Chemical Analysis Report

CEN-DIST-2022-02-24-02

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

Event Description: **Volusia Blue**
Request ID: **RQ-2022-02-21-79**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant Date Certified: 21-MAR-2022 10:07

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: 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: Volusia Blue Spring near vent **Collection Date/Time: 02/23/2022 11:09**

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2307897	DEP SOP: NU-094-1	Color (true)**	3.0	I A	PCU	P410371	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P410323	
	EPA 300.0 Rev. 2.1	Chloride	320		mg Cl/L	P411236	
		Sulfate	52		mg SO4/L	P411238	
	SM 2320 B-2011	Total Alkalinity	148		mg CaCO3/L	P410660	
	SM 2540 C-2011	TDS	774		mg/L	P410756	
	SM 2540 D-2011	TSS	2	I	mg/L	P410899	
	SM 4500 F-C-2011	Fluoride	0.076	I	mg F/L	P410663	
2307898	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P410628	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.10	I	mg N/L	P410344	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.81		mg N/L	P410782	
	EPA 365.1 Rev. 2.0	Total-P	0.070		mg P/L	P410535	
	SM 5310 B-2011	Organic Carbon	1.7		mg C/L	P410697	
2307900	EPA 8321B	Aldicarb	0.020	U	ug/L	P410330	
		Aldicarb Sulfone	0.0020	U	ug/L	P410330	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P410330	
		Carbaryl	0.0020	U	ug/L	P410330	
		Carbofuran	0.0020	U	ug/L	P410330	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P410330	
		Methiocarb	0.0020	U	ug/L	P410330	
		Methomyl	0.0020	U	ug/L	P410330	
		Oxamyl	0.0020	U	ug/L	P410330	
		Propoxur	0.0020	U	ug/L	P410330	
2307901		2,4-D	0.0020	U	ug/L	P410241	
		Acesulfame K	0.10	U	ug/L	P410426	
		2,4,5-T	0.0040	U	ug/L	P410241	
		AMPA	0.10	U	ug/L	P410426	
		Acetaminophen	0.0080	U	ug/L	P410241	
		Acetamiprid	0.0020	U	ug/L	P410241	
		Endothall	0.25	U	ug/L	P410426	
		Glufosinate	0.10	U	ug/L	P410426	
		Glyphosate	0.10	U	ug/L	P410426	
		Afidopyropen	0.0020	U	ug/L	P410241	
		Bentazon	0.039		ug/L	P410241	
		Sucralose	0.63		ug/L	P410426	
		Benzovindiflupyr	0.0020	U	ug/L	P410241	
		Carbamazepine	0.0037		ug/L	P410241	
		Clothianidin	0.0063	I	ug/L	P410241	
		Dinotefuran	0.0020	U	ug/L	P410241	
		Diuron	0.0020	U	ug/L	P410241	
		Fenuron	0.016	U	ug/L	P410241	
		Fluridone	8.0E-04	U	ug/L	P410241	
		Imazapyr	0.012	I	ug/L	P410241	
		Hydrocodone	0.0020	U	ug/L	P410241	

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2307901	EPA 8321B	Ibuprofen	0.020	U	ug/L	P410241	
		Imidacloprid	0.0032	I	ug/L	P410241	MS
		Linuron	0.0040	U	ug/L	P410241	
		Mandestrobin	0.0020	U	ug/L	P410241	
		MCPP	0.0020	U	ug/L	P410241	
		Naproxen	0.0080	U	ug/L	P410241	
		Primidone	0.0040	U	ug/L	P410241	
		Pyraclostrobin	0.0020	U	ug/L	P410241	
		Silvex	0.0040	U	ug/L	P410241	
		Thiamethoxam	0.0020	U	ug/L	P410241	MS
		Tolfenpyrad	0.0020	U	ug/L	P410241	
		Triclopyr	0.0040	U	ug/L	P410241	
2307902	EPA 8270E	Aldrin	0.67	U	ng/L	P410328	
		Alpha-BHC	0.10	U	ng/L	P410328	
		Alpha-Chlordane	0.21	U	ng/L	P410328	
		PCB-1016	2.1	U	ng/L	P410328	
		Beta-BHC	0.10	U	ng/L	P410328	
		PCB-1221	2.1	U	ng/L	P410328	
		Beta-Cyfluthrin**	1.3	U	ng/L	P410328	
		PCB-1232	2.1	U	ng/L	P410328	
		Bifenthrin**	0.51	U	ng/L	P410328	
		PCB-1242	2.1	U	ng/L	P410328	
		PCB-1248	2.1	U	ng/L	P410328	
		Chlorothalonil	1.3	U	ng/L	P410328	
		PCB-1254	2.1	U	ng/L	P410328	
		Cis-Nonachlor**	0.21	U	ng/L	P410328	
		PCB-1260	2.1	U	ng/L	P410328	
		Cypermethrin	1.5	U	ng/L	P410328	
		Dacthal**	0.15	U	ng/L	P410328	
		DDD-p,p'	0.26	U	ng/L	P410328	
		DDE-p,p'	0.21	U	ng/L	P410328	
		DDT-p,p'	0.26	U	ng/L	P410328	
		Delta-BHC	0.41	U	ng/L	P410328	
		Deltamethrin**	1.3	U	ng/L	P410328	
		Dichlobenil**	0.26	U	ng/L	P410328	
		Dicofol	1.3	U	ng/L	P410328	
		Dieldrin	1.9	I	ng/L	P410328	
		Endosulfan I	0.41	U	ng/L	P410328	
		Endosulfan II	0.41	U	ng/L	P410328	
		Endosulfan Sulfate	0.31	U	ng/L	P410328	
		Endrin	0.41	UQ	ng/L	P411150	
		Endrin Aldehyde	0.77	U	ng/L	P410328	
		Endrin Ketone	0.41	UJ	ng/L	P410328	LCS, MS
		Esfenvalerate**	0.77	U	ng/L	P410328	
		Ethalfluralin**	0.15	U	ng/L	P410328	

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2307902	EPA 8270E	Fenpropathrin**	0.26	U	ng/L	P410328	
		Gamma-BHC	0.13	U	ng/L	P410328	
		Gamma-Chlordane	0.21	U	ng/L	P410328	
		Heptachlor	0.21	U	ng/L	P410328	
		Heptachlor Epoxide	0.26	U	ng/L	P410328	
		Hexachlorobenzene	1.0	U	ng/L	P410328	
		Kepone**	37	J	ng/L	P410328	CCV
		Lambda-Cyhalothrin**	0.77	U	ng/L	P410328	
		Methoprene**	0.76	UQ	ng/L	P411150	
		Methoxychlor	0.31	U	ng/L	P410328	
		MGK-264**	0.21	U	ng/L	P410328	
		Mirex	0.72	U	ng/L	P410328	
		Oxychlordane**	0.31	U	ng/L	P410328	
		Permethrin	1.6	U	ng/L	P410328	
		Phenothrin**	0.92	U	ng/L	P410328	
		Piperonyl Butoxide**	0.15	UQ	ng/L	P411150	
		Prallethrin**	2.1	U	ng/L	P410328	
		Tau-Fluvalinate**	0.26	U	ng/L	P410328	
		Tetramethrin**	0.77	U	ng/L	P410328	
		Trans-Nonachlor**	0.21	U	ng/L	P410328	
		Triclosan Methyl**	0.15	U	ng/L	P410328	
		Trifluralin	0.21	U	ng/L	P410328	
	EPA 8276	Chlordane	2.6	UJ	ng/L	P410328	RPD
		Toxaphene	15	UJ	ng/L	P410328	RPD
2307903	EPA 8270E	Oxybenzone**	9.6	U	ng/L	P410273	
		Acetochlor	0.24	U	ng/L	P410273	
		Octinoxate**	19	U	ng/L	P410273	
		Alachlor	0.24	U	ng/L	P410273	
		Avobenzone**	96	U	ng/L	P410273	
		Ametryn	0.58	U	ng/L	P410273	
		Atrazine	0.83	I	ng/L	P410273	
		Atrazine Desethyl	1.9	I	ng/L	P410273	
		Azinphos Methyl	1.9	U	ng/L	P410273	
		Azoxystrobin**	0.48	U	ng/L	P410273	
		Bromacil	0.48	U	ng/L	P410273	
		Butylate	0.39	U	ng/L	P410273	
		Caffeine**	7.2	U	ng/L	P410273	
		Carbophenothion	2.4	U	ng/L	P410273	
		Carfentrazone Ethyl**	0.096	U	ng/L	P410273	
		Chlorfenapyr**	0.17	U	ng/L	P410273	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P410273	
		Chlorpyrifos Methyl	0.048	U	ng/L	P410273	
		Coumaphos**	0.48	U	ng/L	P410273	
		Cyanazine	3.1	U	ng/L	P410273	
		Cyprodinil**	0.096	U	ng/L	P410273	

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2307903	EPA 8270E	Demeton	1.4	U	ng/L	P410273	
		Diazinon	0.12	U	ng/L	P410273	
		Difenoconazole**	0.58	U	ng/L	P410273	
		Dimethenamid**	0.096	U	ng/L	P410273	
		Dimethomorph**	0.17	UJ	ng/L	P410273	MS
		Disulfoton	0.48	U	ng/L	P410273	
		Dithiopyr**	0.17	U	ng/L	P410273	
		EPTC	1.2	U	ng/L	P410273	
		Ethion	0.14	U	ng/L	P410273	
		Ethoprop	0.096	U	ng/L	P410273	
		Etridiazole**	0.14	U	ng/L	P410273	
		Fenamiphos	0.48	U	ng/L	P410273	
		Fenbuconazole**	0.12	U	ng/L	P410273	
		Fipronil	0.24	U	ng/L	P410273	
		Fipronil Desulfinyl**	0.12	U	ng/L	P410273	
		Fipronil Sulfide	0.14	U	ng/L	P410273	
		Fipronil Sulfone	0.49	I	ng/L	P410273	
		Fluazifop-P-butyl**	0.096	U	ng/L	P410273	
		Fludioxonil**	0.12	U	ng/L	P410273	
		Flumioxazin**	1.7	U	ng/L	P410273	
		Flutolanil**	0.096	U	ng/L	P410273	
		Fluxapyroxad**	0.096	U	ng/L	P410273	
		Fonofos	0.19	U	ng/L	P410273	
		Hexazinone	0.48	U	ng/L	P410273	
		Imazalil**	0.72	U	ng/L	P410273	
		Iprodione**	0.58	U	ng/L	P410273	
		Loratadine**	0.096	U	ng/L	P410273	
		Malathion	0.34	U	ng/L	P410273	
		Metalaxyl	0.72	U	ng/L	P410273	
		Metolachlor	0.34	U	ng/L	P410273	
		Metribuzin	2.4	U	ng/L	P410273	
		Mevinphos	1.0	U	ng/L	P410273	
		Molinate	0.29	U	ng/L	P410273	
		Myclobutanil**	0.24	U	ng/L	P410273	
		Naled**	1.4	U	ng/L	P410273	
		Napropamide**	0.39	U	ng/L	P410273	
		Norflurazon	0.48	U	ng/L	P410273	
		Oxadiazon	0.29	U	ng/L	P410273	
		Oxyfluorfen**	0.14	U	ng/L	P410273	
		Parathion Ethyl	0.24	U	ng/L	P410273	
		Parathion Methyl	0.53	U	ng/L	P410273	
		Pendimethalin	0.96	U	ng/L	P410273	
		Phenytoin**	3.4	UJ	ng/L	P410273	MS, RPD
		Phorate	0.51	U	ng/L	P410273	
		Prodiamine**	0.29	U	ng/L	P410273	

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2307903	EPA 8270E	Prometon	0.87	U	ng/L	P410273	
		Prometryn	0.19	U	ng/L	P410273	
		Pronamide**	0.14	U	ng/L	P410273	
		Propanil**	0.12	U	ng/L	P410273	
		Propargite**	1.4	U	ng/L	P410273	
		Propiconazole**	0.48	U	ng/L	P410273	
		Pyraflufen Ethyl**	0.24	U	ng/L	P410273	
		Pyridaben**	0.43	U	ng/L	P410273	
		Pyriproxyfen**	0.12	U	ng/L	P410273	
		Simazine	0.48	U	ng/L	P410273	
		Stirophos**	0.12	U	ng/L	P410273	
		Sulfentrazone**	26		ng/L	P410273	
		Tebuconazole**	0.48	U	ng/L	P410273	
		Terbufos	0.096	U	ng/L	P410273	
		Terbuthylazine	0.41	U	ng/L	P410273	
		Thiobencarb**	0.58	U	ng/L	P410273	
		Triadimefon**	0.24	U	ng/L	P410273	
2307912	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.070		mg P/L	P410319	

Ref. Method and Comment:
DEP SOP: NU-094-1: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8321B: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8270E: Sample expired for preparation for some analytes due to need for re-extraction. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for sulfentrazone not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P410371

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P410323

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411236

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411238

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410628

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410344

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410782

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410535

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410319

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P410273

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
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	2.5	U	ng/L
Carbophenothion	2.5	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
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	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P410273

Component	Result	Code	Units
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
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
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	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P410273

Component	Result	Code	Units
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
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
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytoin	3.5	U	ng/L
Phenytoin	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.30	U	ng/L
Prodiamine	0.30	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P410273

Component	Result	Code	Units
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: P410328

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P410328

Component	Result	Code	Units
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 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
Ethalfluralin	0.15	U	ng/L
Ethalfluralin	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
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	0.70	U	ng/L
Mirex	0.70	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P410328

Component	Result	Code	Units
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8270E
Batch ID: P411150

Component	Result	Code	Units
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L

Reference Method: EPA 8276
Batch ID: P410328

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: P410241

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	0.016	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P410241

Component	Result	Code	Units
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
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: P410330

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: P410426

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P410660

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

Reference Method: SM 2540 C-2011
Batch ID: P410756

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P410756

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P410899

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P410663

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P410697

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: P410371

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: P410323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	97.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411236

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411238

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410628

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410344

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410782

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410535

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410319

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.5		P	90 - 110

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P410273

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	90.2		P	70 - 121
Alachlor	83.5		P	68 - 119
Ametryn	100		P	64 - 139
Atrazine	87.8		P	76 - 120
Atrazine Desethyl	63.7		P	44 - 126
Avobenzone	144		P	50 - 200
Azinphos Methyl	112		P	43 - 192
Azoxystrobin	106		P	36 - 224
Bromacil	84.8		P	52 - 121
Butylate	50.1		P	28 - 91.0
Caffeine	79.9		P	50 - 134
Carbophenothion	99.3		P	56 - 129
Carfentrazone Ethyl	96.9		P	60 - 141
Chlorfenapyr	94.6		P	56 - 115
Chlorpyrifos Ethyl	85.3		P	60 - 118
Chlorpyrifos Methyl	92.8		P	68 - 119
Coumaphos	85.4		P	18 - 250
Cyanazine	88.9		P	61 - 250
Cyprodinil	107		P	55 - 145
Demeton	99.9		P	30 - 159
Diazinon	90.2		P	70 - 123
Difenoconazole	87.2		P	49 - 204
Dimethenamid	75.1		P	64 - 115
Dimethomorph	178		P	12 - 219
Disulfoton	85.0		P	44 - 125
Dithiopyr	72.5		P	64 - 115
EPTC	48.6		P	28 - 86.0
Ethion	64.5		P	33 - 125
Ethoprop	80.9		P	64 - 116
Etridiazole	51.5		P	34 - 91.0
Fenamiphos	86.7		P	12 - 127
Fenbuconazole	78.6		P	59 - 151
Fipronil	95.2		P	67 - 129
Fipronil Desulfinyl	101		P	65 - 127
Fipronil Sulfide	86.6		P	61 - 116
Fipronil Sulfone	70.7		P	55 - 117
Fluazifop-P-butyl	90.0		P	62 - 127
Fludioxonil	82.0		P	62 - 128
Flumioxazin	73.0		P	33 - 250
Flutolanil	92.5		P	56 - 127
Fluxapyroxad	70.5		P	45 - 128
Fonofos	78.8		P	62 - 111
Hexazinone	83.7		P	46 - 139
Imazalil	76.1		P	38 - 142
Iprodione	82.8		P	47 - 135
Loratadine	160		P	10 - 244
Malathion	84.8		P	61 - 139
Metalaxyl	83.0		P	10 - 119
Metolachlor	81.5		P	65 - 118
Metribuzin	94.4		P	51 - 250
Mevinphos	81.7		P	53 - 121
Molinate	54.7		P	42 - 96.0

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P410273

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Myclobutanil	89.5		P	55 - 128
Naled	64.7		P	10 - 98.0
Napropamide	82.0		P	49 - 121
Norflurazon	81.9		P	61 - 126
Octinoxate	114		P	50 - 150
Oxadiazon	70.8		P	59 - 116
Oxybenzone	119		P	50 - 150
Oxyfluorfen	103		P	64 - 137
Parathion Ethyl	87.0		P	70 - 112
Parathion Methyl	113		P	76 - 133
Pendimethalin	96.9		P	52 - 117
Phenytoin	29.5		P	10 - 199
Phorate	72.1		P	48 - 121
Prodiamine	62.9		P	26 - 142
Prometon	91.7		P	43 - 123
Prometryn	93.9		P	66 - 127
Pronamide	92.3		P	75 - 121
Propanil	118		P	45 - 150
Propargite	66.9		P	42 - 208
Propiconazole	85.6		P	60 - 125
Pyraflufen Ethyl	83.2		P	70 - 138
Pyridaben	90.3		P	35 - 245
Pyriproxyfen	83.3		P	30 - 149
Simazine	91.9		P	72 - 125
Stirophos	66.6		P	29 - 164
Sulfentrazone	73.4		P	21 - 139
Tebuconazole	55.5		P	10 - 115
Terbufos	97.5		P	60 - 123
Terbuthylazine	85.3		P	72 - 115
Thiobencarb	80.8		P	31 - 139
Triadimefon	83.9		P	65 - 116

Reference Method: EPA 8270E
Batch ID: P410328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	57.9		P	10 - 93.0
Alpha-BHC	96.4		P	75 - 106
Alpha-Chlordane	86.8		P	50 - 109
Beta-BHC	110		P	65 - 135
Beta-Cyfluthrin	105		P	23 - 167
Bifenthrin	93.5		P	11 - 123
Chlorothalonil	54.3		P	26 - 182
Cis-Nonachlor	79.6		P	40 - 111
Cypermethrin	114		P	25 - 155
Dacthal	98.2		P	73 - 112
DDD-p,p'	82.2		P	47 - 108
DDE-p,p'	82.9		P	48 - 107
DDT-p,p'	87.3		P	49 - 111
Delta-BHC	117		P	68 - 143
Deltamethrin	71.3		P	16 - 176
Dichlobenil	93.6		P	32 - 113

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P410328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	92.7		P	50 - 108
Dieldrin	76.9		P	56 - 110
Endosulfan I	85.3		P	60 - 105
Endosulfan II	88.5		P	50 - 120
Endosulfan Sulfate	101		P	55 - 121
Endrin Aldehyde	62.1		P	36 - 116
Endrin Ketone	177		F	56 - 130
Esfenvalerate	106		P	10 - 179
Ethalfluralin	81.5		P	49 - 99.0
Fenpropathrin	74.4		P	35 - 119
Gamma-BHC	99.9		P	72 - 115
Gamma-Chlordane	85.0		P	45 - 107
Heptachlor	78.9		P	41 - 100
Heptachlor Epoxide	95.9		P	58 - 106
Hexachlorobenzene	83.9		P	39 - 100
Kepone	155		P	10 - 191
Lambda-Cyhalothrin	102		P	10 - 186
Methoxychlor	108		P	61 - 111
MGK-264	77.9		P	20 - 123
Mirex	68.4		P	10 - 182
Oxychlordane	81.7		P	39 - 110
PCB-1016	84.6		P	49 - 111
PCB-1260	90.5		P	42 - 116
Permethrin	105		P	26 - 152
Phenothrin	49.8		P	10 - 109
Prallethrin	40.2		P	14 - 109
Tau-Fluvalinate	94.0		P	16 - 134
Tetramethrin	18.2		P	10 - 125
Trans-Nonachlor	85.1		P	45 - 107
Triclosan Methyl	87.6		P	60 - 110
Trifluralin	82.4		P	49 - 98.0

Reference Method: EPA 8270E
Batch ID: P411150

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	57.8		P	31 - 119
Methoprene	23.9		P	10 - 129
Piperonyl Butoxide	80.4		P	27 - 142

Reference Method: EPA 8276
Batch ID: P410328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	93.2		P	61 - 118
Toxaphene	81.2		P	51 - 122

Reference Method: EPA 8321B
Batch ID: P410241

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	108		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P410241

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	76.9		P	30 - 160
Acetaminophen	77.4		P	30 - 150
Acetamiprid	92.8		P	30 - 160
Afidopyropen	69.4		P	30 - 160
Bentazon	38.8		P	30 - 150
Benzovindiflupyr	91.3		P	30 - 160
Carbamazepine	100		P	30 - 160
Clothianidin	102		P	30 - 160
Dinotefuran	106		P	30 - 160
Diuron	88.0		P	30 - 160
Fenuron	125		P	30 - 160
Fluridone	108		P	30 - 160
Hydrocodone	102		P	30 - 160
Ibuprofen	90.5		P	30 - 160
Imazapyr	105		P	30 - 160
Imidacloprid	108		P	30 - 160
Linuron	95.0		P	30 - 160
Mandestrobin	99.6		P	30 - 160
MCPP	122		P	30 - 160
Naproxen	83.1		P	30 - 160
Primidone	77.4		P	30 - 160
Pyraclostrobin	87.4		P	30 - 160
Silvex	77.6		P	30 - 160
Thiamethoxam	102		P	30 - 160
Tolfenpyrad	46.5		P	30 - 160
Triclopyr	79.0		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P410330

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	91.0		P	30 - 160
Aldicarb	90.3		P	30 - 150
Aldicarb Sulfone	97.2		P	30 - 160
Aldicarb Sulfoxide	99.4		P	30 - 160
Carbaryl	82.1		P	30 - 160
Carbofuran	91.1		P	30 - 160
Methiocarb	53.6		P	30 - 160
Methomyl	80.7		P	30 - 160
Oxamyl	67.2		P	30 - 160
Propoxur	82.8		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P410426

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.8		P	40 - 150
AMPA	105		P	40 - 150
Endothall	92.3		P	40 - 150
Glufosinate	111		P	40 - 150
Glyphosate	98.3		P	40 - 150
Sucralose	126		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P410660

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.7		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P410663

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P410697

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411236

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311447	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411238

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311312	Sulfate	99.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410628

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307872	Ammonia-N	98.2	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410344

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307774	Kjeldahl Nitrogen	93.7	94.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307916	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410319

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307873	O-Phosphate-P	99.4	101	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P410273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307903	Acetochlor	92.0	93.4	P/P	65 - 124
2307903	Alachlor	81.9	86.5	P/P	61 - 121
2307903	Ametryn	94.3	99.2	P/P	52 - 216
2307903	Atrazine	85.9	88.1	P/P	68 - 133
2307903	Atrazine Desethyl	48.0	51.0	P/P	15 - 160
2307903	Avobenzone	141	150	P/P	50 - 200
2307903	Azinphos Methyl	115	119	P/P	40 - 292
2307903	Azoxystrobin	90.2	104	P/P	12 - 242
2307903	Bromacil	74.9	73.9	P/P	54 - 167
2307903	Butylate	47.0	52.6	P/P	14 - 94.0
2307903	Caffeine	80.5	76.5	P/P	10 - 226
2307903	Carbophenothion	84.7	92.5	P/P	49 - 122
2307903	Carfentrazone Ethyl	95.8	97.6	P/P	53 - 138
2307903	Chlorfenapyr	95.1	93.6	P/P	50 - 150
2307903	Chlorpyrifos Ethyl	74.7	78.1	P/P	52 - 122
2307903	Chlorpyrifos Methyl	82.8	87.9	P/P	66 - 117

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P410273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307903	Coumaphos	77.2	80.1	P/P	50 - 220
2307903	Cyanazine	96.2	95.8	P/P	43 - 245
2307903	Cyprodinil	108	112	P/P	50 - 150
2307903	Demeton	98.6	101	P/P	43 - 188
2307903	Diazinon	92.3	93.5	P/P	69 - 131
2307903	Difenoconazole	91.0	97.6	P/P	34 - 231
2307903	Dimethenamid	78.1	77.3	P/P	55 - 118
2307903	Dimethomorph	156	166	F/F	50 - 150
2307903	Disulfoton	84.3	93.1	P/P	38 - 141
2307903	Dithiopyr	73.1	75.1	P/P	42 - 116
2307903	EPTC	45.6	61.2	P/P	18 - 85.0
2307903	Ethion	73.2	59.7	P/P	10 - 131
2307903	Ethoprop	79.2	82.3	P/P	65 - 129
2307903	Etridiazole	51.4	59.6	P/P	50 - 150
2307903	Fenamiphos	79.7	92.9	P/P	31 - 137
2307903	Fenbuconazole	81.0	83.5	P/P	57 - 160
2307903	Fipronil	101	103	P/P	62 - 132
2307903	Fipronil Desulfinyl	99.4	105	P/P	57 - 131
2307903	Fipronil Sulfide	86.4	87.7	P/P	15 - 138
2307903	Fipronil Sulfone	67.6	60.2	P/P	21 - 134
2307903	Fluazifop-P-butyl	88.3	88.9	P/P	54 - 133
2307903	Fludioxonil	84.4	81.8	P/P	58 - 127
2307903	Flumioxazin	80.5	97.7	P/P	33 - 300
2307903	Flutolanil	90.2	86.9	P/P	42 - 130
2307903	Fluxapyroxad	75.3	72.6	P/P	23 - 141
2307903	Fonofos	73.9	80.2	P/P	58 - 119
2307903	Hexazinone	84.7	90.4	P/P	68 - 172
2307903	Imazalil	73.3	76.7	P/P	48 - 283
2307903	Iprodione	83.5	85.9	P/P	38 - 140
2307903	Loratadine	139	148	P/P	50 - 150
2307903	Malathion	75.1	77.6	P/P	40 - 137
2307903	Metalaxyl	86.3	85.2	P/P	21 - 129
2307903	Metolachlor	79.8	81.5	P/P	55 - 122
2307903	Metribuzin	84.3	87.8	P/P	38 - 187
2307903	Mevinphos	76.6	78.5	P/P	54 - 134
2307903	Molinate	52.8	64.1	P/P	41 - 97.0
2307903	Myclobutanil	76.1	82.8	P/P	56 - 125
2307903	Naled	67.1	65.6	P/P	10 - 108
2307903	Napropamide	81.7	75.8	P/P	50 - 150
2307903	Norflurazon	77.8	83.1	P/P	32 - 122
2307903	Octinoxate	118	123	P/P	50 - 150
2307903	Oxadiazon	71.4	70.4	P/P	40 - 119
2307903	Oxybenzone	127	133	P/P	50 - 150
2307903	Oxyfluorfen	110	112	P/P	61 - 153
2307903	Parathion Ethyl	83.2	85.5	P/P	59 - 130
2307903	Parathion Methyl	107	114	P/P	65 - 155
2307903	Pendimethalin	96.2	107	P/P	49 - 138
2307903	Phenytoin	42.1	30.4	F/F	50 - 200
2307903	Phorate	73.4	77.0	P/P	54 - 161
2307903	Prodiamine	40.2	41.9	P/P	33 - 161
2307903	Prometon	92.7	101	P/P	48 - 140
2307903	Prometryn	96.1	101	P/P	55 - 134

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P410273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307903	Pronamide	90.4	95.4	P/P	66 - 137
2307903	Propanil	111	113	P/P	50 - 150
2307903	Propargite	70.4	70.5	P/P	50 - 200
2307903	Propiconazole	80.7	90.1	P/P	36 - 150
2307903	Pyraflufen Ethyl	76.2	82.5	P/P	50 - 150
2307903	Pyridaben	69.1	90.0	P/P	50 - 200
2307903	Pyriproxyfen	86.0	85.9	P/P	10 - 165
2307903	Simazine	88.6	90.7	P/P	57 - 145
2307903	Stirophos	69.5	59.6	P/P	50 - 150
2307903	Tebuconazole	66.2	52.7	P/P	10 - 127
2307903	Terbufos	93.3	101	P/P	59 - 138
2307903	Terbuthylazine	84.0	89.0	P/P	68 - 119
2307903	Thiobencarb	73.2	83.5	P/P	50 - 150
2307903	Triadimefon	79.6	81.2	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P410328

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307892	Aldrin	47.3	44.4	P/P	10 - 89.0
2307892	Alpha-BHC	87.0	82.3	P/P	71 - 105
2307892	Alpha-Chlordane	74.8	69.6	P/P	43 - 107
2307892	Beta-BHC	101	96.2	P/P	57 - 152
2307892	Beta-Cyfluthrin	104	101	P/P	29 - 186
2307892	Bifenthrin	81.2	81.4	P/P	19 - 119
2307892	Chlorothalonil	154	159	P/P	10 - 245
2307892	Cis-Nonachlor	65.5	56.8	P/P	36 - 110
2307892	Cypermethrin	115	102	P/P	24 - 169
2307892	Dacthal	83.9	81.9	P/P	62 - 115
2307892	DDD-p,p'	68.1	65.8	P/P	36 - 109
2307892	DDE-p,p'	66.3	64.0	P/P	30 - 114
2307892	DDT-p,p'	73.3	70.4	P/P	42 - 108
2307892	Delta-BHC	112	105	P/P	60 - 164
2307892	Deltamethrin	56.0	62.1	P/P	10 - 210
2307892	Dichlobenil	74.9	75.3	P/P	23 - 108
2307892	Dicofol	78.7	72.6	P/P	44 - 109
2307892	Dieldrin	69.6	61.0	P/P	37 - 119
2307892	Endosulfan I	70.9	65.9	P/P	52 - 105
2307892	Endosulfan II	75.2	70.4	P/P	35 - 127
2307892	Endosulfan Sulfate	83.0	71.1	P/P	39 - 130
2307892	Endrin Aldehyde	22.9	34.0	P/P	20 - 110
2307892	Endrin Ketone	126	139	P/F	48 - 134
2307892	Esfenvalerate	97.1	94.2	P/P	10 - 199
2307892	Ethalfluralin	68.2	66.0	P/P	48 - 95.0
2307892	Fenpropathrin	75.9	74.7	P/P	37 - 121
2307892	Gamma-BHC	89.8	87.0	P/P	61 - 126
2307892	Gamma-Chlordane	73.0	71.3	P/P	39 - 105
2307892	Heptachlor	68.7	64.2	P/P	38 - 96.0
2307892	Heptachlor Epoxide	96.4	76.9	P/P	42 - 114
2307892	Hexachlorobenzene	72.6	69.5	P/P	39 - 93.0
2307892	Kepone	142	135	P/P	10 - 215
2307892	Lambda-Cyhalothrin	104	117	P/P	10 - 204

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P410328

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307892	Methoxychlor	100	91.5	P/P	56 - 115
2307892	MGK-264	65.4	65.5	P/P	35 - 120
2307892	Mirex	64.3	60.0	P/P	10 - 178
2307892	Oxychlordane	65.2	68.5	P/P	47 - 91.0
2307892	Permethrin	99.9	94.0	P/P	27 - 170
2307892	Phenothrin	60.6	53.8	P/P	10 - 133
2307892	Prallethrin	44.7	46.2	P/P	21 - 113
2307892	Tau-Fluvalinate	99.7	96.5	P/P	16 - 158
2307892	Tetramethrin	37.5	42.7	P/P	22 - 132
2307892	Trans-Nonachlor	68.0	67.0	P/P	43 - 102
2307892	Triclosan Methyl	69.2	65.5	P/P	49 - 109
2307892	Trifluralin	71.0	67.4	P/P	48 - 93.0
2307902	PCB-1016	79.3	64.5	P/P	46 - 110
2307902	PCB-1260	93.4	79.2	P/P	42 - 111

Reference Method: EPA 8270E
Batch ID: P411150

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2308510	Endrin	79.0	68.2	P/P	30 - 116
2308510	Methoprene	63.7	64.9	P/P	17 - 108
2308510	Piperonyl Butoxide	84.6	69.5	P/P	23 - 150

Reference Method: EPA 8276
Batch ID: P410328

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307902	Chlordane	85.2	64.9	P/P	55 - 128
2307902	Toxaphene	88.5	64.5	P/P	57 - 211

Reference Method: EPA 8321B
Batch ID: P410241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306763	2,4-D	129	125	P/P	30 - 160
2306763	2,4,5-T	97.4	114	P/P	30 - 160
2306763	Acetaminophen	89.8	77.2	P/P	30 - 150
2306763	Acetamiprid	97.5	87.0	P/P	30 - 160
2306763	Afidopyropen	77.6	65.6	P/P	30 - 160
2306763	Benzovindiflupyr	107	86.3	P/P	30 - 160
2306763	Carbamazepine	108	95.8	P/P	30 - 160
2306763	Clothianidin	109	92.0	P/P	30 - 160
2306763	Dinotefuran	143	117	P/P	30 - 160
2306763	Diuron	87.0	77.6	P/P	30 - 160
2306763	Fenuron	125	104	P/P	30 - 160
2306763	Fluridone	121	108	P/P	30 - 160
2306763	Hydrocodone	108	97.4	P/P	30 - 160
2306763	Ibuprofen	87.3	73.7	P/P	30 - 160
2306763	Imazapyr	119	91.5	P/P	30 - 160
2306763	Imidacloprid	222	195	F/F	30 - 160
2306763	Linuron	97.1	97.4	P/P	30 - 160
2306763	Mandestrobin	112	100	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P410241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306763	MCPP	135	135	P/P	30 - 160
2306763	Naproxen	82.2	73.1	P/P	30 - 160
2306763	Primidone	114	84.6	P/P	30 - 160
2306763	Pyraclostrobin	108	90.9	P/P	30 - 160
2306763	Silvex	106	116	P/P	30 - 160
2306763	Thiamethoxam	166	152	F/P	30 - 160
2306763	Tolfenpyrad	65.7	55.4	P/P	30 - 160
2306763	Triclopyr	104	100	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P410330

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307156	3-Hydroxycarbofuran	81.7	105	P/P	30 - 160
2307156	Aldicarb	78.2	91.8	P/P	30 - 150
2307156	Aldicarb Sulfone	94.7	100	P/P	30 - 160
2307156	Aldicarb Sulfoxide	58.4	62.3	P/P	30 - 160
2307156	Carbaryl	76.4	79.3	P/P	30 - 160
2307156	Carbofuran	86.8	88.7	P/P	30 - 160
2307156	Methiocarb	57.6	60.4	P/P	30 - 160
2307156	Methomyl	74.2	81.4	P/P	30 - 160
2307156	Oxamyl	71.3	73.4	P/P	30 - 160
2307156	Propoxur	79.3	80.2	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P410426

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307763	Acesulfame K	101	101	P/P	40 - 150
2307763	AMPA	119	126	P/P	40 - 150
2307763	Endothall	93.8	93.7	P/P	40 - 150
2307763	Glufosinate	103	114	P/P	40 - 150
2307763	Glyphosate	92.6	99.0	P/P	40 - 150
2307763	Sucralose	114	121	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P410663

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307772	Fluoride	94.9	94.4	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P410697

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2307883	Organic Carbon	96.0	97.0	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P410323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307756	Turbidity	3.64	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311312	Chloride	0.270	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411238

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311312	Sulfate	0.574	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410628

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307872	Ammonia-N	3.18	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P410344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307774	Kjeldahl Nitrogen	0.264	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307916	NO2NO3-N	0.496	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307857	Total-P	0.153	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P410319

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307873	O-Phosphate-P	1.79	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P410273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307903	Acetochlor	1.55	Spike	P	0 - 27
2307903	Alachlor	5.42	Spike	P	0 - 27
2307903	Ametryn	5.01	Spike	P	0 - 34
2307903	Atrazine	2.01	Spike	P	0 - 41
2307903	Atrazine Desethyl	4.81	Spike	P	0 - 38
2307903	Avobenzone	6.02	Spike	P	0 - 30
2307903	Azinphos Methyl	3.10	Spike	P	0 - 62
2307903	Azoxystrobin	14.1	Spike	P	0 - 32
2307903	Bromacil	1.45	Spike	P	0 - 30
2307903	Butylate	11.2	Spike	P	0 - 59
2307903	Caffeine	5.16	Spike	P	0 - 60
2307903	Carbophenothion	8.79	Spike	P	0 - 25
2307903	Carfentrazone Ethyl	1.94	Spike	P	0 - 26
2307903	Chlorfenapyr	1.49	Spike	P	0 - 30
2307903	Chlorpyrifos Ethyl	4.46	Spike	P	0 - 27
2307903	Chlorpyrifos Methyl	6.00	Spike	P	0 - 26
2307903	Coumaphos	3.77	Spike	P	0 - 30
2307903	Cyanazine	0.404	Spike	P	0 - 58
2307903	Cyprodinil	4.27	Spike	P	0 - 30
2307903	Demeton	2.39	Spike	P	0 - 25
2307903	Diazinon	1.19	Spike	P	0 - 29
2307903	Difenoconazole	6.96	Spike	P	0 - 25
2307903	Dimethenamid	1.05	Spike	P	0 - 30
2307903	Dimethomorph	6.08	Spike	P	0 - 30
2307903	Disulfoton	10.0	Spike	P	0 - 33
2307903	Dithiopyr	2.62	Spike	P	0 - 22
2307903	EPTC	29.1	Spike	P	0 - 38
2307903	Ethion	20.2	Spike	P	0 - 79
2307903	Ethoprop	3.80	Spike	P	0 - 23
2307903	Etridiazole	14.7	Spike	P	0 - 30
2307903	Fenamiphos	15.3	Spike	P	0 - 58
2307903	Fenbuconazole	2.95	Spike	P	0 - 37
2307903	Fipronil	1.14	Spike	P	0 - 33
2307903	Fipronil Desulfinyl	5.59	Spike	P	0 - 26
2307903	Fipronil Sulfide	1.54	Spike	P	0 - 37
2307903	Fipronil Sulfone	8.22	Spike	P	0 - 50
2307903	Fluazifop-P-butyl	0.652	Spike	P	0 - 24
2307903	Fludioxonil	3.08	Spike	P	0 - 26
2307903	Flumioxazin	19.4	Spike	P	0 - 37
2307903	Flutolanil	3.74	Spike	P	0 - 26
2307903	Fluxapyroxad	3.72	Spike	P	0 - 34
2307903	Fonofos	8.18	Spike	P	0 - 27
2307903	Hexazinone	6.46	Spike	P	0 - 36
2307903	Imazalil	4.46	Spike	P	0 - 65
2307903	Iprodione	2.81	Spike	P	0 - 33
2307903	Loratadine	6.06	Spike	P	0 - 30
2307903	Malathion	3.20	Spike	P	0 - 44
2307903	Metalaxyl	1.25	Spike	P	0 - 38
2307903	Metolachlor	2.08	Spike	P	0 - 36
2307903	Metribuzin	4.12	Spike	P	0 - 63
2307903	Mevinphos	2.51	Spike	P	0 - 26

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P410273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307903	Molinate	19.3	Spike	P	0 - 40
2307903	Myclobutanil	8.49	Spike	P	0 - 21
2307903	Naled	2.36	Spike	P	0 - 26
2307903	Napropamide	7.40	Spike	P	0 - 30
2307903	Norflurazon	6.57	Spike	P	0 - 24
2307903	Octinoxate	3.38	Spike	P	0 - 30
2307903	Oxadiazon	1.49	Spike	P	0 - 27
2307903	Oxybenzone	4.97	Spike	P	0 - 30
2307903	Oxyfluorfen	1.50	Spike	P	0 - 24
2307903	Parathion Ethyl	2.78	Spike	P	0 - 28
2307903	Parathion Methyl	6.65	Spike	P	0 - 27
2307903	Pendimethalin	10.5	Spike	P	0 - 31
2307903	Phenytoin	32.3	Spike	F	0 - 30
2307903	Phorate	4.76	Spike	P	0 - 27
2307903	Prodiamine	4.00	Spike	P	0 - 52
2307903	Prometon	8.22	Spike	P	0 - 31
2307903	Prometryn	4.97	Spike	P	0 - 28
2307903	Pronamide	5.28	Spike	P	0 - 26
2307903	Propanil	1.88	Spike	P	0 - 30
2307903	Propargite	0.142	Spike	P	0 - 30
2307903	Propiconazole	10.9	Spike	P	0 - 31
2307903	Pyraflufen Ethyl	7.95	Spike	P	0 - 30
2307903	Pyridaben	26.3	Spike	P	0 - 30
2307903	Pyriproxyfen	0.0974	Spike	P	0 - 50
2307903	Simazine	2.33	Spike	P	0 - 29
2307903	Stirophos	15.4	Spike	P	0 - 30
2307903	Sulfentrazone	1.06	Spike	P	0 - 33
2307903	Tebuconazole	22.7	Spike	P	0 - 44
2307903	Terbufos	7.85	Spike	P	0 - 29
2307903	Terbuthylazine	5.78	Spike	P	0 - 27
2307903	Thiobencarb	13.1	Spike	P	0 - 30
2307903	Triadimefon	2.01	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P410328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307892	Aldrin	6.38	Spike	P	0 - 37
2307892	Alpha-BHC	5.52	Spike	P	0 - 16
2307892	Alpha-Chlordane	7.13	Spike	P	0 - 28
2307892	Beta-BHC	4.64	Spike	P	0 - 32
2307892	Beta-Cyfluthrin	2.64	Spike	P	0 - 41
2307892	Bifenthrin	0.265	Spike	P	0 - 36
2307892	Chlorothalonil	3.02	Spike	P	0 - 54
2307892	Cis-Nonachlor	14.1	Spike	P	0 - 33
2307892	Cypermethrin	12.3	Spike	P	0 - 38
2307892	Dacthal	2.43	Spike	P	0 - 23
2307892	DDD-p,p'	3.49	Spike	P	0 - 35
2307892	DDE-p,p'	3.49	Spike	P	0 - 27
2307892	DDT-p,p'	4.04	Spike	P	0 - 31

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P410328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307892	Delta-BHC	6.02	Spike	P	0 - 30
2307892	Deltamethrin	10.4	Spike	P	0 - 76
2307892	Dichlobenil	0.531	Spike	P	0 - 33
2307892	Dicofol	8.11	Spike	P	0 - 24
2307892	Dieldrin	12.1	Spike	P	0 - 35
2307892	Endosulfan I	7.31	Spike	P	0 - 25
2307892	Endosulfan II	6.66	Spike	P	0 - 31
2307892	Endosulfan Sulfate	15.5	Spike	P	0 - 38
2307892	Endrin Aldehyde	39.2	Spike	P	0 - 81
2307892	Endrin Ketone	10.2	Spike	P	0 - 33
2307892	Esfenvalerate	2.95	Spike	P	0 - 46
2307892	Ethalfluralin	3.29	Spike	P	0 - 22
2307892	Fenpropathrin	1.59	Spike	P	0 - 29
2307892	Gamma-BHC	3.14	Spike	P	0 - 17
2307892	Gamma-Chlordane	2.32	Spike	P	0 - 28
2307892	Heptachlor	6.71	Spike	P	0 - 28
2307892	Heptachlor Epoxide	22.6	Spike	P	0 - 23
2307892	Hexachlorobenzene	4.35	Spike	P	0 - 22
2307892	Kepone	4.95	Spike	P	0 - 61
2307892	Lambda-Cyhalothrin	12.1	Spike	P	0 - 52
2307892	Methoxychlor	9.11	Spike	P	0 - 29
2307892	MGK-264	0.193	Spike	P	0 - 41
2307892	Mirex	6.97	Spike	P	0 - 39
2307892	Oxychlordane	4.99	Spike	P	0 - 33
2307892	Permethrin	6.05	Spike	P	0 - 39
2307892	Phenothrin	12.0	Spike	P	0 - 52
2307892	Prallethrin	3.21	Spike	P	0 - 34
2307892	Tau-Fluvalinate	3.22	Spike	P	0 - 41
2307892	Tetramethrin	13.1	Spike	P	0 - 43
2307892	Trans-Nonachlor	1.57	Spike	P	0 - 31
2307892	Triclosan Methyl	5.56	Spike	P	0 - 24
2307892	Trifluralin	5.18	Spike	P	0 - 23
2307902	PCB-1016	20.6	Spike	P	0 - 22
2307902	PCB-1260	16.4	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P411150

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308510	Endrin	14.7	Spike	P	0 - 53
2308510	Methoprene	1.86	Spike	P	0 - 38
2308510	Piperonyl Butoxide	15.5	Spike	P	0 - 91

Reference Method: EPA 8276
Batch ID: P410328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307902	Chlordane	27.0	Spike	F	0 - 25
2307902	Toxaphene	31.3	Spike	F	0 - 24

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P410241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2306763	2,4-D	2.47	Spike	P	0 - 30
2306763	2,4,5-T	15.4	Spike	P	0 - 30
2306763	Acetaminophen	15.1	Spike	P	0 - 30
2306763	Acetamiprid	11.4	Spike	P	0 - 30
2306763	Afidopyropen	16.8	Spike	P	0 - 30
2306763	Bentazon	1.31	Spike	P	0 - 30
2306763	Benzovindiflupyr	21.5	Spike	P	0 - 30
2306763	Carbamazepine	12.0	Spike	P	0 - 30
2306763	Clothianidin	17.2	Spike	P	0 - 30
2306763	Dinotefuran	20.0	Spike	P	0 - 30
2306763	Diuron	11.4	Spike	P	0 - 30
2306763	Fenuron	19.0	Spike	P	0 - 30
2306763	Fluridone	11.0	Spike	P	0 - 30
2306763	Hydrocodone	10.0	Spike	P	0 - 30
2306763	Ibuprofen	16.9	Spike	P	0 - 30
2306763	Imazapyr	13.8	Spike	P	0 - 30
2306763	Imidacloprid	13.1	Spike	P	0 - 30
2306763	Linuron	0.248	Spike	P	0 - 30
2306763	Mandestrobin	11.3	Spike	P	0 - 30
2306763	MCPP	0.504	Spike	P	0 - 30
2306763	Naproxen	11.7	Spike	P	0 - 30
2306763	Primidone	29.4	Spike	P	0 - 30
2306763	Pyraclostrobin	17.4	Spike	P	0 - 30
2306763	Silvex	9.36	Spike	P	0 - 30
2306763	Thiamethoxam	9.07	Spike	P	0 - 30
2306763	Tolfenpyrad	17.1	Spike	P	0 - 30
2306763	Triclopyr	3.32	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P410330

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307156	3-Hydroxycarbofuran	24.6	Spike	P	0 - 30
2307156	Aldicarb	16.1	Spike	P	0 - 30
2307156	Aldicarb Sulfone	5.84	Spike	P	0 - 30
2307156	Aldicarb Sulfoxide	6.44	Spike	P	0 - 30
2307156	Carbaryl	3.67	Spike	P	0 - 30
2307156	Carbofuran	2.24	Spike	P	0 - 30
2307156	Methiocarb	4.75	Spike	P	0 - 30
2307156	Methomyl	9.28	Spike	P	0 - 30
2307156	Oxamyl	2.84	Spike	P	0 - 30
2307156	Propoxur	1.12	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P410426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307763	Acesulfame K	0.540	Spike	P	0 - 30
2307763	AMPA	5.45	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P410426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307763	Endothall	0.107	Spike	P	0 - 30
2307763	Glufosinate	10.2	Spike	P	0 - 30
2307763	Glyphosate	6.70	Spike	P	0 - 30
2307763	Sucralose	5.34	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P410660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307772	Total Alkalinity	1.80	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P410756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2308899	TDS	5.71	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P410663

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307772	Fluoride	0.498	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P410697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2307883	Organic Carbon	0.581	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2307900
Field Sample ID: G2CE0242

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	86.1	P	30 - 160

Lab Sample ID: 2307901
Field Sample ID: G2CE0242

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	120	P	30 - 160
EPA 8321B	Acetaminophen-d4	90.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	108	P	30 - 160
EPA 8321B	Diuron-d6	94.2	P	30 - 160
EPA 8321B	Endothall-d6	91.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	53.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	90.7	P	30 - 160
EPA 8321B	Primidone-d5	83.5	P	30 - 160
EPA 8321B	Sucralose-d6	131	P	30 - 160

Lab Sample ID: 2307902
Field Sample ID: G2CE0242

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	81.9	P	38 - 115
EPA 8270E	Decachlorobiphenyl	83.2	P	31 - 118
EPA 8270E	Decachlorobiphenyl	81.9	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	66.9	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	74.4	P	28 - 96.0
EPA 8270E	Tetrachloro-m-xylene	61.7	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	65.1	P	30 - 97.0
EPA 8276	PCNB	81.5	P	45 - 119

Lab Sample ID: 2307903
Field Sample ID: G2CE0242

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	57.2	P	20 - 200
EPA 8270E	Simazine-d10	118	P	71 - 140
EPA 8270E	Terbufos-d10	107	P	62 - 131
EPA 8270E	Terphenyl-d14	97.4	P	55 - 108

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A110603
Included Lab Sample IDs: 2307912

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A110604
Included Lab Sample IDs: 2307897

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

Reference Method: DEP SOP: NU-094-1
Run ID: A110629
Included Lab Sample IDs: 2307897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	106	104	P/P	85 - 115

Reference Method: EPA 8321B
Run ID: A110643
Included Lab Sample IDs: 2307901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	89.1	112	P/P	50 - 150
2,4,5-T	125	127	P/P	50 - 150
3-Hydroxycarbofuran	114	110	P/P	60 - 150
Acetaminophen	117	110	P/P	60 - 160
Acetamiprid	109	110	P/P	50 - 150
Afidopyropen	114	103	P/P	50 - 150
Aldicarb	106	122	P/P	60 - 150
Aldicarb Sulfone	109	104	P/P	50 - 150
Aldicarb Sulfoxide	103	104	P/P	50 - 150
Bentazon	105	106	P/P	50 - 160
Benzovindiflupyr	103	109	P/P	50 - 160
Carbamazepine	111	105	P/P	60 - 150
Carbaryl	103	107	P/P	60 - 150
Carbofuran	113	106	P/P	50 - 150
Clothianidin	108	99.4	P/P	60 - 150
Dinotefuran	110	109	P/P	50 - 150
Diuron	101	110	P/P	60 - 160
Fenuron	109	113	P/P	60 - 150
Fluridone	114	122	P/P	60 - 160
Hydrocodone	109	114	P/P	60 - 150
Ibuprofen	98.6	95.5	P/P	50 - 160
Imazapyr	111	111	P/P	50 - 150
Imidacloprid	96.1	103	P/P	60 - 150
Linuron	122	127	P/P	60 - 150
Mandestrobin	107	113	P/P	50 - 150
MCPP	117	115	P/P	50 - 150
Methiocarb	102	108	P/P	50 - 150
Methomyl	105	106	P/P	50 - 150
Naproxen	77.6	147	P/P	50 - 160
Oxamyl	98.7	105	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A110643
Included Lab Sample IDs: 2307901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	94.7	88.0	P/P	60 - 150
Propoxur	105	106	P/P	50 - 150
Pyraclostrobin	120	114	P/P	60 - 150
Silvex	98.2	106	P/P	50 - 150
Thiamethoxam	115	106	P/P	50 - 150
Tolfenpyrad	127	121	P/P	60 - 150
Triclopyr	104	128	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A110698
Included Lab Sample IDs: 2307901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	104	P/P	60 - 160
Glufosinate	97.3	102	P/P	60 - 160
Glyphosate	88.7	94.4	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A110702
Included Lab Sample IDs: 2307901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	98.8	93.7	P/P	60 - 160
Endothall	90.3	99.0	P/P	60 - 160
Sucralose	124	129	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A110726
Included Lab Sample IDs: 2307898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.5	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A110733
Included Lab Sample IDs: 2307898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	98.7	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A110751
Included Lab Sample IDs: 2307897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.7	97.2	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-2011
Run ID: A110751
Included Lab Sample IDs: 2307897

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

Reference Method: SM 5310 B-2011
Run ID: A110771
Included Lab Sample IDs: 2307898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	95.3	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A110787
Included Lab Sample IDs: 2307902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.0		P	80 - 120
Toxaphene	96.2		P	80 - 120

Reference Method: EPA 8270E
Run ID: A110796
Included Lab Sample IDs: 2307903

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	103		P	80 - 120
Ametryn	114		P	80 - 120
Atrazine	97.0		P	80 - 120
Atrazine Desethyl	89.4		P	80 - 120
Azinphos Methyl	97.4		P	80 - 120
Azoxystrobin	99.7		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	100		P	80 - 120
Caffeine	84.9		P	80 - 120
Carbophenothion	107		P	80 - 120
Carfentrazone Ethyl	102		P	80 - 120
Chlorfenapyr	103		P	80 - 120
Chlorpyrifos Ethyl	105		P	80 - 120
Chlorpyrifos Methyl	98.5		P	80 - 120
Coumaphos	95.1		P	80 - 120
Cyanazine	102		P	80 - 120
Cyprodinil	109		P	80 - 120
Demeton	93.2		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	93.5		P	80 - 120
Dimethenamid	106		P	80 - 120
Dimethomorph	103		P	80 - 120
Disulfoton	100		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	103		P	80 - 120
Ethion	96.5		P	80 - 120
Ethoprop	100		P	80 - 120
Etridiazole	94.8		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A110796
Included Lab Sample IDs: 2307903

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenamiphos	99.7		P	80 - 120
Fenbuconazole	96.0		P	80 - 120
Fipronil	105		P	80 - 120
Fipronil Sulfide	105		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fluazifop-P-butyl	103		P	80 - 120
Fludioxonil	99.7		P	80 - 120
Flumioxazin	91.5		P	80 - 120
Flutolanil	103		P	80 - 120
Fluxapyroxad	98.3		P	80 - 120
Fonofos	105		P	80 - 120
Hexazinone	108		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	102		P	80 - 120
Loratadine	108		P	80 - 120
Malathion	101		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	117		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	106		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	103		P	80 - 120
Napropamide	102		P	80 - 120
Norflurazon	98.7		P	80 - 120
Oxadiazon	101		P	80 - 120
Oxyfluorfen	109		P	80 - 120
Parathion Ethyl	99.6		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	93.4		P	80 - 120
Phenytoin	99.7		P	80 - 120
Phorate	107		P	80 - 120
Prodiamine	96.4		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	95.4		P	80 - 120
Propanil	103		P	80 - 120
Propargite	101		P	80 - 120
Propiconazole	95.9		P	80 - 120
Pyraflufen Ethyl	103		P	80 - 120
Pyridaben	95.8		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	96.0		P	80 - 120
Stirophos	98.9		P	80 - 120
Sulfentrazone	100		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	105		P	80 - 120
Terbuthylazine	104		P	80 - 120
Thiobencarb	104		P	80 - 120
Triadimefon	103		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A110801
Included Lab Sample IDs: 2307898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A110807
Included Lab Sample IDs: 2307898

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A110810
Included Lab Sample IDs: 2307902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	106		P	80 - 120
PCB-1260	107		P	80 - 120

Reference Method: EPA 8270E
Run ID: A110861
Included Lab Sample IDs: 2307903

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fipronil Desulfinyl	105		P	80 - 120

Reference Method: EPA 8270E
Run ID: A110914
Included Lab Sample IDs: 2307903

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzone	107		P	80 - 120
Octinoxate	110		P	80 - 120
Oxybenzone	113		P	80 - 120

Reference Method: EPA 8270E
Run ID: A110957
Included Lab Sample IDs: 2307902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin	105		P	80 - 120
Methoprene	102		P	80 - 120
Piperonyl Butoxide	96.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A110972
Included Lab Sample IDs: 2307902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	97.4		P	80 - 120
Alpha-Chlordane	104		P	80 - 120
Beta-BHC	97.2		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A110972
Included Lab Sample IDs: 2307902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-Cyfluthrin	105		P	80 - 120
Bifenthrin	101		P	80 - 120
Chlorothalonil	94.9		P	80 - 120
Cis-Nonachlor	96.6		P	80 - 120
Cypermethrin	102		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	103		P	80 - 120
DDE-p,p'	105		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	98.5		P	80 - 120
Deltamethrin	93.4		P	80 - 120
Dichlobenil	98.3		P	80 - 120
Dicofol	102		P	80 - 120
Dieldrin	105		P	80 - 120
Endosulfan I	98.7		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	93.8		P	80 - 120
Endrin Aldehyde	99.6		P	80 - 120
Endrin Ketone	91.1		P	80 - 120
Esfenvalerate	103		P	80 - 120
Ethalfluralin	99.5		P	80 - 120
Fenpropathrin	106		P	80 - 120
Gamma-BHC	99.8		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	99.6		P	80 - 120
Heptachlor Epoxide	102		P	80 - 120
Hexachlorobenzene	99.7		P	80 - 120
Kepone	76.8*		F	80 - 120
Lambda-Cyhalothrin	104		P	80 - 120
Methoxychlor	99.4		P	80 - 120
MGK-264	101		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	99.0		P	80 - 120
Permethrin	101		P	80 - 120
Phenothrin	105		P	80 - 120
Prallethrin	98.3		P	80 - 120
Tau-Fluvalinate	104		P	80 - 120
Tetramethrin	102		P	80 - 120
Trans-Nonachlor	105		P	80 - 120
Triclosan Methyl	105		P	80 - 120
Trifluralin	98.5		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A110994
Included Lab Sample IDs: 2307897

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.9	99.2	P/P	90 - 110
Sulfate	99.3	99.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

* 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		Precision		
					LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	103					
EPA 180.1 Rev. 2.0	Turbidity	97.2				3.64	
EPA 300.0 Rev. 2.1	Chloride	98.7	100			0.270	
	Sulfate	100	99.5			0.574	
EPA 350.1 Rev. 2.0	Ammonia-N	96.6	98.2	102			3.18
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	93.7	94.0			0.264
EPA 353.2 Rev. 2.0	NO2NO3-N	101	100	101			0.496
EPA 365.1 Rev. 2.0	Total-P	107					0.153
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.5	99.4	101			1.79
EPA 8270E	Acetochlor	90.2	93.4	92.0			1.55
	Alachlor	83.5	86.5	81.9			5.42
	Aldrin	57.9	47.3	44.4			6.38
	Alpha-BHC	96.4	87.0	82.3			5.52
	Alpha-Chlordane	86.8	74.8	69.6			7.13
	Ametryn	100	99.2	94.3			5.01
	Atrazine	87.8	88.1	85.9			2.01
	Atrazine Desethyl	63.7	51.0	48.0			4.81
	Avobenzone	144	141	150			6.02
	Azinphos Methyl	112	119	115			3.10
	Azoxystrobin	106	104	90.2			14.1
	Beta-BHC	110	101	96.2			4.64
	Beta-Cyfluthrin	105	104	101			2.64
	Bifenthrin	93.5	81.2	81.4			0.265
	Bromacil	84.8	73.9	74.9			1.45
	Butylate	50.1	52.6	47.0			11.2
	Caffeine	79.9	76.5	80.5			5.16
	Carbophenothion	99.3	92.5	84.7			8.79
	Carfentrazone Ethyl	96.9	97.6	95.8			1.94
	Chlorfenapyr	94.6	93.6	95.1			1.49
	Chlorothalonil	54.3	154	159			3.02
	Chlorpyrifos Ethyl	85.3	78.1	74.7			4.46
	Chlorpyrifos Methyl	92.8	87.9	82.8			6.00
	Cis-Nonachlor	79.6	65.5	56.8			14.1
	Coumaphos	85.4	80.1	77.2			3.77
	Cyanazine	88.9	95.8	96.2			0.404
	Cypermethrin	114	115	102			12.3
	Cyprodinil	107	112	108			4.27
	Dacthal	98.2	83.9	81.9			2.43
	DDD-p,p'	82.2	68.1	65.8			3.49
	DDE-p,p'	82.9	66.3	64.0			3.49
	DDT-p,p'	87.3	73.3	70.4			4.04
	Delta-BHC	117	112	105			6.02
	Deltamethrin	71.3	56.0	62.1			10.4
	Demeton	99.9	101	98.6			2.39
	Diazinon	90.2	93.5	92.3			1.19
	Dichlobenil	93.6	74.9	75.3			0.531
	Dicofol	92.7	78.7	72.6			8.11
	Dieldrin	76.9	69.6	61.0			12.1
	Difenoconazole	87.2	97.6	91.0			6.96
	Dimethenamid	75.1	77.3	78.1			1.05
	Dimethomorph	178	166	156			6.08
	Disulfoton	85.0	93.1	84.3			10.0
	Dithiopyr	72.5	75.1	73.1			2.62
	Endosulfan I	85.3	70.9	65.9			7.31

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Endosulfan II	88.5	75.2	70.4			6.66
	Endosulfan Sulfate	101	83.0	71.1			15.5
	Endrin	57.8	79.0	68.2			14.7
	Endrin Aldehyde	62.1	22.9	34.0			39.2
	Endrin Ketone	177	126	139			10.2
	EPTC	48.6	61.2	45.6			29.1
	Esfenvalerate	106	97.1	94.2			2.95
	Ethalfluralin	81.5	68.2	66.0			3.29
	Ethion	64.5	59.7	73.2			20.2
	Ethoprop	80.9	82.3	79.2			3.80
	Etridiazole	51.5	59.6	51.4			14.7
	Fenamiphos	86.7	92.9	79.7			15.3
	Fenbuconazole	78.6	83.5	81.0			2.95
	Fenpropathrin	74.4	75.9	74.7			1.59
	Fipronil	95.2	103	101			1.14
	Fipronil Desulfinyl	101	99.4	105			5.59
	Fipronil Sulfide	86.6	87.7	86.4			1.54
	Fipronil Sulfone	70.7	60.2	67.6			8.22
	Fluazifop-P-butyl	90.0	88.9	88.3			0.652
	Fludioxonil	82.0	81.8	84.4			3.08
	Flumioxazin	73.0	97.7	80.5			19.4
	Flutolanil	92.5	86.9	90.2			3.74
	Fluxapyroxad	70.5	72.6	75.3			3.72
	Fonofos	78.8	80.2	73.9			8.18
	Gamma-BHC	99.9	89.8	87.0			3.14
	Gamma-Chlordane	85.0	73.0	71.3			2.32
	Heptachlor	78.9	68.7	64.2			6.71
	Heptachlor Epoxide	95.9	96.4	76.9			22.6
	Hexachlorobenzene	83.9	72.6	69.5			4.35
	Hexazinone	83.7	90.4	84.7			6.46
	Imazalil	76.1	76.7	73.3			4.46
	Iprodione	82.8	85.9	83.5			2.81
	Kepone	155	142	135			4.95
	Lambda-Cyhalothrin	102	104	117			12.1
	Loratadine	160	148	139			6.06
	Malathion	84.8	77.6	75.1			3.20
	Metalaxyl	83.0	85.2	86.3			1.25
	Methoprene	23.9	63.7	64.9			1.86
	Methoxychlor	108	100	91.5			9.11
	Metolachlor	81.5	81.5	79.8			2.08
	Metribuzin	94.4	84.3	87.8			4.12
	Mevinphos	81.7	76.6	78.5			2.51
	MGK-264	77.9	65.4	65.5			0.193
	Mirex	68.4	64.3	60.0			6.97
	Molinate	54.7	52.8	64.1			19.3
	Myclobutanil	89.5	76.1	82.8			8.49
	Naled	64.7	67.1	65.6			2.36
	Napropamide	82.0	81.7	75.8			7.40
	Norflurazon	81.9	77.8	83.1			6.57
	Octinoxate	114	118	123			3.38
	Oxadiazon	70.8	71.4	70.4			1.49
	Oxybenzone	119	127	133			4.97
	Oxychlordane	81.7	65.2	68.5			4.99
	Oxyfluorfen	103	110	112			1.50

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Parathion Ethyl	87.0	83.2	85.5			2.78
	Parathion Methyl	113	107	114			6.65
	PCB-1016	84.6	79.3	64.5			20.6
	PCB-1260	90.5	93.4	79.2			16.4
	Pendimethalin	96.9	96.2	107			10.5
	Permethrin	105	99.9	94.0			6.05
	Phenothrin	49.8	60.6	53.8			12.0
	Phenytoin	29.5	42.1	30.4			32.3
	Phorate	72.1	73.4	77.0			4.76
	Piperonyl Butoxide	80.4	84.6	69.5			15.5
	Prallethrin	40.2	44.7	46.2			3.21
	Prodiamine	62.9	40.2	41.9			4.00
	Prometon	91.7	92.7	101			8.22
	Prometryn	93.9	96.1	101			4.97
	Pronamide	92.3	90.4	95.4			5.28
	Propanil	118	111	113			1.88
	Propargite	66.9	70.4	70.5			0.142
	Propiconazole	85.6	80.7	90.1			10.9
	Pyraflufen Ethyl	83.2	76.2	82.5			7.95
	Pyridaben	90.3	69.1	90.0			26.3
	Pyriproxyfen	83.3	86.0	85.9			0.0974
	Simazine	91.9	88.6	90.7			2.33
	Stirophos	66.6	69.5	59.6			15.4
	Sulfentrazone	73.4					1.06
	Tau-Fluvalinate	94.0	99.7	96.5			3.22
	Tebuconazole	55.5	66.2	52.7			22.7
	Terbufos	97.5	93.3	101			7.85
	Terbuthylazine	85.3	84.0	89.0			5.78
	Tetramethrin	18.2	37.5	42.7			13.1
	Thiobencarb	80.8	73.2	83.5			13.1
	Trans-Nonachlor	85.1	68.0	67.0			1.57
	Triadimefon	83.9	79.6	81.2			2.01
	Triclosan Methyl	87.6	69.2	65.5			5.56
	Trifluralin	82.4	71.0	67.4			5.18
EPA 8276	Chlordane	93.2	85.2	64.9			27.0
	Toxaphene	81.2	88.5	64.5			31.3
EPA 8321B	2,4-D	108	129	125			2.47
	2,4,5-T	76.9	97.4	114			15.4
	3-Hydroxycarbofuran	91.0	81.7	105			24.6
	Acesulfame K	99.8	101	101			0.540
	Acetaminophen	77.4	89.8	77.2			15.1
	Acetamiprid	92.8	97.5	87.0			11.4
	Afidopyropen	69.4	77.6	65.6			16.8
	Aldicarb	90.3	78.2	91.8			16.1
	Aldicarb Sulfone	97.2	94.7	100			5.84
	Aldicarb Sulfoxide	99.4	58.4	62.3			6.44
	AMPA	105	119	126			5.45
	Bentazon	38.8					1.31
	Benzovindiflupyr	91.3	107	86.3			21.5
	Carbamazepine	100	108	95.8			12.0
	Carbaryl	82.1	76.4	79.3			3.67
	Carbofuran	91.1	86.8	88.7			2.24
	Clothianidin	102	109	92.0			17.2
	Dinotefuran	106	143	117			20.0

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Diuron	88.0	87.0	77.6			11.4
	Endothall	92.3	93.8	93.7			0.107
	Fenuron	125	125	104			19.0
	Fluridone	108	121	108			11.0
	Glufosinate	111	103	114			10.2
	Glyphosate	98.3	92.6	99.0			6.70
	Hydrocodone	102	108	97.4			10.0
	Ibuprofen	90.5	87.3	73.7			16.9
	Imazapyr	105	119	91.5			13.8
	Imidacloprid	108	222	195			13.1
	Linuron	95.0	97.1	97.4			0.248
	Mandestrobin	99.6	112	100			11.3
	MCPP	122	135	135			0.504
	Methiocarb	53.6	57.6	60.4			4.75
	Methomyl	80.7	74.2	81.4			9.28
	Naproxen	83.1	82.2	73.1			11.7
	Oxamyl	67.2	71.3	73.4			2.84
	Primidone	77.4	114	84.6			29.4
	Propoxur	82.8	79.3	80.2			1.12
	Pyraclostrobin	87.4	108	90.9			17.4
	Silvex	77.6	106	116			9.36
	Sucralose	126	114	121			5.34
	Thiamethoxam	102	166	152			9.07
	Tolfenpyrad	46.5	65.7	55.4			17.1
	Triclopyr	79.0	104	100			3.32
SM 2320 B-2011	Total Alkalinity	95.7				1.80	
SM 2540 C-2011	TDS					5.71	
SM 4500 F-C-2011	Fluoride	98.0	94.9	94.4			0.498
SM 5310 B-2011	Organic Carbon	95.6	96.0	97.0			0.581

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2307897
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2307897
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2307897
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2307897
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2307898
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2307898
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2307898
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2307898
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2307912
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2307903
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2307902
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2307903
EPA 8270E	PCBs in water matrices by GC/MS/MS	2307902
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2307902
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2307900
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2307901
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2307897
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2307897

Reference Method Descriptions

Method	Description	Associated Samples
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2307897
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2307897
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2307898

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	02/24/2022			02/24/2022 17:04	Anna M. Plaviak	2307897
EPA 180.1 Rev. 2.0	02/24/2022			02/24/2022 18:12	Khloe J Berg	2307897
EPA 300.0 Rev. 2.1	02/24/2022			03/16/2022 18:51	Anna M. Plaviak	2307897
	02/24/2022			03/16/2022 19:03	Anna M. Plaviak	2307897
EPA 350.1 Rev. 2.0	02/24/2022			03/03/2022 12:31	Ping Hua	2307898
EPA 351.2 Rev. 2.0	02/24/2022	02/28/2022 11:50	Alexandra J Mattheus	03/02/2022 15:36	Alexandra J Mattheus	2307898
EPA 353.2 Rev. 2.0	02/24/2022			03/08/2022 10:43	Beverly Y. Sanders	2307898
EPA 365.1 Rev. 2.0	02/24/2022	03/04/2022 14:00	Simonne.V. Calhoun	03/07/2022 14:31	Sarah A Nixon	2307898
EPA 365.1 Rev. 2.0 dissolved	02/24/2022			02/24/2022 16:11	James L Waggerby	2307912
EPA 8270E	02/24/2022	02/28/2022 08:00	Fe-Val Siddell	03/05/2022 00:55	Michael Poppell	2307903
	02/24/2022	02/28/2022 08:00	Fe-Val Siddell	03/09/2022 19:29	Michael Poppell	2307903
	02/24/2022	02/28/2022 08:00	Fe-Val Siddell	03/11/2022 19:46	Lipi Saha	2307903
	02/24/2022	03/02/2022 08:30	Rasheda Ghaffari	03/07/2022 19:52	Julie Wi	2307902
	02/24/2022	03/02/2022 08:30	Rasheda Ghaffari	03/08/2022 20:35	Julie Wi	2307902
	02/24/2022	03/10/2022 08:00	Julie Wi	03/15/2022 21:58	Julie Wi	2307902
EPA 8276	02/24/2022	03/02/2022 08:30	Rasheda Ghaffari	03/05/2022 01:32	Arthur Maknenko	2307902
EPA 8321B	02/24/2022	02/24/2022 15:00	June Rhew	02/26/2022 17:07	Juyoung Kim	2307901
	02/24/2022	02/25/2022 09:00	June Rhew	02/26/2022 01:32	Juyoung Kim	2307900
	02/24/2022	03/01/2022 10:35	Umesh Chiluwal	03/01/2022 11:51	Umesh Chiluwal	2307901
	02/24/2022	03/01/2022 10:35	Umesh Chiluwal	03/01/2022 14:36	Umesh Chiluwal	2307901
SM 2320 B-2011	02/24/2022			03/03/2022 03:41	Dale L. Simmons	2307897
SM 2540 C-2011	02/24/2022			03/02/2022 10:09	Yijie Li	2307897
SM 2540 D-2011	02/24/2022			03/02/2022 10:09	Yijie Li	2307897
SM 4500 F-C-2011	02/24/2022			03/03/2022 03:41	Dale L. Simmons	2307897
SM 5310 B-2011	02/24/2022			03/05/2022 00:58	Touraj Touran	2307898