

Chemical Analysis Report

TLH-ROC-2020-09-21-02

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-2020-09-14-43**
Customer: **TLH-ROC**
Project ID: **SMP**

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

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 09-OCT-2020 11:31



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: Moore Branch @ Cody Church Rd

Collection Date/Time: 09/21/2020 08:40

Field ID: G1TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2197196	EPA 180.1 Rev. 2.0	Turbidity	2.3	A	NTU	P387702	
	EPA 300.0 Rev. 2.1	Chloride	5.8		mg Cl/L	P388029	
		Sulfate	1.3		mg SO4/L	P388031	
	SM 2120 B-2011	Color (true)	110		PCU	P387704	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P387737	
	SM 2540 C-2011	TDS	38		mg/L	P388008	
	SM 2540 D-2011	TSS	2	I	mg/L	P387959	
	SM 4500 F-C-2011	Fluoride	0.037	I	mg F/L	P387739	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P387883	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.41		mg N/L	P387772	
2197197	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P387652	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P387917	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P387836	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.031		mg P/L	P387711	
	dissolved						
2197201	EPA 8321B	Aldicarb	0.020	U	ug/L	P387668	
		Aldicarb Sulfone	0.0020	U	ug/L	P387668	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P387668	
		Carbaryl	0.0020	U	ug/L	P387668	
		Carbofuran	0.0020	U	ug/L	P387668	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P387668	
		Methiocarb	0.0020	U	ug/L	P387668	
		Methomyl	0.0020	U	ug/L	P387668	
		Oxamyl	0.0020	U	ug/L	P387668	
		Propoxur	0.0020	U	ug/L	P387668	
		2,4-D	0.0020	U	ug/L	P387668	
		Acesulfame K**	0.10	U	ug/L	P387746	
		AMPA**	0.10	U	ug/L	P387746	
		Sucralose**	0.010	U	ug/L	P387746	
2197202		Acetaminophen**	0.0080	U	ug/L	P387668	
		Acetamiprid**	0.0020	U	ug/L	P387668	
		Endothall**	0.25	U	ug/L	P387746	
		Glufosinate**	0.10	U	ug/L	P387746	
		Glyphosate**	0.10	U	ug/L	P387746	
		Afidopyropen**	0.0020	U	ug/L	P387668	
		Bentazon	8.0E-04	U	ug/L	P387668	
		Benzovindiflupyr**	0.0020	U	ug/L	P387668	
		Carbamazepine**	8.0E-04	U	ug/L	P387668	
		Clothianidin**	0.0020	U	ug/L	P387668	
		Dinotefuran**	0.0020	U	ug/L	P387668	
		Diuron	0.0020	U	ug/L	P387668	
		Fenuron	0.016	U	ug/L	P387668	
		Fluridone**	8.0E-04	U	ug/L	P387668	
		Imazapyr**	0.0040	U	ug/L	P387668	

Field ID: G1TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2197202	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P387668	
		Ibuprofen**	0.020	U	ug/L	P387668	
		Imidacloprid	0.0020	U	ug/L	P387668	
		Linuron	0.0040	U	ug/L	P387668	
		Mandestrobin**	0.0020	U	ug/L	P387668	
		MCP	0.0020	U	ug/L	P387668	
		Naproxen**	0.0080	U	ug/L	P387668	
		Primidone**	0.0040	U	ug/L	P387668	
		Pyraclostrobin**	0.0020	U	ug/L	P387668	
		Thiamethoxam**	0.0020	U	ug/L	P387668	
		Tolfenpyrad**	0.0020	U	ug/L	P387668	
		Triclopyr**	0.0040	U	ug/L	P387668	
2197203	EPA 8270E	Aldrin	4.4	U	ng/L	P387664	
		Alpha-BHC	2.2	U	ng/L	P387664	
		Alpha-Chlordane	1.1	U	ng/L	P387664	
		Beta-BHC	8.7	U	ng/L	P387664	
		Beta-Cyfluthrin**	16	U	ng/L	P387664	
		Bifenthrin**	4.4	U	ng/L	P387664	
		Delta-BHC	8.7	U	ng/L	P387664	
		Gamma-BHC	8.7	U	ng/L	P387664	
		Chlorothalonil	2.2	UJ	ng/L	P387664	RPD
		Cis-Nonachlor**	1.1	U	ng/L	P387664	
		Cypermethrin	22	U	ng/L	P387664	
		Dacthal**	1.1	U	ng/L	P387664	
		DDD-p,p'	5.4	U	ng/L	P387664	
		DDE-p,p'	5.4	U	ng/L	P387664	
		DDT-p,p'	6.5	U	ng/L	P387664	
		Deltamethrin**	22	U	ng/L	P387664	
		Dicofol	33	U	ng/L	P387664	
		Dieldrin	4.4	U	ng/L	P387664	
		Endosulfan I	4.4	U	ng/L	P387664	
		Endosulfan II	4.4	U	ng/L	P387664	
		Endosulfan Sulfate	2.2	U	ng/L	P387664	
		Endrin	2.2	U	ng/L	P387664	
		Endrin Aldehyde	2.2	U	ng/L	P387664	
		Endrin Ketone	2.2	U	ng/L	P387664	
		Ethalfuralin**	3.3	U	ng/L	P387664	
		Gamma-Chlordane	1.1	U	ng/L	P387664	
		Dichlobenil**	2.2	U	ng/L	P387664	
		Esfenvalerate**	22	U	ng/L	P387664	
		Fenprothrin**	11	U	ng/L	P387664	
		Heptachlor	1.6	U	ng/L	P387664	
		Heptachlor Epoxide	2.2	U	ng/L	P387664	
		Hexachlorobenzene	2.2	U	ng/L	P387664	
		Lambda-Cyhalothrin**	16	U	ng/L	P387664	

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Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2197203	EPA 8270E	Methoxychlor	4.4	U	ng/L	P387664	
		Mirex	2.2	U	ng/L	P387664	
		MGK-264**	3.3	U	ng/L	P387664	
		Permethrin	11	U	ng/L	P387664	
		Phenothrin**	33	U	ng/L	P387664	
		Piperonyl Butoxide**	1.6	U	ng/L	P387664	
		Prallethrin**	27	U	ng/L	P387664	
		Tau-Fluvalinate**	3.8	U	ng/L	P387664	
		Tetramethrin**	8.7	U	ng/L	P387664	
		Trans-Nonachlor**	1.1	U	ng/L	P387664	
		Triclosan Methyl**	1.1	U	ng/L	P387664	
		Trifluralin	2.7	U	ng/L	P387664	
		Chlordane	6.3	I	ng/L	P387664	
2197204	EPA 8270E	Toxaphene	33	U	ng/L	P387664	
		Acetochlor	0.25	U	ng/L	P387774	
		Alachlor	0.25	U	ng/L	P387774	
		Ametryn	0.61	U	ng/L	P387774	
		Atrazine	0.25	U	ng/L	P387774	
		Atrazine Desethyl	1.5	U	ng/L	P387774	
		Azinphos Methyl	2.0	UJ	ng/L	P387774	RPD
		Bromacil	0.51	U	ng/L	P387774	
		Butylate	0.41	U	ng/L	P387774	
		Carbophenothion	0.51	U	ng/L	P387774	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P387774	
		Chlorpyrifos Methyl	0.051	U	ng/L	P387774	
		Cyanazine	3.3	U	ng/L	P387774	
		Demeton	1.5	U	ng/L	P387774	
		Diazinon	0.13	U	ng/L	P387774	
		Dimethenamid**	0.10	U	ng/L	P387774	
		Disulfoton	0.51	U	ng/L	P387774	
		Dithiopyr**	0.12	IJ	ng/L	P387774	LCS, MS
		EPTC	1.3	U	ng/L	P387774	
		Ethion	0.15	U	ng/L	P387774	
		Ethoprop	0.10	U	ng/L	P387774	
		Fenamiphos	0.51	U	ng/L	P387774	
		Fipronil	0.25	U	ng/L	P387774	
		Fipronil Desulfinyl**	0.13	U	ng/L	P387774	
		Fipronil Sulfide	0.15	U	ng/L	P387774	
		Fipronil Sulfone	0.15	U	ng/L	P387774	
		Flumioxazin**	1.8	UJ	ng/L	P387774	RPD
		Fonofos	0.20	U	ng/L	P387774	
		Hexazinone	0.51	U	ng/L	P387774	
		Imazalil**	0.76	U	ng/L	P387774	
		Malathion	0.36	U	ng/L	P387774	
		Metalaxyl	0.76	U	ng/L	P387774	

Field ID: G1TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2197204	EPA 8270E	Metolachlor	0.51	U	ng/L	P387774	
		Metribuzin	3.3	U	ng/L	P387774	
		Mevinphos	0.51	U	ng/L	P387774	
		Molinate	0.30	U	ng/L	P387774	
		Naled**	1.5	U	ng/L	P387774	
		Norflurazon	0.51	U	ng/L	P387774	
		Oxadiazon	0.10	U	ng/L	P387774	
		Parathion Ethyl	0.25	U	ng/L	P387774	
		Parathion Methyl	0.56	U	ng/L	P387774	
		Pendimethalin	1.0	U	ng/L	P387774	
		Phorate	0.25	U	ng/L	P387774	
		Prodiamine**	0.18	UJ	ng/L	P387774	RPD
		Prometon	0.91	U	ng/L	P387774	
		Prometryn	0.20	U	ng/L	P387774	
		Pronamide**	0.15	U	ng/L	P387774	
		Propiconazole**	0.51	U	ng/L	P387774	
		Simazine	0.51	U	ng/L	P387774	
		Sulfentrazone**	0.51	U	ng/L	P387774	
		Tebuconazole**	0.51	U	ng/L	P387774	
		Terbufos	0.10	U	ng/L	P387774	
		Terbutylazine	0.43	U	ng/L	P387774	
2197205	EPA 200.7 Rev. 4.4	Barium	17.0		ug/L	P387692	
		Calcium	1.27		mg/L	P387692	
		Iron	1.10E+03		ug/L	P387692	
		Magnesium	0.76		mg/L	P387692	
		Potassium	0.30	U	mg/L	P387692	
		Sodium	3.2		mg/L	P387692	
		Zinc	5.0	U	ug/L	P387692	
	EPA 200.8 Rev. 5.4	Aluminum	349		ug/L	P387692	
		Antimony	0.050	U	ug/L	P387692	
		Arsenic	0.30		ug/L	P387692	
		Beryllium	0.056		ug/L	P387692	
		Boron**	13.9		ug/L	P387692	
		Cadmium	0.023	I	ug/L	P387692	
		Chromium	0.58	I	ug/L	P387692	
		Copper	0.40	U	ug/L	P387692	
		Lead	0.20	U	ug/L	P387692	
		Nickel	0.50	U	ug/L	P387692	
	SM 2340B	Selenium	0.20	U	ug/L	P387692	
		Silver	0.010	U	ug/L	P387692	
		Thallium	0.10	U	ug/L	P387692	
		Hardness	6.3		mg/L	P387692	

Field ID: G1TLHR0041

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
SM 2120 B-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes 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: P387702

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P387692

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: P387692

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388029

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388031

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387883

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: P387772

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P387652

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P387917

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P387711

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

Reference Method: EPA 8270E
 Batch ID: P387664

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dichlobenil	2.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Esfenvalerate	20	U	ng/L
Ethalfuralin	3.0	U	ng/L
Fenpropathrin	10	U	ng/L
Gamma-BHC	8.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P387664

Component	Result	Code	Units
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
MGK-264	3.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Piperonyl Butoxide	1.5	U	ng/L
Prallethrin	25	U	ng/L
Tau-Fluvalinate	3.5	U	ng/L
Tetramethrin	8.0	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Triclosan Methyl	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E
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
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P387774

Component	Result	Code	Units
Metalaxyl	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 8276
Batch ID: P387664

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

Reference Method: EPA 8321B
Batch ID: P387668

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P387668

Component	Result	Code	Units
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: 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: SM 2120 B-2011
Batch ID: P387704

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P387737

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

Reference Method: SM 2540 C-2011
Batch ID: P388008

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P387959

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P387739

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P387836

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: P387692

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	105		P	85 - 115
Calcium	108		P	85 - 115
Iron	110		P	85 - 115
Magnesium	109		P	85 - 115
Potassium	105		P	85 - 115
Sodium	98.4		P	85 - 115
Zinc	99.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P387692

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	100		P	85 - 115
Beryllium	97.0		P	85 - 115
Boron	98.9		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	102		P	85 - 115
Copper	103		P	85 - 115
Lead	101		P	85 - 115
Nickel	102		P	85 - 115
Selenium	97.6		P	85 - 115
Silver	98.9		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388029

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387883

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P387772

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P387652

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P387917

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P387711

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

Reference Method: EPA 8270E
 Batch ID: P387664

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	44.8	44.5	P/P	20 - 87.0
Alpha-BHC	87.0	86.6	P/P	65 - 142
Alpha-Chlordane	89.6	85.3	P/P	58 - 106
Beta-BHC	106	108	P/P	65 - 179
Beta-Cyfluthrin	96.0	104	P/P	39 - 153
Bifenthrin	80.6	80.8	P/P	38 - 128
Chlorothalonil	50.8	28.4	P/P	20 - 214
Cis-Nonachlor	95.1	89.2	P/P	56 - 113
Cypermethrin	97.4	101	P/P	37 - 130
Dacthal	101	95.1	P/P	75 - 109
DDD-p,p'	105	104	P/P	66 - 119
DDE-p,p'	85.6	81.0	P/P	53 - 108
DDT-p,p'	89.6	90.7	P/P	57 - 133
Delta-BHC	113	113	P/P	68 - 187
Deltamethrin	121	130	P/P	50 - 200
Dichlobenil	80.1	82.0	P/P	25 - 140
Dicofol	95.6	118	P/P	66 - 123
Dieldrin	98.6	89.5	P/P	65 - 111
Endosulfan I	101	95.9	P/P	65 - 115
Endosulfan II	117	122	P/P	68 - 133
Endosulfan Sulfate	105	103	P/P	62 - 127
Endrin	120	91.0	P/P	64 - 122
Endrin Aldehyde	119	111	P/P	61 - 132
Endrin Ketone	104	101	P/P	66 - 120
Esfenvalerate	94.9	103	P/P	50 - 150
Ethalfuralin	72.6	67.6	P/P	57 - 127
Fenpropathrin	124	126	P/P	60 - 160
Gamma-BHC	101	95.9	P/P	71 - 158
Gamma-Chlordane	89.6	83.7	P/P	53 - 106
Heptachlor	75.8	68.1	P/P	45 - 96.0
Heptachlor Epoxide	95.4	90.2	P/P	64 - 109
Hexachlorobenzene	66.8	68.8	P/P	46 - 103
Lambda-Cyhalothrin	91.5	93.0	P/P	38 - 145
Methoxychlor	90.5	101	P/P	69 - 149

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P387664

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MGK-264	53.2	54.3	P/P	50 - 150
Mirex	70.2	66.5	P/P	31 - 90.0
Permethrin	79.5	80.2	P/P	41 - 108
Phenothrin	51.7	51.7	P/P	22 - 91.0
Piperonyl Butoxide	102	104	P/P	50 - 150
Prallethrin	50.5	48.7	P/P	32 - 92.0
Tau-Fluvalinate	103	107	P/P	50 - 150
Tetramethrin	85.4	82.8	P/P	60 - 160
Trans-Nonachlor	88.8	82.3	P/P	50 - 107
Triclosan Methyl	103	98.8	P/P	50 - 150
Trifluralin	74.2	72.1	P/P	58 - 119

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
Metalaxyl	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
Molinate	65.2	61.6	P/P	41 - 99.0
Naled	49.7	45.2	P/P	38 - 97.0

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P387774

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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 8276

Batch ID: P387664

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	116	117	P/P	47 - 119
Toxaphene	88.1	87.9	P/P	41 - 112

Reference Method: EPA 8321B

Batch ID: P387668

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	97.8		P	30 - 160
3-Hydroxycarbofuran	66.6		P	30 - 160
Acetaminophen	70.1		P	30 - 160
Acetamiprid	67.5		P	30 - 160
Afidopyropen	55.4		P	30 - 160
Aldicarb	62.3		P	30 - 160
Aldicarb Sulfone	68.4		P	30 - 160
Aldicarb Sulfoxide	74.1		P	30 - 160
Bentazon	53.6		P	30 - 160
Benzovindiflupyr	53.1		P	30 - 160
Carbamazepine	56.4		P	30 - 160
Carbaryl	48.9		P	30 - 160
Carbofuran	42.0		P	30 - 160
Clothianidin	69.8		P	30 - 160
Dinotefuran	80.4		P	30 - 160
Diuron	47.0		P	30 - 160
Fenuron	82.8		P	30 - 160
Fluridone	69.4		P	30 - 160
Hydrocodone	59.9		P	30 - 160
Ibuprofen	53.9		P	30 - 160
Imazapyr	75.6		P	30 - 160
Imidacloprid	86.5		P	30 - 160
Linuron	59.3		P	30 - 160
Mandestrobin	66.1		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P387668

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MCPP	97.5		P	30 - 160
Methiocarb	49.0		P	30 - 160
Methomyl	74.7		P	30 - 160
Naproxen	75.2		P	30 - 160
Oxamyl	72.0		P	30 - 160
Primidone	67.8		P	30 - 160
Propoxur	43.8		P	30 - 160
Pyraclostrobin	53.7		P	30 - 160
Thiamethoxam	69.2		P	30 - 160
Tolfenpyrad	35.4		P	30 - 160
Triclopyr	70.8		P	30 - 160

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: SM 2120 B-2011
Batch ID: P387704

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.2		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P387737

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

Reference Method: SM 4500 F-C-2011
Batch ID: P387739

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P387836

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P387692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2196364	Barium	103		P	80 - 120
2196364	Calcium	102		P	80 - 120
2196364	Iron	106		P	80 - 120
2196364	Magnesium	102		P	80 - 120
2196364	Potassium	101		P	80 - 120
2196364	Sodium	103		P	80 - 120
2196364	Zinc	99.2		P	80 - 120
2197193	Barium	106	106	P/P	80 - 120
2197193	Calcium	112	108	P/P	80 - 120
2197193	Iron	111	110	P/P	80 - 120
2197193	Magnesium	111	109	P/P	80 - 120
2197193	Potassium	114	111	P/P	80 - 120
2197193	Sodium	104		P	80 - 120
2197193	Zinc	102	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P387692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2196364	Aluminum	99.7		P	80 - 120
2196364	Antimony	103		P	80 - 120
2196364	Arsenic	100		P	80 - 120
2196364	Beryllium	97.8		P	80 - 120
2196364	Boron	105		P	80 - 120
2196364	Cadmium	101		P	80 - 120
2196364	Chromium	104		P	80 - 120
2196364	Copper	98.6		P	80 - 120
2196364	Lead	101		P	80 - 120
2196364	Nickel	99.5		P	80 - 120
2196364	Selenium	94.2		P	80 - 120
2196364	Silver	117		P	80 - 120
2196364	Thallium	103		P	80 - 120
2197193	Aluminum	98.9	99.2	P/P	80 - 120
2197193	Antimony	103	104	P/P	80 - 120
2197193	Arsenic	99.4	99.3	P/P	80 - 120
2197193	Beryllium	94.6	97.7	P/P	80 - 120
2197193	Boron	100	98.5	P/P	80 - 120
2197193	Cadmium	101	101	P/P	80 - 120
2197193	Chromium	103	102	P/P	80 - 120
2197193	Copper	101	101	P/P	80 - 120
2197193	Lead	99.9	101	P/P	80 - 120
2197193	Nickel	100	100	P/P	80 - 120
2197193	Selenium	96.0	95.6	P/P	80 - 120
2197193	Silver	98.5	98.6	P/P	80 - 120
2197193	Thallium	102	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2196930	Chloride	103		P	90 - 110
2197208	Chloride	100		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P388031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2196930	Sulfate	98.1		P	90 - 110
2197208	Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387883

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197185	Ammonia-N	96.0	96.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P387772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197214	Kjeldahl Nitrogen	104	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P387652

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197197	NO2NO3-N	97.4	97.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P387917

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197051	Total-P	107	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P387711

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197186	O-Phosphate-P	101	101	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P387664

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197289	Aldrin	61.9	59.3	P/P	32 - 82.0
2197289	Alpha-BHC	84.3	82.2	P/P	68 - 157
2197289	Alpha-Chlordane	83.0	80.5	P/P	54 - 108
2197289	Beta-BHC	93.0	93.6	P/P	54 - 200
2197289	Beta-Cyfluthrin	91.4	96.4	P/P	50 - 154
2197289	Bifenthrin	85.2	86.5	P/P	49 - 124
2197289	Chlorothalonil	49.9	71.3	P/P	10 - 289
2197289	Cis-Nonachlor	87.8	85.2	P/P	53 - 112
2197289	Cypermethrin	99.7	104	P/P	43 - 141
2197289	Dacthal	91.3	89.2	P/P	75 - 112
2197289	DDD-p,p'	90.4	89.1	P/P	58 - 125
2197289	DDE-p,p'	76.8	74.1	P/P	50 - 108
2197289	DDT-p,p'	82.7	82.9	P/P	52 - 140
2197289	Delta-BHC	106	107	P/P	61 - 228
2197289	Deltamethrin	111	123	P/P	50 - 200

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P387664

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197289	Dichlobenil	59.2	58.7	P/P	25 - 140
2197289	Dicofol	80.9	90.2	P/P	59 - 130
2197289	Dieldrin	88.6	89.0	P/P	57 - 121
2197289	Endosulfan I	97.9	96.8	P/P	62 - 123
2197289	Endosulfan II	113	117	P/P	48 - 163
2197289	Endosulfan Sulfate	92.2	92.1	P/P	63 - 132
2197289	Endrin	86.0	82.2	P/P	58 - 128
2197289	Endrin Aldehyde	104	96.3	P/P	44 - 126
2197289	Endrin Ketone	95.4	98.7	P/P	68 - 127
2197289	Esfenvalerate	89.3	89.0	P/P	50 - 150
2197289	Ethalfuralin	64.8	64.7	P/P	55 - 131
2197289	Fenpropathrin	158	158	P/P	60 - 160
2197289	Gamma-BHC	95.2	99.7	P/P	54 - 206
2197289	Gamma-Chlordane	84.1	82.0	P/P	52 - 105
2197289	Heptachlor	71.9	67.2	P/P	47 - 94.0
2197289	Heptachlor Epoxide	86.6	84.4	P/P	61 - 113
2197289	Hexachlorobenzene	63.4	64.8	P/P	45 - 100
2197289	Lambda-Cyhalothrin	95.1	103	P/P	37 - 165
2197289	Methoxychlor	81.6	79.0	P/P	63 - 153
2197289	MGK-264	71.9	71.9	P/P	50 - 150
2197289	Mirex	72.0	72.2	P/P	38 - 90.0
2197289	Permethrin	81.7	84.8	P/P	45 - 112
2197289	Phenothrin	71.0	73.5	P/P	22 - 118
2197289	Piperonyl Butoxide	91.8	95.2	P/P	50 - 150
2197289	Prallethrin	68.3	68.7	P/P	21 - 114
2197289	Tau-Fluvalinate	103	106	P/P	50 - 150
2197289	Tetramethrin	84.5	94.3	P/P	60 - 160
2197289	Trans-Nonachlor	82.1	79.1	P/P	50 - 103
2197289	Triclosan Methyl	87.7	85.2	P/P	50 - 150
2197289	Trifluralin	68.3	68.0	P/P	57 - 122

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
2197204	Disulfoton	85.5	86.0	P/P	55 - 130
2197204	Dithiopyr	64.9	63.4	F/F	66 - 122

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	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	Terbutylazine	84.1	82.6	P/P	63 - 131

Reference Method: EPA 8276
Batch ID: P387664

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2197349	Chlordane	106	102	P/P	34 - 129
2197349	Toxaphene	104	107	P/P	16 - 148

Reference Method: EPA 8321B
Batch ID: P387668

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2196583	3-Hydroxycarbofuran	59.7	57.0	P/P	30 - 160
2196583	Aldicarb	44.4	53.8	P/P	30 - 160
2196583	Aldicarb Sulfone	75.4	71.5	P/P	30 - 160
2196583	Aldicarb Sulfoxide	34.1	33.3	P/P	30 - 160
2196583	Carbaryl	36.9	36.7	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P387668

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2196583	Carbofuran	36.7	35.1	P/P	30 - 160
2196583	Methiocarb	36.9	41.9	P/P	30 - 160
2196583	Methomyl	71.8	70.0	P/P	30 - 160
2196583	Oxamyl	65.9	68.0	P/P	30 - 160
2196583	Propoxur	38.1	37.6	P/P	30 - 160
2197057	Acetaminophen	77.2	72.4	P/P	30 - 160
2197057	Acetamiprid	65.3	59.4	P/P	30 - 160
2197057	Afidopropen	54.6	50.4	P/P	30 - 160
2197057	Benzovindiflupyr	60.5	57.8	P/P	30 - 160
2197057	Carbamazepine	49.7	46.7	P/P	30 - 160
2197057	Clothianidin	61.0	61.2	P/P	30 - 160
2197057	Dinotefuran	89.2	81.2	P/P	30 - 160
2197057	Diuron	39.4	41.2	P/P	30 - 160
2197057	Fenuron	75.4	73.8	P/P	30 - 160
2197057	Hydrocodone	70.1	66.4	P/P	30 - 160
2197057	Ibuprofen	52.5	50.9	P/P	30 - 160
2197057	Linuron	50.4	54.0	P/P	30 - 160
2197057	Mandestrobin	65.5	66.3	P/P	30 - 160
2197057	MCP	94.0	86.9	P/P	30 - 160
2197057	Naproxen	116	109	P/P	30 - 160
2197057	Primidone	75.0	71.4	P/P	30 - 160
2197057	Pyraclostrobin	59.9	54.1	P/P	30 - 160
2197057	Thiamethoxam	88.4	86.8	P/P	30 - 160
2197057	Tolfenpyrad	44.2	38.0	P/P	30 - 160
2197057	Triclopyr	72.9	78.7	P/P	30 - 160

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
2197190	Sucralose	99.1	102	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P387739

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2196930	Fluoride	94.0	95.0	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P387836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2196931	Organic Carbon	98.8	102	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P387702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197196	Turbidity	3.01	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P387692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197193	Barium	0.892	Spike	P	0 - 20
2197193	Calcium	2.28	Spike	P	0 - 20
2197193	Iron	0.994	Spike	P	0 - 20
2197193	Magnesium	1.28	Spike	P	0 - 20
2197193	Potassium	2.71	Spike	P	0 - 20
2197193	Sodium	3.35	Spike	P	0 - 20
2197193	Zinc	2.05	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P387692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197193	Aluminum	0.262	Spike	P	0 - 20
2197193	Antimony	0.385	Spike	P	0 - 20
2197193	Arsenic	0.131	Spike	P	0 - 20
2197193	Beryllium	3.27	Spike	P	0 - 20
2197193	Boron	1.35	Spike	P	0 - 20
2197193	Cadmium	0.0458	Spike	P	0 - 20
2197193	Chromium	0.497	Spike	P	0 - 20
2197193	Copper	0.364	Spike	P	0 - 20
2197193	Lead	0.996	Spike	P	0 - 20
2197193	Nickel	0.285	Spike	P	0 - 20
2197193	Selenium	0.450	Spike	P	0 - 20
2197193	Silver	0.124	Spike	P	0 - 20
2197193	Thallium	1.63	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P388029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2196930	Chloride	0.734	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P388031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2196930	Sulfate	0.446	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P387883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197185	Ammonia-N	0.243	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P387772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197214	Kjeldahl Nitrogen	2.17	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P387652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197197	NO2NO3-N	0.499	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P387917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197051	Total-P	0.105	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P387711

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197186	O-Phosphate-P	0.198	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P387664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197289	Aldrin	4.39	Spike	P	0 - 30
2197289	Alpha-BHC	2.54	Spike	P	0 - 30
2197289	Alpha-Chlordane	3.06	Spike	P	0 - 30
2197289	Beta-BHC	0.611	Spike	P	0 - 30
2197289	Beta-Cyfluthrin	5.34	Spike	P	0 - 30
2197289	Bifenthrin	1.60	Spike	P	0 - 30
2197289	Chlorothalonil	35.2	Spike	F	0 - 30
2197289	Cis-Nonachlor	3.10	Spike	P	0 - 30
2197289	Cypermethrin	4.39	Spike	P	0 - 30
2197289	Dacthal	2.28	Spike	P	0 - 30
2197289	DDD-p,p'	1.35	Spike	P	0 - 30
2197289	DDE-p,p'	3.45	Spike	P	0 - 30
2197289	DDT-p,p'	0.164	Spike	P	0 - 30
2197289	Delta-BHC	0.784	Spike	P	0 - 30
2197289	Deltamethrin	10.2	Spike	P	0 - 30
2197289	Dichlobenil	0.789	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P387664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197289	Dicofol	10.8	Spike	P	0 - 30
2197289	Dieldrin	0.495	Spike	P	0 - 30
2197289	Endosulfan I	1.06	Spike	P	0 - 30
2197289	Endosulfan II	3.61	Spike	P	0 - 30
2197289	Endosulfan Sulfate	0.203	Spike	P	0 - 30
2197289	Endrin	4.58	Spike	P	0 - 30
2197289	Endrin Aldehyde	7.90	Spike	P	0 - 30
2197289	Endrin Ketone	3.43	Spike	P	0 - 30
2197289	Esfenvalerate	0.354	Spike	P	0 - 30
2197289	Ethalfuralin	0.109	Spike	P	0 - 30
2197289	Fenpropathrin	0.426	Spike	P	0 - 30
2197289	Gamma-BHC	4.63	Spike	P	0 - 30
2197289	Gamma-Chlordane	2.52	Spike	P	0 - 30
2197289	Heptachlor	6.76	Spike	P	0 - 30
2197289	Heptachlor Epoxide	2.66	Spike	P	0 - 30
2197289	Hexachlorobenzene	2.13	Spike	P	0 - 30
2197289	Lambda-Cyhalothrin	8.19	Spike	P	0 - 30
2197289	Methoxychlor	3.22	Spike	P	0 - 30
2197289	MGK-264	0.000464	Spike	P	0 - 30
2197289	Mirex	0.306	Spike	P	0 - 30
2197289	Permethrin	3.78	Spike	P	0 - 30
2197289	Phenothrin	3.44	Spike	P	0 - 30
2197289	Piperonyl Butoxide	3.67	Spike	P	0 - 30
2197289	Prallethrin	0.579	Spike	P	0 - 30
2197289	Tau-Fluvalinate	3.12	Spike	P	0 - 30
2197289	Tetramethrin	11.0	Spike	P	0 - 30
2197289	Trans-Nonachlor	3.72	Spike	P	0 - 30
2197289	Triclosan Methyl	2.86	Spike	P	0 - 30
2197289	Trifluralin	0.430	Spike	P	0 - 30
LFB	Aldrin	0.587	LCS	P	0 - 30
LFB	Alpha-BHC	0.484	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.83	LCS	P	0 - 30
LFB	Beta-BHC	1.48	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	8.29	LCS	P	0 - 30
LFB	Bifenthrin	0.292	LCS	P	0 - 30
LFB	Chlorothalonil	56.5	LCS	F	0 - 30
LFB	Cis-Nonachlor	6.45	LCS	P	0 - 30
LFB	Cypermethrin	3.44	LCS	P	0 - 30
LFB	Dacthal	6.10	LCS	P	0 - 30
LFB	DDD-p,p'	0.288	LCS	P	0 - 30
LFB	DDE-p,p'	5.56	LCS	P	0 - 30
LFB	DDT-p,p'	1.21	LCS	P	0 - 30
LFB	Delta-BHC	0.0408	LCS	P	0 - 30
LFB	Deltamethrin	7.29	LCS	P	0 - 30
LFB	Dichlobenil	2.35	LCS	P	0 - 30
LFB	Dicofol	20.9	LCS	P	0 - 30
LFB	Dieldrin	9.70	LCS	P	0 - 30
LFB	Endosulfan I	4.75	LCS	P	0 - 30
LFB	Endosulfan II	4.63	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.36	LCS	P	0 - 30
LFB	Endrin	27.5	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P387664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endrin Aldehyde	6.75	LCS	P	0 - 30
LFB	Endrin Ketone	3.52	LCS	P	0 - 30
LFB	Esfenvalerate	8.29	LCS	P	0 - 30
LFB	Ethalfuralin	7.08	LCS	P	0 - 30
LFB	Fenpropathrin	1.37	LCS	P	0 - 30
LFB	Gamma-BHC	4.71	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.78	LCS	P	0 - 30
LFB	Heptachlor	10.8	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.55	LCS	P	0 - 30
LFB	Hexachlorobenzene	3.02	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	1.57	LCS	P	0 - 30
LFB	Methoxychlor	11.2	LCS	P	0 - 30
LFB	MGK-264	2.06	LCS	P	0 - 30
LFB	Mirex	5.33	LCS	P	0 - 30
LFB	Permethrin	0.938	LCS	P	0 - 30
LFB	Phenothrin	0.0846	LCS	P	0 - 30
LFB	Piperonyl Butoxide	2.33	LCS	P	0 - 30
LFB	Prallethrin	3.72	LCS	P	0 - 30
LFB	Tau-Fluvalinate	3.73	LCS	P	0 - 30
LFB	Tetramethrin	2.98	LCS	P	0 - 30
LFB	Trans-Nonachlor	7.63	LCS	P	0 - 30
LFB	Triclosan Methyl	4.29	LCS	P	0 - 30
LFB	Trifluralin	2.97	LCS	P	0 - 30

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
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

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	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	Metalaxyl	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	Terbutylazine	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
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

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	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 8276

Batch ID: P387664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2197349	Chlordane	3.50	Spike	P	0 - 30
2197349	Toxaphene	3.22	Spike	P	0 - 30
LFB	Chlordane	0.362	LCS	P	0 - 30
LFB	Toxaphene	0.204	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P387668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2196583	3-Hydroxycarbofuran	4.71	Spike	P	0 - 30
2196583	Aldicarb	19.0	Spike	P	0 - 30
2196583	Aldicarb Sulfone	5.32	Spike	P	0 - 30
2196583	Aldicarb Sulfoxide	2.37	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P387668

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2196583	Carbaryl	0.632	Spike	P	0 - 30
2196583	Carbofuran	4.30	Spike	P	0 - 30
2196583	Methiocarb	12.9	Spike	P	0 - 30
2196583	Methomyl	2.58	Spike	P	0 - 30
2196583	Oxamyl	3.18	Spike	P	0 - 30
2196583	Propoxur	1.30	Spike	P	0 - 30
2197057	2,4-D	4.75	Spike	P	0 - 30
2197057	Acetaminophen	6.44	Spike	P	0 - 30
2197057	Acetamiprid	9.37	Spike	P	0 - 30
2197057	Afidopyropen	8.08	Spike	P	0 - 30
2197057	Bentazon	11.1	Spike	P	0 - 30
2197057	Benzovindiflupyr	4.71	Spike	P	0 - 30
2197057	Carbamazepine	6.15	Spike	P	0 - 30
2197057	Clothianidin	0.184	Spike	P	0 - 30
2197057	Dinotefuran	9.31	Spike	P	0 - 30
2197057	Diuron	3.77	Spike	P	0 - 30
2197057	Fenuron	2.08	Spike	P	0 - 30
2197057	Fluridone	5.52	Spike	P	0 - 30
2197057	Hydrocodone	5.47	Spike	P	0 - 30
2197057	Ibuprofen	3.12	Spike	P	0 - 30
2197057	Imazapyr	7.01	Spike	P	0 - 30
2197057	Imidacloprid	3.58	Spike	P	0 - 30
2197057	Linuron	6.85	Spike	P	0 - 30
2197057	Mandestrobin	1.24	Spike	P	0 - 30
2197057	MCP	7.90	Spike	P	0 - 30
2197057	Naproxen	6.51	Spike	P	0 - 30
2197057	Primidone	4.95	Spike	P	0 - 30
2197057	Pyraclostrobin	10.3	Spike	P	0 - 30
2197057	Thiamethoxam	1.64	Spike	P	0 - 30
2197057	Tolfenpyrad	15.3	Spike	P	0 - 30
2197057	Triclopyr	7.62	Spike	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
2197190	Glyphosate	2.62	Spike	P	0 - 30
2197190	Sucralose	2.90	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P387737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2196930	Total Alkalinity	2.21	Sample	P	0 - 8.1

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P388008

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2196930	TDS	0.803	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P387739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2196930	Fluoride	0.948	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P387836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2196931	Organic Carbon	2.20	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2197201
Field Sample ID: G1TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	40.7	P	30 - 160

Lab Sample ID: 2197202
Field Sample ID: G1TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	73.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	65.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	41.0	P	30 - 160
EPA 8321B	Diuron-d6	41.9	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	83.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	83.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.9	P	30 - 160
EPA 8321B	Primidone-d5	73.8	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160

Lab Sample ID: 2197203
Field Sample ID: G1TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	95.9	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	79.0	P	34 - 106
EPA 8276	Decachlorobiphenyl	77.6	P	26 - 97.0
EPA 8276	PCNB	103	P	38 - 141

Lab Sample ID: 2197204
Field Sample ID: G1TLHR0041

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	103	P	72 - 135
EPA 8270E	Terbufos-d10	88.8	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A101119

Included Lab Sample IDs: 2197197

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A101139

Included Lab Sample IDs: 2197196

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

Reference Method: SM 2120 B-2011

Run ID: A101140

Included Lab Sample IDs: 2197196

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.3	98.3	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A101150

Included Lab Sample IDs: 2197198

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.9	99.1	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A101158

Included Lab Sample IDs: 2197196

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.7	101	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A101158

Included Lab Sample IDs: 2197196

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A101172

Included Lab Sample IDs: 2197201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	97.0	104	P/P	60 - 150
Aldicarb	80.9	113	P/P	60 - 150
Aldicarb Sulfone	88.6	80.2	P/P	50 - 150
Aldicarb Sulfoxide	84.1	87.2	P/P	50 - 150
Carbaryl	116	113	P/P	60 - 150
Carbofuran	99.1	99.4	P/P	50 - 150
Methiocarb	102	109	P/P	50 - 150
Methomyl	91.0	90.8	P/P	50 - 150
Oxamyl	87.2	87.4	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A101172
Included Lab Sample IDs: 2197201

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Propoxur	99.6	104	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A101191
Included Lab Sample IDs: 2197202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	98.0	88.1	P/P	60 - 160
Endothall	88.8	107	P/P	60 - 160

Reference Method: SM 5310 B-2011
Run ID: A101194
Included Lab Sample IDs: 2197197

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A101208
Included Lab Sample IDs: 2197197

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.6	94.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A101210
Included Lab Sample IDs: 2197197

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	99.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A101217
Included Lab Sample IDs: 2197205

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	103	P/P	90 - 110
Calcium	99.9	101	P/P	90 - 110
Iron	102	104	P/P	90 - 110
Magnesium	100	102	P/P	90 - 110
Potassium	99.6	102	P/P	90 - 110
Sodium	103	105	P/P	90 - 110
Zinc	101	102	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A101224
Included Lab Sample IDs: 2197202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	78.4	71.8	P/P	60 - 160
Glufosinate	95.8	96.7	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
 Run ID: A101224
 Included Lab Sample IDs: 2197202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	99.7	97.1	P/P	60 - 160

Reference Method: EPA 8276
 Run ID: A101230
 Included Lab Sample IDs: 2197203

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	81.5		P	80 - 120
Toxaphene	95.5		P	80 - 120

Reference Method: EPA 8270E
 Run ID: A101235
 Included Lab Sample IDs: 2197203

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	105		P	80 - 120
Alpha-BHC	95.8		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	91.1		P	80 - 120
Beta-Cyfluthrin	92.2		P	80 - 120
Bifenthrin	98.8		P	80 - 120
Chlorothalonil	99.1		P	80 - 120
Cis-Nonachlor	100		P	80 - 120
Cypermethrin	92.7		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	108		P	80 - 120
DDE-p,p'	106		P	80 - 120
DDT-p,p'	108		P	80 - 120
Delta-BHC	85.7		P	80 - 120
Deltamethrin	104		P	80 - 120
Dichlobenil	105		P	80 - 120
Dicofol	100		P	80 - 120
Dieldrin	103		P	80 - 120
Endosulfan I	99.4		P	80 - 120
Endosulfan II	97.1		P	80 - 120
Endosulfan Sulfate	100		P	80 - 120
Endrin	87.5		P	80 - 120
Endrin Aldehyde	96.1		P	80 - 120
Endrin Ketone	98.5		P	80 - 120
Esfenvalerate	94.5		P	80 - 120
Ethalfuralin	95.4		P	80 - 120
Fenpropathrin	101		P	80 - 120
Gamma-BHC	95.4		P	80 - 120
Gamma-Chlordane	103		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	104		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Lambda-Cyhalothrin	89.2		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	108		P	80 - 120
Mirex	99.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A101235
 Included Lab Sample IDs: 2197203

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Permethrin	93.2		P	80 - 120
Phenothrin	90.7		P	80 - 120
Piperonyl Butoxide	94.6		P	80 - 120
Prallethrin	84.8		P	80 - 120
Tau-Fluvalinate	99.4		P	80 - 120
Tetramethrin	96.0		P	80 - 120
Trans-Nonachlor	102		P	80 - 120
Triclosan Methyl	102		P	80 - 120
Trifluralin	95.1		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
 Run ID: A101274
 Included Lab Sample IDs: 2197197

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
 Run ID: A101281
 Included Lab Sample IDs: 2197196

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	101	P/P	90 - 110
Sulfate	98.7	99.5	P/P	90 - 110

Reference Method: EPA 8321B
 Run ID: A101289
 Included Lab Sample IDs: 2197202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.0	123	P/P	50 - 150
Acetaminophen	110	125	P/P	60 - 160
Acetamiprid	119	122	P/P	50 - 150
Afidopyropen	100	95.6	P/P	50 - 150
Bentazon	103	106	P/P	50 - 160
Benzovindiflupyr	114	107	P/P	50 - 150
Carbamazepine	105	103	P/P	60 - 150
Clothianidin	95.9	117	P/P	60 - 150
Dinotefuran	97.5	111	P/P	50 - 150
Diuron	104	104	P/P	60 - 160
Fenuron	111	121	P/P	60 - 150
Fluridone	128	113	P/P	60 - 160
Hydrocodone	112	113	P/P	60 - 150
Ibuprofen	100	87.5	P/P	50 - 160
Imazapyr	98.0	130	P/P	50 - 160
Imidacloprid	105	109	P/P	60 - 150
Linuron	114	112	P/P	60 - 150
Mandestrobin	107	104	P/P	50 - 150
MCPP	125	136	P/P	50 - 150
Naproxen	108	102	P/P	50 - 160
Primidone	101	127	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A101289
Included Lab Sample IDs: 2197202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	106	103	P/P	60 - 150
Thiamethoxam	124	137	P/P	50 - 150
Tolfenpyrad	106	106	P/P	60 - 150
Triclopyr	117	130	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A101342
Included Lab Sample IDs: 2197205

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.1	98.2	P/P	90 - 110
Antimony	105	105	P/P	90 - 110
Arsenic	97.2	97.6	P/P	90 - 110
Beryllium	99.5	99.1	P/P	90 - 110
Boron	100	101	P/P	90 - 110
Cadmium	99.3	100	P/P	90 - 110
Chromium	101	102	P/P	90 - 110
Copper	96.5	96.6	P/P	90 - 110
Lead	101	102	P/P	90 - 110
Nickel	96.7	96.8	P/P	90 - 110
Selenium	95.3	95.1	P/P	90 - 110
Thallium	99.1	98.0	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A101350
Included Lab Sample IDs: 2197202

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	99.2	101	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A101367
Included Lab Sample IDs: 2197205

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	96.9	98.8	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A101369
Included Lab Sample IDs: 2197204

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A101369
Included Lab Sample IDs: 2197204

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

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							3.01	
EPA 200.7 Rev. 4.4	Barium	105		103	106	106			0.892
	Calcium	108		102	112	108			2.28
	Iron	110		106	111	110			0.994
	Magnesium	109		102	111	109			1.28
	Potassium	105		101	114	111			2.71
	Sodium	98.4		103	104				3.35
	Zinc	99.4		99.2	102	100			2.05
EPA 200.8 Rev. 5.4	Aluminum	100		98.9	99.2	99.7			0.262
	Antimony	103		103	104	103			0.385
	Arsenic	100		99.4	99.3	100			0.131
	Beryllium	97.0		94.6	97.7	97.8			3.27
	Boron	98.9		100	98.5	105			1.35
	Cadmium	102		101	101	101			0.0458
	Chromium	102		103	102	104			0.497
	Copper	103		101	101	98.6			0.364
	Lead	101		99.9	101	101			0.996
	Nickel	102		100	100	99.5			0.285
	Selenium	97.6		96.0	95.6	94.2			0.450
	Silver	98.9		98.5	98.6	117			0.124
	Thallium	102		102	103	103			1.63
EPA 300.0 Rev. 2.1	Chloride	102		103	100			0.734	
	Sulfate	99.2		98.1	97.8			0.446	
EPA 350.1 Rev. 2.0	Ammonia-N	101		96.0	96.3				0.243
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107		104	107				2.17
EPA 353.2 Rev. 2.0	NO2NO3-N	100		97.4	97.9				0.499
EPA 365.1 Rev. 2.0	Total-P	106		107	107				0.105
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		101	101				0.198
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	44.8	44.5	61.9	59.3		0.587		4.39
	Alpha-BHC	87.0	86.6	84.3	82.2		0.484		2.54
	Alpha-Chlordane	89.6	85.3	83.0	80.5		4.83		3.06
	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	106	108	93.0	93.6		1.48		0.611
	Beta-Cyfluthrin	96.0	104	91.4	96.4		8.29		5.34
	Bifenthrin	80.6	80.8	85.2	86.5		0.292		1.60
	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	50.8	28.4	49.9	71.3		56.5		35.2
	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	95.1	89.2	87.8	85.2		6.45		3.10
	Cyanazine	91.8	88.7	83.7	88.8		3.52		5.99
	Cypermethrin	97.4	101	99.7	104		3.44		4.39
	Dacthal	101	95.1	91.3	89.2		6.10		2.28
	DDD-p,p'	105	104	90.4	89.1		0.288		1.35
	DDE-p,p'	85.6	81.0	76.8	74.1		5.56		3.45
	DDT-p,p'	89.6	90.7	82.7	82.9		1.21		0.164
	Delta-BHC	113	113	106	107		0.0408		0.784

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Deltamethrin	121	130	111	123	7.29	10.2
	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	80.1	82.0	59.2	58.7	2.35	0.789
	Dicofol	95.6	118	80.9	90.2	20.9	10.8
	Dieldrin	98.6	89.5	88.6	89.0	9.70	0.495
	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	101	95.9	97.9	96.8	4.75	1.06
	Endosulfan II	117	122	113	117	4.63	3.61
	Endosulfan Sulfate	105	103	92.2	92.1	2.36	0.203
	Endrin	120	91.0	86.0	82.2	27.5	4.58
	Endrin Aldehyde	119	111	104	96.3	6.75	7.90
	Endrin Ketone	104	101	95.4	98.7	3.52	3.43
	EPTC	53.7	55.5	49.0	40.8	3.40	18.1
	Esfenvalerate	94.9	103	89.3	89.0	8.29	0.354
	Ethalfuralin	72.6	67.6	64.8	64.7	7.08	0.109
	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	124	126	158	158	1.37	0.426
	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	101	95.9	95.2	99.7	4.71	4.63
	Gamma-Chlordane	89.6	83.7	84.1	82.0	6.78	2.52
	Heptachlor	75.8	68.1	71.9	67.2	10.8	6.76
	Heptachlor Epoxide	95.4	90.2	86.6	84.4	5.55	2.66
	Hexachlorobenzene	66.8	68.8	63.4	64.8	3.02	2.13
	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	91.5	93.0	95.1	103	1.57	8.19
	Malathion	109	102	104	98.9	6.28	4.76
	Metalaxyl	77.2	69.4	75.4	74.9	10.7	0.683
	Methoxychlor	90.5	101	81.6	79.0	11.2	3.22
	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	53.2	54.3	71.9	71.9	2.06	0.0004
	Mirex	70.2	66.5	72.0	72.2	5.33	0.306
	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	79.5	80.2	81.7	84.8	0.938	3.78
	Phenothrin	51.7	51.7	71.0	73.5	0.0846	3.44
	Phorate	109	115	104	107	4.99	2.45

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Piperonyl Butoxide	102	104	91.8	95.2	2.33	3.67
	Prallethrin	50.5	48.7	68.3	68.7	3.72	0.579
	Prodimamine	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	103	107	103	106	3.73	3.12
	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
	Terbuthylazine	87.1	79.6	84.1	82.6	8.93	1.79
	Tetramethrin	85.4	82.8	84.5	94.3	2.98	11.0
	Trans-Nonachlor	88.8	82.3	82.1	79.1	7.63	3.72
	Triclosan Methyl	103	98.8	87.7	85.2	4.29	2.86
	Trifluralin	74.2	72.1	68.3	68.0	2.97	0.430
EPA 8276	Chlordane	116	117	106	102	0.362	3.50
	Toxaphene	88.1	87.9	104	107	0.204	3.22
EPA 8321B	2,4-D	97.8					4.75
	3-Hydroxycarbofuran	66.6		59.7	57.0		4.71
	Acesulfame K	98.1		114	119		4.24
	Acetaminophen	70.1		77.2	72.4		6.44
	Acetamiprid	67.5		65.3	59.4		9.37
	Afidopyropen	55.4		54.6	50.4		8.08
	Aldicarb	62.3		44.4	53.8		19.0
	Aldicarb Sulfone	68.4		75.4	71.5		5.32
	Aldicarb Sulfoxide	74.1		34.1	33.3		2.37
	AMPA	82.5		114	117		1.86
	Bentazon	53.6					11.1
	Benzovindiflupyr	53.1		60.5	57.8		4.71
	Carbamazepine	56.4		49.7	46.7		6.15
	Carbaryl	48.9		36.9	36.7		0.632
	Carbofuran	42.0		36.7	35.1		4.30
	Clothianidin	69.8		61.0	61.2		0.184
	Dinotefuran	80.4		89.2	81.2		9.31
	Diuron	47.0		39.4	41.2		3.77
	Endothall	94.7		107	93.8		13.0
	Fenuron	82.8		75.4	73.8		2.08
	Fluridone	69.4					5.52
	Glufosinate	89.8		83.8	94.5		12.0
	Glyphosate	101		82.6	80.4		2.62
	Hydrocodone	59.9		70.1	66.4		5.47
	Ibuprofen	53.9		52.5	50.9		3.12
	Imazapyr	75.6					7.01
	Imidacloprid	86.5					3.58
	Linuron	59.3		50.4	54.0		6.85
	Mandestrobien	66.1		65.5	66.3		1.24
	MCPP	97.5		94.0	86.9		7.90
	Methiocarb	49.0		36.9	41.9		12.9
	Methomyl	74.7		71.8	70.0		2.58
	Naproxen	75.2		116	109		6.51
	Oxamyl	72.0		65.9	68.0		3.18
	Primidone	67.8		75.0	71.4		4.95

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Propoxur	43.8	38.1	37.6		1.30
	Pyraclostrobin	53.7	59.9	54.1		10.3
	Sucralose	95.8	99.1	102		2.90
	Thiamethoxam	69.2	88.4	86.8		1.64
	Tolfenpyrad	35.4	44.2	38.0		15.3
	Triclopyr	70.8	72.9	78.7		7.62
	Color (true)	96.2				
SM 2120 B-2011	Total Alkalinity	100			2.21	
SM 2320 B-2011	TDS				0.803	
SM 2540 C-2011	Fluoride	97.8	94.0	95.0		0.948
SM 4500 F-C-2011	Organic Carbon	94.8	98.8	102		2.20

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2197196
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2197205
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2197205
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2197196
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2197196
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2197197
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2197197
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2197197
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2197197
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2197198
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2197203
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2197204
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2197203
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2197201
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2197202
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2197202
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2197196
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2197196
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2197205
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2197196
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2197196
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2197196
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2197197

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	09/21/2020			09/22/2020 16:38	Yen Ta	2197196
EPA 200.7 Rev. 4.4	09/21/2020	09/22/2020 14:45	Elliott D. Healy	09/25/2020 15:53	Betina Topolski	2197205
EPA 200.8 Rev. 5.4	09/21/2020	09/22/2020 14:45	Elliott D. Healy	10/02/2020 18:18	Alexander Thompson	2197205
	09/21/2020	09/22/2020 14:45	Elliott D. Healy	10/05/2020 14:31	Alexander Thompson	2197205
EPA 300.0 Rev. 2.1	09/21/2020			09/29/2020 18:34	Elliott Rodriguez	2197196
EPA 350.1 Rev. 2.0	09/21/2020			09/26/2020 11:49	Ping Hua	2197197
EPA 351.2 Rev. 2.0	09/21/2020	09/23/2020 17:26	David Boose	09/25/2020 14:48	Elliott Rodriguez	2197197
EPA 353.2 Rev. 2.0	09/21/2020			09/22/2020 09:28	Beverly Y. Sanders	2197197
EPA 365.1 Rev. 2.0	09/21/2020	09/28/2020 12:44	Yen Ta	09/29/2020 12:50	Benjamin T. Nordmann	2197197
EPA 365.1 Rev. 2.0 dissolved	09/21/2020			09/22/2020 15:51	Virginia P. Brown	2197198
EPA 8270E	09/21/2020	09/23/2020 08:30	Rasheda Ghaffari	09/25/2020 20:20	Michael Poppell	2197203
	09/21/2020	09/25/2020 08:00	Fe-Val Siddell	09/28/2020 17:00	Vandana T. Nagar	2197204
EPA 8276	09/21/2020	09/23/2020 08:30	Rasheda Ghaffari	09/26/2020 07:51	Arthur Maknenko	2197203
EPA 8321B	09/21/2020	09/23/2020 12:15	Hoor Shaik	09/24/2020 05:28	Juyoung Kim	2197201
	09/21/2020	09/23/2020 12:15	Hoor Shaik	09/25/2020 11:49	Juyoung Kim	2197202
	09/21/2020	09/24/2020 09:45	Rebecca Ware	09/24/2020 14:38	Rebecca Ware	2197202
	09/21/2020	09/24/2020 09:45	Rebecca Ware	09/25/2020 12:02	Rebecca Ware	2197202
	09/21/2020	09/24/2020 09:45	Rebecca Ware	09/30/2020 13:18	Rebecca Ware	2197202
SM 2120 B-2011	09/21/2020			09/22/2020 16:03	Benjamin T. Nordmann	2197196
SM 2320 B-2011	09/21/2020			09/22/2020 13:38	Dale L. Simmons	2197196
SM 2340B	09/21/2020			09/25/2020 15:53	Betina Topolski	2197205
SM 2540 C-2011	09/21/2020			09/23/2020 14:41	Yijie Li	2197196
SM 2540 D-2011	09/21/2020			09/23/2020 14:41	Yijie Li	2197196
SM 4500 F-C-2011	09/21/2020			09/22/2020 13:38	Dale L. Simmons	2197196
SM 5310 B-2011	09/21/2020			09/24/2020 17:05	Madeline Gruver	2197197