

Chemical Analysis Report

NE-DIST-2020-02-21-02

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

Event Description: **St. Augustine**
Request ID: **RQ-2020-02-17-58**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 16-MAR-2020 10:42



Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Red House BR @ Lewis Speedway

Collection Date/Time: 02/20/2020 09:40

Field ID: 27010059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160056	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P379383	
	EPA 300.0 Rev. 2.1	Chloride	1.1E+03		mg Cl/L	P380075	
		Sulfate	150		mg SO4/L	P380077	
	SM 2120 B-2011	Color (true)	64	A	PCU	P379517	
	SM 2320 B-2011	Total Alkalinity	207		mg CaCO3/L	P380173	
	SM 2540 C-2011	TDS	1.97E+03		mg/L	P379924	
	SM 2540 D-2011	TSS	4	I	mg/L	P379827	
	SM 4500 F-C-2011	Fluoride	0.14		mg F/L	P380176	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.037		mg N/L	P379808	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P379647	
2160057	EPA 353.2 Rev. 2.0	NO2NO3-N	0.091		mg N/L	P380155	
	EPA 365.1 Rev. 2.0	Total-P	0.082		mg P/L	P379989	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P379637	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.046		mg P/L	P379441	
	dissolved						
2160072	EPA 8321B	Aldicarb	0.020	U	ug/L	P379532	
		Aldicarb Sulfone	0.0020	U	ug/L	P379532	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P379532	
		Carbaryl	0.0020	U	ug/L	P379532	
		Carbofuran	0.0020	U	ug/L	P379532	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P379532	
		Methiocarb	0.0020	U	ug/L	P379532	
		Methomyl	0.0020	U	ug/L	P379532	
		Oxamyl	0.0020	U	ug/L	P379532	
		Propoxur	0.0020	U	ug/L	P379532	
2160073		2,4-D	0.033	J	ug/L	P379532	MS
		Acesulfame K**	0.10	UJ	ug/L	P379465	MS
		AMPA**	0.10	UJ	ug/L	P379465	MS
		Sucralose**	0.076	J	ug/L	P379465	MS
		Acetaminophen**	0.0080	U	ug/L	P379532	
		Acetamiprid**	0.0020	U	ug/L	P379532	
		Endothall**	0.25	U	ug/L	P379465	
		Glufosinate**	0.10	U	ug/L	P379465	
		Glyphosate**	0.19	I	ug/L	P379465	
		Afidopyropen**	0.0020	UJ	ug/L	P379532	
		Bentazon	0.064		ug/L	P379532	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379532	
		Carbamazepine**	8.0E-04	U	ug/L	P379532	
		Clothianidin**	0.0020	U	ug/L	P379532	
		Dinotefuran**	0.0020	U	ug/L	P379532	
		Diuron	0.0025	I	ug/L	P379532	
		Fenuron	0.016	U	ug/L	P379532	
		Fluridone**	0.028		ug/L	P379532	
		Imazapyr**	0.42		ug/L	P379532	

Field ID: 27010059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160073	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P379532	
		Ibuprofen**	0.020	U	ug/L	P379532	
		Imidacloprid	0.022	J	ug/L	P379532	MS
		Linuron	0.0040	U	ug/L	P379532	
		Mandestrobin**	0.0020	UJ	ug/L	P379532	
		MCP	0.0020	UJ	ug/L	P379532	LCS, MS
		Naproxen**	0.0080	U	ug/L	P379532	
		Primidone**	0.0040	U	ug/L	P379532	
		Pyraclostrobin**	0.0020	U	ug/L	P379532	
		Thiamethoxam**	0.0020	U	ug/L	P379532	
		Tolfenpyrad**	0.0020	U	ug/L	P379532	
		Triclopyr**	0.0040	U	ug/L	P379532	
2160074	EPA 8270E	Aldrin	4.2	U	ng/L	P379617	
		Alpha-BHC	2.1	U	ng/L	P379617	
		Alpha-Chlordane	1.1	U	ng/L	P379617	
		Beta-BHC	11	U	ng/L	P379617	
		Beta-Cyfluthrin**	16	U	ng/L	P379617	
		Bifenthrin**	4.2	U	ng/L	P379617	
		Delta-BHC	8.5	U	ng/L	P379617	
		Gamma-BHC	8.5	U	ng/L	P379617	
		Chlorothalonil	2.1	U	ng/L	P379617	
		Cis-Nonachlor**	1.1	U	ng/L	P379617	
		Cypermethrin	21	U	ng/L	P379617	
		Dacthal**	1.1	U	ng/L	P379617	
		DDD-p,p'	6.4	U	ng/L	P379617	
		DDE-p,p'	6.4	U	ng/L	P379617	
		DDT-p,p'	7.4	U	ng/L	P379617	
		Dicofol	32	U	ng/L	P379617	MS, RPD
		Dieldrin	4.2	U	ng/L	P379617	
		Endosulfan I	4.2	U	ng/L	P379617	
		Endosulfan II	4.2	U	ng/L	P379617	
		Endosulfan Sulfate	2.1	U	ng/L	P379617	
		Endrin	2.1	U	ng/L	P379617	
		Endrin Aldehyde	2.1	U	ng/L	P379617	MS
		Endrin Ketone	2.1	U	ng/L	P379617	
		Ethalfuralin**	3.2	U	ng/L	P379617	
		Gamma-Chlordane	1.1	U	ng/L	P379617	
		Heptachlor	1.6	U	ng/L	P379617	
		Heptachlor Epoxide	2.1	U	ng/L	P379617	
		Hexachlorobenzene	2.1	U	ng/L	P379617	
		Lambda-Cyhalothrin**	16	U	ng/L	P379617	
		Methoxychlor	4.2	U	ng/L	P379617	
		Mirex	2.1	U	ng/L	P379617	
		Permethrin	11	U	ng/L	P379617	
		Phenothrin**	32	UJ	ng/L	P379617	LCS

Field ID: 27010059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160074	EPA 8270E	Prallethrin**	32	U	ng/L	P379617	
		Trans-Nonachlor**	1.1	U	ng/L	P379617	
		Trifluralin	2.6	U	ng/L	P379617	MS
		Chlordane	5.3	U	ng/L	P379617	
		Toxaphene	32	UJ	ng/L	P379617	CCV
2160075	EPA 8270E	Acetochlor	0.24	U	ng/L	P379639	
		Alachlor	0.24	U	ng/L	P379639	
		Ametryn	1.2	I	ng/L	P379639	
		Atrazine	31		ng/L	P379639	
		Atrazine Desethyl	4.4	I	ng/L	P379639	
		Azinphos Methyl	4.8	U	ng/L	P379639	
		Bromacil	0.48	U	ng/L	P379639	
		Butylate	0.38	UJ	ng/L	P379639	RPD
		Carbophenothion	0.48	U	ng/L	P379639	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P379639	
		Chlorpyrifos Methyl	0.048	U	ng/L	P379639	
		Cyanazine	3.1	U	ng/L	P379639	
		Demeton	6.7	U	ng/L	P379639	
		Diazinon	0.12	U	ng/L	P379639	
		Dimethenamid**	0.095	U	ng/L	P379639	
		Disulfoton	0.48	U	ng/L	P379639	
		Dithiopyr**	0.24	I	ng/L	P379639	
		EPTC	1.2	UJ	ng/L	P379639	LCS, RPD
		Ethion	0.14	U	ng/L	P379639	
		Ethoprop	0.095	U	ng/L	P379639	
		Fenamiphos	0.48	U	ng/L	P379639	
		Fipronil	0.24	U	ng/L	P379639	
		Fipronil Desulfinyl**	0.16	I	ng/L	P379639	
		Fipronil Sulfide	0.75		ng/L	P379639	
		Fipronil Sulfone	1.1		ng/L	P379639	
		Flumioxazin**	1.7	U	ng/L	P379639	
		Fonofos	0.19	U	ng/L	P379639	
		Hexazinone	0.89	I	ng/L	P379639	
		Imazalil**	0.71	U	ng/L	P379639	
		Malathion	0.33	U	ng/L	P379639	
		Metalaxyl	0.71	U	ng/L	P379639	
		Metolachlor	0.48	U	ng/L	P379639	
		Metribuzin	3.1	U	ng/L	P379639	
		Mevinphos	0.48	U	ng/L	P379639	
		Molinate	0.29	U	ng/L	P379639	
		Norflurazon	0.48	U	ng/L	P379639	
		Oxadiazon**	0.91		ng/L	P379639	
		Parathion Ethyl	0.24	U	ng/L	P379639	
		Parathion Methyl	0.52	U	ng/L	P379639	
		Pendimethalin	0.95	U	ng/L	P379639	

Field ID: 27010059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160075	EPA 8270E	Phorate	0.24	U	ng/L	P379639	
		Prodiamine**	0.17	U	ng/L	P379639	
		Prometon	0.86	U	ng/L	P379639	
		Prometryn	0.19	U	ng/L	P379639	
		Pronamide**	0.28	I	ng/L	P379639	
		Propiconazole**	2.0		ng/L	P379639	
		Simazine	10		ng/L	P379639	
		Sulfentrazone**	15	J	ng/L	P379639	LCS
		Tebuconazole**	0.48	U	ng/L	P379639	
		Terbufos	0.095	U	ng/L	P379639	
		Terbuthylazine	0.40	U	ng/L	P379639	

Ref. Method and Comment:

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

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

Sample Location: Moultrie Creek @ US 1

Collection Date/Time: 02/20/2020 11:15

Field ID: 27010055

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160059	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P379383	
	EPA 300.0 Rev. 2.1	Bromide	62		mg Br/L	P379838	
	SM 2320 B-2011	Total Alkalinity	123		mg CaCO3/L	P379903	
	SM 2540 D-2011	TSS	10		mg/L	P379829	
	SM 4500 F-C-2011	Fluoride	1.0		mg F/L	P380180	
2160060	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P379809	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39	I	mg N/L	P379623	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.016		mg N/L	P379698	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P379987	
	SM 5310 B-2011	Organic Carbon	4.5		mg C/L	P379591	
2160061	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.025		mg P/L	P379440	
2160076	EPA 200.7 Rev. 4.4	Iron	120	U	ug/L	P379691	
		Manganese	15	I	ug/L	P379691	
		Zinc	20	U	ug/L	P379691	
		Aluminum	326		ug/L	P379691	
	EPA 200.8 Rev. 5.4	Antimony	0.20	U	ug/L	P379691	
		Arsenic	2.27		ug/L	P379691	
		Cadmium	0.080	U	ug/L	P379691	
		Chromium	1.6	U	ug/L	P379691	
		Copper	1.6	U	ug/L	P379691	
		Lead	0.80	U	ug/L	P379691	
		Nickel	2.0	U	ug/L	P379691	
		Selenium	0.80	U	ug/L	P379691	
		Silver	0.10	U	ug/L	P380290	
		Thallium	1.0	U	ug/L	P379691	

Sample Location: Salt Run Offshore From Lighthouse

Collection Date/Time: 02/20/2020 10:30

Field ID: 27010138

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2160062	EPA 180.1 Rev. 2.0	Turbidity	5.3		NTU	P379383	
	EPA 300.0 Rev. 2.1	Bromide	69		mg Br/L	P379838	
		Sulfate	2.5E+03		mg SO4/L	P380077	
	SM 2320 B-2011	Total Alkalinity	132		mg CaCO3/L	P379903	
	SM 2540 D-2011	TSS	10	I	mg/L	P379829	
	SM 4500 F-C-2011	Fluoride	1.2		mg F/L	P380180	
2160063	EPA 350.1 Rev. 2.0	Ammonia-N	0.054		mg N/L	P379809	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P379623	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P379699	
	EPA 365.1 Rev. 2.0	Total-P	0.065		mg P/L	P379987	
	SM 5310 B-2011	Organic Carbon	2.5		mg C/L	P379591	
2160064	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P379440	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379383

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379691

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379691

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	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
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380290

Component	Result	Code	Units
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379838

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380075

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380077

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379808

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379809

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379623

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379647

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379698

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379699

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380155

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379987

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379989

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379440

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379441

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

Reference Method: EPA 8270E
Batch ID: P379617

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	10	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'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	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
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Prallethrin	30	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P379639

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	5.0	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	7.0	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
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276
Batch ID: P379617

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

Reference Method: EPA 8321B
Batch ID: P379465

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: P379532

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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P379532

Component	Result	Code	Units
Tricopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P379517

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P379903

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

Reference Method: SM 2320 B-2011
Batch ID: P380173

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

Reference Method: SM 2540 C-2011
Batch ID: P379924

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379827

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379829

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P380176

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P380180

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P379591

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2011
Batch ID: P379637

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: P379691

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	108		P	85 - 115
Manganese	110		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379691

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	93.4		P	85 - 115
Antimony	93.5		P	85 - 115
Arsenic	91.2		P	85 - 115
Cadmium	92.4		P	85 - 115
Chromium	93.8		P	85 - 115
Copper	95.0		P	85 - 115
Lead	91.8		P	85 - 115
Nickel	93.5		P	85 - 115
Selenium	89.1		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380290

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	99.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379838

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380075

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380077

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379808

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379809

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379623

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379647

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379698

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379699

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380155

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: P379987

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379989

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379440

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379441

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

Reference Method: EPA 8270E
Batch ID: P379617

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	37.3	37.2	P/P	20 - 87.0
Alpha-BHC	86.1	85.3	P/P	65 - 142
Alpha-Chlordane	81.9	83.4	P/P	58 - 106
Beta-BHC	103	107	P/P	65 - 179
Beta-Cyfluthrin	80.4	81.1	P/P	50 - 150
Bifenthrin	77.0	77.6	P/P	38 - 128
Chlorothalonil	87.5	76.6	P/P	20 - 214
Cis-Nonachlor	82.4	86.0	P/P	56 - 113
Cypermethrin	84.0	83.7	P/P	37 - 130
Dacthal	86.5	88.4	P/P	50 - 150
DDD-p,p'	89.7	94.5	P/P	66 - 119
DDE-p,p'	80.0	83.2	P/P	53 - 108
DDT-p,p'	75.6	76.5	P/P	57 - 133
Delta-BHC	101	105	P/P	68 - 187
Dicofol	83.7	81.8	P/P	66 - 123
Dieldrin	88.9	89.1	P/P	65 - 111
Endosulfan I	97.1	101	P/P	65 - 115
Endosulfan II	94.6	98.8	P/P	68 - 133
Endosulfan Sulfate	93.5	92.3	P/P	62 - 127
Endrin	90.1	94.9	P/P	64 - 122
Endrin Aldehyde	106	111	P/P	61 - 132
Endrin Ketone	89.0	90.1	P/P	66 - 120
Ethalfuralin	77.8	73.1	P/P	57 - 127
Gamma-BHC	103	103	P/P	71 - 158
Gamma-Chlordane	78.0	79.2	P/P	53 - 106
Heptachlor	72.4	71.3	P/P	45 - 96.0
Heptachlor Epoxide	85.4	85.7	P/P	64 - 109
Hexachlorobenzene	67.9	68.4	P/P	46 - 103
Lambda-Cyhalothrin	75.1	73.4	P/P	50 - 150
Methoxychlor	89.7	89.9	P/P	69 - 149
Mirex	67.3	66.7	P/P	31 - 90.0
Permethrin	75.3	76.0	P/P	41 - 108
Phenothrin	49.3	50.3	F/P	50 - 150
Prallethrin	51.9	55.8	P/P	40 - 140
Trans-Nonachlor	80.2	82.1	P/P	50 - 107
Trifluralin	78.9	78.5	P/P	58 - 119

Reference Method: EPA 8270E
Batch ID: P379639

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	90.1	89.6	P/P	71 - 122
Alachlor	91.9	91.9	P/P	70 - 121
Ametryn	99.0	96.5	P/P	49 - 137
Atrazine	99.5	100	P/P	76 - 125
Atrazine Desethyl	76.5	82.9	P/P	31 - 144

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P379639

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Azinphos Methyl	130	134	P/P	67 - 150
Bromacil	65.1	72.2	P/P	36 - 121
Butylate	33.1	64.7	P/P	33 - 88.0
Carbophenothion	105	108	P/P	50 - 150
Chlorpyrifos Ethyl	98.7	102	P/P	73 - 117
Chlorpyrifos Methyl	99.2	98.1	P/P	68 - 121
Cyanazine	103	98.8	P/P	20 - 250
Demeton	77.1	87.3	P/P	30 - 123
Diazinon	89.2	88.2	P/P	70 - 128
Dimethenamid	88.3	90.2	P/P	66 - 122
Disulfoton	81.6	88.8	P/P	46 - 124
Dithiopyr	88.8	88.3	P/P	69 - 122
EPTC	20.7	53.8	F/P	31 - 90.0
Ethion	102	108	P/P	45 - 135
Ethoprop	84.8	88.5	P/P	59 - 118
Fenamiphos	99.4	99.3	P/P	30 - 136
Fipronil	87.8	91.9	P/P	57 - 127
Fipronil Desulfinyl	92.4	93.9	P/P	51 - 122
Fipronil Sulfide	85.8	82.3	P/P	57 - 119
Fipronil Sulfone	87.0	92.4	P/P	51 - 119
Flumioxazin	82.6	99.5	P/P	70 - 200
Fonofos	91.0	91.1	P/P	60 - 120
Hexazinone	100	101	P/P	57 - 142
Imazalil	83.6	85.0	P/P	50 - 150
Malathion	109	112	P/P	67 - 128
Metalaxyl	95.1	94.6	P/P	21 - 148
Metolachlor	89.7	91.0	P/P	70 - 120
Metribuzin	136	124	P/P	20 - 253
Mevinphos	87.0	93.1	P/P	47 - 116
Molinate	56.4	72.9	P/P	41 - 99.0
Norflurazon	90.3	89.9	P/P	54 - 127
Oxadiazon	91.7	90.7	P/P	65 - 122
Parathion Ethyl	93.1	91.9	P/P	71 - 113
Parathion Methyl	105	104	P/P	73 - 129
Pendimethalin	89.3	90.8	P/P	63 - 130
Phorate	83.9	78.3	P/P	48 - 118
Prodiamine	52.5	57.1	P/P	20 - 144
Prometon	88.1	93.0	P/P	53 - 120
Prometryn	91.3	90.9	P/P	63 - 119
Pronamide	96.4	102	P/P	50 - 150
Propiconazole	86.8	88.4	P/P	50 - 150
Simazine	95.6	100	P/P	77 - 129
Sulfentrazone	20.0	21.1	F/F	50 - 150
Tebuconazole	63.7	66.9	P/P	20 - 118
Terbufos	88.5	92.4	P/P	61 - 119
Terbutylazine	92.5	92.4	P/P	75 - 119

Reference Method: EPA 8276
Batch ID: P379617

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	97.6	95.7	P/P	47 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P379617

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	103	103	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P379465

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	103		P	40 - 150
AMPA	81.8		P	40 - 150
Endothall	97.8		P	40 - 150
Glufosinate	119		P	40 - 150
Glyphosate	105		P	40 - 140
Sucralose	120		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379532

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	144		P	30 - 160
3-Hydroxycarbofuran	75.7		P	30 - 160
Acetaminophen	81.7		P	30 - 160
Acetamiprid	88.6		P	30 - 160
Afidopyropen	80.5		P	30 - 160
Aldicarb	131		P	30 - 160
Aldicarb Sulfone	86.0		P	30 - 160
Aldicarb Sulfoxide	85.8		P	30 - 160
Bentazon	109		P	30 - 160
Benzovindiflupyr	81.7		P	30 - 160
Carbamazepine	97.2		P	30 - 160
Carbaryl	60.8		P	30 - 160
Carbofuran	65.3		P	30 - 160
Clothianidin	84.2		P	30 - 160
Dinotefuran	78.6		P	30 - 160
Diuron	75.3		P	30 - 160
Fenuron	97.6		P	30 - 160
Fluridone	94.5		P	30 - 160
Hydrocodone	83.3		P	30 - 160
Ibuprofen	73.7		P	30 - 160
Imazapyr	79.0		P	30 - 160
Imidacloprid	86.0		P	30 - 160
Linuron	68.4		P	30 - 160
Mandestrobin	91.6		P	30 - 160
MCPP	167		F	30 - 160
Methiocarb	61.8		P	30 - 160
Methomyl	76.1		P	30 - 160
Naproxen	99.4		P	30 - 160
Oxamyl	76.9		P	30 - 160
Primidone	91.9		P	30 - 160
Propoxur	65.5		P	30 - 160
Pyraclostrobin	78.1		P	30 - 160
Thiamethoxam	88.3		P	30 - 160
Tolfenpyrad	51.5		P	30 - 160
Triclopyr	131		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P379517

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P379903

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 2320 B-2011
Batch ID: P380173

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P380176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	92 - 103

Reference Method: SM 4500 F-C-2011
Batch ID: P380180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P379591

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.6		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P379637

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160160	Iron	98.3		P	70 - 130
2160160	Manganese	99.8		P	70 - 130
2160160	Zinc	102		P	70 - 130
2160188	Iron	101	98.8	P/P	70 - 130
2160188	Manganese	100	97.4	P/P	70 - 130
2160188	Zinc	106	104	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379691

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160160	Aluminum	116		P	70 - 130
2160160	Antimony	102		P	70 - 130
2160160	Arsenic	113		P	70 - 130
2160160	Cadmium	97.8		P	70 - 130
2160160	Chromium	98.1		P	70 - 130
2160160	Copper	116		P	70 - 130
2160160	Lead	107		P	70 - 130
2160160	Nickel	116		P	70 - 130
2160160	Selenium	102		P	70 - 130
2160160	Thallium	112		P	70 - 130
2160188	Aluminum	104	106	P/P	70 - 130
2160188	Antimony	97.5	101	P/P	70 - 130
2160188	Arsenic	110	110	P/P	70 - 130
2160188	Cadmium	97.0	101	P/P	70 - 130
2160188	Chromium	97.9	104	P/P	70 - 130
2160188	Copper	105	110	P/P	70 - 130
2160188	Lead	101	104	P/P	70 - 130
2160188	Nickel	108	113	P/P	70 - 130
2160188	Selenium	103	104	P/P	70 - 130
2160188	Thallium	106	105	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380290

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158865	Silver	101	104	P/P	70 - 130
2160419	Silver	103		P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379838

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159821	Bromide	98.2	98.7	P/P	90 - 110
2159829	Bromide	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380075

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160190	Chloride	99.9		P	90 - 110
2160192	Chloride	95.8		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160190	Sulfate	101		P	90 - 110
2160192	Sulfate	96.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379808

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159963	Ammonia-N	98.1	96.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159442	Ammonia-N	99.6	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379623

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160060	Kjeldahl Nitrogen	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379647

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160057	Kjeldahl Nitrogen	107	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379698

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159529	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379699

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160063	NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380155

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159964	NO2NO3-N	96.1	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159766	Total-P	100	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P379989

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159975	Total-P	107	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P379440

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159910	O-Phosphate-P	98.8	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P379441

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160058	O-Phosphate-P	97.3	96.9	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P379617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160023	Aldrin	48.6	48.4	P/P	32 - 82.0
2160023	Alpha-BHC	85.8	84.6	P/P	68 - 157
2160023	Alpha-Chlordane	79.0	77.5	P/P	54 - 108
2160023	Beta-BHC	63.8	67.7	P/P	54 - 200
2160023	Beta-Cyfluthrin	98.5	103	P/P	50 - 150
2160023	Bifenthrin	121	115	P/P	49 - 124
2160023	Chlorothalonil	151	152	P/P	10 - 289
2160023	Cis-Nonachlor	78.0	80.6	P/P	53 - 112
2160023	Cypermethrin	92.2	98.0	P/P	43 - 141
2160023	Dacthal	83.3	84.8	P/P	50 - 150
2160023	DDD-p,p'	89.4	93.0	P/P	58 - 125
2160023	DDE-p,p'	75.8	75.3	P/P	50 - 108
2160023	DDT-p,p'	67.9	67.6	P/P	52 - 140
2160023	Delta-BHC	115	116	P/P	61 - 228
2160023	Dicofol	199	293	F/F	59 - 130
2160023	Dieldrin	81.9	84.1	P/P	57 - 121
2160023	Endosulfan I	105	95.3	P/P	62 - 123
2160023	Endosulfan II	81.5	89.9	P/P	48 - 163
2160023	Endosulfan Sulfate	108	108	P/P	63 - 132
2160023	Endrin	84.8	81.4	P/P	58 - 128
2160023	Endrin Aldehyde	36.6	33.8	F/F	44 - 126
2160023	Endrin Ketone	80.5	85.4	P/P	68 - 127
2160023	Ethalfuralin	89.8	89.0	P/P	55 - 131
2160023	Gamma-BHC	144	141	P/P	54 - 206
2160023	Gamma-Chlordane	73.4	75.0	P/P	52 - 105
2160023	Heptachlor	70.2	69.4	P/P	47 - 94.0
2160023	Heptachlor Epoxide	80.7	82.6	P/P	61 - 113
2160023	Hexachlorobenzene	63.5	63.1	P/P	45 - 100
2160023	Lambda-Cyhalothrin	94.6	102	P/P	50 - 150
2160023	Methoxychlor	76.4	73.5	P/P	63 - 153
2160023	Mirex	66.1	66.0	P/P	38 - 90.0
2160023	Permethrin	88.4	93.1	P/P	45 - 112
2160023	Phenothrin	84.6	88.5	P/P	50 - 150
2160023	Prallethrin	74.4	76.6	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P379617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160023	Trans-Nonachlor	71.9	71.2	P/P	50 - 103
2160023	Trifluralin	144	137	F/F	57 - 122

Reference Method: EPA 8270E
Batch ID: P379639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160075	Acetochlor	90.0	82.5	P/P	68 - 126
2160075	Alachlor	94.7	85.6	P/P	66 - 125
2160075	Ametryn	81.0	80.4	P/P	31 - 182
2160075	Atrazine Desethyl	57.1	66.9	P/P	13 - 161
2160075	Azinphos Methyl	137	131	P/P	54 - 162
2160075	Bromacil	75.0	75.4	P/P	34 - 144
2160075	Butylate	34.9	26.9	P/P	16 - 92.0
2160075	Carbophenothion	99.1	101	P/P	50 - 150
2160075	Chlorpyrifos Ethyl	105	109	P/P	63 - 124
2160075	Chlorpyrifos Methyl	98.2	94.9	P/P	64 - 125
2160075	Cyanazine	97.2	98.6	P/P	13 - 245
2160075	Demeton	89.7	90.0	P/P	20 - 154
2160075	Diazinon	90.6	89.3	P/P	66 - 141
2160075	Dimethenamid	91.5	86.4	P/P	50 - 130
2160075	Disulfoton	90.2	91.7	P/P	55 - 130
2160075	Dithiopyr	94.7	91.6	P/P	66 - 122
2160075	EPTC	29.7	20.5	P/P	15 - 93.0
2160075	Ethion	96.5	103	P/P	15 - 148
2160075	Ethoprop	93.3	95.0	P/P	59 - 126
2160075	Fenamiphos	87.2	101	P/P	39 - 137
2160075	Fipronil	92.2	89.6	P/P	47 - 131
2160075	Fipronil Desulfinyl	92.3	91.6	P/P	43 - 121
2160075	Fipronil Sulfide	80.1	82.5	P/P	29 - 134
2160075	Fipronil Sulfone	84.4	88.1	P/P	19 - 131
2160075	Flumioxazin	133	133	P/P	70 - 200
2160075	Fonofos	83.1	89.6	P/P	62 - 128
2160075	Hexazinone	98.9	99.7	P/P	58 - 154
2160075	Imazalil	123	125	P/P	50 - 150
2160075	Malathion	111	110	P/P	54 - 135
2160075	Metalaxyl	93.2	89.1	P/P	46 - 136
2160075	Metolachlor	93.9	89.2	P/P	62 - 126
2160075	Metribuzin	186	177	P/P	44 - 277
2160075	Mevinphos	91.9	88.7	P/P	44 - 135
2160075	Molinate	63.3	53.8	P/P	31 - 104
2160075	Norflurazon	83.1	83.2	P/P	32 - 134
2160075	Oxadiazon	90.5	83.6	P/P	55 - 123
2160075	Parathion Ethyl	97.8	95.1	P/P	67 - 120
2160075	Parathion Methyl	105	102	P/P	70 - 140
2160075	Pendimethalin	88.7	72.0	P/P	59 - 145
2160075	Phorate	86.3	89.6	P/P	52 - 127
2160075	Prodiamine	108	106	P/P	11 - 157
2160075	Prometon	89.5	89.0	P/P	55 - 130
2160075	Prometryn	92.1	89.7	P/P	55 - 127
2160075	Pronamide	79.9	87.5	P/P	50 - 150
2160075	Propiconazole	79.0	71.3	P/P	50 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P379639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160075	Tebuconazole	60.0	59.4	P/P	10 - 122
2160075	Terbufos	95.9	95.5	P/P	65 - 131
2160075	Terbutylazine	93.5	95.5	P/P	63 - 131

Reference Method: EPA 8276
Batch ID: P379617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159939	Chlordane	102	100	P/P	34 - 129
2159939	Toxaphene	101	103	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P379465

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160073	Acesulfame K	24.2	24.9	F/F	40 - 150
2160073	AMPA	11.4	9.71	F/F	40 - 150
2160073	Endothall	114	112	P/P	40 - 150
2160073	Glufosinate	57.8	57.7	P/P	40 - 150
2160073	Glyphosate	51.9	52.0	P/P	40 - 140
2160073	Sucralose	32.2	35.6	F/F	40 - 150

Reference Method: EPA 8321B
Batch ID: P379532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160072	3-Hydroxycarbofuran	64.2	70.9	P/P	30 - 160
2160072	Aldicarb	39.3	37.0	P/P	30 - 160
2160072	Aldicarb Sulfone	80.6	86.5	P/P	30 - 160
2160072	Aldicarb Sulfoxide	37.8	39.5	P/P	30 - 160
2160072	Carbaryl	53.9	53.5	P/P	30 - 160
2160072	Carbofuran	51.8	49.7	P/P	30 - 160
2160072	Methiocarb	53.8	57.9	P/P	30 - 160
2160072	Methomyl	67.0	64.0	P/P	30 - 160
2160072	Oxamyl	62.5	66.2	P/P	30 - 160
2160072	Propoxur	52.0	57.7	P/P	30 - 160
2160073	2,4-D	164	154	F/P	30 - 160
2160073	Acetaminophen	70.9	69.4	P/P	30 - 160
2160073	Acetamiprid	106	80.9	P/P	30 - 160
2160073	Afidopyropen	103	92.0	P/P	30 - 160
2160073	Benzovindiflupyr	85.8	79.2	P/P	30 - 160
2160073	Carbamazepine	100	76.9	P/P	30 - 160
2160073	Clothianidin	95.0	93.7	P/P	30 - 160
2160073	Dinotefuran	113	112	P/P	30 - 160
2160073	Diuron	69.4	65.2	P/P	30 - 160
2160073	Fenuron	79.4	72.4	P/P	30 - 160
2160073	Hydrocodone	100	99.3	P/P	30 - 160
2160073	Ibuprofen	77.2	76.9	P/P	30 - 160
2160073	Imidacloprid	180	152	F/P	30 - 160
2160073	Linuron	69.6	69.4	P/P	30 - 160
2160073	Mandestrobin	92.8	84.7	P/P	30 - 160
2160073	MCP	181	164	F/F	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P379532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160073	Naproxen	121	93.9	P/P	30 - 160
2160073	Primidone	90.7	80.4	P/P	30 - 160
2160073	Pyraclostrobin	83.6	78.3	P/P	30 - 160
2160073	Thiamethoxam	140	139	P/P	30 - 160
2160073	Tolfenpyrad	55.9	50.2	P/P	30 - 160
2160073	Triclopyr	155	122	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P380176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160190	Fluoride	103	102	P/P	89 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P380180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160182	Fluoride	100	100	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P379591

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160032	Organic Carbon	101	99.7	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P379637

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159960	Organic Carbon	98.8		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379383

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160029	Turbidity	13.6	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160188	Iron	2.24	Spike	P	0 - 20
2160188	Manganese	2.66	Spike	P	0 - 20
2160188	Zinc	1.60	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379691

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160188	Aluminum	2.35	Spike	P	0 - 20
2160188	Antimony	3.87	Spike	P	0 - 20
2160188	Arsenic	0.749	Spike	P	0 - 20
2160188	Cadmium	4.46	Spike	P	0 - 20
2160188	Chromium	5.67	Spike	P	0 - 20
2160188	Copper	4.13	Spike	P	0 - 20
2160188	Lead	2.54	Spike	P	0 - 20
2160188	Nickel	4.35	Spike	P	0 - 20
2160188	Selenium	1.29	Spike	P	0 - 20
2160188	Thallium	0.549	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P380290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158865	Silver	3.07	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379838

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159821	Bromide	0.428	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160190	Chloride	0.686	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160190	Sulfate	0.355	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159963	Ammonia-N	1.50	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159442	Ammonia-N	0.464	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160060	Kjeldahl Nitrogen	0.349	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160057	Kjeldahl Nitrogen	0.856	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379698

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159529	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P379699

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160063	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380155

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159964	NO2NO3-N	0.499	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159766	Total-P	0.994	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159975	Total-P	0.717	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379440

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159910	O-Phosphate-P	1.32	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379441

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160058	O-Phosphate-P	0.279	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P379617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160023	Aldrin	0.263	Spike	P	0 - 30
2160023	Alpha-BHC	1.46	Spike	P	0 - 30
2160023	Alpha-Chlordane	1.90	Spike	P	0 - 30
2160023	Beta-BHC	5.89	Spike	P	0 - 30
2160023	Beta-Cyfluthrin	4.70	Spike	P	0 - 30
2160023	Bifenthrin	4.73	Spike	P	0 - 30
2160023	Chlorothalonil	0.387	Spike	P	0 - 30
2160023	Cis-Nonachlor	3.28	Spike	P	0 - 30
2160023	Cypermethrin	6.13	Spike	P	0 - 30
2160023	Dacthal	1.76	Spike	P	0 - 30
2160023	DDD-p,p'	3.96	Spike	P	0 - 30
2160023	DDE-p,p'	0.657	Spike	P	0 - 30
2160023	DDT-p,p'	0.440	Spike	P	0 - 30
2160023	Delta-BHC	0.673	Spike	P	0 - 30
2160023	Dicofol	38.2	Spike	F	0 - 30
2160023	Dieldrin	2.66	Spike	P	0 - 30
2160023	Endosulfan I	9.70	Spike	P	0 - 30
2160023	Endosulfan II	9.76	Spike	P	0 - 30
2160023	Endosulfan Sulfate	0.169	Spike	P	0 - 30
2160023	Endrin	4.15	Spike	P	0 - 30
2160023	Endrin Aldehyde	7.88	Spike	P	0 - 30
2160023	Endrin Ketone	5.84	Spike	P	0 - 30
2160023	Ethalfuralin	0.925	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P379617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160023	Gamma-BHC	2.20	Spike	P	0 - 30
2160023	Gamma-Chlordane	2.11	Spike	P	0 - 30
2160023	Heptachlor	1.11	Spike	P	0 - 30
2160023	Heptachlor Epoxide	2.23	Spike	P	0 - 30
2160023	Hexachlorobenzene	0.734	Spike	P	0 - 30
2160023	Lambda-Cyhalothrin	7.21	Spike	P	0 - 30
2160023	Methoxychlor	3.82	Spike	P	0 - 30
2160023	Mirex	0.112	Spike	P	0 - 30
2160023	Permethrin	5.16	Spike	P	0 - 30
2160023	Phenothrin	4.44	Spike	P	0 - 30
2160023	Prallethrin	2.89	Spike	P	0 - 30
2160023	Trans-Nonachlor	0.918	Spike	P	0 - 30
2160023	Trifluralin	5.27	Spike	P	0 - 30
LFB	Aldrin	0.526	LCS	P	0 - 30
LFB	Alpha-BHC	0.932	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.79	LCS	P	0 - 30
LFB	Beta-BHC	3.15	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	0.829	LCS	P	0 - 30
LFB	Bifenthrin	0.750	LCS	P	0 - 30
LFB	Chlorothalonil	13.3	LCS	P	0 - 30
LFB	Cis-Nonachlor	4.23	LCS	P	0 - 30
LFB	Cypermethrin	0.303	LCS	P	0 - 30
LFB	Dacthal	2.21	LCS	P	0 - 30
LFB	DDD-p,p'	5.18	LCS	P	0 - 30
LFB	DDE-p,p'	3.93	LCS	P	0 - 30
LFB	DDT-p,p'	1.21	LCS	P	0 - 30
LFB	Delta-BHC	4.23	LCS	P	0 - 30
LFB	Dicofol	2.33	LCS	P	0 - 30
LFB	Dieldrin	0.215	LCS	P	0 - 30
LFB	Endosulfan I	3.96	LCS	P	0 - 30
LFB	Endosulfan II	4.28	LCS	P	0 - 30
LFB	Endosulfan Sulfate	1.22	LCS	P	0 - 30
LFB	Endrin	5.14	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.31	LCS	P	0 - 30
LFB	Endrin Ketone	1.21	LCS	P	0 - 30
LFB	Ethalfuralin	6.32	LCS	P	0 - 30
LFB	Gamma-BHC	0.875	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.52	LCS	P	0 - 30
LFB	Heptachlor	1.45	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.361	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.757	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	2.25	LCS	P	0 - 30
LFB	Methoxychlor	0.255	LCS	P	0 - 30
LFB	Mirex	0.779	LCS	P	0 - 30
LFB	Permethrin	0.939	LCS	P	0 - 30
LFB	Phenothrin	1.97	LCS	P	0 - 30
LFB	Prallethrin	7.13	LCS	P	0 - 30
LFB	Trans-Nonachlor	2.33	LCS	P	0 - 30
LFB	Trifluralin	0.530	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P379639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160075	Acetochlor	8.62	Spike	P	0 - 30
2160075	Alachlor	10.2	Spike	P	0 - 30
2160075	Ametryn	0.544	Spike	P	0 - 30
2160075	Atrazine	6.69	Spike	P	0 - 30
2160075	Atrazine Desethyl	10.9	Spike	P	0 - 30
2160075	Azinphos Methyl	4.18	Spike	P	0 - 30
2160075	Bromacil	0.560	Spike	P	0 - 30
2160075	Butylate	25.8	Spike	P	0 - 30
2160075	Carbophenothion	2.32	Spike	P	0 - 30
2160075	Chlorpyrifos Ethyl	3.90	Spike	P	0 - 30
2160075	Chlorpyrifos Methyl	3.43	Spike	P	0 - 30
2160075	Cyanazine	1.47	Spike	P	0 - 30
2160075	Demeton	0.304	Spike	P	0 - 30
2160075	Diazinon	1.50	Spike	P	0 - 30
2160075	Dimethenamid	5.72	Spike	P	0 - 30
2160075	Disulfoton	1.66	Spike	P	0 - 30
2160075	Dithiopyr	3.06	Spike	P	0 - 30
2160075	EPTC	36.7	Spike	F	0 - 30
2160075	Ethion	6.52	Spike	P	0 - 30
2160075	Ethoprop	1.86	Spike	P	0 - 30
2160075	Fenamiphos	14.8	Spike	P	0 - 30
2160075	Fipronil	2.94	Spike	P	0 - 30
2160075	Fipronil Desulfinyl	0.635	Spike	P	0 - 30
2160075	Fipronil Sulfide	2.04	Spike	P	0 - 30
2160075	Fipronil Sulfone	2.57	Spike	P	0 - 30
2160075	Flumioxazin	0.295	Spike	P	0 - 30
2160075	Fonofos	7.55	Spike	P	0 - 30
2160075	Hexazinone	0.757	Spike	P	0 - 30
2160075	Imazalil	1.71	Spike	P	0 - 30
2160075	Malathion	0.485	Spike	P	0 - 30
2160075	Metalaxyl	4.41	Spike	P	0 - 30
2160075	Metolachlor	5.20	Spike	P	0 - 30
2160075	Metribuzin	4.81	Spike	P	0 - 30
2160075	Mevinphos	3.59	Spike	P	0 - 30
2160075	Molinate	16.3	Spike	P	0 - 30
2160075	Norflurazon	0.173	Spike	P	0 - 30
2160075	Oxadiazon	6.24	Spike	P	0 - 30
2160075	Parathion Ethyl	2.77	Spike	P	0 - 30
2160075	Parathion Methyl	2.98	Spike	P	0 - 30
2160075	Pendimethalin	20.7	Spike	P	0 - 30
2160075	Phorate	3.67	Spike	P	0 - 30
2160075	Prodiamine	1.92	Spike	P	0 - 30
2160075	Prometon	0.496	Spike	P	0 - 30
2160075	Prometryn	2.66	Spike	P	0 - 30
2160075	Pronamide	7.73	Spike	P	0 - 30
2160075	Propiconazole	6.06	Spike	P	0 - 30
2160075	Simazine	3.75	Spike	P	0 - 30
2160075	Sulfentrazone	13.2	Spike	P	0 - 30
2160075	Tebuconazole	1.04	Spike	P	0 - 30
2160075	Terbufos	0.509	Spike	P	0 - 30
2160075	Terbutylazine	2.21	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P379639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Acetochlor	0.616	LCS	P	0 - 30
LFB	Alachlor	0.0893	LCS	P	0 - 30
LFB	Ametryn	2.55	LCS	P	0 - 30
LFB	Atrazine	0.694	LCS	P	0 - 30
LFB	Atrazine Desethyl	7.96	LCS	P	0 - 30
LFB	Azinphos Methyl	3.08	LCS	P	0 - 30
LFB	Bromacil	10.4	LCS	P	0 - 30
LFB	Butylate	64.5	LCS	F	0 - 30
LFB	Carbophenothion	2.76	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.25	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.07	LCS	P	0 - 30
LFB	Cyanazine	3.92	LCS	P	0 - 30
LFB	Demeton	12.5	LCS	P	0 - 30
LFB	Diazinon	1.13	LCS	P	0 - 30
LFB	Dimethenamid	2.12	LCS	P	0 - 30
LFB	Disulfoton	8.47	LCS	P	0 - 30
LFB	Dithiopyr	0.518	LCS	P	0 - 30
LFB	EPTC	89.0	LCS	F	0 - 30
LFB	Ethion	4.86	LCS	P	0 - 30
LFB	Ethoprop	4.21	LCS	P	0 - 30
LFB	Fenamiphos	0.0579	LCS	P	0 - 30
LFB	Fipronil	4.57	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.61	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.21	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.06	LCS	P	0 - 30
LFB	Flumioxazin	18.6	LCS	P	0 - 30
LFB	Fonofos	0.118	LCS	P	0 - 30
LFB	Hexazinone	0.304	LCS	P	0 - 30
LFB	Imazalil	1.66	LCS	P	0 - 30
LFB	Malathion	2.27	LCS	P	0 - 30
LFB	Metalaxyl	0.490	LCS	P	0 - 30
LFB	Metolachlor	1.41	LCS	P	0 - 30
LFB	Metribuzin	9.33	LCS	P	0 - 30
LFB	Mevinphos	6.79	LCS	P	0 - 30
LFB	Molinate	25.5	LCS	P	0 - 30
LFB	Norflurazon	0.400	LCS	P	0 - 30
LFB	Oxadiazon	1.05	LCS	P	0 - 30
LFB	Parathion Ethyl	1.34	LCS	P	0 - 30
LFB	Parathion Methyl	0.653	LCS	P	0 - 30
LFB	Pendimethalin	1.60	LCS	P	0 - 30
LFB	Phorate	6.90	LCS	P	0 - 30
LFB	Prodiamine	8.25	LCS	P	0 - 30
LFB	Prometon	5.45	LCS	P	0 - 30
LFB	Prometryn	0.443	LCS	P	0 - 30
LFB	Pronamide	5.85	LCS	P	0 - 30
LFB	Propiconazole	1.80	LCS	P	0 - 30
LFB	Simazine	4.74	LCS	P	0 - 30
LFB	Sulfentrazone	5.74	LCS	P	0 - 30
LFB	Tebuconazole	4.90	LCS	P	0 - 30
LFB	Terbufos	4.26	LCS	P	0 - 30
LFB	Terbutylazine	0.185	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P379617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159939	Chlordane	1.86	Spike	P	0 - 30
2159939	Toxaphene	1.81	Spike	P	0 - 30
LFB	Chlordane	1.95	LCS	P	0 - 30
LFB	Toxaphene	0.169	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379465

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160073	Acesulfame K	3.18	Spike	P	0 - 30
2160073	AMPA	15.9	Spike	P	0 - 30
2160073	Endothall	2.31	Spike	P	0 - 30
2160073	Glufosinate	0.244	Spike	P	0 - 30
2160073	Glyphosate	0.193	Spike	P	0 - 30
2160073	Sucralose	9.14	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160072	3-Hydroxycarbofuran	9.89	Spike	P	0 - 30
2160072	Aldicarb	6.17	Spike	P	0 - 30
2160072	Aldicarb Sulfone	6.99	Spike	P	0 - 30
2160072	Aldicarb Sulfoxide	4.38	Spike	P	0 - 30
2160072	Carbaryl	0.796	Spike	P	0 - 30
2160072	Carbofuran	4.16	Spike	P	0 - 30
2160072	Methiocarb	7.33	Spike	P	0 - 30
2160072	Methomyl	4.70	Spike	P	0 - 30
2160072	Oxamyl	5.62	Spike	P	0 - 30
2160072	Propoxur	10.5	Spike	P	0 - 30
2160073	2,4-D	5.24	Spike	P	0 - 30
2160073	Acetaminophen	2.05	Spike	P	0 - 30
2160073	Acetamiprid	27.2	Spike	P	0 - 30
2160073	Afidopyropen	11.5	Spike	P	0 - 30
2160073	Bentazon	14.6	Spike	P	0 - 30
2160073	Benzovindiflupyr	7.93	Spike	P	0 - 30
2160073	Carbamazepine	26.3	Spike	P	0 - 30
2160073	Clothianidin	1.40	Spike	P	0 - 30
2160073	Dinotefuran	1.56	Spike	P	0 - 30
2160073	Diuron	5.91	Spike	P	0 - 30
2160073	Fenuron	9.21	Spike	P	0 - 30
2160073	Fluridone	0.689	Spike	P	0 - 30
2160073	Hydrocodone	1.03	Spike	P	0 - 30
2160073	Ibuprofen	0.482	Spike	P	0 - 30
2160073	Imazapyr	8.62	Spike	P	0 - 30
2160073	Imidacloprid	14.6	Spike	P	0 - 30
2160073	Linuron	0.244	Spike	P	0 - 30
2160073	Mandestrobin	9.20	Spike	P	0 - 30
2160073	MCP	9.74	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P379532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160073	Naproxen	25.0	Spike	P	0 - 30
2160073	Primidone	12.0	Spike	P	0 - 30
2160073	Pyraclostrobin	6.55	Spike	P	0 - 30
2160073	Thiamethoxam	0.645	Spike	P	0 - 30
2160073	Tolfenpyrad	10.8	Spike	P	0 - 30
2160073	Triclopyr	23.8	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P379517

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160056	Color (true)	0.793	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P379903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160182	Total Alkalinity	0.125	Sample	P	0 - 2.8

Reference Method: SM 2320 B-2011
Batch ID: P380173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160190	Total Alkalinity	0.713	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P379924

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160193	TDS	0.738	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P379829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160031	TSS	6.67	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P380176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160190	Fluoride	0.947	Spike	P	0 - 2.5

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-2011
Batch ID: P380180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160182	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P379591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160032	Organic Carbon	0.833	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P379637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159960	Organic Carbon	1.14	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2160072
Field Sample ID: 27010059

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	58.0	P	30 - 160

Lab Sample ID: 2160073
Field Sample ID: 27010059

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	111	P	30 - 160
EPA 8321B	Acetaminophen-d4	64.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.2	P	30 - 160
EPA 8321B	Diuron-d6	77.2	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	46.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	46.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.1	P	30 - 160
EPA 8321B	Primidone-d5	89.6	P	30 - 160
EPA 8321B	Sucralose-d6	35.5	P	30 - 160
EPA 8321B	Sucralose-d6	35.5	P	30 - 160

Lab Sample ID: 2160074
Field Sample ID: 27010059

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	88.0	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	64.3	P	34 - 106
EPA 8276	Decachlorobiphenyl	71.2	P	26 - 97.0
EPA 8276	PCNB	84.3	P	38 - 141

Lab Sample ID: 2160075
Field Sample ID: 27010059

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	109	P	72 - 135
EPA 8270E	Terbufos-d10	96.0	P	57 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A97729

Included Lab Sample IDs: 2160056, 2160059, 2160062

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A97744

Included Lab Sample IDs: 2160058, 2160061, 2160064

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.1	96.8	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A97778

Included Lab Sample IDs: 2160056

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

Reference Method: SM 5310 B-2011

Run ID: A97799

Included Lab Sample IDs: 2160060, 2160063

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

Reference Method: SM 5310 B-2011

Run ID: A97811

Included Lab Sample IDs: 2160057

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97812

Included Lab Sample IDs: 2160060, 2160063

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	103	P/P	90 - 110
NO2NO3-N	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A97862

Included Lab Sample IDs: 2160057

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A97864

Included Lab Sample IDs: 2160060, 2160063

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A97886

Included Lab Sample IDs: 2160057, 2160060, 2160063

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.5	P/P	90 - 110
Ammonia-N	99.2	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A97896

Included Lab Sample IDs: 2160059, 2160062

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

Reference Method: EPA 8321B

Run ID: A97908

Included Lab Sample IDs: 2160073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	119	113	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A97914

Included Lab Sample IDs: 2160073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	156	69.0	P/P	60 - 160
Endothall	80.8	97.9	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A97924

Included Lab Sample IDs: 2160059, 2160062

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	103	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A97940

Included Lab Sample IDs: 2160076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	96.4	97.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A97944

Included Lab Sample IDs: 2160073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	83.3	P/P	60 - 160
Glufosinate	110	102	P/P	60 - 160
Glyphosate	106	106	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A97979

Included Lab Sample IDs: 2160057

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

Reference Method: EPA 8276

Run ID: A97980

Included Lab Sample IDs: 2160074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	77.9*		F	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97984

Included Lab Sample IDs: 2160057

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A97989

Included Lab Sample IDs: 2160076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Manganese	103	103	P/P	95 - 105
Zinc	101	103	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A97992

Included Lab Sample IDs: 2160060, 2160063

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	102	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A98001

Included Lab Sample IDs: 2160056

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

Reference Method: EPA 8270E

Run ID: A98002

Included Lab Sample IDs: 2160074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	102		P	80 - 120
Alpha-BHC	94.3		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	86.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A98002
Included Lab Sample IDs: 2160074

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bifenthrin	92.1		P	80 - 120
Chlorothalonil	106		P	80 - 120
Cis-Nonachlor	95.3		P	80 - 120
Cypermethrin	93.9		P	80 - 120
Dacthal	95.9		P	80 - 120
DDD-p,p'	93.4		P	80 - 120
DDE-p,p'	98.0		P	80 - 120
DDT-p,p'	98.7		P	80 - 120
Delta-BHC	98.1		P	80 - 120
Dicofol	98.6		P	80 - 120
Dieldrin	94.2		P	80 - 120
Endosulfan I	106		P	80 - 120
Endosulfan II	94.4		P	80 - 120
Endosulfan Sulfate	96.1		P	80 - 120
Endrin	96.1		P	80 - 120
Endrin Aldehyde	107		P	80 - 120
Endrin Ketone	94.8		P	80 - 120
Ethalfuralin	102		P	80 - 120
Gamma-BHC	104		P	80 - 120
Gamma-Chlordane	96.6		P	80 - 120
Heptachlor	97.2		P	80 - 120
Heptachlor Epoxide	97.8		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Lambda-Cyhalothrin	87.9		P	80 - 120
Methoxychlor	95.2		P	80 - 120
Mirex	100		P	80 - 120
Permethrin	92.1		P	80 - 120
Phenothrin	87.0		P	80 - 120
Prallethrin	90.3		P	80 - 120
Trans-Nonachlor	97.6		P	80 - 120
Trifluralin	100		P	80 - 120

Reference Method: SM 2320 B-2011
Run ID: A98031
Included Lab Sample IDs: 2160056

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	105	102	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A98031
Included Lab Sample IDs: 2160056, 2160059, 2160062

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	97.2	P/P	90 - 110
Fluoride	103	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98040

Included Lab Sample IDs: 2160076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	101	P/P	90 - 110
Antimony	94.9	94.3	P/P	90 - 110
Arsenic	99.6	99.2	P/P	90 - 110
Cadmium	95.8	94.4	P/P	90 - 110
Chromium	98.0	95.5	P/P	90 - 110
Copper	104	103	P/P	90 - 110
Lead	96.2	96.0	P/P	90 - 110
Nickel	104	103	P/P	90 - 110
Selenium	98.6	96.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A98067

Included Lab Sample IDs: 2160073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.8	92.3	P/P	50 - 150
3-Hydroxycarbofuran	88.1	92.0	P/P	60 - 150
Acetaminophen	116	119	P/P	60 - 160
Acetamiprid	107	99.7	P/P	50 - 150
Afidopyropen	98.8	98.5	P/P	50 - 150
Aldicarb	92.9	75.4	P/P	60 - 150
Aldicarb Sulfone	85.4	89.6	P/P	50 - 150
Aldicarb Sulfoxide	99.1	93.7	P/P	50 - 150
Bentazon	105	102	P/P	50 - 160
Benzovindiflupyr	98.7	106	P/P	50 - 150
Carbamazepine	103	99.0	P/P	60 - 150
Carbaryl	108	109	P/P	60 - 150
Carbofuran	98.7	95.3	P/P	50 - 150
Clothianidin	91.7	94.4	P/P	60 - 150
Dinotefuran	86.3	91.2	P/P	50 - 150
Diuron	97.7	94.5	P/P	60 - 150
Fenuron	89.9	90.4	P/P	60 - 150
Fluridone	101	101	P/P	60 - 160
Hydrocodone	97.9	82.4	P/P	60 - 150
Ibuprofen	77.2	78.8	P/P	50 - 160
Imazapyr	98.5	96.8	P/P	50 - 150
Imidacloprid	90.2	91.8	P/P	60 - 150
Linuron	98.5	102	P/P	60 - 150
Mandestrobin	108	105	P/P	50 - 150
MCPP	90.6	89.5	P/P	50 - 150
Methiocarb	90.6	95.0	P/P	50 - 150
Methomyl	90.2	93.9	P/P	50 - 150
Naproxen	92.7	82.7	P/P	50 - 160
Oxamyl	93.7	97.1	P/P	50 - 150
Primidone	105	101	P/P	60 - 150
Propoxur	106	104	P/P	50 - 150
Pyraclostrobin	106	106	P/P	60 - 150
Thiamethoxam	92.5	91.5	P/P	50 - 150
Tolfenpyrad	105	103	P/P	60 - 150
Triclopyr	100	97.6	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A98110
 Included Lab Sample IDs: 2160075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.3		P	80 - 120
Alachlor	97.4		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	98.8		P	80 - 120
Atrazine Desethyl	86.5		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Bromacil	95.8		P	80 - 120
Butylate	102		P	80 - 120
Carbophenothion	99.3		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	94.1		P	80 - 120
Demeton	99.4		P	80 - 120
Diazinon	96.5		P	80 - 120
Dimethenamid	97.3		P	80 - 120
Disulfoton	96.8		P	80 - 120
Dithiopyr	95.9		P	80 - 120
EPTC	104		P	80 - 120
Ethion	98.1		P	80 - 120
Ethoprop	96.8		P	80 - 120
Fenamiphos	100		P	80 - 120
Fipronil	97.7		P	80 - 120
Fipronil Desulfinyl	98.6		P	80 - 120
Fipronil Sulfide	93.5		P	80 - 120
Fipronil Sulfone	99.1		P	80 - 120
Flumioxazin	85.5		P	80 - 120
Fonofos	98.8		P	80 - 120
Hexazinone	95.6		P	80 - 120
Imazalil	113		P	80 - 120
Malathion	95.2		P	80 - 120
Metalaxyl	97.5		P	80 - 120
Metolachlor	98.3		P	80 - 120
Metribuzin	92.2		P	80 - 120
Mevinphos	98.9		P	80 - 120
Molinate	103		P	80 - 120
Norflurazon	97.8		P	80 - 120
Oxadiazon	99.9		P	80 - 120
Parathion Ethyl	96.0		P	80 - 120
Parathion Methyl	95.3		P	80 - 120
Pendimethalin	98.8		P	80 - 120
Phorate	97.9		P	80 - 120
Prodiamine	94.2		P	80 - 120
Prometon	99.7		P	80 - 120
Prometryn	98.2		P	80 - 120
Pronamide	95.4		P	80 - 120
Propiconazole	97.8		P	80 - 120
Simazine	100		P	80 - 120
Sulfentrazone	94.0		P	80 - 120
Tebuconazole	96.3		P	80 - 120
Terbufos	98.2		P	80 - 120
Terbutylazine	97.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98137

Included Lab Sample IDs: 2160076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	96.8	94.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A98187

Included Lab Sample IDs: 2160076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	94.2	90.3	P/P	90 - 110

* 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	MS
							SMP	
EPA 180.1 Rev. 2.0	Turbidity						13.6	
EPA 200.7 Rev. 4.4	Iron	108		98.3	101	98.8		2.24
	Manganese	110		100	97.4	99.8		2.66
	Zinc	106		106	104	102		1.60
EPA 200.8 Rev. 5.4	Aluminum	93.4		104	106	116		2.35
	Antimony	93.5		97.5	101	102		3.87
	Arsenic	91.2		110	110	113		0.749
	Cadmium	92.4		97.0	101	97.8		4.46
	Chromium	93.8		97.9	104	98.1		5.67
	Copper	95.0		105	110	116		4.13
	Lead	91.8		101	104	107		2.54
	Nickel	93.5		108	113	116		4.35
	Selenium	89.1		103	104	102		1.29
	Silver	99.2		101	104	103		3.07
	Thallium	100		112	106	105		0.549
EPA 300.0 Rev. 2.1	Bromide	98.8		98.2	98.7	100		0.428
	Chloride	102		99.9	95.8		0.686	
	Sulfate	102		101	96.0		0.355	
EPA 350.1 Rev. 2.0	Ammonia-N	98.6		98.1	96.4			1.50
	Ammonia-N	97.4		99.6	99.0			0.464
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.4		100	101			0.349
	Kjeldahl Nitrogen	101		107	108			0.856
EPA 353.2 Rev. 2.0	NO2NO3-N	102		102	102			0.0
	NO2NO3-N	102		103	103			0.0
	NO2NO3-N	100		96.1	95.6			0.499
EPA 365.1 Rev. 2.0	Total-P	107		100	101			0.994
	Total-P	109		107	108			0.717
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		98.8	97.0			1.32
	O-Phosphate-P	99.0		97.3	96.9			0.279
EPA 8270E	Acetochlor	90.1	89.6	90.0	82.5	0.616		8.62
	Alachlor	91.9	91.9	94.7	85.6	0.0893		10.2
	Aldrin	37.3	37.2	48.6	48.4	0.526		0.263
	Alpha-BHC	86.1	85.3	85.8	84.6	0.932		1.46
	Alpha-Chlordane	81.9	83.4	79.0	77.5	1.79		1.90
	Ametryn	99.0	96.5	81.0	80.4	2.55		0.544
	Atrazine	99.5	100			0.694		6.69
	Atrazine Desethyl	76.5	82.9	57.1	66.9	7.96		10.9
	Azinphos Methyl	130	134	137	131	3.08		4.18
	Beta-BHC	103	107	63.8	67.7	3.15		5.89
	Beta-Cyfluthrin	80.4	81.1	98.5	103	0.829		4.70
	Bifenthrin	77.0	77.6	121	115	0.750		4.73
	Bromacil	65.1	72.2	75.0	75.4	10.4		0.560
	Butylate	33.1	64.7	34.9	26.9	64.5		25.8
	Carbophenothion	105	108	99.1	101	2.76		2.32
	Chlorothalonil	87.5	76.6	151	152	13.3		0.387
	Chlorpyrifos Ethyl	98.7	102	105	109	3.25		3.90
	Chlorpyrifos Methyl	99.2	98.1	98.2	94.9	1.07		3.43
	Cis-Nonachlor	82.4	86.0	78.0	80.6	4.23		3.28
	Cyanazine	103	98.8	97.2	98.6	3.92		1.47
	Cypermethrin	84.0	83.7	92.2	98.0	0.303		6.13
	Dacthal	86.5	88.4	83.3	84.8	2.21		1.76
	DDD-p,p'	89.7	94.5	89.4	93.0	5.18		3.96
	DDE-p,p'	80.0	83.2	75.8	75.3	3.93		0.657
	DDT-p,p'	75.6	76.5	67.9	67.6	1.21		0.440

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Delta-BHC	101	105	115	116	4.23	0.673
	Demeton	77.1	87.3	89.7	90.0	12.5	0.304
	Diazinon	89.2	88.2	90.6	89.3	1.13	1.50
	Dicofol	83.7	81.8	199	293	2.33	38.2
	Dieldrin	88.9	89.1	81.9	84.1	0.215	2.66
	Dimethenamid	88.3	90.2	91.5	86.4	2.12	5.72
	Disulfoton	81.6	88.8	90.2	91.7	8.47	1.66
	Dithiopyr	88.8	88.3	94.7	91.6	0.518	3.06
	Endosulfan I	97.1	101	105	95.3	3.96	9.70
	Endosulfan II	94.6	98.8	81.5	89.9	4.28	9.76
	Endosulfan Sulfate	93.5	92.3	108	108	1.22	0.169
	Endrin	90.1	94.9	84.8	81.4	5.14	4.15
	Endrin Aldehyde	106	111	36.6	33.8	4.31	7.88
	Endrin Ketone	89.0	90.1	80.5	85.4	1.21	5.84
	EPTC	20.7	53.8	29.7	20.5	89.0	36.7
	Ethalfuralin	73.1	77.8	89.8	89.0	6.32	0.925
	Ethion	102	108	96.5	103	4.86	6.52
	Ethoprop	84.8	88.5	93.3	95.0	4.21	1.86
	Fenamiphos	99.4	99.3	87.2	101	0.0579	14.8
	Fipronil	87.8	91.9	92.2	89.6	4.57	2.94
	Fipronil Desulfinyl	92.4	93.9	92.3	91.6	1.61	0.635
	Fipronil Sulfide	85.8	82.3	80.1	82.5	4.21	2.04
	Fipronil Sulfone	87.0	92.4	84.4	88.1	6.06	2.57
	Flumioxazin	82.6	99.5	133	133	18.6	0.295
	Fonofos	91.0	91.1	83.1	89.6	0.118	7.55
	Gamma-BHC	103	103	144	141	0.875	2.20
	Gamma-Chlordane	78.0	79.2	73.4	75.0	1.52	2.11
	Heptachlor	72.4	71.3	70.2	69.4	1.45	1.11
	Heptachlor Epoxide	85.4	85.7	80.7	82.6	0.361	2.23
	Hexachlorobenzene	67.9	68.4	63.5	63.1	0.757	0.734
	Hexazinone	100	101	98.9	99.7	0.304	0.757
	Imazalil	83.6	85.0	123	125	1.66	1.71
	Lambda-Cyhalothrin	75.1	73.4	94.6	102	2.25	7.21
	Malathion	109	112	111	110	2.27	0.485
	Metalaxyl	95.1	94.6	93.2	89.1	0.490	4.41
	Methoxychlor	89.7	89.9	76.4	73.5	0.255	3.82
	Metolachlor	89.7	91.0	93.9	89.2	1.41	5.20
	Metribuzin	136	124	186	177	9.33	4.81
	Mevinphos	87.0	93.1	91.9	88.7	6.79	3.59
	Mirex	67.3	66.7	66.1	66.0	0.779	0.112
	Molinate	56.4	72.9	63.3	53.8	25.5	16.3
	Norflurazon	90.3	89.9	83.1	83.2	0.400	0.173
	Oxadiazon	91.7	90.7	90.5	83.6	1.05	6.24
	Parathion Ethyl	93.1	91.9	97.8	95.1	1.34	2.77
	Parathion Methyl	105	104	105	102	0.653	2.98
	Pendimethalin	89.3	90.8	88.7	72.0	1.60	20.7
	Permethrin	75.3	76.0	88.4	93.1	0.939	5.16
	Phenothrin	49.3	50.3	84.6	88.5	1.97	4.44
	Phorate	83.9	78.3	86.3	89.6	6.90	3.67
	Prallethrin	51.9	55.8	74.4	76.6	7.13	2.89
	Prodiamine	52.5	57.1	108	106	8.25	1.92
	Prometon	88.1	93.0	89.5	89.0	5.45	0.496
	Prometryn	91.3	90.9	92.1	89.7	0.443	2.66
	Pronamide	96.4	102	79.9	87.5	5.85	7.73

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Propiconazole	86.8	88.4	79.0	71.3	1.80	6.06
	Simazine	95.6	100			4.74	3.75
	Sulfentrazone	20.0	21.1			5.74	13.2
	Tebuconazole	63.7	66.9	60.0	59.4	4.90	1.04
	Terbufos	88.5	92.4	95.9	95.5	4.26	0.509
	Terbutylazine	92.5	92.4	93.5	95.5	0.185	2.21
	Trans-Nonachlor	80.2	82.1	71.9	71.2	2.33	0.918
	Trifluralin	78.9	78.5	144	137	0.530	5.27
EPA 8276	Chlordane	97.6	95.7	102	100	1.95	1.86
	Toxaphene	103	103	101	103	0.169	1.81
EPA 8321B	2,4-D	144		164	154		5.24
	3-Hydroxycarbofuran	75.7		64.2	70.9		9.89
	Acesulfame K	103		24.2	24.9		3.18
	Acetaminophen	81.7		70.9	69.4		2.05
	Acetamiprid	88.6		106	80.9		27.2
	Afidopyropen	80.5		103	92.0		11.5
	Aldicarb	131		39.3	37.0		6.17
	Aldicarb Sulfone	86.0		80.6	86.5		6.99
	Aldicarb Sulfoxide	85.8		37.8	39.5		4.38
	AMPA	81.8		11.4	9.71		15.9
	Bentazon	109					14.6
	Benzovindiflupyr	81.7		85.8	79.2		7.93
	Carbamazepine	97.2		100	76.9		26.3
	Carbaryl	60.8		53.9	53.5		0.796
	Carbofuran	65.3		51.8	49.7		4.16
	Clothianidin	84.2		95.0	93.7		1.40
	Dinotefuran	78.6		113	112		1.56
	Diuron	75.3		69.4	65.2		5.91
	Endothall	97.8		114	112		2.31
	Fenuron	97.6		79.4	72.4		9.21
	Fluridone	94.5					0.689
	Glufosinate	119		57.8	57.7		0.244
	Glyphosate	105		51.9	52.0		0.193
	Hydrocodone	83.3		100	99.3		1.03
	Ibuprofen	73.7		77.2	76.9		0.482
	Imazapyr	79.0					8.62
	Imidacloprid	86.0		180	152		14.6
	Linuron	68.4		69.6	69.4		0.244
	Mandestrobin	91.6		92.8	84.7		9.20
	MCPP	167		181	164		9.74
	Methiocarb	61.8		53.8	57.9		7.33
	Methomyl	76.1		67.0	64.0		4.70
	Naproxen	99.4		121	93.9		25.0
	Oxamyl	76.9		62.5	66.2		5.62
	Primidone	91.9		90.7	80.4		12.0
	Propoxur	65.5		52.0	57.7		10.5
	Pyraclostrobin	78.1		83.6	78.3		6.55
	Sucralose	120		32.2	35.6		9.14
	Thiamethoxam	88.3		140	139		0.645
	Tolfenpyrad	51.5		55.9	50.2		10.8
	Triclopyr	131		155	122		23.8
SM 2120 B-2011	Color (true)	101				0.793	
SM 2320 B-2011	Total Alkalinity	102				0.125	
	Total Alkalinity	103				0.713	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
SM 2540 C-2011	TDS					0.738	
SM 2540 D-2011	TSS					6.67	
SM 4500 F-C-2011	Fluoride	101	103	102			0.947
	Fluoride	99.3	100	100			0.0
SM 5310 B-2011	Organic Carbon	99.6	101	99.7			0.833
	Organic Carbon	99.2	98.8				1.14

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2160056, 2160059, 2160062
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2160076
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2160076
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2160059, 2160062
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2160056
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2160056, 2160062
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2160057, 2160060, 2160063
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2160057, 2160060, 2160063
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2160057, 2160060, 2160063
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2160057, 2160060, 2160063
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2160058, 2160061, 2160064
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2160074
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2160075
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2160074
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2160072
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2160073
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2160073
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2160056
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2160056, 2160059, 2160062
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2160056
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2160056, 2160059, 2160062
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2160056, 2160059, 2160062
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2160057, 2160060, 2160063

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	02/21/2020			02/21/2020 16:26	Yen Ta	2160056, 2160059, 2160062
EPA 200.7 Rev. 4.4	02/21/2020	02/26/2020 17:40	Elliott D. Healy	02/27/2020 22:00	Martin Acosta	2160076
	02/21/2020	02/26/2020 17:40	Elliott D. Healy	03/04/2020 12:38	Betina Topolski	2160076
EPA 200.8 Rev. 5.4	02/21/2020	02/26/2020 17:40	Elliott D. Healy	03/03/2020 19:27	Justin Cutchin	2160076
	02/21/2020	02/26/2020 17:40	Elliott D. Healy	03/13/2020 13:49	Alexander Thompson	2160076
	02/21/2020	03/09/2020 13:10	Elliott D. Healy	03/11/2020 16:44	Alexander Thompson	2160076
EPA 300.0 Rev. 2.1	02/21/2020			02/28/2020 08:15	Elliott Rodriguez	2160059
	02/21/2020			02/28/2020 08:32	Elliott Rodriguez	2160062
	02/21/2020			03/04/2020 22:29	Lipi Saha	2160056
	02/21/2020			03/05/2020 00:54	Lipi Saha	2160062
EPA 350.1 Rev. 2.0	02/21/2020			02/27/2020 14:48	Ping Hua	2160057
	02/21/2020			02/27/2020 14:57	Ping Hua	2160063
	02/21/2020			02/27/2020 15:17	Ping Hua	2160060
EPA 351.2 Rev. 2.0	02/21/2020	02/26/2020 11:30	Sima Feizi	02/27/2020 13:45	Jhamieka S. Greenwood	2160057
	02/21/2020	02/26/2020 11:30	Sima Feizi	02/27/2020 15:50	Jhamieka S. Greenwood	2160060
	02/21/2020	02/26/2020 11:30	Sima Feizi	02/27/2020 15:55	Jhamieka S. Greenwood	2160063
EPA 353.2 Rev. 2.0	02/21/2020			02/26/2020 10:36	Beverly Y. Sanders	2160060
	02/21/2020			02/26/2020 10:43	Beverly Y. Sanders	2160063
	02/21/2020			03/04/2020 10:17	Beverly Y. Sanders	2160057
EPA 365.1 Rev. 2.0	02/21/2020	03/03/2020 13:55	Yen Ta	03/04/2020 11:45	Benjamin T. Nordmann	2160057
	02/21/2020	03/03/2020 13:55	Yen Ta	03/04/2020 15:09	Benjamin T. Nordmann	2160060
	02/21/2020	03/03/2020 13:55	Yen Ta	03/04/2020 15:10	Benjamin T. Nordmann	2160063
EPA 365.1 Rev. 2.0 dissolved	02/21/2020			02/21/2020 19:32	Virginia P. Brown	2160061
	02/21/2020			02/21/2020 19:33	Virginia P. Brown	2160064
	02/21/2020			02/21/2020 19:35	Virginia P. Brown	2160058
EPA 8270E	02/21/2020	02/25/2020 08:30	Rasheda Ghaffari	03/04/2020 20:16	Michael Poppell	2160074
	02/21/2020	02/26/2020 09:00	Julie Wi	02/28/2020 15:06	Vandana T. Nagar	2160075
EPA 8276	02/21/2020	02/25/2020 08:30	Rasheda Ghaffari	02/29/2020 16:35	Michael Poppell	2160074
EPA 8321B	02/21/2020	02/24/2020 14:30	Rebecca Ware	02/24/2020 15:48	Rebecca Ware	2160073
	02/21/2020	02/24/2020 14:30	Rebecca Ware	02/24/2020 17:46	Rebecca Ware	2160073
	02/21/2020	02/24/2020 14:30	Rebecca Ware	02/26/2020 20:12	Rebecca Ware	2160073
	02/21/2020	02/26/2020 08:30	Hoor Shaik	03/08/2020 06:56	Juyoung Kim	2160073
	02/21/2020	02/26/2020 08:30	Hoor Shaik	03/08/2020 12:44	Juyoung Kim	2160072
SM 2120 B-2011	02/21/2020			02/21/2020 18:30	Madeline Funaro	2160056
SM 2320 B-2011	02/21/2020			02/29/2020 15:48	Dale L. Simmons	2160059
	02/21/2020			02/29/2020 16:00	Dale L. Simmons	2160062
	02/21/2020			03/05/2020 02:47	Dale L. Simmons	2160056
SM 2540 C-2011	02/21/2020			02/25/2020 13:41	Yijie Li	2160056
SM 2540 D-2011	02/21/2020			02/25/2020 13:41	Yijie Li	2160056, 2160059, 2160062
SM 4500 F-C-2011	02/21/2020			03/05/2020 02:47	Dale L. Simmons	2160056

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	02/21/2020			03/05/2020 15:20	Dale L. Simmons	2160059
	02/21/2020			03/05/2020 15:24	Dale L. Simmons	2160062
SM 5310 B-2011	02/21/2020			02/25/2020 09:35	Madeline Funaro	2160060
	02/21/2020			02/25/2020 09:48	Madeline Funaro	2160063
	02/21/2020			02/26/2020 01:24	Lauren Lees	2160057