

Chemical Analysis Report

SE-DIST-2022-11-15-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

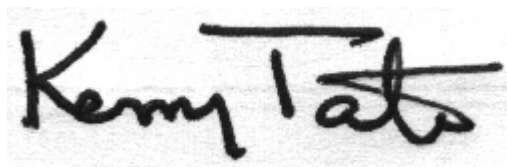
Event Description: **Stuart**
Request ID: **RQ-2022-11-14-26**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 12-DEC-2022 12:30

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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: Manatee Pocket North

Collection Date/Time: 11/14/2022 10:15

Field ID: G2SE0063

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369425	EPA 8270E	Oxybenzone**	9.4	U	ng/L	P422447	
		Acetochlor	0.23	U	ng/L	P422447	
		Octinoxate**	19	UQ	ng/L	P422985	
		Alachlor	0.23	U	ng/L	P422447	
		Avobenzone**	94	U	ng/L	P422447	
		Ametryn	0.56	U	ng/L	P422447	
		Atrazine	78		ng/L	P422447	
		PBDE-47**	3.7	U	ng/L	P422447	
		Atrazine Desethyl	9.9		ng/L	P422447	
		PBDE-99**	4.7	U	ng/L	P422447	
		Azinphos Methyl	1.9	U	ng/L	P422447	
		Tri-o-cresyl Phosphate**	5.6	U	ng/L	P422447	
		Azoxystrobin	1.3	I	ng/L	P422447	
		Bromacil	0.47	U	ng/L	P422447	
		2-Ethylhexyl	11	U	ng/L	P422447	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.37	U	ng/L	P422447	
		Dechlorane Plus**	28	U	ng/L	P422447	
		Caffeine**	28		ng/L	P422447	
		Carbophenothion	0.19	U	ng/L	P422447	
		Carfentrazone Ethyl	0.094	U	ng/L	P422447	
		Chlorfenapyr	0.16	U	ng/L	P422447	
		Chlorpyrifos Ethyl	0.23	U	ng/L	P422447	
		Chlorpyrifos Methyl	0.047	U	ng/L	P422447	
		Coumaphos	0.47	U	ng/L	P422447	
		Cyanazine	3.0	U	ng/L	P422447	
		Cyprodinil	0.094	U	ng/L	P422447	
		Demeton	1.4	U	ng/L	P422447	
		Diazinon	0.12	U	ng/L	P422447	
		Difenoconazole	0.56	U	ng/L	P422447	
		Dimethenamid	0.094	U	ng/L	P422447	
		Dimethomorph	0.16	U	ng/L	P422447	
		Disulfoton	0.47	U	ng/L	P422447	
		Dithiopyr	5.0		ng/L	P422447	
		EPTC	1.2	U	ng/L	P422447	
		Ethion	0.14	U	ng/L	P422447	
		Ethoprop	0.094	U	ng/L	P422447	
		Etridiazole	0.14	U	ng/L	P422447	
		Fenamiphos	0.47	U	ng/L	P422447	
		Fenbuconazole	0.12	U	ng/L	P422447	
		Fipronil	0.64	I	ng/L	P422447	
		Fipronil Desulfinyl**	0.59		ng/L	P422447	
		Fipronil Sulfide	0.42	I	ng/L	P422447	
		Fipronil Sulfone	1.3		ng/L	P422447	

Field ID: G2SE0063

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369425	EPA 8270E	Fluazifop-P-butyl	0.094	U	ng/L	P422447	MS
		Fludioxonil	0.12	U	ng/L	P422447	
		Flumioxazin	7.2	I	ng/L	P422447	
		Flutolanil	0.20	I	ng/L	P422447	
		Fluxapyroxad	0.64		ng/L	P422447	
		Fonofos	0.19	U	ng/L	P422447	
		Hexazinone	16		ng/L	P422447	
		Imazalil	0.70	U	ng/L	P422447	
		Iprodione	0.56	U	ng/L	P422447	
		Loratadine**	0.33	U	ng/L	P422447	
		Malathion	0.33	U	ng/L	P422447	
		Metalaxyl	0.70	U	ng/L	P422447	
		Metolachlor	2.4		ng/L	P422447	
		Metribuzin	1.4	U	ng/L	P422447	
		Mevinphos	0.98	U	ng/L	P422447	
		Molinate	0.28	U	ng/L	P422447	
		Myclobutanil	0.23	U	ng/L	P422447	
		Naled	1.4	U	ng/L	P422447	
		Napropamide	0.37	U	ng/L	P422447	
		Norflurazon	2.5		ng/L	P422447	
		Oxadiazon	130		ng/L	P422447	
		Oxyfluorfen	0.14	U	ng/L	P422447	
		Parathion Ethyl	0.23	U	ng/L	P422447	
		Parathion Methyl	0.52	U	ng/L	P422447	
		Pendimethalin	0.94	U	ng/L	P422447	
		Phenytain**	3.3	U	ng/L	P422447	
		Phorate	0.49	U	ng/L	P422447	
		Prodiamine	0.16	U	ng/L	P422447	
		Prometon	0.84	U	ng/L	P422447	
		Prometryn	0.19	U	ng/L	P422447	
		Pronamide	0.14	U	ng/L	P422447	
		Propanil	0.12	U	ng/L	P422447	
		Propargite	1.4	U	ng/L	P422447	
		Propiconazole	5.3		ng/L	P422447	
		Pyraflufen Ethyl	0.23	U	ng/L	P422447	
		Pyridaben	1.1	I	ng/L	P422447	
		Pyriproxyfen	0.12	U	ng/L	P422447	
		Simazine	0.47	U	ng/L	P422447	
		Stirophos	0.12	U	ng/L	P422447	
		Sulfentrazone	64		ng/L	P422447	
		Tebuconazole	3.9		ng/L	P422447	
		Terbufos	0.094	U	ng/L	P422447	
		Terbutylazine	0.40	U	ng/L	P422447	
		Thiobencarb	0.56	U	ng/L	P422447	
		Triadimefon	0.23	U	ng/L	P422447	

Field ID: G2SE0063

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
EPA 8270E: Sample expired for preparation for octinoxate due to need for re-extraction. Insufficient sample available to perform duplicate matrix spikes in re-extraction.
EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked.

Sample Location: Krueger Creek near Commissioners Park

Collection Date/Time: 11/14/2022 10:30

Field ID: G2SE0069

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369410	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P422351	
	SM 2320 B-2011	Total Alkalinity	136	A	mg CaCO3/L	P422622	
	SM 2540 D-2015	TSS	4	I	mg/L	P422705	
	SM 4500-F- C-2011	Fluoride	0.44		mg F/L	P422965	
2369411	EPA 350.1 Rev. 2.0	Ammonia-N	0.043		mg N/L	P422913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.73		mg N/L	P422540	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.29		mg N/L	P422580	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P422442	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P422753	
2369427	EPA 200.7 Rev. 4.4	Calcium	143		mg/L	P422594	
		Iron	240	I	ug/L	P422594	
		Magnesium	287		mg/L	P422594	
		Manganese	12		ug/L	P422594	
		Strontium	2.47E+03		ug/L	P422594	
		Tin	9.0	U	ug/L	P422594	
		Titanium	2.2	U	ug/L	P422594	
	EPA 200.8 Rev. 5.4	Vanadium	6.0	U	ug/L	P422594	
		Zinc	15	U	ug/L	P422594	
		Aluminum	151		ug/L	P422594	
		Antimony	0.20	U	ug/L	P422594	
		Arsenic	2.42		ug/L	P422594	
		Beryllium	0.040	U	ug/L	P422594	
		Cadmium	0.080	U	ug/L	P422594	
		Chromium	4.0	U	ug/L	P422594	
		Cobalt	0.24	I	ug/L	P422594	
		Copper	1.6	U	ug/L	P423148	
		Lead	0.80	U	ug/L	P423148	
		Molybdenum	3.8		ug/L	P422594	
		Nickel	5.5	I	ug/L	P422594	
		Selenium	0.80	U	ug/L	P422594	
		Silver	0.040	U	ug/L	P422594	
		Thallium	0.40	U	ug/L	P422594	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable because of high analyte concentration in the QC sample.

Sample Location: FB

Collection Date/Time: 11/14/2022 10:45

Field ID: FB_11142022

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369412	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P422351	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P422640	
	SM 2540 D-2015	TSS	2	U	mg/L	P422705	
	SM 4500-F- C-2011	Fluoride	0.086	I	mg F/L	P422644	
2369413	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P422989	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P422452	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P422491	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P422443	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P422753	
2369428	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P422380	
		Iron	30	U	ug/L	P422380	
		Magnesium	0.040	U	mg/L	P422380	
		Strontium	2.0	U	ug/L	P422380	
		Tin	3.0	U	ug/L	P422380	
		Titanium	0.75	U	ug/L	P422380	
		Vanadium	2.0	U	ug/L	P422380	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P422380	
		Aluminum	5.0	U	ug/L	P422380	
		Antimony	0.050	U	ug/L	P422380	
		Arsenic	0.050	U	ug/L	P422380	
		Beryllium	0.010	U	ug/L	P422380	
		Cadmium	0.020	U	ug/L	P422380	
		Chromium	0.40	U	ug/L	P422380	
		Cobalt	0.020	U	ug/L	P422380	
		Copper	0.40	U	ug/L	P422380	
		Lead	0.20	U	ug/L	P422380	
		Manganese	0.10	U	ug/L	P422380	
		Molybdenum	0.15	U	ug/L	P422380	
		Nickel	0.50	U	ug/L	P422380	
		Selenium	0.20	U	ug/L	P422380	
		Silver	0.010	U	ug/L	P422380	
		Thallium	0.10	U	ug/L	P422380	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 4500-F- C-2011: The result was confirmed on 11/30/2022.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for manganese are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Willoughby Creek

Collection Date/Time: 11/14/2022 12:00

Field ID: G2SE0034

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369408	EPA 180.1 Rev. 2.0	Turbidity	5.2		NTU	P422351	
	SM 2320 B-2011	Total Alkalinity	141		mg CaCO3/L	P422622	
	SM 2540 D-2015	TSS	20		mg/L	P422708	
	SM 4500-F- C-2011	Fluoride	0.31		mg F/L	P422965	
2369409	EPA 350.1 Rev. 2.0	Ammonia-N	0.082		mg N/L	P422913	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P422628	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P422580	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P422442	
	SM 5310 B-2011	Organic Carbon	18		mg C/L	P422617	
2369421	EPA 8321B	Aldicarb	0.020	U	ug/L	P422615	
		Aldicarb Sulfone	0.0020	U	ug/L	P422615	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P422615	
		Carbaryl	0.0020	U	ug/L	P422615	
		Carbofuran	0.0020	U	ug/L	P422615	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P422615	
		Methiocarb	0.0020	U	ug/L	P422615	
		Methomyl	0.0024	I	ug/L	P422615	
		Oxamyl	0.0020	U	ug/L	P422615	
		Propoxur	0.0020	U	ug/L	P422615	
2369422		2,4-D	0.024		ug/L	P422538	
		Acesulfame K	0.23	I	ug/L	P422312	
		2,4,5-T	0.0040	U	ug/L	P422538	
		AMPA	1.0	U	ug/L	P422312	
		Acetaminophen	0.0080	U	ug/L	P422538	
		Endothall	0.25	U	ug/L	P422312	
		Acetamiprid	0.0020	U	ug/L	P422538	MS
		Glufosinate	1.0	U	ug/L	P422312	
		Glyphosate	1.0	U	ug/L	P422312	MS
		Afidopyropen	0.0020	U	ug/L	P422538	
		Bentazon	0.020		ug/L	P422538	
		Sucralose	3.0		ug/L	P422312	
		Benzovindiflupyr	0.0020	U	ug/L	P422538	
		Carbamazepine	0.0019	I	ug/L	P422538	
		Clothianidin	0.0020	U	ug/L	P422538	MS
		Dinotefuran	0.0032	I	ug/L	P422538	
		Diuron	0.0072	I	ug/L	P422538	
		Fenuron	0.032	U	ug/L	P422538	
		Fluridone	0.0022	I	ug/L	P422538	
		Imazapyr	0.16		ug/L	P422538	
		Hydrocodone	0.0020	U	ug/L	P422538	
		Ibuprofen	0.20	U	ug/L	P422538	
		Imidacloprid	0.018		ug/L	P422538	
		Linuron	0.0040	U	ug/L	P422538	
		Mandestrobin	0.0020	U	ug/L	P422538	

Field ID: G2SE0034

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369422	EPA 8321B	MCP	0.0040	U	ug/L	P422538	
		Naproxen	0.0080	U	ug/L	P422538	
		Primidone	0.0083	I	ug/L	P422538	
		Pyraclostrobin	0.0020	U	ug/L	P422538	
		Silvex	0.0040	U	ug/L	P422538	
		Thiamethoxam	0.0020	U	ug/L	P422538	
		Tolfenpyrad	0.0020	U	ug/L	P422538	
		Triclopyr	0.0040	U	ug/L	P422538	
		Aldrin	0.66	U	ng/L	P422354	
2369423	EPA 8270E	Alpha-BHC	0.10	U	ng/L	P422354	
		Alpha-Chlordane	0.40	I	ng/L	P422354	
		PCB-1016	2.0	U	ng/L	P422354	
		Beta-BHC	0.10	U	ng/L	P422354	
		PCB-1221	2.0	U	ng/L	P422354	
		Beta-Cyfluthrin	1.3	U	ng/L	P422354	
		PCB-1232	2.0	U	ng/L	P422354	
		Bifenthrin	0.51	U	ng/L	P422354	
		PCB-1242	2.0	U	ng/L	P422354	
		PCB-1248	2.0	U	ng/L	P422354	
		Chlorothalonil	1.3	U	ng/L	P422354	
		PCB-1254	2.0	U	ng/L	P422354	
		Cis-Nonachlor	0.20	U	ng/L	P422354	
		PCB-1260	2.0	U	ng/L	P422354	
		Cypermethrin	1.5	U	ng/L	P422354	
		Dacthal	0.15	U	ng/L	P422354	
		DDD-p,p'	0.25	U	ng/L	P422354	
		DDE-p,p'	0.20	U	ng/L	P422354	
		DDT-p,p'	0.25	U	ng/L	P422354	
		Delta-BHC	0.69	I	ng/L	P422354	MS
		Deltamethrin	1.3	U	ng/L	P422354	
		Dichlobenil	0.25	U	ng/L	P422354	
		Dicofol	1.3	U	ng/L	P422354	
		Dieldrin	0.41	U	ng/L	P422354	
		Endosulfan I	0.41	U	ng/L	P422354	
		Endosulfan II	0.41	U	ng/L	P422354	
		Endosulfan Sulfate	0.30	U	ng/L	P422354	
		Endrin	0.41	U	ng/L	P422354	
		Endrin Aldehyde	0.76	U	ng/L	P422354	
		Endrin Ketone	0.41	UJ	ng/L	P422354	CCV
		Esfenvalerate	0.76	U	ng/L	P422354	
		Ethalfuralin	0.15	U	ng/L	P422354	
		Fenpropathrin	0.25	U	ng/L	P422354	
		Gamma-BHC	0.13	U	ng/L	P422354	
		Gamma-Chlordane	0.59	I	ng/L	P422354	
		Heptachlor	0.20	U	ng/L	P422354	

Field ID: G2SE0034

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369423	EPA 8270E	Heptachlor Epoxide	0.25	U	ng/L	P422354	CCV
		Hexachlorobenzene**	1.0	U	ng/L	P422354	
		Kepone	5.1	UJ	ng/L	P422354	
		Lambda-Cyhalothrin	0.76	U	ng/L	P422354	
		Methoprene	0.76	U	ng/L	P422354	
		Methoxychlor	0.30	U	ng/L	P422354	
		MGK-264	0.20	U	ng/L	P422354	
		Mirex	0.35	U	ng/L	P422354	
		Oxychlordane	0.30	U	ng/L	P422354	
		Permethrin	1.6	U	ng/L	P422354	
		Phenothrin	0.91	U	ng/L	P422354	
		Piperonyl Butoxide	1.2		ng/L	P422354	
		Prallethrin	2.0	U	ng/L	P422354	
		Tau-Fluvalinate	0.25	U	ng/L	P422354	
		Tetramethrin	0.76	U	ng/L	P422354	
		Trans-Nonachlor	0.20	U	ng/L	P422354	
		Triclosan Methyl	0.15	U	ng/L	P422354	
		Trifluralin	0.20	U	ng/L	P422354	
		Chlordane	3.3	I	ng/L	P422354	
		Toxaphene	15	U	ng/L	P422354	
2369424	EPA 8270E	Oxybenzone**	9.6	U	ng/L	P422447	
		Acetochlor	0.24	U	ng/L	P422447	
		Octinoxate**	19	UQ	ng/L	P422985	
		Alachlor	0.24	U	ng/L	P422447	
		Avobenzone**	96	U	ng/L	P422447	
		Ametryn	1.5	I	ng/L	P422447	
		Atrazine	94		ng/L	P422447	
		PBDE-47**	3.8	U	ng/L	P422447	
		Atrazine Desethyl	14		ng/L	P422447	
		PBDE-99**	4.8	U	ng/L	P422447	
		Azinphos Methyl	1.9	U	ng/L	P422447	
		Tri-o-cresyl Phosphate**	5.8	U	ng/L	P422447	
		Azoxystrobin	1.3	I	ng/L	P422447	
		Bromacil	0.95	I	ng/L	P422447	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P422447	
		Butylate	0.38	U	ng/L	P422447	
		Dechlorane Plus**	29	U	ng/L	P422447	
		Caffeine**	34		ng/L	P422447	
		Carbophenothion	0.19	U	ng/L	P422447	
		Carfentrazone Ethyl	0.096	U	ng/L	P422447	
		Chlorfenapyr	0.17	U	ng/L	P422447	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P422447	
		Chlorpyrifos Methyl	0.048	U	ng/L	P422447	
		Coumaphos	0.48	U	ng/L	P422447	

Field ID: G2SE0034

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369424	EPA 8270E	Cyanazine	3.1	U	ng/L	P422447	
		Cyprodinil	0.32	I	ng/L	P422447	
		Demeton	1.4	U	ng/L	P422447	
		Diazinon	0.12	U	ng/L	P422447	
		Difenoconazole	0.58	U	ng/L	P422447	
		Dimethenamid	0.096	U	ng/L	P422447	
		Dimethomorph	0.17	U	ng/L	P422447	
		Disulfoton	0.48	U	ng/L	P422447	
		Dithiopyr	0.60	U	ng/L	P422447	
		EPTC	1.2	U	ng/L	P422447	
		Ethion	0.14	U	ng/L	P422447	
		Ethoprop	0.096	U	ng/L	P422447	
		Etridiazole	0.14	U	ng/L	P422447	
		Fenamiphos	0.48	U	ng/L	P422447	
		Fenbuconazole	0.12	U	ng/L	P422447	
		Fipronil	0.26	I	ng/L	P422447	
		Fipronil DesulfinyI**	0.31	I	ng/L	P422447	
		Fipronil Sulfide	0.26	I	ng/L	P422447	
		Fipronil Sulfone	0.69		ng/L	P422447	
		Fluazifop-P-butyl	0.096	U	ng/L	P422447	
		Fludioxonil	0.12	U	ng/L	P422447	
		Flumioxazin	4.3	U	ng/L	P422447	
		Flutolanil	0.38	I	ng/L	P422447	
		Fluxapyroxad	0.67		ng/L	P422447	
		Fonofos	0.19	U	ng/L	P422447	
		Hexazinone	41		ng/L	P422447	
		Imazalil	0.72	U	ng/L	P422447	
		Iprodione	0.58	U	ng/L	P422447	
		Loratadine**	0.34	U	ng/L	P422447	
		Malathion	0.34	U	ng/L	P422447	
		Metalaxyl	0.91	I	ng/L	P422447	
		Metolachlor	14		ng/L	P422447	
		Metribuzin	1.4	U	ng/L	P422447	
		Mevinphos	1.0	U	ng/L	P422447	
		Molinate	0.29	U	ng/L	P422447	
		Myclobutanil	0.24	U	ng/L	P422447	
		Naled	1.4	U	ng/L	P422447	
		Napropamide	0.38	UJ	ng/L	P422447	MS
		Norflurazon	11		ng/L	P422447	
		Oxadiazon	13		ng/L	P422447	
		Oxyfluorfen	0.14	U	ng/L	P422447	
		Parathion Ethyl	0.24	U	ng/L	P422447	
		Parathion Methyl	0.53	U	ng/L	P422447	
		Pendimethalin	0.96	U	ng/L	P422447	
		Phenytain**	3.4	U	ng/L	P422447	

Field ID: G2SE0034

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369424	EPA 8270E	Phorate	0.50	U	ng/L	P422447	
		Prodiamine	0.17	I	ng/L	P422447	
		Prometon	0.86	U	ng/L	P422447	
		Prometryn	0.19	U	ng/L	P422447	
		Pronamide	0.14	U	ng/L	P422447	
		Propanil	0.12	U	ng/L	P422447	
		Propargite	1.4	U	ng/L	P422447	
		Propiconazole	3.4		ng/L	P422447	
		Pyraflufen Ethyl	0.24	U	ng/L	P422447	
		Pyridaben	0.43	U	ng/L	P422447	
		Pyriproxyfen	0.12	U	ng/L	P422447	
		Simazine	0.48	U	ng/L	P422447	
		Stirophos	0.12	U	ng/L	P422447	
		Sulfentrazone	14		ng/L	P422447	
		Tebuconazole	2.5		ng/L	P422447	
		Terbufos	0.096	U	ng/L	P422447	
		Terbutylazine	0.41	U	ng/L	P422447	
		Thiobencarb	0.58	U	ng/L	P422447	
		Triadimefon	0.24	U	ng/L	P422447	
2369426	EPA 200.7 Rev. 4.4	Calcium	147		mg/L	P422594	
		Iron	210	I	ug/L	P422594	
		Magnesium	293		mg/L	P422594	
		Manganese	15		ug/L	P422594	
		Strontium	2.15E+03		ug/L	P422594	
		Tin	9.0	U	ug/L	P422594	
		Titanium	2.6	I	ug/L	P422594	
		Vanadium	6.0	U	ug/L	P422594	
		Zinc	15	U	ug/L	P422594	
	EPA 200.8 Rev. 5.4	Aluminum	93		ug/L	P422594	
		Antimony	15.4		ug/L	P422594	
		Arsenic	2.53		ug/L	P422594	
		Beryllium	0.040	U	ug/L	P422594	
		Cadmium	0.080	U	ug/L	P422594	
		Chromium	4.0	U	ug/L	P422594	
		Cobalt	0.15	I	ug/L	P422594	
		Copper	1.6	U	ug/L	P423148	
		Lead	0.80	U	ug/L	P423148	
		Molybdenum	3.2		ug/L	P422594	
		Nickel	2.0	U	ug/L	P422594	
		Selenium	0.80	U	ug/L	P422594	
		Silver	0.10	U	ug/L	P423148	
		Thallium	0.40	U	ug/L	P422594	

Field ID: G2SE0034

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
SM 2540 D-2015: 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 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample. Some MDLs are elevated due to required dilution of sample matrix.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Sample expired for preparation for octinoxate due to need for re-extraction. Insufficient sample available to perform duplicate matrix spikes in re-extraction.
EPA 8270E: MS accuracy for multiple 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.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Bessey Creek @ Mouth

Collection Date/Time: 11/14/2022 12:55

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2369406	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P422351	
	SM 2320 B-2011	Total Alkalinity	118		mg CaCO3/L	P422640	
	SM 2540 D-2015	TSS	4	I	mg/L	P422705	
	SM 4500-F- C-2011	Fluoride	0.16		mg F/L	P422644	
2369407	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P422989	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P422627	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P422665	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P422442	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P422752	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P422351

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P422380

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P422594

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P422380

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
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P422594

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
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423148

Component	Result	Code	Units
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422913

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422989

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422452

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422540

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422627

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422628

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422491

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422580

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422665

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422442

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422443

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

Reference Method: EPA 8270E
Batch ID: P422354

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	1.2	U	ng/L
Chlorothalonil	1.2	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P422354

Component	Result	Code	Units
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P422354

Component	Result	Code	Units
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E

Batch ID: P422447

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P422447

Component	Result	Code	Units
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.62	U	ng/L
Dithiopyr	0.62	U	ng/L
EPTC	1.2	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P422447

Component	Result	Code	Units
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	4.5	U	ng/L
Flumioxazin	4.5	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.35	U	ng/L
Loratadine	0.35	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	1.5	U	ng/L
Metribuzin	1.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P422447

Component	Result	Code	Units
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stiophos	0.12	U	ng/L
Stiophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P422447

Component	Result	Code	Units
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8270E

Batch ID: P422985

Component	Result	Code	Units
Octinoxate	82		ng/L
Octinoxate	71		ng/L

Reference Method: EPA 8276

Batch ID: P422354

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P422312

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: P422538

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P422538

Component	Result	Code	Units
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.20	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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	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: P422615

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

Reference Method: SM 2320 B-2011

Batch ID: P422622

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

Reference Method: SM 2320 B-2011

Batch ID: P422640

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

Reference Method: SM 2540 D-2015

Batch ID: P422705

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P422705

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P422708

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P422644

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P422965

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P422617

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

Reference Method: SM 5310 B-2011
Batch ID: P422752

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

Reference Method: SM 5310 B-2011
Batch ID: P422753

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P422351

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	99.4		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P422380

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	100		P	85 - 115
Magnesium	100		P	85 - 115
Strontium	102		P	85 - 115
Tin	101		P	85 - 115
Titanium	97.6		P	85 - 115
Vanadium	98.6		P	85 - 115
Zinc	99.7		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P422594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Iron	109		P	85 - 115
Magnesium	97.6		P	85 - 115
Manganese	105		P	85 - 115
Strontium	107		P	85 - 115
Tin	104		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P422380

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	105		P	85 - 115
Arsenic	107		P	85 - 115
Beryllium	102		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	107		P	85 - 115
Cobalt	106		P	85 - 115
Copper	105		P	85 - 115
Lead	96.5		P	85 - 115
Manganese	105		P	85 - 115
Molybdenum	101		P	85 - 115
Nickel	106		P	85 - 115
Selenium	106		P	85 - 115
Silver	101		P	85 - 115
Thallium	99.9		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P422594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.1		P	85 - 115
Antimony	97.7		P	85 - 115
Arsenic	107		P	85 - 115
Beryllium	89.2		P	85 - 115
Cadmium	96.5		P	85 - 115
Chromium	93.8		P	85 - 115
Cobalt	94.6		P	85 - 115
Molybdenum	96.4		P	85 - 115
Nickel	95.2		P	85 - 115
Selenium	105		P	85 - 115
Silver	95.4		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423148

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	91.7		P	85 - 115
Lead	97.1		P	85 - 115
Silver	95.0		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422913

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422989

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422452

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422540

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422627

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.1		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422628

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422491

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: P422580

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422665

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422442

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422443

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

Reference Method: EPA 8270E
Batch ID: P422354

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	62.7		P	10 - 92.0
Alpha-BHC	86.0		P	75 - 107
Alpha-Chlordane	96.4		P	50 - 108
Beta-BHC	95.2		P	36 - 138
Beta-Cyfluthrin	81.0		P	20 - 161
Bifenthrin	65.3		P	10 - 119
Chlorothalonil	92.6		P	26 - 186
Cis-Nonachlor	77.2		P	42 - 119
Cypermethrin	85.1		P	22 - 150
Dacthal	87.6		P	72 - 119
DDD-p,p'	89.5		P	45 - 107
DDE-p,p'	85.3		P	48 - 106
DDT-p,p'	76.6		P	48 - 110
Delta-BHC	91.2		P	54 - 140
Deltamethrin	40.5		P	22 - 189
Dichlobenil	101		P	36 - 117

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P422354

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	87.0		P	46 - 155
Dieldrin	86.8		P	54 - 110
Endosulfan I	82.9		P	59 - 105
Endosulfan II	81.9		P	51 - 118
Endosulfan Sulfate	90.4		P	57 - 121
Endrin	80.0		P	10 - 120
Endrin Aldehyde	79.6		P	34 - 118
Endrin Ketone	127		P	69 - 177
Esfenvalerate	76.5		P	23 - 168
Ethalfuralin	75.4		P	49 - 99.0
Fenpropathrin	86.1		P	34 - 117
Gamma-BHC	78.4		P	72 - 117
Gamma-Chlordane	90.9		P	43 - 106
Heptachlor	67.7		P	41 - 98.0
Heptachlor Epoxide	80.7		P	57 - 106
Hexachlorobenzene	76.5		P	36 - 99.0
Kepone	64.1		P	16 - 215
Lambda-Cyhalothrin	73.0		P	21 - 177
Methoprene	79.6		P	10 - 119
Methoxychlor	75.7		P	60 - 112
MGK-264	79.4		P	26 - 122
Mirex	66.1		P	10 - 169
Oxychlordane	77.3		P	43 - 105
PCB-1016	73.8		P	48 - 112
PCB-1260	82.6		P	44 - 118
Permethrin	81.0		P	24 - 148
Phenothrin	64.1		P	10 - 106
Piperonyl Butoxide	96.1		P	10 - 139
Prallethrin	82.3		P	17 - 109
Tau-Fluvalinate	73.3		P	13 - 131
Tetramethrin	93.6		P	10 - 132
Trans-Nonachlor	81.8		P	44 - 106
Triclosan Methyl	86.7		P	59 - 109
Trifluralin	77.2		P	44 - 101

Reference Method: EPA 8270E

Batch ID: P422447

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	125		P	42 - 162
Acetochlor	110		P	69 - 123
Alachlor	108		P	65 - 118
Ametryn	137		P	58 - 141
Atrazine	115		P	73 - 118
Atrazine Desethyl	96.1		P	32 - 125
Avobenzone	146		P	40 - 203
Azinphos Methyl	146		P	36 - 197
Azoxystrobin	124		P	58 - 226
Bromacil	90.3		P	48 - 120
Butylate	75.9		P	27 - 85.0
Caffeine	73.7		P	40 - 137
Carbophenothion	88.2		P	54 - 132

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P422447

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carfentrazone Ethyl	140		P	60 - 142
Chlorfenapyr	108		P	53 - 117
Chlorpyrifos Ethyl	83.7		P	59 - 116
Chlorpyrifos Methyl	116		P	66 - 119
Coumaphos	170		P	11 - 234
Cyanazine	164		P	61 - 248
Cyprodinil	114		P	50 - 147
Dechlorane Plus	137		P	47 - 182
Demeton	131		P	30 - 138
Diazinon	122		P	67 - 126
Difenoconazole	175		P	38 - 205
Dimethenamid	87.9		P	57 - 111
Dimethomorph	105		P	16 - 212
Disulfoton	108		P	46 - 126
Dithiopyr	76.5		P	62 - 115
EPTC	74.2		P	28 - 80.0
Ethion	74.8		P	24 - 122
Ethoprop	110		P	62 - 113
Etridiazole	90.6		P	28 - 92.0
Fenamiphos	92.1		P	57 - 128
Fenbuconazole	133		P	52 - 155
Fipronil	80.6		P	63 - 130
Fipronil Desulfinyl	123		P	61 - 130
Fipronil Sulfide	67.8		P	56 - 117
Fipronil Sulfone	78.7		P	52 - 118
Fluazifop-P-butyl	80.6		P	61 - 128
Fludioxonil	128		P	59 - 129
Flumioxazin	178		P	30 - 250
Flutolanil	85.2		P	53 - 127
Fluxapyroxad	112		P	42 - 132
Fonofos	82.2		P	61 - 110
Hexazinone	120		P	46 - 139
Imazalil	100		P	40 - 139
Iprodione	143		P	40 - 146
Loratadine	150		P	10 - 224
Malathion	128		P	61 - 135
Metaxyl	120		P	58 - 121
Metolachlor	78.4		P	64 - 118
Metribuzin	115		P	45 - 245
Mevinphos	105		P	49 - 118
Molinate	86.2		P	42 - 92.0
Myclobutanil	94.3		P	55 - 127
Naled	103		P	10 - 114
Napropamide	119		P	39 - 121
Norflurazon	96.8		P	55 - 129
Oxadiazon	95.4		P	54 - 115
Oxybenzone	92.7		P	49 - 135
Oxyfluorfen	138		P	64 - 139
Parathion Ethyl	108		P	70 - 111
Parathion Methyl	119		P	76 - 136
PBDE-47	109		P	41 - 148
PBDE-99	108		P	38 - 147

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P422447

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pendimethalin	102		P	52 - 118
Phenytol	118		P	10 - 162
Phorate	102		P	40 - 122
Prodiamine	116		P	26 - 141
Prometon	121		P	54 - 122
Prometryn	107		P	61 - 128
Pronamide	85.3		P	72 - 121
Propanil	96.4		P	45 - 144
Propargite	173		P	10 - 199
Propiconazole	104		P	56 - 127
Pyraflufen Ethyl	94.0		P	56 - 140
Pyridaben	164		P	26 - 211
Pyriproxyfen	190		P	33 - 194
Simazine	113		P	67 - 121
Stirophos	133		P	20 - 142
Sulfentrazone	136		P	21 - 144
Tebuconazole	106		P	10 - 122
Terbufos	93.0		P	60 - 129
Terbutylazine	71.0		P	69 - 113
Thiobencarb	119		P	51 - 120
Tri-o-cresyl Phosphate	105		P	49 - 150
Triadimefon	106		P	56 - 114

Reference Method: EPA 8270E
Batch ID: P422985

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Octinoxate	109	96.0	P/P	26 - 166

Reference Method: EPA 8276
Batch ID: P422354

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	74.3		P	61 - 116
Toxaphene	81.0		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P422312

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	124		P	40 - 150
AMPA	117		P	40 - 150
Endothall	97.3		P	40 - 150
Glufosinate	113		P	40 - 150
Glyphosate	114		P	40 - 150
Sucralose	101		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P422538

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	110		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P422538

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	81.0		P	40 - 150
Acetaminophen	84.5		P	30 - 150
Acetamiprid	81.1		P	40 - 150
Afidopyropen	58.9		P	30 - 150
Bentazon	78.2		P	30 - 150
Benzovindiflupyr	77.2		P	40 - 150
Carbamazepine	78.0		P	40 - 150
Clothianidin	88.4		P	40 - 150
Dinotefuran	87.5		P	40 - 150
Diuron	72.0		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	88.2		P	40 - 150
Hydrocodone	92.3		P	40 - 150
Ibuprofen	81.4		P	40 - 150
Imazapyr	80.6		P	40 - 150
Imidacloprid	96.6		P	40 - 150
Linuron	69.4		P	40 - 150
Mandestrobin	85.6		P	40 - 150
MCPP	99.7		P	40 - 150
Naproxen	78.4		P	40 - 150
Primidone	92.2		P	40 - 150
Pyraclostrobin	72.1		P	40 - 150
Silvex	84.0		P	40 - 150
Thiamethoxam	92.8		P	40 - 150
Tolfenpyrad	37.7		P	30 - 150
Triclopyr	86.1		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P422615

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	85.3		P	40 - 150
Aldicarb	70.9		P	30 - 150
Aldicarb Sulfone	94.2		P	40 - 150
Aldicarb Sulfoxide	97.7		P	40 - 150
Carbaryl	65.4		P	40 - 150
Carbofuran	70.0		P	40 - 150
Methiocarb	66.6		P	40 - 150
Methomyl	91.9		P	40 - 150
Oxamyl	88.0		P	40 - 150
Propoxur	79.2		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P422622

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.2		P	94 - 106

Reference Method: SM 2320 B-2011

Batch ID: P422640

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P422640

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.8		P	94 - 106

Reference Method: SM 2540 D-2015
Batch ID: P422705

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.5		P	85 - 106

Reference Method: SM 2540 D-2015
Batch ID: P422708

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.1		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P422644

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.9		P	96 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P422965

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P422617

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

Reference Method: SM 5310 B-2011
Batch ID: P422752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.7		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P422753

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P422380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369333	Iron	99.7		P	80 - 120
2369333	Tin	113		P	80 - 120
2369333	Titanium	96.2		P	80 - 120
2369333	Vanadium	102		P	80 - 120
2369333	Zinc	98.8		P	80 - 120
2369451	Calcium	91.2		P	80 - 120
2369451	Iron	88.4	105	P/P	80 - 120
2369451	Magnesium	93.7		P	80 - 120
2369451	Strontium	90.4	104	P/P	80 - 120
2369451	Tin	91.2	102	P/P	80 - 120
2369451	Titanium	94.6	104	P/P	80 - 120
2369451	Vanadium	94.0	103	P/P	80 - 120
2369451	Zinc	88.5	100	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P422594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369427	Iron	108	103	P/P	80 - 120
2369427	Manganese	103	101	P/P	80 - 120
2369427	Tin	99.8	95.7	P/P	80 - 120
2369427	Titanium	103	101	P/P	80 - 120
2369427	Vanadium	104	104	P/P	80 - 120
2369427	Zinc	102	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P422380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369333	Aluminum	104		P	75 - 125
2369333	Antimony	112		P	75 - 125
2369333	Arsenic	111		P	75 - 125
2369333	Beryllium	87.4		P	75 - 125
2369333	Cadmium	101		P	75 - 125
2369333	Chromium	86.1		P	80 - 120
2369333	Cobalt	105		P	75 - 125
2369333	Copper	109		P	75 - 125
2369333	Lead	99.4		P	75 - 125
2369333	Molybdenum	109		P	75 - 125
2369333	Nickel	110		P	75 - 125
2369333	Selenium	108		P	75 - 125
2369333	Silver	92.9		P	75 - 125
2369333	Thallium	103		P	75 - 125
2369451	Aluminum	102	100	P/P	80 - 120
2369451	Antimony	107	105	P/P	80 - 120
2369451	Arsenic	104	103	P/P	80 - 120
2369451	Beryllium	93.7	92.1	P/P	80 - 120
2369451	Cadmium	104	103	P/P	80 - 120
2369451	Chromium	104	103	P/P	80 - 120
2369451	Cobalt	100	100	P/P	80 - 120
2369451	Copper	98.5	98.4	P/P	80 - 120
2369451	Lead	97.4	96.1	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P422380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369451	Manganese	106	105	P/P	80 - 120
2369451	Molybdenum	103	102	P/P	80 - 120
2369451	Nickel	100	100	P/P	80 - 120
2369451	Selenium	101	99.6	P/P	80 - 120
2369451	Silver	102	102	P/P	80 - 120
2369451	Thallium	101	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P422594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369427	Aluminum	97.7	96.2	P/P	70 - 130
2369427	Antimony	99.7	99.2	P/P	70 - 130
2369427	Arsenic	118	118	P/P	70 - 130
2369427	Beryllium	104	99.1	P/P	70 - 130
2369427	Cadmium	94.8	94.1	P/P	70 - 130
2369427	Chromium	95.1	94.3	P/P	70 - 130
2369427	Cobalt	108	105	P/P	70 - 130
2369427	Molybdenum	107	104	P/P	70 - 130
2369427	Nickel	94.1	93.2	P/P	70 - 130
2369427	Selenium	108	110	P/P	70 - 130
2369427	Silver	88.9	88.6	P/P	70 - 130
2369427	Thallium	107	107	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423148

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2371856	Copper	103	105	P/P	70 - 130
2371856	Lead	104	102	P/P	70 - 130
2371856	Silver	85.1	84.1	P/P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2367750	Ammonia-N	98.8	99.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422989

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369516	Ammonia-N	98.6	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422452

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369237	Kjeldahl Nitrogen	103	108	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369521	Kjeldahl Nitrogen	94.4	96.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422627

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2370119	Kjeldahl Nitrogen	95.3	96.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422628

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2370058	Kjeldahl Nitrogen	95.6	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422491

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369391	NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422580

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369224	NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422665

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369231	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422442

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369472	Total-P	99.0	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422443

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369491	Total-P	107	107	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P422354

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369386	Aldrin	53.6	56.8	P/P	20 - 82.0
2369386	Alpha-BHC	71.8	75.4	P/P	71 - 109
2369386	Alpha-Chlordane	69.2	62.3	P/P	42 - 106
2369386	Beta-BHC	82.5	79.7	P/P	69 - 180

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P422354

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369386	Beta-Cyfluthrin	57.5	63.9	P/P	18 - 175
2369386	Bifenthrin	46.4	54.5	P/P	21 - 128
2369386	Chlorothalonil	74.8	85.8	P/P	10 - 300
2369386	Cis-Nonachlor	55.6	59.7	P/P	34 - 106
2369386	Cypermethrin	56.6	66.9	P/P	22 - 158
2369386	Dacthal	70.4	76.2	P/P	54 - 116
2369386	DDD-p,p'	67.7	70.8	P/P	34 - 107
2369386	DDE-p,p'	66.3	71.0	P/P	33 - 110
2369386	DDT-p,p'	57.7	63.8	P/P	50 - 122
2369386	Delta-BHC	75.0	79.8	F/P	77 - 193
2369386	Deltamethrin	46.4	28.1	P/P	10 - 195
2369386	Dichlobenil	91.4	85.0	P/P	25 - 113
2369386	Dicofol	66.3	69.9	P/P	38 - 247
2369386	Dieldrin	72.4	75.6	P/P	45 - 118
2369386	Endosulfan I	68.5	66.1	P/P	51 - 106
2369386	Endosulfan II	67.1	70.9	P/P	37 - 122
2369386	Endosulfan Sulfate	73.9	74.6	P/P	43 - 132
2369386	Endrin	69.0	70.2	P/P	29 - 101
2369386	Endrin Aldehyde	63.9	71.8	P/P	19 - 110
2369386	Endrin Ketone	102	111	P/P	60 - 140
2369386	Esfenvalerate	51.6	64.7	P/P	26 - 199
2369386	Ethalfuralin	59.1	62.4	P/P	45 - 99.0
2369386	Fenpropathrin	62.4	64.6	P/P	35 - 120
2369386	Gamma-BHC	68.6	80.8	P/P	63 - 128
2369386	Gamma-Chlordane	71.2	61.9	P/P	40 - 104
2369386	Heptachlor	56.9	62.6	P/P	36 - 97.0
2369386	Heptachlor Epoxide	71.0	73.6	P/P	49 - 184
2369386	Hexachlorobenzene	59.5	60.2	P/P	39 - 96.0
2369386	Kepone	55.3	56.8	P/P	10 - 217
2369386	Lambda-Cyhalothrin	51.5	62.9	P/P	21 - 193
2369386	Methoprene	56.2	63.0	P/P	20 - 106
2369386	Methoxychlor	60.2	64.5	P/P	53 - 118
2369386	MGK-264	67.2	74.5	P/P	40 - 118
2369386	Mirex	50.2	57.1	P/P	26 - 92.0
2369386	Oxychlordane	65.7	72.7	P/P	44 - 99.0
2369386	Permethrin	58.7	67.7	P/P	33 - 182
2369386	Phenothrin	48.6	58.3	P/P	10 - 129
2369386	Piperonyl Butoxide	71.4	78.8	P/P	10 - 211
2369386	Prallethrin	65.9	69.5	P/P	24 - 113
2369386	Tau-Fluvalinate	49.6	60.6	P/P	14 - 149
2369386	Tetramethrin	69.0	80.4	P/P	17 - 151
2369386	Trans-Nonachlor	63.6	64.4	P/P	42 - 102
2369386	Triclosan Methyl	68.6	63.6	P/P	48 - 108
2369386	Trifluralin	59.1	63.4	P/P	47 - 96.0
2369877	PCB-1016	72.9	74.0	P/P	46 - 111
2369877	PCB-1260	69.6	72.7	P/P	45 - 114

Reference Method: EPA 8270E

Batch ID: P422447

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369424	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	115	122	P/P	26 - 165

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P422447

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369424	Acetochlor	84.2	93.3	P/P	67 - 124
2369424	Alachlor	85.3	88.2	P/P	60 - 120
2369424	Ametryn	107	136	P/P	54 - 216
2369424	Atrazine Desethyl	73.2	103	P/P	15 - 122
2369424	Avobenzone	144	151	P/P	37 - 178
2369424	Azinphos Methyl	147	157	P/P	40 - 292
2369424	Azoxystrobin	98.2	114	P/P	35 - 220
2369424	Bromacil	76.0	78.1	P/P	45 - 127
2369424	Butylate	71.0	80.6	P/P	20 - 83.0
2369424	Caffeine	78.7	85.2	P/P	10 - 194
2369424	Carbophenothion	87.9	85.8	P/P	57 - 127
2369424	Carfentrazone Ethyl	115	103	P/P	51 - 141
2369424	Chlorfenapyr	105	104	P/P	46 - 111
2369424	Chlorpyrifos Ethyl	78.3	86.4	P/P	52 - 120
2369424	Chlorpyrifos Methyl	85.6	98.6	P/P	63 - 119
2369424	Coumaphos	136	137	P/P	10 - 228
2369424	Cyanazine	163	179	P/P	59 - 241
2369424	Cyprodinil	125	134	P/P	47 - 146
2369424	Dechlorane Plus	114	102	P/P	50 - 150
2369424	Demeton	128	132	P/P	40 - 136
2369424	Diazinon	104	107	P/P	69 - 132
2369424	Difenoconazole	137	142	P/P	57 - 258
2369424	Dimethenamid	69.4	75.9	P/P	54 - 110
2369424	Dimethomorph	103	120	P/P	28 - 210
2369424	Disulfoton	97.9	112	P/P	43 - 133
2369424	Dithiopyr	72.6	77.4	P/P	39 - 116
2369424	EPTC	62.8	65.3	P/P	20 - 78.0
2369424	Ethion	64.3	66.7	P/P	17 - 119
2369424	Ethoprop	115	118	P/P	66 - 120
2369424	Etridiazole	91.3	78.6	P/P	28 - 96.0
2369424	Fenamiphos	86.2	91.3	P/P	41 - 126
2369424	Fenbuconazole	104	106	P/P	42 - 169
2369424	Fipronil	85.3	93.2	P/P	61 - 132
2369424	Fipronil Desulfinyl	121	126	P/P	56 - 132
2369424	Fipronil Sulfide	72.1	84.3	P/P	48 - 119
2369424	Fipronil Sulfone	81.7	92.3	P/P	42 - 131
2369424	Fluazifop-P-butyl	68.6	78.3	P/P	53 - 131
2369424	Fludioxonil	92.2	100	P/P	56 - 127
2369424	Flumioxazin	150	145	P/P	19 - 300
2369424	Flutolanil	74.1	84.2	P/P	41 - 127
2369424	Fluxapyroxad	108	105	P/P	42 - 172
2369424	Fonofos	91.9	101	P/P	59 - 113
2369424	Imazalil	103	118	P/P	21 - 283
2369424	Iprodione	142	148	P/P	43 - 150
2369424	Loratadine	120	120	P/P	23 - 201
2369424	Malathion	95.3	97.9	P/P	58 - 136
2369424	Metalaxyl	97.4	107	P/P	55 - 120
2369424	Metribuzin	120	122	P/P	58 - 294
2369424	Mevinphos	111	116	P/P	50 - 126
2369424	Molinate	83.0	92.0	P/P	42 - 93.0
2369424	Myclobutanil	92.1	102	P/P	55 - 125
2369424	Naled	85.2	112	P/P	18 - 200

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P422447

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369424	Napropamide	96.0	114	P/F	39 - 110
2369424	Norflurazon	60.8	57.6	P/P	48 - 128
2369424	Oxybenzone	80.5	82.4	P/P	41 - 142
2369424	Oxyfluorfen	127	144	P/P	64 - 153
2369424	Parathion Ethyl	96.6	104	P/P	69 - 114
2369424	Parathion Methyl	119	120	P/P	79 - 139
2369424	PBDE-47	105	110	P/P	27 - 144
2369424	PBDE-99	95.4	101	P/P	18 - 150
2369424	Pendimethalin	86.3	85.8	P/P	50 - 139
2369424	Phenytol	103	99.5	P/P	10 - 146
2369424	Phorate	95.8	109	P/P	54 - 161
2369424	Prodiamine	108	110	P/P	30 - 161
2369424	Prometon	110	125	P/P	45 - 134
2369424	Prometryn	103	114	P/P	45 - 137
2369424	Pronamide	82.7	84.5	P/P	65 - 133
2369424	Propanil	102	102	P/P	49 - 142
2369424	Propargite	155	173	P/P	10 - 203
2369424	Propiconazole	103	97.7	P/P	38 - 146
2369424	Pyraflufen Ethyl	90.6	88.2	P/P	34 - 153
2369424	Pyridaben	177	182	P/P	12 - 192
2369424	Pyriproxyfen	175	168	P/P	33 - 180
2369424	Simazine	113	119	P/P	51 - 157
2369424	Stirophos	113	113	P/P	10 - 128
2369424	Tebuconazole	102	103	P/P	10 - 133
2369424	Terbufos	120	130	P/P	65 - 139
2369424	Terbutylazine	71.0	79.7	P/P	66 - 117
2369424	Thiobencarb	107	103	P/P	51 - 119
2369424	Tri-o-cresyl Phosphate	95.2	102	P/P	31 - 144
2369424	Triadimefon	108	104	P/P	48 - 119

Reference Method: EPA 8270E

Batch ID: P422985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369387	Octinoxate	88.7		P	21 - 159

Reference Method: EPA 8276

Batch ID: P422354

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369877	Chlordane	81.5	84.9	P/P	53 - 126
2369877	Toxaphene	112	92.9	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P422312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369532	Acesulfame K	135	139	P/P	40 - 150
2369532	AMPA	100	103	P/P	40 - 150
2369532	Endothall	99.2	101	P/P	40 - 150
2369532	Glufosinate	128	116	P/P	40 - 150
2369532	Glyphosate	156	143	F/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P422538

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369273	2,4-D	105	100	P/P	40 - 150
2369273	2,4,5-T	73.2	62.7	P/P	40 - 150
2369273	Acetaminophen	86.0	87.0	P/P	30 - 150
2369273	Acetamiprid	25.2	25.4	F/F	40 - 150
2369273	Afidopyropen	71.7	71.4	P/P	30 - 150
2369273	Benzovindiflupyr	73.4	77.2	P/P	40 - 150
2369273	Clothianidin	18.3	10.5	F/F	40 - 150
2369273	Diuron	46.2	44.5	P/P	40 - 150
2369273	Fenuron	82.6	77.6	P/P	40 - 150
2369273	Fluridone	75.4	74.9	P/P	40 - 150
2369273	Hydrocodone	106	106	P/P	40 - 150
2369273	Ibuprofen	74.2	78.1	P/P	40 - 150
2369273	Imazapyr	126	124	P/P	40 - 150
2369273	Linuron	76.1	76.9	P/P	40 - 150
2369273	Mandestrobin	81.0	80.7	P/P	40 - 150
2369273	MCCP	79.6	73.3	P/P	40 - 150
2369273	Naproxen	78.0	84.4	P/P	40 - 150
2369273	Pyraclostrobin	80.1	81.0	P/P	40 - 150
2369273	Silvex	94.9	84.1	P/P	40 - 150
2369273	Thiamethoxam	122	122	P/P	40 - 150
2369273	Tolfenpyrad	54.3	56.4	P/P	30 - 150
2369273	Triclopyr	67.5	68.2	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P422615

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2370070	3-Hydroxycarbofuran	86.9	93.7	P/P	40 - 150
2370070	Aldicarb	47.6	46.4	P/P	30 - 150
2370070	Aldicarb Sulfone	113	101	P/P	40 - 150
2370070	Aldicarb Sulfoxide	60.8	51.1	P/P	40 - 150
2370070	Carbaryl	45.9	44.0	P/P	40 - 150
2370070	Carbofuran	55.4	48.8	P/P	40 - 150
2370070	Methiocarb	57.9	51.7	P/P	40 - 150
2370070	Methomyl	85.8	81.1	P/P	40 - 150
2370070	Oxamyl	85.5	85.1	P/P	40 - 150
2370070	Propoxur	55.4	50.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P422644

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369236	Fluoride	102	101	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P422965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369410	Fluoride	100	102	P/P	94 - 104

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P422617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2368330	Organic Carbon	88.1	88.5	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P422752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369219	Organic Carbon	95.3	95.9	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P422753

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2369756	Organic Carbon	96.4	96.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P422351

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369210	Turbidity	9.02	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P422380

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369451	Calcium	13.0	Spike	P	0 - 20
2369451	Iron	16.8	Spike	P	0 - 20
2369451	Magnesium	16.6	Spike	P	0 - 20
2369451	Strontium	13.4	Spike	P	0 - 20
2369451	Tin	11.1	Spike	P	0 - 20
2369451	Titanium	9.08	Spike	P	0 - 20
2369451	Vanadium	9.27	Spike	P	0 - 20
2369451	Zinc	9.68	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P422594

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369427	Calcium	2.95	Spike	P	0 - 20
2369427	Iron	4.28	Spike	P	0 - 20
2369427	Magnesium	3.06	Spike	P	0 - 20
2369427	Manganese	1.96	Spike	P	0 - 20
2369427	Strontium	2.94	Spike	P	0 - 20
2369427	Tin	4.20	Spike	P	0 - 20
2369427	Titanium	1.57	Spike	P	0 - 20
2369427	Vanadium	0.623	Spike	P	0 - 20
2369427	Zinc	1.69	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P422380

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369451	Aluminum	1.85	Spike	P	0 - 20
2369451	Antimony	1.23	Spike	P	0 - 20
2369451	Arsenic	0.941	Spike	P	0 - 20
2369451	Beryllium	1.72	Spike	P	0 - 20
2369451	Cadmium	1.80	Spike	P	0 - 20
2369451	Chromium	0.765	Spike	P	0 - 20
2369451	Cobalt	0.0171	Spike	P	0 - 20
2369451	Copper	0.0431	Spike	P	0 - 20
2369451	Lead	1.36	Spike	P	0 - 20
2369451	Manganese	1.03	Spike	P	0 - 20
2369451	Molybdenum	0.828	Spike	P	0 - 20
2369451	Nickel	0.0895	Spike	P	0 - 20
2369451	Selenium	1.36	Spike	P	0 - 20
2369451	Silver	0.433	Spike	P	0 - 20
2369451	Thallium	1.01	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P422594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369427	Aluminum	1.35	Spike	P	0 - 20
2369427	Antimony	0.546	Spike	P	0 - 20
2369427	Arsenic	0.453	Spike	P	0 - 20
2369427	Beryllium	4.75	Spike	P	0 - 20
2369427	Cadmium	0.753	Spike	P	0 - 20
2369427	Chromium	0.774	Spike	P	0 - 20
2369427	Cobalt	2.60	Spike	P	0 - 20
2369427	Molybdenum	2.26	Spike	P	0 - 20
2369427	Nickel	0.853	Spike	P	0 - 20
2369427	Selenium	1.22	Spike	P	0 - 20
2369427	Silver	0.354	Spike	P	0 - 20
2369427	Thallium	0.376	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423148

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2371856	Copper	2.06	Spike	P	0 - 20
2371856	Lead	1.65	Spike	P	0 - 20
2371856	Silver	1.21	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2367750	Ammonia-N	0.735	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P422989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369516	Ammonia-N	0.351	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422452

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369237	Kjeldahl Nitrogen	3.81	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369521	Kjeldahl Nitrogen	1.68	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2370119	Kjeldahl Nitrogen	1.22	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P422628

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2370058	Kjeldahl Nitrogen	6.23	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369391	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369224	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P422665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369231	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422442

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369472	Total-P	2.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P422443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369491	Total-P	0.0414	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P422354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369386	Aldrin	5.79	Spike	P	0 - 41
2369386	Alpha-BHC	4.78	Spike	P	0 - 25

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P422354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369386	Alpha-Chlordane	10.5	Spike	P	0 - 33
2369386	Beta-BHC	3.48	Spike	P	0 - 36
2369386	Beta-Cyfluthrin	10.6	Spike	P	0 - 42
2369386	Bifenthrin	16.1	Spike	P	0 - 53
2369386	Chlorothalonil	13.7	Spike	P	0 - 71
2369386	Cis-Nonachlor	7.12	Spike	P	0 - 29
2369386	Cypermethrin	16.6	Spike	P	0 - 40
2369386	Dacthal	7.89	Spike	P	0 - 26
2369386	DDD-p,p'	4.52	Spike	P	0 - 39
2369386	DDE-p,p'	6.85	Spike	P	0 - 33
2369386	DDT-p,p'	9.96	Spike	P	0 - 40
2369386	Delta-BHC	6.26	Spike	P	0 - 37
2369386	Deltamethrin	49.2	Spike	P	0 - 100
2369386	Dichlobenil	7.29	Spike	P	0 - 40
2369386	Dicofol	5.22	Spike	P	0 - 31
2369386	Dieldrin	4.32	Spike	P	0 - 27
2369386	Endosulfan I	3.57	Spike	P	0 - 23
2369386	Endosulfan II	5.61	Spike	P	0 - 28
2369386	Endosulfan Sulfate	0.938	Spike	P	0 - 38
2369386	Endrin	1.85	Spike	P	0 - 63
2369386	Endrin Aldehyde	11.6	Spike	P	0 - 60
2369386	Endrin Ketone	8.78	Spike	P	0 - 37
2369386	Esfenvalerate	22.5	Spike	P	0 - 52
2369386	Ethalfuralin	5.42	Spike	P	0 - 23
2369386	Fenpropathrin	3.48	Spike	P	0 - 32
2369386	Gamma-BHC	16.3	Spike	P	0 - 17
2369386	Gamma-Chlordane	13.9	Spike	P	0 - 40
2369386	Heptachlor	9.43	Spike	P	0 - 29
2369386	Heptachlor Epoxide	3.57	Spike	P	0 - 25
2369386	Hexachlorobenzene	1.21	Spike	P	0 - 36
2369386	Kepone	2.65	Spike	P	0 - 93
2369386	Lambda-Cyhalothrin	20.0	Spike	P	0 - 55
2369386	Methoprene	11.5	Spike	P	0 - 53
2369386	Methoxychlor	6.82	Spike	P	0 - 29
2369386	MGK-264	10.2	Spike	P	0 - 35
2369386	Mirex	13.0	Spike	P	0 - 46
2369386	Oxychlordane	10.1	Spike	P	0 - 29
2369386	Permethrin	14.3	Spike	P	0 - 44
2369386	Phenothrin	18.2	Spike	P	0 - 56
2369386	Piperonyl Butoxide	9.88	Spike	P	0 - 100
2369386	Prallethrin	5.28	Spike	P	0 - 42
2369386	Tau-Fluvalinate	19.9	Spike	P	0 - 54
2369386	Tetramethrin	15.3	Spike	P	0 - 51
2369386	Trans-Nonachlor	1.35	Spike	P	0 - 37
2369386	Triclosan Methyl	7.59	Spike	P	0 - 31
2369386	Trifluralin	6.89	Spike	P	0 - 30
2369877	PCB-1016	1.48	Spike	P	0 - 32
2369877	PCB-1260	4.29	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P422447

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369424	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	5.10	Spike	P	0 - 37
2369424	Acetochlor	10.3	Spike	P	0 - 28
2369424	Alachlor	3.26	Spike	P	0 - 30
2369424	Ametryn	18.6	Spike	P	0 - 32
2369424	Atrazine	6.33	Spike	P	0 - 41
2369424	Atrazine Desethyl	16.5	Spike	P	0 - 36
2369424	Avobenzone	5.01	Spike	P	0 - 36
2369424	Azinphos Methyl	6.77	Spike	P	0 - 75
2369424	Azoxystrobin	11.2	Spike	P	0 - 39
2369424	Bromacil	2.44	Spike	P	0 - 33
2369424	Butylate	12.7	Spike	P	0 - 44
2369424	Caffeine	7.21	Spike	P	0 - 74
2369424	Carbophenothion	2.44	Spike	P	0 - 25
2369424	Carfentrazone Ethyl	11.1	Spike	P	0 - 27
2369424	Chlorfenapyr	1.49	Spike	P	0 - 24
2369424	Chlorpyrifos Ethyl	9.83	Spike	P	0 - 26
2369424	Chlorpyrifos Methyl	14.1	Spike	P	0 - 26
2369424	Coumaphos	0.853	Spike	P	0 - 28
2369424	Cyanazine	9.31	Spike	P	0 - 48
2369424	Cyprodinil	6.27	Spike	P	0 - 29
2369424	Dechlorane Plus	11.7	Spike	P	0 - 30
2369424	Demeton	3.47	Spike	P	0 - 33
2369424	Diazinon	2.89	Spike	P	0 - 29
2369424	Difenoconazole	3.66	Spike	P	0 - 34
2369424	Dimethenamid	8.87	Spike	P	0 - 39
2369424	Dimethomorph	15.4	Spike	P	0 - 51
2369424	Disulfoton	13.1	Spike	P	0 - 30
2369424	Dithiopyr	6.43	Spike	P	0 - 26
2369424	EPTC	3.89	Spike	P	0 - 43
2369424	Ethion	3.67	Spike	P	0 - 79
2369424	Ethoprop	2.58	Spike	P	0 - 29
2369424	Etridiazole	14.9	Spike	P	0 - 33
2369424	Fenamiphos	5.72	Spike	P	0 - 40
2369424	Fenbuconazole	1.49	Spike	P	0 - 74
2369424	Fipronil	8.21	Spike	P	0 - 29
2369424	Fipronil Desulfinyl	4.14	Spike	P	0 - 32
2369424	Fipronil Sulfide	13.3	Spike	P	0 - 30
2369424	Fipronil Sulfone	8.61	Spike	P	0 - 33
2369424	Fluazifop-P-butyl	13.3	Spike	P	0 - 38
2369424	Fludioxonil	8.11	Spike	P	0 - 29
2369424	Flumioxazin	3.61	Spike	P	0 - 51
2369424	Flutolanil	11.3	Spike	P	0 - 25
2369424	Fluxapyroxad	2.27	Spike	P	0 - 45
2369424	Fonofos	9.61	Spike	P	0 - 27
2369424	Hexazinone	1.34	Spike	P	0 - 30
2369424	Imazalil	12.8	Spike	P	0 - 100
2369424	Iprodione	4.06	Spike	P	0 - 33
2369424	Loratadine	0.452	Spike	P	0 - 56
2369424	Malathion	2.67	Spike	P	0 - 37
2369424	Metalaxyl	8.69	Spike	P	0 - 40
2369424	Metolachlor	2.36	Spike	P	0 - 29

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P422447

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369424	Metribuzin	1.80	Spike	P	0 - 45
2369424	Mevinphos	4.40	Spike	P	0 - 29
2369424	Molinate	10.3	Spike	P	0 - 33
2369424	Myclobutanil	9.76	Spike	P	0 - 26
2369424	Naled	27.3	Spike	P	0 - 37
2369424	Napropamide	17.5	Spike	P	0 - 44
2369424	Norflurazon	2.06	Spike	P	0 - 30
2369424	Oxadiazon	15.2	Spike	P	0 - 28
2369424	Oxybenzone	2.38	Spike	P	0 - 46
2369424	Oxyfluorfen	12.6	Spike	P	0 - 28
2369424	Parathion Ethyl	7.87	Spike	P	0 - 31
2369424	Parathion Methyl	1.12	Spike	P	0 - 29
2369424	PBDE-47	4.97	Spike	P	0 - 36
2369424	PBDE-99	5.25	Spike	P	0 - 40
2369424	Pendimethalin	0.476	Spike	P	0 - 33
2369424	Phenytoin	3.21	Spike	P	0 - 100
2369424	Phorate	12.7	Spike	P	0 - 36
2369424	Prodiamine	2.23	Spike	P	0 - 71
2369424	Prometon	12.6	Spike	P	0 - 36
2369424	Prometryn	9.96	Spike	P	0 - 28
2369424	Pronamide	2.15	Spike	P	0 - 24
2369424	Propanil	0.164	Spike	P	0 - 28
2369424	Propargite	10.7	Spike	P	0 - 43
2369424	Propiconazole	2.60	Spike	P	0 - 33
2369424	Pyraflufen Ethyl	2.67	Spike	P	0 - 29
2369424	Pyridaben	2.35	Spike	P	0 - 30
2369424	Pyriproxyfen	3.97	Spike	P	0 - 79
2369424	Simazine	4.98	Spike	P	0 - 29
2369424	Stirophos	0.633	Spike	P	0 - 61
2369424	Sulfentrazone	2.92	Spike	P	0 - 33
2369424	Tebuconazole	0.640	Spike	P	0 - 69
2369424	Terbufos	7.87	Spike	P	0 - 29
2369424	Terbuthylazine	11.5	Spike	P	0 - 32
2369424	Thiobencarb	3.77	Spike	P	0 - 26
2369424	Tri-o-cresyl Phosphate	6.79	Spike	P	0 - 33
2369424	Triadimefon	3.86	Spike	P	0 - 28

Reference Method: EPA 8270E
Batch ID: P422985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Octinoxate	13.0	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P422354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369877	Chlordane	4.09	Spike	P	0 - 25
2369877	Toxaphene	18.8	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P422312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369532	Acesulfame K	3.32	Spike	P	0 - 30
2369532	AMPA	2.85	Spike	P	0 - 30
2369532	Endothall	1.69	Spike	P	0 - 30
2369532	Glufosinate	10.1	Spike	P	0 - 30
2369532	Glyphosate	8.22	Spike	P	0 - 30
2369532	Sucralose	6.61	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P422538

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369273	2,4-D	3.22	Spike	P	0 - 30
2369273	2,4,5-T	15.5	Spike	P	0 - 30
2369273	Acetaminophen	1.17	Spike	P	0 - 30
2369273	Acetamiprid	0.268	Spike	P	0 - 30
2369273	Afidopyropen	0.392	Spike	P	0 - 30
2369273	Bentazon	5.65	Spike	P	0 - 30
2369273	Benzovindiflupyr	5.05	Spike	P	0 - 30
2369273	Carbamazepine	4.33	Spike	P	0 - 30
2369273	Clothianidin	7.07	Spike	P	0 - 30
2369273	Dinotefuran	3.04	Spike	P	0 - 30
2369273	Diuron	3.34	Spike	P	0 - 30
2369273	Fenuron	6.21	Spike	P	0 - 30
2369273	Fluridone	0.650	Spike	P	0 - 30
2369273	Hydrocodone	0.0742	Spike	P	0 - 30
2369273	Ibuprofen	5.11	Spike	P	0 - 30
2369273	Imazapyr	1.28	Spike	P	0 - 30
2369273	Imidacloprid	2.04	Spike	P	0 - 30
2369273	Linuron	1.02	Spike	P	0 - 30
2369273	Mandestrobin	0.314	Spike	P	0 - 30
2369273	MCPP	4.86	Spike	P	0 - 30
2369273	Naproxen	7.87	Spike	P	0 - 30
2369273	Primidone	3.57	Spike	P	0 - 30
2369273	Pyraclostrobin	1.14	Spike	P	0 - 30
2369273	Silvex	12.0	Spike	P	0 - 30
2369273	Thiamethoxam	0.177	Spike	P	0 - 30
2369273	Tolfenpyrad	3.84	Spike	P	0 - 30
2369273	Triclopyr	1.05	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P422615

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2370070	3-Hydroxycarbofuran	7.55	Spike	P	0 - 30
2370070	Aldicarb	2.54	Spike	P	0 - 30
2370070	Aldicarb Sulfone	11.2	Spike	P	0 - 30
2370070	Aldicarb Sulfoxide	17.3	Spike	P	0 - 30
2370070	Carbaryl	4.23	Spike	P	0 - 30
2370070	Carbofuran	12.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P422615

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2370070	Methiocarb	11.2	Spike	P	0 - 30
2370070	Methomyl	5.65	Spike	P	0 - 30
2370070	Oxamyl	0.491	Spike	P	0 - 30
2370070	Propoxur	9.82	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P422622

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369410	Total Alkalinity	0.356	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P422640

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369236	Total Alkalinity	0.521	Sample	P	0 - 3.8

Reference Method: SM 4500-F- C-2011
Batch ID: P422644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369236	Fluoride	0.490	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P422965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369410	Fluoride	0.986	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P422617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2368330	Organic Carbon	0.278	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P422752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369219	Organic Carbon	0.472	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: SM 5310 B-2011
Batch ID: P422753

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2369756	Organic Carbon	0.0448	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2369421
Field Sample ID: G2SE0034

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	40.2	P	30 - 160

Lab Sample ID: 2369422
Field Sample ID: G2SE0034

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	138	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.9	P	30 - 160
EPA 8321B	Diuron-d6	54.5	P	30 - 160
EPA 8321B	Endothall-d6	69.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	77.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.6	P	30 - 160
EPA 8321B	Primidone-d5	119	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	30 - 160

Lab Sample ID: 2369423
Field Sample ID: G2SE0034

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	99.4	P	29 - 130
EPA 8270E	Decachlorobiphenyl	76.8	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	68.8	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	64.1	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	44.4	P	30 - 101
EPA 8276	PCNB	102	P	48 - 121

Lab Sample ID: 2369424
Field Sample ID: G2SE0034

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	126	P	20 - 200
EPA 8270E	Simazine-d10	129	P	62 - 142
EPA 8270E	Terbufos-d10	125	P	58 - 132
EPA 8270E	Terphenyl-d14	107	P	52 - 137
EPA 8270E	Terphenyl-d14	97.4	P	52 - 137

Lab Sample ID: 2369425
Field Sample ID: G2SE0063

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	118	P	20 - 200
EPA 8270E	Simazine-d10	121	P	62 - 142
EPA 8270E	Terbufos-d10	90.4	P	58 - 132
EPA 8270E	Terphenyl-d14	113	P	52 - 137
EPA 8270E	Terphenyl-d14	114	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A115942

Included Lab Sample IDs: 2369406, 2369408, 2369410, 2369412

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

Reference Method: EPA 8321B

Run ID: A115978

Included Lab Sample IDs: 2369422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	120	126	P/P	60 - 160
Sucralose	99.3	101	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A115981

Included Lab Sample IDs: 2369422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.1	112	P/P	60 - 160
Endothall	101	97.4	P/P	60 - 160
Glufosinate	74.8	81.1	P/P	60 - 160
Glyphosate	99.8	106	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115990

Included Lab Sample IDs: 2369413

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116017

Included Lab Sample IDs: 2369428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.7	98.6	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	105	103	P/P	90 - 110
Beryllium	99.8	96.7	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	104	106	P/P	90 - 110
Cobalt	103	104	P/P	90 - 110
Copper	104	104	P/P	90 - 110
Lead	94.6	94.9	P/P	90 - 110
Manganese	101	103	P/P	90 - 110
Molybdenum	101	101	P/P	90 - 110
Nickel	104	105	P/P	90 - 110
Selenium	103	103	P/P	90 - 110
Silver	98.5	99.1	P/P	90 - 110
Thallium	99.9	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116022

Included Lab Sample IDs: 2369407, 2369409, 2369411

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116026

Included Lab Sample IDs: 2369413

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A116028

Included Lab Sample IDs: 2369409, 2369411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A116040

Included Lab Sample IDs: 2369413

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

Reference Method: EPA 8270E

Run ID: A116041

Included Lab Sample IDs: 2369424, 2369425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	106		P	80 - 120
Alachlor	108		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine Desethyl	96.9		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Azoxystrobin	100		P	80 - 120
Bromacil	104		P	80 - 120
Butylate	103		P	80 - 120
Caffeine	86.2		P	80 - 120
Carbophenothion	106		P	80 - 120
Carfentrazone Ethyl	93.2		P	80 - 120
Chlorfenapyr	102		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Coumaphos	105		P	80 - 120
Cyanazine	114		P	80 - 120
Cyprodinil	118		P	80 - 120
Demeton	109		P	80 - 120
Diazinon	110		P	80 - 120
Difenoconazole	105		P	80 - 120
Dimethenamid	103		P	80 - 120
Dimethomorph	106		P	80 - 120
Disulfoton	104		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A116041

Included Lab Sample IDs: 2369424, 2369425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dithiopyr	104		P	80 - 120
EPTC	99.0		P	80 - 120
Ethion	113		P	80 - 120
Ethoprop	103		P	80 - 120
Etridiazole	97.8		P	80 - 120
Fenamiphos	101		P	80 - 120
Fenbuconazole	101		P	80 - 120
Fipronil	118		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	117		P	80 - 120
Fipronil Sulfone	111		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	106		P	80 - 120
Flumioxazin	109		P	80 - 120
Flutolanil	104		P	80 - 120
Fluxapyroxad	98.6		P	80 - 120
Fonofos	118		P	80 - 120
Hexazinone	98.9		P	80 - 120
Imazalil	94.6		P	80 - 120
Iprodione	92.4		P	80 - 120
Loratadine	107		P	80 - 120
Malathion	91.6		P	80 - 120
Metalaxyl	104		P	80 - 120
Metolachlor	110		P	80 - 120
Metribuzin	95.2		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	98.7		P	80 - 120
Myclobutanil	115		P	80 - 120
Naled	115		P	80 - 120
Napropamide	102		P	80 - 120
Norflurazon	106		P	80 - 120
Oxadiazon	96.6		P	80 - 120
Oxyfluorfen	102		P	80 - 120
Parathion Ethyl	106		P	80 - 120
Parathion Methyl	107		P	80 - 120
Pendimethalin	110		P	80 - 120
Phenytol	101		P	80 - 120
Phorate	110		P	80 - 120
Prodiamine	110		P	80 - 120
Prometon	96.1		P	80 - 120
Prometryn	114		P	80 - 120
Pronamide	110		P	80 - 120
Propanil	97.6		P	80 - 120
Propargite	91.5		P	80 - 120
Propiconazole	103		P	80 - 120
Pyraflufen Ethyl	101		P	80 - 120
Pyridaben	96.7		P	80 - 120
Pyriproxyfen	101		P	80 - 120
Simazine	95.8		P	80 - 120
Stirophos	108		P	80 - 120
Sulfentrazone	97.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A116041

Included Lab Sample IDs: 2369424, 2369425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tebuconazole	105		P	80 - 120
Terbufos	107		P	80 - 120
Terbutylazine	113		P	80 - 120
Thiobencarb	96.0		P	80 - 120
Triadimefon	106		P	80 - 120

Reference Method: EPA 8270E

Run ID: A116042

Included Lab Sample IDs: 2369424, 2369425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	102		P	80 - 120
Oxadiazon	113		P	80 - 120

Reference Method: SM 5310 B-2011

Run ID: A116048

Included Lab Sample IDs: 2369409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	98.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A116050

Included Lab Sample IDs: 2369424, 2369425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	97.2		P	80 - 120
Avobenzone	100		P	80 - 120
Dechlorane Plus	105		P	80 - 120
Oxybenzone	92.2		P	80 - 120
PBDE-47	94.0		P	80 - 120
PBDE-99	94.7		P	80 - 120
Tri-o-cresyl Phosphate	95.6		P	80 - 120

Reference Method: SM 2320 B-2011

Run ID: A116055

Included Lab Sample IDs: 2369408, 2369410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.3	96.4	P/P	90 - 110
Total Alkalinity	96.4	93.3	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A116057

Included Lab Sample IDs: 2369406, 2369412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.8	98.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A116057

Included Lab Sample IDs: 2369406, 2369412

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A116065

Included Lab Sample IDs: 2369407

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

Reference Method: EPA 8321B

Run ID: A116081

Included Lab Sample IDs: 2369422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.0	97.3	P/P	50 - 150
2,4,5-T	102	112	P/P	50 - 150
3-Hydroxycarbofuran	101	102	P/P	60 - 150
Acetaminophen	98.1	102	P/P	60 - 160
Acetamiprid	106	104	P/P	50 - 150
Afidopyropen	96.3	95.8	P/P	50 - 150
Aldicarb	91.6	90.6	P/P	60 - 150
Aldicarb Sulfone	108	101	P/P	50 - 150
Aldicarb Sulfoxide	102	101	P/P	50 - 150
Bentazon	97.3	96.9	P/P	50 - 160
Benzovindiflupyr	104	98.1	P/P	50 - 150
Carbamazepine	105	98.9	P/P	60 - 150
Carbaryl	105	108	P/P	60 - 150
Carbofuran	97.5	101	P/P	50 - 150
Clothianidin	112	105	P/P	60 - 150
Dinotefuran	103	111	P/P	50 - 150
Diuron	103	104	P/P	60 - 160
Fenuron	103	107	P/P	60 - 150
Fluridone	103	99.9	P/P	60 - 160
Hydrocodone	104	99.5	P/P	60 - 150
Ibuprofen	141	107	P/P	50 - 160
Imazapyr	97.5	102	P/P	50 - 150
Imidacloprid	97.4	106	P/P	60 - 150
Linuron	99.8	103	P/P	60 - 150
Mandestrobin	106	108	P/P	50 - 150
MCPP	103	106	P/P	50 - 150
Methiocarb	105	111	P/P	50 - 150
Methomyl	103	98.1	P/P	50 - 150
Naproxen	103	127	P/P	50 - 160
Oxamyl	97.7	105	P/P	50 - 150
Primidone	106	100	P/P	60 - 150
Propoxur	106	108	P/P	50 - 150
Pyraclostrobin	105	104	P/P	60 - 150
Silvex	100	104	P/P	50 - 150
Thiamethoxam	99.6	100	P/P	50 - 150
Tolfenpyrad	99.7	104	P/P	60 - 150
Triclopyr	114	114	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A116085

Included Lab Sample IDs: 2369411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.4	91.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A116116

Included Lab Sample IDs: 2369428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	99.3	P/P	90 - 110
Iron	100	99.6	P/P	90 - 110
Magnesium	100	99.6	P/P	90 - 110
Strontium	104	101	P/P	90 - 110
Tin	101	100	P/P	90 - 110
Titanium	99.7	98.4	P/P	90 - 110
Vanadium	101	100	P/P	90 - 110
Zinc	101	102	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A116122

Included Lab Sample IDs: 2369423

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Alpha-BHC	91.8		P	80 - 120
Alpha-Chlordane	86.8		P	80 - 120
Beta-BHC	96.5		P	80 - 120
Beta-Cyfluthrin	94.3		P	80 - 120
Bifenthrin	92.8		P	80 - 120
Chlorothalonil	88.7		P	80 - 120
Cis-Nonachlor	92.8		P	80 - 120
Cypermethrin	94.6		P	80 - 120
Dacthal	97.2		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	104		P	80 - 120
DDT-p,p'	95.5		P	80 - 120
Delta-BHC	85.5		P	80 - 120
Deltamethrin	83.9		P	80 - 120
Dichlobenil	102		P	80 - 120
Dicofol	97.6		P	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	97.6		P	80 - 120
Endosulfan II	95.5		P	80 - 120
Endosulfan Sulfate	99.7		P	80 - 120
Endrin	97.3		P	80 - 120
Endrin Aldehyde	105		P	80 - 120
Endrin Ketone	144*		F	80 - 120
Esfenvalerate	89.9		P	80 - 120
Ethalfuralin	90.3		P	80 - 120
Fenpropathrin	96.9		P	80 - 120
Gamma-BHC	104		P	80 - 120
Gamma-Chlordane	88.5		P	80 - 120
Heptachlor	91.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A116122
Included Lab Sample IDs: 2369423

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Heptachlor Epoxide	101		P	80 - 120
Hexachlorobenzene	98.3		P	80 - 120
Kepone	76.4*		F	80 - 120
Lambda-Cyhalothrin	93.0		P	80 - 120
Methoprene	92.2		P	80 - 120
Methoxychlor	89.0		P	80 - 120
MGK-264	92.6		P	80 - 120
Mirex	101		P	80 - 120
Oxychlordane	93.8		P	80 - 120
Permethrin	91.1		P	80 - 120
Phenothrin	91.9		P	80 - 120
Piperonyl Butoxide	97.9		P	80 - 120
Prallethrin	90.1		P	80 - 120
Tau-Fluvalinate	93.5		P	80 - 120
Tetramethrin	94.5		P	80 - 120
Trans-Nonachlor	98.2		P	80 - 120
Triclosan Methyl	103		P	80 - 120
Trifluralin	95.0		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A116127
Included Lab Sample IDs: 2369407, 2369411, 2369413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.4	P/P	90 - 110
Organic Carbon	98.6	98.6	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A116136
Included Lab Sample IDs: 2369423

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	91.1		P	80 - 120
PCB-1260	102		P	80 - 120

Reference Method: EPA 8276
Run ID: A116150
Included Lab Sample IDs: 2369423

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	102		P	80 - 120
Toxaphene	107		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A116158
Included Lab Sample IDs: 2369407, 2369409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.1	97.6	P/P	90 - 110
Kjeldahl Nitrogen	97.6	93.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A116187

Included Lab Sample IDs: 2369426, 2369427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	102	P/P	90 - 110
Iron	104	102	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Manganese	99.3	102	P/P	90 - 110
Strontium	96.8	101	P/P	90 - 110
Tin	97.1	102	P/P	90 - 110
Titanium	97.2	101	P/P	90 - 110
Vanadium	96.6	100	P/P	90 - 110
Zinc	97.2	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A116189

Included Lab Sample IDs: 2369409, 2369411

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	99.1	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A116202

Included Lab Sample IDs: 2369408, 2369410

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A116209

Included Lab Sample IDs: 2369407, 2369413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.2	99.3	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A116219

Included Lab Sample IDs: 2369424, 2369425

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Octinoxate	96.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116224

Included Lab Sample IDs: 2369426, 2369427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.6	97.6	P/P	90 - 110
Antimony	96.3	95.7	P/P	90 - 110
Beryllium	96.6	98.3	P/P	90 - 110
Cadmium	97.9	97.4	P/P	90 - 110
Chromium	93.5	93.5	P/P	90 - 110
Cobalt	96.6	98.7	P/P	90 - 110
Molybdenum	97.6	97.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116224

Included Lab Sample IDs: 2369426, 2369427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	98.6	101	P/P	90 - 110
Silver	95.0	95.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116246

Included Lab Sample IDs: 2369426, 2369427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	105	104	P/P	90 - 110
Selenium	103	102	P/P	90 - 110
Thallium	101	99.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116317

Included Lab Sample IDs: 2369426, 2369427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	93.9	94.4	P/P	90 - 110
Silver	92.9	91.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A116345

Included Lab Sample IDs: 2369426, 2369427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	93.5	93.9	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 SMP	MS
EPA 180.1 Rev. 2.0	Turbidity	99.4					9.02	
EPA 200.7 Rev. 4.4	Calcium	101		91.2				13.0
	Calcium	100						2.95
	Iron	100	99.7	88.4	105			16.8
	Iron	109	108	103				4.28
	Magnesium	100	93.7					16.6
	Magnesium	97.6						3.06
	Manganese	105	103	101				1.96
	Strontium	102	90.4	104				13.4
	Strontium	107						2.94
	Tin	101	91.2	102	113			11.1
	Tin	104	99.8	95.7				4.20
	Titanium	97.6	96.2	94.6	104			9.08
	Titanium	103	103	101				1.57
	Vanadium	98.6	102	94.0	103			9.27
	Vanadium	101	104	104				0.623
	Zinc	99.7	98.8	88.5	100			9.68
	Zinc	101	102	100				1.69
EPA 200.8 Rev. 5.4	Aluminum	100	102	100	104			1.85
	Aluminum	98.1	97.7	96.2				1.35
	Antimony	105	112	107	105			1.23
	Antimony	97.7	99.7	99.2				0.546
	Arsenic	107	111	104	103			0.941
	Arsenic	107	118	118				0.453
	Beryllium	102	87.4	93.7	92.1			1.72
	Beryllium	89.2	104	99.1				4.75
	Cadmium	101	101	104	103			1.80
	Cadmium	96.5	94.8	94.1				0.753
	Chromium	107	104	103	86.1			0.765
	Chromium	93.8	95.1	94.3				0.774
	Cobalt	106	105	100	100			0.0171
	Cobalt	94.6	108	105				2.60
	Copper	105	109	98.5	98.4			0.0431
	Copper	91.7	103	105				2.06
	Lead	96.5	99.4	97.4	96.1			1.36
	Lead	97.1	104	102				1.65
	Manganese	105	106	105				1.03
	Molybdenum	101	109	103	102			0.828
	Molybdenum	96.4	107	104				2.26
	Nickel	106	110	100	100			0.0895
	Nickel	95.2	94.1	93.2				0.853
	Selenium	106	108	101	99.6			1.36
	Selenium	105	108	110				1.22
	Silver	101	92.9	102	102			0.433
	Silver	95.4	88.9	88.6				0.354
	Silver	95.0	85.1	84.1				1.21
	Thallium	99.9	103	101	102			1.01
	Thallium	103	107	107				0.376
EPA 350.1 Rev. 2.0	Ammonia-N	99.8	98.8	99.8				0.735
	Ammonia-N	96.6	98.6	98.2				0.351
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.6	103	108				3.81
	Kjeldahl Nitrogen	94.5	94.4	96.2				1.68
	Kjeldahl Nitrogen	98.1	95.3	96.7				1.22
	Kjeldahl Nitrogen	95.5	95.6	103				6.23

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 353.2 Rev. 2.0	NO2NO3-N	102	103	103		0.0
	NO2NO3-N	104	106	106		0.0
	NO2NO3-N	103	104	104		0.0
EPA 365.1 Rev. 2.0	Total-P	103	99.0	101		2.22
	Total-P	105	107	107		0.0414
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	125	115	122		5.10
	Acetochlor	110	84.2	93.3		10.3
	Alachlor	108	85.3	88.2		3.26
	Aldrin	62.7	53.6	56.8		5.79
	Alpha-BHC	86.0	71.8	75.4		4.78
	Alpha-Chlordane	96.4	69.2	62.3		10.5
	Ametryn	137	107	136		18.6
	Atrazine	115				6.33
	Atrazine Desethyl	96.1	73.2	103		16.5
	Avobenzone	146	144	151		5.01
	Azinphos Methyl	146	147	157		6.77
	Azoxystrobin	124	98.2	114		11.2
	Beta-BHC	95.2	82.5	79.7		3.48
	Beta-Cyfluthrin	81.0	57.5	63.9		10.6
	Bifenthrin	65.3	46.4	54.5		16.1
	Bromacil	90.3	76.0	78.1		2.44
	Butylate	75.9	71.0	80.6		12.7
	Caffeine	73.7	78.7	85.2		7.21
	Carbophenothion	88.2	87.9	85.8		2.44
	Carfentrazone Ethyl	140	115	103		11.1
	Chlorfenapyr	108	105	104		1.49
	Chlorothalonil	92.6	74.8	85.8		13.7
	Chlorpyrifos Ethyl	83.7	78.3	86.4		9.83
	Chlorpyrifos Methyl	116	85.6	98.6		14.1
	Cis-Nonachlor	77.2	55.6	59.7		7.12
	Coumaphos	170	136	137		0.853
	Cyanazine	164	163	179		9.31
	Cypermethrin	85.1	56.6	66.9		16.6
	Cyprodinil	114	125	134		6.27
	Dacthal	87.6	70.4	76.2		7.89
	DDD-p,p'	89.5	67.7	70.8		4.52
	DDE-p,p'	85.3	66.3	71.0		6.85
	DDT-p,p'	76.6	57.7	63.8		9.96
	Dechlorane Plus	137	114	102		11.7
	Delta-BHC	91.2	75.0	79.8		6.26
	Deltamethrin	40.5	46.4	28.1		49.2
	Demeton	131	128	132		3.47
	Diazinon	122	104	107		2.89
	Dichlobenil	101	91.4	85.0		7.29
	Dicofol	87.0	66.3	69.9		5.22
	Dieldrin	86.8	72.4	75.6		4.32
	Difenoconazole	175	137	142		3.66
	Dimethenamid	87.9	69.4	75.9		8.87
	Dimethomorph	105	103	120		15.4
	Disulfoton	108	97.9	112		13.1
	Dithiopyr	76.5	72.6	77.4		6.43
	Endosulfan I	82.9	68.5	66.1		3.57

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	
							SMP	MS
EPA 8270E	Endosulfan II	81.9		67.1	70.9			5.61
	Endosulfan Sulfate	90.4		73.9	74.6			0.938
	Endrin	80.0		69.0	70.2			1.85
	Endrin Aldehyde	79.6		63.9	71.8			11.6
	Endrin Ketone	127		102	111			8.78
	EPTC	74.2		62.8	65.3			3.89
	Esfenvalerate	76.5		51.6	64.7			22.5
	Ethalfuralin	75.4		59.1	62.4			5.42
	Ethion	74.8		64.3	66.7			3.67
	Ethoprop	110		115	118			2.58
	Etridiazole	90.6		91.3	78.6			14.9
	Fenamiphos	92.1		86.2	91.3			5.72
	Fenbuconazole	133		104	106			1.49
	Fenpropathrin	86.1		62.4	64.6			3.48
	Fipronil	80.6		85.3	93.2			8.21
	Fipronil Desulfinyl	123		121	126			4.14
	Fipronil Sulfide	67.8		72.1	84.3			13.3
	Fipronil Sulfone	78.7		81.7	92.3			8.61
	Fluazifop-P-butyl	80.6		68.6	78.3			13.3
	Fludioxonil	128		92.2	100			8.11
	Flumioxazin	178		150	145			3.61
	Flutolanil	85.2		74.1	84.2			11.3
	Fluxapyroxad	112		108	105			2.27
	Fonofos	82.2		91.9	101			9.61
	Gamma-BHC	78.4		68.6	80.8			16.3
	Gamma-Chlordane	90.9		71.2	61.9			13.9
	Heptachlor	67.7		56.9	62.6			9.43
	Heptachlor Epoxide	80.7		71.0	73.6			3.57
	Hexachlorobenzene	76.5		59.5	60.2			1.21
	Hexazinone	120						1.34
	Imazalil	100		103	118			12.8
	Iprodione	143		142	148			4.06
	Kepone	64.1		55.3	56.8			2.65
	Lambda-Cyhalothrin	73.0		51.5	62.9			20.0
	Loratadine	150		120	120			0.452
	Malathion	128		95.3	97.9			2.67
	Metalaxyl	120		97.4	107			8.69
	Methoprene	79.6		56.2	63.0			11.5
	Methoxychlor	75.7		60.2	64.5			6.82
	Metolachlor	78.4						2.36
	Metribuzin	115		120	122			1.80
	Mevinphos	105		111	116			4.40
	MGK-264	79.4		67.2	74.5			10.2
	Mirex	66.1		50.2	57.1			13.0
	Molinate	86.2		83.0	92.0			10.3
	Myclobutanil	94.3		92.1	102			9.76
	Naled	103		85.2	112			27.3
	Napropamide	119		96.0	114			17.5
	Norflurazon	96.8		60.8	57.6			2.06
	Octinoxate	109	96.0	88.7		13.0		
	Oxadiazon	95.4						15.2
	Oxybenzone	92.7		80.5	82.4			2.38
	Oxychlordane	77.3		65.7	72.7			10.1
	Oxyfluorfen	138		127	144			12.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Parathion Ethyl	108	96.6	104		7.87
	Parathion Methyl	119	119	120		1.12
	PBDE-47	109	105	110		4.97
	PBDE-99	108	95.4	101		5.25
	PCB-1016	73.8	72.9	74.0		1.48
	PCB-1260	82.6	69.6	72.7		4.29
	Pendimethalin	102	86.3	85.8		0.476
	Permethrin	81.0	58.7	67.7		14.3
	Phenothrin	64.1	48.6	58.3		18.2
	Phenytol	118	103	99.5		3.21
	Phorate	102	95.8	109		12.7
	Piperonyl Butoxide	96.1	71.4	78.8		9.88
	Prallethrin	82.3	65.9	69.5		5.28
	Prodiamine	116	108	110		2.23
	Prometon	121	110	125		12.6
	Prometryn	107	103	114		9.96
	Pronamide	85.3	82.7	84.5		2.15
	Propanil	96.4	102	102		0.164
	Propargite	173	155	173		10.7
	Propiconazole	104	103	97.7		2.60
	Pyraflufen Ethyl	94.0	90.6	88.2		2.67
	Pyridaben	164	177	182		2.35
	Pyriproxyfen	190	175	168		3.97
	Simazine	113	113	119		4.98
	Stirophos	133	113	113		0.633
	Sulfentrazone	136				2.92
	Tau-Fluvalinate	73.3	49.6	60.6		19.9
	Tebuconazole	106	102	103		0.640
	Terbufos	93.0	120	130		7.87
	Terbutylazine	71.0	71.0	79.7		11.5
	Tetramethrin	93.6	69.0	80.4		15.3
	Thiobencarb	119	107	103		3.77
	Trans-Nonachlor	81.8	63.6	64.4		1.35
	Tri-o-cresyl Phosphate	105	95.2	102		6.79
	Triadimefon	106	108	104		3.86
	Triclosan Methyl	86.7	68.6	63.6		7.59
	Trifluralin	77.2	59.1	63.4		6.89
EPA 8276	Chlordane	74.3	81.5	84.9		4.09
	Toxaphene	81.0	112	92.9		18.8
EPA 8321B	2,4-D	110	105	100		3.22
	2,4,5-T	81.0	73.2	62.7		15.5
	3-Hydroxycarbofuran	85.3	86.9	93.7		7.55
	Acesulfame K	124	135	139		3.32
	Acetaminophen	84.5	86.0	87.0		1.17
	Acetamiprid	81.1	25.2	25.4		0.268
	Afidopyropen	58.9	71.7	71.4		0.392
	Aldicarb	70.9	47.6	46.4		2.54
	Aldicarb Sulfone	94.2	113	101		11.2
	Aldicarb Sulfoxide	97.7	60.8	51.1		17.3
	AMPA	117	100	103		2.85
	Bentazon	78.2				5.65
	Benzovindiflupyr	77.2	73.4	77.2		5.05
	Carbamazepine	78.0				4.33
	Carbaryl	65.4	45.9	44.0		4.23

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Carbofuran	70.0	55.4	48.8			12.7
	Clothianidin	88.4	18.3	10.5			7.07
	Dinotefuran	87.5					3.04
	Diuron	72.0	46.2	44.5			3.34
	Endothall	97.3	99.2	101			1.69
	Fenuron	101	82.6	77.6			6.21
	Fluridone	88.2	75.4	74.9			0.650
	Glufosinate	113	128	116			10.1
	Glyphosate	114	156	143			8.22
	Hydrocodone	92.3	106	106			0.0742
	Ibuprofen	81.4	74.2	78.1			5.11
	Imazapyr	80.6	126	124			1.28
	Imidacloprid	96.6					2.04
	Linuron	69.4	76.1	76.9			1.02
	Mandestrobin	85.6	81.0	80.7			0.314
	MCPP	99.7	79.6	73.3			4.86
	Methiocarb	66.6	57.9	51.7			11.2
	Methomyl	91.9	85.8	81.1			5.65
	Naproxen	78.4	78.0	84.4			7.87
	Oxamyl	88.0	85.5	85.1			0.491
	Primidone	92.2					3.57
	Propoxur	79.2	55.4	50.2			9.82
	Pyraclostrobin	72.1	80.1	81.0			1.14
	Silvex	84.0	94.9	84.1			12.0
	Sucralose	101					6.61
	Thiamethoxam	92.8	122	122			0.177
	Tolfenpyrad	37.7	54.3	56.4			3.84
	Triclopyr	86.1	67.5	68.2			1.05
SM 2320 B-2011	Total Alkalinity	97.2				0.356	
	Total Alkalinity	96.8				0.521	
SM 2540 D-2015	TSS	91.5					
	TSS	91.1					
SM 4500-F- C-2011	Fluoride	99.9	102	101			0.490
	Fluoride	102	100	102			0.986
SM 5310 B-2011	Organic Carbon	99.2	88.1	88.5			0.278
	Organic Carbon	96.7	95.3	95.9			0.472
	Organic Carbon	96.0	96.4	96.4			0.0448

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2369406, 2369408, 2369410, 2369412
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2369426, 2369427, 2369428
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2369426, 2369427, 2369428
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2369407, 2369409, 2369411, 2369413
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2369407, 2369409, 2369411, 2369413
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2369407, 2369409, 2369411, 2369413
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2369407, 2369409, 2369411, 2369413
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2369424, 2369425
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2369423
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2369424, 2369425

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 8270E	PCBs in water matrices by GC/MS/MS	2369423
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2369423
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2369421
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2369422
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2369406, 2369408, 2369410, 2369412
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2369406, 2369408, 2369410, 2369412
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2369406, 2369408, 2369410, 2369412
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2369407, 2369409, 2369411, 2369413

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	11/15/2022			11/15/2022 14:28	Anna M. Plaviak	2369406
	11/15/2022			11/15/2022 14:29	Anna M. Plaviak	2369408
	11/15/2022			11/15/2022 14:30	Anna M. Plaviak	2369410
	11/15/2022			11/15/2022 14:31	Anna M. Plaviak	2369412
EPA 200.7 Rev. 4.4	11/15/2022	11/16/2022 11:10	George D Taylor	11/23/2022 04:33	McKinley C Carter	2369428
	11/15/2022	11/18/2022 15:50	George D Taylor	11/30/2022 06:48	McKinley C Carter	2369426
	11/15/2022	11/18/2022 15:50	George D Taylor	11/30/2022 07:04	McKinley C Carter	2369427
EPA 200.8 Rev. 5.4	11/15/2022	11/16/2022 11:10	George D Taylor	11/17/2022 15:19	Megan Whitefoot	2369428
	11/15/2022	11/18/2022 15:50	George D Taylor	12/02/2022 02:56	Emily M Philpot	2369426
	11/15/2022	11/18/2022 15:50	George D Taylor	12/02/2022 03:15	Emily M Philpot	2369427
	11/15/2022	11/18/2022 15:50	George D Taylor	12/02/2022 04:22	Emily M Philpot	2369426
	11/15/2022	11/18/2022 15:50	George D Taylor	12/02/2022 04:42	Emily M Philpot	2369427
	11/15/2022	11/18/2022 15:50	George D Taylor	12/02/2022 17:54	Emily M Philpot	2369426
	11/15/2022	11/18/2022 15:50	George D Taylor	12/02/2022 18:14	Emily M Philpot	2369427
	11/15/2022	12/06/2022 11:20	Vijayalakshmi Reddy	12/07/2022 22:27	Megan Whitefoot	2369426
	11/15/2022	12/06/2022 11:20	Vijayalakshmi Reddy	12/08/2022 00:03	Megan Whitefoot	2369426
	11/15/2022	12/06/2022 11:20	Vijayalakshmi Reddy	12/08/2022 00:13	Megan Whitefoot	2369427
	11/15/2022	12/06/2022 11:20	Vijayalakshmi Reddy	12/08/2022 19:00	Emily M Philpot	2369426
	11/15/2022	12/06/2022 11:20	Vijayalakshmi Reddy	12/08/2022 19:07	Emily M Philpot	2369427
EPA 350.1 Rev. 2.0	11/15/2022			11/29/2022 11:07	Ping Hua	2369409
	11/15/2022			11/29/2022 11:09	Ping Hua	2369411
	11/15/2022			12/01/2022 11:48	Ping Hua	2369407
	11/15/2022			12/01/2022 11:49	Ping Hua	2369413
EPA 351.2 Rev. 2.0	11/15/2022	11/17/2022 10:30	Samantha L Bates	11/18/2022 08:54	Samantha L Bates	2369413
	11/15/2022	11/18/2022 10:00	Alexandra J Mattheus	11/21/2022 17:41	Judith K. Clark	2369411
	11/15/2022	11/21/2022 13:28	Alexandra J Mattheus	11/28/2022 15:01	Judith K. Clark	2369407
	11/15/2022	11/21/2022 13:28	Alexandra J Mattheus	11/28/2022 15:27	Judith K. Clark	2369409
EPA 353.2 Rev. 2.0	11/15/2022			11/17/2022 09:07	Beverly Y. Sanders	2369413
	11/15/2022			11/18/2022 11:32	Beverly Y. Sanders	2369409
	11/15/2022			11/18/2022 11:33	Beverly Y. Sanders	2369411
	11/15/2022			11/21/2022 10:38	Beverly Y. Sanders	2369407
EPA 365.1 Rev. 2.0	11/15/2022	11/17/2022 13:57	Adam P Silver	11/18/2022 10:04	James L Waggeberby	2369407
	11/15/2022	11/17/2022 13:57	Adam P Silver	11/18/2022 10:05	James L Waggeberby	2369409
	11/15/2022	11/17/2022 13:57	Adam P Silver	11/18/2022 10:06	James L Waggeberby	2369411
	11/15/2022	11/17/2022 13:57	Adam P Silver	11/18/2022 15:13	Simonne.V. Calhoun	2369413
EPA 8270E	11/15/2022	11/16/2022 08:30	Rasheda Ghaffari	11/17/2022 17:51	Michael Poppell	2369424
	11/15/2022	11/16/2022 08:30	Rasheda Ghaffari	11/17/2022 20:12	Michael Poppell	2369425
	11/15/2022	11/16/2022 08:30	Rasheda Ghaffari	11/18/2022 19:29	Arthur Maknenko	2369424
	11/15/2022	11/16/2022 08:30	Rasheda Ghaffari	11/18/2022 20:28	Arthur Maknenko	2369425
	11/15/2022	11/16/2022 08:30	Rasheda Ghaffari	11/19/2022 15:41	Michael Poppell	2369424

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	11/15/2022	11/16/2022 08:30	Rasheda Ghaffari	11/19/2022 16:09	Michael Poppell	2369425
	11/15/2022	11/17/2022 08:00	Fe-Val Siddell	11/18/2022 19:07	Julie Wi	2369423
	11/15/2022	11/17/2022 08:00	Fe-Val Siddell	11/18/2022 21:52	Michael Poppell	2369423
	11/15/2022	11/30/2022 10:30	Rasheda Ghaffari	12/01/2022 20:46	Arthur Maknenko	2369424
	11/15/2022	11/30/2022 10:30	Rasheda Ghaffari	12/01/2022 21:05	Arthur Maknenko	2369425
EPA 8276	11/15/2022	11/17/2022 08:00	Fe-Val Siddell	11/19/2022 12:57	Lipi Saha	2369423
EPA 8321B	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/16/2022 14:24	Umesh Chiluwal	2369422
	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/16/2022 17:39	Umesh Chiluwal	2369422
	11/15/2022	11/16/2022 12:00	Umesh Chiluwal	11/17/2022 02:13	Umesh Chiluwal	2369422
	11/15/2022	11/18/2022 09:30	June Rhew	11/21/2022 18:43	Juyoung Kim	2369422
	11/15/2022	11/21/2022 10:00	June Rhew	11/22/2022 01:24	Juyoung Kim	2369421
SM 2320 B-2011	11/15/2022			11/18/2022 00:45	Dale L. Simmons	2369410
	11/15/2022			11/18/2022 03:34	Dale L. Simmons	2369408
	11/15/2022			11/19/2022 17:36	Dale L. Simmons	2369412
	11/15/2022			11/19/2022 18:40	Dale L. Simmons	2369406
SM 2540 D-2015	11/15/2022			11/18/2022 16:39	Yijie Li	2369406, 2369408, 2369410, 2369412
SM 4500-F- C-2011	11/15/2022			11/19/2022 17:36	Dale L. Simmons	2369412
	11/15/2022			11/19/2022 18:40	Dale L. Simmons	2369406
	11/15/2022			12/01/2022 07:50	Dale L. Simmons	2369410
	11/15/2022			12/01/2022 08:41	Dale L. Simmons	2369408
SM 5310 B-2011	11/15/2022			11/19/2022 07:20	Khloe J Berg	2369409
	11/15/2022			11/21/2022 18:52	Khloe J Berg	2369407
	11/15/2022			11/22/2022 03:09	Khloe J Berg	2369411
	11/15/2022			11/22/2022 03:26	Khloe J Berg	2369413