

Chemical Analysis Report

TLH-ROC-2020-09-23-04

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

Event Description: **Run 4a**
Request ID: **RQ-2020-09-14-42**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 15-OCT-2020 13:31



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: Unnamed Branch @ Hardaway Rd 2

Collection Date/Time: 09/23/2020 13:00

Field ID: G2TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2197882	EPA 180.1 Rev. 2.0	Turbidity	17		NTU	P387816	
	EPA 300.0 Rev. 2.1	Chloride	3.1		mg Cl/L	P388092	
		Sulfate	0.99		mg SO4/L	P388096	
	SM 2120 B-2011	Color (true)	42	A	PCU	P387819	
	SM 2320 B-2011	Total Alkalinity	2.7		mg CaCO3/L	P387829	
	SM 2540 C-2011	TDS	32		mg/L	P388197	
	SM 2540 D-2011	TSS	11		mg/L	P388200	
	SM 4500 F-C-2011	Fluoride	0.040	I	mg F/L	P387832	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.062		mg N/L	P387889	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P387923	MS
2197883	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P387911	
	EPA 365.1 Rev. 2.0	Total-P	0.10	J	mg P/L	P387968	MS
	SM 5310 B-2011	Organic Carbon	7.6		mg C/L	P387982	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.044		mg P/L	P387762	
	EPA 8321B	Aldicarb	0.020	U	ug/L	P387915	
2197884		Aldicarb Sulfone	0.0020	U	ug/L	P387915	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P387915	
		Carbaryl	0.0020	U	ug/L	P387915	
		Carbofuran	0.0020	U	ug/L	P387915	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P387915	
		Methiocarb	0.0020	U	ug/L	P387915	
		Methomyl	0.0020	U	ug/L	P387915	
		Oxamyl	0.0020	U	ug/L	P387915	
		Propoxur	0.0020	U	ug/L	P387915	
		2,4-D	0.0020	U	ug/L	P387915	
2197891		Acesulfame K**	0.10	U	ug/L	P387746	
		AMPA**	0.10	U	ug/L	P387746	
		Sucralose**	0.014	I	ug/L	P387746	
		Acetaminophen**	0.0080	U	ug/L	P387915	
		Acetamiprid**	0.0020	U	ug/L	P387915	
		Endothall**	0.25	U	ug/L	P387746	
		Glufosinate**	0.10	U	ug/L	P387746	
		Glyphosate**	0.10	U	ug/L	P387746	
		Afidopyrophen**	0.0020	U	ug/L	P387915	
		Bentazon	8.0E-04	U	ug/L	P387915	
		Benzovindiflupyr**	0.0020	U	ug/L	P387915	
		Carbamazepine**	8.0E-04	U	ug/L	P387915	
		Clothianidin**	0.0020	U	ug/L	P387915	
		Dinotefuran**	0.0020	U	ug/L	P387915	
		Diuron	0.0020	U	ug/L	P387915	
		Fenuron	0.016	U	ug/L	P387915	
		Fluridone**	8.0E-04	U	ug/L	P387915	
		Imazapyr**	0.0041	I	ug/L	P387915	

Field ID: G2TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2197891	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P387915	
		Ibuprofen**	0.020	U	ug/L	P387915	
		Imidacloprid	0.0020	U	ug/L	P387915	
		Linuron	0.0040	U	ug/L	P387915	
		Mandestrobin**	0.0020	U	ug/L	P387915	
		MCP	0.0020	U	ug/L	P387915	
		Naproxen**	0.0080	U	ug/L	P387915	
		Primidone**	0.0040	U	ug/L	P387915	
		Pyraclostrobin**	0.0020	U	ug/L	P387915	
		Thiamethoxam**	0.0020	U	ug/L	P387915	
		Tolfenpyrad**	0.0020	U	ug/L	P387915	
		Triclopyr**	0.0040	U	ug/L	P387915	
2197894	EPA 8270E	Aldrin	4.3	U	ng/L	P387866	
		Alpha-BHC	2.1	U	ng/L	P387866	
		Alpha-Chlordane	1.1	U	ng/L	P387866	
		Beta-BHC	8.6	U	ng/L	P387866	
		Beta-Cyfluthrin**	16	U	ng/L	P387866	
		Bifenthrin**	4.3	U	ng/L	P387866	
		Delta-BHC	8.6	U	ng/L	P387866	
		Gamma-BHC	8.6	U	ng/L	P387866	
		Chlorothalonil	2.1	U	ng/L	P387866	
		Cis-Nonachlor**	1.1	U	ng/L	P387866	
		Cypermethrin	21	U	ng/L	P387866	
		Dacthal**	1.1	U	ng/L	P387866	
		DDD-p,p'	5.4	U	ng/L	P387866	
		DDE-p,p'	5.4	U	ng/L	P387866	
		DDT-p,p'	6.4	U	ng/L	P387866	RPD
		Deltamethrin**	21	U	ng/L	P387866	
		Dicofol	32	U	ng/L	P387866	
		Dieldrin	4.3	U	ng/L	P387866	
		Endosulfan I	4.3	U	ng/L	P387866	
		Endosulfan II	4.3	U	ng/L	P387866	
		Endosulfan Sulfate	2.1	U	ng/L	P387866	
		Endrin	2.1	U	ng/L	P387866	
		Endrin Aldehyde	2.1	U	ng/L	P387866	RPD
		Endrin Ketone	2.1	U	ng/L	P387866	
		Ethalfuralin**	3.2	U	ng/L	P387866	
		Gamma-Chlordane	1.1	U	ng/L	P387866	
		Dichlobenil**	2.1	U	ng/L	P387866	
		Esfenvalerate**	21	U	ng/L	P387866	
		Fenpropathrin**	11	U	ng/L	P387866	
		Heptachlor	1.6	U	ng/L	P387866	
		Heptachlor Epoxide	2.1	U	ng/L	P387866	
		Hexachlorobenzene	2.1	U	ng/L	P387866	
		Lambda-Cyhalothrin**	16	U	ng/L	P387866	

Field ID: G2TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2197894	EPA 8270E	Methoxychlor	4.3	U	ng/L	P387866	
		Mirex	2.1	U	ng/L	P387866	
		MGK-264**	3.2	U	ng/L	P387866	
		Permethrin	11	U	ng/L	P387866	
		Phenothrin**	32	U	ng/L	P387866	
		Piperonyl Butoxide**	1.6	U	ng/L	P387866	
		Prallethrin**	27	U	ng/L	P387866	
		Tau-Fluvalinate**	3.7	U	ng/L	P387866	
		Tetramethrin**	8.6	U	ng/L	P387866	
		Trans-Nonachlor**	1.1	U	ng/L	P387866	
		Triclosan Methyl**	1.1	U	ng/L	P387866	
		Trifluralin	2.7	U	ng/L	P387866	
		Chlordane	5.4	U	ng/L	P387866	
		Toxaphene	32	U	ng/L	P387866	MS
2197895	EPA 8270E	Acetochlor	0.26	U	ng/L	P387774	
		Alachlor	0.26	U	ng/L	P387774	
		Ametryn	0.63	U	ng/L	P387774	
		Atrazine	0.26	U	ng/L	P387774	
		Atrazine Desethyl	1.6	U	ng/L	P387774	
		Azinphos Methyl	2.1	UJ	ng/L	P387774	RPD
		Bromacil	0.53	U	ng/L	P387774	
		Butylate	0.42	U	ng/L	P387774	
		Carbophenothion	0.53	U	ng/L	P387774	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P387774	
		Chlorpyrifos Methyl	0.053	U	ng/L	P387774	
		Cyanazine	3.4	U	ng/L	P387774	
		Demeton	1.6	U	ng/L	P387774	
		Diazinon	0.13	U	ng/L	P387774	
		Dimethenamid**	0.11	U	ng/L	P387774	
		Disulfoton	0.53	U	ng/L	P387774	
		Dithiopyr**	0.11	UJ	ng/L	P387774	LCS, MS
		EPTC	1.3	U	ng/L	P387774	
		Ethion	0.16	U	ng/L	P387774	
		Ethoprop	0.11	U	ng/L	P387774	
		Fenamiphos	0.53	U	ng/L	P387774	
		Fipronil	0.26	U	ng/L	P387774	
		Fipronil Desulfinyl**	0.13	U	ng/L	P387774	
		Fipronil Sulfide	0.16	U	ng/L	P387774	
		Fipronil Sulfone	0.16	U	ng/L	P387774	
		Flumioxazin**	1.8	UJ	ng/L	P387774	RPD
		Fonofos	0.21	U	ng/L	P387774	
		Hexazinone	0.53	U	ng/L	P387774	
		Imazalil**	0.79	U	ng/L	P387774	
		Malathion	0.37	U	ng/L	P387774	
		Metalaxyl	0.79	U	ng/L	P387774	

Field ID: G2TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2197895	EPA 8270E	Metolachlor	0.53	U	ng/L	P387774	
		Metribuzin	3.4	U	ng/L	P387774	
		Mevinphos	0.53	U	ng/L	P387774	
		Molinate	0.32	U	ng/L	P387774	
		Naled**	1.6	U	ng/L	P387774	
		Norflurazon	0.53	U	ng/L	P387774	
		Oxadiazon	0.11	U	ng/L	P387774	
		Parathion Ethyl	0.26	U	ng/L	P387774	
		Parathion Methyl	0.58	U	ng/L	P387774	
		Pendimethalin	1.1	U	ng/L	P387774	
		Phorate	0.26	U	ng/L	P387774	
		Prodiamine**	0.18	UJ	ng/L	P387774	RPD
		Prometon	0.95	U	ng/L	P387774	
		Prometryn	0.21	U	ng/L	P387774	
		Pronamide**	0.16	U	ng/L	P387774	
		Propiconazole**	0.53	U	ng/L	P387774	
		Simazine	0.53	U	ng/L	P387774	
		Sulfentrazone**	0.53	U	ng/L	P387774	
		Tebuconazole**	0.53	U	ng/L	P387774	
		Terbufos	0.11	U	ng/L	P387774	
		Terbutylazine	0.45	U	ng/L	P387774	
2197896	EPA 200.7 Rev. 4.4	Barium	14.7		ug/L	P387926	
		Calcium	1.52		mg/L	P387926	
		Iron	1.21E+03		ug/L	P387926	
		Magnesium	0.81		mg/L	P387926	
		Potassium	0.64	I	mg/L	P387926	
		Sodium	1.6	I	mg/L	P387926	
		Zinc	5.0	U	ug/L	P387926	
	EPA 200.8 Rev. 5.4	Aluminum	727		ug/L	P387926	
		Antimony	0.050	U	ug/L	P387926	
		Arsenic	0.89		ug/L	P387926	
		Boron**	11.4		ug/L	P387926	
		Cadmium	0.020	U	ug/L	P387926	
		Chromium	0.95	I	ug/L	P387926	
		Copper	0.48	I	ug/L	P387926	
		Lead	0.49		ug/L	P387926	
		Nickel	0.50	U	ug/L	P387926	
		Selenium	0.20	U	ug/L	P387926	
		Silver	0.010	U	ug/L	P387926	
		Thallium	0.10	U	ug/L	P387926	
		Hardness	7.1		mg/L	P387926	
	SM 2340B						

Ref. Method and Comment:

EPA 365.1 Rev. 2.0: Total-P: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8321B: MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P387816

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P387926

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: P387926

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: P388092

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388096

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387889

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: P387923

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P387911

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P387968

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P387762

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

Reference Method: EPA 8270E
 Batch ID: P387774

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P387774

Component	Result	Code	Units
Imazalil	0.75	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
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
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P387866

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P387866

Component	Result	Code	Units
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 8276
Batch ID: P387866

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

Reference Method: EPA 8321B
Batch ID: P387746

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: P387915

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P387915

Component	Result	Code	Units
Aldicarb Sulfoxide	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
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: P387819

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P387829

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

Reference Method: SM 2540 C-2011

Batch ID: P388197

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P388200

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P387832

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P387982

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: P387926

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	99.3		P	85 - 115
Calcium	107		P	85 - 115
Iron	106		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	104		P	85 - 115
Sodium	102		P	85 - 115
Zinc	94.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P387926

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.4		P	80 - 120
Antimony	102		P	80 - 120
Arsenic	100		P	80 - 120
Boron	96.2		P	80 - 120
Cadmium	96.8		P	80 - 120
Chromium	99.7		P	80 - 120
Copper	99.0		P	80 - 120
Lead	97.4		P	80 - 120
Nickel	99.2		P	80 - 120
Selenium	99.6		P	80 - 120
Silver	96.7		P	80 - 120
Thallium	97.9		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388092

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388096

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387889

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P387923

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P387911

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P387968

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P387762

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

Reference Method: EPA 8270E
 Batch ID: P387774

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	81.4	75.9	P/P	71 - 122
Alachlor	75.8	71.0	P/P	70 - 121
Ametryn	97.1	85.6	P/P	49 - 137
Atrazine	93.8	80.9	P/P	76 - 125
Atrazine Desethyl	76.7	74.7	P/P	31 - 144
Azinphos Methyl	70.1	143	P/P	67 - 150
Bromacil	76.4	69.2	P/P	36 - 121
Butylate	62.3	58.1	P/P	33 - 88.0
Carbophenothion	89.5	85.9	P/P	66 - 116
Chlorpyrifos Ethyl	87.3	85.2	P/P	73 - 117
Chlorpyrifos Methyl	102	92.4	P/P	68 - 121
Cyanazine	91.8	88.7	P/P	20 - 250
Demeton	86.5	82.6	P/P	30 - 123
Diazinon	89.5	79.6	P/P	70 - 128
Dimethenamid	80.2	72.5	P/P	66 - 122
Disulfoton	93.5	81.8	P/P	46 - 124
Dithiopyr	75.5	68.4	P/F	69 - 122
EPTC	53.7	55.5	P/P	31 - 90.0
Ethion	81.8	82.9	P/P	45 - 135
Ethoprop	94.8	82.0	P/P	59 - 118
Fenamiphos	78.2	73.0	P/P	30 - 136
Fipronil	82.6	74.3	P/P	57 - 127
Fipronil Desulfinyl	82.2	73.8	P/P	51 - 122
Fipronil Sulfide	80.5	74.2	P/P	57 - 119
Fipronil Sulfone	81.8	76.0	P/P	51 - 119
Flumioxazin	103	60.6	P/P	20 - 250
Fonofos	95.1	84.7	P/P	60 - 120
Hexazinone	85.7	80.5	P/P	57 - 142
Imazalil	55.1	52.7	P/P	30 - 139
Malathion	109	102	P/P	67 - 128
Metaxyl	77.2	69.4	P/P	21 - 148
Metolachlor	74.5	70.5	P/P	70 - 120
Metribuzin	101	99.1	P/P	20 - 250
Mevinphos	97.5	81.9	P/P	47 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P387774

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	65.2	61.6	P/P	41 - 99.0
Naled	49.7	45.2	P/P	38 - 97.0
Norflurazon	73.1	66.2	P/P	54 - 127
Oxadiazon	73.3	68.1	P/P	65 - 122
Parathion Ethyl	87.4	79.4	P/P	71 - 113
Parathion Methyl	111	98.2	P/P	73 - 129
Pendimethalin	70.8	71.2	P/P	63 - 130
Phorate	109	115	P/P	48 - 118
Prodiamine	34.8	65.9	P/P	20 - 144
Prometon	86.8	73.1	P/P	53 - 120
Prometryn	84.5	80.7	P/P	63 - 119
Pronamide	92.3	82.9	P/P	81 - 122
Propiconazole	72.9	65.5	P/P	62 - 124
Simazine	98.3	88.6	P/P	77 - 129
Sulfentrazone	56.3	51.0	P/P	20 - 137
Tebuconazole	27.9	26.6	P/P	20 - 118
Terbufos	90.0	84.9	P/P	61 - 119
Terbutylazine	87.1	79.6	P/P	75 - 119

Reference Method: EPA 8270E

Batch ID: P387866

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	42.0	40.6	P/P	20 - 87.0
Alpha-BHC	76.4	79.6	P/P	65 - 142
Alpha-Chlordane	81.3	79.7	P/P	58 - 106
Beta-BHC	84.3	85.6	P/P	65 - 179
Beta-Cyfluthrin	71.7	76.6	P/P	39 - 153
Bifenthrin	75.7	75.3	P/P	38 - 128
Chlorothalonil	52.5	53.2	P/P	20 - 214
Cis-Nonachlor	82.6	80.6	P/P	56 - 113
Cypermethrin	75.1	74.1	P/P	37 - 130
Dacthal	87.8	86.5	P/P	75 - 109
DDD-p,p'	85.7	82.6	P/P	66 - 119
DDE-p,p'	79.0	78.1	P/P	53 - 108
DDT-p,p'	85.9	85.0	P/P	57 - 133
Delta-BHC	97.1	102	P/P	68 - 187
Deltamethrin	84.0	81.5	P/P	50 - 200
Dichlobenil	72.5	74.0	P/P	25 - 140
Dicofol	99.8	80.8	P/P	66 - 123
Dieldrin	86.0	83.6	P/P	65 - 111
Endosulfan I	84.4	80.0	P/P	65 - 115
Endosulfan II	106	92.3	P/P	68 - 133
Endosulfan Sulfate	86.4	85.3	P/P	62 - 127
Endrin	99.1	79.6	P/P	64 - 122
Endrin Aldehyde	92.7	93.7	P/P	61 - 132
Endrin Ketone	80.3	80.7	P/P	66 - 120
Esfenvalerate	79.9	77.5	P/P	50 - 150
Ethalfuralin	74.2	76.5	P/P	57 - 127
Fenpropathrin	88.7	94.3	P/P	60 - 160
Gamma-BHC	91.2	96.5	P/P	71 - 158
Gamma-Chlordane	77.6	76.4	P/P	53 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P387866

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Heptachlor	66.6	67.7	P/P	45 - 96.0
Heptachlor Epoxide	82.9	81.1	P/P	64 - 109
Hexachlorobenzene	66.8	69.4	P/P	46 - 103
Lambda-Cyhalothrin	72.5	73.8	P/P	38 - 145
Methoxychlor	88.2	88.8	P/P	69 - 149
MGK-264	50.6	50.6	P/P	50 - 150
Mirex	68.7	69.1	P/P	31 - 90.0
Permethrin	73.8	73.5	P/P	41 - 108
Phenothrin	48.0	47.4	P/P	22 - 91.0
Piperonyl Butoxide	88.1	88.4	P/P	50 - 150
Prallethrin	47.8	45.1	P/P	32 - 92.0
Tau-Fluvalinate	84.8	87.3	P/P	50 - 150
Tetramethrin	61.7	60.8	P/P	60 - 160
Trans-Nonachlor	79.3	77.4	P/P	50 - 107
Triclosan Methyl	92.5	90.1	P/P	50 - 150
Trifluralin	73.9	74.0	P/P	58 - 119

Reference Method: EPA 8276

Batch ID: P387866

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	100	101	P/P	47 - 119
Toxaphene	98.0	103	P/P	41 - 112

Reference Method: EPA 8321B

Batch ID: P387746

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	98.1		P	40 - 150
AMPA	82.5		P	40 - 150
Endothall	94.7		P	40 - 150
Glufosinate	89.8		P	40 - 150
Glyphosate	101		P	40 - 140
Sucralose	95.8		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P387915

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.6		P	30 - 160
3-Hydroxycarbofuran	118		P	30 - 160
Acetaminophen	82.7		P	30 - 160
Acetamiprid	74.6		P	30 - 160
Afidopyropen	53.6		P	30 - 160
Aldicarb	120		P	30 - 160
Aldicarb Sulfone	126		P	30 - 160
Aldicarb Sulfoxide	123		P	30 - 160
Bentazon	49.4		P	30 - 160
Benzovindiflupyr	69.2		P	30 - 160
Carbamazepine	47.4		P	30 - 160
Carbaryl	63.1		P	30 - 160
Carbofuran	57.4		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P387915

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Clothianidin	75.7		P	30 - 160
Dinotefuran	96.8		P	30 - 160
Diuron	45.3		P	30 - 160
Fenuron	91.0		P	30 - 160
Fluridone	71.0		P	30 - 160
Hydrocodone	78.1		P	30 - 160
Ibuprofen	71.2		P	30 - 160
Imazapyr	105		P	30 - 160
Imidacloprid	96.2		P	30 - 160
Linuron	64.0		P	30 - 160
Mandestrobin	76.9		P	30 - 160
MCPP	68.5		P	30 - 160
Methiocarb	74.2		P	30 - 160
Methomyl	113		P	30 - 160
Naproxen	75.5		P	30 - 160
Oxamyl	120		P	30 - 160
Primidone	77.6		P	30 - 160
Propoxur	58.2		P	30 - 160
Pyraclostrobin	73.8		P	30 - 160
Thiamethoxam	79.6		P	30 - 160
Tolfenpyrad	47.2		P	30 - 160
Triclopyr	61.9		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P387819

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	90.3		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P387829

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.8		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P387832

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P387982

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P387926

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197555	Barium	103	103	P/P	80 - 120
2197555	Calcium	110	103	P/P	80 - 120
2197555	Iron	111	108	P/P	80 - 120
2197555	Magnesium	109	106	P/P	80 - 120
2197555	Potassium	108	105	P/P	80 - 120
2197555	Sodium	113	107	P/P	80 - 120
2197555	Zinc	96.0	95.9	P/P	80 - 120
2197741	Barium	103		P	80 - 120
2197741	Calcium	105		P	80 - 120
2197741	Iron	113		P	80 - 120
2197741	Magnesium	111		P	80 - 120
2197741	Potassium	111		P	80 - 120
2197741	Sodium	119		P	80 - 120
2197741	Zinc	94.2		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P387926

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197555	Aluminum	98.1	97.4	P/P	80 - 120
2197555	Antimony	101	101	P/P	80 - 120
2197555	Arsenic	99.3	98.9	P/P	80 - 120
2197555	Boron	95.7	95.2	P/P	80 - 120
2197555	Cadmium	96.9	96.6	P/P	80 - 120
2197555	Chromium	99.1	98.9	P/P	80 - 120
2197555	Copper	98.3	98.1	P/P	80 - 120
2197555	Lead	97.8	96.9	P/P	80 - 120
2197555	Nickel	97.8	97.7	P/P	80 - 120
2197555	Selenium	99.4	97.9	P/P	80 - 120
2197555	Silver	97.3	97.0	P/P	80 - 120
2197555	Thallium	98.5	99.4	P/P	80 - 120
2197741	Aluminum	93.9		P	80 - 120
2197741	Antimony	101		P	80 - 120
2197741	Arsenic	96.7		P	80 - 120
2197741	Boron	94.3		P	80 - 120
2197741	Cadmium	96.2		P	80 - 120
2197741	Chromium	96.3		P	80 - 120
2197741	Copper	95.4		P	80 - 120
2197741	Lead	94.1		P	80 - 120
2197741	Nickel	95.0		P	80 - 120
2197741	Selenium	95.8		P	80 - 120
2197741	Silver	94.8		P	80 - 120
2197741	Thallium	95.2		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388092

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197720	Chloride	103		P	90 - 110
2197931	Chloride	103		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197720	Sulfate	98.9		P	90 - 110
2197931	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387889

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197899	Ammonia-N	94.1	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P387923

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197785	Kjeldahl Nitrogen	88.0	97.4	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P387911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197552	NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P387968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197883	Total-P	112	113	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P387762

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197864	O-Phosphate-P	99.2	100	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P387774

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197204	Acetochlor	77.0	77.1	P/P	68 - 126
2197204	Alachlor	71.6	69.8	P/P	66 - 125
2197204	Ametryn	110	96.1	P/P	31 - 182
2197204	Atrazine	95.9	91.6	P/P	68 - 137
2197204	Atrazine Desethyl	72.4	71.9	P/P	13 - 161
2197204	Azinphos Methyl	96.9	126	P/P	54 - 162
2197204	Bromacil	79.4	76.6	P/P	34 - 144
2197204	Butylate	51.1	52.4	P/P	16 - 92.0
2197204	Carbophenothion	80.3	83.7	P/P	30 - 131
2197204	Chlorpyrifos Ethyl	79.7	86.1	P/P	63 - 124
2197204	Chlorpyrifos Methyl	88.1	92.7	P/P	64 - 125
2197204	Cyanazine	88.8	83.7	P/P	13 - 245
2197204	Demeton	86.4	82.5	P/P	20 - 154
2197204	Diazinon	82.3	82.5	P/P	66 - 141
2197204	Dimethenamid	75.1	76.1	P/P	50 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P387774

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197204	Disulfoton	85.5	86.0	P/P	55 - 130
2197204	Dithiopyr	64.9	63.4	F/F	66 - 122
2197204	EPTC	40.8	49.0	P/P	15 - 93.0
2197204	Ethion	76.2	74.5	P/P	15 - 148
2197204	Ethoprop	95.7	97.1	P/P	59 - 126
2197204	Fenamiphos	60.0	59.2	P/P	39 - 137
2197204	Fipronil	79.1	80.8	P/P	47 - 131
2197204	Fipronil Desulfinyl	77.3	78.6	P/P	43 - 121
2197204	Fipronil Sulfide	73.0	74.6	P/P	29 - 134
2197204	Fipronil Sulfone	76.7	76.1	P/P	19 - 131
2197204	Flumioxazin	122	117	P/P	10 - 300
2197204	Fonofos	87.6	94.1	P/P	62 - 128
2197204	Hexazinone	87.9	89.9	P/P	58 - 154
2197204	Imazalil	52.3	59.8	P/P	10 - 215
2197204	Malathion	98.9	104	P/P	54 - 135
2197204	Metalaxyl	74.9	75.4	P/P	46 - 136
2197204	Metolachlor	68.5	69.9	P/P	62 - 126
2197204	Metribuzin	98.4	99.0	P/P	44 - 277
2197204	Mevinphos	102	104	P/P	44 - 135
2197204	Molinate	62.9	67.2	P/P	31 - 104
2197204	Naled	49.2	49.5	P/P	33 - 113
2197204	Norflurazon	69.3	65.0	P/P	32 - 134
2197204	Oxadiazon	62.8	64.4	P/P	55 - 123
2197204	Parathion Ethyl	79.4	82.5	P/P	67 - 120
2197204	Parathion Methyl	101	106	P/P	70 - 140
2197204	Pendimethalin	71.0	73.6	P/P	59 - 145
2197204	Phorate	104	107	P/P	52 - 127
2197204	Prodiamine	40.2	42.5	P/P	11 - 157
2197204	Prometon	84.7	82.5	P/P	55 - 130
2197204	Prometryn	84.9	84.8	P/P	55 - 127
2197204	Pronamide	92.9	89.7	P/P	66 - 150
2197204	Propiconazole	71.7	72.9	P/P	14 - 178
2197204	Simazine	82.6	83.1	P/P	58 - 159
2197204	Sulfentrazone	69.0	68.9	P/P	21 - 144
2197204	Tebuconazole	28.1	25.1	P/P	10 - 122
2197204	Terbufos	84.0	86.4	P/P	65 - 131
2197204	Terbuthylazine	84.1	82.6	P/P	63 - 131

Reference Method: EPA 8270E
Batch ID: P387866

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2198500	Aldrin	56.8	58.0	P/P	32 - 82.0
2198500	Alpha-BHC	75.9	77.2	P/P	68 - 157
2198500	Alpha-Chlordane	87.3	81.4	P/P	54 - 108
2198500	Beta-BHC	91.4	84.4	P/P	54 - 200
2198500	Beta-Cyfluthrin	90.7	89.5	P/P	50 - 154
2198500	Bifenthrin	85.4	79.4	P/P	49 - 124
2198500	Chlorothalonil	26.8	27.0	P/P	10 - 289
2198500	Cis-Nonachlor	88.6	84.1	P/P	53 - 112
2198500	Cypermethrin	88.7	81.4	P/P	43 - 141
2198500	Dacthal	93.4	89.0	P/P	75 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P387866

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2198500	DDD-p,p'	95.2	87.4	P/P	58 - 125
2198500	DDE-p,p'	83.4	81.2	P/P	50 - 108
2198500	DDT-p,p'	119	87.3	P/P	52 - 140
2198500	Delta-BHC	128	113	P/P	61 - 228
2198500	Deltamethrin	108	101	P/P	50 - 200
2198500	Dichlobenil	66.4	68.6	P/P	25 - 140
2198500	Dicofol	78.0	88.0	P/P	59 - 130
2198500	Dieldrin	90.3	82.5	P/P	57 - 121
2198500	Endosulfan I	90.3	84.1	P/P	62 - 123
2198500	Endosulfan II	109	109	P/P	48 - 163
2198500	Endosulfan Sulfate	91.7	82.5	P/P	63 - 132
2198500	Endrin	91.0	85.3	P/P	58 - 128
2198500	Endrin Aldehyde	49.4	102	P/P	44 - 126
2198500	Endrin Ketone	90.9	81.4	P/P	68 - 127
2198500	Esfenvalerate	92.5	95.3	P/P	50 - 150
2198500	Ethalfuralin	71.3	68.3	P/P	55 - 131
2198500	Fenpropathrin	136	133	P/P	60 - 160
2198500	Gamma-BHC	131	120	P/P	54 - 206
2198500	Gamma-Chlordane	83.6	78.6	P/P	52 - 105
2198500	Heptachlor	67.8	69.6	P/P	47 - 94.0
2198500	Heptachlor Epoxide	87.0	82.3	P/P	61 - 113
2198500	Hexachlorobenzene	64.5	66.3	P/P	45 - 100
2198500	Lambda-Cyhalothrin	85.2	81.0	P/P	37 - 165
2198500	Methoxychlor	91.2	85.8	P/P	63 - 153
2198500	MGK-264	57.5	60.2	P/P	50 - 150
2198500	Mirex	73.5	70.5	P/P	38 - 90.0
2198500	Permethrin	85.9	79.9	P/P	45 - 112
2198500	Phenothrin	66.8	65.7	P/P	22 - 118
2198500	Piperonyl Butoxide	92.8	90.3	P/P	50 - 150
2198500	Prallethrin	56.0	53.1	P/P	21 - 114
2198500	Tau-Fluvalinate	103	102	P/P	50 - 150
2198500	Tetramethrin	70.4	64.4	P/P	60 - 160
2198500	Trans-Nonachlor	84.0	79.1	P/P	50 - 103
2198500	Triclosan Methyl	95.1	92.2	P/P	50 - 150
2198500	Trifluralin	73.2	71.2	P/P	57 - 122

Reference Method: EPA 8276
Batch ID: P387866

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2198259	Chlordane	105	109	P/P	34 - 129
2198259	Toxaphene	145	162	P/F	16 - 148

Reference Method: EPA 8321B
Batch ID: P387746

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197190	Acesulfame K	114	119	P/P	40 - 150
2197190	AMPA	114	117	P/P	40 - 150
2197190	Endothall	107	93.8	P/P	40 - 150
2197190	Glufosinate	83.8	94.5	P/P	40 - 150
2197190	Glyphosate	82.6	80.4	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P387746

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197190	Sucralose	99.1	102	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P387915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197878	3-Hydroxycarbofuran	115	107	P/P	30 - 160
2197878	Aldicarb	98.9	98.3	P/P	30 - 160
2197878	Aldicarb Sulfone	124	129	P/P	30 - 160
2197878	Aldicarb Sulfoxide	64.7	62.6	P/P	30 - 160
2197878	Carbaryl	54.8	51.6	P/P	30 - 160
2197878	Carbofuran	53.1	54.2	P/P	30 - 160
2197878	Methiocarb	66.5	80.5	P/P	30 - 160
2197878	Methomyl	109	113	P/P	30 - 160
2197878	Oxamyl	119	127	P/P	30 - 160
2197878	Propoxur	56.5	57.2	P/P	30 - 160
2198224	2,4-D	52.0	62.9	P/P	30 - 160
2198224	Acetaminophen	56.9	64.1	P/P	30 - 160
2198224	Acetamiprid	62.6	71.6	P/P	30 - 160
2198224	Afidopyropen	48.9	53.4	P/P	30 - 160
2198224	Benzovindiflupyr	55.6	65.2	P/P	30 - 160
2198224	Carbamazepine	38.7	42.5	P/P	30 - 160
2198224	Clothianidin	51.8	53.1	P/P	30 - 160
2198224	Dinotefuran	81.6	88.3	P/P	30 - 160
2198224	Diuron	38.0	42.1	P/P	30 - 160
2198224	Fenuron	71.3	79.0	P/P	30 - 160
2198224	Fluridone	63.0	72.3	P/P	30 - 160
2198224	Hydrocodone	62.8	72.2	P/P	30 - 160
2198224	Ibuprofen	54.5	65.5	P/P	30 - 160
2198224	Imazapyr	81.2	86.3	P/P	30 - 160
2198224	Imidacloprid	98.3	110	P/P	30 - 160
2198224	Linuron	62.0	63.4	P/P	30 - 160
2198224	Mandestrobin	66.7	78.8	P/P	30 - 160
2198224	MCP	52.1	58.6	P/P	30 - 160
2198224	Naproxen	43.5	44.7	P/P	30 - 160
2198224	Primidone	69.0	70.1	P/P	30 - 160
2198224	Pyraclostrobin	62.8	72.0	P/P	30 - 160
2198224	Thiamethoxam	64.8	71.0	P/P	30 - 160
2198224	Tolfenpyrad	44.3	43.7	P/P	30 - 160
2198224	Triclopyr	47.6	57.5	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
 Batch ID: P387832

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197720	Fluoride	95.2	95.8	P/P	94 - 107

Reference Method: SM 5310 B-2011
 Batch ID: P387982

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197863	Organic Carbon	100	99.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P387816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197852	Turbidity	0.725	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P387926

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197555	Barium	0.228	Spike	P	0 - 20
2197555	Calcium	4.51	Spike	P	0 - 20
2197555	Iron	1.97	Spike	P	0 - 20
2197555	Magnesium	1.97	Spike	P	0 - 20
2197555	Potassium	3.66	Spike	P	0 - 20
2197555	Sodium	4.15	Spike	P	0 - 20
2197555	Zinc	0.132	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P387926

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197555	Aluminum	0.688	Spike	P	0 - 20
2197555	Antimony	0.0840	Spike	P	0 - 20
2197555	Arsenic	0.402	Spike	P	0 - 20
2197555	Boron	0.479	Spike	P	0 - 20
2197555	Cadmium	0.379	Spike	P	0 - 20
2197555	Chromium	0.187	Spike	P	0 - 20
2197555	Copper	0.189	Spike	P	0 - 20
2197555	Lead	0.953	Spike	P	0 - 20
2197555	Nickel	0.111	Spike	P	0 - 20
2197555	Selenium	1.57	Spike	P	0 - 20
2197555	Silver	0.312	Spike	P	0 - 20
2197555	Thallium	0.952	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388092

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197720	Chloride	0.719	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197720	Sulfate	0.320	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197899	Ammonia-N	1.24	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P387923

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197785	Kjeldahl Nitrogen	5.55	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P387911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197552	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P387968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197883	Total-P	0.634	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P387762

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197864	O-Phosphate-P	0.745	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P387774

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197204	Acetochlor	0.196	Spike	P	0 - 30
2197204	Alachlor	2.50	Spike	P	0 - 30
2197204	Ametryn	13.8	Spike	P	0 - 30
2197204	Atrazine	4.61	Spike	P	0 - 30
2197204	Atrazine Desethyl	0.730	Spike	P	0 - 30
2197204	Azinphos Methyl	25.9	Spike	P	0 - 30
2197204	Bromacil	3.58	Spike	P	0 - 30
2197204	Butylate	2.54	Spike	P	0 - 30
2197204	Carbophenothion	4.14	Spike	P	0 - 30
2197204	Chlorpyrifos Ethyl	7.79	Spike	P	0 - 30
2197204	Chlorpyrifos Methyl	5.15	Spike	P	0 - 30
2197204	Cyanazine	5.99	Spike	P	0 - 30
2197204	Demeton	4.61	Spike	P	0 - 30
2197204	Diazinon	0.278	Spike	P	0 - 30
2197204	Dimethenamid	1.30	Spike	P	0 - 30
2197204	Disulfoton	0.561	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P387774

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197204	Dithiopyr	2.33	Spike	P	0 - 30
2197204	EPTC	18.1	Spike	P	0 - 30
2197204	Ethion	2.17	Spike	P	0 - 30
2197204	Ethoprop	1.48	Spike	P	0 - 30
2197204	Fenamiphos	1.21	Spike	P	0 - 30
2197204	Fipronil	2.07	Spike	P	0 - 30
2197204	Fipronil Desulfinyl	1.74	Spike	P	0 - 30
2197204	Fipronil Sulfide	2.21	Spike	P	0 - 30
2197204	Fipronil Sulfone	0.759	Spike	P	0 - 30
2197204	Flumioxazin	4.23	Spike	P	0 - 30
2197204	Fonofos	7.15	Spike	P	0 - 30
2197204	Hexazinone	2.23	Spike	P	0 - 30
2197204	Imazalil	13.3	Spike	P	0 - 30
2197204	Malathion	4.76	Spike	P	0 - 30
2197204	Metaxyl	0.683	Spike	P	0 - 30
2197204	Metolachlor	2.05	Spike	P	0 - 30
2197204	Metribuzin	0.601	Spike	P	0 - 30
2197204	Mevinphos	1.99	Spike	P	0 - 30
2197204	Molinate	6.67	Spike	P	0 - 30
2197204	Naled	0.523	Spike	P	0 - 30
2197204	Norflurazon	6.29	Spike	P	0 - 30
2197204	Oxadiazon	2.41	Spike	P	0 - 30
2197204	Parathion Ethyl	3.86	Spike	P	0 - 30
2197204	Parathion Methyl	4.09	Spike	P	0 - 30
2197204	Pendimethalin	3.62	Spike	P	0 - 30
2197204	Phorate	2.45	Spike	P	0 - 30
2197204	Prodiamine	5.48	Spike	P	0 - 30
2197204	Prometon	2.57	Spike	P	0 - 30
2197204	Prometryn	0.127	Spike	P	0 - 30
2197204	Pronamide	3.53	Spike	P	0 - 30
2197204	Propiconazole	1.61	Spike	P	0 - 30
2197204	Simazine	0.536	Spike	P	0 - 30
2197204	Sulfentrazone	0.0109	Spike	P	0 - 30
2197204	Tebuconazole	11.3	Spike	P	0 - 30
2197204	Terbufos	2.78	Spike	P	0 - 30
2197204	Terbuthylazine	1.79	Spike	P	0 - 30
LFB	Acetochlor	7.01	LCS	P	0 - 30
LFB	Alachlor	6.52	LCS	P	0 - 30
LFB	Ametryn	12.5	LCS	P	0 - 30
LFB	Atrazine	14.8	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.62	LCS	P	0 - 30
LFB	Azinphos Methyl	68.5	LCS	F	0 - 30
LFB	Bromacil	9.81	LCS	P	0 - 30
LFB	Butylate	6.85	LCS	P	0 - 30
LFB	Carbophenothion	4.12	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.45	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	9.34	LCS	P	0 - 30
LFB	Cyanazine	3.52	LCS	P	0 - 30
LFB	Demeton	4.58	LCS	P	0 - 30
LFB	Diazinon	11.8	LCS	P	0 - 30
LFB	Dimethenamid	10.1	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P387774

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Disulfoton	13.3	LCS	P	0 - 30
LFB	Dithiopyr	9.88	LCS	P	0 - 30
LFB	EPTC	3.40	LCS	P	0 - 30
LFB	Ethion	1.38	LCS	P	0 - 30
LFB	Ethoprop	14.5	LCS	P	0 - 30
LFB	Fenamiphos	6.91	LCS	P	0 - 30
LFB	Fipronil	10.6	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	10.8	LCS	P	0 - 30
LFB	Fipronil Sulfide	8.22	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.35	LCS	P	0 - 30
LFB	Flumioxazin	51.6	LCS	F	0 - 30
LFB	Fonofos	11.5	LCS	P	0 - 30
LFB	Hexazinone	6.18	LCS	P	0 - 30
LFB	Imazalil	4.43	LCS	P	0 - 30
LFB	Malathion	6.28	LCS	P	0 - 30
LFB	Metalaxyl	10.7	LCS	P	0 - 30
LFB	Metolachlor	5.52	LCS	P	0 - 30
LFB	Metribuzin	2.33	LCS	P	0 - 30
LFB	Mevinphos	17.4	LCS	P	0 - 30
LFB	Molinate	5.70	LCS	P	0 - 30
LFB	Naled	9.44	LCS	P	0 - 30
LFB	Norflurazon	9.96	LCS	P	0 - 30
LFB	Oxadiazon	7.42	LCS	P	0 - 30
LFB	Parathion Ethyl	9.58	LCS	P	0 - 30
LFB	Parathion Methyl	12.1	LCS	P	0 - 30
LFB	Pendimethalin	0.678	LCS	P	0 - 30
LFB	Phorate	4.99	LCS	P	0 - 30
LFB	Prodiamine	61.8	LCS	F	0 - 30
LFB	Prometon	17.1	LCS	P	0 - 30
LFB	Prometryn	4.62	LCS	P	0 - 30
LFB	Pronamide	10.8	LCS	P	0 - 30
LFB	Propiconazole	10.6	LCS	P	0 - 30
LFB	Simazine	10.4	LCS	P	0 - 30
LFB	Sulfentrazone	9.92	LCS	P	0 - 30
LFB	Tebuconazole	4.70	LCS	P	0 - 30
LFB	Terbufos	5.86	LCS	P	0 - 30
LFB	Terbutylazine	8.93	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P387866

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2198500	Aldrin	2.09	Spike	P	0 - 30
2198500	Alpha-BHC	1.62	Spike	P	0 - 30
2198500	Alpha-Chlordane	6.89	Spike	P	0 - 30
2198500	Beta-BHC	8.00	Spike	P	0 - 30
2198500	Beta-Cyfluthrin	1.36	Spike	P	0 - 30
2198500	Bifenthrin	7.24	Spike	P	0 - 30
2198500	Chlorothalonil	0.750	Spike	P	0 - 30
2198500	Cis-Nonachlor	5.21	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P387866

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2198500	Cypermethrin	8.55	Spike	P	0 - 30
2198500	Dacthal	4.82	Spike	P	0 - 30
2198500	DDD-p,p'	8.56	Spike	P	0 - 30
2198500	DDE-p,p'	2.67	Spike	P	0 - 30
2198500	DDT-p,p'	31.1	Spike	F	0 - 30
2198500	Delta-BHC	11.7	Spike	P	0 - 30
2198500	Deltamethrin	7.32	Spike	P	0 - 30
2198500	Dichlobenil	3.33	Spike	P	0 - 30
2198500	Dicofol	12.0	Spike	P	0 - 30
2198500	Dieldrin	8.96	Spike	P	0 - 30
2198500	Endosulfan I	7.08	Spike	P	0 - 30
2198500	Endosulfan II	0.652	Spike	P	0 - 30
2198500	Endosulfan Sulfate	10.6	Spike	P	0 - 30
2198500	Endrin	6.40	Spike	P	0 - 30
2198500	Endrin Aldehyde	69.1	Spike	F	0 - 30
2198500	Endrin Ketone	11.1	Spike	P	0 - 30
2198500	Esfenvalerate	2.93	Spike	P	0 - 30
2198500	Ethalfuralin	4.21	Spike	P	0 - 30
2198500	Fenpropathrin	1.95	Spike	P	0 - 30
2198500	Gamma-BHC	8.90	Spike	P	0 - 30
2198500	Gamma-Chlordane	6.10	Spike	P	0 - 30
2198500	Heptachlor	2.57	Spike	P	0 - 30
2198500	Heptachlor Epoxide	5.47	Spike	P	0 - 30
2198500	Hexachlorobenzene	2.75	Spike	P	0 - 30
2198500	Lambda-Cyhalothrin	5.05	Spike	P	0 - 30
2198500	Methoxychlor	6.08	Spike	P	0 - 30
2198500	MGK-264	4.63	Spike	P	0 - 30
2198500	Mirex	4.17	Spike	P	0 - 30
2198500	Permethrin	7.23	Spike	P	0 - 30
2198500	Phenothrin	1.63	Spike	P	0 - 30
2198500	Piperonyl Butoxide	2.76	Spike	P	0 - 30
2198500	Prallethrin	5.38	Spike	P	0 - 30
2198500	Tau-Fluvalinate	1.16	Spike	P	0 - 30
2198500	Tetramethrin	8.94	Spike	P	0 - 30
2198500	Trans-Nonachlor	6.04	Spike	P	0 - 30
2198500	Triclosan Methyl	3.06	Spike	P	0 - 30
2198500	Trifluralin	2.85	Spike	P	0 - 30
LFB	Aldrin	3.39	LCS	P	0 - 30
LFB	Alpha-BHC	4.13	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.95	LCS	P	0 - 30
LFB	Beta-BHC	1.52	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	6.62	LCS	P	0 - 30
LFB	Bifenthrin	0.521	LCS	P	0 - 30
LFB	Chlorothalonil	1.31	LCS	P	0 - 30
LFB	Cis-Nonachlor	2.45	LCS	P	0 - 30
LFB	Cypermethrin	1.39	LCS	P	0 - 30
LFB	Dacthal	1.48	LCS	P	0 - 30
LFB	DDD-p,p'	3.69	LCS	P	0 - 30
LFB	DDE-p,p'	1.16	LCS	P	0 - 30
LFB	DDT-p,p'	0.987	LCS	P	0 - 30
LFB	Delta-BHC	4.73	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P387866

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Deltamethrin	2.93	LCS	P	0 - 30
LFB	Dichlobenil	2.02	LCS	P	0 - 30
LFB	Dicofol	21.1	LCS	P	0 - 30
LFB	Dieldrin	2.88	LCS	P	0 - 30
LFB	Endosulfan I	5.32	LCS	P	0 - 30
LFB	Endosulfan II	13.6	LCS	P	0 - 30
LFB	Endosulfan Sulfate	1.30	LCS	P	0 - 30
LFB	Endrin	21.8	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.05	LCS	P	0 - 30
LFB	Endrin Ketone	0.584	LCS	P	0 - 30
LFB	Esfenvalerate	3.13	LCS	P	0 - 30
LFB	Ethalfuralin	3.13	LCS	P	0 - 30
LFB	Fenpropathrin	6.15	LCS	P	0 - 30
LFB	Gamma-BHC	5.58	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.54	LCS	P	0 - 30
LFB	Heptachlor	1.57	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.17	LCS	P	0 - 30
LFB	Hexachlorobenzene	3.88	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	1.85	LCS	P	0 - 30
LFB	Methoxychlor	0.694	LCS	P	0 - 30
LFB	MGK-264	0.0356	LCS	P	0 - 30
LFB	Mirex	0.523	LCS	P	0 - 30
LFB	Permethrin	0.356	LCS	P	0 - 30
LFB	Phenothrin	1.10	LCS	P	0 - 30
LFB	Piperonyl Butoxide	0.313	LCS	P	0 - 30
LFB	Prallethrin	5.84	LCS	P	0 - 30
LFB	Tau-Fluvalinate	2.97	LCS	P	0 - 30
LFB	Tetramethrin	1.43	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.48	LCS	P	0 - 30
LFB	Triclosan Methyl	2.62	LCS	P	0 - 30
LFB	Trifluralin	0.0891	LCS	P	0 - 30

Reference Method: EPA 8276

Batch ID: P387866

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2198259	Chlordane	3.93	Spike	P	0 - 30
2198259	Toxaphene	11.5	Spike	P	0 - 30
LFB	Chlordane	1.12	LCS	P	0 - 30
LFB	Toxaphene	5.24	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P387746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197190	Acesulfame K	4.24	Spike	P	0 - 30
2197190	AMPA	1.86	Spike	P	0 - 30
2197190	Endothall	13.0	Spike	P	0 - 30
2197190	Glufosinate	12.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P387746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197190	Glyphosate	2.62	Spike	P	0 - 30
2197190	Sucralose	2.90	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P387915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197878	3-Hydroxycarbofuran	7.54	Spike	P	0 - 30
2197878	Aldicarb	0.651	Spike	P	0 - 30
2197878	Aldicarb Sulfone	3.97	Spike	P	0 - 30
2197878	Aldicarb Sulfoxide	3.33	Spike	P	0 - 30
2197878	Carbaryl	5.92	Spike	P	0 - 30
2197878	Carbofuran	2.01	Spike	P	0 - 30
2197878	Methiocarb	19.1	Spike	P	0 - 30
2197878	Methomyl	3.56	Spike	P	0 - 30
2197878	Oxamyl	7.11	Spike	P	0 - 30
2197878	Propoxur	1.27	Spike	P	0 - 30
2198224	2,4-D	12.9	Spike	P	0 - 30
2198224	Acetaminophen	11.9	Spike	P	0 - 30
2198224	Acetamiprid	13.4	Spike	P	0 - 30
2198224	Afidopyropen	8.83	Spike	P	0 - 30
2198224	Benzovindiflupyr	15.9	Spike	P	0 - 30
2198224	Carbamazepine	7.27	Spike	P	0 - 30
2198224	Clothianidin	2.32	Spike	P	0 - 30
2198224	Dinotefuran	7.55	Spike	P	0 - 30
2198224	Diuron	9.38	Spike	P	0 - 30
2198224	Fenuron	10.3	Spike	P	0 - 30
2198224	Fluridone	8.22	Spike	P	0 - 30
2198224	Hydrocodone	14.0	Spike	P	0 - 30
2198224	Ibuprofen	18.4	Spike	P	0 - 30
2198224	Imazapyr	2.91	Spike	P	0 - 30
2198224	Imidacloprid	8.01	Spike	P	0 - 30
2198224	Linuron	2.24	Spike	P	0 - 30
2198224	Mandestrobin	16.6	Spike	P	0 - 30
2198224	MCP	11.7	Spike	P	0 - 30
2198224	Naproxen	2.73	Spike	P	0 - 30
2198224	Primidone	1.27	Spike	P	0 - 30
2198224	Pyraclostrobin	13.7	Spike	P	0 - 30
2198224	Thiamethoxam	6.68	Spike	P	0 - 30
2198224	Tolfenpyrad	1.36	Spike	P	0 - 30
2198224	Triclopyr	18.8	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P387819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197882	Color (true)	0.762	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
 Batch ID: P387829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197720	Total Alkalinity	0.385	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
 Batch ID: P388197

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197862	TDS	2.11	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
 Batch ID: P388200

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197862	TSS	2.41	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P387832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197720	Fluoride	0.467	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
 Batch ID: P387982

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197863	Organic Carbon	0.401	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2197890
Field Sample ID: G2TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	39.6	P	30 - 160

Lab Sample ID: 2197891
Field Sample ID: G2TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	68.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	59.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	47.5	P	30 - 160
EPA 8321B	Diuron-d6	48.3	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.5	P	30 - 160
EPA 8321B	Primidone-d5	63.6	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2197894
Field Sample ID: G2TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	78.3	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	68.2	P	34 - 106
EPA 8276	Decachlorobiphenyl	50.3	P	26 - 97.0
EPA 8276	PCNB	95.3	P	38 - 141

Lab Sample ID: 2197895
Field Sample ID: G2TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	106	P	72 - 135
EPA 8270E	Terbufos-d10	96.3	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A101162

Included Lab Sample IDs: 2197884

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A101185

Included Lab Sample IDs: 2197882

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

Reference Method: SM 2120 B-2011

Run ID: A101186

Included Lab Sample IDs: 2197882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.1	97.9	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A101191

Included Lab Sample IDs: 2197891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	90.8	93.8	P/P	60 - 160
Endothall	112	109	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A101193

Included Lab Sample IDs: 2197882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.3	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A101193

Included Lab Sample IDs: 2197882

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A101210

Included Lab Sample IDs: 2197883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	95.9	97.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A101223

Included Lab Sample IDs: 2197883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	97.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A101224
Included Lab Sample IDs: 2197891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	71.8	74.8	P/P	60 - 160
Glufosinate	94.0	99.4	P/P	60 - 160
Glyphosate	97.5	98.9	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A101254
Included Lab Sample IDs: 2197883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	94.8	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A101262
Included Lab Sample IDs: 2197883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.6	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A101267
Included Lab Sample IDs: 2197896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	102	P/P	90 - 110
Calcium	104	104	P/P	90 - 110
Iron	107	107	P/P	90 - 110
Magnesium	104	104	P/P	90 - 110
Potassium	104	104	P/P	90 - 110
Sodium	108	108	P/P	90 - 110
Zinc	96.6	95.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A101281
Included Lab Sample IDs: 2197882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	106	107	P/P	90 - 110
Sulfate	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A101309
Included Lab Sample IDs: 2197883

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

Reference Method: EPA 8321B
Run ID: A101336
Included Lab Sample IDs: 2197890

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A101336
Included Lab Sample IDs: 2197890

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	137	135	P/P	60 - 150
Aldicarb	114	136	P/P	60 - 150
Aldicarb Sulfone	125	130	P/P	50 - 150
Aldicarb Sulfoxide	126	124	P/P	50 - 150
Carbaryl	125	127	P/P	60 - 150
Carbofuran	127	127	P/P	50 - 150
Methiocarb	121	130	P/P	50 - 150
Methomyl	130	143	P/P	50 - 150
Oxamyl	131	134	P/P	50 - 150
Propoxur	131	128	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A101347
Included Lab Sample IDs: 2197896

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.2	99.9	P/P	90 - 110
Antimony	103	106	P/P	90 - 110
Arsenic	96.2	97.9	P/P	90 - 110
Boron	99.1	102	P/P	90 - 110
Cadmium	96.0	97.7	P/P	90 - 110
Chromium	97.1	97.0	P/P	90 - 110
Copper	94.6	98.2	P/P	90 - 110
Lead	96.8	97.0	P/P	90 - 110
Nickel	95.2	98.5	P/P	90 - 110
Selenium	98.6	98.6	P/P	90 - 110
Silver	96.8	98.0	P/P	90 - 110
Thallium	93.7	92.0	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A101350
Included Lab Sample IDs: 2197891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	98.7	P/P	60 - 160

Reference Method: EPA 8276
Run ID: A101357
Included Lab Sample IDs: 2197894

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.3		P	80 - 120
Toxaphene	86.3		P	80 - 120

Reference Method: EPA 8270E
Run ID: A101361
Included Lab Sample IDs: 2197894

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	102		P	80 - 120
Alpha-BHC	96.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A101361
 Included Lab Sample IDs: 2197894

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-Chlordane	98.4		P	80 - 120
Beta-BHC	86.6		P	80 - 120
Beta-Cyfluthrin	91.3		P	80 - 120
Bifenthrin	96.7		P	80 - 120
Chlorothalonil	93.9		P	80 - 120
Cis-Nonachlor	99.6		P	80 - 120
Cypermethrin	90.6		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	104		P	80 - 120
DDT-p,p'	109		P	80 - 120
Delta-BHC	88.1		P	80 - 120
Deltamethrin	96.0		P	80 - 120
Dichlobenil	103		P	80 - 120
Dicofol	82.9		P	80 - 120
Dieldrin	106		P	80 - 120
Endosulfan I	98.8		P	80 - 120
Endosulfan II	104		P	80 - 120
Endosulfan Sulfate	96.2		P	80 - 120
Endrin	91.4		P	80 - 120
Endrin Aldehyde	94.3		P	80 - 120
Endrin Ketone	96.4		P	80 - 120
Esfenvalerate	89.9		P	80 - 120
Ethalfuralin	98.7		P	80 - 120
Fenpropathrin	90.7		P	80 - 120
Gamma-BHC	94.0		P	80 - 120
Gamma-Chlordane	99.6		P	80 - 120
Heptachlor	100		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	99.5		P	80 - 120
Lambda-Cyhalothrin	90.4		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	96.3		P	80 - 120
Mirex	98.4		P	80 - 120
Permethrin	92.8		P	80 - 120
Phenothrin	91.8		P	80 - 120
Piperonyl Butoxide	92.2		P	80 - 120
Prallethrin	89.7		P	80 - 120
Tau-Fluvalinate	94.8		P	80 - 120
Tetramethrin	93.7		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	98.0		P	80 - 120

Reference Method: EPA 8270E
 Run ID: A101369
 Included Lab Sample IDs: 2197895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.3		P	80 - 120
Alachlor	97.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A101369

Included Lab Sample IDs: 2197895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ametryn	104		P	80 - 120
Atrazine	96.3		P	80 - 120
Atrazine Desethyl	108		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Bromacil	104		P	80 - 120
Butylate	101		P	80 - 120
Carbophenothion	98.7		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	96.7		P	80 - 120
Cyanazine	100		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	93.6		P	80 - 120
Dimethenamid	95.4		P	80 - 120
Disulfoton	104		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	99.0		P	80 - 120
Ethion	96.9		P	80 - 120
Ethoprop	95.0		P	80 - 120
Fenamiphos	102		P	80 - 120
Fipronil	97.4		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	103		P	80 - 120
Fipronil Sulfone	106		P	80 - 120
Flumioxazin	94.5		P	80 - 120
Fonofos	94.9		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	101		P	80 - 120
Malathion	99.2		P	80 - 120
Metaxyl	101		P	80 - 120
Metolachlor	97.6		P	80 - 120
Metribuzin	100		P	80 - 120
Mevinphos	98.5		P	80 - 120
Molinate	98.3		P	80 - 120
Naled	111		P	80 - 120
Norflurazon	100		P	80 - 120
Oxadiazon	98.6		P	80 - 120
Parathion Ethyl	91.3		P	80 - 120
Parathion Methyl	89.4		P	80 - 120
Pendimethalin	98.1		P	80 - 120
Phorate	96.7		P	80 - 120
Prodiamine	96.8		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	103		P	80 - 120
Pronamide	99.8		P	80 - 120
Propiconazole	101		P	80 - 120
Simazine	107		P	80 - 120
Sulfentrazone	99.2		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	91.1		P	80 - 120
Terbutylazine	93.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A101379

Included Lab Sample IDs: 2197891

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	114	104	P/P	50 - 150
Acetaminophen	105	100	P/P	60 - 160
Acetamiprid	110	119	P/P	50 - 150
Afidopyropen	90.1	94.6	P/P	50 - 150
Bentazon	101	95.3	P/P	50 - 160
Benzovindiflupyr	114	111	P/P	50 - 150
Carbamazepine	99.6	104	P/P	60 - 150
Clothianidin	95.4	96.3	P/P	60 - 150
Dinotefuran	96.3	99.0	P/P	50 - 150
Diuron	103	116	P/P	60 - 160
Fenuron	102	109	P/P	60 - 150
Fluridone	96.2	100	P/P	60 - 160
Hydrocodone	98.8	108	P/P	60 - 150
Ibuprofen	120	116	P/P	50 - 160
Imazapyr	113	115	P/P	50 - 160
Imidacloprid	89.5	107	P/P	60 - 150
Linuron	96.7	97.8	P/P	60 - 150
Mandestrobin	116	104	P/P	50 - 150
MCPP	109	105	P/P	50 - 150
Naproxen	65.6	65.0	P/P	50 - 160
Primidone	95.7	100	P/P	60 - 150
Pyraclostrobin	100	101	P/P	60 - 150
Thiamethoxam	97.2	104	P/P	50 - 150
Tolfenpyrad	101	104	P/P	60 - 150
Triclopyr	102	124	P/P	50 - 150

* 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							0.725	
EPA 200.7 Rev. 4.4	Barium	99.3		103	103	103			0.228
	Calcium	107		110	103	105			4.51
	Iron	106		111	108	113			1.97
	Magnesium	105		109	106	111			1.97
	Potassium	104		108	105	111			3.66
	Sodium	102		113	107	119			4.15
	Zinc	94.7		96.0	95.9	94.2			0.132
EPA 200.8 Rev. 5.4	Aluminum	98.4		98.1	97.4	93.9			0.688
	Antimony	102		101	101	101			0.0840
	Arsenic	100		99.3	98.9	96.7			0.402
	Boron	96.2		95.7	95.2	94.3			0.479
	Cadmium	96.8		96.9	96.6	96.2			0.379
	Chromium	99.7		99.1	98.9	96.3			0.187
	Copper	99.0		98.3	98.1	95.4			0.189
	Lead	97.4		97.8	96.9	94.1			0.953
	Nickel	99.2		97.8	97.7	95.0			0.111
	Selenium	99.6		99.4	97.9	95.8			1.57
	Silver	96.7		97.3	97.0	94.8			0.312
	Thallium	97.9		98.5	99.4	95.2			0.952
EPA 300.0 Rev. 2.1	Chloride	105		103	103			0.719	
	Sulfate	103		98.9	100			0.320	
EPA 350.1 Rev. 2.0	Ammonia-N	98.7		94.1	96.0				1.24
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		88.0	97.4				5.55
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	98.0		99.5	99.5				0.0
EPA 365.1 Rev. 2.0	Total-P	108		112	113				0.634
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		99.2	100				0.745
EPA 8270E	Acetochlor	81.4	75.9	77.1	77.0		7.01		0.196
	Alachlor	75.8	71.0	69.8	71.6		6.52		2.50
	Aldrin	42.0	40.6	56.8	58.0		3.39		2.09
	Alpha-BHC	76.4	79.6	75.9	77.2		4.13		1.62
	Alpha-Chlordane	81.3	79.7	87.3	81.4		1.95		6.89
	Ametryn	97.1	85.6	96.1	110		12.5		13.8
	Atrazine	93.8	80.9	95.9	91.6		14.8		4.61
	Atrazine Desethyl	76.7	74.7	72.4	71.9		2.62		0.730
	Azinphos Methyl	70.1	143	96.9	126		68.5		25.9
	Beta-BHC	84.3	85.6	91.4	84.4		1.52		8.00
	Beta-Cyfluthrin	71.7	76.6	90.7	89.5		6.62		1.36
	Bifenthrin	75.7	75.3	85.4	79.4		0.521		7.24
	Bromacil	76.4	69.2	79.4	76.6		9.81		3.58
	Butylate	62.3	58.1	51.1	52.4		6.85		2.54
	Carbophenothion	89.5	85.9	80.3	83.7		4.12		4.14
	Chlorothalonil	52.5	53.2	26.8	27.0		1.31		0.750
	Chlorpyrifos Ethyl	87.3	85.2	86.1	79.7		2.45		7.79
	Chlorpyrifos Methyl	102	92.4	92.7	88.1		9.34		5.15
	Cis-Nonachlor	82.6	80.6	88.6	84.1		2.45		5.21
	Cyanazine	91.8	88.7	83.7	88.8		3.52		5.99
	Cypermethrin	75.1	74.1	88.7	81.4		1.39		8.55
	Dacthal	87.8	86.5	93.4	89.0		1.48		4.82
	DDD-p,p'	85.7	82.6	95.2	87.4		3.69		8.56
	DDE-p,p'	79.0	78.1	83.4	81.2		1.16		2.67
	DDT-p,p'	85.9	85.0	119	87.3		0.987		31.1
	Delta-BHC	97.1	102	128	113		4.73		11.7
	Deltamethrin	84.0	81.5	108	101		2.93		7.32

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Demeton	86.5	82.6	82.5	86.4	4.58	4.61
	Diazinon	89.5	79.6	82.5	82.3	11.8	0.278
	Dichlobenil	72.5	74.0	66.4	68.6	2.02	3.33
	Dicofol	99.8	80.8	78.0	88.0	21.1	12.0
	Dieldrin	86.0	83.6	90.3	82.5	2.88	8.96
	Dimethenamid	80.2	72.5	76.1	75.1	10.1	1.30
	Disulfoton	93.5	81.8	86.0	85.5	13.3	0.561
	Dithiopyr	75.5	68.4	63.4	64.9	9.88	2.33
	Endosulfan I	84.4	80.0	90.3	84.1	5.32	7.08
	Endosulfan II	106	92.3	109	109	13.6	0.652
	Endosulfan Sulfate	86.4	85.3	91.7	82.5	1.30	10.6
	Endrin	99.1	79.6	91.0	85.3	21.8	6.40
	Endrin Aldehyde	92.7	93.7	49.4	102	1.05	69.1
	Endrin Ketone	80.3	80.7	90.9	81.4	0.584	11.1
	EPTC	53.7	55.5	49.0	40.8	3.40	18.1
	Esfenvalerate	79.9	77.5	92.5	95.3	3.13	2.93
	Ethalfuralin	74.2	76.5	71.3	68.3	3.13	4.21
	Ethion	81.8	82.9	74.5	76.2	1.38	2.17
	Ethoprop	94.8	82.0	97.1	95.7	14.5	1.48
	Fenamiphos	78.2	73.0	59.2	60.0	6.91	1.21
	Fenpropathrin	88.7	94.3	136	133	6.15	1.95
	Fipronil	82.6	74.3	80.8	79.1	10.6	2.07
	Fipronil Desulfinyl	82.2	73.8	78.6	77.3	10.8	1.74
	Fipronil Sulfide	80.5	74.2	74.6	73.0	8.22	2.21
	Fipronil Sulfone	81.8	76.0	76.1	76.7	7.35	0.759
	Flumioxazin	103	60.6	117	122	51.6	4.23
	Fonofos	95.1	84.7	94.1	87.6	11.5	7.15
	Gamma-BHC	91.2	96.5	131	120	5.58	8.90
	Gamma-Chlordane	77.6	76.4	83.6	78.6	1.54	6.10
	Heptachlor	66.6	67.7	67.8	69.6	1.57	2.57
	Heptachlor Epoxide	82.9	81.1	87.0	82.3	2.17	5.47
	Hexachlorobenzene	66.8	69.4	64.5	66.3	3.88	2.75
	Hexazinone	85.7	80.5	89.9	87.9	6.18	2.23
	Imazalil	55.1	52.7	59.8	52.3	4.43	13.3
	Lambda-Cyhalothrin	72.5	73.8	85.2	81.0	1.85	5.05
	Malathion	109	102	104	98.9	6.28	4.76
	Metalaxyl	77.2	69.4	75.4	74.9	10.7	0.683
	Methoxychlor	88.2	88.8	91.2	85.8	0.694	6.08
	Metolachlor	74.5	70.5	68.5	69.9	5.52	2.05
	Metribuzin	101	99.1	98.4	99.0	2.33	0.601
	Mevinphos	97.5	81.9	102	104	17.4	1.99
	MGK-264	50.6	50.6	57.5	60.2	0.0356	4.63
	Mirex	68.7	69.1	73.5	70.5	0.523	4.17
	Molinate	65.2	61.6	62.9	67.2	5.70	6.67
	Naled	49.7	45.2	49.2	49.5	9.44	0.523
	Norflurazon	73.1	66.2	69.3	65.0	9.96	6.29
	Oxadiazon	73.3	68.1	62.8	64.4	7.42	2.41
	Parathion Ethyl	87.4	79.4	79.4	82.5	9.58	3.86
	Parathion Methyl	111	98.2	101	106	12.1	4.09
	Pendimethalin	70.8	71.2	71.0	73.6	0.678	3.62
	Permethrin	73.8	73.5	85.9	79.9	0.356	7.23
	Phenothrin	48.0	47.4	66.8	65.7	1.10	1.63
	Phorate	109	115	104	107	4.99	2.45
	Piperonyl Butoxide	88.1	88.4	92.8	90.3	0.313	2.76

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Prallethrin	47.8	45.1	56.0	53.1	5.84		5.38
	Prodiamine	34.8	65.9	40.2	42.5	61.8		5.48
	Prometon	86.8	73.1	84.7	82.5	17.1		2.57
	Prometryn	84.5	80.7	84.9	84.8	4.62		0.127
	Pronamide	92.3	82.9	92.9	89.7	10.8		3.53
	Propiconazole	72.9	65.5	71.7	72.9	10.6		1.61
	Simazine	98.3	88.6	82.6	83.1	10.4		0.536
	Sulfentrazone	56.3	51.0	69.0	68.9	9.92		0.0109
	Tau-Fluvalinate	84.8	87.3	103	102	2.97		1.16
	Tebuconazole	27.9	26.6	28.1	25.1	4.70		11.3
	Terbufos	90.0	84.9	84.0	86.4	5.86		2.78
	Terbutylazine	87.1	79.6	84.1	82.6	8.93		1.79
	Tetramethrin	61.7	60.8	70.4	64.4	1.43		8.94
	Trans-Nonachlor	79.3	77.4	84.0	79.1	2.48		6.04
	Triclosan Methyl	92.5	90.1	95.1	92.2	2.62		3.06
	Trifluralin	73.9	74.0	73.2	71.2	0.0891		2.85
EPA 8276	Chlordane	100	101	105	109	1.12		3.93
	Toxaphene	98.0	103	145	162	5.24		11.5
EPA 8321B	2,4-D	81.6		52.0	62.9			12.9
	3-Hydroxycarbofuran	118		107	115			7.54
	Acesulfame K	98.1		114	119			4.24
	Acetaminophen	82.7		56.9	64.1			11.9
	Acetamiprid	74.6		62.6	71.6			13.4
	Afidopyropen	53.6		48.9	53.4			8.83
	Aldicarb	120		98.3	98.9			0.651
	Aldicarb Sulfone	126		129	124			3.97
	Aldicarb Sulfoxide	123		64.7	62.6			3.33
	AMPA	82.5		114	117			1.86
	Bentazon	49.4						
	Benzovindiflupyr	69.2		55.6	65.2			15.9
	Carbamazepine	47.4		38.7	42.5			7.27
	Carbaryl	63.1		51.6	54.8			5.92
	Carbofuran	57.4		54.2	53.1			2.01
	Clothianidin	75.7		51.8	53.1			2.32
	Dinotefuran	96.8		81.6	88.3			7.55
	Diuron	45.3		38.0	42.1			9.38
	Endothall	94.7		107	93.8			13.0
	Fenuron	91.0		71.3	79.0			10.3
	Fluridone	71.0		63.0	72.3			8.22
	Glufosinate	89.8		83.8	94.5			12.0
	Glyphosate	101		82.6	80.4			2.62
	Hydrocodone	78.1		62.8	72.2			14.0
	Ibuprofen	71.2		54.5	65.5			18.4
	Imazapyr	105		81.2	86.3			2.91
	Imidacloprid	96.2		98.3	110			8.01
	Linuron	64.0		62.0	63.4			2.24
	Mandestrobin	76.9		66.7	78.8			16.6
	MCPPP	68.5		52.1	58.6			11.7
	Methiocarb	74.2		80.5	66.5			19.1
	Methomyl	113		113	109			3.56
	Naproxen	75.5		43.5	44.7			2.73
	Oxamyl	120		119	127			7.11
	Primidone	77.6		69.0	70.1			1.27
	Propoxur	58.2		57.2	56.5			1.27

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8321B	Pyraclostrobin	73.8	62.8	72.0		13.7
	Sucralose	95.8	99.1	102		2.90
	Thiamethoxam	79.6	64.8	71.0		6.68
	Tolfenpyrad	47.2	44.3	43.7		1.36
	Triclopyr	61.9	47.6	57.5		18.8
SM 2120 B-2011	Color (true)	90.3				0.762
SM 2320 B-2011	Total Alkalinity	98.8				0.385
SM 2540 C-2011	TDS					2.11
SM 2540 D-2011	TSS					2.41
SM 4500 F-C-2011	Fluoride	98.1	95.2	95.8		0.467
SM 5310 B-2011	Organic Carbon	102	100	99.5		0.401

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2197882
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2197896
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2197896
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2197882
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2197882
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2197883
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2197883
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2197883
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2197883
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2197884
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2197894
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2197895
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2197894
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2197890
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2197891
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2197891
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2197882
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2197882
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2197896
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2197882
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2197882
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2197882
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2197883

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	09/23/2020			09/24/2020 14:51	Yen Ta	2197882
EPA 200.7 Rev. 4.4	09/23/2020	09/28/2020 14:35	Elliott D. Healy	09/29/2020 17:12	Betina Topolski	2197896
EPA 200.8 Rev. 5.4	09/23/2020	09/28/2020 14:35	Elliott D. Healy	10/03/2020 18:44	Alexander Thompson	2197896
EPA 300.0 Rev. 2.1	09/23/2020			09/30/2020 21:21	Lipi Saha	2197882
EPA 350.1 Rev. 2.0	09/23/2020			09/26/2020 14:59	Ping Hua	2197883
EPA 351.2 Rev. 2.0	09/23/2020	09/28/2020 01:45	Elliott Rodriguez	09/29/2020 11:53	Elliott Rodriguez	2197883
EPA 353.2 Rev. 2.0	09/23/2020			09/28/2020 09:19	Beverly Y. Sanders	2197883
EPA 365.1 Rev. 2.0	09/23/2020	09/29/2020 12:36	Yen Ta	09/30/2020 16:39	Benjamin T. Nordmann	2197883
EPA 365.1 Rev. 2.0 dissolved	09/23/2020			09/23/2020 16:30	Virginia P. Brown	2197884
EPA 8270E	09/23/2020	09/25/2020 08:00	Fe-Val Siddell	09/28/2020 19:04	Vandana T. Nagar	2197895
	09/23/2020	09/29/2020 08:30	Rasheda Ghaffari	09/30/2020 20:35	Michael Poppell	2197894
EPA 8276	09/23/2020	09/29/2020 08:30	Rasheda Ghaffari	10/03/2020 06:53	Arthur Maknenko	2197894
EPA 8321B	09/23/2020	09/24/2020 09:45	Rebecca Ware	09/24/2020 18:06	Rebecca Ware	2197891
	09/23/2020	09/24/2020 09:45	Rebecca Ware	09/25/2020 15:08	Rebecca Ware	2197891
	09/23/2020	09/24/2020 09:45	Rebecca Ware	09/30/2020 14:36	Rebecca Ware	2197891
	09/23/2020	09/30/2020 11:00	Hoor Shaik	10/01/2020 04:43	Juyoung Kim	2197890
	09/23/2020	09/30/2020 11:00	Hoor Shaik	10/01/2020 23:49	Juyoung Kim	2197891
SM 2120 B-2011	09/23/2020			09/24/2020 16:01	Benjamin T. Nordmann	2197882
SM 2320 B-2011	09/23/2020			09/24/2020 23:18	Dale L. Simmons	2197882
SM 2340B	09/23/2020			09/29/2020 17:12	Betina Topolski	2197896
SM 2540 C-2011	09/23/2020			09/28/2020 15:25	Yijie Li	2197882
SM 2540 D-2011	09/23/2020			09/28/2020 15:25	Yijie Li	2197882
SM 4500 F-C-2011	09/23/2020			09/24/2020 23:18	Dale L. Simmons	2197882
SM 5310 B-2011	09/23/2020			09/29/2020 05:16	David Boose	2197883