

Chemical Analysis Report

TLH-ROC-2022-08-10-01

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

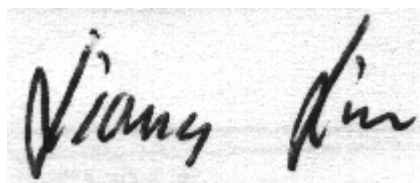
Event Description: **Run 15**
Request ID: **RQ-2022-07-18-48**
Customer: **TLH-ROC**
Project ID: **SMP**

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

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

Certified by: Liang Lin, Environmental Administrator

Date Certified: 02-SEP-2022 15:07

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: Alligator Creek @ Hwy273

Collection Date/Time: 08/10/2022 10:35

Field ID: G3TLHR0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2347971	DEP SOP: NU-094-1	Color (true)	70	A	PCU	P418006	
	EPA 180.1 Rev. 2.0	Turbidity	16		NTU	P418007	
	EPA 300.0 Rev. 2.1	Chloride	3.9		mg Cl/L	P418360	
		Sulfate	0.62		mg SO4/L	P418362	
	SM 2320 B-2011	Total Alkalinity	14		mg CaCO3/L	P418313	
	SM 2540 C-2011	TDS	51		mg/L	P418394	
	SM 2540 D-2011	TSS	12		mg/L	P418320	
	SM 4500-F- C-2011	Fluoride	0.049	I	mg F/L	P418316	
2347972	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P418160	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P418085	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.086		mg N/L	P418110	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P417994	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P418235	
2347976	EPA 8321B	Aldicarb	0.020	U	ug/L	P417969	
		Aldicarb Sulfone	0.0020	U	ug/L	P417969	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P417969	
		Carbaryl	0.0020	U	ug/L	P417969	
		Carbofuran	0.0020	U	ug/L	P417969	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P417969	
		Methiocarb	0.0020	U	ug/L	P417969	
		Methomyl	0.0020	U	ug/L	P417969	
		Oxamyl	0.0020	U	ug/L	P417969	
		Propoxur	0.0020	U	ug/L	P417969	
2347977		2,4-D	0.13		ug/L	P417988	
		Acesulfame K	0.10	U	ug/L	P417915	
		2,4,5-T	0.0040	U	ug/L	P417988	
		AMPA	0.10	U	ug/L	P417915	
		Acetaminophen	0.0080	U	ug/L	P417988	
		Acetamiprid	0.0020	U	ug/L	P417988	
		Endothall	0.25	U	ug/L	P417915	
		Glufosinate	0.10	U	ug/L	P417915	
		Glyphosate	0.10	U	ug/L	P417915	
		Afidopyropen	0.0020	U	ug/L	P417988	
		Bentazon	0.24		ug/L	P417988	
		Sucralose	0.014	I	ug/L	P417915	
		Benzovindiflupyr	0.0020	U	ug/L	P417988	
		Carbamazepine	0.0018	I	ug/L	P417988	
		Clothianidin	0.0048	I	ug/L	P417988	
		Dinotefuran	0.0020	U	ug/L	P417988	
		Diuron	0.0089		ug/L	P417988	
		Fenuron	0.032	U	ug/L	P417988	
		Fluridone	0.018		ug/L	P417988	
		Imazapyr	0.66		ug/L	P417988	
Hydrocodone	0.0020	U	ug/L	P417988			

Field ID: G3TLHR0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2347977	EPA 8321B	Ibuprofen	0.080	U	ug/L	P417988	
		Imidacloprid	0.0032	I	ug/L	P417988	MS
		Linuron	0.0040	U	ug/L	P417988	
		Mandestrobin	0.0020	U	ug/L	P417988	
		MCP	0.0040	U	ug/L	P417988	
		Naproxen	0.0080	U	ug/L	P417988	
		Primidone	0.0059	I	ug/L	P417988	
		Pyraclostrobin	0.0020	U	ug/L	P417988	
		Silvex	0.0040	U	ug/L	P417988	
		Thiamethoxam	0.0020	U	ug/L	P417988	MS
		Tolfenpyrad	0.0020	U	ug/L	P417988	
		Triclopyr	0.0040	U	ug/L	P417988	
2347978	EPA 8270E	Aldrin	0.70	U	ng/L	P418171	
		Alpha-BHC	0.11	UJ	ng/L	P418171	LCS, MS
		Alpha-Chlordane	0.21	U	ng/L	P418171	
		Beta-BHC	0.11	U	ng/L	P418171	
		Beta-Cyfluthrin	1.3	U	ng/L	P418171	
		Bifenthrin	0.54	U	ng/L	P418171	
		Chlorothalonil	1.3	U	ng/L	P418171	
		Cis-Nonachlor	0.21	U	ng/L	P418171	
		Cypermethrin	1.6	U	ng/L	P418171	
		Dacthal	0.16	U	ng/L	P418171	
		DDD-p,p'	0.27	U	ng/L	P418171	
		DDE-p,p'	0.21	U	ng/L	P418171	
		DDT-p,p'	0.27	U	ng/L	P418171	
		Delta-BHC	0.43	U	ng/L	P418171	
		Deltamethrin	1.3	U	ng/L	P418171	
		Dichlobenil	0.27	U	ng/L	P418171	
		Dicofol	1.3	U	ng/L	P418171	
		Dieldrin	0.43	U	ng/L	P418171	
		Endosulfan I	0.43	U	ng/L	P418171	
		Endosulfan II	0.43	U	ng/L	P418171	
		Endosulfan Sulfate	0.32	U	ng/L	P418171	
		Endrin	0.43	U	ng/L	P418171	
		Endrin Aldehyde	0.80	U	ng/L	P418171	
		Endrin Ketone	0.43	U	ng/L	P418171	
		Esfenvalerate	0.80	U	ng/L	P418171	
		Ethalfuralin	0.16	U	ng/L	P418171	
		Fenpropathrin	0.27	U	ng/L	P418171	
		Gamma-BHC	0.13	U	ng/L	P418171	
		Gamma-Chlordane	0.21	U	ng/L	P418171	
		Heptachlor	0.21	U	ng/L	P418171	
		Heptachlor Epoxide	0.27	U	ng/L	P418171	
		Hexachlorobenzene**	1.1	U	ng/L	P418171	
		Kepone	5.4	UJ	ng/L	P418171	CCV

Field ID: G3TLHR0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2347978	EPA 8270E	Lambda-Cyhalothrin	0.80	U	ng/L	P418171	CCV
		Methoprene	0.80	U	ng/L	P418171	
		Methoxychlor	0.32	UJ	ng/L	P418171	
		MGK-264	0.21	U	ng/L	P418171	
		Mirex	0.38	U	ng/L	P418171	
		Oxychlordane	0.32	U	ng/L	P418171	
		Permethrin	1.7	U	ng/L	P418171	
		Phenothrin	0.97	U	ng/L	P418171	
		Piperonyl Butoxide	0.16	U	ng/L	P418171	
		Prallethrin	2.1	U	ng/L	P418171	
		Tau-Fluvalinate	0.27	U	ng/L	P418171	
		Tetramethrin	0.80	U	ng/L	P418171	
		Trans-Nonachlor	0.21	U	ng/L	P418171	
		Triclosan Methyl	0.16	U	ng/L	P418171	
		Trifluralin	0.21	U	ng/L	P418171	
		Chlordane	4.2	I	ng/L	P418171	
		Toxaphene	16	U	ng/L	P418171	
		Acetochlor	0.26	U	ng/L	P417895	
2347979	EPA 8270E	Alachlor	0.26	U	ng/L	P417895	RPD
		Ametryn	0.62	U	ng/L	P417895	
		Atrazine	0.97	I	ng/L	P417895	
		Atrazine Desethyl	1.6	U	ng/L	P417895	
		Azinphos Methyl	2.1	U	ng/L	P417895	
		Azoxystrobin	4.1		ng/L	P417895	
		Bromacil	0.52	U	ng/L	P417895	
		Butylate	0.41	U	ng/L	P417895	
		Caffeine**	7.8	U	ng/L	P417895	
		Carbophenothion	0.21	U	ng/L	P417895	
		Carfentrazone Ethyl	0.10	U	ng/L	P417895	
		Chlorfenapyr	0.18	U	ng/L	P417895	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P417895	
		Chlorpyrifos Methyl	0.052	U	ng/L	P417895	
		Coumaphos	0.52	U	ng/L	P417895	
		Cyanazine	3.4	U	ng/L	P417895	
		Cyprodinil	0.10	U	ng/L	P417895	
		Demeton	1.6	U	ng/L	P417895	
		Diazinon	0.13	U	ng/L	P417895	
		Difenoconazole	0.62	U	ng/L	P417895	
		Dimethenamid	0.10	U	ng/L	P417895	
		Dimethomorph	0.18	U	ng/L	P417895	
		Disulfoton	0.52	U	ng/L	P417895	
		Dithiopyr	2.0	V	ng/L	P417895	
		EPTC	1.3	U	ng/L	P417895	
		Ethion	0.16	U	ng/L	P417895	
		Ethoprop	0.10	U	ng/L	P417895	

Field ID: G3TLHR0045

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2347979	EPA 8270E	Etridiazole	0.16	U	ng/L	P417895	
		Fenamiphos	0.52	U	ng/L	P417895	
		Fenbuconazole	0.13	U	ng/L	P417895	
		Fipronil	0.26	U	ng/L	P417895	
		Fipronil Desulfinyl**	0.13	U	ng/L	P417895	
		Fipronil Sulfide	0.16	U	ng/L	P417895	
		Fipronil Sulfone	0.16	U	ng/L	P417895	
		Fluazifop-P-butyl	0.10	U	ng/L	P417895	
		Fludioxonil	0.13	U	ng/L	P417895	
		Flumioxazin	3.0	I	ng/L	P417895	
		Flutolanil	360		ng/L	P417895	
		Fluxapyroxad	3.8		ng/L	P417895	
		Fonofos	0.21	U	ng/L	P417895	
		Hexazinone	18		ng/L	P417895	
		Imazalil	0.78	U	ng/L	P417895	
		Iprodione	0.62	U	ng/L	P417895	
		Loratadine**	0.10	U	ng/L	P417895	MS
		Malathion	0.36	U	ng/L	P417895	
		Metalaxyl	0.78	U	ng/L	P417895	
		Metolachlor	290		ng/L	P417895	
		Metribuzin	2.6	U	ng/L	P417895	
		Mevinphos	1.1	U	ng/L	P417895	
		Molinate	0.31	U	ng/L	P417895	
		Myclobutanil	0.26	U	ng/L	P417895	
		Naled	1.6	U	ng/L	P417895	
		Napropamide	0.41	U	ng/L	P417895	
		Norflurazon	0.52	U	ng/L	P417895	
		Oxadiazon	0.31	U	ng/L	P417895	
		Oxyfluorfen	0.16	U	ng/L	P417895	
		Parathion Ethyl	0.26	U	ng/L	P417895	
		Parathion Methyl	0.57	U	ng/L	P417895	
		Pendimethalin	1.0	U	ng/L	P417895	
		Phenytol**	3.6	U	ng/L	P417895	MS, RPD
		Phorate	0.54	U	ng/L	P417895	
		Prodiamine	0.18	U	ng/L	P417895	
		Prometon	0.93	U	ng/L	P417895	
		Prometryn	0.21	U	ng/L	P417895	
		Pronamide	0.16	U	ng/L	P417895	
		Propanil	0.13	U	ng/L	P417895	
		Propargite	1.6	U	ng/L	P417895	
		Propiconazole	0.95	I	ng/L	P417895	
		Pyraflufen Ethyl	0.26	U	ng/L	P417895	
		Pyridaben	0.47	U	ng/L	P417895	
		Pyriproxyfen	0.13	U	ng/L	P417895	
		Simazine	0.52	U	ng/L	P417895	

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P418006

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418007

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417935

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/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: P417935

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	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: P418360

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: P418362

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418160

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418085

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418110

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417994

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

Reference Method: EPA 8270E
Batch ID: P417895

Component	Result	Code	Units
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
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P417895

Component	Result	Code	Units
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
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	2.8		ng/L
Dithiopyr	2.9		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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P417895

Component	Result	Code	Units
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	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	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	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
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P417895

Component	Result	Code	Units
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
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8270E

Batch ID: P418171

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418171

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418171

Component	Result	Code	Units
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
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: P418171

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: P417915

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P417969

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: EPA 8321B

Batch ID: P417988

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
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	0.080	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: SM 2320 B-2011

Batch ID: P418313

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P418394

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P418320

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P418316

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P418235

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: P418006

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418007

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.7		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	110		P	85 - 115
Calcium	101		P	85 - 115
Iron	107		P	85 - 115
Magnesium	107		P	85 - 115
Manganese	109		P	85 - 115
Potassium	106		P	85 - 115
Sodium	105		P	85 - 115
Strontium	106		P	85 - 115
Tin	105		P	85 - 115
Titanium	107		P	85 - 115
Vanadium	106		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	101		P	85 - 115
Beryllium	96.1		P	85 - 115
Boron	101		P	85 - 115
Cadmium	98.2		P	85 - 115
Chromium	101		P	85 - 115
Cobalt	99.0		P	85 - 115
Copper	99.4		P	85 - 115
Lead	95.0		P	85 - 115
Molybdenum	98.8		P	85 - 115
Nickel	101		P	85 - 115
Selenium	97.6		P	85 - 115
Silver	98.9		P	85 - 115
Thallium	99.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.9		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418362

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418085

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418110

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	96.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417994

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

Reference Method: EPA 8270E
Batch ID: P417895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	87.9		P	70 - 121
Alachlor	80.3		P	68 - 119
Ametryn	109		P	64 - 139
Atrazine	78.7		P	76 - 120
Atrazine Desethyl	65.9		P	44 - 126
Azinphos Methyl	166		P	43 - 192
Azoxystrobin	86.0		P	36 - 224
Bromacil	90.8		P	52 - 121
Butylate	39.8		P	28 - 91.0
Caffeine	97.1		P	50 - 134
Carbophenothion	70.9		P	56 - 129
Carfentrazone Ethyl	88.5		P	60 - 141
Chlorfenapyr	88.3		P	56 - 115
Chlorpyrifos Ethyl	97.4		P	60 - 118
Chlorpyrifos Methyl	90.5		P	68 - 119
Coumaphos	185		P	18 - 250
Cyanazine	96.3		P	61 - 250
Cyprodinil	97.1		P	55 - 145
Demeton	86.1		P	30 - 159
Diazinon	105		P	70 - 123
Difenoconazole	153		P	49 - 204
Dimethenamid	71.8		P	64 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P417895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dimethomorph	126		P	12 - 219
Disulfoton	92.2		P	44 - 125
Dithiopyr	112		P	64 - 115
EPTC	34.9		P	28 - 86.0
Ethion	82.4		P	33 - 125
Ethoprop	76.9		P	64 - 116
Etridiazole	45.5		P	34 - 91.0
Fenamiphos	116		P	12 - 127
Fenbuconazole	141		P	59 - 151
Fipronil	71.3		P	67 - 129
Fipronil Desulfinyl	86.8		P	65 - 127
Fipronil Sulfide	83.3		P	61 - 116
Fipronil Sulfone	88.8		P	55 - 117
Fluazifop-P-butyl	73.6		P	62 - 127
Fludioxonil	90.8		P	62 - 128
Flumioxazin	131		P	33 - 250
Flutolanil	98.1		P	56 - 127
Fluxapyroxad	114		P	45 - 128
Fonofos	78.4		P	62 - 111
Hexazinone	93.2		P	46 - 139
Imazalil	84.1		P	38 - 142
Iprodione	97.8		P	47 - 135
Loratadine	114		P	10 - 244
Malathion	133		P	61 - 139
Metalaxyl	90.4		P	10 - 119
Metolachlor	106		P	65 - 118
Metribuzin	85.2		P	51 - 250
Mevinphos	67.6		P	53 - 121
Molinate	55.5		P	42 - 96.0
Myclobutanil	92.2		P	55 - 128
Naled	92.6		P	10 - 98.0
Napropamide	73.9		P	49 - 121
Norflurazon	98.5		P	61 - 126
Oxadiazon	87.9		P	59 - 116
Oxyfluorfen	105		P	64 - 137
Parathion Ethyl	82.5		P	70 - 112
Parathion Methyl	97.4		P	76 - 133
Pendimethalin	79.5		P	52 - 117
Phenytol	51.7		P	10 - 199
Phorate	77.8		P	48 - 121
Prodiamine	60.7		P	26 - 142
Prometon	73.6		P	43 - 123
Prometryn	111		P	66 - 127
Pronamide	117		P	75 - 121
Propanil	103		P	45 - 150
Propargite	138		P	42 - 208
Propiconazole	103		P	60 - 125
Pyraflufen Ethyl	93.1		P	70 - 138
Pyridaben	148		P	35 - 245
Pyriproxyfen	131		P	30 - 149
Simazine	79.3		P	72 - 125
Stirophos	76.0		P	29 - 164

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P417895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfentrazone	77.1		P	21 - 139
Tebuconazole	110		P	10 - 115
Terbufos	95.6		P	60 - 123
Terbutylazine	74.8		P	72 - 115
Thiobencarb	84.1		P	31 - 139
Triadimefon	77.2		P	65 - 116

Reference Method: EPA 8270E

Batch ID: P418171

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	38.6		P	10 - 92.0
Alpha-BHC	74.6		F	75 - 107
Alpha-Chlordane	55.6		P	50 - 108
Beta-BHC	95.4		P	36 - 138
Beta-Cyfluthrin	45.1		P	20 - 161
Bifenthrin	45.6		P	10 - 119
Chlorothalonil	104		P	26 - 186
Cis-Nonachlor	47.7		P	42 - 119
Cypermethrin	47.1		P	22 - 150
Dacthal	72.1		P	72 - 119
DDD-p,p'	56.3		P	45 - 107
DDE-p,p'	54.4		P	48 - 106
DDT-p,p'	59.9		P	48 - 110
Delta-BHC	102		P	54 - 140
Deltamethrin	57.6		P	22 - 189
Dichlobenil	64.2		P	36 - 117
Dicofol	72.0		P	46 - 155
Dieldrin	60.7		P	54 - 110
Endosulfan I	68.6		P	59 - 105
Endosulfan II	59.3		P	51 - 118
Endosulfan Sulfate	68.5		P	57 - 121
Endrin	59.5		P	10 - 120
Endrin Aldehyde	63.9		P	34 - 118
Endrin Ketone	73.7		P	69 - 177
Esfenvalerate	42.9		P	23 - 168
Ethalfuralin	61.6		P	49 - 99.0
Fenpropathrin	46.7		P	34 - 117
Gamma-BHC	83.4		P	72 - 117
Gamma-Chlordane	53.1		P	43 - 106
Heptachlor	53.4		P	41 - 98.0
Heptachlor Epoxide	64.0		P	57 - 106
Hexachlorobenzene	58.7		P	36 - 99.0
Kepone	110		P	16 - 215
Lambda-Cyhalothrin	35.9		P	21 - 177
Methoprene	30.3		P	10 - 119
Methoxychlor	101		P	60 - 112
MGK-264	63.2		P	26 - 122
Mirex	37.4		P	10 - 169
Oxychlordane	63.6		P	43 - 105
Permethrin	44.4		P	24 - 148
Phenothrin	25.5		P	10 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P418171

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Piperonyl Butoxide	85.4		P	10 - 139
Prallethrin	56.2		P	17 - 109
Tau-Fluvalinate	35.1		P	13 - 131
Tetramethrin	77.7		P	10 - 132
Trans-Nonachlor	51.8		P	44 - 106
Triclosan Methyl	62.6		P	59 - 109
Trifluralin	62.5		P	44 - 101

Reference Method: EPA 8276
Batch ID: P418171

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	94.3		P	61 - 116
Toxaphene	90.9		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P417915

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	107		P	40 - 150
AMPA	94.7		P	40 - 150
Endothall	112		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	99.8		P	40 - 150
Sucralose	104		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417969

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	91.7		P	40 - 150
Aldicarb	55.0		P	30 - 150
Aldicarb Sulfone	110		P	40 - 150
Aldicarb Sulfoxide	110		P	40 - 150
Carbaryl	101		P	40 - 150
Carbofuran	95.8		P	40 - 150
Methiocarb	117		P	40 - 150
Methomyl	99.7		P	40 - 150
Oxamyl	113		P	40 - 150
Propoxur	83.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	87.5		P	40 - 150
2,4,5-T	82.5		P	40 - 150
Acetaminophen	94.0		P	30 - 150
Acetamiprid	92.1		P	40 - 150
Afidopyropen	86.6		P	30 - 150
Bentazon	104		P	30 - 150
Benzovindiflupyr	94.9		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P417988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	105		P	40 - 150
Clothianidin	114		P	40 - 150
Dinotefuran	108		P	40 - 150
Diuron	102		P	40 - 150
Fenuron	122		P	40 - 150
Fluridone	115		P	40 - 150
Hydrocodone	106		P	40 - 150
Ibuprofen	72.8		P	40 - 150
Imazapyr	104		P	40 - 150
Imidacloprid	86.8		P	40 - 150
Linuron	101		P	40 - 150
Mandestrobin	113		P	40 - 150
MCPP	95.7		P	40 - 150
Naproxen	104		P	40 - 150
Primidone	79.8		P	40 - 150
Pyraclostrobin	90.1		P	40 - 150
Silvex	76.4		P	40 - 150
Thiamethoxam	101		P	40 - 150
Tolfenpyrad	42.2		P	30 - 150
Triclopyr	79.6		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P418313

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

Reference Method: SM 4500-F- C-2011

Batch ID: P418316

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P418235

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: P417935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347436	Barium	106	106	P/P	80 - 120
2347436	Calcium	104		P	80 - 120
2347436	Iron	107	107	P/P	80 - 120
2347436	Magnesium	107	106	P/P	80 - 120
2347436	Manganese	105	106	P/P	80 - 120
2347436	Potassium	105	107	P/P	80 - 120
2347436	Sodium	103	105	P/P	80 - 120
2347436	Strontium	103	105	P/P	80 - 120
2347436	Tin	101	102	P/P	80 - 120
2347436	Titanium	105	105	P/P	80 - 120
2347436	Vanadium	103	104	P/P	80 - 120
2347436	Zinc	101	103	P/P	80 - 120
2347500	Barium	108		P	80 - 120
2347500	Calcium	106		P	80 - 120
2347500	Iron	106		P	80 - 120
2347500	Magnesium	106		P	80 - 120
2347500	Manganese	105		P	80 - 120
2347500	Potassium	110		P	80 - 120
2347500	Sodium	103		P	80 - 120
2347500	Strontium	105		P	80 - 120
2347500	Tin	104		P	80 - 120
2347500	Titanium	105		P	80 - 120
2347500	Vanadium	104		P	80 - 120
2347500	Zinc	105		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P417935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347436	Aluminum	101	101	P/P	80 - 120
2347436	Antimony	103	104	P/P	80 - 120
2347436	Arsenic	99.5	101	P/P	80 - 120
2347436	Beryllium	98.2	94.3	P/P	80 - 120
2347436	Boron	100	102	P/P	80 - 120
2347436	Cadmium	96.8	99.4	P/P	80 - 120
2347436	Chromium	101	102	P/P	80 - 120
2347436	Cobalt	98.6	99.3	P/P	80 - 120
2347436	Copper	99.4	101	P/P	80 - 120
2347436	Lead	95.7	95.6	P/P	80 - 120
2347436	Molybdenum	95.4	101	P/P	80 - 120
2347436	Nickel	100	99.5	P/P	80 - 120
2347436	Selenium	97.9	97.2	P/P	80 - 120
2347436	Silver	98.1	98.5	P/P	80 - 120
2347436	Thallium	102	102	P/P	80 - 120
2347500	Aluminum	104		P	80 - 120
2347500	Antimony	103		P	80 - 120
2347500	Arsenic	99.6		P	80 - 120
2347500	Beryllium	93.0		P	80 - 120
2347500	Boron	106		P	80 - 120
2347500	Cadmium	100		P	80 - 120
2347500	Chromium	100		P	80 - 120
2347500	Cobalt	97.3		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347500	Copper	97.8		P	80 - 120
2347500	Lead	96.3		P	80 - 120
2347500	Molybdenum	99.1		P	80 - 120
2347500	Nickel	97.7		P	80 - 120
2347500	Selenium	94.6		P	80 - 120
2347500	Silver	99.9		P	80 - 120
2347500	Thallium	102		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2348147	Chloride	98.0		P	90 - 110
2348391	Chloride	98.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418362

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2348147	Sulfate	98.0		P	90 - 110
2348391	Sulfate	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347938	Ammonia-N	97.4	97.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347972	NO2NO3-N	91.8	94.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417994

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2348000	Total-P	109	106	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P417895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347265	Acetochlor	101	93.2	P/P	65 - 124
2347265	Alachlor	91.0	86.7	P/P	61 - 121
2347265	Ametryn	107	79.2	P/P	52 - 216
2347265	Atrazine Desethyl	56.6	41.3	P/P	15 - 160
2347265	Azinphos Methyl	99.5	152	P/P	40 - 292
2347265	Azoxystrobin	95.4	96.6	P/P	12 - 242
2347265	Bromacil	98.7	97.7	P/P	54 - 167
2347265	Butylate	40.4	55.4	P/P	14 - 94.0

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P417895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347265	Caffeine	91.2	94.9	P/P	10 - 226
2347265	Carbophenothion	64.8	74.1	P/P	49 - 122
2347265	Carfentrazone Ethyl	74.2	81.2	P/P	53 - 138
2347265	Chlorfenapyr	74.0	79.1	P/P	50 - 150
2347265	Chlorpyrifos Ethyl	92.1	104	P/P	52 - 122
2347265	Chlorpyrifos Methyl	89.6	88.4	P/P	66 - 117
2347265	Coumaphos	136	168	P/P	50 - 220
2347265	Cyanazine	112	104	P/P	43 - 245
2347265	Cyprodinil	107	95.6	P/P	50 - 150
2347265	Demeton	83.6	72.4	P/P	43 - 188
2347265	Diazinon	114	109	P/P	69 - 131
2347265	Difenoconazole	208	221	P/P	34 - 231
2347265	Dimethenamid	80.8	79.0	P/P	55 - 118
2347265	Dimethomorph	144	94.0	P/P	50 - 150
2347265	Disulfoton	95.8	92.2	P/P	38 - 141
2347265	Dithiopyr	46.1	68.9	P/P	42 - 116
2347265	EPTC	47.9	45.1	P/P	18 - 85.0
2347265	Ethion	57.9	79.5	P/P	10 - 131
2347265	Ethoprop	95.8	80.7	P/P	65 - 129
2347265	Etridiazole	62.8	51.4	P/P	50 - 150
2347265	Fenamiphos	94.7	99.4	P/P	31 - 137
2347265	Fenbuconazole	149	156	P/P	57 - 160
2347265	Fipronil	80.5	85.5	P/P	62 - 132
2347265	Fipronil Desulfinyl	83.0	79.4	P/P	57 - 131
2347265	Fipronil Sulfide	81.1	74.4	P/P	15 - 138
2347265	Fipronil Sulfone	50.9	77.1	P/P	21 - 134
2347265	Fluazifop-P-butyl	61.9	73.2	P/P	54 - 133
2347265	Fludioxonil	97.8	103	P/P	58 - 127
2347265	Flumioxazin	161	140	P/P	33 - 300
2347265	Flutolanil	103	105	P/P	42 - 130
2347265	Fluxapyroxad	115	125	P/P	23 - 141
2347265	Fonofos	88.5	79.2	P/P	58 - 119
2347265	Hexazinone	95.2	95.2	P/P	68 - 172
2347265	Imazalil	93.1	105	P/P	48 - 283
2347265	Iprodione	90.8	96.0	P/P	38 - 140
2347265	Loratadine	161	162	F/F	50 - 150
2347265	Malathion	114	129	P/P	40 - 137
2347265	Metalaxyl	94.2	91.0	P/P	21 - 129
2347265	Metolachlor	105	104	P/P	55 - 122
2347265	Metribuzin	84.0	102	P/P	38 - 187
2347265	Mevinphos	88.4	75.0	P/P	54 - 134
2347265	Molinate	69.3	62.0	P/P	41 - 97.0
2347265	Myclobutanil	111	102	P/P	56 - 125
2347265	Naled	84.8	84.2	P/P	10 - 108
2347265	Napropamide	58.3	78.4	P/P	50 - 150
2347265	Norflurazon	103	112	P/P	32 - 122
2347265	Oxadiazon	95.2	86.0	P/P	40 - 119
2347265	Oxyfluorfen	110	115	P/P	61 - 153
2347265	Parathion Ethyl	79.3	78.7	P/P	59 - 130
2347265	Parathion Methyl	105	85.6	P/P	65 - 155
2347265	Pendimethalin	81.4	76.0	P/P	49 - 138
2347265	Phenytol	36.9	71.2	F/P	50 - 200

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P417895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347265	Phorate	87.4	71.1	P/P	54 - 161
2347265	Prodiamine	60.5	63.3	P/P	33 - 161
2347265	Prometon	92.8	99.1	P/P	48 - 140
2347265	Prometryn	129	114	P/P	55 - 134
2347265	Pronamide	133	109	P/P	66 - 137
2347265	Propanil	112	113	P/P	50 - 150
2347265	Propargite	122	145	P/P	50 - 200
2347265	Propiconazole	115	95.7	P/P	36 - 150
2347265	Pyraflufen Ethyl	97.2	100	P/P	50 - 150
2347265	Pyriproxyfen	76.5	76.0	P/P	10 - 165
2347265	Simazine	96.1	86.1	P/P	57 - 145
2347265	Stirophos	42.6	69.1	F/P	50 - 150
2347265	Sulfentrazone	105	92.5	P/P	34 - 140
2347265	Tebuconazole	104	125	P/P	10 - 127
2347265	Terbufos	110	98.9	P/P	59 - 138
2347265	Terbutylazine	78.9	70.7	P/P	68 - 119
2347265	Thiobencarb	84.2	87.8	P/P	50 - 150
2347265	Triadimefon	74.2	85.7	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P418171

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2348248	Aldrin	47.3	51.5	P/P	20 - 82.0
2348248	Alpha-BHC	69.6	81.4	F/P	71 - 109
2348248	Alpha-Chlordane	42.9	45.5	P/P	42 - 106
2348248	Beta-BHC	99.7	110	P/P	69 - 180
2348248	Beta-Cyfluthrin	61.4	58.6	P/P	18 - 175
2348248	Bifenthrin	75.9	60.2	P/P	21 - 128
2348248	Chlorothalonil	166	190	P/P	10 - 300
2348248	Cis-Nonachlor	42.4	41.9	P/P	34 - 106
2348248	Cypermethrin	63.1	61.3	P/P	22 - 158
2348248	Dacthal	62.4	67.2	P/P	54 - 116
2348248	DDD-p,p'	44.2	43.2	P/P	34 - 107
2348248	DDE-p,p'	39.3	40.2	P/P	33 - 110
2348248	DDT-p,p'	56.7	59.5	P/P	50 - 122
2348248	Delta-BHC	115	126	P/P	77 - 193
2348248	Deltamethrin	80.3	75.5	P/P	10 - 195
2348248	Dichlobenil	42.1	41.3	P/P	25 - 113
2348248	Dicofol	105	90.5	P/P	38 - 247
2348248	Dieldrin	47.1	46.9	P/P	45 - 118
2348248	Endosulfan I	59.4	60.8	P/P	51 - 106
2348248	Endosulfan II	45.2	43.4	P/P	37 - 122
2348248	Endosulfan Sulfate	49.5	50.3	P/P	43 - 132
2348248	Endrin	50.8	49.6	P/P	29 - 101
2348248	Endrin Aldehyde	40.2	36.5	P/P	19 - 110
2348248	Endrin Ketone	81.2	76.7	P/P	60 - 140
2348248	Esfenvalerate	67.5	64.3	P/P	26 - 199
2348248	Ethalfuralin	64.0	68.8	P/P	45 - 99.0
2348248	Fenpropathrin	50.1	49.6	P/P	35 - 120
2348248	Gamma-BHC	94.0	110	P/P	63 - 128
2348248	Gamma-Chlordane	51.6	53.0	P/P	40 - 104

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P418171

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2348248	Heptachlor	54.2	58.0	P/P	36 - 97.0
2348248	Heptachlor Epoxide	58.5	59.4	P/P	49 - 184
2348248	Hexachlorobenzene	63.6	69.8	P/P	39 - 96.0
2348248	Kepone	83.7	74.4	P/P	10 - 217
2348248	Lambda-Cyhalothrin	62.6	62.0	P/P	21 - 193
2348248	Methoprene	50.1	61.1	P/P	20 - 106
2348248	Methoxychlor	103	80.8	P/P	53 - 118
2348248	MGK-264	57.7	66.3	P/P	40 - 118
2348248	Mirex	42.2	40.8	P/P	26 - 92.0
2348248	Oxychlorane	68.8	64.1	P/P	44 - 99.0
2348248	Permethrin	62.5	62.1	P/P	33 - 182
2348248	Phenothrin	52.3	56.0	P/P	10 - 129
2348248	Piperonyl Butoxide	77.0	83.5	P/P	10 - 211
2348248	Prallethrin	55.7	57.5	P/P	24 - 113
2348248	Tau-Fluvalinate	60.9	58.1	P/P	14 - 149
2348248	Tetramethrin	64.0	56.0	P/P	17 - 151
2348248	Trans-Nonachlor	47.3	48.0	P/P	42 - 102
2348248	Triclosan Methyl	50.2	51.3	P/P	48 - 108
2348248	Trifluralin	63.5	66.7	P/P	47 - 96.0

Reference Method: EPA 8276

Batch ID: P418171

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2348185	Chlordane	82.5	67.8	P/P	53 - 126
2348185	Toxaphene	89.5	77.1	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P417915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347977	Acesulfame K	94.2	91.1	P/P	40 - 150
2347977	AMPA	95.3	93.9	P/P	40 - 150
2347977	Endothall	112	112	P/P	40 - 150
2347977	Glufosinate	105	101	P/P	40 - 150
2347977	Glyphosate	92.8	90.4	P/P	40 - 150
2347977	Sucralose	106	102	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P417969

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2348450	3-Hydroxycarbofuran	98.5	96.1	P/P	40 - 150
2348450	Aldicarb	46.1	48.2	P/P	30 - 150
2348450	Aldicarb Sulfone	112	120	P/P	40 - 150
2348450	Aldicarb Sulfoxide	56.9	60.0	P/P	40 - 150
2348450	Carbaryl	72.2	89.1	P/P	40 - 150
2348450	Carbofuran	70.9	72.7	P/P	40 - 150
2348450	Methiocarb	107	94.9	P/P	40 - 150
2348450	Methomyl	86.5	91.2	P/P	40 - 150
2348450	Oxamyl	102	108	P/P	40 - 150
2348450	Propoxur	69.1	69.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P417988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347749	2,4-D	96.2	89.7	P/P	40 - 150
2347749	2,4,5-T	72.7	66.5	P/P	40 - 150
2347749	Acetaminophen	83.8	82.1	P/P	30 - 150
2347749	Acetamiprid	109	94.7	P/P	40 - 150
2347749	Afidopyropen	98.2	79.5	P/P	30 - 150
2347749	Bentazon	67.5	75.3	P/P	30 - 150
2347749	Benzovindiflupyr	81.3	87.7	P/P	40 - 150
2347749	Carbamazepine	116	98.7	P/P	40 - 150
2347749	Clothianidin	100	97.8	P/P	40 - 150
2347749	Dinotefuran	114	115	P/P	40 - 150
2347749	Diuron	81.2	72.5	P/P	40 - 150
2347749	Fenuron	98.5	101	P/P	40 - 150
2347749	Fluridone	98.2	79.3	P/P	40 - 150
2347749	Hydrocodone	105	102	P/P	40 - 150
2347749	Ibuprofen	94.6	94.8	P/P	40 - 150
2347749	Imazapyr	114	114	P/P	40 - 150
2347749	Imidacloprid	143	152	P/F	40 - 150
2347749	Linuron	108	96.9	P/P	40 - 150
2347749	Mandestrobin	83.6	85.0	P/P	40 - 150
2347749	MCCP	89.6	85.0	P/P	40 - 150
2347749	Naproxen	74.7	62.9	P/P	40 - 150
2347749	Primidone	81.5	106	P/P	40 - 150
2347749	Pyraclostrobin	81.1	80.9	P/P	40 - 150
2347749	Silvex	82.1	82.5	P/P	40 - 150
2347749	Thiamethoxam	162	162	F/F	40 - 150
2347749	Tolfenpyrad	41.9	40.2	P/P	30 - 150
2347749	Triclopyr	86.1	78.4	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P418316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2348883	Fluoride	98.2	98.9	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P418235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2347940	Organic Carbon	95.8	96.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P418006

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347971	Color (true)	0.0627	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348082	Turbidity	6.01	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347436	Barium	0.473	Spike	P	0 - 20
2347436	Calcium	0.527	Spike	P	0 - 20
2347436	Iron	0.288	Spike	P	0 - 20
2347436	Magnesium	0.764	Spike	P	0 - 20
2347436	Manganese	0.484	Spike	P	0 - 20
2347436	Potassium	1.21	Spike	P	0 - 20
2347436	Sodium	0.856	Spike	P	0 - 20
2347436	Strontium	1.25	Spike	P	0 - 20
2347436	Tin	1.30	Spike	P	0 - 20
2347436	Titanium	0.227	Spike	P	0 - 20
2347436	Vanadium	0.508	Spike	P	0 - 20
2347436	Zinc	1.78	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347436	Aluminum	0.0245	Spike	P	0 - 20
2347436	Antimony	0.933	Spike	P	0 - 20
2347436	Arsenic	1.56	Spike	P	0 - 20
2347436	Beryllium	4.06	Spike	P	0 - 20
2347436	Boron	1.24	Spike	P	0 - 20
2347436	Cadmium	2.65	Spike	P	0 - 20
2347436	Chromium	1.34	Spike	P	0 - 20
2347436	Cobalt	0.778	Spike	P	0 - 20
2347436	Copper	1.26	Spike	P	0 - 20
2347436	Lead	0.0303	Spike	P	0 - 20
2347436	Molybdenum	2.12	Spike	P	0 - 20
2347436	Nickel	0.445	Spike	P	0 - 20
2347436	Selenium	0.657	Spike	P	0 - 20
2347436	Silver	0.460	Spike	P	0 - 20
2347436	Thallium	0.419	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348147	Chloride	2.16	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348147	Sulfate	2.37	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347938	Ammonia-N	0.0	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348227	Kjeldahl Nitrogen	4.88	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347972	NO2NO3-N	1.83	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348000	Total-P	2.22	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P417895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347265	Acetochlor	8.13	Spike	P	0 - 27
2347265	Alachlor	4.89	Spike	P	0 - 27
2347265	Ametryn	20.2	Spike	P	0 - 34
2347265	Atrazine	7.82	Spike	P	0 - 41
2347265	Atrazine Desethyl	19.6	Spike	P	0 - 38
2347265	Azinphos Methyl	42.0	Spike	P	0 - 62
2347265	Azoxystrobin	1.25	Spike	P	0 - 32
2347265	Bromacil	1.04	Spike	P	0 - 30
2347265	Butylate	31.1	Spike	P	0 - 59

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P417895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347265	Caffeine	3.91	Spike	P	0 - 60
2347265	Carbophenothion	13.4	Spike	P	0 - 25
2347265	Carfentrazone Ethyl	9.09	Spike	P	0 - 26
2347265	Chlorfenapyr	6.73	Spike	P	0 - 30
2347265	Chlorpyrifos Ethyl	11.8	Spike	P	0 - 27
2347265	Chlorpyrifos Methyl	1.39	Spike	P	0 - 26
2347265	Coumaphos	20.8	Spike	P	0 - 30
2347265	Cyanazine	7.57	Spike	P	0 - 58
2347265	Cyprodinil	11.4	Spike	P	0 - 30
2347265	Demeton	12.6	Spike	P	0 - 25
2347265	Diazinon	4.70	Spike	P	0 - 29
2347265	Difenoconazole	5.96	Spike	P	0 - 25
2347265	Dimethenamid	2.25	Spike	P	0 - 30
2347265	Dimethomorph	41.9	Spike	F	0 - 30
2347265	Disulfoton	3.83	Spike	P	0 - 33
2347265	Dithiopyr	19.7	Spike	P	0 - 22
2347265	EPTC	5.96	Spike	P	0 - 38
2347265	Ethion	31.5	Spike	P	0 - 79
2347265	Ethoprop	17.1	Spike	P	0 - 23
2347265	Etridiazole	20.0	Spike	P	0 - 30
2347265	Fenamiphos	4.86	Spike	P	0 - 58
2347265	Fenbuconazole	4.60	Spike	P	0 - 37
2347265	Fipronil	6.05	Spike	P	0 - 33
2347265	Fipronil Desulfinyl	3.01	Spike	P	0 - 26
2347265	Fipronil Sulfide	6.01	Spike	P	0 - 37
2347265	Fipronil Sulfone	19.9	Spike	P	0 - 50
2347265	Fluazifop-P-butyl	16.8	Spike	P	0 - 24
2347265	Fludioxonil	5.38	Spike	P	0 - 26
2347265	Flumioxazin	13.7	Spike	P	0 - 37
2347265	Flutolanil	2.57	Spike	P	0 - 26
2347265	Fluxapyroxad	7.55	Spike	P	0 - 34
2347265	Fonofos	11.0	Spike	P	0 - 27
2347265	Hexazinone	0.0696	Spike	P	0 - 36
2347265	Imazalil	11.9	Spike	P	0 - 65
2347265	Iprodione	5.50	Spike	P	0 - 33
2347265	Loratadine	0.586	Spike	P	0 - 30
2347265	Malathion	12.4	Spike	P	0 - 44
2347265	Metalaxyl	3.46	Spike	P	0 - 38
2347265	Metolachlor	1.24	Spike	P	0 - 36
2347265	Metribuzin	19.0	Spike	P	0 - 63
2347265	Mevinphos	16.4	Spike	P	0 - 26
2347265	Molinate	11.2	Spike	P	0 - 40
2347265	Myclobutanil	7.61	Spike	P	0 - 21
2347265	Naled	0.739	Spike	P	0 - 26
2347265	Napropamide	29.4	Spike	P	0 - 30
2347265	Norflurazon	7.73	Spike	P	0 - 24
2347265	Oxadiazon	8.89	Spike	P	0 - 27
2347265	Oxyfluorfen	4.39	Spike	P	0 - 24
2347265	Parathion Ethyl	0.747	Spike	P	0 - 28
2347265	Parathion Methyl	20.8	Spike	P	0 - 27
2347265	Pendimethalin	6.94	Spike	P	0 - 31

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P417895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347265	Phenytoin	63.5	Spike	F	0 - 30
2347265	Phorate	20.7	Spike	P	0 - 27
2347265	Prodiamine	4.53	Spike	P	0 - 52
2347265	Prometon	6.56	Spike	P	0 - 31
2347265	Prometryn	12.5	Spike	P	0 - 28
2347265	Pronamide	19.9	Spike	P	0 - 26
2347265	Propanil	0.770	Spike	P	0 - 30
2347265	Propargite	17.6	Spike	P	0 - 30
2347265	Propiconazole	9.61	Spike	P	0 - 31
2347265	Pyraflufen Ethyl	3.17	Spike	P	0 - 30
2347265	Pyridaben	22.3	Spike	P	0 - 30
2347265	Pyriproxyfen	0.697	Spike	P	0 - 50
2347265	Simazine	11.0	Spike	P	0 - 29
2347265	Stirophos	47.4	Spike	F	0 - 30
2347265	Sulfentrazone	11.7	Spike	P	0 - 33
2347265	Tebuconazole	13.4	Spike	P	0 - 44
2347265	Terbufos	10.8	Spike	P	0 - 29
2347265	Terbuthylazine	10.9	Spike	P	0 - 27
2347265	Thiobencarb	4.16	Spike	P	0 - 30
2347265	Triadimefon	14.4	Spike	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P418171

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348248	Aldrin	8.53	Spike	P	0 - 41
2348248	Alpha-BHC	15.7	Spike	P	0 - 25
2348248	Alpha-Chlordane	5.00	Spike	P	0 - 33
2348248	Beta-BHC	9.44	Spike	P	0 - 36
2348248	Beta-Cyfluthrin	4.65	Spike	P	0 - 42
2348248	Bifenthrin	23.0	Spike	P	0 - 53
2348248	Chlorothalonil	13.2	Spike	P	0 - 71
2348248	Cis-Nonachlor	1.10	Spike	P	0 - 29
2348248	Cypermethrin	2.93	Spike	P	0 - 40
2348248	Dacthal	7.47	Spike	P	0 - 26
2348248	DDD-p,p'	2.31	Spike	P	0 - 39
2348248	DDE-p,p'	1.96	Spike	P	0 - 33
2348248	DDT-p,p'	4.55	Spike	P	0 - 40
2348248	Delta-BHC	9.24	Spike	P	0 - 37
2348248	Deltamethrin	6.22	Spike	P	0 - 100
2348248	Dichlobenil	2.08	Spike	P	0 - 40
2348248	Dicofol	14.7	Spike	P	0 - 31
2348248	Dieldrin	0.407	Spike	P	0 - 27
2348248	Endosulfan I	2.34	Spike	P	0 - 23
2348248	Endosulfan II	4.02	Spike	P	0 - 28
2348248	Endosulfan Sulfate	1.59	Spike	P	0 - 38
2348248	Endrin	2.50	Spike	P	0 - 63
2348248	Endrin Aldehyde	9.74	Spike	P	0 - 60
2348248	Endrin Ketone	5.64	Spike	P	0 - 37
2348248	Esfenvalerate	4.98	Spike	P	0 - 52

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P418171

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348248	Ethalfuralin	7.17	Spike	P	0 - 23
2348248	Fenpropathrin	1.18	Spike	P	0 - 32
2348248	Gamma-BHC	15.7	Spike	P	0 - 17
2348248	Gamma-Chlordane	2.66	Spike	P	0 - 40
2348248	Heptachlor	6.73	Spike	P	0 - 29
2348248	Heptachlor Epoxide	1.51	Spike	P	0 - 25
2348248	Hexachlorobenzene	9.37	Spike	P	0 - 36
2348248	Kepone	11.8	Spike	P	0 - 93
2348248	Lambda-Cyhalothrin	0.985	Spike	P	0 - 55
2348248	Methoprene	19.8	Spike	P	0 - 53
2348248	Methoxychlor	24.3	Spike	P	0 - 29
2348248	MGK-264	13.8	Spike	P	0 - 35
2348248	Mirex	3.46	Spike	P	0 - 46
2348248	Oxychlordane	7.12	Spike	P	0 - 29
2348248	Permethrin	0.592	Spike	P	0 - 44
2348248	Phenothrin	6.87	Spike	P	0 - 56
2348248	Piperonyl Butoxide	7.28	Spike	P	0 - 100
2348248	Prallethrin	3.21	Spike	P	0 - 42
2348248	Tau-Fluvalinate	4.69	Spike	P	0 - 54
2348248	Tetramethrin	13.3	Spike	P	0 - 51
2348248	Trans-Nonachlor	1.34	Spike	P	0 - 37
2348248	Triclosan Methyl	2.23	Spike	P	0 - 31
2348248	Trifluralin	4.86	Spike	P	0 - 30

Reference Method: EPA 8276

Batch ID: P418171

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348185	Chlordane	19.6	Spike	P	0 - 25
2348185	Toxaphene	14.9	Spike	P	0 - 26

Reference Method: EPA 8321B

Batch ID: P417915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347977	Acesulfame K	3.35	Spike	P	0 - 30
2347977	AMPA	1.51	Spike	P	0 - 30
2347977	Endothall	0.539	Spike	P	0 - 30
2347977	Glufosinate	3.71	Spike	P	0 - 30
2347977	Glyphosate	2.63	Spike	P	0 - 30
2347977	Sucralose	4.19	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P417969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348450	3-Hydroxycarbofuran	2.49	Spike	P	0 - 30
2348450	Aldicarb	4.52	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P417969

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348450	Aldicarb Sulfone	6.95	Spike	P	0 - 30
2348450	Aldicarb Sulfoxide	5.20	Spike	P	0 - 30
2348450	Carbaryl	21.0	Spike	P	0 - 30
2348450	Carbofuran	2.50	Spike	P	0 - 30
2348450	Methiocarb	12.1	Spike	P	0 - 30
2348450	Methomyl	5.26	Spike	P	0 - 30
2348450	Oxamyl	5.34	Spike	P	0 - 30
2348450	Propoxur	0.229	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P417988

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347749	2,4-D	6.57	Spike	P	0 - 30
2347749	2,4,5-T	8.88	Spike	P	0 - 30
2347749	Acetaminophen	2.11	Spike	P	0 - 30
2347749	Acetamiprid	14.4	Spike	P	0 - 30
2347749	Afidopyropen	21.0	Spike	P	0 - 30
2347749	Bentazon	6.99	Spike	P	0 - 30
2347749	Benzovindiflupyr	7.65	Spike	P	0 - 30
2347749	Carbamazepine	15.8	Spike	P	0 - 30
2347749	Clothianidin	2.31	Spike	P	0 - 30
2347749	Dinotefuran	1.17	Spike	P	0 - 30
2347749	Diuron	11.3	Spike	P	0 - 30
2347749	Fenuron	2.93	Spike	P	0 - 30
2347749	Fluridone	19.2	Spike	P	0 - 30
2347749	Hydrocodone	2.35	Spike	P	0 - 30
2347749	Ibuprofen	0.155	Spike	P	0 - 30
2347749	Imazapyr	0.130	Spike	P	0 - 30
2347749	Imidacloprid	6.00	Spike	P	0 - 30
2347749	Linuron	10.9	Spike	P	0 - 30
2347749	Mandestrobin	1.69	Spike	P	0 - 30
2347749	MCP	5.22	Spike	P	0 - 30
2347749	Naproxen	17.2	Spike	P	0 - 30
2347749	Primidone	26.3	Spike	P	0 - 30
2347749	Pyraclostrobin	0.257	Spike	P	0 - 30
2347749	Silvex	0.482	Spike	P	0 - 30
2347749	Thiamethoxam	0.135	Spike	P	0 - 30
2347749	Tolfenpyrad	4.01	Spike	P	0 - 30
2347749	Triclopyr	9.33	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P418313

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348883	Total Alkalinity	0.267	Sample	P	0 - 3.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P418394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347839	TDS	5.53	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P418316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2348883	Fluoride	0.476	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P418235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2347940	Organic Carbon	0.637	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2347976
Field Sample ID: G3TLHR0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	91.8	P	30 - 160

Lab Sample ID: 2347977
Field Sample ID: G3TLHR0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	56.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	103	P	30 - 160
EPA 8321B	Diuron-d6	87.2	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	90.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.0	P	30 - 160
EPA 8321B	Primidone-d5	81.8	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2347978
Field Sample ID: G3TLHR0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	39.1	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	31.4	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	68.9	P	30 - 101
EPA 8276	PCNB	71.2	P	48 - 121

Lab Sample ID: 2347979
Field Sample ID: G3TLHR0045

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	56.4	P	20 - 200
EPA 8270E	Simazine-d10	105	P	71 - 140
EPA 8270E	Terbufos-d10	104	P	62 - 131

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A114038

Included Lab Sample IDs: 2347971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	103	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114039

Included Lab Sample IDs: 2347971

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114047

Included Lab Sample IDs: 2347980

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	104	P/P	90 - 110
Antimony	103	103	P/P	90 - 110
Arsenic	103	103	P/P	90 - 110
Beryllium	98.3	98.3	P/P	90 - 110
Boron	99.7	101	P/P	90 - 110
Cadmium	105	105	P/P	90 - 110
Chromium	104	105	P/P	90 - 110
Cobalt	102	102	P/P	90 - 110
Copper	101	101	P/P	90 - 110
Lead	94.6	95.1	P/P	90 - 110
Molybdenum	101	101	P/P	90 - 110
Nickel	101	102	P/P	90 - 110
Selenium	104	104	P/P	90 - 110
Silver	100	100	P/P	90 - 110
Thallium	106	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A114090

Included Lab Sample IDs: 2347972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.5	95.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A114095

Included Lab Sample IDs: 2347977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.3	92.7	P/P	60 - 160
Endothall	112	92.8	P/P	60 - 160
Glufosinate	99.8	95.2	P/P	60 - 160
Glyphosate	96.3	96.4	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A114098

Included Lab Sample IDs: 2347980

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	101	P/P	90 - 110
Calcium	102	99.8	P/P	90 - 110
Iron	104	99.7	P/P	90 - 110
Magnesium	103	99.3	P/P	90 - 110
Manganese	102	103	P/P	90 - 110
Potassium	102	100	P/P	90 - 110
Sodium	102	100	P/P	90 - 110
Strontium	101	101	P/P	90 - 110
Tin	99.7	100	P/P	90 - 110
Titanium	99.5	98.4	P/P	90 - 110
Vanadium	101	101	P/P	90 - 110
Zinc	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114099

Included Lab Sample IDs: 2347972

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

Reference Method: EPA 8321B

Run ID: A114121

Included Lab Sample IDs: 2347976

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	104	99.6	P/P	60 - 150
Aldicarb	115	115	P/P	60 - 150
Aldicarb Sulfone	100	101	P/P	50 - 150
Aldicarb Sulfoxide	109	110	P/P	50 - 150
Carbaryl	105	109	P/P	60 - 150
Carbofuran	112	101	P/P	50 - 150
Methiocarb	103	132	P/P	50 - 150
Methomyl	101	97.1	P/P	50 - 150
Oxamyl	102	102	P/P	50 - 150
Propoxur	96.9	105	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114127

Included Lab Sample IDs: 2347972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.5	99.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A114138

Included Lab Sample IDs: 2347977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	76.0	P/P	60 - 160
Sucralose	103	73.8	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A114142

Included Lab Sample IDs: 2347971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.6	97.8	P/P	90 - 110
Sulfate	101	99.2	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114150

Included Lab Sample IDs: 2347979

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	94.2		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine	97.6		P	80 - 120
Atrazine Desethyl	106		P	80 - 120
Azinphos Methyl	111		P	80 - 120
Bromacil	104		P	80 - 120
Butylate	98.9		P	80 - 120
Caffeine	95.0		P	80 - 120
Carbophenothion	100		P	80 - 120
Carfentrazone Ethyl	98.2		P	80 - 120
Chlorfenapyr	103		P	80 - 120
Chlorpyrifos Ethyl	98.1		P	80 - 120
Chlorpyrifos Methyl	98.4		P	80 - 120
Coumaphos	116		P	80 - 120
Cyanazine	100		P	80 - 120
Cyprodinil	102		P	80 - 120
Demeton	94.7		P	80 - 120
Diazinon	103		P	80 - 120
Difenoconazole	98.6		P	80 - 120
Dimethenamid	101		P	80 - 120
Dimethomorph	101		P	80 - 120
Disulfoton	106		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	101		P	80 - 120
Ethion	91.9		P	80 - 120
Ethoprop	97.4		P	80 - 120
Etridiazole	102		P	80 - 120
Fenamiphos	96.0		P	80 - 120
Fenbuconazole	108		P	80 - 120
Fipronil	103		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	108		P	80 - 120
Fipronil Sulfone	104		P	80 - 120
Fluazifop-P-butyl	104		P	80 - 120
Fludioxonil	107		P	80 - 120
Flumioxazin	86.5		P	80 - 120
Fluxapyroxad	103		P	80 - 120
Fonofos	104		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	104		P	80 - 120
Iprodione	111		P	80 - 120
Loratadine	88.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114150
Included Lab Sample IDs: 2347979

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Malathion	103		P	80 - 120
Metalaxyl	103		P	80 - 120
Metribuzin	93.9		P	80 - 120
Mevinphos	98.1		P	80 - 120
Molinate	106		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	104		P	80 - 120
Napropamide	102		P	80 - 120
Norflurazon	96.5		P	80 - 120
Oxadiazon	106		P	80 - 120
Oxyfluorfen	102		P	80 - 120
Parathion Ethyl	98.1		P	80 - 120
Parathion Methyl	95.8		P	80 - 120
Pendimethalin	106		P	80 - 120
Phenytol	106		P	80 - 120
Phorate	102		P	80 - 120
Prodiamine	110		P	80 - 120
Prometon	99.1		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	99.5		P	80 - 120
Propanil	107		P	80 - 120
Propargite	99.9		P	80 - 120
Propiconazole	96.8		P	80 - 120
Pyraflufen Ethyl	106		P	80 - 120
Pyridaben	98.9		P	80 - 120
Pyriproxyfen	106		P	80 - 120
Simazine	98.3		P	80 - 120
Stirophos	101		P	80 - 120
Sulfentrazone	108		P	80 - 120
Terbufos	96.9		P	80 - 120
Terbuthylazine	105		P	80 - 120
Thiobencarb	99.4		P	80 - 120
Triadimefon	109		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A114155
Included Lab Sample IDs: 2347972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114160
Included Lab Sample IDs: 2347972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.7	98.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114180
Included Lab Sample IDs: 2347979

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azoxystrobin	97.8		P	80 - 120
Flutolanil	94.0		P	80 - 120
Metolachlor	94.9		P	80 - 120
Tebuconazole	92.1		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114182
Included Lab Sample IDs: 2347978

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.3		P	80 - 120
Alpha-BHC	97.0		P	80 - 120
Alpha-Chlordane	95.9		P	80 - 120
Beta-BHC	99.8		P	80 - 120
Beta-Cyfluthrin	88.6		P	80 - 120
Bifenthrin	100		P	80 - 120
Chlorothalonil	119		P	80 - 120
Cis-Nonachlor	94.2		P	80 - 120
Cypermethrin	89.1		P	80 - 120
Dacthal	98.0		P	80 - 120
DDD-p,p'	96.4		P	80 - 120
DDE-p,p'	96.8		P	80 - 120
DDT-p,p'	99.9		P	80 - 120
Delta-BHC	99.3		P	80 - 120
Deltamethrin	86.5		P	80 - 120
Dichlobenil	93.0		P	80 - 120
Dicofol	85.1		P	80 - 120
Dieldrin	96.4		P	80 - 120
Endosulfan I	100		P	80 - 120
Endosulfan II	94.4		P	80 - 120
Endosulfan Sulfate	84.8		P	80 - 120
Endrin	95.4		P	80 - 120
Endrin Aldehyde	91.0		P	80 - 120
Endrin Ketone	98.4		P	80 - 120
Esfenvalerate	91.6		P	80 - 120
Ethalfuralin	100		P	80 - 120
Fenpropathrin	97.0		P	80 - 120
Gamma-BHC	118		P	80 - 120
Gamma-Chlordane	96.1		P	80 - 120
Heptachlor	92.1		P	80 - 120
Heptachlor Epoxide	98.9		P	80 - 120
Hexachlorobenzene	99.3		P	80 - 120
Kepone	50.6*		F	80 - 120
Lambda-Cyhalothrin	92.8		P	80 - 120
Methoprene	94.6		P	80 - 120
Methoxychlor	137*		F	80 - 120
MGK-264	91.3		P	80 - 120
Mirex	98.0		P	80 - 120
Oxychlordane	98.4		P	80 - 120
Permethrin	92.4		P	80 - 120
Phenothrin	89.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114182
Included Lab Sample IDs: 2347978

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Piperonyl Butoxide	91.7		P	80 - 120
Prallethrin	87.0		P	80 - 120
Tau-Fluvalinate	89.4		P	80 - 120
Tetramethrin	114		P	80 - 120
Trans-Nonachlor	97.7		P	80 - 120
Triclosan Methyl	99.6		P	80 - 120
Trifluralin	98.2		P	80 - 120

Reference Method: SM 2320 B-2011
Run ID: A114186
Included Lab Sample IDs: 2347971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.1	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A114186
Included Lab Sample IDs: 2347971

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

Reference Method: EPA 8276
Run ID: A114201
Included Lab Sample IDs: 2347978

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	106		P	80 - 120

Reference Method: EPA 8321B
Run ID: A114369
Included Lab Sample IDs: 2347977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	115	83.4	P/P	50 - 160

Reference Method: EPA 8321B
Run ID: A114372
Included Lab Sample IDs: 2347977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	112	127	P/P	50 - 150
2,4,5-T	119	106	P/P	50 - 150
Acetaminophen	60.2	68.0	P/P	60 - 160
Acetamiprid	113	93.8	P/P	50 - 150
Afidopyropen	120	114	P/P	50 - 150
Benzovindiflupyr	106	110	P/P	50 - 150
Carbamazepine	118	123	P/P	60 - 150
Clothianidin	120	101	P/P	60 - 150
Dinotefuran	68.9	74.1	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A114372
Included Lab Sample IDs: 2347977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	104	118	P/P	60 - 160
Fenuron	106	100	P/P	60 - 150
Fluridone	109	110	P/P	60 - 160
Hydrocodone	72.0	73.5	P/P	60 - 150
Ibuprofen	134	101	P/P	50 - 160
Imazapyr	88.7	104	P/P	50 - 150
Imidacloprid	101	98.0	P/P	60 - 150
Linuron	101	111	P/P	60 - 150
Mandestrobin	106	105	P/P	50 - 150
MCPP	121	104	P/P	50 - 150
Naproxen	140	92.0	P/P	50 - 160
Primidone	95.9	112	P/P	60 - 150
Pyraclostrobin	105	105	P/P	60 - 150
Silvex	127	107	P/P	50 - 150
Thiamethoxam	89.9	96.7	P/P	50 - 150
Tolfenpyrad	109	107	P/P	60 - 150
Triclopyr	114	124	P/P	50 - 150

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	103					0.0627	
EPA 180.1 Rev. 2.0	Turbidity	96.7					6.01	
EPA 200.7 Rev. 4.4	Barium	110	106	106	108			0.473
	Calcium	101	104	106				0.527
	Iron	107	107	107	106			0.288
	Magnesium	107	107	106	106			0.764
	Manganese	109	105	106	105			0.484
	Potassium	106	105	107	110			1.21
	Sodium	105	103	105	103			0.856
	Strontium	106	103	105	105			1.25
	Tin	105	101	102	104			1.30
	Titanium	107	105	105	105			0.227
	Vanadium	106	103	104	104			0.508
	Zinc	106	101	103	105			1.78
EPA 200.8 Rev. 5.4	Aluminum	102	101	101	104			0.0245
	Antimony	102	103	104	103			0.933
	Arsenic	101	99.5	101	99.6			1.56
	Beryllium	96.1	98.2	94.3	93.0			4.06
	Boron	101	100	102	106			1.24
	Cadmium	98.2	96.8	99.4	100			2.65
	Chromium	101	101	102	100			1.34
	Cobalt	99.0	98.6	99.3	97.3			0.778
	Copper	99.4	99.4	101	97.8			1.26
	Lead	95.0	95.7	95.6	96.3			0.0303
	Molybdenum	98.8	95.4	101	99.1			2.12
	Nickel	101	100	99.5	97.7			0.445
	Selenium	97.6	97.9	97.2	94.6			0.657
	Silver	98.9	98.1	98.5	99.9			0.460
	Thallium	99.3	102	102	102			0.419
EPA 300.0 Rev. 2.1	Chloride	98.9	98.0	98.1			2.16	
	Sulfate	98.6	98.0	97.9			2.37	
EPA 350.1 Rev. 2.0	Ammonia-N	96.2	97.4	97.4				0.0
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108						4.88
EPA 353.2 Rev. 2.0	NO2NO3-N	96.0	91.8	94.3				1.83
EPA 365.1 Rev. 2.0	Total-P	104	109	106				2.22
EPA 8270E	Acetochlor	87.9	93.2	101				8.13
	Alachlor	80.3	86.7	91.0				4.89
	Aldrin	38.6	47.3	51.5				8.53
	Alpha-BHC	74.6	69.6	81.4				15.7
	Alpha-Chlordane	55.6	42.9	45.5				5.00
	Ametryn	109	79.2	107				20.2
	Atrazine	78.7						7.82
	Atrazine Desethyl	65.9	41.3	56.6				19.6
	Azinphos Methyl	166	152	99.5				42.0
	Azoxystrobin	86.0	96.6	95.4				1.25
	Beta-BHC	95.4	99.7	110				9.44
	Beta-Cyfluthrin	45.1	61.4	58.6				4.65
	Bifenthrin	45.6	75.9	60.2				23.0
	Bromacil	90.8	97.7	98.7				1.04
	Butylate	39.8	55.4	40.4				31.1
	Caffeine	97.1	94.9	91.2				3.91
	Carbophenothion	70.9	74.1	64.8				13.4
	Carfentrazone Ethyl	88.5	81.2	74.2				9.09
	Chlorfenapyr	88.3	79.1	74.0				6.73

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorothalonil	104	166	190		13.2
	Chlorpyrifos Ethyl	97.4	104	92.1		11.8
	Chlorpyrifos Methyl	90.5	88.4	89.6		1.39
	Cis-Nonachlor	47.7	42.4	41.9		1.10
	Coumaphos	185	168	136		20.8
	Cyanazine	96.3	112	104		7.57
	Cypermethrin	47.1	63.1	61.3		2.93
	Cyprodinil	97.1	107	95.6		11.4
	Dacthal	72.1	62.4	67.2		7.47
	DDD-p,p'	56.3	44.2	43.2		2.31
	DDE-p,p'	54.4	39.3	40.2		1.96
	DDT-p,p'	59.9	56.7	59.5		4.55
	Delta-BHC	102	115	126		9.24
	Deltamethrin	57.6	80.3	75.5		6.22
	Demeton	86.1	83.6	72.4		12.6
	Diazinon	105	114	109		4.70
	Dichlobenil	64.2	42.1	41.3		2.08
	Dicofol	72.0	105	90.5		14.7
	Dieldrin	60.7	47.1	46.9		0.407
	Difenoconazole	153	208	221		5.96
	Dimethenamid	71.8	80.8	79.0		2.25
	Dimethomorph	126	144	94.0		41.9
	Disulfoton	92.2	95.8	92.2		3.83
	Dithiopyr	112	46.1	68.9		19.7
	Endosulfan I	68.6	59.4	60.8		2.34
	Endosulfan II	59.3	45.2	43.4		4.02
	Endosulfan Sulfate	68.5	49.5	50.3		1.59
	Endrin	59.5	50.8	49.6		2.50
	Endrin Aldehyde	63.9	40.2	36.5		9.74
	Endrin Ketone	73.7	81.2	76.7		5.64
	EPTC	34.9	47.9	45.1		5.96
	Esfenvalerate	42.9	67.5	64.3		4.98
	Ethalfuralin	61.6	64.0	68.8		7.17
	Ethion	82.4	57.9	79.5		31.5
	Ethoprop	76.9	95.8	80.7		17.1
	Etridiazole	45.5	62.8	51.4		20.0
	Fenamiphos	116	94.7	99.4		4.86
	Fenbuconazole	141	149	156		4.60
	Fenpropathrin	46.7	50.1	49.6		1.18
	Fipronil	71.3	80.5	85.5		6.05
	Fipronil Desulfinyl	86.8	83.0	79.4		3.01
	Fipronil Sulfide	83.3	81.1	74.4		6.01
	Fipronil Sulfone	88.8	50.9	77.1		19.9
	Fluazifop-P-butyl	73.6	61.9	73.2		16.8
	Fludioxonil	90.8	97.8	103		5.38
	Flumioxazin	131	161	140		13.7
	Flutolanil	98.1	103	105		2.57
	Fluxapyroxad	114	115	125		7.55
	Fonofos	78.4	88.5	79.2		11.0
	Gamma-BHC	83.4	94.0	110		15.7
	Gamma-Chlordane	53.1	51.6	53.0		2.66
	Heptachlor	53.4	54.2	58.0		6.73
	Heptachlor Epoxide	64.0	58.5	59.4		1.51
	Hexachlorobenzene	58.7	63.6	69.8		9.37

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Hexazinone	93.2	95.2	95.2		0.0696
	Imazalil	84.1	93.1	105		11.9
	Iprodione	97.8	90.8	96.0		5.50
	Kepone	110	83.7	74.4		11.8
	Lambda-Cyhalothrin	35.9	62.6	62.0		0.985
	Loratadine	114	161	162		0.586
	Malathion	133	114	129		12.4
	Metalaxyl	90.4	94.2	91.0		3.46
	Methoprene	30.3	50.1	61.1		19.8
	Methoxychlor	101	103	80.8		24.3
	Metolachlor	106	105	104		1.24
	Metribuzin	85.2	84.0	102		19.0
	Mevinphos	67.6	88.4	75.0		16.4
	MGK-264	63.2	57.7	66.3		13.8
	Mirex	37.4	42.2	40.8		3.46
	Molinate	55.5	69.3	62.0		11.2
	Myclobutanil	92.2	111	102		7.61
	Naled	92.6	84.8	84.2		0.739
	Napropamide	73.9	58.3	78.4		29.4
	Norflurazon	98.5	103	112		7.73
	Oxadiazon	87.9	95.2	86.0		8.89
	Oxychlordane	63.6	68.8	64.1		7.12
	Oxyfluorfen	105	110	115		4.39
	Parathion Ethyl	82.5	79.3	78.7		0.747
	Parathion Methyl	97.4	105	85.6		20.8
	Pendimethalin	79.5	81.4	76.0		6.94
	Permethrin	44.4	62.5	62.1		0.592
	Phenothrin	25.5	52.3	56.0		6.87
	Phenytoin	51.7	36.9	71.2		63.5
	Phorate	77.8	87.4	71.1		20.7
	Piperonyl Butoxide	85.4	77.0	83.5		7.28
	Prallethrin	56.2	55.7	57.5		3.21
	Prodimamine	60.7	60.5	63.3		4.53
	Prometon	73.6	92.8	99.1		6.56
	Prometryn	111	129	114		12.5
	Pronamide	117	133	109		19.9
	Propanil	103	112	113		0.770
	Propargite	138	122	145		17.6
	Propiconazole	103	115	95.7		9.61
	Pyraflufen Ethyl	93.1	97.2	100		3.17
	Pyridaben	148				22.3
	Pyriproxyfen	131	76.5	76.0		0.697
	Simazine	79.3	96.1	86.1		11.0
	Stirophos	76.0	42.6	69.1		47.4
	Sulfentrazone	77.1	105	92.5		11.7
	Tau-Fluvalinate	35.1	60.9	58.1		4.69
	Tebuconazole	110	104	125		13.4
	Terbufos	95.6	110	98.9		10.8
	Terbuthylazine	74.8	78.9	70.7		10.9
	Tetramethrin	77.7	64.0	56.0		13.3
	Thiobencarb	84.1	84.2	87.8		4.16
	Trans-Nonachlor	51.8	47.3	48.0		1.34
	Triadimefon	77.2	74.2	85.7		14.4
	Triclosan Methyl	62.6	50.2	51.3		2.23

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Trifluralin	62.5	63.5	66.7		4.86
EPA 8276	Chlordane	94.3	82.5	67.8		19.6
	Toxaphene	90.9	89.5	77.1		14.9
EPA 8321B	2,4-D	87.5	96.2	89.7		6.57
	2,4,5-T	82.5	72.7	66.5		8.88
	3-Hydroxycarbofuran	91.7	98.5	96.1		2.49
	Acesulfame K	107	94.2	91.1		3.35
	Acetaminophen	94.0	83.8	82.1		2.11
	Acetamiprid	92.1	109	94.7		14.4
	Afidopyropen	86.6	98.2	79.5		21.0
	Aldicarb	55.0	46.1	48.2		4.52
	Aldicarb Sulfone	110	112	120		6.95
	Aldicarb Sulfoxide	110	56.9	60.0		5.20
	AMPA	94.7	95.3	93.9		1.51
	Bentazon	104	67.5	75.3		6.99
	Benzovindiflupyr	94.9	81.3	87.7		7.65
	Carbamazepine	105	116	98.7		15.8
	Carbaryl	101	89.1	72.2		21.0
	Carbofuran	95.8	72.7	70.9		2.50
	Clothianidin	114	100	97.8		2.31
	Dinotefuran	108	114	115		1.17
	Diuron	102	81.2	72.5		11.3
	Endothall	112	112	112		0.539
	Fenuron	122	98.5	101		2.93
	Fluridone	115	98.2	79.3		19.2
	Glufosinate	105	105	101		3.71
	Glyphosate	99.8	92.8	90.4		2.63
	Hydrocodone	106	105	102		2.35
	Ibuprofen	72.8	94.6	94.8		0.155
	Imazapyr	104	114	114		0.130
	Imidacloprid	86.8	143	152		6.00
	Linuron	101	108	96.9		10.9
	Mandestrobin	113	83.6	85.0		1.69
	MCPP	95.7	89.6	85.0		5.22
	Methiocarb	117	94.9	107		12.1
	Methomyl	99.7	86.5	91.2		5.26
	Naproxen	104	74.7	62.9		17.2
	Oxamyl	113	102	108		5.34
	Primidone	79.8	81.5	106		26.3
	Propoxur	83.4	69.1	69.2		0.229
	Pyraclostrobin	90.1	81.1	80.9		0.257
	Silvex	76.4	82.1	82.5		0.482
	Sucralose	104	106	102		4.19
	Thiamethoxam	101	162	162		0.135
	Tolfenpyrad	42.2	41.9	40.2		4.01
	Triclopyr	79.6	86.1	78.4		9.33
SM 2320 B-2011	Total Alkalinity	101			0.267	
SM 2540 C-2011	TDS				5.53	
SM 4500-F- C-2011	Fluoride	100	98.2	98.9		0.476
SM 5310 B-2011	Organic Carbon	96.2	95.8	96.5		0.637

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2347971
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2347971
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2347980
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2347980
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2347971
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2347971
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2347972
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2347972
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2347972
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2347972
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2347978
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2347979
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2347978
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2347976
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2347977
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2347971
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2347980
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2347971
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2347971
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2347971
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2347972

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	08/10/2022			08/11/2022 16:22	Anna M. Plaviak	2347971
EPA 180.1 Rev. 2.0	08/10/2022			08/11/2022 14:40	Khloe J Berg	2347971
EPA 200.7 Rev. 4.4	08/10/2022	08/11/2022 09:36	Mackenzie Hunt	08/11/2022 21:44	McKinley C Carter	2347980
EPA 200.8 Rev. 5.4	08/10/2022	08/11/2022 09:36	Mackenzie Hunt	08/11/2022 19:24	Alexander Thompson	2347980
EPA 300.0 Rev. 2.1	08/10/2022			08/18/2022 16:32	Anna M. Plaviak	2347971
EPA 350.1 Rev. 2.0	08/10/2022			08/16/2022 12:44	Ping Hua	2347972
EPA 351.2 Rev. 2.0	08/10/2022	08/16/2022 13:42	Samantha L Bates	08/17/2022 12:56	Alexandra J Mattheus	2347972
EPA 353.2 Rev. 2.0	08/10/2022			08/15/2022 10:46	Beverly Y. Sanders	2347972
EPA 365.1 Rev. 2.0	08/10/2022	08/12/2022 15:00	Simonne.V. Calhoun	08/15/2022 10:39	James L Waggerby	2347972
EPA 8270E	08/10/2022	08/11/2022 08:00	Fe-Val Siddell	08/12/2022 21:19	Michael Poppell	2347979
	08/10/2022	08/11/2022 08:00	Fe-Val Siddell	08/15/2022 23:20	Michael Poppell	2347979
	08/10/2022	08/11/2022 08:00	Fe-Val Siddell	08/15/2022 23:46	Michael Poppell	2347979
	08/10/2022	08/11/2022 08:00	Fe-Val Siddell	08/16/2022 00:12	Michael Poppell	2347979
	08/10/2022	08/15/2022 08:30	Rasheda Ghaffari	08/17/2022 22:22	Vandana T. Nagar	2347978
EPA 8276	08/10/2022	08/15/2022 08:30	Rasheda Ghaffari	08/18/2022 10:34	Arthur Maknenko	2347978
EPA 8321B	08/10/2022	08/12/2022 09:00	Umesh Chiluwal	08/12/2022 13:14	Umesh Chiluwal	2347977
	08/10/2022	08/12/2022 09:00	Umesh Chiluwal	08/13/2022 09:22	Umesh Chiluwal	2347977
	08/10/2022	08/15/2022 09:30	June Rhew	08/15/2022 21:44	Juyoung Kim	2347976
	08/10/2022	08/16/2022 09:00	June Rhew	08/17/2022 07:31	Juyoung Kim	2347977
	08/10/2022	08/16/2022 09:00	June Rhew	08/25/2022 21:54	Juyoung Kim	2347977
SM 2320 B-2011	08/10/2022			08/18/2022 03:32	Dale L. Simmons	2347971
SM 2340 B-2011	08/10/2022			08/11/2022 21:44	McKinley C Carter	2347980
SM 2540 C-2011	08/10/2022			08/12/2022 15:21	Yijie Li	2347971
SM 2540 D-2011	08/10/2022			08/12/2022 15:21	Yijie Li	2347971
SM 4500-F- C-2011	08/10/2022			08/18/2022 03:32	Dale L. Simmons	2347971
SM 5310 B-2011	08/10/2022			08/16/2022 22:06	Khloe J Berg	2347972