

Chemical Analysis Report

NW-DIST-2022-10-12-01

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

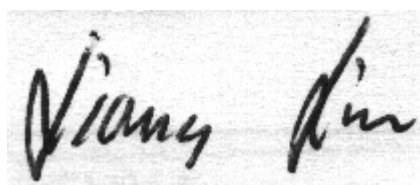
Event Description: **Choctawhatchee River Run**
Request ID: **RQ-2022-10-10-30**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda Butler

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 02-NOV-2022 10:55

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Anderson Mill Creek

Collection Date/Time: 10/11/2022 13:30

Field ID: G3NW0224

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361809	DEP SOP: NU-094-1	Color (true)	42	A	PCU	P420801	
	EPA 180.1 Rev. 2.0	Turbidity	9.8		NTU	P420810	
	EPA 300.0 Rev. 2.1	Chloride	3.8		mg Cl/L	P421201	
		Sulfate	0.42	I	mg SO4/L	P421204	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P421014	
	SM 2540 C-2015	TDS	15	I	mg/L	P421281	
	SM 2540 D-2015	TSS	28		mg/L	P421277	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P421016	
2361810	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P421164	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P420906	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.027		mg N/L	P420848	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P420859	
	SM 5310 B-2011	Organic Carbon	3.6		mg C/L	P421113	
2361855	EPA 200.7 Rev. 4.4	Calcium	0.67		mg/L	P420837	
		Iron	750		ug/L	P420837	
		Magnesium	0.61		mg/L	P420837	
		Potassium	0.34	I	mg/L	P420837	
		Sodium	1.8	I	mg/L	P420837	
		Strontium	5.0	I	ug/L	P420837	
		Tin	3.0	U	ug/L	P420837	
		Titanium	5.0		ug/L	P420837	
		Vanadium	2.0	U	ug/L	P420837	
		Zinc	5.0	U	ug/L	P420837	
	EPA 200.8 Rev. 5.4	Aluminum	358		ug/L	P420837	
		Antimony	0.050	U	ug/L	P420837	
		Arsenic	0.33		ug/L	P420837	
		Barium	12.0		ug/L	P420837	
		Beryllium	0.031	I	ug/L	P420837	
		Boron	7.7	I	ug/L	P420837	
		Cadmium	0.020	U	ug/L	P420837	
		Chromium	0.42	I	ug/L	P420837	
		Cobalt	0.289		ug/L	P420837	
		Copper	0.44	I	ug/L	P420837	
		Lead	0.44		ug/L	P420837	
		Manganese	15.5		ug/L	P420837	
		Molybdenum	0.15	U	ug/L	P420837	
		Nickel	0.50	U	ug/L	P420837	
		Selenium	0.20	U	ug/L	P420837	
		Silver	0.010	U	ug/L	P420837	
		Thallium	0.10	U	ug/L	P420837	
	SM 2340 B-2011	Hardness	4.2		mg/L	P420837	

Ref. Method and Comment:

SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Cassidy Lake Center

Collection Date/Time: 10/11/2022 12:30

Field ID: G3NW0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361806	DEP SOP: NU-094-1	Color (true)	8.6		PCU	P420801	
	EPA 180.1 Rev. 2.0	Turbidity	0.80	I	NTU	P420810	
	EPA 300.0 Rev. 2.1	Chloride	3.0		mg Cl/L	P421201	
		Sulfate	0.75		mg SO4/L	P421204	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P421014	
	SM 2540 C-2015	TDS	15	U	mg/L	P421281	
	SM 2540 D-2015	TSS	2	I	mg/L	P421277	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P421016	
2361808	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P421164	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.20	I	mg N/L	P420906	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P420848	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P420859	
	SM 5310 B-2011	Organic Carbon	2.8		mg C/L	P421113	

Ref. Method and Comment:

SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Choctawhatchee River upstream Hwy 90 boat ramp

Collection Date/Time: 10/11/2022 11:01

Field ID: G3NW0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361803	DEP SOP: NU-094-1	Color (true)	17		PCU	P420801	
	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P420810	
	EPA 300.0 Rev. 2.1	Chloride	6.6		mg Cl/L	P421201	
		Sulfate	3.0		mg SO4/L	P421204	
	SM 2320 B-2011	Total Alkalinity	60		mg CaCO3/L	P421014	
	SM 2540 C-2015	TDS	72		mg/L	P421281	
	SM 2540 D-2015	TSS	5	I	mg/L	P421277	
	SM 4500-F- C-2011	Fluoride	0.056	I	mg F/L	P421016	
2361804	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P421035	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P420906	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.72		mg N/L	P420847	
	EPA 365.1 Rev. 2.0	Total-P	0.039		mg P/L	P420859	
	SM 5310 B-2011	Organic Carbon	1.7		mg C/L	P421113	
2361846	EPA 8321B	Aldicarb	0.020	U	ug/L	P420952	
		Aldicarb Sulfone	0.0020	U	ug/L	P420952	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P420952	
		Carbaryl	0.0020	U	ug/L	P420952	
		Carbofuran	0.0020	U	ug/L	P420952	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P420952	
		Methiocarb	0.0020	U	ug/L	P420952	
		Methomyl	0.0020	U	ug/L	P420952	
		Oxamyl	0.0020	U	ug/L	P420952	
		Propoxur	0.0020	U	ug/L	P420952	
2361847		2,4-D	0.0020	U	ug/L	P420715	
		Acesulfame K	0.10	U	ug/L	P420706	
		2,4,5-T	0.0040	U	ug/L	P420715	
		AMPA	0.10	U	ug/L	P420706	
		Acetaminophen	0.0080	U	ug/L	P420715	
		Acetamiprid	0.0020	U	ug/L	P420715	
		Endothall	0.25	U	ug/L	P420706	
		Glufosinate	0.10	U	ug/L	P420706	
		Glyphosate	0.10	U	ug/L	P420706	
		Afidopyropen	0.0020	U	ug/L	P420715	
		Bentazon	0.0039		ug/L	P420715	
		Sucralose	1.3		ug/L	P420706	
		Benzovindiflupyr	0.0020	U	ug/L	P420715	
		Carbamazepine	0.0026	I	ug/L	P420715	
		Clothianidin	0.0020	U	ug/L	P420715	
		Dinotefuran	0.0020	U	ug/L	P420715	
		Diuron	0.0020	U	ug/L	P420715	
		Fenuron	0.032	U	ug/L	P420715	
		Fluridone	8.0E-04	U	ug/L	P420715	
		Imazapyr	0.0043	I	ug/L	P420715	

Field ID: G3NW0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361847	EPA 8321B	Hydrocodone	0.0020	U	ug/L	P420715	
		Ibuprofen	0.20	U	ug/L	P420715	
		Imidacloprid	0.0051	I	ug/L	P420715	
		Linuron	0.0040	U	ug/L	P420715	
		Mandestrobin	0.0020	U	ug/L	P420715	
		MCP	0.0040	U	ug/L	P420715	
		Naproxen	0.0080	U	ug/L	P420715	
		Primidone	0.0056	I	ug/L	P420715	
		Pyraclostrobin	0.0020	U	ug/L	P420715	
		Silvex	0.0040	U	ug/L	P420715	
		Thiamethoxam	0.0020	U	ug/L	P420715	
		Tolfenpyrad	0.0020	U	ug/L	P420715	
		Triclopyr	0.0040	U	ug/L	P420715	
2361850	EPA 8270E	Aldrin	0.67	U	ng/L	P420851	
		Alpha-BHC	0.10	U	ng/L	P420851	
		Alpha-Chlordane	0.21	U	ng/L	P420851	
		PCB-1016	2.1	U	ng/L	P420851	
		Beta-BHC	0.10	U	ng/L	P420851	
		PCB-1221	2.1	U	ng/L	P420851	
		Beta-Cyfluthrin	1.3	U	ng/L	P420851	
		PCB-1232	2.1	U	ng/L	P420851	
		Bifenthrin	0.52	U	ng/L	P420851	
		PCB-1242	2.1	U	ng/L	P420851	
		Carbophenothion	0.93	U	ng/L	P420851	
		PCB-1248	2.1	U	ng/L	P420851	
		Chlorothalonil	3.2	I	ng/L	P420851	
		PCB-1254	2.1	U	ng/L	P420851	
		Cis-Nonachlor	0.21	U	ng/L	P420851	
		PCB-1260	2.1	U	ng/L	P420851	
		Cypermethrin	1.6	U	ng/L	P420851	
		Dacthal	0.16	U	ng/L	P420851	
		DDD-p,p'	0.26	U	ng/L	P420851	
		DDE-p,p'	0.21	U	ng/L	P420851	
		DDT-p,p'	0.26	U	ng/L	P420851	
		Delta-BHC	0.41	U	ng/L	P420851	
		Deltamethrin	1.3	U	ng/L	P420851	
		Dichlobenil	0.26	U	ng/L	P420851	
		Dicofol	1.3	UJ	ng/L	P420851	CCV
		Dieldrin	0.41	U	ng/L	P420851	
		Endosulfan I	0.41	U	ng/L	P420851	
		Endosulfan II	0.41	U	ng/L	P420851	
		Endosulfan Sulfate	0.31	U	ng/L	P420851	
		Endrin	0.41	U	ng/L	P420851	
		Endrin Aldehyde	0.78	U	ng/L	P420851	
		Endrin Ketone	0.41	U	ng/L	P420851	

Field ID: G3NW0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361850	EPA 8270E	Esfenvalerate	0.78	U	ng/L	P420851	
		Ethalfuralin	0.16	U	ng/L	P420851	
		Fenpropathrin	0.26	U	ng/L	P420851	
		Gamma-BHC	0.13	U	ng/L	P420851	
		Gamma-Chlordane	0.21	U	ng/L	P420851	
		Heptachlor	0.21	U	ng/L	P420851	
		Heptachlor Epoxide	0.26	U	ng/L	P420851	
		Hexachlorobenzene**	1.0	U	ng/L	P420851	
		Kepone	5.2	U	ng/L	P420851	
		Lambda-Cyhalothrin	0.78	U	ng/L	P420851	
		Methoprene	0.78	U	ng/L	P420851	
		Methoxychlor	0.31	U	ng/L	P420851	
		MGK-264	0.21	U	ng/L	P420851	
		Mirex	0.36	U	ng/L	P420851	
		Oxychlordane	0.31	U	ng/L	P420851	
		Permethrin	1.7	U	ng/L	P420851	
		Phenothrin	0.93	U	ng/L	P420851	
		Piperonyl Butoxide	0.16	U	ng/L	P420851	
		Prallethrin	2.1	U	ng/L	P420851	
		Tau-Fluvalinate	0.26	U	ng/L	P420851	
		Tetramethrin	0.78	U	ng/L	P420851	
		Trans-Nonachlor	0.21	U	ng/L	P420851	
		Triclosan Methyl	0.16	U	ng/L	P420851	
		Trifluralin	0.21	U	ng/L	P420851	
	EPA 8276	Chlordane	2.6	U	ng/L	P420851	
		Toxaphene	16	U	ng/L	P420851	
2361851	EPA 8270E	Oxybenzone**	9.6	U	ng/L	P420849	
		Acetochlor	0.24	U	ng/L	P420849	
		Octinoxate**	19	U	ng/L	P420849	
		Alachlor	0.24	U	ng/L	P420849	
		Avobenzone**	96	U	ng/L	P420849	
		Ametryn	0.57	U	ng/L	P420849	
		Atrazine	1.1		ng/L	P420849	
		PBDE-47**	3.8	U	ng/L	P420849	
		Atrazine Desethyl	1.4	U	ng/L	P420849	
		PBDE-99**	4.8	U	ng/L	P420849	
		Azinphos Methyl	1.9	U	ng/L	P420849	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P420849	
		Azoxystrobin	0.62	I	ng/L	P420849	
		Bromacil	1.8	I	ng/L	P420849	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P420849	
		Butylate	0.38	U	ng/L	P420849	
		Dechlorane Plus**	29	U	ng/L	P420849	
		Caffeine**	7.2	U	ng/L	P420849	

Field ID: G3NW0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361851	EPA 8270E	Carbophenothion	0.19	U	ng/L	P420849	
		Carfentrazone Ethyl	0.096	U	ng/L	P420849	
		Chlorfenapyr	0.17	U	ng/L	P420849	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P420849	
		Chlorpyrifos Methyl	0.048	U	ng/L	P420849	
		Coumaphos	0.48	U	ng/L	P420849	
		Cyanazine	3.1	U	ng/L	P420849	
		Cyprodinil	0.096	U	ng/L	P420849	
		Demeton	1.4	U	ng/L	P420849	
		Diazinon	0.12	U	ng/L	P420849	
		Difenoconazole	0.57	U	ng/L	P420849	
		Dimethenamid	0.22	I	ng/L	P420849	
		Dimethomorph	0.17	U	ng/L	P420849	
		Disulfoton	0.48	U	ng/L	P420849	
		Dithiopyr	0.60	U	ng/L	P420849	
		EPTC	1.2	U	ng/L	P420849	
		Ethion	0.14	U	ng/L	P420849	
		Ethoprop	0.096	U	ng/L	P420849	
		Etridiazole	0.14	U	ng/L	P420849	
		Fenamiphos	0.48	U	ng/L	P420849	
		Fenbuconazole	0.12	U	ng/L	P420849	
		Fipronil	0.24	U	ng/L	P420849	
		Fipronil Desulfinyl**	0.28	I	ng/L	P420849	
		Fipronil Sulfide	0.14	U	ng/L	P420849	
		Fipronil Sulfone	0.17	I	ng/L	P420849	
		Fluazifop-P-butyl	0.096	U	ng/L	P420849	
		Fludioxonil	0.12	U	ng/L	P420849	
		Flumioxazin	4.3	U	ng/L	P420849	
		Flutolanil	0.23	I	ng/L	P420849	
		Fluxapyroxad	0.38		ng/L	P420849	
		Fonofos	0.19	U	ng/L	P420849	
		Hexazinone	0.48	U	ng/L	P420849	
		Imazalil	0.72	U	ng/L	P420849	
		Iprodione	0.57	U	ng/L	P420849	
		Loratadine**	0.33	U	ng/L	P420849	
		Malathion	0.33	U	ng/L	P420849	
		Metalaxyl	0.72	U	ng/L	P420849	
		Metolachlor	2.7		ng/L	P420849	
		Metribuzin	1.4	U	ng/L	P420849	
		Mevinphos	1.0	U	ng/L	P420849	
		Molinate	0.29	U	ng/L	P420849	
		Myclobutanil	0.24	U	ng/L	P420849	
		Naled	1.4	U	ng/L	P420849	
		Napropamide	0.38	U	ng/L	P420849	
		Norflurazon	0.48	U	ng/L	P420849	

Field ID: G3NW0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361851	EPA 8270E	Oxadiazon	0.29	U	ng/L	P420849	
		Oxyfluorfen	0.14	U	ng/L	P420849	
		Parathion Ethyl	0.24	U	ng/L	P420849	
		Parathion Methyl	0.53	U	ng/L	P420849	
		Pendimethalin	0.96	U	ng/L	P420849	
		Phenytol**	3.3	U	ng/L	P420849	
		Phorate	0.50	U	ng/L	P420849	
		Prodiamine	0.17	U	ng/L	P420849	
		Prometon	0.86	U	ng/L	P420849	
		Prometryn	0.19	U	ng/L	P420849	
		Pronamide	0.14	U	ng/L	P420849	
		Propanil	0.12	U	ng/L	P420849	
		Propargite	1.4	U	ng/L	P420849	
		Propiconazole	0.48	U	ng/L	P420849	
		Pyraflufen Ethyl	0.24	U	ng/L	P420849	
		Pyridaben	0.43	U	ng/L	P420849	
		Pyriproxyfen	0.12	U	ng/L	P420849	
		Simazine	0.48	U	ng/L	P420849	
		Stirophos	0.12	U	ng/L	P420849	
		Sulfentrazone	0.48	U	ng/L	P420849	
		Tebuconazole	0.48	U	ng/L	P420849	
		Terbufos	0.096	U	ng/L	P420849	
		Terbutylazine	0.41	U	ng/L	P420849	
		Thiobencarb	0.57	U	ng/L	P420849	
		Triadimefon	0.24	U	ng/L	P420849	
2361854	EPA 200.7 Rev. 4.4	Calcium	20.7		mg/L	P420837	
		Iron	490		ug/L	P420837	
		Magnesium	3.09		mg/L	P420837	
		Potassium	1.4		mg/L	P420837	
		Sodium	5.8		mg/L	P420837	
		Strontium	55.0		ug/L	P420837	
		Tin	3.0	U	ug/L	P420837	
		Titanium	2.5	I	ug/L	P420837	
		Vanadium	2.0	U	ug/L	P420837	
		Zinc	5.0	U	ug/L	P420837	
	EPA 200.8 Rev. 5.4	Aluminum	134		ug/L	P420837	
		Antimony	0.051	I	ug/L	P420837	
		Arsenic	0.42		ug/L	P420837	
		Barium	22.5		ug/L	P420837	
		Beryllium	0.012	I	ug/L	P420837	
		Boron	16.3		ug/L	P420837	
		Cadmium	0.020	U	ug/L	P420837	
		Chromium	0.47	I	ug/L	P420837	
		Cobalt	0.175		ug/L	P420837	
		Copper	0.40	U	ug/L	P420837	

Field ID: G3NW0052

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2361854	EPA 200.8 Rev. 5.4	Lead	0.20	U	ug/L	P420837	
		Manganese	62.1		ug/L	P420837	
		Molybdenum	0.33	I	ug/L	P420837	
		Nickel	0.50	U	ug/L	P420837	
		Selenium	0.20	U	ug/L	P420837	
		Silver	0.010	U	ug/L	P420837	
		Thallium	0.10	U	ug/L	P420837	
	SM 2340 B-2011	Hardness	64.4		mg/L	P420837	

Ref. Method and Comment:
SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P420801

Component	Result	Code	Units
Color (true)	2.50	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P420810

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420837

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
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: P420837

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421201

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421204

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421035

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421164

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420906

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420847

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420848

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420859

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

Reference Method: EPA 8270E
Batch ID: P420849

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P420849

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P420849

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P420849

Component	Result	Code	Units
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	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
Prodiatone	0.18	U	ng/L
Prodiatone	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
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P420849

Component	Result	Code	Units
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L
Terbutylazine	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: P420851

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
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P420851

Component	Result	Code	Units
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P420851

Component	Result	Code	Units
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 8276

Batch ID: P420851

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P420706

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: P420715

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P420715

Component	Result	Code	Units
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
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: P420952

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: P421014

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

Reference Method: SM 2540 C-2015

Batch ID: P421281

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P421277

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P421016

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P421113

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P420801

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.5		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P420810

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420837

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	104		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	103		P	85 - 115
Sodium	106		P	85 - 115
Strontium	104		P	85 - 115
Tin	102		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420837

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.3		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	101		P	85 - 115
Barium	105		P	85 - 115
Beryllium	92.2		P	85 - 115
Boron	102		P	85 - 115
Cadmium	99.1		P	85 - 115
Chromium	102		P	85 - 115
Cobalt	101		P	85 - 115
Copper	100		P	85 - 115
Lead	94.7		P	85 - 115
Manganese	103		P	85 - 115
Molybdenum	99.0		P	85 - 115
Nickel	101		P	85 - 115
Selenium	100		P	85 - 115
Silver	101		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421201

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421204

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421035

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421164

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420906

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	91.6		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420847

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: P420848

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420859

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

Reference Method: EPA 8270E
Batch ID: P420849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	91.2		P	26 - 165
Acetochlor	97.0		P	69 - 123
Alachlor	89.9		P	65 - 118
Ametryn	87.7		P	58 - 141
Atrazine	94.5		P	73 - 118
Atrazine Desethyl	64.0		P	32 - 125
Avobenzone	104		P	37 - 178
Azinphos Methyl	124		P	36 - 197
Azoxystrobin	109		P	58 - 226
Bromacil	75.1		P	48 - 120

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P420849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Butylate	55.0		P	27 - 85.0
Caffeine	70.6		P	40 - 137
Carbophenothion	96.4		P	54 - 132
Carfentrazone Ethyl	118		P	60 - 142
Chlorfenapyr	104		P	53 - 117
Chlorpyrifos Ethyl	112		P	59 - 116
Chlorpyrifos Methyl	112		P	66 - 119
Coumaphos	100		P	11 - 234
Cyanazine	123		P	61 - 248
Cyprodinil	87.9		P	50 - 147
Dechlorane Plus	125		P	50 - 150
Demeton	88.8		P	30 - 138
Diazinon	88.3		P	67 - 126
Difenoconazole	121		P	38 - 205
Dimethenamid	82.7		P	57 - 111
Dimethomorph	98.1		P	16 - 212
Disulfoton	82.0		P	46 - 126
Dithiopyr	80.3		P	62 - 115
EPTC	55.5		P	28 - 80.0
Ethion	79.1		P	24 - 122
Ethoprop	91.9		P	62 - 113
Etridiazole	56.7		P	28 - 92.0
Fenamiphos	106		P	57 - 128
Fenbuconazole	95.9		P	52 - 155
Fipronil	91.7		P	63 - 130
Fipronil Desulfinyl	98.7		P	61 - 130
Fipronil Sulfide	74.1		P	56 - 117
Fipronil Sulfone	74.2		P	52 - 118
Fluazifop-P-butyl	89.1		P	61 - 128
Fludioxonil	87.0		P	59 - 129
Flumioxazin	145		P	30 - 250
Flutolanil	88.7		P	53 - 127
Fluxapyroxad	86.6		P	42 - 132
Fonofos	93.4		P	61 - 110
Hexazinone	106		P	46 - 139
Imazalil	83.7		P	40 - 139
Iprodione	109		P	40 - 146
Loratadine	91.3		P	10 - 224
Malathion	118		P	61 - 135
Metalaxyl	85.2		P	58 - 121
Metolachlor	89.7		P	64 - 118
Metribuzin	94.0		P	45 - 245
Mevinphos	86.5		P	49 - 118
Molinate	62.1		P	42 - 92.0
Myclobutanil	93.9		P	55 - 127
Naled	105		P	10 - 114
Napropamide	83.1		P	39 - 121
Norflurazon	80.3		P	55 - 129
Octinoxate	78.1		P	21 - 159
Oxadiazon	78.7		P	54 - 115
Oxybenzone	67.0		P	41 - 142
Oxyfluorfen	105		P	64 - 139

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P420849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	98.4		P	70 - 111
Parathion Methyl	104		P	76 - 136
PBDE-47	79.8		P	27 - 144
PBDE-99	84.9		P	18 - 150
Pendimethalin	88.8		P	52 - 118
Phenytol	50.4		P	10 - 162
Phorate	86.4		P	40 - 122
Prodiamine	50.0		P	26 - 141
Prometon	76.2		P	54 - 122
Prometryn	85.5		P	61 - 128
Pronamide	94.3		P	72 - 121
Propanil	96.8		P	45 - 144
Propargite	78.0		P	10 - 199
Propiconazole	89.8		P	56 - 127
Pyraflufen Ethyl	86.6		P	56 - 140
Pyridaben	110		P	26 - 211
Pyriproxyfen	92.5		P	33 - 194
Simazine	79.6		P	67 - 121
Stirophos	91.2		P	20 - 142
Sulfentrazone	91.4		P	21 - 144
Tebuconazole	59.4		P	10 - 122
Terbufos	110		P	60 - 129
Terbutylazine	93.3		P	69 - 113
Thiobencarb	83.9		P	51 - 120
Tri-o-cresyl Phosphate	77.6		P	31 - 144
Triadimefon	89.0		P	56 - 114

Reference Method: EPA 8270E

Batch ID: P420851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	53.1		P	10 - 92.0
Alpha-BHC	98.9		P	75 - 107
Alpha-Chlordane	92.6		P	50 - 108
Beta-BHC	120		P	36 - 138
Beta-Cyfluthrin	80.7		P	20 - 161
Bifenthrin	59.3		P	10 - 119
Carbophenothion	50.2		P	19 - 94.0
Chlorothalonil	141		P	26 - 186
Cis-Nonachlor	83.3		P	42 - 119
Cypermethrin	81.2		P	22 - 150
Dacthal	96.8		P	72 - 119
DDD-p,p'	85.7		P	45 - 107
DDE-p,p'	87.2		P	48 - 106
DDT-p,p'	70.1		P	48 - 110
Delta-BHC	120		P	54 - 140
Deltamethrin	105		P	22 - 189
Dichlobenil	50.7		P	36 - 117
Dicofol	69.6		P	46 - 155
Dieldrin	94.2		P	54 - 110
Endosulfan I	86.6		P	59 - 105
Endosulfan II	96.5		P	51 - 118

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P420851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endosulfan Sulfate	100		P	57 - 121
Endrin	90.8		P	10 - 120
Endrin Aldehyde	106		P	34 - 118
Endrin Ketone	90.9		P	69 - 177
Esfenvalerate	85.2		P	23 - 168
Ethalfuralin	77.3		P	49 - 99.0
Fenpropathrin	82.7		P	34 - 117
Gamma-BHC	93.9		P	72 - 117
Gamma-Chlordane	89.2		P	43 - 106
Heptachlor	74.1		P	41 - 98.0
Heptachlor Epoxide	94.8		P	57 - 106
Hexachlorobenzene	71.7		P	36 - 99.0
Kepone	100		P	16 - 215
Lambda-Cyhalothrin	36.1		P	21 - 177
Methoprene	69.4		P	10 - 119
Methoxychlor	96.6		P	60 - 112
MGK-264	94.3		P	26 - 122
Mirex	61.8		P	10 - 169
Oxychlordane	78.1		P	43 - 105
PCB-1016	86.6		P	48 - 112
PCB-1260	101		P	44 - 118
Permethrin	86.9		P	24 - 148
Phenothrin	58.1		P	10 - 106
Piperonyl Butoxide	77.8		P	10 - 139
Prallethrin	87.1		P	17 - 109
Tau-Fluvalinate	70.0		P	13 - 131
Tetramethrin	117		P	10 - 132
Trans-Nonachlor	87.6		P	44 - 106
Triclosan Methyl	92.4		P	59 - 109
Trifluralin	78.1		P	44 - 101

Reference Method: EPA 8276

Batch ID: P420851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	68.6		P	61 - 116
Toxaphene	62.0		P	48 - 124

Reference Method: EPA 8321B

Batch ID: P420706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	121		P	40 - 150
AMPA	99.8		P	40 - 150
Endothall	96.5		P	40 - 150
Glufosinate	103		P	40 - 150
Glyphosate	103		P	40 - 150
Sucralose	106		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P420715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	98.8		P	40 - 150
2,4,5-T	75.2		P	40 - 150
Acetaminophen	99.3		P	30 - 150
Acetamiprid	98.1		P	40 - 150
Afidopyropen	75.2		P	30 - 150
Bentazon	109		P	30 - 150
Benzovindiflupyr	93.0		P	40 - 150
Carbamazepine	96.7		P	40 - 150
Clothianidin	105		P	40 - 150
Dinotefuran	110		P	40 - 150
Diuron	89.5		P	40 - 150
Fenuron	113		P	40 - 150
Fluridone	112		P	40 - 150
Hydrocodone	102		P	40 - 150
Ibuprofen	127		P	40 - 150
Imazapyr	123		P	40 - 150
Imidacloprid	116		P	40 - 150
Linuron	84.8		P	40 - 150
Mandestrobin	103		P	40 - 150
MCPP	94.9		P	40 - 150
Naproxen	86.6		P	40 - 150
Primidone	95.6		P	40 - 150
Pyraclostrobin	90.2		P	40 - 150
Silvex	80.3		P	40 - 150
Thiamethoxam	109		P	40 - 150
Tolfenpyrad	46.1		P	30 - 150
Triclopyr	79.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P420952

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	96.7		P	40 - 150
Aldicarb	82.0		P	30 - 150
Aldicarb Sulfone	98.7		P	40 - 150
Aldicarb Sulfoxide	90.1		P	40 - 150
Carbaryl	81.9		P	40 - 150
Carbofuran	77.1		P	40 - 150
Methiocarb	91.0		P	40 - 150
Methomyl	89.9		P	40 - 150
Oxamyl	90.6		P	40 - 150
Propoxur	76.5		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P421014

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P421281

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

Reference Method: SM 2540 D-2015
Batch ID: P421277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	99.8		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P421016

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

Reference Method: SM 5310 B-2011
Batch ID: P421113

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P420837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361766	Calcium	111		P	80 - 120
2361766	Iron	109		P	80 - 120
2361766	Magnesium	109		P	80 - 120
2361766	Potassium	105		P	80 - 120
2361766	Sodium	103		P	80 - 120
2361766	Strontium	107		P	80 - 120
2361766	Tin	106		P	80 - 120
2361766	Titanium	107		P	80 - 120
2361766	Vanadium	105		P	80 - 120
2361766	Zinc	106		P	80 - 120
2361889	Calcium	105	106	P/P	80 - 120
2361889	Iron	103	104	P/P	80 - 120
2361889	Magnesium	106	107	P/P	80 - 120
2361889	Potassium	102	103	P/P	80 - 120
2361889	Sodium	101	102	P/P	80 - 120
2361889	Strontium	103	104	P/P	80 - 120
2361889	Tin	105	101	P/P	80 - 120
2361889	Titanium	101	99.6	P/P	80 - 120
2361889	Vanadium	102	102	P/P	80 - 120
2361889	Zinc	103	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P420837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361766	Aluminum	98.9		P	80 - 120
2361766	Antimony	103		P	80 - 120
2361766	Arsenic	102		P	80 - 120
2361766	Barium	105		P	80 - 120
2361766	Beryllium	93.1		P	80 - 120
2361766	Boron	104		P	80 - 120
2361766	Cadmium	102		P	80 - 120
2361766	Chromium	103		P	80 - 120
2361766	Cobalt	102		P	80 - 120
2361766	Copper	101		P	80 - 120
2361766	Lead	96.1		P	80 - 120
2361766	Manganese	104		P	80 - 120
2361766	Molybdenum	99.9		P	80 - 120
2361766	Nickel	102		P	80 - 120
2361766	Selenium	102		P	80 - 120
2361766	Silver	101		P	80 - 120
2361766	Thallium	102		P	80 - 120
2361889	Aluminum	99.4	98.0	P/P	80 - 120
2361889	Antimony	101	100	P/P	80 - 120
2361889	Arsenic	102	101	P/P	80 - 120
2361889	Barium	105	104	P/P	80 - 120
2361889	Beryllium	87.6	89.7	P/P	80 - 120
2361889	Boron	106	105	P/P	80 - 120
2361889	Cadmium	99.3	100	P/P	80 - 120
2361889	Chromium	102	101	P/P	80 - 120
2361889	Cobalt	100	99.6	P/P	80 - 120
2361889	Copper	101	101	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361889	Lead	95.8	95.6	P/P	80 - 120
2361889	Manganese	100	99.6	P/P	80 - 120
2361889	Molybdenum	98.8	98.6	P/P	80 - 120
2361889	Nickel	101	99.5	P/P	80 - 120
2361889	Selenium	99.1	99.4	P/P	80 - 120
2361889	Silver	100	99.8	P/P	80 - 120
2361889	Thallium	101	101	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361771	Chloride	95.6		P	90 - 110
2361916	Chloride	96.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361771	Sulfate	98.4		P	90 - 110
2361916	Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361804	Ammonia-N	99.0	99.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361980	Ammonia-N	97.2	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420906

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361815	Kjeldahl Nitrogen	90.6	87.8	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361720	NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420848

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361808	NO2NO3-N	104	103	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P420859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361755	Total-P	109	108	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P420849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362136	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	94.4	87.0	P/P	26 - 165
2362136	Acetochlor	94.6	98.1	P/P	67 - 124
2362136	Alachlor	80.6	90.3	P/P	60 - 120
2362136	Ametryn	90.9	97.6	P/P	54 - 216
2362136	Atrazine Desethyl	59.8	54.8	P/P	15 - 122
2362136	Avobenzone	105	107	P/P	37 - 178
2362136	Azinphos Methyl	121	120	P/P	40 - 292
2362136	Azoxystrobin	116	103	P/P	35 - 220
2362136	Bromacil	75.9	77.3	P/P	45 - 127
2362136	Butylate	49.9	48.9	P/P	20 - 83.0
2362136	Caffeine	81.5	83.4	P/P	10 - 194
2362136	Carbophenothion	86.5	82.2	P/P	57 - 127
2362136	Carfentrazone Ethyl	93.9	96.3	P/P	51 - 141
2362136	Chlorfenapyr	76.9	88.0	P/P	46 - 111
2362136	Chlorpyrifos Ethyl	87.9	105	P/P	52 - 120
2362136	Chlorpyrifos Methyl	92.9	104	P/P	63 - 119
2362136	Coumaphos	76.5	96.8	P/P	10 - 228
2362136	Cyanazine	87.2	96.3	P/P	59 - 241
2362136	Cyprodinil	80.7	90.2	P/P	47 - 146
2362136	Dechlorane Plus	115	91.6	P/P	50 - 150
2362136	Demeton	90.6	84.0	P/P	40 - 136
2362136	Diazinon	89.6	92.5	P/P	69 - 132
2362136	Difenoconazole	131	130	P/P	57 - 258
2362136	Dimethenamid	81.0	86.2	P/P	54 - 110
2362136	Dimethomorph	117	97.8	P/P	28 - 210
2362136	Disulfoton	88.4	95.9	P/P	43 - 133
2362136	Dithiopyr	75.1	81.1	P/P	39 - 116
2362136	EPTC	53.6	51.1	P/P	20 - 78.0
2362136	Ethion	57.8	79.1	P/P	17 - 119
2362136	Ethoprop	94.7	90.3	P/P	66 - 120
2362136	Etridiazole	64.8	55.4	P/P	28 - 96.0
2362136	Fenamiphos	84.1	92.1	P/P	41 - 126
2362136	Fenbuconazole	89.0	91.7	P/P	42 - 169
2362136	Fipronil	84.4	92.2	P/P	61 - 132
2362136	Fipronil Desulfinyl	90.3	96.5	P/P	56 - 132
2362136	Fipronil Sulfide	70.6	75.3	P/P	48 - 119
2362136	Fipronil Sulfone	56.9	71.1	P/P	42 - 131
2362136	Fluazifop-P-butyl	78.4	92.9	P/P	53 - 131
2362136	Fludioxonil	75.9	78.2	P/P	56 - 127
2362136	Flumioxazin	139	143	P/P	19 - 300
2362136	Flutolanil	80.2	83.2	P/P	41 - 127
2362136	Fluxapyroxad	71.7	74.6	P/P	42 - 172
2362136	Fonofos	80.9	94.7	P/P	59 - 113
2362136	Hexazinone	108	108	P/P	66 - 122
2362136	Imazalil	78.3	82.0	P/P	21 - 283
2362136	Iprodione	90.9	88.8	P/P	43 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P420849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362136	Loratadine	105	93.8	P/P	23 - 201
2362136	Malathion	106	122	P/P	58 - 136
2362136	Metalaxyl	77.0	81.4	P/P	55 - 120
2362136	Metolachlor	80.6	87.4	P/P	57 - 121
2362136	Metribuzin	106	97.0	P/P	58 - 294
2362136	Mevinphos	88.6	87.0	P/P	50 - 126
2362136	Molinate	67.7	63.5	P/P	42 - 93.0
2362136	Myclobutanil	84.7	87.0	P/P	55 - 125
2362136	Naled	102	106	P/P	18 - 200
2362136	Napropamide	69.4	71.3	P/P	39 - 110
2362136	Norflurazon	74.8	75.0	P/P	48 - 128
2362136	Octinoxate	79.6	77.1	P/P	21 - 159
2362136	Oxadiazon	69.6	74.9	P/P	43 - 112
2362136	Oxybenzone	71.8	70.0	P/P	41 - 142
2362136	Oxyfluorfen	87.4	102	P/P	64 - 153
2362136	Parathion Ethyl	96.4	93.7	P/P	69 - 114
2362136	Parathion Methyl	112	103	P/P	79 - 139
2362136	PBDE-47	73.9	73.3	P/P	27 - 144
2362136	PBDE-99	84.6	68.5	P/P	18 - 150
2362136	Pendimethalin	88.0	90.9	P/P	50 - 139
2362136	Phenytol	43.4	60.7	P/P	10 - 146
2362136	Phorate	78.8	83.6	P/P	54 - 161
2362136	Prodiamine	34.0	34.4	P/P	30 - 161
2362136	Prometon	92.9	82.3	P/P	45 - 134
2362136	Prometryn	75.5	80.3	P/P	45 - 137
2362136	Pronamide	98.7	86.8	P/P	65 - 133
2362136	Propanil	93.0	98.0	P/P	49 - 142
2362136	Propargite	70.0	91.2	P/P	10 - 203
2362136	Propiconazole	83.0	79.8	P/P	38 - 146
2362136	Pyraflufen Ethyl	82.5	79.2	P/P	34 - 153
2362136	Pyridaben	72.6	86.0	P/P	12 - 192
2362136	Pyriproxyfen	84.5	89.8	P/P	33 - 180
2362136	Simazine	79.2	79.9	P/P	51 - 157
2362136	Stirophos	63.7	86.7	P/P	10 - 128
2362136	Sulfentrazone	86.5	86.9	P/P	53 - 186
2362136	Tebuconazole	54.0	73.2	P/P	10 - 133
2362136	Terbufos	102	110	P/P	65 - 139
2362136	Terbutylazine	93.8	93.8	P/P	66 - 117
2362136	Thiobencarb	79.3	79.8	P/P	51 - 119
2362136	Tri-o-cresyl Phosphate	72.9	71.5	P/P	31 - 144
2362136	Triadimefon	75.6	88.1	P/P	48 - 119

Reference Method: EPA 8270E
Batch ID: P420851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362135	PCB-1016	70.8	67.9	P/P	46 - 111
2362135	PCB-1260	70.0	65.4	P/P	45 - 114
2362360	Aldrin	47.6	54.7	P/P	20 - 82.0
2362360	Alpha-BHC	84.5	79.4	P/P	71 - 109
2362360	Alpha-Chlordane	63.6	69.4	P/P	42 - 106
2362360	Beta-BHC	105	95.4	P/P	69 - 180

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P420851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362360	Beta-Cyfluthrin	63.4	70.6	P/P	18 - 175
2362360	Bifenthrin	50.2	60.7	P/P	21 - 128
2362360	Carbophenothion	42.8	58.6	P/P	10 - 126
2362360	Chlorothalonil	55.0	47.8	P/P	10 - 300
2362360	Cis-Nonachlor	55.0	63.2	P/P	34 - 106
2362360	Cypermethrin	67.2	74.5	P/P	22 - 158
2362360	Dacthal	83.6	83.6	P/P	54 - 116
2362360	DDD-p,p'	49.4	63.3	P/P	34 - 107
2362360	DDE-p,p'	63.6	70.3	P/P	33 - 110
2362360	DDT-p,p'	59.7	68.0	P/P	50 - 122
2362360	Delta-BHC	131	106	P/P	77 - 193
2362360	Deltamethrin	83.2	90.8	P/P	10 - 195
2362360	Dichlobenil	58.1	60.9	P/P	25 - 113
2362360	Dicofol	66.5	76.0	P/P	38 - 247
2362360	Dieldrin	67.7	76.6	P/P	45 - 118
2362360	Endosulfan I	71.8	77.9	P/P	51 - 106
2362360	Endosulfan II	80.6	77.0	P/P	37 - 122
2362360	Endosulfan Sulfate	66.3	72.3	P/P	43 - 132
2362360	Endrin	70.7	77.5	P/P	29 - 101
2362360	Endrin Aldehyde	54.2	59.8	P/P	19 - 110
2362360	Endrin Ketone	74.0	79.9	P/P	60 - 140
2362360	Esfenvalerate	66.1	72.6	P/P	26 - 199
2362360	Ethalfuralin	68.3	78.3	P/P	45 - 99.0
2362360	Fenpropathrin	60.1	69.2	P/P	35 - 120
2362360	Gamma-BHC	107	93.6	P/P	63 - 128
2362360	Gamma-Chlordane	62.9	67.7	P/P	40 - 104
2362360	Heptachlor	53.4	57.5	P/P	36 - 97.0
2362360	Heptachlor Epoxide	70.8	74.2	P/P	49 - 184
2362360	Hexachlorobenzene	60.4	60.6	P/P	39 - 96.0
2362360	Kepone	43.8	47.8	P/P	10 - 217
2362360	Lambda-Cyhalothrin	60.0	66.9	P/P	21 - 193
2362360	Methoprene	48.7	59.0	P/P	20 - 106
2362360	Methoxychlor	72.2	78.6	P/P	53 - 118
2362360	MGK-264	75.3	76.0	P/P	40 - 118
2362360	Mirex	52.1	62.2	P/P	26 - 92.0
2362360	Oxychlordane	66.7	70.3	P/P	44 - 99.0
2362360	Permethrin	67.9	73.8	P/P	33 - 182
2362360	Phenothrin	50.1	61.4	P/P	10 - 129
2362360	Piperonyl Butoxide	98.2	94.4	P/P	10 - 211
2362360	Prallethrin	61.3	66.8	P/P	24 - 113
2362360	Tau-Fluvalinate	57.1	65.2	P/P	14 - 149
2362360	Tetramethrin	88.4	97.2	P/P	17 - 151
2362360	Trans-Nonachlor	61.6	67.0	P/P	42 - 102
2362360	Triclosan Methyl	68.1	74.3	P/P	48 - 108
2362360	Trifluralin	68.1	72.7	P/P	47 - 96.0

Reference Method: EPA 8276

Batch ID: P420851

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362135	Chlordane	60.9	56.9	P/P	53 - 126
2362135	Toxaphene	65.6	57.7	P/P	56 - 211

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P420706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361348	Acesulfame K	109	109	P/P	40 - 150
2361348	AMPA	80.6	82.7	P/P	40 - 150
2361348	Endothall	97.3	98.5	P/P	40 - 150
2361348	Glufosinate	82.6	86.9	P/P	40 - 150
2361348	Glyphosate	98.0	93.4	P/P	40 - 150
2361348	Sucralose	100	104	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P420715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361348	2,4-D	123	105	P/P	40 - 150
2361348	2,4,5-T	81.4	68.8	P/P	40 - 150
2361348	Acetaminophen	107	99.1	P/P	30 - 150
2361348	Acetamiprid	103	95.4	P/P	40 - 150
2361348	Afidopyropen	80.6	75.2	P/P	30 - 150
2361348	Bentazon	102	93.8	P/P	30 - 150
2361348	Benzovindiflupyr	100	89.7	P/P	40 - 150
2361348	Carbamazepine	97.8	93.4	P/P	40 - 150
2361348	Clothianidin	112	101	P/P	40 - 150
2361348	Dinotefuran	124	111	P/P	40 - 150
2361348	Diuron	93.1	85.7	P/P	40 - 150
2361348	Fenuron	116	104	P/P	40 - 150
2361348	Fluridone	109	106	P/P	40 - 150
2361348	Hydrocodone	107	102	P/P	40 - 150
2361348	Ibuprofen	95.1	92.8	P/P	40 - 150
2361348	Imazapyr	137	121	P/P	40 - 150
2361348	Imidacloprid	134	131	P/P	40 - 150
2361348	Linuron	88.5	81.0	P/P	40 - 150
2361348	Mandestrobin	111	95.8	P/P	40 - 150
2361348	MCPP	104	89.4	P/P	40 - 150
2361348	Naproxen	102	87.1	P/P	40 - 150
2361348	Primidone	101	94.0	P/P	40 - 150
2361348	Pyraclostrobin	96.5	90.3	P/P	40 - 150
2361348	Silvex	90.5	78.1	P/P	40 - 150
2361348	Thiamethoxam	119	108	P/P	40 - 150
2361348	Tolfenpyrad	58.8	56.2	P/P	30 - 150
2361348	Triclopyr	86.8	71.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P420952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361846	3-Hydroxycarbofuran	101	116	P/P	40 - 150
2361846	Aldicarb	81.7	93.5	P/P	30 - 150
2361846	Aldicarb Sulfone	114	117	P/P	40 - 150
2361846	Aldicarb Sulfoxide	56.6	59.8	P/P	40 - 150
2361846	Carbaryl	76.7	80.9	P/P	40 - 150
2361846	Carbofuran	73.8	77.9	P/P	40 - 150
2361846	Methiocarb	86.6	86.0	P/P	40 - 150
2361846	Methomyl	97.2	105	P/P	40 - 150
2361846	Oxamyl	96.7	102	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P420952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2361846	Propoxur	73.7	73.3	P/P	40 - 150

Reference Method: SM 5310 B-2011
Batch ID: P421113

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2362418	Organic Carbon	98.1	99.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P420801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361809	Color (true)	2.42	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P420810

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361683	Turbidity	0.333	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361889	Calcium	0.738	Spike	P	0 - 20
2361889	Iron	0.370	Spike	P	0 - 20
2361889	Magnesium	0.671	Spike	P	0 - 20
2361889	Potassium	0.204	Spike	P	0 - 20
2361889	Sodium	0.632	Spike	P	0 - 20
2361889	Strontium	0.632	Spike	P	0 - 20
2361889	Tin	3.71	Spike	P	0 - 20
2361889	Titanium	1.04	Spike	P	0 - 20
2361889	Vanadium	0.680	Spike	P	0 - 20
2361889	Zinc	0.778	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361889	Aluminum	1.39	Spike	P	0 - 20
2361889	Antimony	1.07	Spike	P	0 - 20
2361889	Arsenic	0.774	Spike	P	0 - 20
2361889	Barium	1.03	Spike	P	0 - 20
2361889	Beryllium	2.07	Spike	P	0 - 20
2361889	Boron	0.862	Spike	P	0 - 20
2361889	Cadmium	0.943	Spike	P	0 - 20
2361889	Chromium	1.28	Spike	P	0 - 20
2361889	Cobalt	0.761	Spike	P	0 - 20
2361889	Copper	0.125	Spike	P	0 - 20
2361889	Lead	0.195	Spike	P	0 - 20
2361889	Manganese	0.346	Spike	P	0 - 20
2361889	Molybdenum	0.172	Spike	P	0 - 20
2361889	Nickel	1.52	Spike	P	0 - 20
2361889	Selenium	0.248	Spike	P	0 - 20
2361889	Silver	0.598	Spike	P	0 - 20
2361889	Thallium	0.495	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361771	Chloride	0.0414	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P421204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361771	Sulfate	0.788	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361804	Ammonia-N	0.482	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361980	Ammonia-N	0.621	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361815	Kjeldahl Nitrogen	1.57	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361720	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420848

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361808	NO2NO3-N	0.966	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P420859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361755	Total-P	1.19	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P420849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362136	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	8.20	Spike	P	0 - 37
2362136	Acetochlor	3.59	Spike	P	0 - 28
2362136	Alachlor	11.4	Spike	P	0 - 30
2362136	Ametryn	7.08	Spike	P	0 - 32
2362136	Atrazine	1.21	Spike	P	0 - 41
2362136	Atrazine Desethyl	5.33	Spike	P	0 - 36
2362136	Avobenzone	1.73	Spike	P	0 - 36
2362136	Azinphos Methyl	0.710	Spike	P	0 - 75
2362136	Azoxystrobin	9.80	Spike	P	0 - 39
2362136	Bromacil	1.80	Spike	P	0 - 33
2362136	Butylate	2.04	Spike	P	0 - 44
2362136	Caffeine	2.41	Spike	P	0 - 74
2362136	Carbophenothion	5.09	Spike	P	0 - 25
2362136	Carfentrazone Ethyl	2.50	Spike	P	0 - 27
2362136	Chlorfenapyr	13.4	Spike	P	0 - 24
2362136	Chlorpyrifos Ethyl	17.6	Spike	P	0 - 26
2362136	Chlorpyrifos Methyl	10.8	Spike	P	0 - 26
2362136	Coumaphos	23.4	Spike	P	0 - 28
2362136	Cyanazine	9.92	Spike	P	0 - 48
2362136	Cyprodinil	11.2	Spike	P	0 - 29
2362136	Dechlorane Plus	22.4	Spike	P	0 - 30
2362136	Demeton	7.66	Spike	P	0 - 33
2362136	Diazinon	3.24	Spike	P	0 - 29
2362136	Difenoconazole	1.12	Spike	P	0 - 34
2362136	Dimethenamid	6.23	Spike	P	0 - 39
2362136	Dimethomorph	18.2	Spike	P	0 - 51
2362136	Disulfoton	8.11	Spike	P	0 - 30
2362136	Dithiopyr	7.61	Spike	P	0 - 26
2362136	EPTC	4.61	Spike	P	0 - 43
2362136	Ethion	31.1	Spike	P	0 - 79
2362136	Ethoprop	4.72	Spike	P	0 - 29
2362136	Etridiazole	15.7	Spike	P	0 - 33
2362136	Fenamiphos	9.02	Spike	P	0 - 40
2362136	Fenbuconazole	3.04	Spike	P	0 - 74
2362136	Fipronil	8.82	Spike	P	0 - 29
2362136	Fipronil Desulfinyl	6.57	Spike	P	0 - 32
2362136	Fipronil Sulfide	6.44	Spike	P	0 - 30
2362136	Fipronil Sulfone	22.1	Spike	P	0 - 33
2362136	Fluazifop-P-butyl	16.9	Spike	P	0 - 38
2362136	Fludioxonil	3.03	Spike	P	0 - 29
2362136	Flumioxazin	3.38	Spike	P	0 - 51
2362136	Flutolanil	3.20	Spike	P	0 - 25
2362136	Fluxapyroxad	3.69	Spike	P	0 - 45
2362136	Fonofos	15.7	Spike	P	0 - 27
2362136	Hexazinone	0.0767	Spike	P	0 - 30
2362136	Imazalil	4.69	Spike	P	0 - 100
2362136	Iprodione	2.26	Spike	P	0 - 33
2362136	Loratadine	11.2	Spike	P	0 - 56
2362136	Malathion	14.3	Spike	P	0 - 37
2362136	Metalaxyl	5.66	Spike	P	0 - 40
2362136	Metolachlor	6.76	Spike	P	0 - 29

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P420849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362136	Metribuzin	8.81	Spike	P	0 - 45
2362136	Mevinphos	1.80	Spike	P	0 - 29
2362136	Molinate	6.40	Spike	P	0 - 33
2362136	Myclobutanil	2.68	Spike	P	0 - 26
2362136	Naled	3.80	Spike	P	0 - 37
2362136	Napropamide	2.77	Spike	P	0 - 44
2362136	Norflurazon	0.150	Spike	P	0 - 30
2362136	Octinoxate	3.16	Spike	P	0 - 45
2362136	Oxadiazon	7.34	Spike	P	0 - 28
2362136	Oxybenzone	2.55	Spike	P	0 - 46
2362136	Oxyfluorfen	15.3	Spike	P	0 - 28
2362136	Parathion Ethyl	2.77	Spike	P	0 - 31
2362136	Parathion Methyl	7.89	Spike	P	0 - 29
2362136	PBDE-47	0.884	Spike	P	0 - 36
2362136	PBDE-99	21.1	Spike	P	0 - 40
2362136	Pendimethalin	3.19	Spike	P	0 - 33
2362136	Phenytoin	33.2	Spike	P	0 - 100
2362136	Phorate	5.89	Spike	P	0 - 36
2362136	Prodiamine	0.994	Spike	P	0 - 71
2362136	Prometon	12.1	Spike	P	0 - 36
2362136	Prometryn	6.11	Spike	P	0 - 28
2362136	Pronamide	12.9	Spike	P	0 - 24
2362136	Propanil	5.28	Spike	P	0 - 28
2362136	Propargite	26.3	Spike	P	0 - 43
2362136	Propiconazole	3.26	Spike	P	0 - 33
2362136	Pyraflufen Ethyl	4.07	Spike	P	0 - 29
2362136	Pyridaben	12.4	Spike	P	0 - 30
2362136	Pyriproxyfen	6.07	Spike	P	0 - 79
2362136	Simazine	0.876	Spike	P	0 - 29
2362136	Stirophos	30.5	Spike	P	0 - 61
2362136	Sulfentrazone	0.467	Spike	P	0 - 33
2362136	Tebuconazole	22.2	Spike	P	0 - 69
2362136	Terbufos	7.96	Spike	P	0 - 29
2362136	Terbuthylazine	0.0426	Spike	P	0 - 32
2362136	Thiobencarb	0.640	Spike	P	0 - 26
2362136	Tri-o-cresyl Phosphate	2.02	Spike	P	0 - 33
2362136	Triadimefon	15.3	Spike	P	0 - 28

Reference Method: EPA 8270E
Batch ID: P420851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362135	PCB-1016	4.26	Spike	P	0 - 32
2362135	PCB-1260	6.70	Spike	P	0 - 31
2362360	Aldrin	13.8	Spike	P	0 - 41
2362360	Alpha-BHC	6.29	Spike	P	0 - 25
2362360	Alpha-Chlordane	8.71	Spike	P	0 - 33
2362360	Beta-BHC	10.0	Spike	P	0 - 36
2362360	Beta-Cyfluthrin	10.8	Spike	P	0 - 42
2362360	Bifenthrin	18.9	Spike	P	0 - 53

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P420851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362360	Carbophenothion	31.2	Spike	P	0 - 49
2362360	Chlorothalonil	14.0	Spike	P	0 - 71
2362360	Cis-Nonachlor	13.9	Spike	P	0 - 29
2362360	Cypermethrin	10.4	Spike	P	0 - 40
2362360	Dacthal	0.0299	Spike	P	0 - 26
2362360	DDD-p,p'	24.8	Spike	P	0 - 39
2362360	DDE-p,p'	9.96	Spike	P	0 - 33
2362360	DDT-p,p'	13.0	Spike	P	0 - 40
2362360	Delta-BHC	21.3	Spike	P	0 - 37
2362360	Deltamethrin	8.72	Spike	P	0 - 100
2362360	Dichlobenil	4.70	Spike	P	0 - 40
2362360	Dicofol	13.4	Spike	P	0 - 31
2362360	Dieldrin	12.3	Spike	P	0 - 27
2362360	Endosulfan I	8.15	Spike	P	0 - 23
2362360	Endosulfan II	4.55	Spike	P	0 - 28
2362360	Endosulfan Sulfate	8.65	Spike	P	0 - 38
2362360	Endrin	9.17	Spike	P	0 - 63
2362360	Endrin Aldehyde	9.78	Spike	P	0 - 60
2362360	Endrin Ketone	7.79	Spike	P	0 - 37
2362360	Esfenvalerate	9.43	Spike	P	0 - 52
2362360	Ethalfuralin	13.6	Spike	P	0 - 23
2362360	Fenpropathrin	14.1	Spike	P	0 - 32
2362360	Gamma-BHC	13.6	Spike	P	0 - 17
2362360	Gamma-Chlordane	7.37	Spike	P	0 - 40
2362360	Heptachlor	7.45	Spike	P	0 - 29
2362360	Heptachlor Epoxide	4.67	Spike	P	0 - 25
2362360	Hexachlorobenzene	0.362	Spike	P	0 - 36
2362360	Kepone	8.74	Spike	P	0 - 93
2362360	Lambda-Cyhalothrin	10.8	Spike	P	0 - 55
2362360	Methoprene	19.2	Spike	P	0 - 53
2362360	Methoxychlor	8.58	Spike	P	0 - 29
2362360	MGK-264	0.888	Spike	P	0 - 35
2362360	Mirex	17.8	Spike	P	0 - 46
2362360	Oxychlordane	5.32	Spike	P	0 - 29
2362360	Permethrin	8.34	Spike	P	0 - 44
2362360	Phenothrin	20.3	Spike	P	0 - 56
2362360	Piperonyl Butoxide	3.96	Spike	P	0 - 100
2362360	Prallethrin	8.60	Spike	P	0 - 42
2362360	Tau-Fluvalinate	13.2	Spike	P	0 - 54
2362360	Tetramethrin	9.48	Spike	P	0 - 51
2362360	Trans-Nonachlor	8.40	Spike	P	0 - 37
2362360	Triclosan Methyl	8.68	Spike	P	0 - 31
2362360	Trifluralin	6.51	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P420851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362135	Chlordane	6.74	Spike	P	0 - 25
2362135	Toxaphene	12.8	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P420706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361348	Acesulfame K	0.773	Spike	P	0 - 30
2361348	AMPA	2.64	Spike	P	0 - 30
2361348	Endothall	1.25	Spike	P	0 - 30
2361348	Glufosinate	5.14	Spike	P	0 - 30
2361348	Glyphosate	4.80	Spike	P	0 - 30
2361348	Sucralose	3.59	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P420715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361348	2,4-D	16.0	Spike	P	0 - 30
2361348	2,4,5-T	16.7	Spike	P	0 - 30
2361348	Acetaminophen	7.70	Spike	P	0 - 30
2361348	Acetamiprid	7.84	Spike	P	0 - 30
2361348	Afidopyropen	7.01	Spike	P	0 - 30
2361348	Bentazon	8.55	Spike	P	0 - 30
2361348	Benzovindiflupyr	11.1	Spike	P	0 - 30
2361348	Carbamazepine	4.60	Spike	P	0 - 30
2361348	Clothianidin	9.80	Spike	P	0 - 30
2361348	Dinotefuran	10.9	Spike	P	0 - 30
2361348	Diuron	8.30	Spike	P	0 - 30
2361348	Fenuron	10.2	Spike	P	0 - 30
2361348	Fluridone	2.33	Spike	P	0 - 30
2361348	Hydrocodone	5.30	Spike	P	0 - 30
2361348	Ibuprofen	2.37	Spike	P	0 - 30
2361348	Imazapyr	13.0	Spike	P	0 - 30
2361348	Imidacloprid	2.17	Spike	P	0 - 30
2361348	Linuron	8.93	Spike	P	0 - 30
2361348	Mandestrobin	14.5	Spike	P	0 - 30
2361348	MCPP	15.3	Spike	P	0 - 30
2361348	Naproxen	15.8	Spike	P	0 - 30
2361348	Primidone	6.89	Spike	P	0 - 30
2361348	Pyraclostrobin	6.64	Spike	P	0 - 30
2361348	Silvex	14.7	Spike	P	0 - 30
2361348	Thiamethoxam	9.70	Spike	P	0 - 30
2361348	Tolfenpyrad	4.46	Spike	P	0 - 30
2361348	Triclopyr	19.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P420952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361846	3-Hydroxycarbofuran	14.2	Spike	P	0 - 30
2361846	Aldicarb	13.4	Spike	P	0 - 30
2361846	Aldicarb Sulfone	2.27	Spike	P	0 - 30
2361846	Aldicarb Sulfoxide	5.44	Spike	P	0 - 30
2361846	Carbaryl	5.41	Spike	P	0 - 30
2361846	Carbofuran	5.40	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P420952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361846	Methiocarb	0.679	Spike	P	0 - 30
2361846	Methomyl	7.32	Spike	P	0 - 30
2361846	Oxamyl	5.49	Spike	P	0 - 30
2361846	Propoxur	0.504	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P421014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361910	Total Alkalinity	0.403	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P421281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361335	TDS	6.28	Sample	P	0 - 10

Reference Method: SM 2540 D-2015
Batch ID: P421277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361335	TSS	5.83	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P421016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2361910	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P421113

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2362418	Organic Carbon	0.708	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2361846
Field Sample ID: G3NW0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	69.4	P	30 - 160

Lab Sample ID: 2361847
Field Sample ID: G3NW0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	112	P	30 - 160
EPA 8321B	Acetaminophen-d4	97.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.2	P	30 - 160
EPA 8321B	Diuron-d6	83.2	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Ibuprofen-d3	104	P	30 - 160
EPA 8321B	Primidone-d5	105	P	30 - 160
EPA 8321B	Sucralose-d6	95.9	P	30 - 160

Lab Sample ID: 2361850
Field Sample ID: G3NW0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	74.6	P	29 - 130
EPA 8270E	Decachlorobiphenyl	61.8	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	70.3	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	60.7	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	35.6	P	30 - 101
EPA 8276	PCNB	89.4	P	48 - 121

Lab Sample ID: 2361851
Field Sample ID: G3NW0052

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	66.1	P	20 - 200
EPA 8270E	Simazine-d10	107	P	62 - 142
EPA 8270E	Terbufos-d10	97.2	P	58 - 132
EPA 8270E	Terphenyl-d14	121	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A115257

Included Lab Sample IDs: 2361803, 2361806, 2361809

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.7	99.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A115261

Included Lab Sample IDs: 2361803, 2361806, 2361809

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

Reference Method: EPA 8321B

Run ID: A115266

Included Lab Sample IDs: 2361847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	110	111	P/P	60 - 160
Endothall	103	109	P/P	60 - 160
Glufosinate	97.3	101	P/P	60 - 160
Glyphosate	112	116	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115269

Included Lab Sample IDs: 2361804, 2361808, 2361810

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

Reference Method: EPA 8321B

Run ID: A115305

Included Lab Sample IDs: 2361847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	113	110	P/P	60 - 160
Sucralose	104	104	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115327

Included Lab Sample IDs: 2361854, 2361855

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115327

Included Lab Sample IDs: 2361854, 2361855

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tin	103	100	P/P	90 - 110
Tin	100	103	P/P	90 - 110
Titanium	101	103	P/P	90 - 110
Titanium	103	102	P/P	90 - 110
Vanadium	102	100	P/P	90 - 110
Vanadium	100	102	P/P	90 - 110
Zinc	102	100	P/P	90 - 110
Zinc	99.5	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A115343

Included Lab Sample IDs: 2361847

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	102	P/P	50 - 150
2,4,5-T	114	105	P/P	50 - 150
Acetaminophen	97.9	95.3	P/P	60 - 160
Acetamiprid	108	103	P/P	50 - 150
Afidopyropen	93.3	95.1	P/P	50 - 150
Bentazon	123	114	P/P	50 - 160
Benzovindiflupyr	111	110	P/P	50 - 150
Carbamazepine	112	107	P/P	60 - 150
Clothianidin	107	104	P/P	60 - 150
Dinotefuran	99.5	104	P/P	50 - 150
Diuron	113	114	P/P	60 - 160
Fenuron	102	100	P/P	60 - 150
Fluridone	115	113	P/P	60 - 160
Hydrocodone	109	106	P/P	60 - 150
Ibuprofen	86.2	120	P/P	50 - 160
Imazapyr	118	114	P/P	50 - 150
Imidacloprid	104	103	P/P	60 - 150
Linuron	109	104	P/P	60 - 150
Mandestrobin	111	111	P/P	50 - 150
MCPP	111	107	P/P	50 - 150
Naproxen	142	99.7	P/P	50 - 160
Primidone	107	113	P/P	60 - 150
Pyraclostrobin	109	109	P/P	60 - 150
Silvex	109	99.1	P/P	50 - 150
Thiamethoxam	111	105	P/P	50 - 150
Tolfenpyrad	101	101	P/P	60 - 150
Triclopyr	122	108	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A115347

Included Lab Sample IDs: 2361846

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	108	108	P/P	60 - 150
Aldicarb	114	137	P/P	60 - 150
Aldicarb Sulfone	108	104	P/P	50 - 150
Aldicarb Sulfoxide	105	105	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A115347
Included Lab Sample IDs: 2361846

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbaryl	113	123	P/P	60 - 150
Carbofuran	103	108	P/P	50 - 150
Methiocarb	125	129	P/P	50 - 150
Methomyl	101	102	P/P	50 - 150
Oxamyl	108	103	P/P	50 - 150
Propoxur	105	102	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A115352
Included Lab Sample IDs: 2361854, 2361855

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	103	P/P	90 - 110
Antimony	99.0	100	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110
Barium	100	101	P/P	90 - 110
Beryllium	95.5	97.1	P/P	90 - 110
Boron	100	99.8	P/P	90 - 110
Cadmium	99.2	100	P/P	90 - 110
Chromium	98.6	99.7	P/P	90 - 110
Cobalt	99.1	99.3	P/P	90 - 110
Copper	98.6	98.5	P/P	90 - 110
Lead	93.1	93.7	P/P	90 - 110
Manganese	100	101	P/P	90 - 110
Molybdenum	99.3	99.8	P/P	90 - 110
Nickel	99.5	99.6	P/P	90 - 110
Selenium	101	101	P/P	90 - 110
Silver	98.4	98.8	P/P	90 - 110
Thallium	98.0	99.1	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A115358
Included Lab Sample IDs: 2361803, 2361806, 2361809

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.3	99.9	P/P	90 - 110
Total Alkalinity	99.9	96.0	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A115358
Included Lab Sample IDs: 2361803, 2361806, 2361809

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A115365
Included Lab Sample IDs: 2361804

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A115365

Included Lab Sample IDs: 2361804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.3	98.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A115376

Included Lab Sample IDs: 2361854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molybdenum	99.7	100	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A115380

Included Lab Sample IDs: 2361850

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A115381

Included Lab Sample IDs: 2361804, 2361808, 2361810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A115393

Included Lab Sample IDs: 2361804, 2361808, 2361810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.1	96.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A115395

Included Lab Sample IDs: 2361803, 2361806, 2361809

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.2	95.7	P/P	90 - 110
Sulfate	99.8	96.2	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A115398

Included Lab Sample IDs: 2361804, 2361808, 2361810

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

Reference Method: EPA 8270E

Run ID: A115403

Included Lab Sample IDs: 2361850

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

Reference Method: EPA 8270E
Run ID: A115403
Included Lab Sample IDs: 2361850

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.5		P	80 - 120
Alpha-BHC	98.2		P	80 - 120
Alpha-Chlordane	95.3		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	106		P	80 - 120
Bifenthrin	118		P	80 - 120
Carbophenothion	98.5		P	80 - 120
Chlorothalonil	111		P	80 - 120
Cis-Nonachlor	96.7		P	80 - 120
Cypermethrin	102		P	80 - 120
Dacthal	104		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	95.7		P	80 - 120
Delta-BHC	104		P	80 - 120
Deltamethrin	103		P	80 - 120
Dichlobenil	102		P	80 - 120
Dicofol	121*		F	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	97.6		P	80 - 120
Endosulfan II	99.6		P	80 - 120
Endosulfan Sulfate	102		P	80 - 120
Endrin	102		P	80 - 120
Endrin Aldehyde	102		P	80 - 120
Endrin Ketone	103		P	80 - 120
Esfenvalerate	104		P	80 - 120
Ethalfuralin	98.7		P	80 - 120
Fenpropathrin	99.0		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	92.4		P	80 - 120
Heptachlor	97.4		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120
Hexachlorobenzene	97.1		P	80 - 120
Kepone	85.9		P	80 - 120
Lambda-Cyhalothrin	107		P	80 - 120
Methoprene	103		P	80 - 120
Methoxychlor	98.7		P	80 - 120
MGK-264	106		P	80 - 120
Mirex	95.5		P	80 - 120
Oxychlordane	103		P	80 - 120
Permethrin	109		P	80 - 120
Phenothrin	107		P	80 - 120
Piperonyl Butoxide	118		P	80 - 120
Prallethrin	102		P	80 - 120
Tau-Fluvalinate	102		P	80 - 120
Tetramethrin	115		P	80 - 120
Trans-Nonachlor	97.5		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	99.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A115407
Included Lab Sample IDs: 2361851

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	98.4		P	80 - 120
Avobenzone	101		P	80 - 120
Dechlorane Plus	99.0		P	80 - 120
Octinoxate	96.4		P	80 - 120
Oxybenzone	94.8		P	80 - 120
PBDE-47	95.1		P	80 - 120
PBDE-99	99.5		P	80 - 120
Tri-o-cresyl Phosphate	97.5		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A115422
Included Lab Sample IDs: 2361808, 2361810

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	99.4	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A115499
Included Lab Sample IDs: 2361851

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.3		P	80 - 120
Alachlor	96.1		P	80 - 120
Ametryn	92.8		P	80 - 120
Atrazine	91.7		P	80 - 120
Atrazine Desethyl	98.6		P	80 - 120
Azinphos Methyl	93.5		P	80 - 120
Azoxystrobin	100		P	80 - 120
Bromacil	92.4		P	80 - 120
Butylate	102		P	80 - 120
Caffeine	111		P	80 - 120
Carbophenothion	88.5		P	80 - 120
Carfentrazone Ethyl	86.8		P	80 - 120
Chlorfenapyr	90.8		P	80 - 120
Chlorpyrifos Ethyl	95.0		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Coumaphos	80.2		P	80 - 120
Cyanazine	103		P	80 - 120
Cyprodinil	96.7		P	80 - 120
Demeton	98.7		P	80 - 120
Diazinon	105		P	80 - 120
Difenoconazole	91.5		P	80 - 120
Dimethenamid	105		P	80 - 120
Dimethomorph	93.2		P	80 - 120
Disulfoton	106		P	80 - 120
Dithiopyr	108		P	80 - 120
EPTC	104		P	80 - 120
Ethion	88.0		P	80 - 120
Ethoprop	103		P	80 - 120
Etridiazole	96.1		P	80 - 120
Fenamiphos	93.6		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E
 Run ID: A115499
 Included Lab Sample IDs: 2361851

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenbuconazole	91.8		P	80 - 120
Fipronil	96.2		P	80 - 120
Fipronil Desulfinyl	110		P	80 - 120
Fipronil Sulfide	97.1		P	80 - 120
Fipronil Sulfone	86.6		P	80 - 120
Fluazifop-P-butyl	80.7		P	80 - 120
Fludioxonil	84.3		P	80 - 120
Flumioxazin	84.3		P	80 - 120
Flutolanil	88.6		P	80 - 120
Fluxapyroxad	84.9		P	80 - 120
Fonofos	108		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	86.7		P	80 - 120
Iprodione	83.2		P	80 - 120
Loratadine	88.3		P	80 - 120
Malathion	103		P	80 - 120
Metalaxyl	97.2		P	80 - 120
Metolachlor	95.3		P	80 - 120
Metribuzin	94.5		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	99.4		P	80 - 120
Myclobutanil	87.5		P	80 - 120
Naled	104		P	80 - 120
Napropamide	93.8		P	80 - 120
Norflurazon	89.3		P	80 - 120
Oxadiazon	90.3		P	80 - 120
Oxyfluorfen	89.6		P	80 - 120
Parathion Ethyl	100		P	80 - 120
Parathion Methyl	87.8		P	80 - 120
Pendimethalin	102		P	80 - 120
Phenytoin	93.2		P	80 - 120
Phorate	103		P	80 - 120
Prodiamine	96.7		P	80 - 120
Prometon	106		P	80 - 120
Prometryn	97.1		P	80 - 120
Pronamide	94.6		P	80 - 120
Propanil	90.3		P	80 - 120
Propargite	90.0		P	80 - 120
Propiconazole	98.9		P	80 - 120
Pyraflufen Ethyl	104		P	80 - 120
Pyridaben	87.6		P	80 - 120
Pyriproxyfen	87.9		P	80 - 120
Simazine	90.8		P	80 - 120
Stirophos	96.8		P	80 - 120
Sulfentrazone	83.2		P	80 - 120
Tebuconazole	89.5		P	80 - 120
Terbufos	106		P	80 - 120
Terbuthylazine	105		P	80 - 120
Thiobencarb	94.7		P	80 - 120
Triadimefon	108		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A115513
Included Lab Sample IDs: 2361850

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	99.0		P	80 - 120
PCB-1260	99.1		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	97.5					2.42	
EPA 180.1 Rev. 2.0	Turbidity	100					0.333	
EPA 200.7 Rev. 4.4	Calcium	106	111	105	106			0.738
	Iron	104	109	103	104			0.370
	Magnesium	106	109	106	107			0.671
	Potassium	103	105	102	103			0.204
	Sodium	106	103	101	102			0.632
	Strontium	104	107	103	104			0.632
	Tin	102	106	105	101			3.71
	Titanium	103	107	101	99.6			1.04
	Vanadium	102	105	102	102			0.680
	Zinc	102	106	103	102			0.778
EPA 200.8 Rev. 5.4	Aluminum	98.3	99.4	98.0	98.9			1.39
	Antimony	103	101	100	103			1.07
	Arsenic	101	102	101	102			0.774
	Barium	105	105	104	105			1.03
	Beryllium	92.2	87.6	89.7	93.1			2.07
	Boron	102	106	105	104			0.862
	Cadmium	99.1	99.3	100	102			0.943
	Chromium	102	102	101	103			1.28
	Cobalt	101	100	99.6	102			0.761
	Copper	100	101	101	101			0.125
	Lead	94.7	95.8	95.6	96.1			0.195
	Manganese	103	100	99.6	104			0.346
	Molybdenum	99.0	98.8	98.6	99.9			0.172
	Nickel	101	101	99.5	102			1.52
	Selenium	100	99.1	99.4	102			0.248
	Silver	101	100	99.8	101			0.598
	Thallium	100	101	101	102			0.495
EPA 300.0 Rev. 2.1	Chloride	100	95.6	96.3			0.0414	
	Sulfate	102	98.4	99.2			0.788	
EPA 350.1 Rev. 2.0	Ammonia-N	97.0	99.0	99.6				0.482
	Ammonia-N	98.6	97.2	98.4				0.621
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	91.6	90.6	87.8				1.57
EPA 353.2 Rev. 2.0	NO2NO3-N	102	103	103				0.0
	NO2NO3-N	102	104	103				0.966
EPA 365.1 Rev. 2.0	Total-P	108	109	108				1.19
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	91.2	87.0	94.4				8.20
	Acetochlor	97.0	94.6	98.1				3.59
	Alachlor	89.9	80.6	90.3				11.4
	Aldrin	53.1	47.6	54.7				13.8
	Alpha-BHC	98.9	84.5	79.4				6.29
	Alpha-Chlordane	92.6	63.6	69.4				8.71
	Ametryn	87.7	90.9	97.6				7.08
	Atrazine	94.5						1.21
	Atrazine Desethyl	64.0	59.8	54.8				5.33
	Avobenzone	104	105	107				1.73
	Azinphos Methyl	124	121	120				0.710
	Azoxystrobin	109	116	103				9.80
	Beta-BHC	120	105	95.4				10.0
	Beta-Cyfluthrin	80.7	63.4	70.6				10.8
	Bifenthrin	59.3	50.2	60.7				18.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Bromacil	75.1	75.9	77.3			1.80
	Butylate	55.0	49.9	48.9			2.04
	Caffeine	70.6	81.5	83.4			2.41
	Carbophenothion	96.4	86.5	82.2			5.09
	Carbophenothion	50.2	42.8	58.6			31.2
	Carfentrazone Ethyl	118	93.9	96.3			2.50
	Chlorfenapyr	104	76.9	88.0			13.4
	Chlorothalonil	141	55.0	47.8			14.0
	Chlorpyrifos Ethyl	112	87.9	105			17.6
	Chlorpyrifos Methyl	112	92.9	104			10.8
	Cis-Nonachlor	83.3	55.0	63.2			13.9
	Coumaphos	100	76.5	96.8			23.4
	Cyanazine	123	87.2	96.3			9.92
	Cypermethrin	81.2	67.2	74.5			10.4
	Cyprodinil	87.9	80.7	90.2			11.2
	Dacthal	96.8	83.6	83.6			0.0299
	DDD-p,p'	85.7	49.4	63.3			24.8
	DDE-p,p'	87.2	63.6	70.3			9.96
	DDT-p,p'	70.1	59.7	68.0			13.0
	Dechlorane Plus	125	91.6	115			22.4
	Delta-BHC	120	131	106			21.3
	Deltamethrin	105	83.2	90.8			8.72
	Demeton	88.8	90.6	84.0			7.66
	Diazinon	88.3	89.6	92.5			3.24
	Dichlobenil	50.7	58.1	60.9			4.70
	Dicofol	69.6	66.5	76.0			13.4
	Dieldrin	94.2	67.7	76.6			12.3
	Difenoconazole	121	131	130			1.12
	Dimethenamid	82.7	81.0	86.2			6.23
	Dimethomorph	98.1	117	97.8			18.2
	Disulfoton	82.0	88.4	95.9			8.11
	Dithiopyr	80.3	75.1	81.1			7.61
	Endosulfan I	86.6	71.8	77.9			8.15
	Endosulfan II	96.5	80.6	77.0			4.55
	Endosulfan Sulfate	100	66.3	72.3			8.65
	Endrin	90.8	70.7	77.5			9.17
	Endrin Aldehyde	106	54.2	59.8			9.78
	Endrin Ketone	90.9	74.0	79.9			7.79
	EPTC	55.5	53.6	51.1			4.61
	Esfenvalerate	85.2	66.1	72.6			9.43
	Ethalfuralin	77.3	68.3	78.3			13.6
	Ethion	79.1	57.8	79.1			31.1
	Ethoprop	91.9	94.7	90.3			4.72
	Etridiazole	56.7	64.8	55.4			15.7
	Fenamiphos	106	84.1	92.1			9.02
	Fenbuconazole	95.9	89.0	91.7			3.04
	Fenpropathrin	82.7	60.1	69.2			14.1
	Fipronil	91.7	84.4	92.2			8.82
	Fipronil Desulfinyl	98.7	90.3	96.5			6.57
	Fipronil Sulfide	74.1	70.6	75.3			6.44
	Fipronil Sulfone	74.2	56.9	71.1			22.1
	Fluazifop-P-butyl	89.1	78.4	92.9			16.9
	Fludioxonil	87.0	75.9	78.2			3.03
	Flumioxazin	145	139	143			3.38

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Flutolanil	88.7	80.2	83.2			3.20
	Fluxapyroxad	86.6	71.7	74.6			3.69
	Fonofos	93.4	80.9	94.7			15.7
	Gamma-BHC	93.9	107	93.6			13.6
	Gamma-Chlordane	89.2	62.9	67.7			7.37
	Heptachlor	74.1	53.4	57.5			7.45
	Heptachlor Epoxide	94.8	70.8	74.2			4.67
	Hexachlorobenzene	71.7	60.4	60.6			0.362
	Hexazinone	106	108	108			0.0767
	Imazalil	83.7	78.3	82.0			4.69
	Iprodione	109	90.9	88.8			2.26
	Kepone	100	43.8	47.8			8.74
	Lambda-Cyhalothrin	36.1	60.0	66.9			10.8
	Loratadine	91.3	105	93.8			11.2
	Malathion	118	106	122			14.3
	Metalaxyl	85.2	77.0	81.4			5.66
	Methoprene	69.4	48.7	59.0			19.2
	Methoxychlor	96.6	72.2	78.6			8.58
	Metolachlor	89.7	80.6	87.4			6.76
	Metribuzin	94.0	106	97.0			8.81
	Mevinphos	86.5	88.6	87.0			1.80
	MGK-264	94.3	75.3	76.0			0.888
	Mirex	61.8	52.1	62.2			17.8
	Molinate	62.1	67.7	63.5			6.40
	Myclobutanil	93.9	84.7	87.0			2.68
	Naled	105	102	106			3.80
	Napropamide	83.1	69.4	71.3			2.77
	Norflurazon	80.3	74.8	75.0			0.150
	Octinoxate	78.1	79.6	77.1			3.16
	Oxadiazon	78.7	69.6	74.9			7.34
	Oxybenzone	67.0	71.8	70.0			2.55
	Oxychlordane	78.1	66.7	70.3			5.32
	Oxyfluorfen	105	87.4	102			15.3
	Parathion Ethyl	98.4	96.4	93.7			2.77
	Parathion Methyl	104	112	103			7.89
	PBDE-47	79.8	73.9	73.3			0.884
	PBDE-99	84.9	68.5	84.6			21.1
	PCB-1016	86.6	70.8	67.9			4.26
	PCB-1260	101	70.0	65.4			6.70
	Pendimethalin	88.8	88.0	90.9			3.19
	Permethrin	86.9	67.9	73.8			8.34
	Phenothrin	58.1	50.1	61.4			20.3
	Phenytoin	50.4	43.4	60.7			33.2
	Phorate	86.4	78.8	83.6			5.89
	Piperonyl Butoxide	77.8	98.2	94.4			3.96
	Prallethrin	87.1	61.3	66.8			8.60
	Prodiamine	50.0	34.0	34.4			0.994
	Prometon	76.2	92.9	82.3			12.1
	Prometryn	85.5	75.5	80.3			6.11
	Pronamide	94.3	98.7	86.8			12.9
	Propanil	96.8	93.0	98.0			5.28
	Propargite	78.0	70.0	91.2			26.3
	Propiconazole	89.8	83.0	79.8			3.26
	Pyraflufen Ethyl	86.6	82.5	79.2			4.07

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Pyridaben	110	72.6	86.0			12.4
	Pyriproxyfen	92.5	84.5	89.8			6.07
	Simazine	79.6	79.2	79.9			0.876
	Stirophos	91.2	63.7	86.7			30.5
	Sulfentrazone	91.4	86.5	86.9			0.467
	Tau-Fluvalinate	70.0	57.1	65.2			13.2
	Tebuconazole	59.4	54.0	73.2			22.2
	Terbufos	110	102	110			7.96
	Terbutylazine	93.3	93.8	93.8			0.0426
	Tetramethrin	117	88.4	97.2			9.48
	Thiobencarb	83.9	79.3	79.8			0.640
	Trans-Nonachlor	87.6	61.6	67.0			8.40
	Tri-o-cresyl Phosphate	77.6	71.5	72.9			2.02
	Triadimefon	89.0	75.6	88.1			15.3
	Triclosan Methyl	92.4	68.1	74.3			8.68
	Trifluralin	78.1	68.1	72.7			6.51
EPA 8276	Chlordane	68.6	60.9	56.9			6.74
	Toxaphene	62.0	65.6	57.7			12.8
EPA 8321B	2,4-D	98.8	123	105			16.0
	2,4,5-T	75.2	81.4	68.8			16.7
	3-Hydroxycarbofuran	96.7	101	116			14.2
	Acesulfame K	121	109	109			0.773
	Acetaminophen	99.3	107	99.1			7.70
	Acetamiprid	98.1	103	95.4			7.84
	Afidopyropen	75.2	80.6	75.2			7.01
	Aldicarb	82.0	81.7	93.5			13.4
	Aldicarb Sulfone	98.7	114	117			2.27
	Aldicarb Sulfoxide	90.1	56.6	59.8			5.44
	AMPA	99.8	80.6	82.7			2.64
	Bentazon	109	102	93.8			8.55
	Benzovindiflupyr	93.0	100	89.7			11.1
	Carbamazepine	96.7	97.8	93.4			4.60
	Carbaryl	81.9	76.7	80.9			5.41
	Carbofuran	77.1	73.8	77.9			5.40
	Clothianidin	105	112	101			9.80
	Dinotefuran	110	124	111			10.9
	Diuron	89.5	93.1	85.7			8.30
	Endothall	96.5	97.3	98.5			1.25
	Fenuron	113	116	104			10.2
	Fluridone	112	109	106			2.33
	Glufosinate	103	82.6	86.9			5.14
	Glyphosate	103	98.0	93.4			4.80
	Hydrocodone	102	107	102			5.30
	Ibuprofen	127	95.1	92.8			2.37
	Imazapyr	123	137	121			13.0
	Imidacloprid	116	134	131			2.17
	Linuron	84.8	88.5	81.0			8.93
	Mandestrobin	103	111	95.8			14.5
	MCPP	94.9	104	89.4			15.3
	Methiocarb	91.0	86.6	86.0			0.679
	Methomyl	89.9	97.2	105			7.32
	Naproxen	86.6	102	87.1			15.8
	Oxamyl	90.6	96.7	102			5.49
	Primidone	95.6	101	94.0			6.89

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Propoxur	76.5	73.7	73.3		0.504
	Pyraclostrobin	90.2	96.5	90.3		6.64
	Silvex	80.3	90.5	78.1		14.7
	Sucralose	106	100	104		3.59
	Thiamethoxam	109	119	108		9.70
	Tolfenpyrad	46.1	58.8	56.2		4.46
	Triclopyr	79.0	86.8	71.0		19.9
SM 2320 B-2011	Total Alkalinity	101			0.403	
SM 2540 C-2015	TDS	101			6.28	
SM 2540 D-2015	TSS	99.8			5.83	
SM 4500-F- C-2011	Fluoride	102				0.0
SM 5310 B-2011	Organic Carbon	96.2	98.1	99.1		0.708

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2361803, 2361806, 2361809
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2361803, 2361806, 2361809
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2361854, 2361855
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2361854, 2361855
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2361803, 2361806, 2361809
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2361803, 2361806, 2361809
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2361804, 2361808, 2361810
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2361804, 2361808, 2361810
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2361804, 2361808, 2361810
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2361804, 2361808, 2361810
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2361851
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2361850
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2361851
EPA 8270E	PCBs in water matrices by GC/MS/MS	2361850
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2361850
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2361846
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2361847
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2361803, 2361806, 2361809
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2361854, 2361855
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2361803, 2361806, 2361809
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2361803, 2361806, 2361809
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2361803, 2361806, 2361809
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2361804, 2361808, 2361810

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	10/12/2022			10/12/2022 15:05	Samantha L Bates	2361803
	10/12/2022			10/12/2022 15:06	Samantha L Bates	2361806
	10/12/2022			10/12/2022 15:07	Samantha L Bates	2361809
EPA 180.1 Rev. 2.0	10/12/2022			10/12/2022 13:11	Chandler E Cox	2361803, 2361806
	10/12/2022			10/12/2022 13:12	Chandler E Cox	2361809
EPA 200.7 Rev. 4.4	10/12/2022	10/13/2022 11:20	George D Taylor	10/14/2022 20:46	McKinley C Carter	2361854
	10/12/2022	10/13/2022 11:20	George D Taylor	10/14/2022 21:22	McKinley C Carter	2361855
EPA 200.8 Rev. 5.4	10/12/2022	10/13/2022 11:20	George D Taylor	10/17/2022 16:46	Megan Whitefoot	2361854
	10/12/2022	10/13/2022 11:20	George D Taylor	10/17/2022 16:55	Megan Whitefoot	2361855
	10/12/2022	10/13/2022 11:20	George D Taylor	10/18/2022 22:47	Megan Whitefoot	2361854
EPA 300.0 Rev. 2.1	10/12/2022			10/20/2022 00:04	Anna M. Plaviak	2361803
	10/12/2022			10/20/2022 00:20	Anna M. Plaviak	2361806
	10/12/2022			10/20/2022 00:35	Anna M. Plaviak	2361809
EPA 350.1 Rev. 2.0	10/12/2022			10/18/2022 13:44	Ping Hua	2361804
	10/12/2022			10/19/2022 13:45	Ping Hua	2361808
	10/12/2022			10/19/2022 13:46	Ping Hua	2361810
EPA 351.2 Rev. 2.0	10/12/2022	10/14/2022 09:10	Simonne.V. Calhoun	10/19/2022 12:16	Samantha L Bates	2361804
	10/12/2022	10/14/2022 09:10	Simonne.V. Calhoun	10/19/2022 12:18	Samantha L Bates	2361808
	10/12/2022	10/14/2022 09:10	Simonne.V. Calhoun	10/19/2022 12:19	Samantha L Bates	2361810
EPA 353.2 Rev. 2.0	10/12/2022			10/13/2022 10:27	Beverly Y. Sanders	2361804
	10/12/2022			10/13/2022 10:34	Beverly Y. Sanders	2361808
	10/12/2022			10/13/2022 10:40	Beverly Y. Sanders	2361810
EPA 365.1 Rev. 2.0	10/12/2022	10/13/2022 15:28	Adam P Silver	10/18/2022 12:35	Simonne.V. Calhoun	2361804
	10/12/2022	10/13/2022 15:28	Adam P Silver	10/18/2022 12:36	Simonne.V. Calhoun	2361808
	10/12/2022	10/13/2022 15:28	Adam P Silver	10/18/2022 12:37	Simonne.V. Calhoun	2361810
EPA 8270E	10/12/2022	10/14/2022 08:00	Fe-Val Siddell	10/19/2022 18:58	Vandana T. Nagar	2361850
	10/12/2022	10/14/2022 08:00	Fe-Val Siddell	10/26/2022 01:31	Michael Poppell	2361850
	10/12/2022	10/14/2022 08:30	Rasheda Ghaffari	10/18/2022 18:01	Lipi Saha	2361851
	10/12/2022	10/14/2022 08:30	Rasheda Ghaffari	10/21/2022 18:06	Michael Poppell	2361851
EPA 8276	10/12/2022	10/14/2022 08:00	Fe-Val Siddell	10/18/2022 10:23	Arthur Maknenko	2361850
EPA 8321B	10/12/2022	10/12/2022 14:00	Umesh Chiluwal	10/12/2022 14:47	Umesh Chiluwal	2361847
	10/12/2022	10/12/2022 14:00	Umesh Chiluwal	10/13/2022 16:13	Umesh Chiluwal	2361847
	10/12/2022	10/13/2022 10:30	June Rhew	10/14/2022 19:05	Juyoung Kim	2361847
	10/12/2022	10/17/2022 09:30	June Rhew	10/17/2022 15:06	Juyoung Kim	2361846
SM 2320 B-2011	10/12/2022			10/13/2022 23:38	Dale L. Simmons	2361803
	10/12/2022			10/14/2022 00:21	Dale L. Simmons	2361806
	10/12/2022			10/14/2022 00:30	Dale L. Simmons	2361809
SM 2340 B-2011	10/12/2022			10/14/2022 20:46	McKinley C Carter	2361854
	10/12/2022			10/14/2022 21:22	McKinley C Carter	2361855
SM 2540 C-2015	10/12/2022			10/13/2022 16:08	Yijie Li	2361803, 2361806, 2361809

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2540 D-2015	10/12/2022			10/13/2022 16:08	Yijie Li	2361803, 2361806, 2361809
SM 4500-F- C-2011	10/12/2022			10/13/2022 23:38	Dale L. Simmons	2361803
	10/12/2022			10/14/2022 00:21	Dale L. Simmons	2361806
	10/12/2022			10/14/2022 00:30	Dale L. Simmons	2361809
	10/12/2022			10/18/2022 18:56	Khloe J Berg	2361804
SM 5310 B-2011	10/12/2022			10/18/2022 19:08	Khloe J Berg	2361808
	10/12/2022			10/18/2022 19:22	Khloe J Berg	2361810