Chemical Analysis Report

CEN-DIST-2022-02-10-01

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

Event Description: **Run 2**
Request ID: **RQ-2022-02-07-21**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matthew Bearden

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Certified by: Colin Wright, Program Administrator

Date Certified: 10-MAR-2022 09:38

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: Dead River @ 1250 m north of Lake Hatchineha Collection Date/Time: 02/09/2022 10:12

Field ID: G4CE0167 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2304920	DEP SOP: NU-094-1	Color (true)**	370		PCU	P409713	
	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P409700	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P409887	
		Sulfate	1.4		mg SO4/L	P409890	
	SM 2320 B-2011	Total Alkalinity	26	A	mg CaCO3/L	P409858	
	SM 2540 C-2011	TDS	195		mg/L	P410072	
	SM 2540 D-2011	TSS	2	U	mg/L	P409826	
	SM 4500 F-C-2011	Fluoride	0.076	I	mg F/L	P409861	
2304921	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P409953	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P409730	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P410168	
	EPA 365.1 Rev. 2.0	Total-P	0.038		mg P/L	P410094	
	SM 5310 B-2011	Organic Carbon	41		mg C/L	P410384	
2304922	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.017		mg P/L	P409692	
2304931	EPA 8321B	2,4-D	0.0020	U	ug/L	P409686	
		Acesulfame K	0.10	U	ug/L	P409584	
		2,4,5-T	0.0040	U	ug/L	P409686	
		AMPA	0.10	U	ug/L	P409584	
		Acetaminophen	0.0080	U	ug/L	P409686	
		Acetamiprid	0.0020	U	ug/L	P409686	
		Endothall	0.25	U	ug/L	P409584	
		Glufosinate	0.10	U	ug/L	P409584	
		Glyphosate	0.10	U	ug/L	P409584	
		Afidopyropen	0.0020	U	ug/L	P409686	
		Bentazon	0.020		ug/L	P409686	
		Sucralose	0.83		ug/L	P409584	
		Benzovindiflupyr	0.0020	U	ug/L	P409686	
		Carbamazepine	8.0E-04	U	ug/L	P409686	
		Clothianidin	0.0020	U	ug/L	P409686	MS
		Dinotefuran	0.0020	U	ug/L	P409686	MS
		Diuron	0.0020	U	ug/L	P409686	
		Fenuron	0.016	U	ug/L	P409686	
		Fluridone	9.1E-04	I	ug/L	P409686	
		Imazapyr	0.083		ug/L	P409686	
		Hydrocodone	0.0020	U	ug/L	P409686	
		Ibuprofen	0.020	UJ	ug/L	P409686	CCV
		Imidacloprid	0.0020	U	ug/L	P409686	MS
		Linuron	0.0040	U	ug/L	P409686	
		Mandestrobin	0.0020	U	ug/L	P409686	
		MCPP	0.0040	U	ug/L	P409686	MS
		Naproxen	0.0080	U	ug/L	P409686	
		Primidone	0.0040	U	ug/L	P409686	MS
		Pyraclostrobin	0.0020	U	ug/L	P409686	

Field ID: G4CE0167 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2304931	EPA 8321B	Silvex	0.0040	U	ug/L	P409686	MS
		Thiamethoxam	0.0020	U	ug/L	P409686	MS
		Tolfenpyrad	0.0020	U	ug/L	P409686	
		Triclopyr	0.0040	U	ug/L	P409686	MS, RPD
2304934	EPA 8270E	PCB-1016	2.1	U	ng/L	P409707	
		PCB-1221	2.1	U	ng/L	P409707	
		PCB-1232	2.1	U	ng/L	P409707	
		PCB-1242	2.1	U	ng/L	P409707	
		PCB-1248	2.1	U	ng/L	P409707	
		PCB-1254	2.1	U	ng/L	P409707	
		PCB-1260	2.1	U	ng/L	P409707	
2304937	EPA 200.7 Rev. 4.4	Calcium	16.1		mg/L	P409769	
		Iron	410		ug/L	P409769	
		Magnesium	3.88		mg/L	P409769	
		Potassium	2.9		mg/L	P409769	
		Sodium	20.1		mg/L	P409769	
		Strontium	90.2		ug/L	P409769	
		Tin	3.0	U	ug/L	P409769	
		Titanium	1.7	I	ug/L	P409769	
		Vanadium	2.0	U	ug/L	P409769	
		Zinc	5.0	U	ug/L	P409769	
	EPA 200.8 Rev. 5.4	Aluminum	181		ug/L	P409769	
		Antimony	0.050	U	ug/L	P409769	
		Arsenic	0.39		ug/L	P409769	
		Barium	11.1		ug/L	P409769	
		Beryllium	0.024	I	ug/L	P409769	
		Boron**	31.9		ug/L	P409769	
		Cadmium	0.020	U	ug/L	P409769	
		Chromium	0.46	I	ug/L	P409769	
		Cobalt	0.107		ug/L	P409769	
		Copper	0.40	U	ug/L	P409769	
		Lead	0.22	I	ug/L	P409769	
		Manganese	3.11		ug/L	P409769	
		Molybdenum	0.21	I	ug/L	P409769	
		Nickel	0.64	I	ug/L	P409769	
		Selenium	0.20	U	ug/L	P409769	MS
		Silver	0.010	U	ug/L	P409769	
		Thallium	0.10	U	ug/L	P409769	
	SM 2340B	Hardness	56.1		mg/L	P409769	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Lake Hatchineha Drain downstream of drainage field

Collection Date/Time: 02/09/2022 10:40

Field ID: G4CE0168

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2304923	DEP SOP: NU-094-1	Color (true)**	100		PCU	P409715	
	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P409701	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P409887	
		Sulfate	9.5		mg SO4/L	P409890	
	SM 2320 B-2011	Total Alkalinity	47		mg CaCO3/L	P409858	
	SM 2540 C-2011	TDS	134		mg/L	P410072	
	SM 2540 D-2011	TSS	12		mg/L	P409826	
	SM 4500 F-C-2011	Fluoride	0.078	I	mg F/L	P409861	
2304924	EPA 350.1 Rev. 2.0	Ammonia-N	0.66		mg N/L	P409953	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.6		mg N/L	P409732	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.062		mg N/L	P410168	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P410094	
	SM 5310 B-2011	Organic Carbon	19		mg C/L	P410384	
2304925	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P409692	
2304932	EPA 8321B	Aldicarb	0.020	U	ug/L	P409559	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P409559	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P409559	
		Carbaryl	0.0020	U	ug/L	P409559	
		Carbofuran	0.0020	U	ug/L	P409559	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P409559	
		Methiocarb	0.0020	U	ug/L	P409559	
		Methomyl	0.0020	U	ug/L	P409559	
		Oxamyl	0.0020	U	ug/L	P409559	
		Propoxur	0.0020	U	ug/L	P409559	
2304933		2,4-D	0.0028	I	ug/L	P409686	
		Acesulfame K	0.10	U	ug/L	P409584	
		2,4,5-T	0.0040	U	ug/L	P409686	
		AMPA	0.17	I	ug/L	P409584	
		Acetaminophen	0.0080	U	ug/L	P409686	
		Acetamiprid	0.0020	U	ug/L	P409686	
		Endothall	0.25	U	ug/L	P409584	
		Glufosinate	0.10	U	ug/L	P409584	
		Glyphosate	0.13	I	ug/L	P409584	
		Afidopyropen	0.0020	U	ug/L	P409686	
		Bentazon	0.016		ug/L	P409686	
		Sucralose	0.20		ug/L	P409584	
		Benzovindiflupyr	0.0020	U	ug/L	P409686	
		Carbamazepine	8.0E-04	U	ug/L	P409686	
		Clothianidin	0.0020	U	ug/L	P409686	MS
		Dinotefuran	0.0020	U	ug/L	P409686	MS
		Diuron	0.0020	U	ug/L	P409686	
		Fenuron	0.016	U	ug/L	P409686	

Field ID: G4CE0168 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2304933	EPA 8321B	Fluridone	0.010		ug/L	P409686	
		Imazapyr	0.14		ug/L	P409686	
		Hydrocodone	0.0020	U	ug/L	P409686	
		Ibuprofen	0.020	UJ	ug/L	P409686	CCV
		Imidacloprid	0.0037	I	ug/L	P409686	MS
		Linuron	0.0040	U	ug/L	P409686	
		Mandestrobin	0.0020	U	ug/L	P409686	
		MCPP	0.0040	U	ug/L	P409686	MS
		Naproxen	0.0080	U	ug/L	P409686	
		Primidone	0.0053	I	ug/L	P409686	MS
		Pyraclostrobin	0.0020	U	ug/L	P409686	
		Silvex	0.0040	U	ug/L	P409686	MS
		Thiamethoxam	0.0020	U	ug/L	P409686	MS
		Tolfenpyrad	0.0020	U	ug/L	P409686	
		Triclopyr	0.0040	U	ug/L	P409686	MS, RPD
2304935	EPA 8270E	Aldrin	0.66	U	ng/L	P409707	
		Alpha-BHC	0.10	U	ng/L	P409707	
		Alpha-Chlordane	0.20	U	ng/L	P409707	
		PCB-1016	2.0	U	ng/L	P409707	
		Beta-BHC	0.10	U	ng/L	P409707	
		PCB-1221	2.0	U	ng/L	P409707	
		Beta-Cyfluthrin**	1.3	U	ng/L	P409707	
		PCB-1232	2.0	U	ng/L	P409707	
		Bifenthrin**	0.51	U	ng/L	P409707	RPD
		PCB-1242	2.0	U	ng/L	P409707	
		PCB-1248	2.0	U	ng/L	P409707	
		Chlorothalonil	1.3	U	ng/L	P409707	
		PCB-1254	2.0	U	ng/L	P409707	
		Cis-Nonachlor**	0.20	U	ng/L	P409707	
		PCB-1260	2.0	U	ng/L	P409707	
		Cypermethrin	1.5	U	ng/L	P409707	
		Dacthal**	0.15	U	ng/L	P409707	
		DDD-p,p'	0.26	U	ng/L	P409707	
		DDE-p,p'	0.20	U	ng/L	P409707	
		DDT-p,p'	0.26	U	ng/L	P409707	
		Delta-BHC	0.41	U	ng/L	P409707	
		Deltamethrin**	1.3	U	ng/L	P409707	
		Dichlobenil**	0.26	U	ng/L	P409707	
		Dicofol	1.3	U	ng/L	P409707	
		Dieldrin	0.41	U	ng/L	P409707	
		Endosulfan I	0.41	U	ng/L	P409707	
		Endosulfan II	0.41	U	ng/L	P409707	
		Endosulfan Sulfate	0.31	U	ng/L	P409707	
		Endrin	0.41	UQJ	ng/L	P410329	LCS, RPD
		Endrin Aldehyde	0.77	UQ	ng/L	P410329	

Field ID: G4CE0168 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2304935	EPA 8270E	Endrin Ketone	0.41	UJ	ng/L	P409707	LCS
		Esfenvalerate**	0.77	U	ng/L	P409707	
		Ethalfluralin**	0.15	U	ng/L	P409707	
		Fenpropathrin**	0.26	U	ng/L	P409707	
		Gamma-BHC	0.13	U	ng/L	P409707	
		Gamma-Chlordane	0.20	U	ng/L	P409707	
		Heptachlor	0.20	U	ng/L	P409707	
		Heptachlor Epoxide	0.26	U	ng/L	P409707	
		Hexachlorobenzene	1.0	U	ng/L	P409707	
		Kepone**	5.1	U	ng/L	P409707	RPD
		Lambda-Cyhalothrin**	0.77	U	ng/L	P409707	
		Methoprene**	0.77	UQ	ng/L	P410329	
		Methoxychlor	0.31	U	ng/L	P409707	
		MGK-264**	0.20	U	ng/L	P409707	
		Mirex	0.71	U	ng/L	P409707	
		Oxychlordane**	0.31	U	ng/L	P409707	
		Permethrin	1.9	I	ng/L	P409707	
		Phenothrin**	0.92	U	ng/L	P409707	
		Piperonyl Butoxide**	0.15	UQJ	ng/L	P410329	LCS, MS
		Prallethrin**	2.1	UQ	ng/L	P410329	
		Tau-Fluvalinate**	0.26	U	ng/L	P409707	
		Tetramethrin**	0.77	UQ	ng/L	P410329	
		Trans-Nonachlor**	0.20	U	ng/L	P409707	
		Triclosan Methyl**	0.15	U	ng/L	P409707	
		Trifluralin	0.20	U	ng/L	P409707	
	EPA 8276	Chlordane	2.6	U	ng/L	P409707	
		Toxaphene	15	U	ng/L	P409707	
2304936	EPA 8270E	Oxybenzone**	56		ng/L	P409681	
		Acetochlor	0.24	U	ng/L	P409681	
		Octinoxate**	19	U	ng/L	P409681	
		Alachlor	0.24	U	ng/L	P409681	
		Avobenzone**	94	U	ng/L	P409681	
		Ametryn	0.57	U	ng/L	P409681	
		Atrazine	3.5		ng/L	P409681	
		Atrazine Desethyl	1.4	U	ng/L	P409681	
		Azinphos Methyl	1.9	U	ng/L	P409681	
		Azoxystrobin**	0.47	U	ng/L	P409681	
		Bromacil	0.47	U	ng/L	P409681	
		Butylate	0.38	U	ng/L	P409681	
		Caffeine**	23	I	ng/L	P409681	
		Carbophenothion	0.19	U	ng/L	P409681	
		Carfentrazone Ethyl**	0.094	U	ng/L	P409681	
		Chlorfenapyr**	0.16	U	ng/L	P409681	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P409681	
		Chlorpyrifos Methyl	0.047	U	ng/L	P409681	

Field ID: G4CE0168 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2304936	EPA 8270E	Coumaphos**	0.47	U	ng/L	P409681	
		Cyanazine	3.1	U	ng/L	P409681	
		Cyprodinil**	0.094	U	ng/L	P409681	
		Demeton	1.4	U	ng/L	P409681	
		Diazinon	0.12	U	ng/L	P409681	
		Difenoconazole**	0.57	U	ng/L	P409681	
		Dimethenamid**	0.094	U	ng/L	P409681	
		Dimethomorph**	0.16	U	ng/L	P409681	
		Disulfoton	0.47	U	ng/L	P409681	
		Dithiopyr**	0.16	U	ng/L	P409681	
		EPTC	1.2	U	ng/L	P409681	
		Ethion	0.14	U	ng/L	P409681	
		Ethoprop	0.094	U	ng/L	P409681	
		Etridiazole**	0.14	U	ng/L	P409681	
		Fenamiphos	0.47	U	ng/L	P409681	
		Fenbuconazole**	0.12	UJ	ng/L	P409681	LCS, MS
		Fipronil	0.24	U	ng/L	P409681	
		Fipronil Desulfinyl**	0.12	U	ng/L	P409681	
		Fipronil Sulfide	0.14	U	ng/L	P409681	
		Fipronil Sulfone	0.14	U	ng/L	P409681	
		Fluazifop-P-butyl**	0.094	U	ng/L	P409681	
		Fludioxonil**	0.12	U	ng/L	P409681	
		Flumioxazin**	1.6	U	ng/L	P409681	
		Flutolanil**	0.094	U	ng/L	P409681	
		Fluxapyroxad**	0.094	U	ng/L	P409681	
		Fonofos	0.19	U	ng/L	P409681	
		Hexazinone	0.47	U	ng/L	P409681	
		Imazalil**	0.71	U	ng/L	P409681	
		Iprodione**	0.57	U	ng/L	P409681	
		Loratadine**	0.094	U	ng/L	P409681	
		Malathion	0.33	U	ng/L	P409681	
		Metalaxyl	1.2	I	ng/L	P409681	
		Metolachlor	0.94	I	ng/L	P409681	
		Metribuzin	2.4	U	ng/L	P409681	
		Mevinphos	0.99	U	ng/L	P409681	
		Molinate	0.28	U	ng/L	P409681	
		Myclobutanil**	0.24	U	ng/L	P409681	
		Naled**	1.4	UJ	ng/L	P409681	LCS, MS
		Napropamide**	0.38	U	ng/L	P409681	
		Norflurazon	7.3		ng/L	P409681	
		Oxadiazon	0.28	U	ng/L	P409681	
		Oxyfluorfen**	0.14	U	ng/L	P409681	
		Parathion Ethyl	0.24	U	ng/L	P409681	
		Parathion Methyl	0.52	U	ng/L	P409681	
		Pendimethalin	0.94	U	ng/L	P409681	

Field ID: G4CE0168 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2304936	EPA 8270E	Phenytoin**	3.3	U	ng/L	P409681	
		Phorate	0.49	U	ng/L	P409681	
		Prodiamine**	0.16	U	ng/L	P409681	
		Prometon	0.85	U	ng/L	P409681	
		Prometryn	0.19	U	ng/L	P409681	
		Pronamide**	0.14	U	ng/L	P409681	
		Propanil**	0.12	U	ng/L	P409681	
		Propargite**	1.4	U	ng/L	P409681	
		Propiconazole**	0.47	U	ng/L	P409681	
		Pyraflufen Ethyl**	0.24	U	ng/L	P409681	
		Pyridaben**	0.57	I	ng/L	P409681	
		Pyriproxyfen**	0.12	U	ng/L	P409681	
		Simazine	0.47	U	ng/L	P409681	
		Stirophos**	0.12	U	ng/L	P409681	
		Sulfentrazone**	0.47	U	ng/L	P409681	
		Tebuconazole**	0.47	U	ng/L	P409681	
		Terbufos	0.094	U	ng/L	P409681	
		Terbuthylazine	0.40	U	ng/L	P409681	
		Thiobencarb**	0.57	U	ng/L	P409681	
		Triadimefon**	0.24	U	ng/L	P409681	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for phenothrin 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. Insufficient sample available to perform duplicate matrix spikes in re-extraction. Sample expired for preparation for some analytes due to need for re-extraction.
EPA 8270E: MS accuracy for Dimethanamid and Sulfentrazone not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P409713

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P409715

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409700

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409701

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409769

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: P409769

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Component	Result	Code	Units
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: P409887

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409890

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409953

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409730

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409732

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410168

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410094

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409692

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: P409681

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	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P409681

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: P409681

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	0.18	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P409681

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: P409707

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: P409707

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 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
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P409707

Component	Result	Code	Units
Phenothrin	0.90	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	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: P410329

Component	Result	Code	Units
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
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
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L

Reference Method: EPA 8276
Batch ID: P409707

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: P409559

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P409584

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: P409686

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
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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P409858

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

Reference Method: SM 2540 C-2011
Batch ID: P410072

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P409826

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P409861

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P410384

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: P409713

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.2		P	85 - 115

Reference Method: DEP SOP: NU-094-1
Batch ID: P409715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409701

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.3		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	107		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	109		P	85 - 115
Sodium	104		P	85 - 115
Strontium	105		P	85 - 115
Tin	109		P	85 - 115
Titanium	107		P	85 - 115
Vanadium	99.4		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	98.9		P	85 - 115
Arsenic	102		P	85 - 115
Barium	103		P	85 - 115
Beryllium	98.8		P	85 - 115
Boron	103		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	96.5		P	85 - 115
Cobalt	102		P	85 - 115
Copper	98.4		P	85 - 115
Lead	99.1		P	85 - 115
Manganese	98.3		P	85 - 115
Molybdenum	101		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Nickel	104		P	85 - 115
Selenium	101		P	85 - 115
Silver	99.9		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409887

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409890

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409953

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409730

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	92.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409732

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410168

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: P410094

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409692

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P409681

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	88.1		P	70 - 121
Alachlor	95.0		P	68 - 119
Ametryn	101		P	64 - 139
Atrazine	79.4		P	76 - 120
Atrazine Desethyl	45.9		P	44 - 126
Avobenzone	95.9		P	50 - 200
Azinphos Methyl	96.1		P	43 - 192
Azoxystrobin	90.1		P	36 - 224
Bromacil	84.5		P	52 - 121
Butylate	53.3		P	28 - 91.0
Caffeine	104		P	50 - 134
Carbophenothion	73.8		P	56 - 129
Carfentrazone Ethyl	89.2		P	60 - 141
Chlorfenapyr	79.7		P	56 - 115
Chlorpyrifos Ethyl	81.4		P	60 - 118
Chlorpyrifos Methyl	78.6		P	68 - 119
Coumaphos	79.8		P	18 - 250
Cyanazine	135		P	61 - 250
Cyprodinil	92.1		P	55 - 145
Demeton	68.7		P	30 - 159
Diazinon	86.7		P	70 - 123
Difenoconazole	128		P	49 - 204
Dimethenamid	72.5		P	64 - 115
Dimethomorph	103		P	12 - 219
Disulfoton	73.3		P	44 - 125
Dithiopyr	87.7		P	64 - 115
EPTC	54.3		P	28 - 86.0
Ethion	72.2		P	33 - 125
Ethoprop	75.2		P	64 - 116
Etridiazole	64.4		P	34 - 91.0
Fenamiphos	79.7		P	12 - 127
Fenbuconazole	48.3		F	59 - 151
Fipronil	90.3		P	67 - 129
Fipronil Desulfinyl	93.6		P	65 - 127
Fipronil Sulfide	80.1		P	61 - 116
Fipronil Sulfone	65.1		P	55 - 117
Fluazifop-P-butyl	69.2		P	62 - 127
Fludioxonil	77.2		P	62 - 128
Flumioxazin	63.0		P	33 - 250
Flutolanil	77.1		P	56 - 127
Fluxapyroxad	59.8		P	45 - 128
Fonofos	76.2		P	62 - 111
Hexazinone	84.4		P	46 - 139
Imazalil	75.4		P	38 - 142
Iprodione	77.7		P	47 - 135
Loratadine	79.1		P	10 - 244
Malathion	89.3		P	61 - 139
Metalaxyl	86.3		P	10 - 119
Metolachlor	90.9		P	65 - 118
Metribuzin	81.4		P	51 - 250
Mevinphos	55.6		P	53 - 121
Molinate	56.4		P	42 - 96.0

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P409681

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Myclobutanil	77.1		P	55 - 128
Naled	105		F	10 - 98.0
Napropamide	81.1		P	49 - 121
Norflurazon	73.6		P	61 - 126
Octinoxate	65.4		P	50 - 150
Oxadiazon	74.3		P	59 - 116
Oxybenzone	117		P	50 - 150
Oxyfluorfen	86.5		P	64 - 137
Parathion Ethyl	91.5		P	70 - 112
Parathion Methyl	93.9		P	76 - 133
Pendimethalin	89.6		P	52 - 117
Phenytoin	40.8		P	10 - 199
Phorate	66.9		P	48 - 121
Prodiamine	43.3		P	26 - 142
Prometon	83.7		P	43 - 123
Prometryn	81.9		P	66 - 127
Pronamide	80.7		P	75 - 121
Propanil	80.4		P	45 - 150
Propargite	84.6		P	42 - 208
Propiconazole	75.0		P	60 - 125
Pyraflufen Ethyl	79.8		P	70 - 138
Pyridaben	74.7		P	35 - 245
Pyriproxyfen	76.2		P	30 - 149
Simazine	72.8		P	72 - 125
Stirophos	70.0		P	29 - 164
Sulfentrazone	65.5		P	21 - 139
Tebuconazole	58.5		P	10 - 115
Terbufos	101		P	60 - 123
Terbuthylazine	97.1		P	72 - 115
Thiobencarb	95.8		P	31 - 139
Triadimefon	90.0		P	65 - 116

Reference Method: EPA 8270E
Batch ID: P409707

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	41.0		P	10 - 93.0
Alpha-BHC	90.5		P	75 - 106
Alpha-Chlordane	73.8		P	50 - 109
Beta-BHC	112		P	65 - 135
Beta-Cyfluthrin	63.3		P	23 - 167
Bifenthrin	48.7		P	11 - 123
Chlorothalonil	80.4		P	26 - 182
Cis-Nonachlor	69.1		P	40 - 111
Cypermethrin	68.1		P	25 - 155
Dacthal	86.2		P	73 - 112
DDD-p,p'	70.4		P	47 - 108
DDE-p,p'	74.7		P	48 - 107
DDT-p,p'	82.6		P	49 - 111
Delta-BHC	111		P	68 - 143
Deltamethrin	70.5		P	16 - 176
Dichlobenil	79.7		P	32 - 113

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P409707

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	67.0		P	50 - 108
Dieldrin	60.2		P	56 - 110
Endosulfan I	77.7		P	60 - 105
Endosulfan II	66.7		P	50 - 120
Endosulfan Sulfate	80.6		P	55 - 121
Endrin Ketone	141		F	56 - 130
Esfenvalerate	62.3		P	10 - 179
Ethalfluralin	62.5		P	49 - 99.0
Fenpropathrin	50.6		P	35 - 119
Gamma-BHC	75.7		P	72 - 115
Gamma-Chlordane	68.7		P	45 - 107
Heptachlor	56.6		P	41 - 100
Heptachlor Epoxide	73.7		P	58 - 106
Hexachlorobenzene	70.2		P	39 - 100
Kepone	67.1		P	10 - 191
Lambda-Cyhalothrin	61.0		P	10 - 186
Methoxychlor	76.8		P	61 - 111
MGK-264	60.1		P	20 - 123
Mirex	45.4		P	10 - 182
Oxychlordane	70.8		P	39 - 110
PCB-1016	71.0		P	49 - 111
PCB-1260	95.1		P	42 - 116
Permethrin	70.6		P	26 - 152
Phenothrin	37.3		P	10 - 109
Tau-Fluvalinate	42.0		P	16 - 134
Trans-Nonachlor	69.7		P	45 - 107
Triclosan Methyl	77.1		P	60 - 110
Trifluralin	69.4		P	49 - 98.0

Reference Method: EPA 8270E
Batch ID: P410329

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	32.9	24.7	P/F	31 - 119
Endrin Aldehyde	50.5	41.2	P/P	36 - 116
Methoprene	33.0	23.9	P/P	10 - 129
Piperonyl Butoxide	11.0	8.54	F/F	27 - 142
Prallethrin	51.5	55.1	P/P	14 - 109
Tetramethrin	107	66.2	P/P	10 - 125

Reference Method: EPA 8276
Batch ID: P409707

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	94.7		P	61 - 118
Toxaphene	76.6		P	51 - 122

Reference Method: EPA 8321B
Batch ID: P409559

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	97.2		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P409559

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldicarb	65.3		P	30 - 150
Aldicarb Sulfone	93.8		P	40 - 150
Aldicarb Sulfoxide	80.4		P	40 - 150
Carbaryl	89.8		P	40 - 150
Carbofuran	88.8		P	40 - 150
Methiocarb	105		P	40 - 150
Methomyl	87.9		P	40 - 150
Oxamyl	94.3		P	40 - 150
Propoxur	90.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P409584

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.4		P	40 - 150
AMPA	95.0		P	40 - 150
Endothall	61.7		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	92.5		P	40 - 150
Sucralose	90.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P409686

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	148		P	40 - 150
2,4,5-T	118		P	40 - 150
Acetaminophen	113		P	30 - 150
Acetamiprid	118		P	40 - 150
Afidopyropen	124		P	40 - 150
Bentazon	105		P	30 - 150
Benzovindiflupyr	147		P	40 - 150
Carbamazepine	136		P	40 - 150
Clothianidin	137		P	40 - 150
Dinotefuran	120		P	40 - 150
Diuron	112		P	40 - 150
Fenuron	104		P	40 - 150
Fluridone	119		P	40 - 150
Hydrocodone	105		P	40 - 150
Ibuprofen	130		P	40 - 150
Imazapyr	121		P	40 - 150
Imidacloprid	118		P	40 - 150
Linuron	103		P	40 - 150
Mandestrobin	105		P	40 - 150
MCPP	146		P	40 - 150
Naproxen	79.2		P	40 - 150
Primidone	135		P	40 - 150
Pyraclostrobin	97.0		P	40 - 150
Silvex	114		P	40 - 150
Thiamethoxam	125		P	40 - 150
Tolfenpyrad	88.3		P	30 - 150
Triclopyr	113		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P409858

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.4		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P409861

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.7		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P410384

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304833	Calcium	110		P	80 - 120
2304833	Iron	111	107	P/P	80 - 120
2304833	Magnesium	108		P	80 - 120
2304833	Potassium	109	104	P/P	80 - 120
2304833	Sodium	107		P	80 - 120
2304833	Strontium	107	101	P/P	80 - 120
2304833	Tin	110	105	P/P	80 - 120
2304833	Titanium	109	104	P/P	80 - 120
2304833	Vanadium	103	98.0	P/P	80 - 120
2304833	Zinc	106	100	P/P	80 - 120
2305312	Calcium	109		P	80 - 120
2305312	Iron	109		P	80 - 120
2305312	Magnesium	109		P	80 - 120
2305312	Potassium	106		P	80 - 120
2305312	Sodium	104		P	80 - 120
2305312	Strontium	105		P	80 - 120
2305312	Tin	108		P	80 - 120
2305312	Titanium	108		P	80 - 120
2305312	Vanadium	99.5		P	80 - 120
2305312	Zinc	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304833	Aluminum	102	102	P/P	80 - 120
2304833	Antimony	103	102	P/P	80 - 120
2304833	Arsenic	103	103	P/P	80 - 120
2304833	Barium	105	104	P/P	80 - 120
2304833	Beryllium	95.6	97.6	P/P	80 - 120
2304833	Boron	110	111	P/P	80 - 120
2304833	Cadmium	102	104	P/P	80 - 120
2304833	Chromium	100	101	P/P	80 - 120
2304833	Cobalt	103	102	P/P	80 - 120
2304833	Copper	98.7	99.3	P/P	80 - 120
2304833	Lead	99.7	101	P/P	80 - 120
2304833	Manganese	101	102	P/P	80 - 120
2304833	Molybdenum	105	105	P/P	80 - 120
2304833	Nickel	102	101	P/P	80 - 120
2304833	Selenium	79.5	79.2	F/F	80 - 120
2304833	Silver	102	102	P/P	80 - 120
2304833	Thallium	106	108	P/P	80 - 120
2305312	Aluminum	102		P	80 - 120
2305312	Antimony	99.9		P	80 - 120
2305312	Arsenic	99.7		P	80 - 120
2305312	Barium	102		P	80 - 120
2305312	Beryllium	93.3		P	80 - 120
2305312	Boron	109		P	80 - 120
2305312	Cadmium	102		P	80 - 120
2305312	Chromium	99.0		P	80 - 120
2305312	Cobalt	99.9		P	80 - 120
2305312	Copper	97.8		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305312	Lead	100		P	80 - 120
2305312	Manganese	97.7		P	80 - 120
2305312	Molybdenum	101		P	80 - 120
2305312	Nickel	98.4		P	80 - 120
2305312	Selenium	99.7		P	80 - 120
2305312	Silver	98.6		P	80 - 120
2305312	Thallium	105		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304818	Chloride	102		P	90 - 110
2305040	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409890

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304818	Sulfate	99.5		P	90 - 110
2305040	Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304766	Ammonia-N	98.2	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409730

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304615	Kjeldahl Nitrogen	97.5	96.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409732

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304617	Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410168

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305155	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410094

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305014	Total-P	106	103	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409692

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304770	O-Phosphate-P	101	103	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P409681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305257	Acetochlor	99.4	115	P/P	65 - 124
2305257	Alachlor	99.6	121	P/P	61 - 121
2305257	Ametryn	78.8	106	P/P	52 - 216
2305257	Atrazine	93.0	91.8	P/P	68 - 133
2305257	Atrazine Desethyl	54.8	57.8	P/P	15 - 160
2305257	Avobenzone	124	142	P/P	50 - 200
2305257	Azinphos Methyl	98.4	122	P/P	40 - 292
2305257	Azoxystrobin	99.2	106	P/P	12 - 242
2305257	Bromacil	98.3	112	P/P	54 - 167
2305257	Butylate	57.6	56.7	P/P	14 - 94.0
2305257	Caffeine	158	86.7	P/P	10 - 226
2305257	Carbophenothion	85.9	83.6	P/P	49 - 122
2305257	Carfentrazone Ethyl	95.7	102	P/P	53 - 138
2305257	Chlorfenapyr	78.1	90.7	P/P	50 - 150
2305257	Chlorpyrifos Ethyl	91.2	86.8	P/P	52 - 122
2305257	Chlorpyrifos Methyl	97.7	102	P/P	66 - 117
2305257	Coumaphos	79.2	74.5	P/P	50 - 220
2305257	Cyanazine	180	172	P/P	43 - 245
2305257	Cyprodinil	80.8	92.8	P/P	50 - 150
2305257	Demeton	83.0	81.4	P/P	43 - 188
2305257	Diazinon	97.5	109	P/P	69 - 131
2305257	Difenoconazole	150	174	P/P	34 - 231
2305257	Dimethomorph	121	121	P/P	50 - 150
2305257	Disulfoton	96.9	87.7	P/P	38 - 141
2305257	Dithiopyr	94.2	93.0	P/P	42 - 116
2305257	EPTC	54.4	50.8	P/P	18 - 85.0
2305257	Ethion	88.8	80.2	P/P	10 - 131
2305257	Ethoprop	94.5	93.0	P/P	65 - 129
2305257	Etridiazole	69.7	78.2	P/P	50 - 150
2305257	Fenamiphos	109	100	P/P	31 - 137
2305257	Fenbuconazole	42.3	46.0	F/F	57 - 160
2305257	Fipronil	92.6	105	P/P	62 - 132
2305257	Fipronil Desulfinyl	94.9	109	P/P	57 - 131
2305257	Fipronil Sulfide	76.3	78.8	P/P	15 - 138
2305257	Fipronil Sulfone	78.9	73.5	P/P	21 - 134
2305257	Fluazifop-P-butyl	70.0	70.4	P/P	54 - 133
2305257	Fludioxonil	94.6	97.7	P/P	58 - 127
2305257	Flumioxazin	78.2	80.8	P/P	33 - 300
2305257	Flutolanil	73.4	78.2	P/P	42 - 130
2305257	Fluxapyroxad	64.0	76.9	P/P	23 - 141
2305257	Fonofos	86.1	82.4	P/P	58 - 119
2305257	Hexazinone	105	99.8	P/P	68 - 172
2305257	Imazalil	93.4	97.9	P/P	48 - 283
2305257	Iprodione	75.8	105	P/P	38 - 140
2305257	Loratadine	107	112	P/P	50 - 150
2305257	Malathion	99.4	109	P/P	40 - 137

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P409681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305257	Metalaxyl	85.2	99.3	P/P	21 - 129
2305257	Metolachlor	98.3	104	P/P	55 - 122
2305257	Metribuzin	94.4	99.5	P/P	38 - 187
2305257	Mevinphos	69.7	77.2	P/P	54 - 134
2305257	Molinate	67.8	66.1	P/P	41 - 97.0
2305257	Myclobutanil	85.1	92.4	P/P	56 - 125
2305257	Naled	121	120	F/F	10 - 108
2305257	Napropamide	77.4	83.8	P/P	50 - 150
2305257	Norflurazon	86.8	89.4	P/P	32 - 122
2305257	Octinoxate	92.7	99.4	P/P	50 - 150
2305257	Oxadiazon	78.6	84.3	P/P	40 - 119
2305257	Oxybenzone	116	128	P/P	50 - 150
2305257	Oxyfluorfen	107	116	P/P	61 - 153
2305257	Parathion Ethyl	93.7	98.8	P/P	59 - 130
2305257	Parathion Methyl	113	126	P/P	65 - 155
2305257	Pendimethalin	96.3	102	P/P	49 - 138
2305257	Phenytoin	52.9	53.3	P/P	50 - 200
2305257	Phorate	84.6	83.0	P/P	54 - 161
2305257	Prodiamine	45.4	52.2	P/P	33 - 161
2305257	Prometon	83.7	90.0	P/P	48 - 140
2305257	Prometryn	77.7	89.4	P/P	55 - 134
2305257	Pronamide	99.1	108	P/P	66 - 137
2305257	Propanil	87.4	103	P/P	50 - 150
2305257	Propargite	84.2	107	P/P	50 - 200
2305257	Propiconazole	88.1	85.3	P/P	36 - 150
2305257	Pyraflufen Ethyl	82.1	74.7	P/P	50 - 150
2305257	Pyridaben	83.0	89.2	P/P	50 - 200
2305257	Pyriproxyfen	83.3	98.9	P/P	10 - 165
2305257	Simazine	85.3	89.8	P/P	57 - 145
2305257	Stirophos	81.1	80.4	P/P	50 - 150
2305257	Tebuconazole	77.6	85.1	P/P	10 - 127
2305257	Terbufos	122	120	P/P	59 - 138
2305257	Terbuthylazine	94.5	101	P/P	68 - 119
2305257	Thiobencarb	88.0	101	P/P	50 - 150
2305257	Triadimefon	94.8	98.5	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P409707

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304547	PCB-1016	79.0	75.3	P/P	46 - 110
2304547	PCB-1260	106	104	P/P	42 - 111
2304810	Aldrin	55.2	53.2	P/P	10 - 89.0
2304810	Alpha-BHC	91.2	87.5	P/P	71 - 105
2304810	Alpha-Chlordane	69.0	66.5	P/P	43 - 107
2304810	Beta-BHC	86.2	79.7	P/P	57 - 152
2304810	Beta-Cyfluthrin	117	125	P/P	29 - 186
2304810	Bifenthrin	41.6	60.7	P/P	19 - 119
2304810	Chlorothalonil	148	126	P/P	10 - 245
2304810	Cis-Nonachlor	68.7	69.9	P/P	36 - 110
2304810	Cypermethrin	101	109	P/P	24 - 169
2304810	Dacthal	85.0	82.0	P/P	62 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P409707

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304810	DDD-p,p'	65.4	69.5	P/P	36 - 109
2304810	DDE-p,p'	73.8	69.8	P/P	30 - 114
2304810	DDT-p,p'	79.0	75.4	P/P	42 - 108
2304810	Delta-BHC	91.9	83.8	P/P	60 - 164
2304810	Deltamethrin	121	119	P/P	10 - 210
2304810	Dichlobenil	70.9	66.1	P/P	23 - 108
2304810	Dicofol	76.2	76.1	P/P	44 - 109
2304810	Dieldrin	66.5	71.9	P/P	37 - 119
2304810	Endosulfan I	78.6	75.7	P/P	52 - 105
2304810	Endosulfan II	78.2	82.7	P/P	35 - 127
2304810	Endosulfan Sulfate	79.4	73.9	P/P	39 - 130
2304810	Endrin Ketone	122	99.7	P/P	48 - 134
2304810	Esfenvalerate	103	107	P/P	10 - 199
2304810	Ethalfluralin	70.9	69.5	P/P	48 - 95.0
2304810	Fenpropathrin	80.6	92.0	P/P	37 - 121
2304810	Gamma-BHC	81.9	82.1	P/P	61 - 126
2304810	Gamma-Chlordane	69.6	64.8	P/P	39 - 105
2304810	Heptachlor	72.5	70.7	P/P	38 - 96.0
2304810	Heptachlor Epoxide	74.7	73.3	P/P	42 - 114
2304810	Hexachlorobenzene	70.5	68.6	P/P	39 - 93.0
2304810	Kepone	55.8	20.0	P/P	10 - 215
2304810	Lambda-Cyhalothrin	120	137	P/P	10 - 204
2304810	Methoxychlor	87.6	87.0	P/P	56 - 115
2304810	MGK-264	74.0	72.8	P/P	35 - 120
2304810	Mirex	56.9	57.9	P/P	10 - 178
2304810	Oxychlordane	72.2	75.8	P/P	47 - 91.0
2304810	Permethrin	102	114	P/P	27 - 170
2304810	Tau-Fluvalinate	74.5	87.0	P/P	16 - 158
2304810	Trans-Nonachlor	72.3	68.1	P/P	43 - 102
2304810	Triclosan Methyl	74.2	72.8	P/P	49 - 109
2304810	Trifluralin	74.8	69.3	P/P	48 - 93.0

Reference Method: EPA 8270E
Batch ID: P410329

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304526	Endrin	41.8		P	30 - 116
2304526	Endrin Aldehyde	52.9		P	20 - 110
2304526	Methoprene	23.3		P	17 - 108
2304526	Piperonyl Butoxide	13.1		F	23 - 150
2304526	Prallethrin	51.1		P	21 - 113
2304526	Tetramethrin	62.7		P	22 - 132

Reference Method: EPA 8276
Batch ID: P409707

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304547	Chlordane	84.1	85.5	P/P	55 - 128
2304547	Toxaphene	77.8	79.6	P/P	57 - 211

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P409559

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304428	3-Hydroxycarbofuran	109	85.0	P/P	40 - 150
2304428	Aldicarb	106	61.3	P/P	30 - 150
2304428	Aldicarb Sulfone	101	104	P/P	40 - 150
2304428	Aldicarb Sulfoxide	53.3	52.9	P/P	40 - 150
2304428	Carbaryl	82.8	70.0	P/P	40 - 150
2304428	Carbofuran	95.9	74.8	P/P	40 - 150
2304428	Methiocarb	103	76.8	P/P	40 - 150
2304428	Methomyl	93.1	76.6	P/P	40 - 150
2304428	Oxamyl	92.6	103	P/P	40 - 150
2304428	Propoxur	87.3	81.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P409584

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304429	Acesulfame K	97.0	98.2	P/P	40 - 150
2304429	AMPA	54.5	53.6	P/P	40 - 150
2304429	Endothall	89.1	89.8	P/P	40 - 150
2304429	Glufosinate	86.1	84.8	P/P	40 - 150
2304429	Glyphosate	70.3	64.7	P/P	40 - 150
2304429	Sucralose	91.1	94.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P409686

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305178	2,4-D	147	114	P/P	40 - 150
2305178	2,4,5-T	132	126	P/P	40 - 150
2305178	Acetaminophen	145	144	P/P	30 - 150
2305178	Acetamiprid	128	98.4	P/P	40 - 150
2305178	Afidopyropen	93.1	82.0	P/P	40 - 150
2305178	Bentazon	48.8	59.3	P/P	30 - 150
2305178	Benzovindiflupyr	111	121	P/P	40 - 150
2305178	Carbamazepine	118	131	P/P	40 - 150
2305178	Clothianidin	200	167	F/F	40 - 150
2305178	Dinotefuran	179	157	F/F	40 - 150
2305178	Diuron	64.9	86.3	P/P	40 - 150
2305178	Fenuron	98.3	98.6	P/P	40 - 150
2305178	Fluridone	116	96.0	P/P	40 - 150
2305178	Hydrocodone	135	124	P/P	40 - 150
2305178	Ibuprofen	132	104	P/P	40 - 150
2305178	Imazapyr	121	122	P/P	40 - 150
2305178	Imidacloprid	287	235	F/F	40 - 150
2305178	Linuron	95.2	74.8	P/P	40 - 150
2305178	Mandestrobin	110	100	P/P	40 - 150
2305178	MCPP	174	141	F/P	40 - 150
2305178	Naproxen	101	100	P/P	40 - 150
2305178	Primidone	156	118	F/P	40 - 150
2305178	Pyraclostrobin	111	99.0	P/P	40 - 150
2305178	Silvex	151	120	F/P	40 - 150
2305178	Thiamethoxam	222	203	F/F	40 - 150
2305178	Tolfenpyrad	101	84.4	P/P	30 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P409686

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305178	Triclopyr	159	107	F/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P409861

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304920	Fluoride	98.7	98.1	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P410384

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304631	Organic Carbon	97.7	95.4	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P409713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304817	Color (true)	0.614	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P409715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305011	Color (true)	0.755	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304764	Turbidity	16.0	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305040	Turbidity	12.8	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304833	Calcium	4.87	Spike	P	0 - 20
2304833	Iron	4.13	Spike	P	0 - 20
2304833	Magnesium	4.40	Spike	P	0 - 20
2304833	Potassium	3.97	Spike	P	0 - 20
2304833	Sodium	4.61	Spike	P	0 - 20
2304833	Strontium	4.68	Spike	P	0 - 20
2304833	Tin	4.72	Spike	P	0 - 20
2304833	Titanium	5.28	Spike	P	0 - 20
2304833	Vanadium	5.25	Spike	P	0 - 20
2304833	Zinc	5.10	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304833	Aluminum	0.613	Spike	P	0 - 20
2304833	Antimony	1.04	Spike	P	0 - 20
2304833	Arsenic	0.462	Spike	P	0 - 20
2304833	Barium	0.483	Spike	P	0 - 20
2304833	Beryllium	2.05	Spike	P	0 - 20
2304833	Boron	1.02	Spike	P	0 - 20
2304833	Cadmium	2.02	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304833	Chromium	0.394	Spike	P	0 - 20
2304833	Cobalt	0.196	Spike	P	0 - 20
2304833	Copper	0.663	Spike	P	0 - 20
2304833	Lead	1.68	Spike	P	0 - 20
2304833	Manganese	0.733	Spike	P	0 - 20
2304833	Molybdenum	0.118	Spike	P	0 - 20
2304833	Nickel	0.784	Spike	P	0 - 20
2304833	Selenium	0.347	Spike	P	0 - 20
2304833	Silver	0.265	Spike	P	0 - 20
2304833	Thallium	1.82	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304818	Chloride	1.53	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409890

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304818	Sulfate	0.221	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304766	Ammonia-N	1.06	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304615	Kjeldahl Nitrogen	0.842	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304617	Kjeldahl Nitrogen	2.11	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305155	NO2NO3-N	0.995	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305014	Total-P	2.32	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409692

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304770	O-Phosphate-P	1.18	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P409681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305257	Acetochlor	14.4	Spike	P	0 - 27
2305257	Alachlor	19.3	Spike	P	0 - 27
2305257	Ametryn	29.5	Spike	P	0 - 34
2305257	Atrazine	1.15	Spike	P	0 - 41
2305257	Atrazine Desethyl	5.29	Spike	P	0 - 38
2305257	Avobenzone	13.0	Spike	P	0 - 30
2305257	Azinphos Methyl	21.2	Spike	P	0 - 62
2305257	Azoxystrobin	6.63	Spike	P	0 - 32
2305257	Bromacil	13.3	Spike	P	0 - 30
2305257	Butylate	1.70	Spike	P	0 - 59
2305257	Caffeine	58.1	Spike	P	0 - 60
2305257	Carbophenothion	2.70	Spike	P	0 - 25
2305257	Carfentrazone Ethyl	6.86	Spike	P	0 - 26
2305257	Chlorfenapyr	14.9	Spike	P	0 - 30
2305257	Chlorpyrifos Ethyl	4.95	Spike	P	0 - 27
2305257	Chlorpyrifos Methyl	4.09	Spike	P	0 - 26
2305257	Coumaphos	6.08	Spike	P	0 - 30
2305257	Cyanazine	4.16	Spike	P	0 - 58
2305257	Cyprodinil	13.9	Spike	P	0 - 30
2305257	Demeton	1.95	Spike	P	0 - 25
2305257	Diazinon	10.8	Spike	P	0 - 29
2305257	Difenoconazole	15.3	Spike	P	0 - 25
2305257	Dimethenamid	12.0	Spike	P	0 - 30
2305257	Dimethomorph	0.0895	Spike	P	0 - 30
2305257	Disulfoton	9.89	Spike	P	0 - 33
2305257	Dithiopyr	1.27	Spike	P	0 - 22
2305257	EPTC	6.97	Spike	P	0 - 38
2305257	Ethion	10.1	Spike	P	0 - 79
2305257	Ethoprop	1.63	Spike	P	0 - 23
2305257	Etridiazole	11.5	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P409681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305257	Fenamiphos	8.31	Spike	P	0 - 58
2305257	Fenbuconazole	8.41	Spike	P	0 - 37
2305257	Fipronil	12.1	Spike	P	0 - 33
2305257	Fipronil Desulfinyl	14.2	Spike	P	0 - 26
2305257	Fipronil Sulfide	3.23	Spike	P	0 - 37
2305257	Fipronil Sulfone	7.11	Spike	P	0 - 50
2305257	Fluazifop-P-butyl	0.564	Spike	P	0 - 24
2305257	Fludioxonil	3.26	Spike	P	0 - 26
2305257	Flumioxazin	3.25	Spike	P	0 - 37
2305257	Flutolanil	6.26	Spike	P	0 - 26
2305257	Fluxapyroxad	16.6	Spike	P	0 - 34
2305257	Fonofos	4.43	Spike	P	0 - 27
2305257	Hexazinone	4.62	Spike	P	0 - 36
2305257	Imazalil	4.68	Spike	P	0 - 65
2305257	Iprodione	32.3	Spike	P	0 - 33
2305257	Loratadine	5.10	Spike	P	0 - 30
2305257	Malathion	9.04	Spike	P	0 - 44
2305257	Metalaxyl	15.3	Spike	P	0 - 38
2305257	Metolachlor	6.02	Spike	P	0 - 36
2305257	Metribuzin	5.29	Spike	P	0 - 63
2305257	Mevinphos	10.2	Spike	P	0 - 26
2305257	Molinate	2.61	Spike	P	0 - 40
2305257	Myclobutanil	8.14	Spike	P	0 - 21
2305257	Naled	0.639	Spike	P	0 - 26
2305257	Napropamide	7.95	Spike	P	0 - 30
2305257	Norflurazon	2.97	Spike	P	0 - 24
2305257	Octinoxate	6.97	Spike	P	0 - 30
2305257	Oxadiazon	6.93	Spike	P	0 - 27
2305257	Oxybenzone	9.39	Spike	P	0 - 30
2305257	Oxyfluorfen	7.96	Spike	P	0 - 24
2305257	Parathion Ethyl	5.24	Spike	P	0 - 28
2305257	Parathion Methyl	10.6	Spike	P	0 - 27
2305257	Pendimethalin	5.71	Spike	P	0 - 31
2305257	Phenytoin	0.675	Spike	P	0 - 30
2305257	Phorate	1.90	Spike	P	0 - 27
2305257	Prodiamine	14.0	Spike	P	0 - 52
2305257	Prometon	7.18	Spike	P	0 - 31
2305257	Prometryn	14.0	Spike	P	0 - 28
2305257	Pronamide	8.56	Spike	P	0 - 26
2305257	Propanil	16.5	Spike	P	0 - 30
2305257	Propargite	24.1	Spike	P	0 - 30
2305257	Propiconazole	3.22	Spike	P	0 - 31
2305257	Pyraflufen Ethyl	9.32	Spike	P	0 - 30
2305257	Pyridaben	7.28	Spike	P	0 - 30
2305257	Pyriproxyfen	17.2	Spike	P	0 - 50
2305257	Simazine	5.03	Spike	P	0 - 29
2305257	Stirophos	0.872	Spike	P	0 - 30
2305257	Sulfentrazone	2.56	Spike	P	0 - 33
2305257	Tebuconazole	9.18	Spike	P	0 - 44
2305257	Terbufos	1.74	Spike	P	0 - 29
2305257	Terbuthylazine	6.92	Spike	P	0 - 27

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P409681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305257	Thiobencarb	13.7	Spike	P	0 - 30
2305257	Triadimefon	3.78	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P409707

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304547	PCB-1016	4.81	Spike	P	0 - 22
2304547	PCB-1260	2.27	Spike	P	0 - 30
2304810	Aldrin	3.72	Spike	P	0 - 37
2304810	Alpha-BHC	4.11	Spike	P	0 - 16
2304810	Alpha-Chlordane	3.59	Spike	P	0 - 28
2304810	Beta-BHC	7.80	Spike	P	0 - 32
2304810	Beta-Cyfluthrin	6.84	Spike	P	0 - 41
2304810	Bifenthrin	37.3	Spike	F	0 - 36
2304810	Chlorothalonil	16.1	Spike	P	0 - 54
2304810	Cis-Nonachlor	1.78	Spike	P	0 - 33
2304810	Cypermethrin	8.16	Spike	P	0 - 38
2304810	Dacthal	3.53	Spike	P	0 - 23
2304810	DDD-p,p'	6.07	Spike	P	0 - 35
2304810	DDE-p,p'	5.56	Spike	P	0 - 27
2304810	DDT-p,p'	4.42	Spike	P	0 - 31
2304810	Delta-BHC	9.22	Spike	P	0 - 30
2304810	Deltamethrin	1.71	Spike	P	0 - 76
2304810	Dichlobenil	7.06	Spike	P	0 - 33
2304810	Dicofol	0.127	Spike	P	0 - 24
2304810	Dieldrin	7.83	Spike	P	0 - 35
2304810	Endosulfan I	3.70	Spike	P	0 - 25
2304810	Endosulfan II	5.65	Spike	P	0 - 31
2304810	Endosulfan Sulfate	7.26	Spike	P	0 - 38
2304810	Endrin Ketone	19.9	Spike	P	0 - 33
2304810	Esfenvalerate	3.77	Spike	P	0 - 46
2304810	Ethalfluralin	2.02	Spike	P	0 - 22
2304810	Fenpropathrin	13.2	Spike	P	0 - 29
2304810	Gamma-BHC	0.278	Spike	P	0 - 17
2304810	Gamma-Chlordane	7.14	Spike	P	0 - 28
2304810	Heptachlor	2.52	Spike	P	0 - 28
2304810	Heptachlor Epoxide	1.83	Spike	P	0 - 23
2304810	Hexachlorobenzene	2.70	Spike	P	0 - 22
2304810	Kepone	94.4	Spike	F	0 - 61
2304810	Lambda-Cyhalothrin	13.3	Spike	P	0 - 52
2304810	Methoxychlor	0.691	Spike	P	0 - 29
2304810	MGK-264	1.71	Spike	P	0 - 41
2304810	Mirex	1.88	Spike	P	0 - 39
2304810	Oxychlordane	4.94	Spike	P	0 - 33
2304810	Permethrin	11.1	Spike	P	0 - 39
2304810	Phenothrin	38.0	Spike	P	0 - 52
2304810	Tau-Fluvalinate	15.5	Spike	P	0 - 41
2304810	Trans-Nonachlor	5.85	Spike	P	0 - 31
2304810	Triclosan Methyl	1.96	Spike	P	0 - 24

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P409707

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304810	Trifluralin	7.62	Spike	P	0 - 23

Reference Method: EPA 8270E
Batch ID: P410329

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endrin	28.6	LCS	F	0 - 20
LFB	Endrin Aldehyde	20.3	LCS	P	0 - 33
LFB	Methoprene	31.8	LCS	P	0 - 48
LFB	Piperonyl Butoxide	25.1	LCS	P	0 - 36
LFB	Prallethrin	6.58	LCS	P	0 - 41
LFB	Tetramethrin	46.8	LCS	P	0 - 66

Reference Method: EPA 8276
Batch ID: P409707

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304547	Chlordane	1.71	Spike	P	0 - 25
2304547	Toxaphene	2.25	Spike	P	0 - 24

Reference Method: EPA 8321B
Batch ID: P409559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304428	3-Hydroxycarbofuran	24.7	Spike	P	0 - 30
2304428	Aldicarb	53.1	Spike	F	0 - 30
2304428	Aldicarb Sulfone	2.54	Spike	P	0 - 30
2304428	Aldicarb Sulfoxide	0.648	Spike	P	0 - 30
2304428	Carbaryl	16.8	Spike	P	0 - 30
2304428	Carbofuran	24.8	Spike	P	0 - 30
2304428	Methiocarb	29.5	Spike	P	0 - 30
2304428	Methomyl	19.4	Spike	P	0 - 30
2304428	Oxamyl	10.4	Spike	P	0 - 30
2304428	Propoxur	7.51	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P409584

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304429	Acesulfame K	1.24	Spike	P	0 - 30
2304429	AMPA	1.44	Spike	P	0 - 30
2304429	Endothall	0.718	Spike	P	0 - 30
2304429	Glufosinate	1.54	Spike	P	0 - 30
2304429	Glyphosate	6.98	Spike	P	0 - 30
2304429	Sucralose	3.29	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P409686

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305178	2,4-D	25.6	Spike	P	0 - 30
2305178	2,4,5-T	4.68	Spike	P	0 - 30
2305178	Acetaminophen	0.212	Spike	P	0 - 30
2305178	Acetamiprid	25.8	Spike	P	0 - 30
2305178	Afidopyropen	12.7	Spike	P	0 - 30
2305178	Bentazon	19.5	Spike	P	0 - 30
2305178	Benzovindiflupyr	8.20	Spike	P	0 - 30
2305178	Carbamazepine	10.6	Spike	P	0 - 30
2305178	Clothianidin	18.1	Spike	P	0 - 30
2305178	Dinotefuran	12.8	Spike	P	0 - 30
2305178	Diuron	28.3	Spike	P	0 - 30
2305178	Fenuron	0.363	Spike	P	0 - 30
2305178	Fluridone	18.5	Spike	P	0 - 30
2305178	Hydrocodone	8.13	Spike	P	0 - 30
2305178	Ibuprofen	24.2	Spike	P	0 - 30
2305178	Imazapyr	1.03	Spike	P	0 - 30
2305178	Imidacloprid	20.0	Spike	P	0 - 30
2305178	Linuron	24.0	Spike	P	0 - 30
2305178	Mandestrobin	9.71	Spike	P	0 - 30
2305178	MCPP	20.9	Spike	P	0 - 30
2305178	Naproxen	0.895	Spike	P	0 - 30
2305178	Primidone	27.8	Spike	P	0 - 30
2305178	Pyraclostrobin	11.6	Spike	P	0 - 30
2305178	Silvex	22.6	Spike	P	0 - 30
2305178	Thiamethoxam	8.95	Spike	P	0 - 30
2305178	Tolfenpyrad	17.9	Spike	P	0 - 30
2305178	Triclopyr	38.7	Spike	F	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P409858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304920	Total Alkalinity	2.25	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P410072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305049	TDS	0.771	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P409861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304920	Fluoride	0.495	Spike	P	0 - 2.1

Quality Assurance Report
Precision

Reference Method: SM 5310 B-2011
Batch ID: P410384

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304631	Organic Carbon	1.33	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2304931
Field Sample ID: G4CE0167

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	156	P	30 - 160
EPA 8321B	Acetaminophen-d4	111	P	30 - 160
EPA 8321B	Carbamazepine-d10	129	P	30 - 160
EPA 8321B	Diuron-d6	58.4	P	30 - 160
EPA 8321B	Endothall-d6	81.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	116	P	30 - 160
EPA 8321B	Primidone-d5	92.6	P	30 - 160
EPA 8321B	Sucralose-d6	73.0	P	30 - 160

Lab Sample ID: 2304932
Field Sample ID: G4CE0168

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	79.4	P	30 - 160

Lab Sample ID: 2304933
Field Sample ID: G4CE0168

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	141	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	122	P	30 - 160
EPA 8321B	Diuron-d6	72.7	P	30 - 160
EPA 8321B	Endothall-d6	67.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	107	P	30 - 160
EPA 8321B	Primidone-d5	95.5	P	30 - 160
EPA 8321B	Sucralose-d6	76.0	P	30 - 160

Lab Sample ID: 2304934
Field Sample ID: G4CE0167

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	98.7	P	38 - 115
EPA 8270E	Tetrachloro-m-xylene	45.6	P	29 - 98.0

Lab Sample ID: 2304935
Field Sample ID: G4CE0168

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	84.7	P	38 - 115
EPA 8270E	Decachlorobiphenyl	89.4	P	31 - 118
EPA 8270E	Decachlorobiphenyl	52.6	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	48.6	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	51.4	P	28 - 96.0
EPA 8270E	Tetrachloro-m-xylene	58.2	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	70.5	P	30 - 97.0
EPA 8276	PCNB	69.3	P	45 - 119

Quality Assurance Report
Surrogates

Lab Sample ID: 2304936
Field Sample ID: G4CE0168

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	37.4	P	20 - 200
EPA 8270E	Simazine-d10	74.6	P	71 - 140
EPA 8270E	Terbufos-d10	80.5	P	62 - 131
EPA 8270E	Terphenyl-d14	73.7	P	55 - 108

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A110338
Included Lab Sample IDs: 2304922, 2304925

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	100	P/P	90 - 110
O-Phosphate-P	99.1	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A110339
Included Lab Sample IDs: 2304920, 2304923

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	98.5	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1
Run ID: A110350
Included Lab Sample IDs: 2304920, 2304923

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	85 - 115
Color (true)	104	103	P/P	85 - 115

Reference Method: EPA 8321B
Run ID: A110380
Included Lab Sample IDs: 2304931, 2304933

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	125	P/P	50 - 150
2,4,5-T	125	133	P/P	50 - 150
3-Hydroxycarbofuran	112	109	P/P	60 - 150
Acetaminophen	112	130	P/P	60 - 160
Acetamiprid	122	117	P/P	50 - 150
Afidopyropen	143	121	P/P	50 - 150
Aldicarb	87.7	123	P/P	60 - 150
Aldicarb Sulfone	106	105	P/P	50 - 150
Aldicarb Sulfoxide	99.9	104	P/P	50 - 150
Bentazon	98.1	128	P/P	50 - 160
Benzovindiflupyr	124	137	P/P	50 - 150
Carbamazepine	131	119	P/P	60 - 150
Carbaryl	122	104	P/P	60 - 150
Carbofuran	123	105	P/P	50 - 150
Clothianidin	107	121	P/P	60 - 150
Dinotefuran	108	117	P/P	50 - 150
Diuron	109	125	P/P	60 - 160
Fenuron	93.0	108	P/P	60 - 150
Fluridone	98.6	115	P/P	60 - 160
Hydrocodone	106	117	P/P	60 - 150
Ibuprofen	191*	116	F/P	50 - 160
Imazapyr	94.8	110	P/P	50 - 150
Imidacloprid	97.4	106	P/P	60 - 150
Linuron	104	93.8	P/P	60 - 150
Mandestrobin	124	109	P/P	50 - 150
MCPP	129	125	P/P	50 - 150
Methiocarb	118	131	P/P	50 - 150
Methomyl	89.6	88.7	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A110380
Included Lab Sample IDs: 2304931, 2304933

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naproxen	121	134	P/P	50 - 160
Oxamyl	109	95.6	P/P	50 - 150
Primidone	104	90.4	P/P	60 - 150
Propoxur	123	110	P/P	50 - 150
Pyraclostrobin	128	112	P/P	60 - 150
Silvex	124	144	P/P	50 - 150
Thiamethoxam	102	116	P/P	50 - 150
Tolfenpyrad	131	141	P/P	60 - 150
Triclopyr	121	123	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A110387
Included Lab Sample IDs: 2304931, 2304933

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.1	97.1	P/P	60 - 160
Glufosinate	98.6	104	P/P	60 - 160
Glyphosate	96.1	94.5	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A110393
Included Lab Sample IDs: 2304931, 2304933

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	88.9	98.4	P/P	60 - 160
Acesulfame K	98.4	72.7	P/P	60 - 160
Endothall	72.6	83.6	P/P	60 - 160
Endothall	83.6	60.4	P/P	60 - 160
Sucralose	82.0	84.8	P/P	60 - 160
Sucralose	84.8	71.4	P/P	60 - 160

Reference Method: SM 2320 B-2011
Run ID: A110414
Included Lab Sample IDs: 2304920, 2304923

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.8	97.5	P/P	90 - 110
Total Alkalinity	97.5	100	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A110414
Included Lab Sample IDs: 2304920, 2304923

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A110423
Included Lab Sample IDs: 2304920, 2304923

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A110425
Included Lab Sample IDs: 2304937

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	102	P/P	90 - 110
Antimony	95.9	96.6	P/P	90 - 110
Arsenic	99.2	99.0	P/P	90 - 110
Barium	99.9	99.8	P/P	90 - 110
Beryllium	96.1	96.1	P/P	90 - 110
Boron	105	106	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	97.8	98.2	P/P	90 - 110
Cobalt	101	99.4	P/P	90 - 110
Copper	99.6	98.4	P/P	90 - 110
Lead	97.9	98.6	P/P	90 - 110
Manganese	98.7	98.3	P/P	90 - 110
Molybdenum	100	101	P/P	90 - 110
Nickel	100	100	P/P	90 - 110
Selenium	99.5	99.6	P/P	90 - 110
Silver	92.3	92.4	P/P	90 - 110
Thallium	105	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A110427
Included Lab Sample IDs: 2304924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A110438
Included Lab Sample IDs: 2304921

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.2	94.3	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A110449
Included Lab Sample IDs: 2304935

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.8		P	80 - 120
Alpha-BHC	95.9		P	80 - 120
Alpha-Chlordane	105		P	80 - 120
Beta-BHC	105		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A110449
Included Lab Sample IDs: 2304935

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-Cyfluthrin	90.7		P	80 - 120
Bifenthrin	98.2		P	80 - 120
Chlorothalonil	93.2		P	80 - 120
Cis-Nonachlor	99.3		P	80 - 120
Cypermethrin	98.9		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	104		P	80 - 120
DDT-p,p'	94.9		P	80 - 120
Delta-BHC	95.7		P	80 - 120
Deltamethrin	84.8		P	80 - 120
Dichlobenil	104		P	80 - 120
Dicofol	99.3		P	80 - 120
Dieldrin	104		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	95.0		P	80 - 120
Endosulfan Sulfate	101		P	80 - 120
Endrin Ketone	99.9		P	80 - 120
Esfenvalerate	91.1		P	80 - 120
Ethalfluralin	101		P	80 - 120
Fenpropathrin	105		P	80 - 120
Gamma-BHC	94.6		P	80 - 120
Gamma-Chlordane	104		P	80 - 120
Heptachlor	93.6		P	80 - 120
Heptachlor Epoxide	102		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Kepone	99.1		P	80 - 120
Lambda-Cyhalothrin	90.9		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	105		P	80 - 120
Mirex	97.7		P	80 - 120
Oxychlordane	106		P	80 - 120
Permethrin	93.0		P	80 - 120
Phenothrin	99.2		P	80 - 120
Tau-Fluvalinate	85.7		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Triclosan Methyl	110		P	80 - 120
Trifluralin	95.0		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A110454
Included Lab Sample IDs: 2304921, 2304924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.6	98.9	P/P	90 - 110
Ammonia-N	98.6	99.1	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A110457
Included Lab Sample IDs: 2304934, 2304935

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	106		P	80 - 120
PCB-1260	118		P	80 - 120

Reference Method: EPA 8276
Run ID: A110477
Included Lab Sample IDs: 2304935

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	92.7		P	80 - 120
Toxaphene	102		P	80 - 120

Reference Method: EPA 8270E
Run ID: A110507
Included Lab Sample IDs: 2304936

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	106		P	80 - 120
Alachlor	111		P	80 - 120
Ametryn	99.2		P	80 - 120
Atrazine	99.2		P	80 - 120
Atrazine Desethyl	110		P	80 - 120
Azinphos Methyl	95.8		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	106		P	80 - 120
Butylate	98.0		P	80 - 120
Caffeine	102		P	80 - 120
Carbophenothion	81.8		P	80 - 120
Carfentrazone Ethyl	101		P	80 - 120
Chlorfenapyr	100		P	80 - 120
Chlorpyrifos Ethyl	106		P	80 - 120
Chlorpyrifos Methyl	99.7		P	80 - 120
Coumaphos	83.2		P	80 - 120
Cyanazine	109		P	80 - 120
Cyprodinil	94.2		P	80 - 120
Demeton	94.4		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	97.1		P	80 - 120
Dimethenamid	107		P	80 - 120
Dimethomorph	99.1		P	80 - 120
Disulfoton	95.4		P	80 - 120
Dithiopyr	94.1		P	80 - 120
EPTC	101		P	80 - 120
Ethion	98.6		P	80 - 120
Ethoprop	98.5		P	80 - 120
Etridiazole	102		P	80 - 120
Fenamiphos	100		P	80 - 120
Fenbuconazole	113		P	80 - 120
Fipronil	96.7		P	80 - 120
Fipronil Desulfinyl	98.7		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fipronil Sulfone	90.1		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A110507
Included Lab Sample IDs: 2304936

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluazifop-P-butyl	81.2		P	80 - 120
Fludioxonil	100		P	80 - 120
Flumioxazin	114		P	80 - 120
Flutolanil	108		P	80 - 120
Fluxapyroxad	90.9		P	80 - 120
Fonofos	98.1		P	80 - 120
Hexazinone	99.8		P	80 - 120
Imazalil	99.2		P	80 - 120
Iprodione	98.5		P	80 - 120
Loratadine	102		P	80 - 120
Malathion	91.8		P	80 - 120
Metalaxyl	98.8		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	105		P	80 - 120
Mevinphos	96.1		P	80 - 120
Molinate	97.7		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	110		P	80 - 120
Napropamide	101		P	80 - 120
Norflurazon	99.3		P	80 - 120
Oxadiazon	108		P	80 - 120
Oxyfluorfen	96.3		P	80 - 120
Parathion Ethyl	109		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	108		P	80 - 120
Phenytoin	101		P	80 - 120
Phorate	92.5		P	80 - 120
Prodiamine	86.5		P	80 - 120
Prometon	105		P	80 - 120
Prometryn	100		P	80 - 120
Pronamide	106		P	80 - 120
Propanil	105		P	80 - 120
Propargite	98.0		P	80 - 120
Propiconazole	100		P	80 - 120
Pyraflufen Ethyl	97.6		P	80 - 120
Pyridaben	101		P	80 - 120
Pyriproxyfen	106		P	80 - 120
Simazine	103		P	80 - 120
Stirophos	101		P	80 - 120
Sulfentrazone	92.7		P	80 - 120
Tebuconazole	95.7		P	80 - 120
Terbufos	93.9		P	80 - 120
Terbuthylazine	106		P	80 - 120
Thiobencarb	110		P	80 - 120
Triadimefon	109		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A110534
Included Lab Sample IDs: 2304921, 2304924

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A110534
Included Lab Sample IDs: 2304921, 2304924

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

Reference Method: EPA 8270E
Run ID: A110535
Included Lab Sample IDs: 2304936

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzone	101		P	80 - 120
Octinoxate	91.5		P	80 - 120
Oxybenzone	95.8		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A110559
Included Lab Sample IDs: 2304937

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A110568
Included Lab Sample IDs: 2304924

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

Reference Method: EPA 8270E
Run ID: A110615
Included Lab Sample IDs: 2304935

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin	92.3		P	80 - 120
Endrin Aldehyde	112		P	80 - 120
Methoprene	96.2		P	80 - 120
Piperonyl Butoxide	101		P	80 - 120
Prallethrin	101		P	80 - 120
Tetramethrin	109		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A110618
Included Lab Sample IDs: 2304921

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A110618
Included Lab Sample IDs: 2304921

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

Reference Method: SM 5310 B-2011
Run ID: A110636
Included Lab Sample IDs: 2304921, 2304924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	96.1	P/P	90 - 110

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision		
						LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	98.2					0.614	
	Color (true)	100					0.755	
EPA 180.1 Rev. 2.0	Turbidity	95.8					16.0	
	Turbidity	96.3					12.8	
EPA 200.7 Rev. 4.4	Calcium	106	110	109				4.87
	Iron	107	111	107	109			4.13
	Magnesium	106	108	109				4.40
	Potassium	109	109	104	106			3.97
	Sodium	104	107	104				4.61
	Strontium	105	107	101	105			4.68
	Tin	109	110	105	108			4.72
	Titanium	107	109	104	108			5.28
	Vanadium	99.4	103	98.0	99.5			5.25
	Zinc	105	106	100	104			5.10
EPA 200.8 Rev. 5.4	Aluminum	101	102	102	102			0.613
	Antimony	98.9	103	102	99.9			1.04
	Arsenic	102	103	103	99.7			0.462
	Barium	103	105	104	102			0.483
	Beryllium	98.8	95.6	97.6	93.3			2.05
	Boron	103	110	111	109			1.02
	Cadmium	100	102	104	102			2.02
	Chromium	96.5	100	101	99.0			0.394
	Cobalt	102	103	102	99.9			0.196
	Copper	98.4	98.7	99.3	97.8			0.663
	Lead	99.1	99.7	101	100			1.68
	Manganese	98.3	101	102	97.7			0.733
	Molybdenum	101	105	105	101			0.118
	Nickel	104	102	101	98.4			0.784
	Selenium	101	79.5	79.2	99.7			0.347
	Silver	99.9	102	102	98.6			0.265
	Thallium	103	106	108	105			1.82
EPA 300.0 Rev. 2.1	Chloride	102	102	101			1.53	
	Sulfate	100	99.5	99.2			0.221	
EPA 350.1 Rev. 2.0	Ammonia-N	99.8	98.2	99.6				1.06
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	92.7	97.5	96.1				0.842
	Kjeldahl Nitrogen	99.9	101	104				2.11
EPA 353.2 Rev. 2.0	NO2NO3-N	101	101	100				0.995
EPA 365.1 Rev. 2.0	Total-P	106	106	103				2.32
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4	101	103				1.18
EPA 8270E	Acetochlor	88.1	115	99.4				14.4
	Alachlor	95.0	121	99.6				19.3
	Aldrin	41.0	55.2	53.2				3.72
	Alpha-BHC	90.5	91.2	87.5				4.11
	Alpha-Chlordane	73.8	69.0	66.5				3.59
	Ametryn	101	106	78.8				29.5
	Atrazine	79.4	91.8	93.0				1.15
	Atrazine Desethyl	45.9	57.8	54.8				5.29
	Avobenzone	95.9	124	142				13.0
	Azinphos Methyl	96.1	122	98.4				21.2
	Azoxystrobin	90.1	106	99.2				6.63
	Beta-BHC	112	86.2	79.7				7.80
	Beta-Cyfluthrin	63.3	117	125				6.84
	Bifenthrin	48.7	41.6	60.7				37.3
	Bromacil	84.5	112	98.3				13.3

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Butylate	53.3		56.7	57.6			1.70
	Caffeine	104		86.7	158			58.1
	Carbophenothion	73.8		83.6	85.9			2.70
	Carfentrazone Ethyl	89.2		102	95.7			6.86
	Chlorfenapyr	79.7		90.7	78.1			14.9
	Chlorothalonil	80.4		148	126			16.1
	Chlorpyrifos Ethyl	81.4		86.8	91.2			4.95
	Chlorpyrifos Methyl	78.6		102	97.7			4.09
	Cis-Nonachlor	69.1		68.7	69.9			1.78
	Coumaphos	79.8		74.5	79.2			6.08
	Cyanazine	135		172	180			4.16
	Cypermethrin	68.1		101	109			8.16
	Cyprodinil	92.1		92.8	80.8			13.9
	Dacthal	86.2		85.0	82.0			3.53
	DDD-p,p'	70.4		65.4	69.5			6.07
	DDE-p,p'	74.7		73.8	69.8			5.56
	DDT-p,p'	82.6		79.0	75.4			4.42
	Delta-BHC	111		91.9	83.8			9.22
	Deltamethrin	70.5		121	119			1.71
	Demeton	68.7		81.4	83.0			1.95
	Diazinon	86.7		109	97.5			10.8
	Dichlobenil	79.7		70.9	66.1			7.06
	Dicofol	67.0		76.2	76.1			0.127
	Dieldrin	60.2		66.5	71.9			7.83
	Difenoconazole	128		174	150			15.3
	Dimethenamid	72.5						12.0
	Dimethomorph	103		121	121			0.0895
	Disulfoton	73.3		87.7	96.9			9.89
	Dithiopyr	87.7		93.0	94.2			1.27
	Endosulfan I	77.7		78.6	75.7			3.70
	Endosulfan II	66.7		78.2	82.7			5.65
	Endosulfan Sulfate	80.6		79.4	73.9			7.26
	Endrin	32.9	24.7	41.8		28.6		
	Endrin Aldehyde	50.5	41.2	52.9		20.3		
	Endrin Ketone	141		122	99.7			19.9
	EPTC	54.3		50.8	54.4			6.97
	Esfenvalerate	62.3		103	107			3.77
	Ethalfluralin	62.5		70.9	69.5			2.02
	Ethion	72.2		80.2	88.8			10.1
	Ethoprop	75.2		93.0	94.5			1.63
	Etridiazole	64.4		78.2	69.7			11.5
	Fenamiphos	79.7		100	109			8.31
	Fenbuconazole	48.3		46.0	42.3			8.41
	Fenpropathrin	50.6		80.6	92.0			13.2
	Fipronil	90.3		105	92.6			12.1
	Fipronil Desulfinyl	93.6		109	94.9			14.2
	Fipronil Sulfide	80.1		78.8	76.3			3.23
	Fipronil Sulfone	65.1		73.5	78.9			7.11
	Fluazifop-P-butyl	69.2		70.4	70.0			0.564
	Fludioxonil	77.2		97.7	94.6			3.26
	Flumioxazin	63.0		80.8	78.2			3.25
	Flutolanil	77.1		78.2	73.4			6.26
	Fluxapyroxad	59.8		76.9	64.0			16.6
	Fonofos	76.2		82.4	86.1			4.43

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Gamma-BHC	75.7		81.9	82.1			0.278
	Gamma-Chlordane	68.7		69.6	64.8			7.14
	Heptachlor	56.6		72.5	70.7			2.52
	Heptachlor Epoxide	73.7		74.7	73.3			1.83
	Hexachlorobenzene	70.2		70.5	68.6			2.70
	Hexazinone	84.4		99.8	105			4.62
	Imazalil	75.4		97.9	93.4			4.68
	Iprodione	77.7		105	75.8			32.3
	Kepone	67.1		55.8	20.0			94.4
	Lambda-Cyhalothrin	61.0		120	137			13.3
	Loratadine	79.1		112	107			5.10
	Malathion	89.3		109	99.4			9.04
	Metalaxyl	86.3		99.3	85.2			15.3
	Methoprene	33.0	23.9	23.3		31.8		
	Methoxychlor	76.8		87.6	87.0			0.691
	Metolachlor	90.9		104	98.3			6.02
	Metribuzin	81.4		99.5	94.4			5.29
	Mevinphos	55.6		77.2	69.7			10.2
	MGK-264	60.1		74.0	72.8			1.71
	Mirex	45.4		56.9	57.9			1.88
	Molinate	56.4		66.1	67.8			2.61
	Myclobutanil	77.1		92.4	85.1			8.14
	Naled	105		120	121			0.639
	Napropamide	81.1		83.8	77.4			7.95
	Norflurazon	73.6		89.4	86.8			2.97
	Octinoxate	65.4		92.7	99.4			6.97
	Oxadiazon	74.3		84.3	78.6			6.93
	Oxybenzone	117		116	128			9.39
	Oxychlordane	70.8		72.2	75.8			4.94
	Oxyfluorfen	86.5		116	107			7.96
	Parathion Ethyl	91.5		93.7	98.8			5.24
	Parathion Methyl	93.9		113	126			10.6
	PCB-1016	71.0		79.0	75.3			4.81
	PCB-1260	95.1		106	104			2.27
	Pendimethalin	89.6		96.3	102			5.71
	Permethrin	70.6		102	114			11.1
	Phenothrin	37.3						38.0
	Phenytoin	40.8		52.9	53.3			0.675
	Phorate	66.9		84.6	83.0			1.90
	Piperonyl Butoxide	11.0	8.54	13.1		25.1		
	Prallethrin	51.5	55.1	51.1		6.58		
	Prodiamine	43.3		45.4	52.2			14.0
	Prometon	83.7		83.7	90.0			7.18
	Prometryn	81.9		77.7	89.4			14.0
	Pronamide	80.7		99.1	108			8.56
	Propanil	80.4		87.4	103			16.5
	Propargite	84.6		84.2	107			24.1
	Propiconazole	75.0		88.1	85.3			3.22
	Pyraflufen Ethyl	79.8		82.1	74.7			9.32
	Pyridaben	74.7		83.0	89.2			7.28
	Pyriproxyfen	76.2		83.3	98.9			17.2
	Simazine	72.8		85.3	89.8			5.03
	Stirophos	70.0		81.1	80.4			0.872
	Sulfentrazone	65.5						2.56

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Tau-Fluvalinate	42.0		74.5	87.0			15.5
	Tebuconazole	58.5		77.6	85.1			9.18
	Terbufos	101		122	120			1.74
	Terbuthylazine	97.1		94.5	101			6.92
	Tetramethrin	107	66.2	62.7		46.8		
	Thiobencarb	95.8		88.0	101			13.7
	Trans-Nonachlor	69.7		72.3	68.1			5.85
	Triadimefon	90.0		94.8	98.5			3.78
	Triclosan Methyl	77.1		74.2	72.8			1.96
	Trifluralin	69.4		74.8	69.3			7.62
EPA 8276	Chlordane	94.7		84.1	85.5			1.71
	Toxaphene	76.6		77.8	79.6			2.25
EPA 8321B	2,4-D	148		114	147			25.6
	2,4,5-T	118		126	132			4.68
	3-Hydroxycarbofuran	97.2		109	85.0			24.7
	Acesulfame K	95.4		97.0	98.2			1.24
	Acetaminophen	113		144	145			0.212
	Acetamiprid	118		98.4	128			25.8
	Afidopyropen	124		82.0	93.1			12.7
	Aldicarb	65.3		106	61.3			53.1
	Aldicarb Sulfone	93.8		101	104			2.54
	Aldicarb Sulfoxide	80.4		53.3	52.9			0.648
	AMPA	95.0		54.5	53.6			1.44
	Bentazon	105		59.3	48.8			19.5
	Benzovindiflupyr	147		121	111			8.20
	Carbamazepine	136		131	118			10.6
	Carbaryl	89.8		82.8	70.0			16.8
	Carbofuran	88.8		95.9	74.8			24.8
	Clothianidin	137		167	200			18.1
	Dinotefuran	120		157	179			12.8
	Diuron	112		86.3	64.9			28.3
	Endothall	61.7		89.1	89.8			0.718
	Fenuron	104		98.6	98.3			0.363
	Fluridone	119		96.0	116			18.5
	Glufosinate	105		86.1	84.8			1.54
	Glyphosate	92.5		70.3	64.7			6.98
	Hydrocodone	105		124	135			8.13
	Ibuprofen	130		104	132			24.2
	Imazapyr	121		122	121			1.03
	Imidacloprid	118		235	287			20.0
	Linuron	103		74.8	95.2			24.0
	Mandestrobin	105		100	110			9.71
	MCPP	146		141	174			20.9
	Methiocarb	105		103	76.8			29.5
	Methomyl	87.9		93.1	76.6			19.4
	Naproxen	79.2		100	101			0.895
	Oxamyl	94.3		92.6	103			10.4
	Primidone	135		118	156			27.8
	Propoxur	90.5		87.3	81.0			7.51
	Pyraclostrobin	97.0		99.0	111			11.6
	Silvex	114		120	151			22.6
	Sucralose	90.3		91.1	94.3			3.29
	Thiamethoxam	125		203	222			8.95
	Tolfenpyrad	88.3		84.4	101			17.9

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Triclopyr	113	107	159			38.7
SM 2320 B-2011	Total Alkalinity	96.4				2.25	
SM 2540 C-2011	TDS					0.771	
SM 4500 F-C-2011	Fluoride	99.7	98.7	98.1			0.495
SM 5310 B-2011	Organic Carbon	95.0	97.7	95.4			1.33

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2304920, 2304923
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2304920, 2304923
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2304937
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2304937
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2304920, 2304923
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2304920, 2304923
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2304921, 2304924
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2304921, 2304924
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2304921, 2304924
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2304921, 2304924
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2304922, 2304925
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2304936
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2304935
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2304936
EPA 8270E	PCBs in water matrices by GC/MS/MS	2304934, 2304935
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2304935
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2304932
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2304931, 2304933
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2304920, 2304923
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2304937
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2304920, 2304923
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2304920, 2304923
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2304920, 2304923
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2304921, 2304924

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	02/10/2022			02/10/2022 17:17	Anna M. Plaviak	2304923
	02/10/2022			02/10/2022 17:45	Anna M. Plaviak	2304920
EPA 180.1 Rev. 2.0	02/10/2022			02/10/2022 15:04	Khloe J Berg	2304920
	02/10/2022			02/10/2022 15:18	Khloe J Berg	2304923
EPA 200.7 Rev. 4.4	02/10/2022	02/14/2022 10:40	Megan Whitefoot	02/22/2022 14:09	Josef B Mick	2304937
EPA 200.8 Rev. 5.4	02/10/2022	02/14/2022 10:40	Megan Whitefoot	02/15/2022 16:20	Alexander Thompson	2304937
EPA 300.0 Rev. 2.1	02/10/2022			02/15/2022 20:57	James L Waggerby	2304920
	02/10/2022			02/15/2022 21:33	James L Waggerby	2304923
EPA 350.1 Rev. 2.0	02/10/2022			02/16/2022 14:06	Ping Hua	2304921
	02/10/2022			02/16/2022 14:46	Ping Hua	2304924
EPA 351.2 Rev. 2.0	02/10/2022	02/14/2022 16:13	Samantha L Bates	02/16/2022 11:30	Alexandra J Mattheus	2304921
	02/10/2022	02/15/2022 09:06	Samantha L Bates	02/15/2022 16:41	Alexandra J Mattheus	2304924
EPA 353.2 Rev. 2.0	02/10/2022			02/22/2022 10:15	Beverly Y. Sanders	2304921
	02/10/2022			02/22/2022 10:16	Beverly Y. Sanders	2304924
EPA 365.1 Rev. 2.0	02/10/2022	02/22/2022 16:05	Simonne.V. Calhoun	02/23/2022 11:52	Shengyu Ding	2304924
	02/10/2022	02/22/2022 16:05	Simonne.V. Calhoun	02/23/2022 13:43	Sarah A Nixon	2304921
EPA 365.1 Rev. 2.0 dissolved	02/10/2022			02/10/2022 14:51	James L Waggerby	2304922
	02/10/2022			02/10/2022 14:56	James L Waggerby	2304925
EPA 8270E	02/10/2022	02/14/2022 08:00	Fe-Val Siddell	02/16/2022 17:06	Michael Poppell	2304936
	02/10/2022	02/14/2022 08:00	Fe-Val Siddell	02/18/2022 23:53	Lipi Saha	2304936
	02/10/2022	02/14/2022 08:00	Rasheda Ghaffari	02/16/2022 23:43	Vandana T. Nagar	2304935
	02/10/2022	02/14/2022 08:00	Rasheda Ghaffari	02/16/2022 23:57	Julie Wi	2304934
	02/10/2022	02/14/2022 08:00	Rasheda Ghaffari	02/17/2022 00:27	Julie Wi	2304935
	02/10/2022	02/23/2022 08:30	Rasheda Ghaffari	02/24/2022 20:58	Vandana T. Nagar	2304935
EPA 8276	02/10/2022	02/14/2022 08:00	Rasheda Ghaffari	02/17/2022 15:08	Arthur Maknenko	2304935
EPA 8321B	02/10/2022	02/11/2022 09:00	Hoor Shaik	02/12/2022 05:19	Juyoung Kim	2304931
	02/10/2022	02/11/2022 09:00	Hoor Shaik	02/12/2022 05:54	Juyoung Kim	2304933
	02/10/2022	02/11/2022 09:00	June Rhew	02/11/2022 21:49	Juyoung Kim	2304932
	02/10/2022	02/11/2022 09:00	Umesh Chiluwal	02/11/2022 13:55	Umesh Chiluwal	2304931
	02/10/2022	02/11/2022 09:00	Umesh Chiluwal	02/11/2022 14:05	Umesh Chiluwal	2304933
	02/10/2022	02/11/2022 09:00	Umesh Chiluwal	02/11/2022 17:47	Umesh Chiluwal	2304931
	02/10/2022	02/11/2022 09:00	Umesh Chiluwal	02/11/2022 18:17	Umesh Chiluwal	2304933
SM 2320 B-2011	02/10/2022			02/15/2022 04:57	Dale L. Simmons	2304920
	02/10/2022			02/15/2022 05:59	Dale L. Simmons	2304923
SM 2340B	02/10/2022			02/22/2022 14:09	Josef B Mick	2304937
SM 2540 C-2011	02/10/2022			02/11/2022 15:30	Simonne.V. Calhoun	2304920, 2304923
SM 2540 D-2011	02/10/2022			02/11/2022 15:30	Simonne.V. Calhoun	2304920, 2304923
SM 4500 F-C-2011	02/10/2022			02/15/2022 04:47	Dale L. Simmons	2304920
	02/10/2022			02/15/2022 05:59	Dale L. Simmons	2304923
SM 5310 B-2011	02/10/2022			02/25/2022 05:34	Touraj Touran	2304921

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	02/10/2022			02/25/2022 05:49	Touraj Touran	2304924