Chemical Analysis Report

CEN-DIST-2022-08-03-02

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

Event Description: **Volusia Blue and Little Haw**
Request ID: **RQ-2022-08-01-36**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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3319 Maguire Blvd., Suite 232
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant Date Certified: 22-AUG-2022 11:07

NON-CONFORMANCE REPORT INCLUDED

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: Little Haw Creek @ 10m Upstream of SR11 **Collection Date/Time: 08/02/2022 12:45**

Field ID: G2CE0066 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2345541	DEP SOP: NU-094-1	Color (true)	530		PCU	P417582	
	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P417588	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P417883	
		Sulfate	0.22	I	mg SO4/L	P417888	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P417842	
	SM 2540 C-2011	TDS	129		mg/L	P417987	
	SM 2540 D-2011	TSS	5	I	mg/L	P418066	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P417847	
2345542	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P417776	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P417796	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013		mg N/L	P417718	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P417785	
	SM 5310 B-2011	Organic Carbon	51		mg C/L	P417763	
2345550	EPA 200.7 Rev. 4.4	Calcium	5.58		mg/L	P417687	
		Iron	1.00E+03		ug/L	P417687	
		Magnesium	1.54		mg/L	P417687	
		Potassium	0.30	U	mg/L	P417687	
		Sodium	9.7		mg/L	P417687	
		Strontium	29.7		ug/L	P417687	
		Tin	3.0	U	ug/L	P417687	
		Titanium	1.6	I	ug/L	P417687	
		Vanadium	2.0	U	ug/L	P417687	
		Zinc	5.0	U	ug/L	P417687	
	EPA 200.8 Rev. 5.4	Aluminum	524		ug/L	P417687	
		Antimony	0.050	U	ug/L	P417687	
		Arsenic	0.59		ug/L	P417687	
		Barium	10.9		ug/L	P417687	
		Beryllium	0.024	I	ug/L	P417687	
		Boron	24.1		ug/L	P417687	
		Cadmium	0.020	U	ug/L	P417687	
		Chromium	0.71	I	ug/L	P417687	
		Cobalt	0.262		ug/L	P417687	
		Copper	0.40	U	ug/L	P417687	
		Lead	0.46		ug/L	P417687	
		Manganese	10.6		ug/L	P417687	
		Molybdenum	0.15	U	ug/L	P417687	
		Nickel	0.53	I	ug/L	P417687	
		Selenium	0.20	U	ug/L	P417687	
		Silver	0.010	U	ug/L	P417687	
		Thallium	0.10	U	ug/L	P417687	
	SM 2340 B-2011	Hardness	20.3		mg/L	P417687	

Field ID: G2CE0066 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes

Ref. Method and Comment:
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for potassium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.
EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: Volusia Blue Spring near vent **Collection Date/Time: 08/02/2022 11:12**

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2345539	DEP SOP: NU-094-1	Color (true)	3.7	I	PCU	P417582	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	I	NTU	P417588	
	EPA 300.0 Rev. 2.1	Chloride	320		mg Cl/L	P417883	
		Sulfate	54		mg SO4/L	P417888	
	SM 2320 B-2011	Total Alkalinity	150	A	mg CaCO3/L	P417842	
	SM 2540 C-2011	TDS	678		mg/L	P417987	
	SM 2540 D-2011	TSS	2	U	mg/L	P418066	
	SM 4500-F- C-2011	Fluoride	0.080	I	mg F/L	P417847	
2345540	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P417776	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.15	I J	mg N/L	P417712	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.74		mg N/L	P417718	
	EPA 365.1 Rev. 2.0	Total-P	0.068		mg P/L	P417785	
	SM 5310 B-2011	Organic Carbon	1.8		mg C/L	P417763	
2345546	EPA 8321B	Aldicarb	0.020	UY	ug/L	P417651	
		Aldicarb Sulfone	0.0020	UY	ug/L	P417651	
		Aldicarb Sulfoxide	0.0020	UY	ug/L	P417651	MS
		Carbaryl	0.0020	UY	ug/L	P417651	
		Carbofuran	0.0020	UY	ug/L	P417651	
		3-Hydroxycarbofuran	0.0020	UY	ug/L	P417651	
		Methiocarb	0.0020	UY	ug/L	P417651	
		Methomyl	0.0020	UY	ug/L	P417651	
		Oxamyl	0.0020	UY	ug/L	P417651	
		Propoxur	0.0020	UY	ug/L	P417651	
2345547		2,4-D	0.0020	U	ug/L	P417606	
		Acesulfame K	0.10	U	ug/L	P417520	
		2,4,5-T	0.0040	U	ug/L	P417606	
		AMPA	0.10	U	ug/L	P417520	
		Acetaminophen	0.0080	U	ug/L	P417606	
		Acetamiprid	0.0020	U	ug/L	P417606	
		Endothall	0.25	U	ug/L	P417520	
		Glufosinate	0.10	U	ug/L	P417520	
		Glyphosate	0.10	U	ug/L	P417520	
		Afidopyropen	0.0020	U	ug/L	P417606	
		Bentazon	0.029		ug/L	P417606	
		Sucralose	0.49		ug/L	P417520	
		Benzovindiflupyr	0.0020	U	ug/L	P417606	
		Carbamazepine	0.0029	I	ug/L	P417606	
		Clothianidin	0.0051	I	ug/L	P417606	
		Dinotefuran	0.0020	U	ug/L	P417606	
		Diuron	0.0020	U	ug/L	P417606	
		Fenuron	0.032	U	ug/L	P417606	
		Fluridone	8.0E-04	U	ug/L	P417606	
		Imazapyr	0.0096	I	ug/L	P417606	
		Hydrocodone	0.0020	U	ug/L	P417606	

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2345547	EPA 8321B	Ibuprofen	0.080	U	ug/L	P417606	
		Imidacloprid	0.0026	I	ug/L	P417606	
		Linuron	0.0040	U	ug/L	P417606	
		Mandestrobin	0.0020	U	ug/L	P417606	
		MCPP	0.0040	U	ug/L	P417606	
		Naproxen	0.0080	U	ug/L	P417606	
		Primidone	0.0040	U	ug/L	P417606	
		Pyraclostrobin	0.0020	U	ug/L	P417606	
		Silvex	0.0040	U	ug/L	P417606	
		Thiamethoxam	0.0020	U	ug/L	P417606	
		Tolfenpyrad	0.0020	U	ug/L	P417606	
		Triclopyr	0.0040	U	ug/L	P417606	
2345548	EPA 8270E	Aldrin	0.69	U	ng/L	P417747	
		Alpha-BHC	0.11	U	ng/L	P417747	
		Alpha-Chlordane	0.28	I	ng/L	P417747	
		PCB-1016	2.1	U	ng/L	P417747	
		Beta-BHC	0.11	U	ng/L	P417747	
		PCB-1221	2.1	U	ng/L	P417747	
		Beta-Cyfluthrin	1.3	U	ng/L	P417747	
		PCB-1232	2.1	U	ng/L	P417747	
		Bifenthrin	0.53	U	ng/L	P417747	
		PCB-1242	2.1	U	ng/L	P417747	
		PCB-1248	2.1	U	ng/L	P417747	
		Chlorothalonil	1.3	U	ng/L	P417747	
		PCB-1254	2.1	U	ng/L	P417747	
		Cis-Nonachlor	0.21	U	ng/L	P417747	
		PCB-1260	2.1	U	ng/L	P417747	
		Cypermethrin	1.6	U	ng/L	P417747	
		Dacthal	0.16	U	ng/L	P417747	
		DDD-p,p'	0.31	I	ng/L	P417747	
		DDE-p,p'	0.42	I	ng/L	P417747	
		DDT-p,p'	0.32	I	ng/L	P417747	
		Delta-BHC	0.43	U	ng/L	P417747	
		Deltamethrin	1.3	U	ng/L	P417747	
		Dichlobenil	0.27	U	ng/L	P417747	
		Dicofol	1.3	U	ng/L	P417747	
		Dieldrin	2.2		ng/L	P417747	
		Endosulfan I	0.43	U	ng/L	P417747	
		Endosulfan II	0.43	U	ng/L	P417747	
		Endosulfan Sulfate	0.32	U	ng/L	P417747	
		Endrin	0.43	U	ng/L	P417747	
		Endrin Aldehyde	0.80	U	ng/L	P417747	
		Endrin Ketone	0.43	U	ng/L	P417747	
		Esfenvalerate	0.80	U	ng/L	P417747	
		Ethalfluralin	0.16	U	ng/L	P417747	

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2345548	EPA 8270E	Fenpropathrin	0.27	U	ng/L	P417747	
		Gamma-BHC	0.13	U	ng/L	P417747	
		Gamma-Chlordane	0.25	I	ng/L	P417747	
		Heptachlor	0.21	U	ng/L	P417747	
		Heptachlor Epoxide	0.27	U	ng/L	P417747	
		Hexachlorobenzene**	1.1	U	ng/L	P417747	
		Kepone	7.2	I J	ng/L	P417747	CCV
		Lambda-Cyhalothrin	0.80	U	ng/L	P417747	
		Methoprene	0.80	U	ng/L	P417747	
		Methoxychlor	0.32	U	ng/L	P417747	
		MGK-264	0.21	U	ng/L	P417747	
		Mirex	0.37	U	ng/L	P417747	
		Oxychlordane	0.32	U	ng/L	P417747	
		Permethrin	1.7	U	ng/L	P417747	
		Phenothrin	0.96	U	ng/L	P417747	
		Piperonyl Butoxide	0.16	U	ng/L	P417747	
		Prallethrin	2.1	U	ng/L	P417747	
		Tau-Fluvalinate	0.27	U	ng/L	P417747	
		Tetramethrin	0.80	U	ng/L	P417747	
		Trans-Nonachlor	0.21	U	ng/L	P417747	
		Triclosan Methyl	0.16	U	ng/L	P417747	
		Trifluralin	0.21	U	ng/L	P417747	
	EPA 8276	Chlordane	2.7	U	ng/L	P417747	
		Toxaphene	16	U	ng/L	P417747	
2345549	EPA 8270E	Oxybenzone**	9.5	U	ng/L	P417604	
		Acetochlor	0.24	U	ng/L	P417604	
		Octinoxate**	19	U	ng/L	P417604	
		Alachlor	0.24	U	ng/L	P417604	
		Avobenzone**	95	U	ng/L	P417604	
		Ametryn	0.57	U	ng/L	P417604	
		Atrazine	0.78	I	ng/L	P417604	
		PBDE-47**	3.8	U	ng/L	P417604	
		Atrazine Desethyl	1.4	U	ng/L	P417604	
		PBDE-99**	4.8	U	ng/L	P417604	
		Azinphos Methyl	1.9	U	ng/L	P417604	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P417604	
		Azoxystrobin	0.48	U	ng/L	P417604	
		Bromacil	0.48	U	ng/L	P417604	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P417604	
		Butylate	0.38	U	ng/L	P417604	
		Caffeine**	7.1	U	ng/L	P417604	
		Carbophenothion	0.19	U	ng/L	P417604	
		Carfentrazone Ethyl	0.095	U	ng/L	P417604	
		Chlorfenapyr	0.17	U	ng/L	P417604	

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2345549	EPA 8270E	Chlorpyrifos Ethyl	0.24	U	ng/L	P417604	
		Chlorpyrifos Methyl	0.048	U	ng/L	P417604	
		Coumaphos	0.48	U	ng/L	P417604	
		Cyanazine	3.1	U	ng/L	P417604	
		Cyprodinil	0.095	U	ng/L	P417604	
		Demeton	1.4	U	ng/L	P417604	
		Diazinon	0.12	U	ng/L	P417604	
		Difenoconazole	0.57	U	ng/L	P417604	
		Dimethenamid	0.095	U	ng/L	P417604	
		Dimethomorph	0.17	U	ng/L	P417604	
		Disulfoton	0.48	U	ng/L	P417604	
		Dithiopyr	0.17	U	ng/L	P417604	
		EPTC	1.2	U	ng/L	P417604	
		Ethion	0.14	UJ	ng/L	P417604	LCS
		Ethoprop	0.095	U	ng/L	P417604	
		Etridiazole	0.14	U	ng/L	P417604	
		Fenamiphos	0.48	U	ng/L	P417604	
		Fenbuconazole	0.12	U	ng/L	P417604	
		Fipronil	0.24	U	ng/L	P417604	
		Fipronil Desulfinyl**	0.12	U	ng/L	P417604	
		Fipronil Sulfide	0.14	U	ng/L	P417604	
		Fipronil Sulfone	0.46	I	ng/L	P417604	
		Fluazifop-P-butyl	0.095	U	ng/L	P417604	
		Fludioxonil	0.12	U	ng/L	P417604	
		Flumioxazin	1.7	U	ng/L	P417604	
		Flutolanil	0.095	U	ng/L	P417604	
		Fluxapyroxad	0.095	U	ng/L	P417604	
		Fonofos	0.19	U	ng/L	P417604	
		Hexazinone	0.48	U	ng/L	P417604	
		Imazalil	0.71	U	ng/L	P417604	
		Iprodione	0.57	U	ng/L	P417604	
		Loratadine**	0.095	U	ng/L	P417604	MS
		Malathion	0.33	U	ng/L	P417604	
		Metalaxyl	0.71	U	ng/L	P417604	
		Metolachlor	0.33	U	ng/L	P417604	
		Metribuzin	2.4	U	ng/L	P417604	
		Mevinphos	1.0	U	ng/L	P417604	
		Molinate	0.29	U	ng/L	P417604	
		Myclobutanil	0.24	U	ng/L	P417604	
		Naled	1.4	U	ng/L	P417604	
		Napropamide	0.38	U	ng/L	P417604	
		Norflurazon	0.48	U	ng/L	P417604	
		Oxadiazon	0.29	U	ng/L	P417604	
		Oxyfluorfen	0.14	U	ng/L	P417604	
		Parathion Ethyl	0.24	U	ng/L	P417604	

Field ID: G2CE0242 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2345549	EPA 8270E	Parathion Methyl	0.52	U	ng/L	P417604	
		Pendimethalin	0.95	U	ng/L	P417604	
		Phenytoin**	3.3	U	ng/L	P417604	MS
		Phorate	0.50	U	ng/L	P417604	
		Prodiamine	0.17	U	ng/L	P417604	
		Prometon	0.86	U	ng/L	P417604	
		Prometryn	0.19	U	ng/L	P417604	
		Pronamide	0.14	U	ng/L	P417604	
		Propanil	0.12	U	ng/L	P417604	
		Propargite	1.4	UJ	ng/L	P417604	LCS
		Propiconazole	0.48	U	ng/L	P417604	
		Pyraflufen Ethyl	0.24	U	ng/L	P417604	
		Pyridaben	0.43	U	ng/L	P417604	
		Pyriproxyfen	0.12	U	ng/L	P417604	
		Simazine	0.48	U	ng/L	P417604	
		Stirophos	0.12	U	ng/L	P417604	
		Sulfentrazone	20		ng/L	P417604	
		Tebuconazole	0.48	U	ng/L	P417604	
		Terbufos	0.095	U	ng/L	P417604	
		Terbuthylazine	0.41	U	ng/L	P417604	
		Thiobencarb	0.57	U	ng/L	P417604	
		Triadimefon	0.24	U	ng/L	P417604	

Ref. Method and Comment:
EPA 351.2 Rev. 2.0: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Non-Conformance Report

NCR ID: 9496

Event(s)	Job(s)	Sample(s)	Test(s)
CEN-DIST-2022-08-03-02	TLH-2022-08-03-46	2345546	

NCR Type: SHIPPING/RECEIVING **NCR Category: Sample Integrity**

Observation: Sample received with expired MCAA Buffer solution

Resolution: The appropriate supervisor was notified.
Data will be qualified as appropriate.

Authorized by/Date: Kyle Klug 8/8/2022

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P417582

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P417588

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417687

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417687

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P417883

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: P417888

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417776

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417712

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417796

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417718

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417785

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

Reference Method: EPA 8270E
Batch ID: P417604

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P417604

Component	Result	Code	Units
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P417604

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P417604

Component	Result	Code	Units
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
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	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
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
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P417604

Component	Result	Code	Units
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8270E
Batch ID: P417747

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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P417747

Component	Result	Code	Units
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
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P417747

Component	Result	Code	Units
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: P417747

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: P417520

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

Reference Method: EPA 8321B
Batch ID: P417606

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P417606

Component	Result	Code	Units
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: EPA 8321B
Batch ID: P417651

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

Reference Method: SM 2320 B-2011
Batch ID: P417842

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

Reference Method: SM 2540 C-2011
Batch ID: P417987

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P418066

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P417847

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P417763

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: P417582

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P417588

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417687

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	109		P	85 - 115
Magnesium	112		P	85 - 115
Potassium	107		P	85 - 115
Sodium	97.6		P	85 - 115
Strontium	106		P	85 - 115
Tin	102		P	85 - 115
Titanium	106		P	85 - 115
Vanadium	104		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417687

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	94.6		P	80 - 120
Antimony	100		P	80 - 120
Arsenic	97.0		P	80 - 120
Barium	102		P	80 - 120
Beryllium	91.3		P	80 - 120
Boron	95.5		P	80 - 120
Cadmium	96.4		P	80 - 120
Chromium	96.3		P	80 - 120
Cobalt	94.7		P	80 - 120
Copper	92.2		P	80 - 120
Lead	93.3		P	80 - 120
Manganese	96.6		P	80 - 120
Molybdenum	94.3		P	80 - 120
Nickel	94.8		P	80 - 120
Selenium	95.0		P	80 - 120
Silver	97.0		P	80 - 120
Thallium	93.5		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P417883

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P417888

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417776

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417712

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417796

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417718

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417785

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

Reference Method: EPA 8270E
Batch ID: P417604

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	73.2		P	50 - 150
Acetochlor	107		P	70 - 121
Alachlor	103		P	68 - 119
Ametryn	133		P	64 - 139
Atrazine	110		P	76 - 120
Atrazine Desethyl	87.2		P	44 - 126
Avobenzone	72.3		P	59 - 206
Azinphos Methyl	103		P	43 - 192
Azoxystrobin	146		P	36 - 224
Bromacil	82.1		P	52 - 121
Butylate	48.6		P	28 - 91.0
Caffeine	83.7		P	50 - 134
Carbophenothion	70.0		P	56 - 129
Carfentrazone Ethyl	105		P	60 - 141
Chlorfenapyr	66.8		P	56 - 115
Chlorpyrifos Ethyl	113		P	60 - 118

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P417604

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	89.9		P	68 - 119
Coumaphos	45.4		P	18 - 250
Cyanazine	92.9		P	61 - 250
Cyprodinil	126		P	55 - 145
Demeton	115		P	30 - 159
Diazinon	110		P	70 - 123
Difenoconazole	118		P	49 - 204
Dimethenamid	75.9		P	64 - 115
Dimethomorph	113		P	12 - 219
Disulfoton	104		P	44 - 125
Dithiopyr	104		P	64 - 115
EPTC	58.0		P	28 - 86.0
Ethion	19.3		F	33 - 125
Ethoprop	112		P	64 - 116
Etridiazole	69.3		P	34 - 91.0
Fenamiphos	71.8		P	12 - 127
Fenbuconazole	78.6		P	59 - 151
Fipronil	98.9		P	67 - 129
Fipronil Desulfinyl	102		P	65 - 127
Fipronil Sulfide	93.8		P	61 - 116
Fipronil Sulfone	89.7		P	55 - 117
Fluazifop-P-butyl	104		P	62 - 127
Fludioxonil	65.1		P	62 - 128
Flumioxazin	60.6		P	33 - 250
Flutolanil	85.4		P	56 - 127
Fluxapyroxad	50.7		P	45 - 128
Fonofos	106		P	62 - 111
Hexazinone	87.7		P	46 - 139
Imazalil	70.8		P	38 - 142
Iprodione	71.5		P	47 - 135
Loratadine	218		P	10 - 244
Malathion	104		P	61 - 139
Metalaxyl	102		P	10 - 119
Metolachlor	88.0		P	65 - 118
Metribuzin	112		P	51 - 250
Mevinphos	94.2		P	53 - 121
Molinate	67.0		P	42 - 96.0
Myclobutanil	88.1		P	55 - 128
Naled	65.7		P	10 - 98.0
Napropamide	52.4		P	49 - 121
Norflurazon	80.7		P	61 - 126
Octinoxate	85.6		P	25 - 150
Oxadiazon	90.6		P	59 - 116
Oxybenzone	82.7		P	59 - 147
Oxyfluorfen	96.8		P	64 - 137
Parathion Ethyl	104		P	70 - 112
Parathion Methyl	133		P	76 - 133
PBDE-47	64.2		P	50 - 150
PBDE-99	59.1		P	50 - 150
Pendimethalin	103		P	52 - 117
Phenytoin	15.2		P	10 - 199
Phorate	104		P	48 - 121

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P417604

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prodiamine	50.3		P	26 - 142
Prometon	80.9		P	43 - 123
Prometryn	112		P	66 - 127
Pronamide	115		P	75 - 121
Propanil	93.0		P	45 - 150
Propargite	35.4		F	42 - 208
Propiconazole	81.8		P	60 - 125
Pyraflufen Ethyl	75.1		P	70 - 138
Pyridaben	79.8		P	35 - 245
Pyriproxyfen	33.6		P	30 - 149
Simazine	95.4		P	72 - 125
Stirophos	29.2		P	29 - 164
Sulfentrazone	84.1		P	21 - 139
Tebuconazole	20.0		P	10 - 115
Terbufos	114		P	60 - 123
Terbuthylazine	107		P	72 - 115
Thiobencarb	81.2		P	31 - 139
Tri-o-cresyl Phosphate	78.7		P	50 - 150
Triadimefon	82.8		P	65 - 116

Reference Method: EPA 8270E
Batch ID: P417747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	50.7		P	10 - 92.0
Alpha-BHC	88.5		P	75 - 107
Alpha-Chlordane	64.5		P	50 - 108
Beta-BHC	110		P	36 - 138
Beta-Cyfluthrin	63.0		P	20 - 161
Bifenthrin	40.0		P	10 - 119
Chlorothalonil	91.7		P	26 - 186
Cis-Nonachlor	76.4		P	42 - 119
Cypermethrin	59.8		P	22 - 150
Dacthal	88.7		P	72 - 119
DDD-p,p'	76.8		P	45 - 107
DDE-p,p'	74.5		P	48 - 106
DDT-p,p'	69.7		P	48 - 110
Delta-BHC	125		P	54 - 140
Deltamethrin	73.5		P	22 - 189
Dichlobenil	93.9		P	36 - 117
Dicofol	82.3		P	46 - 155
Dieldrin	77.5		P	54 - 110
Endosulfan I	75.2		P	59 - 105
Endosulfan II	67.0		P	51 - 118
Endosulfan Sulfate	79.0		P	57 - 121
Endrin	73.8		P	10 - 120
Endrin Aldehyde	83.3		P	34 - 118
Endrin Ketone	105		P	69 - 177
Esfenvalerate	57.4		P	23 - 168
Ethalfluralin	67.2		P	49 - 99.0
Fenpropathrin	63.6		P	34 - 117
Gamma-BHC	105		P	72 - 117

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P417747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-Chlordane	69.2		P	43 - 106
Heptachlor	64.9		P	41 - 98.0
Heptachlor Epoxide	73.3		P	57 - 106
Hexachlorobenzene	68.9		P	36 - 99.0
Kepone	38.4		P	16 - 215
Lambda-Cyhalothrin	46.0		P	21 - 177
Methoprene	42.7		P	10 - 119
Methoxychlor	82.6		P	60 - 112
MGK-264	80.3		P	26 - 122
Mirex	46.2		P	10 - 169
Oxychlordane	66.4		P	43 - 105
PCB-1016	84.2		P	48 - 112
PCB-1260	85.9		P	44 - 118
Permethrin	60.6		P	24 - 148
Phenothrin	40.9		P	10 - 106
Piperonyl Butoxide	97.0		P	10 - 139
Prallethrin	84.3		P	17 - 109
Tau-Fluvalinate	49.1		P	13 - 131
Tetramethrin	78.6		P	10 - 132
Trans-Nonachlor	64.3		P	44 - 106
Triclosan Methyl	74.6		P	59 - 109
Trifluralin	67.7		P	44 - 101

Reference Method: EPA 8276
Batch ID: P417747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	99.0		P	61 - 116
Toxaphene	98.1		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P417520

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.6		P	40 - 150
AMPA	111		P	40 - 150
Endothall	90.8		P	40 - 150
Glufosinate	111		P	40 - 150
Glyphosate	110		P	40 - 150
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	101		P	40 - 150
2,4,5-T	100		P	40 - 150
Acetaminophen	34.6		P	30 - 150
Acetamiprid	88.1		P	40 - 150
Afidopyropen	76.3		P	30 - 150
Bentazon	102		P	30 - 150
Benzovindiflupyr	94.5		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P417606

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	101		P	40 - 150
Clothianidin	98.8		P	40 - 150
Dinotefuran	102		P	40 - 150
Diuron	89.5		P	40 - 150
Fenuron	96.6		P	40 - 150
Fluridone	100		P	40 - 150
Hydrocodone	96.5		P	40 - 150
Ibuprofen	87.3		P	40 - 150
Imazapyr	114		P	40 - 150
Imidacloprid	106		P	40 - 150
Linuron	88.6		P	40 - 150
Mandestrobin	97.8		P	40 - 150
MCPP	106		P	40 - 150
Naproxen	73.4		P	40 - 150
Primidone	98.5		P	40 - 150
Pyraclostrobin	90.1		P	40 - 150
Silvex	97.5		P	40 - 150
Thiamethoxam	104		P	40 - 150
Tolfenpyrad	54.1		P	30 - 150
Triclopyr	85.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417651

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	101		P	40 - 150
Aldicarb	56.9		P	30 - 150
Aldicarb Sulfone	110		P	40 - 150
Aldicarb Sulfoxide	88.2		P	40 - 150
Carbaryl	98.3		P	40 - 150
Carbofuran	88.1		P	40 - 150
Methiocarb	93.4		P	40 - 150
Methomyl	89.3		P	40 - 150
Oxamyl	98.7		P	40 - 150
Propoxur	92.0		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P417842

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P417847

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

Reference Method: SM 5310 B-2011
Batch ID: P417763

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P417763

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.4		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346296	Calcium	103		P	80 - 120
2346296	Iron	109	107	P/P	80 - 120
2346296	Magnesium	110	105	P/P	80 - 120
2346296	Potassium	101	96.9	P/P	80 - 120
2346296	Sodium	98.1		P	80 - 120
2346296	Strontium	101	99.6	P/P	80 - 120
2346296	Tin	103	102	P/P	80 - 120
2346296	Titanium	106	103	P/P	80 - 120
2346296	Vanadium	105	102	P/P	80 - 120
2346296	Zinc	103	100	P/P	80 - 120
2346340	Calcium	103		P	80 - 120
2346340	Iron	109		P	80 - 120
2346340	Magnesium	107		P	80 - 120
2346340	Sodium	101		P	80 - 120
2346340	Strontium	100		P	80 - 120
2346340	Tin	102		P	80 - 120
2346340	Titanium	105		P	80 - 120
2346340	Vanadium	104		P	80 - 120
2346340	Zinc	99.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346296	Aluminum	95.7	95.3	P/P	80 - 120
2346296	Antimony	101	102	P/P	80 - 120
2346296	Arsenic	98.6	98.7	P/P	80 - 120
2346296	Barium	102	101	P/P	80 - 120
2346296	Beryllium	94.4	93.1	P/P	80 - 120
2346296	Boron	96.5	95.6	P/P	80 - 120
2346296	Cadmium	97.4	96.5	P/P	80 - 120
2346296	Chromium	97.5	98.2	P/P	80 - 120
2346296	Cobalt	94.7	94.8	P/P	80 - 120
2346296	Copper	94.3	95.3	P/P	80 - 120
2346296	Lead	93.7	93.2	P/P	80 - 120
2346296	Manganese	97.6	97.9	P/P	80 - 120
2346296	Molybdenum	95.1	94.2	P/P	80 - 120
2346296	Nickel	93.7	94.8	P/P	80 - 120
2346296	Selenium	95.4	95.1	P/P	80 - 120
2346296	Silver	95.2	95.2	P/P	80 - 120
2346296	Thallium	96.1	95.9	P/P	80 - 120
2346340	Aluminum	99.2		P	80 - 120
2346340	Antimony	104		P	80 - 120
2346340	Arsenic	100		P	80 - 120
2346340	Barium	103		P	80 - 120
2346340	Beryllium	91.2		P	80 - 120
2346340	Cadmium	99.9		P	80 - 120
2346340	Chromium	100		P	80 - 120
2346340	Cobalt	97.7		P	80 - 120
2346340	Copper	94.2		P	80 - 120
2346340	Lead	95.5		P	80 - 120
2346340	Manganese	100		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346340	Molybdenum	99.3		P	80 - 120
2346340	Nickel	95.5		P	80 - 120
2346340	Selenium	97.2		P	80 - 120
2346340	Silver	96.6		P	80 - 120
2346340	Thallium	97.5		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P417883

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345590	Chloride	94.8		P	90 - 110
2345594	Chloride	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P417888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345590	Sulfate	97.3		P	90 - 110
2345594	Sulfate	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417776

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345595	Ammonia-N	98.2	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345540	Kjeldahl Nitrogen	85.6	86.6	F/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417796

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345668	Kjeldahl Nitrogen	94.4	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417718

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345419	NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417785

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345575	Total-P	103	104	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P417604

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345169	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	91.7	91.9	P/P	50 - 150
2345169	Acetochlor	111	101	P/P	65 - 124
2345169	Alachlor	99.2	90.5	P/P	61 - 121
2345169	Ametryn	115	103	P/P	52 - 216
2345169	Atrazine Desethyl	70.2	67.2	P/P	15 - 160
2345169	Avobenzone	85.2	90.0	P/P	59 - 206
2345169	Azinphos Methyl	114	101	P/P	40 - 292
2345169	Azoxystrobin	144	129	P/P	12 - 242
2345169	Bromacil	81.3	72.2	P/P	54 - 167
2345169	Butylate	50.3	52.5	P/P	14 - 94.0
2345169	Caffeine	92.7	87.4	P/P	10 - 226
2345169	Carbophenothion	72.0	70.1	P/P	49 - 122
2345169	Carfentrazone Ethyl	105	90.8	P/P	53 - 138
2345169	Chlorfenapyr	74.1	60.5	P/P	50 - 150
2345169	Chlorpyrifos Ethyl	93.6	83.4	P/P	52 - 122
2345169	Chlorpyrifos Methyl	99.0	94.6	P/P	66 - 117
2345169	Coumaphos	68.8	60.6	P/P	50 - 220
2345169	Cyanazine	116	106	P/P	43 - 245
2345169	Cyprodinil	108	94.4	P/P	50 - 150
2345169	Demeton	123	115	P/P	43 - 188
2345169	Diazinon	104	102	P/P	69 - 131
2345169	Difenoconazole	158	151	P/P	34 - 231
2345169	Dimethenamid	84.5	77.9	P/P	55 - 118
2345169	Dimethomorph	126	113	P/P	50 - 150
2345169	Disulfoton	109	96.8	P/P	38 - 141
2345169	Dithiopyr	104	94.3	P/P	42 - 116
2345169	EPTC	54.3	55.5	P/P	18 - 85.0
2345169	Ethion	44.9	45.9	P/P	10 - 131
2345169	Ethoprop	113	107	P/P	65 - 129
2345169	Etridiazole	66.0	62.2	P/P	50 - 150
2345169	Fenamiphos	72.1	81.1	P/P	31 - 137
2345169	Fenbuconazole	92.2	83.8	P/P	57 - 160
2345169	Fipronil	100	92.0	P/P	62 - 132
2345169	Fipronil Desulfinyl	111	99.1	P/P	57 - 131
2345169	Fipronil Sulfide	95.1	91.6	P/P	15 - 138
2345169	Fipronil Sulfone	79.2	69.3	P/P	21 - 134
2345169	Fluazifop-P-butyl	104	90.7	P/P	54 - 133
2345169	Fludioxonil	92.2	77.7	P/P	58 - 127
2345169	Flumioxazin	114	106	P/P	33 - 300
2345169	Flutolanil	107	94.6	P/P	42 - 130
2345169	Fluxapyroxad	80.2	76.4	P/P	23 - 141
2345169	Fonofos	102	96.6	P/P	58 - 119
2345169	Hexazinone	106	96.3	P/P	68 - 172
2345169	Imazalil	87.5	91.4	P/P	48 - 283
2345169	Iprodione	85.5	78.9	P/P	38 - 140
2345169	Loratadine	160	143	F/P	50 - 150
2345169	Malathion	119	108	P/P	40 - 137
2345169	Metalaxyl	99.6	91.3	P/P	21 - 129
2345169	Metolachlor	102	98.4	P/P	55 - 122
2345169	Metribuzin	113	104	P/P	38 - 187
2345169	Mevinphos	95.6	91.1	P/P	54 - 134
2345169	Molinate	69.1	68.0	P/P	41 - 97.0

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P417604

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345169	Myclobutanil	106	89.6	P/P	56 - 125
2345169	Naled	74.1	78.8	P/P	10 - 108
2345169	Napropamide	70.8	68.6	P/P	50 - 150
2345169	Norflurazon	87.3	85.4	P/P	32 - 122
2345169	Octinoxate	84.1	84.3	P/P	25 - 150
2345169	Oxadiazon	85.4	82.4	P/P	40 - 119
2345169	Oxybenzone	77.4	85.7	P/P	59 - 147
2345169	Oxyfluorfen	101	99.7	P/P	61 - 153
2345169	Parathion Ethyl	101	98.4	P/P	59 - 130
2345169	Parathion Methyl	138	127	P/P	65 - 155
2345169	PBDE-47	75.6	75.6	P/P	50 - 150
2345169	PBDE-99	73.1	74.7	P/P	50 - 150
2345169	Pendimethalin	104	99.4	P/P	49 - 138
2345169	Phenytoin	28.9	28.6	F/F	50 - 200
2345169	Phorate	83.1	84.5	P/P	54 - 161
2345169	Prodiamine	56.6	47.4	P/P	33 - 161
2345169	Prometon	90.9	86.0	P/P	48 - 140
2345169	Prometryn	108	96.2	P/P	55 - 134
2345169	Pronamide	126	116	P/P	66 - 137
2345169	Propanil	102	92.6	P/P	50 - 150
2345169	Propargite	57.0	55.9	P/P	50 - 200
2345169	Propiconazole	92.1	84.4	P/P	36 - 150
2345169	Pyraflufen Ethyl	88.7	78.0	P/P	50 - 150
2345169	Pyridaben	75.3	66.8	P/P	50 - 200
2345169	Pyriproxyfen	66.4	69.4	P/P	10 - 165
2345169	Simazine	104	95.3	P/P	57 - 145
2345169	Stirophos	50.9	53.4	P/P	50 - 150
2345169	Sulfentrazone	89.3	80.4	P/P	34 - 140
2345169	Tebuconazole	46.1	44.5	P/P	10 - 127
2345169	Terbufos	130	118	P/P	59 - 138
2345169	Terbuthylazine	104	93.8	P/P	68 - 119
2345169	Thiobencarb	93.0	85.8	P/P	50 - 150
2345169	Tri-o-cresyl Phosphate	81.1	80.1	P/P	50 - 150
2345169	Triadimefon	97.5	90.3	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P417747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345548	Aldrin	55.4	60.9	P/P	20 - 82.0
2345548	Alpha-BHC	91.1	88.4	P/P	71 - 109
2345548	Alpha-Chlordane	62.8	58.9	P/P	42 - 106
2345548	Beta-BHC	98.8	111	P/P	69 - 180
2345548	Beta-Cyfluthrin	89.7	125	P/P	18 - 175
2345548	Bifenthrin	77.1	79.3	P/P	21 - 128
2345548	Chlorothalonil	95.4	152	P/P	10 - 300
2345548	Cis-Nonachlor	69.9	85.6	P/P	34 - 106
2345548	Cypermethrin	83.9	108	P/P	22 - 158
2345548	Dacthal	94.8	93.9	P/P	54 - 116
2345548	DDD-p,p'	56.6	75.8	P/P	34 - 107
2345548	DDE-p,p'	60.9	62.5	P/P	33 - 110
2345548	DDT-p,p'	76.2	64.6	P/P	50 - 122

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P417747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345548	Delta-BHC	117	142	P/P	77 - 193
2345548	Deltamethrin	100	126	P/P	10 - 195
2345548	Dichlobenil	68.1	69.3	P/P	25 - 113
2345548	Dicofol	97.8	97.2	P/P	38 - 247
2345548	Dieldrin	72.0	76.9	P/P	45 - 118
2345548	Endosulfan I	73.1	81.2	P/P	51 - 106
2345548	Endosulfan II	63.4	79.8	P/P	37 - 122
2345548	Endosulfan Sulfate	76.2	94.7	P/P	43 - 132
2345548	Endrin	71.5	85.8	P/P	29 - 101
2345548	Endrin Aldehyde	64.3	71.4	P/P	19 - 110
2345548	Endrin Ketone	86.2	108	P/P	60 - 140
2345548	Esfenvalerate	81.6	118	P/P	26 - 199
2345548	Ethalfluralin	72.7	78.5	P/P	45 - 99.0
2345548	Fenpropathrin	86.9	91.2	P/P	35 - 120
2345548	Gamma-BHC	100	102	P/P	63 - 128
2345548	Gamma-Chlordane	69.8	65.8	P/P	40 - 104
2345548	Heptachlor	67.3	67.0	P/P	36 - 97.0
2345548	Heptachlor Epoxide	83.6	84.8	P/P	49 - 184
2345548	Hexachlorobenzene	77.9	62.6	P/P	39 - 96.0
2345548	Kepone	34.2	51.9	P/P	10 - 217
2345548	Lambda-Cyhalothrin	76.6	92.7	P/P	21 - 193
2345548	Methoprene	56.9	65.5	P/P	20 - 106
2345548	Methoxychlor	92.7	88.0	P/P	53 - 118
2345548	MGK-264	85.5	95.5	P/P	40 - 118
2345548	Mirex	53.6	57.7	P/P	26 - 92.0
2345548	Oxychlordane	79.6	72.9	P/P	44 - 99.0
2345548	Permethrin	82.4	104	P/P	33 - 182
2345548	Phenothrin	68.6	91.9	P/P	10 - 129
2345548	Piperonyl Butoxide	112	126	P/P	10 - 211
2345548	Prallethrin	80.6	95.1	P/P	24 - 113
2345548	Tau-Fluvalinate	77.7	66.5	P/P	14 - 149
2345548	Tetramethrin	83.0	122	P/P	17 - 151
2345548	Trans-Nonachlor	73.5	69.6	P/P	42 - 102
2345548	Triclosan Methyl	78.5	69.8	P/P	48 - 108
2345548	Trifluralin	74.6	74.2	P/P	47 - 96.0
2345564	PCB-1016	86.5	87.1	P/P	46 - 111
2345564	PCB-1260	84.3	82.1	P/P	45 - 114

Reference Method: EPA 8276
Batch ID: P417747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345564	Chlordane	108	101	P/P	53 - 126
2345564	Toxaphene	126	120	P/P	56 - 211

Reference Method: EPA 8321B
Batch ID: P417520

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345138	Acesulfame K	82.1	84.5	P/P	40 - 150
2345138	AMPA	45.2	43.7	P/P	40 - 150
2345138	Endothall	94.2	97.1	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P417520

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345138	Glufosinate	50.5	48.2	P/P	40 - 150
2345138	Glyphosate	64.2	68.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417606

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345138	2,4-D	86.4	81.9	P/P	40 - 150
2345138	2,4,5-T	72.1	70.0	P/P	40 - 150
2345138	Acetaminophen	34.7	40.0	P/P	30 - 150
2345138	Acetamiprid	75.5	86.4	P/P	40 - 150
2345138	Afidopyropen	85.9	92.4	P/P	30 - 150
2345138	Benzovindiflupyr	94.4	96.5	P/P	40 - 150
2345138	Clothianidin	105	90.5	P/P	40 - 150
2345138	Diuron	72.0	80.8	P/P	40 - 150
2345138	Fenuron	88.1	86.2	P/P	40 - 150
2345138	Fluridone	101	94.4	P/P	40 - 150
2345138	Hydrocodone	104	99.8	P/P	40 - 150
2345138	Ibuprofen	89.7	96.0	P/P	40 - 150
2345138	Imazapyr	64.5	59.9	P/P	40 - 150
2345138	Linuron	121	124	P/P	40 - 150
2345138	Mandestrobin	94.8	92.2	P/P	40 - 150
2345138	MCPP	88.0	81.3	P/P	40 - 150
2345138	Naproxen	53.4	65.6	P/P	40 - 150
2345138	Pyraclostrobin	94.0	92.0	P/P	40 - 150
2345138	Silvex	98.1	90.4	P/P	40 - 150
2345138	Thiamethoxam	134	141	P/P	40 - 150
2345138	Tolfenpyrad	59.7	56.4	P/P	30 - 150
2345138	Triclopyr	75.0	69.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P417651

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345134	3-Hydroxycarbofuran	109	118	P/P	40 - 150
2345134	Aldicarb	70.4	58.0	P/P	30 - 150
2345134	Aldicarb Sulfone	127	134	P/P	40 - 150
2345134	Aldicarb Sulfoxide	39.7	46.5	F/P	40 - 150
2345134	Carbaryl	75.1	68.6	P/P	40 - 150
2345134	Carbofuran	80.0	81.1	P/P	40 - 150
2345134	Methiocarb	87.0	78.0	P/P	40 - 150
2345134	Methomyl	80.7	80.4	P/P	40 - 150
2345134	Oxamyl	97.4	97.1	P/P	40 - 150
2345134	Propoxur	72.9	72.0	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P417847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345539	Fluoride	101	99.5	P/P	94 - 104

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P417763

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345525	Organic Carbon	95.5	95.1	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P417582

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345342	Color (true)	1.37	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P417588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345340	Turbidity	1.54	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346296	Calcium	3.17	Spike	P	0 - 20
2346296	Iron	1.74	Spike	P	0 - 20
2346296	Magnesium	2.86	Spike	P	0 - 20
2346296	Potassium	2.56	Spike	P	0 - 20
2346296	Sodium	3.36	Spike	P	0 - 20
2346296	Strontium	1.87	Spike	P	0 - 20
2346296	Tin	1.45	Spike	P	0 - 20
2346296	Titanium	2.43	Spike	P	0 - 20
2346296	Vanadium	2.71	Spike	P	0 - 20
2346296	Zinc	2.57	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346296	Aluminum	0.438	Spike	P	0 - 20
2346296	Antimony	1.14	Spike	P	0 - 20
2346296	Arsenic	0.0924	Spike	P	0 - 20
2346296	Barium	0.332	Spike	P	0 - 20
2346296	Beryllium	1.29	Spike	P	0 - 20
2346296	Boron	0.652	Spike	P	0 - 20
2346296	Cadmium	0.950	Spike	P	0 - 20
2346296	Chromium	0.642	Spike	P	0 - 20
2346296	Cobalt	0.0197	Spike	P	0 - 20
2346296	Copper	1.11	Spike	P	0 - 20
2346296	Lead	0.480	Spike	P	0 - 20
2346296	Manganese	0.299	Spike	P	0 - 20
2346296	Molybdenum	0.928	Spike	P	0 - 20
2346296	Nickel	1.13	Spike	P	0 - 20
2346296	Selenium	0.282	Spike	P	0 - 20
2346296	Silver	0.0216	Spike	P	0 - 20
2346296	Thallium	0.275	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P417883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345590	Chloride	0.183	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P417888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345590	Sulfate	0.164	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345595	Ammonia-N	0.416	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417712

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345540	Kjeldahl Nitrogen	1.09	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417796

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345668	Kjeldahl Nitrogen	5.33	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417718

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345419	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417785

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345575	Total-P	1.76	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P417604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345169	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	0.160	Spike	P	0 - 30
2345169	Acetochlor	9.24	Spike	P	0 - 27

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P417604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345169	Alachlor	9.17	Spike	P	0 - 27
2345169	Ametryn	10.5	Spike	P	0 - 34
2345169	Atrazine	5.61	Spike	P	0 - 41
2345169	Atrazine Desethyl	3.43	Spike	P	0 - 38
2345169	Avobenzone	5.39	Spike	P	0 - 30
2345169	Azinphos Methyl	12.0	Spike	P	0 - 62
2345169	Azoxystrobin	9.49	Spike	P	0 - 32
2345169	Bromacil	11.9	Spike	P	0 - 30
2345169	Butylate	4.32	Spike	P	0 - 59
2345169	Caffeine	5.87	Spike	P	0 - 60
2345169	Carbophenothion	2.69	Spike	P	0 - 25
2345169	Carfentrazone Ethyl	14.2	Spike	P	0 - 26
2345169	Chlorfenapyr	20.2	Spike	P	0 - 30
2345169	Chlorpyrifos Ethyl	11.5	Spike	P	0 - 27
2345169	Chlorpyrifos Methyl	4.49	Spike	P	0 - 26
2345169	Coumaphos	12.8	Spike	P	0 - 30
2345169	Cyanazine	9.05	Spike	P	0 - 58
2345169	Cyprodinil	13.5	Spike	P	0 - 30
2345169	Demeton	6.18	Spike	P	0 - 25
2345169	Diazinon	2.05	Spike	P	0 - 29
2345169	Difenoconazole	4.64	Spike	P	0 - 25
2345169	Dimethenamid	8.08	Spike	P	0 - 30
2345169	Dimethomorph	11.5	Spike	P	0 - 30
2345169	Disulfoton	11.5	Spike	P	0 - 33
2345169	Dithiopyr	10.1	Spike	P	0 - 22
2345169	EPTC	2.15	Spike	P	0 - 38
2345169	Ethion	2.16	Spike	P	0 - 79
2345169	Ethoprop	6.21	Spike	P	0 - 23
2345169	Etridiazole	5.79	Spike	P	0 - 30
2345169	Fenamiphos	11.7	Spike	P	0 - 58
2345169	Fenbuconazole	9.49	Spike	P	0 - 37
2345169	Fipronil	8.47	Spike	P	0 - 33
2345169	Fipronil Desulfinyl	10.1	Spike	P	0 - 26
2345169	Fipronil Sulfide	3.74	Spike	P	0 - 37
2345169	Fipronil Sulfone	11.7	Spike	P	0 - 50
2345169	Fluazifop-P-butyl	13.9	Spike	P	0 - 24
2345169	Fludioxonil	17.0	Spike	P	0 - 26
2345169	Flumioxazin	6.72	Spike	P	0 - 37
2345169	Flutolanil	12.5	Spike	P	0 - 26
2345169	Fluxapyroxad	4.86	Spike	P	0 - 34
2345169	Fonofos	5.14	Spike	P	0 - 27
2345169	Hexazinone	9.39	Spike	P	0 - 36
2345169	Imazalil	4.31	Spike	P	0 - 65
2345169	Iprodione	8.09	Spike	P	0 - 33
2345169	Loratadine	11.1	Spike	P	0 - 30
2345169	Malathion	9.73	Spike	P	0 - 44
2345169	Metalaxyl	8.74	Spike	P	0 - 38
2345169	Metolachlor	3.92	Spike	P	0 - 36
2345169	Metribuzin	8.07	Spike	P	0 - 63
2345169	Mevinphos	4.84	Spike	P	0 - 26
2345169	Molinate	1.47	Spike	P	0 - 40

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P417604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345169	Myclobutanil	16.7	Spike	P	0 - 21
2345169	Naled	6.08	Spike	P	0 - 26
2345169	Napropamide	3.12	Spike	P	0 - 30
2345169	Norflurazon	2.17	Spike	P	0 - 24
2345169	Octinoxate	0.219	Spike	P	0 - 30
2345169	Oxadiazon	2.86	Spike	P	0 - 27
2345169	Oxybenzone	10.1	Spike	P	0 - 30
2345169	Oxyfluorfen	1.44	Spike	P	0 - 24
2345169	Parathion Ethyl	2.56	Spike	P	0 - 28
2345169	Parathion Methyl	8.03	Spike	P	0 - 27
2345169	PBDE-47	0.0498	Spike	P	0 - 30
2345169	PBDE-99	2.15	Spike	P	0 - 30
2345169	Pendimethalin	4.91	Spike	P	0 - 31
2345169	Phenytoin	0.778	Spike	P	0 - 30
2345169	Phorate	1.75	Spike	P	0 - 27
2345169	Prodiamine	17.7	Spike	P	0 - 52
2345169	Prometon	5.51	Spike	P	0 - 31
2345169	Prometryn	11.6	Spike	P	0 - 28
2345169	Pronamide	8.67	Spike	P	0 - 26
2345169	Propanil	9.92	Spike	P	0 - 30
2345169	Propargite	1.96	Spike	P	0 - 30
2345169	Propiconazole	8.77	Spike	P	0 - 31
2345169	Pyraflufen Ethyl	12.8	Spike	P	0 - 30
2345169	Pyridaben	7.74	Spike	P	0 - 30
2345169	Pyriproxyfen	4.40	Spike	P	0 - 50
2345169	Simazine	8.71	Spike	P	0 - 29
2345169	Stirophos	4.76	Spike	P	0 - 30
2345169	Sulfentrazone	10.4	Spike	P	0 - 33
2345169	Tebuconazole	3.44	Spike	P	0 - 44
2345169	Terbufos	9.41	Spike	P	0 - 29
2345169	Terbuthylazine	10.5	Spike	P	0 - 27
2345169	Thiobencarb	8.05	Spike	P	0 - 30
2345169	Tri-o-cresyl Phosphate	1.27	Spike	P	0 - 30
2345169	Triadimefon	7.62	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P417747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345548	Aldrin	9.43	Spike	P	0 - 41
2345548	Alpha-BHC	2.91	Spike	P	0 - 25
2345548	Alpha-Chlordane	5.63	Spike	P	0 - 33
2345548	Beta-BHC	11.3	Spike	P	0 - 36
2345548	Beta-Cyfluthrin	33.3	Spike	P	0 - 42
2345548	Bifenthrin	2.83	Spike	P	0 - 53
2345548	Chlorothalonil	45.7	Spike	P	0 - 71
2345548	Cis-Nonachlor	20.2	Spike	P	0 - 29
2345548	Cypermethrin	25.1	Spike	P	0 - 40
2345548	Dacthal	0.913	Spike	P	0 - 26
2345548	DDD-p,p'	25.6	Spike	P	0 - 39

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P417747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345548	DDE-p,p'	2.15	Spike	P	0 - 33
2345548	DDT-p,p'	15.4	Spike	P	0 - 40
2345548	Delta-BHC	19.0	Spike	P	0 - 37
2345548	Deltamethrin	22.9	Spike	P	0 - 100
2345548	Dichlobenil	1.77	Spike	P	0 - 40
2345548	Dicofol	0.682	Spike	P	0 - 31
2345548	Dieldrin	5.38	Spike	P	0 - 27
2345548	Endosulfan I	10.6	Spike	P	0 - 23
2345548	Endosulfan II	22.8	Spike	P	0 - 28
2345548	Endosulfan Sulfate	21.7	Spike	P	0 - 38
2345548	Endrin	18.2	Spike	P	0 - 63
2345548	Endrin Aldehyde	10.4	Spike	P	0 - 60
2345548	Endrin Ketone	22.6	Spike	P	0 - 37
2345548	Esfenvalerate	36.5	Spike	P	0 - 52
2345548	Ethalfluralin	7.66	Spike	P	0 - 23
2345548	Fenpropathrin	4.91	Spike	P	0 - 32
2345548	Gamma-BHC	1.98	Spike	P	0 - 17
2345548	Gamma-Chlordane	5.38	Spike	P	0 - 40
2345548	Heptachlor	0.323	Spike	P	0 - 29
2345548	Heptachlor Epoxide	1.41	Spike	P	0 - 25
2345548	Hexachlorobenzene	21.7	Spike	P	0 - 36
2345548	Kepone	25.5	Spike	P	0 - 93
2345548	Lambda-Cyhalothrin	19.0	Spike	P	0 - 55
2345548	Methoprene	14.0	Spike	P	0 - 53
2345548	Methoxychlor	5.16	Spike	P	0 - 29
2345548	MGK-264	11.0	Spike	P	0 - 35
2345548	Mirex	7.44	Spike	P	0 - 46
2345548	Oxychlordane	8.87	Spike	P	0 - 29
2345548	Permethrin	22.9	Spike	P	0 - 44
2345548	Phenothrin	29.1	Spike	P	0 - 56
2345548	Piperonyl Butoxide	11.4	Spike	P	0 - 100
2345548	Prallethrin	16.5	Spike	P	0 - 42
2345548	Tau-Fluvalinate	15.6	Spike	P	0 - 54
2345548	Tetramethrin	38.1	Spike	P	0 - 51
2345548	Trans-Nonachlor	5.49	Spike	P	0 - 37
2345548	Triclosan Methyl	11.7	Spike	P	0 - 31
2345548	Trifluralin	0.508	Spike	P	0 - 30
2345564	PCB-1016	0.723	Spike	P	0 - 32
2345564	PCB-1260	2.61	Spike	P	0 - 31

Reference Method: EPA 8276
Batch ID: P417747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345564	Chlordane	6.89	Spike	P	0 - 25
2345564	Toxaphene	5.48	Spike	P	0 - 26

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P417520

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345138	Acesulfame K	2.96	Spike	P	0 - 30
2345138	AMPA	3.37	Spike	P	0 - 30
2345138	Endothall	3.04	Spike	P	0 - 30
2345138	Glufosinate	4.69	Spike	P	0 - 30
2345138	Glyphosate	6.08	Spike	P	0 - 30
2345138	Sucralose	3.64	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P417606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345138	2,4-D	4.33	Spike	P	0 - 30
2345138	2,4,5-T	2.92	Spike	P	0 - 30
2345138	Acetaminophen	14.3	Spike	P	0 - 30
2345138	Acetamiprid	11.8	Spike	P	0 - 30
2345138	Afidopyropen	7.31	Spike	P	0 - 30
2345138	Bentazon	8.17	Spike	P	0 - 30
2345138	Benzovindiflupyr	2.26	Spike	P	0 - 30
2345138	Carbamazepine	0.0370	Spike	P	0 - 30
2345138	Clothianidin	10.3	Spike	P	0 - 30
2345138	Dinotefuran	2.10	Spike	P	0 - 30
2345138	Diuron	7.73	Spike	P	0 - 30
2345138	Fenuron	2.16	Spike	P	0 - 30
2345138	Fluridone	5.98	Spike	P	0 - 30
2345138	Hydrocodone	4.05	Spike	P	0 - 30
2345138	Ibuprofen	6.79	Spike	P	0 - 30
2345138	Imazapyr	4.66	Spike	P	0 - 30
2345138	Imidacloprid	3.20	Spike	P	0 - 30
2345138	Linuron	2.34	Spike	P	0 - 30
2345138	Mandestrobin	2.84	Spike	P	0 - 30
2345138	MCPP	7.82	Spike	P	0 - 30
2345138	Naproxen	20.5	Spike	P	0 - 30
2345138	Primidone	3.82	Spike	P	0 - 30
2345138	Pyraclostrobin	2.08	Spike	P	0 - 30
2345138	Silvex	8.17	Spike	P	0 - 30
2345138	Thiamethoxam	5.22	Spike	P	0 - 30
2345138	Tolfenpyrad	5.75	Spike	P	0 - 30
2345138	Triclopyr	7.03	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P417651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345134	3-Hydroxycarbofuran	8.12	Spike	P	0 - 30
2345134	Aldicarb	19.3	Spike	P	0 - 30
2345134	Aldicarb Sulfone	5.47	Spike	P	0 - 30
2345134	Aldicarb Sulfoxide	15.8	Spike	P	0 - 30
2345134	Carbaryl	9.13	Spike	P	0 - 30
2345134	Carbofuran	1.46	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P417651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345134	Methiocarb	10.9	Spike	P	0 - 30
2345134	Methomyl	0.384	Spike	P	0 - 30
2345134	Oxamyl	0.215	Spike	P	0 - 30
2345134	Propoxur	1.33	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P417842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345539	Total Alkalinity	0.663	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P417987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345524	TDS	3.71	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P418066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345524	TSS	6.45	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P417847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345539	Fluoride	1.00	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P417763

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345525	Organic Carbon	0.229	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2345546
Field Sample ID: G2CE0242

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	61.0	P	30 - 160

Lab Sample ID: 2345547
Field Sample ID: G2CE0242

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	46.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.0	P	30 - 160
EPA 8321B	Diuron-d6	75.3	P	30 - 160
EPA 8321B	Endothall-d6	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	68.5	P	30 - 160
EPA 8321B	Primidone-d5	107	P	30 - 160
EPA 8321B	Sucralose-d6	93.3	P	30 - 160

Lab Sample ID: 2345548
Field Sample ID: G2CE0242

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	84.0	P	29 - 130
EPA 8270E	Decachlorobiphenyl	64.7	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	74.1	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	73.1	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	68.7	P	30 - 101
EPA 8276	PCNB	91.5	P	48 - 121

Lab Sample ID: 2345549
Field Sample ID: G2CE0242

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	49.4	P	20 - 200
EPA 8270E	Simazine-d10	82.2	P	71 - 140
EPA 8270E	Terbufos-d10	80.8	P	62 - 131
EPA 8270E	Terphenyl-d14	113	P	52 - 141

Quality Assurance Report
Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A113881
Included Lab Sample IDs: 2345539, 2345541

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 110
Color (true)	103	103	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A113882
Included Lab Sample IDs: 2345539, 2345541

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

Reference Method: EPA 8321B
Run ID: A113922
Included Lab Sample IDs: 2345547

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	107	99.5	P/P	50 - 150
2,4,5-T	111	94.3	P/P	50 - 150
Acetaminophen	100	101	P/P	60 - 160
Acetamiprid	101	88.1	P/P	50 - 150
Afidopyropen	114	91.4	P/P	50 - 150
Bentazon	99.3	99.3	P/P	50 - 160
Benzovindiflupyr	98.6	98.4	P/P	50 - 150
Carbamazepine	103	104	P/P	60 - 150
Clothianidin	108	108	P/P	60 - 150
Dinotefuran	105	102	P/P	50 - 150
Diuron	103	112	P/P	60 - 160
Fenuron	97.2	98.3	P/P	60 - 150
Fluridone	108	112	P/P	60 - 160
Hydrocodone	95.1	101	P/P	60 - 150
Ibuprofen	114	78.2	P/P	50 - 160
Imazapyr	113	110	P/P	50 - 150
Imidacloprid	95.9	99.1	P/P	60 - 150
Linuron	104	95.6	P/P	60 - 150
Mandestrobin	106	105	P/P	50 - 150
MCPP	94.8	104	P/P	50 - 150
Naproxen	86.4	68.4	P/P	50 - 160
Primidone	99.4	96.4	P/P	60 - 150
Pyraclostrobin	102	102	P/P	60 - 150
Silvex	83.5	89.1	P/P	50 - 150
Thiamethoxam	104	102	P/P	50 - 150
Tolfenpyrad	98.6	96.4	P/P	60 - 150
Triclopyr	93.9	78.8	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A113931
Included Lab Sample IDs: 2345540, 2345542

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A113942
Included Lab Sample IDs: 2345550

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	104	P/P	90 - 110
Iron	103	105	P/P	90 - 110
Magnesium	104	106	P/P	90 - 110
Potassium	102	104	P/P	90 - 110
Sodium	98.4	101	P/P	90 - 110
Strontium	98.2	101	P/P	90 - 110
Tin	98.1	98.8	P/P	90 - 110
Titanium	101	101	P/P	90 - 110
Vanadium	100	101	P/P	90 - 110
Zinc	96.4	97.4	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A113947
Included Lab Sample IDs: 2345547

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	98.3	102	P/P	60 - 160
Sucralose	116	114	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A113950
Included Lab Sample IDs: 2345547

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	124	123	P/P	60 - 160
Endothall	96.2	91.8	P/P	60 - 160
Glufosinate	117	103	P/P	60 - 160
Glyphosate	110	117	P/P	60 - 160

Reference Method: SM 5310 B-2011
Run ID: A113961
Included Lab Sample IDs: 2345540, 2345542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.1	99.3	P/P	90 - 110
Organic Carbon	99.3	97.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A113967
Included Lab Sample IDs: 2345540, 2345542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.4	99.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A113978
Included Lab Sample IDs: 2345546

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	107	73.8	P/P	60 - 150
Aldicarb	96.8	70.6	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A113978
Included Lab Sample IDs: 2345546

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldicarb Sulfone	115	61.3	P/P	50 - 150
Aldicarb Sulfoxide	92.8	70.6	P/P	50 - 150
Carbaryl	110	71.7	P/P	60 - 150
Carbofuran	95.2	67.0	P/P	50 - 150
Methiocarb	132	70.8	P/P	50 - 150
Methomyl	99.7	79.6	P/P	50 - 150
Oxamyl	106	86.3	P/P	50 - 150
Propoxur	101	72.9	P/P	50 - 150

Reference Method: SM 2320 B-2011
Run ID: A113988
Included Lab Sample IDs: 2345539, 2345541

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

Reference Method: SM 4500-F- C-2011
Run ID: A113988
Included Lab Sample IDs: 2345539, 2345541

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

Reference Method: EPA 8270E
Run ID: A113993
Included Lab Sample IDs: 2345549

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.3		P	80 - 120
Alachlor	96.7		P	80 - 120
Ametryn	95.7		P	80 - 120
Atrazine Desethyl	95.1		P	80 - 120
Azinphos Methyl	108		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	90.0		P	80 - 120
Butylate	98.3		P	80 - 120
Caffeine	109		P	80 - 120
Carbophenothion	110		P	80 - 120
Carfentrazone Ethyl	95.6		P	80 - 120
Chlorfenapyr	107		P	80 - 120
Chlorpyrifos Ethyl	102		P	80 - 120
Chlorpyrifos Methyl	111		P	80 - 120
Coumaphos	108		P	80 - 120
Cyanazine	92.8		P	80 - 120
Cyprodinil	100		P	80 - 120
Demeton	114		P	80 - 120
Diazinon	98.9		P	80 - 120
Difenoconazole	104		P	80 - 120
Dimethenamid	95.8		P	80 - 120
Dimethomorph	85.9		P	80 - 120
Disulfoton	105		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A113993
Included Lab Sample IDs: 2345549

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dithiopyr	99.2		P	80 - 120
EPTC	98.9		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	98.3		P	80 - 120
Etridiazole	96.0		P	80 - 120
Fenamiphos	90.6		P	80 - 120
Fenbuconazole	95.7		P	80 - 120
Fipronil	93.1		P	80 - 120
Fipronil Desulfinyl	93.6		P	80 - 120
Fipronil Sulfide	96.2		P	80 - 120
Fipronil Sulfone	94.2		P	80 - 120
Fluazifop-P-butyl	99.5		P	80 - 120
Fludioxonil	91.5		P	80 - 120
Flumioxazin	91.3		P	80 - 120
Flutolanil	98.3		P	80 - 120
Fluxapyroxad	92.5		P	80 - 120
Fonofos	98.0		P	80 - 120
Hexazinone	104		P	80 - 120
Imazalil	100		P	80 - 120
Iprodione	90.4		P	80 - 120
Loratadine	107		P	80 - 120
Malathion	95.7		P	80 - 120
Metalaxyl	95.5		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	89.6		P	80 - 120
Mevinphos	90.3		P	80 - 120
Molinate	95.1		P	80 - 120
Myclobutanil	94.7		P	80 - 120
Naled	110		P	80 - 120
Napropamide	96.5		P	80 - 120
Norflurazon	93.7		P	80 - 120
Oxadiazon	100		P	80 - 120
Oxyfluorfen	105		P	80 - 120
Parathion Ethyl	97.0		P	80 - 120
Parathion Methyl	104		P	80 - 120
Pendimethalin	101		P	80 - 120
Phenytoin	98.0		P	80 - 120
Phorate	103		P	80 - 120
Prodiamine	104		P	80 - 120
Prometon	97.2		P	80 - 120
Prometryn	95.4		P	80 - 120
Pronamide	93.6		P	80 - 120
Propanil	92.9		P	80 - 120
Propargite	97.7		P	80 - 120
Propiconazole	94.0		P	80 - 120
Pyraflufen Ethyl	99.1		P	80 - 120
Pyridaben	96.9		P	80 - 120
Pyriproxyfen	97.2		P	80 - 120
Simazine	91.1		P	80 - 120
Stirophos	111		P	80 - 120
Sulfentrazone	92.6		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A113993
Included Lab Sample IDs: 2345549

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tebuconazole	95.6		P	80 - 120
Terbufos	107		P	80 - 120
Terbuthylazine	98.8		P	80 - 120
Thiobencarb	100		P	80 - 120
Triadimefon	100		P	80 - 120

Reference Method: EPA 8270E
Run ID: A113994
Included Lab Sample IDs: 2345549

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	93.5		P	80 - 120
Avobenzone	101		P	80 - 120
Octinoxate	95.1		P	80 - 120
Oxybenzone	92.7		P	80 - 120
PBDE-47	96.0		P	80 - 120
PBDE-99	93.6		P	80 - 120
Tri-o-cresyl Phosphate	95.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A113999
Included Lab Sample IDs: 2345549

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	99.2		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A114002
Included Lab Sample IDs: 2345539, 2345541

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	100	P/P	90 - 110
Sulfate	101	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A114014
Included Lab Sample IDs: 2345540

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A114026
Included Lab Sample IDs: 2345542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.2	96.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114046
Included Lab Sample IDs: 2345540

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.4	91.6	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A114073
Included Lab Sample IDs: 2345548

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	106		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	93.5		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	102		P	80 - 120
Bifenthrin	97.3		P	80 - 120
Chlorothalonil	115		P	80 - 120
Cis-Nonachlor	104		P	80 - 120
Cypermethrin	83.4		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDE-p,p'	110		P	80 - 120
DDT-p,p'	99.3		P	80 - 120
Delta-BHC	120		P	80 - 120
Deltamethrin	101		P	80 - 120
Dichlobenil	92.9		P	80 - 120
Dicofol	100		P	80 - 120
Dieldrin	109		P	80 - 120
Endosulfan I	109		P	80 - 120
Endosulfan II	99.0		P	80 - 120
Endosulfan Sulfate	99.3		P	80 - 120
Endrin	97.3		P	80 - 120
Endrin Aldehyde	112		P	80 - 120
Endrin Ketone	106		P	80 - 120
Esfenvalerate	104		P	80 - 120
Ethalfluralin	97.9		P	80 - 120
Fenpropathrin	108		P	80 - 120
Gamma-BHC	114		P	80 - 120
Gamma-Chlordane	118		P	80 - 120
Heptachlor	114		P	80 - 120
Heptachlor Epoxide	111		P	80 - 120
Hexachlorobenzene	97.5		P	80 - 120
Kepone	75.2*		F	80 - 120
Lambda-Cyhalothrin	97.5		P	80 - 120
Methoprene	106		P	80 - 120
Methoxychlor	97.0		P	80 - 120
MGK-264	106		P	80 - 120
Mirex	92.2		P	80 - 120
Oxychlordane	95.4		P	80 - 120
Permethrin	96.1		P	80 - 120
Phenothrin	91.5		P	80 - 120
Piperonyl Butoxide	96.2		P	80 - 120
Prallethrin	107		P	80 - 120
Tau-Fluvalinate	101		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A114073
Included Lab Sample IDs: 2345548

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tetramethrin	95.5		P	80 - 120
Trans-Nonachlor	105		P	80 - 120
Triclosan Methyl	97.4		P	80 - 120
Trifluralin	102		P	80 - 120

Reference Method: EPA 8276
Run ID: A114079
Included Lab Sample IDs: 2345548

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	104		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114080
Included Lab Sample IDs: 2345548

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.5		P	80 - 120
PCB-1260	97.1		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114104
Included Lab Sample IDs: 2345542

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.9	91.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114134
Included Lab Sample IDs: 2345550

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.6	100	P/P	90 - 110
Antimony	100	99.7	P/P	90 - 110
Arsenic	101	102	P/P	90 - 110
Barium	99.5	99.4	P/P	90 - 110
Beryllium	97.6	94.0	P/P	90 - 110
Boron	96.1	101	P/P	90 - 110
Cadmium	101	102	P/P	90 - 110
Chromium	102	101	P/P	90 - 110
Cobalt	98.0	98.3	P/P	90 - 110
Copper	97.7	97.9	P/P	90 - 110
Lead	93.0	94.1	P/P	90 - 110
Manganese	101	101	P/P	90 - 110
Molybdenum	96.6	97.0	P/P	90 - 110
Nickel	98.7	97.3	P/P	90 - 110
Selenium	102	102	P/P	90 - 110
Silver	97.0	97.7	P/P	90 - 110
Thallium	97.9	98.6	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)	101					1.37	
EPA 180.1 Rev. 2.0	Turbidity	96.4					1.54	
EPA 200.7 Rev. 4.4	Calcium	104	103	103				3.17
	Iron	109	109	107	109			1.74
	Magnesium	112	110	105	107			2.86
	Potassium	107	101	96.9				2.56
	Sodium	97.6	98.1	101				3.36
	Strontium	106	101	99.6	100			1.87
	Tin	102	103	102	102			1.45
	Titanium	106	106	103	105			2.43
	Vanadium	104	105	102	104			2.71
	Zinc	101	103	100	99.9			2.57
EPA 200.8 Rev. 5.4	Aluminum	94.6	95.7	95.3	99.2			0.438
	Antimony	100	101	102	104			1.14
	Arsenic	97.0	98.6	98.7	100			0.0924
	Barium	102	102	101	103			0.332
	Beryllium	91.3	94.4	93.1	91.2			1.29
	Boron	95.5	96.5	95.6				0.652
	Cadmium	96.4	97.4	96.5	99.9			0.950
	Chromium	96.3	97.5	98.2	100			0.642
	Cobalt	94.7	94.7	94.8	97.7			0.0197
	Copper	92.2	94.3	95.3	94.2			1.11
	Lead	93.3	93.7	93.2	95.5			0.480
	Manganese	96.6	97.6	97.9	100			0.299
	Molybdenum	94.3	95.1	94.2	99.3			0.928
	Nickel	94.8	93.7	94.8	95.5			1.13
	Selenium	95.0	95.4	95.1	97.2			0.282
	Silver	97.0	95.2	95.2	96.6			0.0216
	Thallium	93.5	97.5	96.1	95.9			0.275
EPA 300.0 Rev. 2.1	Chloride	102	94.8	97.8			0.183	
	Sulfate	99.6	97.3	99.1			0.164	
EPA 350.1 Rev. 2.0	Ammonia-N	95.4	98.2	97.6				0.416
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.9	85.6	86.6				1.09
	Kjeldahl Nitrogen	102	94.4	103				5.33
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	99.5	99.5				0.0
EPA 365.1 Rev. 2.0	Total-P	103	103	104				1.76
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	73.2	91.7	91.9				0.160
	Acetochlor	107	111	101				9.24
	Alachlor	103	99.2	90.5				9.17
	Aldrin	50.7	55.4	60.9				9.43
	Alpha-BHC	88.5	91.1	88.4				2.91
	Alpha-Chlordane	64.5	62.8	58.9				5.63
	Ametryn	133	115	103				10.5
	Atrazine	110						5.61
	Atrazine Desethyl	87.2	70.2	67.2				3.43
	Avobenzone	72.3	85.2	90.0				5.39
	Azinphos Methyl	103	114	101				12.0
	Azoxystrobin	146	144	129				9.49
	Beta-BHC	110	98.8	111				11.3
	Beta-Cyfluthrin	63.0	89.7	125				33.3
	Bifenthrin	40.0	77.1	79.3				2.83
	Bromacil	82.1	81.3	72.2				11.9

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Butylate	48.6	50.3	52.5			4.32
	Caffeine	83.7	92.7	87.4			5.87
	Carbophenothion	70.0	72.0	70.1			2.69
	Carfentrazone Ethyl	105	90.8	105			14.2
	Chlorfenapyr	66.8	74.1	60.5			20.2
	Chlorothalonil	91.7	95.4	152			45.7
	Chlorpyrifos Ethyl	113	93.6	83.4			11.5
	Chlorpyrifos Methyl	89.9	99.0	94.6			4.49
	Cis-Nonachlor	76.4	69.9	85.6			20.2
	Coumaphos	45.4	68.8	60.6			12.8
	Cyanazine	92.9	116	106			9.05
	Cypermethrin	59.8	83.9	108			25.1
	Cyprodinil	126	108	94.4			13.5
	Dacthal	88.7	94.8	93.9			0.913
	DDD-p,p'	76.8	56.6	75.8			25.6
	DDE-p,p'	74.5	60.9	62.5			2.15
	DDT-p,p'	69.7	76.2	64.6			15.4
	Delta-BHC	125	117	142			19.0
	Deltamethrin	73.5	100	126			22.9
	Demeton	115	123	115			6.18
	Diazinon	110	104	102			2.05
	Dichlobenil	93.9	68.1	69.3			1.77
	Dicofol	82.3	97.8	97.2			0.682
	Dieldrin	77.5	72.0	76.9			5.38
	Difenoconazole	118	158	151			4.64
	Dimethenamid	75.9	84.5	77.9			8.08
	Dimethomorph	113	126	113			11.5
	Disulfoton	104	109	96.8			11.5
	Dithiopyr	104	104	94.3			10.1
	Endosulfan I	75.2	73.1	81.2			10.6
	Endosulfan II	67.0	63.4	79.8			22.8
	Endosulfan Sulfate	79.0	76.2	94.7			21.7
	Endrin	73.8	71.5	85.8			18.2
	Endrin Aldehyde	83.3	64.3	71.4			10.4
	Endrin Ketone	105	86.2	108			22.6
	EPTC	58.0	54.3	55.5			2.15
	Esfenvalerate	57.4	118	81.6			36.5
	Ethalfluralin	67.2	78.5	72.7			7.66
	Ethion	19.3	44.9	45.9			2.16
	Ethoprop	112	113	107			6.21
	Etridiazole	69.3	66.0	62.2			5.79
	Fenamiphos	71.8	72.1	81.1			11.7
	Fenbuconazole	78.6	92.2	83.8			9.49
	Fenpropathrin	63.6	91.2	86.9			4.91
	Fipronil	98.9	100	92.0			8.47
	Fipronil Desulfinyl	102	111	99.1			10.1
	Fipronil Sulfide	93.8	95.1	91.6			3.74
	Fipronil Sulfone	89.7	79.2	69.3			11.7
	Fluazifop-P-butyl	104	104	90.7			13.9
	Fludioxonil	65.1	92.2	77.7			17.0
	Flumioxazin	60.6	114	106			6.72
	Flutolanil	85.4	107	94.6			12.5
	Fluxapyroxad	50.7	80.2	76.4			4.86
	Fonofos	106	102	96.6			5.14

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Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Gamma-BHC	105	102	100			1.98
	Gamma-Chlordane	69.2	65.8	69.8			5.38
	Heptachlor	64.9	67.0	67.3			0.323
	Heptachlor Epoxide	73.3	84.8	83.6			1.41
	Hexachlorobenzene	68.9	62.6	77.9			21.7
	Hexazinone	87.7	106	96.3			9.39
	Imazalil	70.8	87.5	91.4			4.31
	Iprodione	71.5	85.5	78.9			8.09
	Kepone	38.4	51.9	34.2			25.5
	Lambda-Cyhalothrin	46.0	92.7	76.6			19.0
	Loratadine	218	160	143			11.1
	Malathion	104	119	108			9.73
	Metalaxyl	102	99.6	91.3			8.74
	Methoprene	42.7	65.5	56.9			14.0
	Methoxychlor	82.6	88.0	92.7			5.16
	Metolachlor	88.0	102	98.4			3.92
	Metribuzin	112	113	104			8.07
	Mevinphos	94.2	95.6	91.1			4.84
	MGK-264	80.3	95.5	85.5			11.0
	Mirex	46.2	57.7	53.6			7.44
	Molinate	67.0	69.1	68.0			1.47
	Myclobutanil	88.1	106	89.6			16.7
	Naled	65.7	74.1	78.8			6.08
	Napropamide	52.4	70.8	68.6			3.12
	Norflurazon	80.7	87.3	85.4			2.17
	Octinoxate	85.6	84.1	84.3			0.219
	Oxadiazon	90.6	85.4	82.4			2.86
	Oxybenzone	82.7	77.4	85.7			10.1
	Oxychlordane	66.4	72.9	79.6			8.87
	Oxyfluorfen	96.8	101	99.7			1.44
	Parathion Ethyl	104	101	98.4			2.56
	Parathion Methyl	133	138	127			8.03
	PBDE-47	64.2	75.6	75.6			0.0498
	PBDE-99	59.1	73.1	74.7			2.15
	PCB-1016	84.2	86.5	87.1			0.723
	PCB-1260	85.9	84.3	82.1			2.61
	Pendimethalin	103	104	99.4			4.91
	Permethrin	60.6	104	82.4			22.9
	Phenothrin	40.9	91.9	68.6			29.1
	Phenytoin	15.2	28.9	28.6			0.778
	Phorate	104	83.1	84.5			1.75
	Piperonyl Butoxide	97.0	126	112			11.4
	Prallethrin	84.3	95.1	80.6			16.5
	Prodiamine	50.3	56.6	47.4			17.7
	Prometon	80.9	90.9	86.0			5.51
	Prometryn	112	108	96.2			11.6
	Pronamide	115	126	116			8.67
	Propanil	93.0	102	92.6			9.92
	Propargite	35.4	57.0	55.9			1.96
	Propiconazole	81.8	92.1	84.4			8.77
	Pyraflufen Ethyl	75.1	88.7	78.0			12.8
	Pyridaben	79.8	75.3	66.8			7.74
	Pyriproxyfen	33.6	66.4	69.4			4.40
	Simazine	95.4	104	95.3			8.71

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Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Stirophos	29.2	50.9	53.4			4.76
	Sulfentrazone	84.1	89.3	80.4			10.4
	Tau-Fluvalinate	49.1	66.5	77.7			15.6
	Tebuconazole	20.0	46.1	44.5			3.44
	Terbufos	114	130	118			9.41
	Terbuthylazine	107	104	93.8			10.5
	Tetramethrin	78.6	122	83.0			38.1
	Thiobencarb	81.2	93.0	85.8			8.05
	Trans-Nonachlor	64.3	69.6	73.5			5.49
	Tri-o-cresyl Phosphate	78.7	81.1	80.1			1.27
	Triadimefon	82.8	97.5	90.3			7.62
	Triclosan Methyl	74.6	69.8	78.5			11.7
	Trifluralin	67.7	74.2	74.6			0.508
EPA 8276	Chlordane	99.0	108	101			6.89
	Toxaphene	98.1	126	120			5.48
EPA 8321B	2,4-D	101	86.4	81.9			4.33
	2,4,5-T	100	72.1	70.0			2.92
	3-Hydroxycarbofuran	101	109	118			8.12
	Acesulfame K	99.6	82.1	84.5			2.96
	Acetaminophen	34.6	34.7	40.0			14.3
	Acetamiprid	88.1	75.5	86.4			11.8
	Afidopyropen	76.3	85.9	92.4			7.31
	Aldicarb	56.9	70.4	58.0			19.3
	Aldicarb Sulfone	110	127	134			5.47
	Aldicarb Sulfoxide	88.2	39.7	46.5			15.8
	AMPA	111	45.2	43.7			3.37
	Bentazon	102					8.17
	Benzovindiflupyr	94.5	94.4	96.5			2.26
	Carbamazepine	101					0.0370
	Carbaryl	98.3	75.1	68.6			9.13
	Carbofuran	88.1	80.0	81.1			1.46
	Clothianidin	98.8	105	90.5			10.3
	Dinotefuran	102					2.10
	Diuron	89.5	72.0	80.8			7.73
	Endothall	90.8	94.2	97.1			3.04
	Fenuron	96.6	88.1	86.2			2.16
	Fluridone	100	101	94.4			5.98
	Glufosinate	111	50.5	48.2			4.69
	Glyphosate	110	64.2	68.3			6.08
	Hydrocodone	96.5	104	99.8			4.05
	Ibuprofen	87.3	89.7	96.0			6.79
	Imazapyr	114	64.5	59.9			4.66
	Imidacloprid	106					3.20
	Linuron	88.6	121	124			2.34
	Mandestrobin	97.8	94.8	92.2			2.84
	MCPP	106	88.0	81.3			7.82
	Methiocarb	93.4	87.0	78.0			10.9
	Methomyl	89.3	80.7	80.4			0.384
	Naproxen	73.4	53.4	65.6			20.5
	Oxamyl	98.7	97.4	97.1			0.215
	Primidone	98.5					3.82
	Propoxur	92.0	72.9	72.0			1.33
	Pyraclostrobin	90.1	94.0	92.0			2.08
	Silvex	97.5	98.1	90.4			8.17

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Sucralose	113					3.64
	Thiamethoxam	104	134	141			5.22
	Tolfenpyrad	54.1	59.7	56.4			5.75
	Triclopyr	85.0	75.0	69.9			7.03
SM 2320 B-2011	Total Alkalinity	100				0.663	
SM 2540 C-2011	TDS					3.71	
SM 2540 D-2011	TSS					6.45	
SM 4500-F- C-2011	Fluoride	102	101	99.5			1.00
SM 5310 B-2011	Organic Carbon	97.4	95.5	95.1			0.229

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2345539, 2345541
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2345539, 2345541
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2345550
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2345550
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2345539, 2345541
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2345539, 2345541
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2345540, 2345542
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2345540, 2345542
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2345540, 2345542
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2345540, 2345542
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2345549
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2345548
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2345549
EPA 8270E	PCBs in water matrices by GC/MS/MS	2345548
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2345548
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2345546
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2345547
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2345539, 2345541
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2345550
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2345539, 2345541
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2345539, 2345541
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2345539, 2345541
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2345540, 2345542

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	08/03/2022			08/03/2022 15:27	Anna M. Plaviak	2345539
	08/03/2022			08/03/2022 15:49	Anna M. Plaviak	2345541
EPA 180.1 Rev. 2.0	08/03/2022			08/03/2022 14:11	Khloe J Berg	2345539
	08/03/2022			08/03/2022 14:12	Khloe J Berg	2345541
EPA 200.7 Rev. 4.4	08/03/2022	08/05/2022 09:45	Mackenzie Hunt	08/05/2022 20:03	McKinley C Carter	2345550
EPA 200.8 Rev. 5.4	08/03/2022	08/05/2022 09:45	Mackenzie Hunt	08/16/2022 15:59	Emily M Philpot	2345550
EPA 300.0 Rev. 2.1	08/03/2022			08/09/2022 07:57	Anna M. Plaviak	2345539
	08/03/2022			08/09/2022 08:09	Anna M. Plaviak	2345541
EPA 350.1 Rev. 2.0	08/03/2022			08/08/2022 17:06	Ping Hua	2345540
	08/03/2022			08/08/2022 17:07	Ping Hua	2345542
EPA 351.2 Rev. 2.0	08/03/2022	08/08/2022 14:48	Samantha L Bates	08/11/2022 13:31	Alexandra J Mattheus	2345540
	08/03/2022	08/09/2022 15:01	Alexandra J Mattheus	08/15/2022 10:52	Samantha L Bates	2345542
EPA 353.2 Rev. 2.0	08/03/2022			08/05/2022 09:57	Beverly Y. Sanders	2345540
	08/03/2022			08/05/2022 09:58	Beverly Y. Sanders	2345542
EPA 365.1 Rev. 2.0	08/03/2022	08/09/2022 09:37	Simonne.V. Calhoun	08/10/2022 15:35	James L Waggerby	2345540
	08/03/2022	08/09/2022 09:37	Simonne.V. Calhoun	08/11/2022 10:27	Simonne.V. Calhoun	2345542
EPA 8270E	08/03/2022	08/05/2022 08:00	Fe-Val Siddell	08/09/2022 02:17	Michael Poppell	2345549
	08/03/2022	08/05/2022 08:00	Fe-Val Siddell	08/09/2022 15:56	Lipi Saha	2345549
	08/03/2022	08/05/2022 08:00	Fe-Val Siddell	08/09/2022 20:28	Michael Poppell	2345549
	08/03/2022	08/08/2022 08:30	Rasheda Ghaffari	08/10/2022 17:00	Vandana T. Nagar	2345548
	08/03/2022	08/08/2022 08:30	Rasheda Ghaffari	08/11/2022 23:47	Julie Wi	2345548
EPA 8276	08/03/2022	08/08/2022 08:30	Rasheda Ghaffari	08/12/2022 04:02	Arthur Maknenko	2345548
EPA 8321B	08/03/2022	08/04/2022 13:00	Hoor Shaik	08/05/2022 12:45	Juyoung Kim	2345547
	08/03/2022	08/05/2022 09:10	Umesh Chiluwal	08/05/2022 13:22	Umesh Chiluwal	2345547
	08/03/2022	08/05/2022 09:10	Umesh Chiluwal	08/06/2022 05:02	Umesh Chiluwal	2345547
	08/03/2022	08/08/2022 09:00	Hoor Shaik	08/08/2022 20:28	Juyoung Kim	2345546
SM 2320 B-2011	08/03/2022			08/05/2022 17:31	Adam P Silver	2345539
	08/03/2022			08/05/2022 18:18	Adam P Silver	2345541
SM 2340 B-2011	08/03/2022			08/05/2022 20:03	McKinley C Carter	2345550
SM 2540 C-2011	08/03/2022			08/05/2022 16:02	Yijie Li	2345539, 2345541
SM 2540 D-2011	08/03/2022			08/05/2022 16:02	Yijie Li	2345539, 2345541
SM 4500-F- C-2011	08/03/2022			08/05/2022 17:20	Adam P Silver	2345539
	08/03/2022			08/05/2022 18:18	Adam P Silver	2345541
SM 5310 B-2011	08/03/2022			08/06/2022 00:40	Khloe J Berg	2345540
	08/03/2022			08/06/2022 01:27	Khloe J Berg	2345542