM 2540 C-2011	08/25/2020			08/27/2020 15:08	Yijie Li	2192023, 2192026
SM 2540 D-2011	08/25/2020			08/27/2020 15:08	Yijie Li	2192023, 2192026
SM 4500 F-C-2011	08/25/2020			08/26/2020 19:38	Dale L. Simmons	2192023
	08/25/2020			08/26/2020 19:51	Dale L. Simmons	2192026
SM 5310 B-2011	08/25/2020			08/26/2020 22:17	David Boose	2192024
	08/25/2020			08/26/2020 22:29	David Boose	2192027