Chemical Analysis Report

NE-DIST-2021-04-14-01

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

Event Description: **LSJR Palatka**
Request ID: **RQ-2021-04-12-31**
Customer: **NE-DIST**
Project ID: **SMP**

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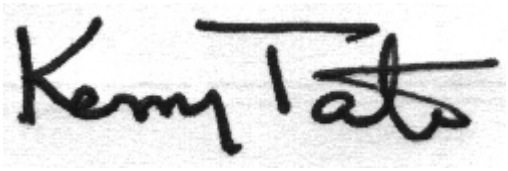
Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 05-MAY-2021 13:32



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: Mill Branch @ McCormick Rd. **Collection Date/Time: 04/13/2021 10:45**

Field ID: 20030681 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239432	EPA 8321B	Acesulfame K	0.10	U	ug/L	P396512	
		2,4-D	0.0023	I	ug/L	P396519	MS
		2,4,5-T	0.0040	U	ug/L	P396519	
		AMPA	0.26	I	ug/L	P396512	
		Sucralose	0.023	I	ug/L	P396512	
		Acetaminophen	0.0083	I	ug/L	P396519	
		Acetamiprid	0.0020	U	ug/L	P396519	
		Endothall	0.25	U	ug/L	P396512	
		Glufosinate	0.10	U	ug/L	P396512	
		Glyphosate	0.35	I	ug/L	P396512	
		Afidopyropen	0.0020	U	ug/L	P396519	
		Bentazon	0.0048		ug/L	P396519	
		Benzovindiflupyr	0.0020	U	ug/L	P396519	
		Carbamazepine	8.0E-04	U	ug/L	P396519	
		Clothianidin	0.016		ug/L	P396519	
		Dinotefuran	0.0020	U	ug/L	P396519	
		Diuron	0.0020	U	ug/L	P396519	
		Fenuron	0.016	U	ug/L	P396519	
		Fluridone	8.0E-04	U	ug/L	P396519	
		Imazapyr	0.035		ug/L	P396519	
		Hydrocodone	0.0020	U	ug/L	P396519	
		Ibuprofen	0.020	U	ug/L	P396519	
		Imidacloprid	0.011		ug/L	P396519	MS
		Linuron	0.0040	U	ug/L	P396519	
		Mandestrobin	0.0020	U	ug/L	P396519	
		MCPP	0.0020	U	ug/L	P396519	
		Naproxen	0.0080	U	ug/L	P396519	
		Primidone	0.0040	U	ug/L	P396519	
		Pyraclostrobin	0.0020	U	ug/L	P396519	
		Thiamethoxam	0.050		ug/L	P396519	
		Tolfenpyrad	0.0020	U	ug/L	P396519	
		Triclopyr	0.0040	U	ug/L	P396519	
2239454	EPA 8270E	Acetochlor	0.24	U	ng/L	P396895	
		Alachlor	0.24	U	ng/L	P396895	
		Ametryn	0.58	U	ng/L	P396895	
		Atrazine	4.2		ng/L	P396895	
		Atrazine Desethyl	2.7	I	ng/L	P396895	
		Azinphos Methyl	1.9	U	ng/L	P396895	
		Azoxystrobin**	390		ng/L	P396895	
		Bromacil	0.49	U	ng/L	P396895	
		Butylate	0.39	U	ng/L	P396895	
		Caffeine**	7.3	U	ng/L	P396895	
		Carbophenothion	0.49	U	ng/L	P396895	
		Carfentrazone Ethyl**	0.097	U	ng/L	P396895	

Field ID: 20030681

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239454	EPA 8270E	Chlorpyrifos Ethyl	0.24	U	ng/L	P396895	
		Chlorpyrifos Methyl	0.049	U	ng/L	P396895	
		Cyanazine	3.2	U	ng/L	P396895	
		Demeton	1.5	U	ng/L	P396895	
		Diazinon	0.12	U	ng/L	P396895	
		Difenoconazole**	59		ng/L	P396895	
		Dimethenamid**	0.097	U	ng/L	P396895	
		Disulfoton	0.49	U	ng/L	P396895	
		Dithiopyr**	0.17	U	ng/L	P396895	
		EPTC	1.2	U	ng/L	P396895	
		Ethion	0.15	U	ng/L	P396895	
		Ethoprop	15		ng/L	P396895	
		Fenamiphos	0.49	U	ng/L	P396895	
		Fenbuconazole**	0.12	U	ng/L	P396895	
		Fipronil	3.5		ng/L	P396895	
		Fipronil Desulfinyl**	0.85		ng/L	P396895	
		Fipronil Sulfide	4.3		ng/L	P396895	
		Fipronil Sulfone	6.3		ng/L	P396895	
		Fluazifop-P-butyl**	0.097	U	ng/L	P396895	
		Fludioxonil**	7.5		ng/L	P396895	
		Flumioxazin**	1.7	U	ng/L	P396895	
		Flutolanil**	0.097	U	ng/L	P396895	
		Fluxapyroxad**	7.0		ng/L	P396895	
		Fonofos	0.19	U	ng/L	P396895	
		Hexazinone	1.6	I	ng/L	P396895	
		Imazalil**	0.73	U	ng/L	P396895	MS
		Iprodione**	0.58	U	ng/L	P396895	
		Malathion	0.34	U	ng/L	P396895	
		Metalaxyl	6.2		ng/L	P396895	
		Metolachlor	20		ng/L	P396895	
		Metribuzin	260		ng/L	P396895	
		Mevinphos	1.0	U	ng/L	P396895	
		Molinate	0.29	U	ng/L	P396895	
		Myclobutanil**	0.24	U	ng/L	P396895	
		Naled**	1.5	U	ng/L	P396895	
		Norflurazon	0.49	U	ng/L	P396895	
		Oxadiazon	0.84	I	ng/L	P396895	
		Oxyfluorfen**	0.61		ng/L	P396895	
		Parathion Ethyl	0.24	U	ng/L	P396895	
		Parathion Methyl	0.53	U	ng/L	P396895	
		Pendimethalin	10		ng/L	P396895	
		Phorate	0.51	U	ng/L	P396895	
		Prodiamine**	0.17	UJ	ng/L	P396895	RPD
		Prometon	0.87	U	ng/L	P396895	
		Prometryn	0.19	U	ng/L	P396895	

Field ID: 20030681 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239454	EPA 8270E	Pronamide**	0.15	U	ng/L	P396895	
		Propiconazole**	0.49	U	ng/L	P396895	
		Pyriproxyfen**	0.12	U	ng/L	P396895	
		Simazine	0.49	U	ng/L	P396895	
		Sulfentrazone**	0.49	U	ng/L	P396895	
		Tebuconazole**	0.49	U	ng/L	P396895	
		Terbufos	0.097	U	ng/L	P396895	
		Terbuthylazine	0.41	U	ng/L	P396895	
2239456	EPA 200.7 Rev. 4.4	Barium	25.5		ug/L	P396845	
		Calcium	78.2		mg/L	P396845	
		Iron	930		ug/L	P396845	
		Magnesium	29.2		mg/L	P396845	
		Manganese	55.0		ug/L	P396845	
		Potassium	5.8		mg/L	P396845	
		Sodium	98.0		mg/L	P396845	
		Zinc	8.8	I	ug/L	P396845	
	EPA 200.8 Rev. 5.4	Aluminum	124		ug/L	P396845	
		Antimony	0.14	I	ug/L	P396845	
		Arsenic	0.68		ug/L	P396845	
		Beryllium	0.041		ug/L	P396845	
		Boron**	67.8		ug/L	P396845	
		Cadmium	0.036	I	ug/L	P396845	
		Chromium	0.90	I	ug/L	P396845	
		Copper	1.50		ug/L	P396845	
		Lead	0.20	U	ug/L	P396845	
		Nickel	0.71	I	ug/L	P396845	
		Selenium	0.20	U	ug/L	P396845	
		Silver	0.010	U	ug/L	P396845	
		Thallium	0.10	U	ug/L	P396845	
	SM 2340B	Hardness	315		mg/L	P396845	

Ref. Method and Comment:
EPA 8270E: MS accuracy for some parameters 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.

Sample Location: Mill BR @ Old San Mateo Rd. **Collection Date/Time: 04/13/2021 10:10**

Field ID: 20030577 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239407	EPA 180.1 Rev. 2.0	Turbidity	5.1		NTU	P396561	
	EPA 300.0 Rev. 2.1	Chloride	260		mg Cl/L	P396882	
		Sulfate	140		mg SO4/L	P396884	
	SM 2120 B-2011	Color (true)	110		PCU	P396549	
	SM 2320 B-2011	Total Alkalinity	64		mg CaCO3/L	P396665	
	SM 2540 C-2011	TDS	754		mg/L	P396988	
	SM 2540 D-2011	TSS	2	I	mg/L	P396814	
	SM 4500 F-C-2011	Fluoride	0.29		mg F/L	P396667	
2239408	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P397018	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P397233	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.2		mg N/L	P396840	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P396695	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P396953	
2239409	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P396535	
2239430	EPA 8321B	Aldicarb	0.020	U	ug/L	P396769	
		Aldicarb Sulfone	0.0020	U	ug/L	P396769	
		Aldicarb Sulfoxide	0.0020	UJ	ug/L	P396769	MS
		Carbaryl	0.0020	U	ug/L	P396769	
		Carbofuran	0.0020	U	ug/L	P396769	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P396769	
		Methiocarb	0.0020	U	ug/L	P396769	
		Methomyl	0.0020	U	ug/L	P396769	
		Oxamyl	0.018		ug/L	P396769	
		Propoxur	0.0020	U	ug/L	P396769	
2239431		Acesulfame K	0.10	U	ug/L	P396512	
		2,4-D	0.061		ug/L	P396519	MS
		2,4,5-T	0.0040	U	ug/L	P396519	
		AMPA	0.28	I	ug/L	P396512	
		Sucralose	0.10		ug/L	P396512	
		Acetaminophen	0.0080	U	ug/L	P396519	
		Acetamiprid	0.0020	U	ug/L	P396519	
		Endothall	0.25	U	ug/L	P396512	
		Glufosinate	0.10	U	ug/L	P396512	
		Glyphosate	1.0		ug/L	P396512	
		Afidopyropen	0.0020	U	ug/L	P396519	
		Bentazon	0.0041		ug/L	P396519	
		Benzovindiflupyr	0.0026	I	ug/L	P396519	
		Carbamazepine	8.0E-04	U	ug/L	P396519	
		Clothianidin	0.015		ug/L	P396519	
		Dinotefuran	0.0020	U	ug/L	P396519	
		Diuron	0.0020	U	ug/L	P396519	
		Fenuron	0.016	U	ug/L	P396519	
		Fluridone	8.0E-04	U	ug/L	P396519	

Field ID: 20030577 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239431	EPA 8321B	Imazapyr	0.049		ug/L	P396519	
		Hydrocodone	0.0020	U	ug/L	P396519	
		Ibuprofen	0.020	U	ug/L	P396519	
		Imidacloprid	0.023		ug/L	P396519	MS
		Linuron	0.0040	U	ug/L	P396519	
		Mandestrobin	0.0020	U	ug/L	P396519	
		MCPP	0.0020	U	ug/L	P396519	
		Naproxen	0.0080	U	ug/L	P396519	
		Primidone	0.0040	U	ug/L	P396519	
		Pyraclostrobin	0.0020	U	ug/L	P396519	
		Thiamethoxam	0.074		ug/L	P396519	
		Tolfenpyrad	0.0020	U	ug/L	P396519	
		Triclopyr	0.0040	U	ug/L	P396519	
2239452	EPA 8270E	Aldrin	0.80	U	ng/L	P396574	
		Aldrin	4.3	U	ng/L	P396574	
		Dieldrin	0.43	U	ng/L	P396574	
		Alpha-BHC	2.1	U	ng/L	P396574	
		Kepone**	5.9	U	ng/L	P396574	
		Alpha-Chlordane	1.1	U	ng/L	P396574	
		Beta-BHC	8.5	U	ng/L	P396574	
		Beta-Cyfluthrin**	16	U	ng/L	P396574	
		Bifenthrin**	4.3	U	ng/L	P396574	
		Delta-BHC	8.5	U	ng/L	P396574	
		Gamma-BHC	8.5	U	ng/L	P396574	
		Chlorothalonil	2.1	UJ	ng/L	P396574	CCV
		Cis-Nonachlor**	1.1	U	ng/L	P396574	
		Cypermethrin	21	U	ng/L	P396574	
		Dacthal**	1.1	U	ng/L	P396574	
		DDD-p,p'	5.3	U	ng/L	P396574	
		DDE-p,p'	5.3	U	ng/L	P396574	
		DDT-p,p'	6.4	U	ng/L	P396574	
		Deltamethrin**	21	U	ng/L	P396574	
		Dicofol	32	U	ng/L	P396574	
		Dieldrin	4.3	U	ng/L	P396574	
		Endosulfan I	4.3	U	ng/L	P396574	
		Endosulfan II	4.3	U	ng/L	P396574	
		Endosulfan Sulfate	2.1	U	ng/L	P396574	
		Endrin	2.1	U	ng/L	P396574	
		Endrin Aldehyde	2.1	U	ng/L	P396574	
		Endrin Ketone	2.1	U	ng/L	P396574	
		Ethalfluralin**	3.2	U	ng/L	P396574	
		Gamma-Chlordane	1.1	U	ng/L	P396574	
		Dichlobenil**	2.1	U	ng/L	P396574	
		Esfenvalerate**	21	U	ng/L	P396574	
		Fenpropathrin**	11	UJ	ng/L	P396574	LCS

Field ID: 20030577 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239452	EPA 8270E	Heptachlor	1.6	U	ng/L	P396574	
		Heptachlor Epoxide	2.1	U	ng/L	P396574	
		Hexachlorobenzene	2.1	U	ng/L	P396574	
		Lambda-Cyhalothrin**	16	U	ng/L	P396574	
		Methoxychlor	4.3	U	ng/L	P396574	
		Mirex	2.1	U	ng/L	P396574	
		MGK-264**	3.2	U	ng/L	P396574	
		Permethrin	11	U	ng/L	P396574	
		Phenothrin**	32	U	ng/L	P396574	
		Piperonyl Butoxide**	1.6	U	ng/L	P396574	
		Prallethrin**	27	U	ng/L	P396574	
		Tau-Fluvalinate**	3.7	U	ng/L	P396574	
		Tetramethrin**	8.5	U	ng/L	P396574	
		Trans-Nonachlor**	1.1	U	ng/L	P396574	
		Triclosan Methyl**	1.1	U	ng/L	P396574	
		Trifluralin	2.7	U	ng/L	P396574	
	EPA 8276	Chlordane	5.9	I	ng/L	P396574	
		Toxaphene	32	U	ng/L	P396574	
2239453	EPA 8270E	Acetochlor	0.28	U	ng/L	P396895	
		Alachlor	0.28	U	ng/L	P396895	
		Ametryn	0.67	U	ng/L	P396895	
		Atrazine	19		ng/L	P396895	
		Atrazine Desethyl	5.0	I	ng/L	P396895	
		Azinphos Methyl	2.2	U	ng/L	P396895	
		Azoxystrobin**	440		ng/L	P396895	
		Bromacil	0.56	U	ng/L	P396895	
		Butylate	0.45	U	ng/L	P396895	
		Caffeine**	8.4	U	ng/L	P396895	
		Carbophenothion	0.56	U	ng/L	P396895	
		Carfentrazone Ethyl**	0.11	U	ng/L	P396895	
		Chlorpyrifos Ethyl	0.28	U	ng/L	P396895	
		Chlorpyrifos Methyl	0.056	U	ng/L	P396895	
		Cyanazine	3.6	U	ng/L	P396895	
		Demeton	1.7	U	ng/L	P396895	
		Diazinon	0.14	U	ng/L	P396895	
		Difenoconazole**	59		ng/L	P396895	
		Dimethenamid**	0.11	U	ng/L	P396895	
		Disulfoton	0.56	U	ng/L	P396895	
		Dithiopyr**	0.19	U	ng/L	P396895	
		EPTC	1.4	U	ng/L	P396895	
		Ethion	0.17	U	ng/L	P396895	
		Ethoprop	11		ng/L	P396895	
		Fenamiphos	0.56	U	ng/L	P396895	
		Fenbuconazole**	0.14	U	ng/L	P396895	
		Fipronil	5.0		ng/L	P396895	

Field ID: 20030577 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239453	EPA 8270E	Fipronil Desulfinyl**	1.3		ng/L	P396895	
		Fipronil Sulfide	8.5		ng/L	P396895	
		Fipronil Sulfone	13		ng/L	P396895	
		Fluazifop-P-butyl**	0.11	U	ng/L	P396895	
		Fludioxonil**	6.3		ng/L	P396895	
		Flumioxazin**	1.9	U	ng/L	P396895	
		Flutolanil**	0.11	U	ng/L	P396895	
		Fluxapyroxad**	14		ng/L	P396895	
		Fonofos	0.22	U	ng/L	P396895	
		Hexazinone	1.5	I	ng/L	P396895	
		Imazalil**	0.84	UJ	ng/L	P396895	MS
		Iprodione**	0.67	U	ng/L	P396895	
		Malathion	0.39	U	ng/L	P396895	
		Metalaxyl	7.8		ng/L	P396895	
		Metolachlor	21		ng/L	P396895	
		Metribuzin	340		ng/L	P396895	
		Mevinphos	1.2	U	ng/L	P396895	
		Molinate	0.33	U	ng/L	P396895	
		Myclobutanil**	0.28	U	ng/L	P396895	
		Naled**	1.7	U	ng/L	P396895	
		Norflurazon	0.56	U	ng/L	P396895	
		Oxadiazon	1.3	I	ng/L	P396895	
		Oxyfluorfen**	0.66	I	ng/L	P396895	
		Parathion Ethyl	0.28	U	ng/L	P396895	
		Parathion Methyl	0.61	U	ng/L	P396895	
		Pendimethalin	20		ng/L	P396895	
		Phorate	0.58	U	ng/L	P396895	
		Prodiamine**	0.19	UJ	ng/L	P396895	RPD
		Prometon	1.0	U	ng/L	P396895	
		Prometryn	0.22	U	ng/L	P396895	
		Pronamide**	0.17	U	ng/L	P396895	
		Propiconazole**	0.56	U	ng/L	P396895	
		Pyriproxyfen**	0.14	U	ng/L	P396895	
		Simazine	0.56	U	ng/L	P396895	
		Sulfentrazone**	0.56	U	ng/L	P396895	
		Tebuconazole**	0.56	U	ng/L	P396895	
		Terbufos	0.11	U	ng/L	P396895	
		Terbuthylazine	0.47	U	ng/L	P396895	
2239455	EPA 200.7 Rev. 4.4	Barium	23.4		ug/L	P396845	
		Calcium	82.3		mg/L	P396845	
		Iron	980		ug/L	P396845	
		Magnesium	31.2		mg/L	P396845	
		Manganese	64.5		ug/L	P396845	
		Potassium	7.3		mg/L	P396845	
		Sodium	117		mg/L	P396845	

Field ID: 20030577 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239455	EPA 200.7 Rev. 4.4	Zinc	9.0	I	ug/L	P396845	
	EPA 200.8 Rev. 5.4	Aluminum	120		ug/L	P396845	
		Antimony	0.14	I	ug/L	P396845	
		Arsenic	0.81		ug/L	P396845	
		Beryllium	0.025	I	ug/L	P396845	
		Boron**	73.2		ug/L	P396845	
		Cadmium	0.032	I	ug/L	P396845	
		Chromium	0.85	I	ug/L	P396845	
		Copper	1.57		ug/L	P396845	
		Lead	0.24	I	ug/L	P396845	
		Nickel	0.72	I	ug/L	P396845	
		Selenium	0.20	U	ug/L	P396845	
		Silver	0.010	U	ug/L	P396845	
		Thallium	0.10	U	ug/L	P396845	
	SM 2340B	Hardness	334		mg/L	P396845	

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: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for some parameters 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: EPA 180.1 Rev. 2.0
Batch ID: P396561

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P396845

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P396845

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396882

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396884

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397018

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397233

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396840

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396695

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396535

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

Reference Method: EPA 8270E
Batch ID: P396574

Component	Result	Code	Units
Aldrin	0.75	U	ng/L
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dichlobenil	2.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Esfenvalerate	20	U	ng/L
Ethalfluralin	3.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P396574

Component	Result	Code	Units
Fenpropathrin	10	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Kepone	5.5	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
MGK-264	3.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Piperonyl Butoxide	1.5	U	ng/L
Prallethrin	25	U	ng/L
Tau-Fluvalinate	3.5	U	ng/L
Tetramethrin	8.0	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Triclosan Methyl	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E
Batch ID: P396895

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P396895

Component	Result	Code	Units
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P396574

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P396512

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P396512

Component	Result	Code	Units
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: P396519

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

Reference Method: EPA 8321B
Batch ID: P396769

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: SM 2120 B-2011
Batch ID: P396549

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P396665

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

Reference Method: SM 2540 C-2011
Batch ID: P396988

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P396814

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P396667

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P396953

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P396845

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	92.0		P	85 - 115
Calcium	105		P	85 - 115
Iron	96.3		P	85 - 115
Magnesium	100		P	85 - 115
Manganese	93.9		P	85 - 115
Potassium	92.7		P	85 - 115
Sodium	102		P	85 - 115
Zinc	97.2		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P396845

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	90.2		P	85 - 115
Antimony	95.9		P	85 - 115
Arsenic	94.8		P	85 - 115
Beryllium	89.9		P	85 - 115
Boron	91.0		P	85 - 115
Cadmium	95.0		P	85 - 115
Chromium	91.8		P	85 - 115
Copper	92.7		P	85 - 115
Lead	93.8		P	85 - 115
Nickel	92.2		P	85 - 115
Selenium	94.1		P	85 - 115
Silver	93.6		P	85 - 115
Thallium	99.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396882

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396884

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397018

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397233

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396840

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	97.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396695

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396535

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

Reference Method: EPA 8270E
Batch ID: P396574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	30.5	35.8	P/P	20 - 110
Aldrin	28.4	26.5	P/P	20 - 82.0
Alpha-BHC	79.6	76.6	P/P	58 - 130
Alpha-Chlordane	70.7	67.7	P/P	61 - 105
Beta-BHC	100	104	P/P	53 - 164
Beta-Cyfluthrin	58.9	60.9	P/P	40 - 140
Bifenthrin	51.2	51.0	P/P	44 - 122
Chlorothalonil	89.6	104	P/P	20 - 201
Cis-Nonachlor	72.8	71.2	P/P	60 - 110
Cypermethrin	63.6	62.8	P/P	43 - 131
Dacthal	88.3	85.2	P/P	76 - 108
DDD-p,p'	81.9	79.4	P/P	68 - 118
DDE-p,p'	66.7	62.6	P/P	56 - 107
DDT-p,p'	66.1	62.5	P/P	55 - 122
Delta-BHC	111	118	P/P	60 - 181
Deltamethrin	68.7	68.7	P/P	51 - 139
Dichlobenil	62.8	64.1	P/P	20 - 106
Dicofol	108	88.2	P/P	56 - 130
Dieldrin	71.7	81.3	P/P	58 - 112
Dieldrin	80.4	72.6	P/P	67 - 111
Endosulfan I	78.3	76.0	P/P	68 - 115
Endosulfan II	86.1	88.3	P/P	69 - 133
Endosulfan Sulfate	92.2	94.6	P/P	65 - 126
Endrin	82.6	78.9	P/P	66 - 118
Endrin Aldehyde	109	111	P/P	60 - 132
Endrin Ketone	86.2	85.6	P/P	68 - 121
Esfenvalerate	52.3	51.8	P/P	42 - 116
Ethalfluralin	65.9	62.3	P/P	50 - 118
Fenpropathrin	135	119	F/P	55 - 132
Gamma-BHC	85.5	85.9	P/P	65 - 147
Gamma-Chlordane	63.7	61.0	P/P	56 - 103
Heptachlor	51.3	48.2	P/P	47 - 95.0
Heptachlor Epoxide	79.2	75.0	P/P	67 - 107
Hexachlorobenzene	54.3	48.7	P/P	45 - 99.0

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P396574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kepone	123	124	P/P	28 - 128
Lambda-Cyhalothrin	52.5	55.9	P/P	41 - 135
Methoxychlor	87.6	82.0	P/P	61 - 138
MGK-264	55.8	59.3	P/P	20 - 109
Mirex	41.3	39.7	P/P	36 - 92.0
Permethrin	54.0	52.5	P/P	45 - 111
Phenothrin	30.4	32.1	P/P	22 - 88.0
Piperonyl Butoxide	93.9	95.3	P/P	67 - 120
Prallethrin	56.0	58.5	P/P	28 - 92.0
Tau-Fluvalinate	58.9	62.4	P/P	38 - 145
Tetramethrin	72.9	71.7	P/P	29 - 150
Trans-Nonachlor	65.3	62.5	P/P	54 - 105
Triclosan Methyl	88.6	84.6	P/P	76 - 115
Trifluralin	62.9	59.3	P/P	53 - 111

Reference Method: EPA 8270E
Batch ID: P396895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	82.2	99.8	P/P	70 - 121
Alachlor	82.8	95.5	P/P	70 - 119
Ametryn	73.9	91.7	P/P	61 - 135
Atrazine	87.8	93.3	P/P	76 - 123
Atrazine Desethyl	90.2	95.3	P/P	35 - 140
Azinphos Methyl	122	140	P/P	57 - 163
Azoxystrobin	159	181	P/P	43 - 231
Bromacil	71.1	90.2	P/P	42 - 123
Butylate	43.8	54.0	P/P	34 - 92.0
Caffeine	71.5	72.8	P/P	70 - 130
Carbophenothion	86.2	102	P/P	61 - 121
Carfentrazone Ethyl	91.8	109	P/P	62 - 139
Chlorpyrifos Ethyl	81.2	94.6	P/P	67 - 121
Chlorpyrifos Methyl	86.5	98.4	P/P	67 - 120
Cyanazine	108	130	P/P	20 - 226
Demeton	76.1	87.6	P/P	35 - 125
Diazinon	86.8	105	P/P	70 - 122
Difenoconazole	128	143	P/P	56 - 186
Dimethenamid	81.8	97.1	P/P	67 - 119
Disulfoton	79.6	94.4	P/P	47 - 120
Dithiopyr	82.6	98.0	P/P	67 - 118
EPTC	40.1	51.4	P/P	33 - 90.0
Ethion	70.1	79.6	P/P	40 - 133
Ethoprop	75.3	87.8	P/P	61 - 121
Fenamiphos	81.0	95.4	P/P	31 - 139
Fenbuconazole	98.4	116	P/P	66 - 141
Fipronil	88.9	103	P/P	62 - 129
Fipronil Desulfinyl	85.8	105	P/P	59 - 126
Fipronil Sulfide	79.5	97.6	P/P	63 - 117
Fipronil Sulfone	76.2	84.8	P/P	57 - 117
Fluazifop-P-butyl	83.1	105	P/P	63 - 124
Fludioxonil	101	120	P/P	63 - 123
Flumioxazin	143	153	P/P	34 - 245

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P396895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Flutolanil	84.7	97.6	P/P	56 - 131
Fluxapyroxad	84.2	94.4	P/P	57 - 117
Fonofos	79.2	97.9	P/P	61 - 116
Hexazinone	89.5	99.6	P/P	55 - 138
Imazalil	80.7	102	P/P	33 - 143
Iprodione	89.0	101	P/P	59 - 118
Malathion	83.4	99.2	P/P	62 - 138
Metalaxyl	87.1	107	P/P	24 - 147
Metolachlor	73.3	84.4	P/P	68 - 118
Metribuzin	102	112	P/P	20 - 239
Mevinphos	68.8	88.4	P/P	46 - 124
Molinate	55.4	61.6	P/P	46 - 100
Myclobutanil	85.5	103	P/P	32 - 149
Naled	34.1	42.6	P/P	32 - 95.0
Norflurazon	98.6	112	P/P	57 - 127
Oxadiazon	80.6	98.2	P/P	63 - 118
Oxyfluorfen	102	118	P/P	69 - 137
Parathion Ethyl	82.0	92.6	P/P	70 - 113
Parathion Methyl	102	106	P/P	71 - 130
Pendimethalin	84.6	93.1	P/P	55 - 118
Phorate	69.6	73.8	P/P	46 - 125
Prodiamine	53.5	77.7	P/P	20 - 141
Prometon	73.1	83.1	P/P	54 - 122
Prometryn	79.3	96.9	P/P	66 - 124
Pronamide	85.0	93.7	P/P	79 - 122
Propiconazole	82.9	97.5	P/P	61 - 126
Pyriproxyfen	85.8	104	P/P	52 - 131
Simazine	91.9	104	P/P	75 - 128
Sulfentrazone	53.3	66.3	P/P	20 - 132
Tebuconazole	68.6	73.0	P/P	20 - 116
Terbufos	75.9	92.8	P/P	61 - 117
Terbuthylazine	80.6	93.4	P/P	74 - 116

Reference Method: EPA 8276
Batch ID: P396574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	85.7	96.3	P/P	56 - 117
Toxaphene	77.3	87.1	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P396512

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	104		P	40 - 150
AMPA	91.3		P	40 - 150
Endothall	80.3		P	40 - 150
Glufosinate	82.6		P	40 - 150
Glyphosate	100		P	40 - 140
Sucralose	95.2		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P396519

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	156		P	30 - 160
2,4,5-T	128		P	30 - 160
Acetaminophen	95.8		P	30 - 160
Acetamiprid	79.8		P	30 - 160
Afidopyropen	68.2		P	30 - 160
Bentazon	100		P	30 - 160
Benzovindiflupyr	80.2		P	30 - 160
Carbamazepine	89.1		P	30 - 160
Clothianidin	107		P	30 - 160
Dinotefuran	99.5		P	30 - 160
Diuron	73.5		P	30 - 160
Fenuron	106		P	30 - 160
Fluridone	92.8		P	30 - 160
Hydrocodone	97.0		P	30 - 160
Ibuprofen	99.6		P	30 - 160
Imazapyr	89.0		P	30 - 160
Imidacloprid	115		P	30 - 160
Linuron	76.0		P	30 - 160
Mandestrobin	83.1		P	30 - 160
MCPP	122		P	30 - 160
Naproxen	88.1		P	30 - 160
Primidone	103		P	30 - 160
Pyraclostrobin	78.1		P	30 - 160
Thiamethoxam	107		P	30 - 160
Tolfenpyrad	48.3		P	30 - 160
Triclopyr	101		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P396769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	90.5		P	30 - 160
Aldicarb	98.8		P	30 - 150
Aldicarb Sulfone	98.6		P	30 - 160
Aldicarb Sulfoxide	69.6		P	30 - 160
Carbaryl	72.9		P	30 - 160
Carbofuran	75.1		P	30 - 160
Methiocarb	83.8		P	30 - 160
Methomyl	91.0		P	30 - 160
Oxamyl	90.2		P	30 - 160
Propoxur	68.8		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P396549

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

Reference Method: SM 2320 B-2011
Batch ID: P396665

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P396665

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.9		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P396667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.1		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P396953

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P396845

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239635	Barium	98.7	98.6	P/P	80 - 120
2239635	Calcium	106		P	80 - 120
2239635	Iron	104	105	P/P	80 - 120
2239635	Magnesium	100		P	80 - 120
2239635	Manganese	101	101	P/P	80 - 120
2239635	Potassium	101	99.8	P/P	80 - 120
2239635	Sodium	103		P	80 - 120
2239635	Zinc	104	105	P/P	80 - 120
2239675	Barium	100		P	80 - 120
2239675	Calcium	102		P	80 - 120
2239675	Iron	106		P	80 - 120
2239675	Magnesium	95.8		P	80 - 120
2239675	Manganese	102		P	80 - 120
2239675	Potassium	96.5		P	80 - 120
2239675	Sodium	101		P	80 - 120
2239675	Zinc	105		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P396845

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239635	Aluminum	88.9	90.4	P/P	80 - 120
2239635	Antimony	95.5	98.6	P/P	80 - 120
2239635	Arsenic	93.7	95.9	P/P	80 - 120
2239635	Beryllium	88.4	90.0	P/P	80 - 120
2239635	Boron	93.2	93.4	P/P	80 - 120
2239635	Cadmium	94.7	98.2	P/P	80 - 120
2239635	Chromium	91.0	93.6	P/P	80 - 120
2239635	Copper	89.4	92.2	P/P	80 - 120
2239635	Lead	92.2	94.0	P/P	80 - 120
2239635	Nickel	90.0	92.5	P/P	80 - 120
2239635	Selenium	92.0	93.0	P/P	80 - 120
2239635	Silver	92.1	94.3	P/P	80 - 120
2239635	Thallium	99.9	103	P/P	80 - 120
2239675	Aluminum	85.5		P	80 - 120
2239675	Antimony	93.5		P	80 - 120
2239675	Arsenic	92.9		P	80 - 120
2239675	Beryllium	90.3		P	80 - 120
2239675	Boron	89.1		P	80 - 120
2239675	Cadmium	92.1		P	80 - 120
2239675	Chromium	88.8		P	80 - 120
2239675	Copper	89.8		P	80 - 120
2239675	Lead	91.3		P	80 - 120
2239675	Nickel	88.6		P	80 - 120
2239675	Selenium	90.7		P	80 - 120
2239675	Silver	91.1		P	80 - 120
2239675	Thallium	98.6		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396882

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239473	Chloride	98.0		P	90 - 110
2239755	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239473	Sulfate	96.2		P	90 - 110
2239755	Sulfate	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239599	Ammonia-N	94.8	95.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397233

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2241154	Kjeldahl Nitrogen	104	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396840

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239233	NO2NO3-N	99.0	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396695

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239408	Total-P	103	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396535

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239267	O-Phosphate-P	98.1	96.6	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P396574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239252	Aldrin	36.5	36.9	P/P	29 - 83.0
2239252	Alpha-BHC	76.2	80.8	P/P	53 - 147
2239252	Alpha-Chlordane	67.3	75.9	P/P	56 - 107
2239252	Beta-BHC	92.5	109	P/P	43 - 182
2239252	Beta-Cyfluthrin	68.5	82.9	P/P	42 - 157
2239252	Bifenthrin	65.9	69.0	P/P	52 - 124
2239252	Chlorothalonil	114	130	P/P	10 - 265
2239252	Cis-Nonachlor	69.1	79.7	P/P	55 - 112

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P396574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239252	Cypermethrin	77.6	82.9	P/P	46 - 144
2239252	Dacthal	82.4	88.5	P/P	72 - 110
2239252	DDD-p,p'	74.5	87.7	P/P	58 - 123
2239252	DDE-p,p'	65.1	69.9	P/P	52 - 106
2239252	DDT-p,p'	67.6	69.7	P/P	50 - 127
2239252	Delta-BHC	123	141	P/P	56 - 222
2239252	Deltamethrin	82.9	90.7	P/P	47 - 152
2239252	Dichlobenil	58.0	49.7	P/P	22 - 99.0
2239252	Dicofol	91.4	93.2	P/P	38 - 145
2239252	Dieldrin	76.0	80.1	P/P	59 - 118
2239252	Endosulfan I	75.9	82.2	P/P	64 - 124
2239252	Endosulfan II	85.1	100	P/P	52 - 159
2239252	Endosulfan Sulfate	93.5	106	P/P	62 - 136
2239252	Endrin	79.8	87.0	P/P	57 - 126
2239252	Endrin Aldehyde	99.4	115	P/P	41 - 128
2239252	Endrin Ketone	84.0	93.4	P/P	67 - 129
2239252	Esfenvalerate	61.8	69.8	P/P	50 - 120
2239252	Ethalfluralin	60.7	70.5	P/P	41 - 125
2239252	Fenpropathrin	114	120	P/P	40 - 202
2239252	Gamma-BHC	88.9	93.9	P/P	58 - 180
2239252	Gamma-Chlordane	61.0	69.6	P/P	54 - 103
2239252	Heptachlor	51.3	55.0	P/P	46 - 94.0
2239252	Heptachlor Epoxide	73.0	80.9	P/P	62 - 111
2239252	Hexachlorobenzene	49.3	54.7	P/P	42 - 95.0
2239252	Lambda-Cyhalothrin	68.9	80.6	P/P	37 - 162
2239252	Methoxychlor	82.3	89.3	P/P	52 - 143
2239252	MGK-264	60.4	62.0	P/P	37 - 102
2239252	Mirex	48.9	53.8	P/P	43 - 91.0
2239252	Permethrin	64.9	67.7	P/P	48 - 113
2239252	Phenothrin	43.5	45.4	P/P	30 - 104
2239252	Piperonyl Butoxide	93.6	109	P/P	67 - 127
2239252	Prallethrin	52.1	63.5	P/P	28 - 102
2239252	Tau-Fluvalinate	74.1	89.3	P/P	46 - 174
2239252	Tetramethrin	81.2	83.1	P/P	28 - 176
2239252	Trans-Nonachlor	62.3	69.8	P/P	51 - 103
2239252	Triclosan Methyl	80.5	90.6	P/P	67 - 116
2239252	Trifluralin	60.1	68.5	P/P	47 - 118
2239467	Aldrin	40.3	52.0	P/P	22 - 127
2239467	Dieldrin	70.8	70.6	P/P	52 - 123
2239467	Kepone	124	114	P/P	18 - 138

Reference Method: EPA 8270E
Batch ID: P396895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239453	Acetochlor	88.5	94.3	P/P	66 - 122
2239453	Alachlor	81.3	90.5	P/P	65 - 122
2239453	Ametryn	101	108	P/P	45 - 173
2239453	Atrazine Desethyl	95.3	104	P/P	25 - 150
2239453	Azinphos Methyl	132	130	P/P	44 - 174
2239453	Bromacil	91.6	91.7	P/P	31 - 145
2239453	Butylate	33.3	34.2	P/P	15 - 97.0

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P396895

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239453	Caffeine	74.2	75.2	P/P	70 - 130
2239453	Carbophenothion	83.9	85.4	P/P	42 - 129
2239453	Carfentrazone Ethyl	91.7	90.5	P/P	62 - 145
2239453	Chlorpyrifos Ethyl	82.2	89.0	P/P	60 - 124
2239453	Chlorpyrifos Methyl	88.8	88.5	P/P	66 - 119
2239453	Cyanazine	119	120	P/P	17 - 225
2239453	Demeton	89.0	85.9	P/P	36 - 142
2239453	Diazinon	103	107	P/P	70 - 128
2239453	Dimethenamid	83.7	85.2	P/P	54 - 125
2239453	Disulfoton	95.7	98.4	P/P	49 - 133
2239453	Dithiopyr	85.9	90.7	P/P	55 - 123
2239453	EPTC	32.1	35.8	P/P	19 - 91.0
2239453	Ethion	70.3	73.5	P/P	13 - 143
2239453	Fenamiphos	56.8	71.8	P/P	32 - 136
2239453	Fenbuconazole	107	114	P/P	73 - 148
2239453	Fipronil Desulfinyl	95.5	95.5	P/P	49 - 127
2239453	Fluazifop-P-butyl	94.7	94.2	P/P	67 - 129
2239453	Flumioxazin	174	176	P/P	38 - 279
2239453	Flutolanil	84.6	89.3	P/P	55 - 136
2239453	Fonofos	84.1	79.6	P/P	58 - 125
2239453	Hexazinone	98.8	97.1	P/P	57 - 148
2239453	Imazalil	297	283	F/F	10 - 221
2239453	Iprodione	86.3	89.7	P/P	32 - 140
2239453	Malathion	88.4	85.7	P/P	52 - 138
2239453	Metalaxyl	90.4	91.8	P/P	46 - 134
2239453	Mevinphos	91.9	89.4	P/P	45 - 140
2239453	Molinate	53.2	58.0	P/P	41 - 103
2239453	Myclobutanil	87.9	92.1	P/P	60 - 134
2239453	Naled	33.7	34.0	P/P	20 - 113
2239453	Norflurazon	97.5	99.3	P/P	51 - 123
2239453	Oxadiazon	76.3	79.6	P/P	44 - 125
2239453	Oxyfluorfen	111	110	P/P	66 - 176
2239453	Parathion Ethyl	90.5	93.0	P/P	57 - 132
2239453	Parathion Methyl	106	106	P/P	59 - 156
2239453	Phorate	78.9	79.6	P/P	47 - 136
2239453	Prodiamine	48.7	62.5	P/P	10 - 159
2239453	Prometon	86.9	87.2	P/P	59 - 127
2239453	Prometryn	87.2	88.6	P/P	59 - 129
2239453	Pronamide	94.1	94.8	P/P	65 - 145
2239453	Propiconazole	78.3	90.4	P/P	28 - 165
2239453	Pyriproxyfen	85.5	88.2	P/P	21 - 180
2239453	Simazine	120	116	P/P	63 - 147
2239453	Sulfentrazone	84.9	83.9	P/P	32 - 136
2239453	Tebuconazole	59.5	64.4	P/P	10 - 117
2239453	Terbufos	93.4	93.2	P/P	61 - 131
2239453	Terbuthylazine	90.7	94.3	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P396574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239467	Chlordane	101	96.0	P/P	47 - 128

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P396574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239467	Toxaphene	82.9	83.1	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P396512

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2238884	Acesulfame K	108	131	P/P	40 - 150
2238884	AMPA	116	124	P/P	40 - 150
2238884	Endothall	94.3	93.9	P/P	40 - 150
2238884	Glufosinate	104	104	P/P	40 - 150
2238884	Glyphosate	76.4	86.2	P/P	40 - 140
2238884	Sucralose	96.6	101	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P396519

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2238884	2,4-D	167	149	F/P	30 - 160
2238884	2,4,5-T	134	109	P/P	30 - 160
2238884	Acetaminophen	118	124	P/P	30 - 160
2238884	Acetamiprid	91.6	90.5	P/P	30 - 160
2238884	Afidopyropen	78.0	72.3	P/P	30 - 160
2238884	Bentazon	96.1	88.3	P/P	30 - 160
2238884	Benzovindiflupyr	93.5	94.7	P/P	30 - 160
2238884	Carbamazepine	102	93.4	P/P	30 - 160
2238884	Clothianidin	123	130	P/P	30 - 160
2238884	Dinotefuran	132	122	P/P	30 - 160
2238884	Diuron	68.3	62.6	P/P	30 - 160
2238884	Fenuron	112	118	P/P	30 - 160
2238884	Fluridone	104	101	P/P	30 - 160
2238884	Hydrocodone	129	118	P/P	30 - 160
2238884	Ibuprofen	111	105	P/P	30 - 160
2238884	Imazapyr	129	113	P/P	30 - 160
2238884	Imidacloprid	161	153	F/P	30 - 160
2238884	Linuron	82.9	71.6	P/P	30 - 160
2238884	Mandestrobin	93.0	90.0	P/P	30 - 160
2238884	MCPP	140	129	P/P	30 - 160
2238884	Naproxen	96.2	73.6	P/P	30 - 160
2238884	Primidone	125	119	P/P	30 - 160
2238884	Pyraclostrobin	94.2	83.2	P/P	30 - 160
2238884	Thiamethoxam	147	127	P/P	30 - 160
2238884	Tolfenpyrad	58.7	58.4	P/P	30 - 160
2238884	Triclopyr	125	98.9	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P396769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239430	3-Hydroxycarbofuran	79.0	82.5	P/P	30 - 160
2239430	Aldicarb	87.2	102	P/P	30 - 150
2239430	Aldicarb Sulfone	103	111	P/P	30 - 160
2239430	Aldicarb Sulfoxide	31.0	29.9	P/F	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P396769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239430	Carbaryl	54.3	64.3	P/P	30 - 160
2239430	Carbofuran	62.8	62.3	P/P	30 - 160
2239430	Methiocarb	73.1	72.2	P/P	30 - 160
2239430	Methomyl	80.4	83.5	P/P	30 - 160
2239430	Oxamyl	85.4	91.9	P/P	30 - 160
2239430	Propoxur	56.3	61.1	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P396667

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239754	Fluoride	104	104	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P396953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239209	Organic Carbon	99.6	99.8	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P396561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239312	Turbidity	1.11	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P396845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239635	Barium	0.0816	Spike	P	0 - 20
2239635	Calcium	1.63	Spike	P	0 - 20
2239635	Iron	1.07	Spike	P	0 - 20
2239635	Magnesium	0.906	Spike	P	0 - 20
2239635	Manganese	0.0947	Spike	P	0 - 20
2239635	Potassium	0.793	Spike	P	0 - 20
2239635	Sodium	0.517	Spike	P	0 - 20
2239635	Zinc	0.511	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P396845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239635	Aluminum	1.42	Spike	P	0 - 20
2239635	Antimony	3.24	Spike	P	0 - 20
2239635	Arsenic	2.30	Spike	P	0 - 20
2239635	Beryllium	1.70	Spike	P	0 - 20
2239635	Boron	0.220	Spike	P	0 - 20
2239635	Cadmium	3.58	Spike	P	0 - 20
2239635	Chromium	2.75	Spike	P	0 - 20
2239635	Copper	3.01	Spike	P	0 - 20
2239635	Lead	1.98	Spike	P	0 - 20
2239635	Nickel	2.80	Spike	P	0 - 20
2239635	Selenium	1.10	Spike	P	0 - 20
2239635	Silver	2.41	Spike	P	0 - 20
2239635	Thallium	2.66	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239473	Chloride	0.691	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239473	Sulfate	0.218	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239599	Ammonia-N	0.168	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P397233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2241154	Kjeldahl Nitrogen	0.935	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396840

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239233	NO2NO3-N	1.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239408	Total-P	1.15	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239267	O-Phosphate-P	1.32	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P396574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239252	Aldrin	0.916	Spike	P	0 - 30
2239252	Alpha-BHC	5.75	Spike	P	0 - 30
2239252	Alpha-Chlordane	12.0	Spike	P	0 - 30
2239252	Beta-BHC	15.9	Spike	P	0 - 30
2239252	Beta-Cyfluthrin	18.9	Spike	P	0 - 30
2239252	Bifenthrin	4.63	Spike	P	0 - 30
2239252	Chlorothalonil	13.0	Spike	P	0 - 30
2239252	Cis-Nonachlor	14.3	Spike	P	0 - 30
2239252	Cypermethrin	6.61	Spike	P	0 - 30
2239252	Dacthal	7.15	Spike	P	0 - 30
2239252	DDD-p,p'	16.2	Spike	P	0 - 30
2239252	DDE-p,p'	7.04	Spike	P	0 - 30
2239252	DDT-p,p'	2.96	Spike	P	0 - 30
2239252	Delta-BHC	13.8	Spike	P	0 - 30
2239252	Deltamethrin	9.01	Spike	P	0 - 30
2239252	Dichlobenil	15.5	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P396574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239252	Dicofol	1.86	Spike	P	0 - 30
2239252	Dieldrin	5.26	Spike	P	0 - 30
2239252	Endosulfan I	8.01	Spike	P	0 - 30
2239252	Endosulfan II	16.4	Spike	P	0 - 30
2239252	Endosulfan Sulfate	12.8	Spike	P	0 - 30
2239252	Endrin	8.69	Spike	P	0 - 30
2239252	Endrin Aldehyde	14.3	Spike	P	0 - 30
2239252	Endrin Ketone	10.5	Spike	P	0 - 30
2239252	Esfenvalerate	12.1	Spike	P	0 - 30
2239252	Ethalfluralin	15.0	Spike	P	0 - 30
2239252	Fenpropathrin	5.16	Spike	P	0 - 30
2239252	Gamma-BHC	5.49	Spike	P	0 - 30
2239252	Gamma-Chlordane	13.1	Spike	P	0 - 30
2239252	Heptachlor	7.01	Spike	P	0 - 30
2239252	Heptachlor Epoxide	10.3	Spike	P	0 - 30
2239252	Hexachlorobenzene	10.3	Spike	P	0 - 30
2239252	Lambda-Cyhalothrin	15.7	Spike	P	0 - 30
2239252	Methoxychlor	8.17	Spike	P	0 - 30
2239252	MGK-264	2.63	Spike	P	0 - 30
2239252	Mirex	9.70	Spike	P	0 - 30
2239252	Permethrin	4.14	Spike	P	0 - 30
2239252	Phenothrin	4.20	Spike	P	0 - 30
2239252	Piperonyl Butoxide	14.8	Spike	P	0 - 30
2239252	Prallethrin	19.8	Spike	P	0 - 30
2239252	Tau-Fluvalinate	18.6	Spike	P	0 - 30
2239252	Tetramethrin	2.39	Spike	P	0 - 30
2239252	Trans-Nonachlor	11.3	Spike	P	0 - 30
2239252	Triclosan Methyl	11.9	Spike	P	0 - 30
2239252	Trifluralin	13.1	Spike	P	0 - 30
2239467	Aldrin	25.3	Spike	P	0 - 30
2239467	Dieldrin	0.121	Spike	P	0 - 30
2239467	Kepone	7.89	Spike	P	0 - 30
LFB	Aldrin	16.1	LCS	P	0 - 30
LFB	Aldrin	6.91	LCS	P	0 - 30
LFB	Alpha-BHC	3.82	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.27	LCS	P	0 - 30
LFB	Beta-BHC	3.52	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	3.34	LCS	P	0 - 30
LFB	Bifenthrin	0.356	LCS	P	0 - 30
LFB	Chlorothalonil	15.2	LCS	P	0 - 30
LFB	Cis-Nonachlor	2.25	LCS	P	0 - 30
LFB	Cypermethrin	1.28	LCS	P	0 - 30
LFB	Dacthal	3.62	LCS	P	0 - 30
LFB	DDD-p,p'	3.00	LCS	P	0 - 30
LFB	DDE-p,p'	6.31	LCS	P	0 - 30
LFB	DDT-p,p'	5.74	LCS	P	0 - 30
LFB	Delta-BHC	6.72	LCS	P	0 - 30
LFB	Deltamethrin	0.0585	LCS	P	0 - 30
LFB	Dichlobenil	1.94	LCS	P	0 - 30
LFB	Dicofol	19.9	LCS	P	0 - 30
LFB	Dieldrin	12.6	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P396574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dieldrin	10.2	LCS	P	0 - 30
LFB	Endosulfan I	2.95	LCS	P	0 - 30
LFB	Endosulfan II	2.47	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.51	LCS	P	0 - 30
LFB	Endrin	4.61	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.97	LCS	P	0 - 30
LFB	Endrin Ketone	0.728	LCS	P	0 - 30
LFB	Esfenvalerate	1.10	LCS	P	0 - 30
LFB	Ethalfluralin	5.62	LCS	P	0 - 30
LFB	Fenpropathrin	12.6	LCS	P	0 - 30
LFB	Gamma-BHC	0.518	LCS	P	0 - 30
LFB	Gamma-Chlordane	4.23	LCS	P	0 - 30
LFB	Heptachlor	6.19	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.38	LCS	P	0 - 30
LFB	Hexachlorobenzene	11.0	LCS	P	0 - 30
LFB	Kepone	0.662	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	6.26	LCS	P	0 - 30
LFB	Methoxychlor	6.66	LCS	P	0 - 30
LFB	MGK-264	6.23	LCS	P	0 - 30
LFB	Mirex	4.01	LCS	P	0 - 30
LFB	Permethrin	2.95	LCS	P	0 - 30
LFB	Phenothrin	5.50	LCS	P	0 - 30
LFB	Piperonyl Butoxide	1.52	LCS	P	0 - 30
LFB	Prallethrin	4.29	LCS	P	0 - 30
LFB	Tau-Fluvalinate	5.67	LCS	P	0 - 30
LFB	Tetramethrin	1.69	LCS	P	0 - 30
LFB	Trans-Nonachlor	4.47	LCS	P	0 - 30
LFB	Triclosan Methyl	4.69	LCS	P	0 - 30
LFB	Trifluralin	5.98	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P396895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239453	Acetochlor	6.32	Spike	P	0 - 30
2239453	Alachlor	10.7	Spike	P	0 - 30
2239453	Ametryn	6.04	Spike	P	0 - 30
2239453	Atrazine	1.98	Spike	P	0 - 30
2239453	Atrazine Desethyl	6.95	Spike	P	0 - 30
2239453	Azinphos Methyl	1.63	Spike	P	0 - 30
2239453	Azoxystrobin	9.16	Spike	P	0 - 30
2239453	Bromacil	0.167	Spike	P	0 - 30
2239453	Butylate	2.76	Spike	P	0 - 30
2239453	Caffeine	1.40	Spike	P	0 - 30
2239453	Carbophenothion	1.74	Spike	P	0 - 30
2239453	Carfentrazone Ethyl	1.34	Spike	P	0 - 30
2239453	Chlorpyrifos Ethyl	7.92	Spike	P	0 - 30
2239453	Chlorpyrifos Methyl	0.350	Spike	P	0 - 30
2239453	Cyanazine	1.02	Spike	P	0 - 30
2239453	Demeton	3.52	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P396895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239453	Diazinon	3.85	Spike	P	0 - 30
2239453	Difenoconazole	17.7	Spike	P	0 - 30
2239453	Dimethenamid	1.85	Spike	P	0 - 30
2239453	Disulfoton	2.84	Spike	P	0 - 30
2239453	Dithiopyr	5.43	Spike	P	0 - 30
2239453	EPTC	11.0	Spike	P	0 - 30
2239453	Ethion	4.41	Spike	P	0 - 30
2239453	Ethoprop	0.0744	Spike	P	0 - 30
2239453	Fenamiphos	23.3	Spike	P	0 - 30
2239453	Fenbuconazole	5.69	Spike	P	0 - 30
2239453	Fipronil	1.94	Spike	P	0 - 30
2239453	Fipronil Desulfinyl	0.00251	Spike	P	0 - 30
2239453	Fipronil Sulfide	3.83	Spike	P	0 - 30
2239453	Fipronil Sulfone	1.06	Spike	P	0 - 30
2239453	Fluazifop-P-butyl	0.602	Spike	P	0 - 30
2239453	Fludioxonil	2.81	Spike	P	0 - 30
2239453	Flumioxazin	1.11	Spike	P	0 - 30
2239453	Flutolanil	5.43	Spike	P	0 - 30
2239453	Fluxapyroxad	0.374	Spike	P	0 - 30
2239453	Fonofos	5.46	Spike	P	0 - 30
2239453	Hexazinone	1.58	Spike	P	0 - 30
2239453	Imazalil	4.79	Spike	P	0 - 30
2239453	Iprodione	3.94	Spike	P	0 - 30
2239453	Malathion	3.12	Spike	P	0 - 30
2239453	Metalaxyl	1.04	Spike	P	0 - 30
2239453	Metolachlor	6.85	Spike	P	0 - 30
2239453	Metribuzin	2.19	Spike	P	0 - 30
2239453	Mevinphos	2.78	Spike	P	0 - 30
2239453	Molinate	8.66	Spike	P	0 - 30
2239453	Myclobutanil	4.76	Spike	P	0 - 30
2239453	Naled	0.804	Spike	P	0 - 30
2239453	Norflurazon	1.86	Spike	P	0 - 30
2239453	Oxadiazon	3.12	Spike	P	0 - 30
2239453	Oxyfluorfen	0.345	Spike	P	0 - 30
2239453	Parathion Ethyl	2.75	Spike	P	0 - 30
2239453	Parathion Methyl	0.219	Spike	P	0 - 30
2239453	Pendimethalin	1.37	Spike	P	0 - 30
2239453	Phorate	0.850	Spike	P	0 - 30
2239453	Prodiamine	24.9	Spike	P	0 - 30
2239453	Prometon	0.328	Spike	P	0 - 30
2239453	Prometryn	1.65	Spike	P	0 - 30
2239453	Pronamide	0.812	Spike	P	0 - 30
2239453	Propiconazole	14.4	Spike	P	0 - 30
2239453	Pyriproxyfen	3.14	Spike	P	0 - 30
2239453	Simazine	3.47	Spike	P	0 - 30
2239453	Sulfentrazone	1.13	Spike	P	0 - 30
2239453	Tebuconazole	7.91	Spike	P	0 - 30
2239453	Terbufos	0.133	Spike	P	0 - 30
2239453	Terbuthylazine	3.88	Spike	P	0 - 30
LFB	Acetochlor	19.3	LCS	P	0 - 30
LFB	Alachlor	14.2	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P396895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Ametryn	21.6	LCS	P	0 - 30
LFB	Atrazine	6.09	LCS	P	0 - 30
LFB	Atrazine Desethyl	5.45	LCS	P	0 - 30
LFB	Azinphos Methyl	14.1	LCS	P	0 - 30
LFB	Azoxystrobin	12.7	LCS	P	0 - 30
LFB	Bromacil	23.7	LCS	P	0 - 30
LFB	Butylate	21.0	LCS	P	0 - 30
LFB	Caffeine	1.79	LCS	P	0 - 30
LFB	Carbophenothion	17.0	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	17.0	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	15.3	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	13.0	LCS	P	0 - 30
LFB	Cyanazine	18.3	LCS	P	0 - 30
LFB	Demeton	14.0	LCS	P	0 - 30
LFB	Diazinon	19.0	LCS	P	0 - 30
LFB	Difenoconazole	10.9	LCS	P	0 - 30
LFB	Dimethenamid	17.0	LCS	P	0 - 30
LFB	Disulfoton	17.0	LCS	P	0 - 30
LFB	Dithiopyr	17.0	LCS	P	0 - 30
LFB	EPTC	24.6	LCS	P	0 - 30
LFB	Ethion	12.7	LCS	P	0 - 30
LFB	Ethoprop	15.3	LCS	P	0 - 30
LFB	Fenamiphos	16.4	LCS	P	0 - 30
LFB	Fenbuconazole	16.5	LCS	P	0 - 30
LFB	Fipronil	14.6	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	20.3	LCS	P	0 - 30
LFB	Fipronil Sulfide	20.4	LCS	P	0 - 30
LFB	Fipronil Sulfone	10.7	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	23.5	LCS	P	0 - 30
LFB	Fludioxonil	17.2	LCS	P	0 - 30
LFB	Flumioxazin	6.73	LCS	P	0 - 30
LFB	Flutolanil	14.1	LCS	P	0 - 30
LFB	Fluxapyroxad	11.4	LCS	P	0 - 30
LFB	Fonofos	21.2	LCS	P	0 - 30
LFB	Hexazinone	10.6	LCS	P	0 - 30
LFB	Imazalil	23.6	LCS	P	0 - 30
LFB	Iprodione	12.3	LCS	P	0 - 30
LFB	Malathion	17.2	LCS	P	0 - 30
LFB	Metalaxyl	20.2	LCS	P	0 - 30
LFB	Metolachlor	14.2	LCS	P	0 - 30
LFB	Metribuzin	9.75	LCS	P	0 - 30
LFB	Mevinphos	24.9	LCS	P	0 - 30
LFB	Molinate	10.5	LCS	P	0 - 30
LFB	Myclobutanil	18.1	LCS	P	0 - 30
LFB	Naled	22.1	LCS	P	0 - 30
LFB	Norflurazon	12.8	LCS	P	0 - 30
LFB	Oxadiazon	19.7	LCS	P	0 - 30
LFB	Oxyfluorfen	14.1	LCS	P	0 - 30
LFB	Parathion Ethyl	12.2	LCS	P	0 - 30
LFB	Parathion Methyl	4.38	LCS	P	0 - 30
LFB	Pendimethalin	9.56	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P396895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Phorate	5.87	LCS	P	0 - 30
LFB	Prodiamine	36.8	LCS	F	0 - 30
LFB	Prometon	12.8	LCS	P	0 - 30
LFB	Prometryn	20.0	LCS	P	0 - 30
LFB	Pronamide	9.72	LCS	P	0 - 30
LFB	Propiconazole	16.1	LCS	P	0 - 30
LFB	Pyriproxyfen	18.8	LCS	P	0 - 30
LFB	Simazine	12.7	LCS	P	0 - 30
LFB	Sulfentrazone	21.8	LCS	P	0 - 30
LFB	Tebuconazole	6.27	LCS	P	0 - 30
LFB	Terbufos	20.0	LCS	P	0 - 30
LFB	Terbuthylazine	14.7	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P396574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239467	Chlordane	5.06	Spike	P	0 - 30
2239467	Toxaphene	0.269	Spike	P	0 - 30
LFB	Chlordane	11.7	LCS	P	0 - 30
LFB	Toxaphene	11.9	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P396512

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2238884	Acesulfame K	19.0	Spike	P	0 - 30
2238884	AMPA	6.81	Spike	P	0 - 30
2238884	Endothall	0.410	Spike	P	0 - 30
2238884	Glufosinate	0.212	Spike	P	0 - 30
2238884	Glyphosate	12.1	Spike	P	0 - 30
2238884	Sucralose	3.14	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P396519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2238884	2,4-D	10.9	Spike	P	0 - 30
2238884	2,4,5-T	20.2	Spike	P	0 - 30
2238884	Acetaminophen	4.71	Spike	P	0 - 30
2238884	Acetamiprid	1.30	Spike	P	0 - 30
2238884	Afidopyropen	7.60	Spike	P	0 - 30
2238884	Bentazon	8.52	Spike	P	0 - 30
2238884	Benzovindiflupyr	1.31	Spike	P	0 - 30
2238884	Carbamazepine	7.58	Spike	P	0 - 30
2238884	Clothianidin	5.94	Spike	P	0 - 30
2238884	Dinotefuran	8.36	Spike	P	0 - 30
2238884	Diuron	8.73	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P396519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2238884	Fenuron	3.34	Spike	P	0 - 30
2238884	Fluridone	3.39	Spike	P	0 - 30
2238884	Hydrocodone	9.12	Spike	P	0 - 30
2238884	Ibuprofen	5.74	Spike	P	0 - 30
2238884	Imazapyr	13.6	Spike	P	0 - 30
2238884	Imidacloprid	4.65	Spike	P	0 - 30
2238884	Linuron	14.7	Spike	P	0 - 30
2238884	Mandestrobin	3.24	Spike	P	0 - 30
2238884	MCPP	8.26	Spike	P	0 - 30
2238884	Naproxen	26.7	Spike	P	0 - 30
2238884	Primidone	5.20	Spike	P	0 - 30
2238884	Pyraclostrobin	12.4	Spike	P	0 - 30
2238884	Thiamethoxam	14.8	Spike	P	0 - 30
2238884	Tolfenpyrad	0.572	Spike	P	0 - 30
2238884	Triclopyr	23.0	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P396769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239430	3-Hydroxycarbofuran	4.35	Spike	P	0 - 30
2239430	Aldicarb	15.4	Spike	P	0 - 30
2239430	Aldicarb Sulfone	7.43	Spike	P	0 - 30
2239430	Aldicarb Sulfoxide	3.48	Spike	P	0 - 30
2239430	Carbaryl	16.9	Spike	P	0 - 30
2239430	Carbofuran	0.767	Spike	P	0 - 30
2239430	Methiocarb	1.31	Spike	P	0 - 30
2239430	Methomyl	3.76	Spike	P	0 - 30
2239430	Oxamyl	5.82	Spike	P	0 - 30
2239430	Propoxur	8.16	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P396549

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239312	Color (true)	0.335	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P396665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239754	Total Alkalinity	0.960	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P396988

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

Quality Assurance Report
Precision

Reference Method: SM 2540 C-2011
Batch ID: P396988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239054	TDS	6.50	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P396667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239754	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P396953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239209	Organic Carbon	0.150	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2239430
Field Sample ID: 20030577

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	59.2	P	30 - 160

Lab Sample ID: 2239431
Field Sample ID: 20030577

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	130	P	30 - 160
EPA 8321B	Acetaminophen-d4	133	P	30 - 160
EPA 8321B	Carbamazepine-d10	66.4	P	30 - 160
EPA 8321B	Diuron-d6	40.9	P	30 - 160
EPA 8321B	Endothall-d6	129	P	40 - 160
EPA 8321B	Endothall-d6	129	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	40 - 160
EPA 8321B	Ibuprofen-d3	102	P	30 - 160
EPA 8321B	Primidone-d5	92.9	P	30 - 160
EPA 8321B	Sucralose-d6	98.2	P	30 - 160
EPA 8321B	Sucralose-d6	98.2	P	30 - 160

Lab Sample ID: 2239432
Field Sample ID: 20030681

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	117	P	30 - 160
EPA 8321B	Acetaminophen-d4	129	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.5	P	30 - 160
EPA 8321B	Diuron-d6	40.4	P	30 - 160
EPA 8321B	Endothall-d6	118	P	40 - 160
EPA 8321B	Endothall-d6	118	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	157	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	157	P	40 - 160
EPA 8321B	Ibuprofen-d3	93.4	P	30 - 160
EPA 8321B	Primidone-d5	94.1	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160

Lab Sample ID: 2239452
Field Sample ID: 20030577

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	87.4	P	40 - 123
EPA 8270E	Decachlorobiphenyl	88.9	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	53.5	P	31 - 100
EPA 8270E	Tetrachloro-m-xylene	58.5	P	33 - 102
EPA 8276	Decachlorobiphenyl	72.6	P	29 - 92.0
EPA 8276	PCNB	77.3	P	43 - 134

Lab Sample ID: 2239453
Field Sample ID: 20030577

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	88.0	P	20 - 200

Quality Assurance Report
Surrogates

Lab Sample ID: 2239453
Field Sample ID: 20030577

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	134	P	73 - 135
EPA 8270E	Terbufos-d10	129	P	58 - 130

Lab Sample ID: 2239454
Field Sample ID: 20030681

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	99.7	P	20 - 200
EPA 8270E	Simazine-d10	133	P	73 - 135
EPA 8270E	Terbufos-d10	123	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A104725
Included Lab Sample IDs: 2239409

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

Reference Method: SM 2120 B-2011
Run ID: A104730
Included Lab Sample IDs: 2239407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A104732
Included Lab Sample IDs: 2239407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: SM 2320 B-2011
Run ID: A104779
Included Lab Sample IDs: 2239407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.3	101	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A104779
Included Lab Sample IDs: 2239407

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

Reference Method: EPA 8321B
Run ID: A104794
Included Lab Sample IDs: 2239431, 2239432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	95.1	92.8	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A104810
Included Lab Sample IDs: 2239408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.4	103	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A104823
Included Lab Sample IDs: 2239431, 2239432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	120	106	P/P	50 - 150
2,4,5-T	114	104	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A104823
Included Lab Sample IDs: 2239431, 2239432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	110	106	P/P	60 - 160
Acetamiprid	102	109	P/P	50 - 150
Afidopyropen	114	125	P/P	50 - 150
Bentazon	110	107	P/P	50 - 160
Benzovindiflupyr	103	110	P/P	50 - 160
Carbamazepine	106	105	P/P	60 - 150
Clothianidin	116	110	P/P	60 - 150
Dinotefuran	106	110	P/P	50 - 150
Diuron	116	106	P/P	60 - 160
Fenuron	112	93.0	P/P	60 - 150
Fluridone	121	116	P/P	60 - 160
Hydrocodone	105	112	P/P	60 - 150
Ibuprofen	107	118	P/P	50 - 160
Imazapyr	110	95.1	P/P	50 - 160
Imidacloprid	107	113	P/P	60 - 150
Linuron	111	118	P/P	60 - 150
Mandestrobin	116	110	P/P	50 - 150
MCPP	99.6	101	P/P	50 - 150
Naproxen	118	83.7	P/P	50 - 160
Primidone	99.8	111	P/P	60 - 150
Pyraclostrobin	111	109	P/P	60 - 150
Thiamethoxam	112	112	P/P	50 - 150
Tolfenpyrad	119	125	P/P	60 - 150
Triclopyr	109	106	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A104841
Included Lab Sample IDs: 2239452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.1		P	80 - 120
Alpha-BHC	98.2		P	80 - 120
Alpha-Chlordane	99.5		P	80 - 120
Beta-BHC	100		P	80 - 120
Beta-Cyfluthrin	85.2		P	80 - 120
Bifenthrin	95.9		P	80 - 120
Chlorothalonil	73.8*		F	80 - 120
Cis-Nonachlor	95.5		P	80 - 120
Cypermethrin	89.9		P	80 - 120
Dacthal	100		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	106		P	80 - 120
DDT-p,p'	100		P	80 - 120
Delta-BHC	93.7		P	80 - 120
Deltamethrin	92.6		P	80 - 120
Dichlobenil	99.5		P	80 - 120
Dicofol	95.5		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	96.2		P	80 - 120
Endosulfan II	86.6		P	80 - 120
Endosulfan Sulfate	100		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A104841
Included Lab Sample IDs: 2239452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin	97.1		P	80 - 120
Endrin Aldehyde	101		P	80 - 120
Endrin Ketone	94.1		P	80 - 120
Esfenvalerate	93.3		P	80 - 120
Ethalfluralin	95.4		P	80 - 120
Fenpropathrin	96.4		P	80 - 120
Gamma-BHC	95.2		P	80 - 120
Gamma-Chlordane	97.0		P	80 - 120
Heptachlor	94.2		P	80 - 120
Heptachlor Epoxide	99.8		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Lambda-Cyhalothrin	80.8		P	80 - 120
Methoxychlor	99.1		P	80 - 120
MGK-264	97.8		P	80 - 120
Mirex	96.6		P	80 - 120
Permethrin	87.2		P	80 - 120
Phenothrin	87.6		P	80 - 120
Piperonyl Butoxide	90.6		P	80 - 120
Prallethrin	89.6		P	80 - 120
Tau-Fluvalinate	95.8		P	80 - 120
Tetramethrin	92.4		P	80 - 120
Trans-Nonachlor	98.5		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	96.0		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A104844
Included Lab Sample IDs: 2239408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	99.0	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A104854
Included Lab Sample IDs: 2239431, 2239432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	143	123	P/P	40 - 160
AMPA	95.6	90.5	P/P	40 - 160
Endothall	91.5	75.6	P/P	40 - 160
Glufosinate	92.7	92.6	P/P	40 - 160
Glyphosate	81.9	91.7	P/P	40 - 160

Reference Method: EPA 8270E
Run ID: A104863
Included Lab Sample IDs: 2239452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.1		P	80 - 120
Dieldrin	100		P	80 - 120
Kepone	94.7		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A104869
Included Lab Sample IDs: 2239407

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.9	99.3	P/P	90 - 110
Sulfate	98.7	98.9	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A104901
Included Lab Sample IDs: 2239408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	98.1	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A104906
Included Lab Sample IDs: 2239452

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.0		P	80 - 120
Toxaphene	102		P	80 - 120

Reference Method: EPA 8270E
Run ID: A104909
Included Lab Sample IDs: 2239453, 2239454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.7		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	97.2		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	97.2		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	97.2		P	80 - 120
Caffeine	91.4		P	80 - 120
Carbophenothion	102		P	80 - 120
Carfentrazone Ethyl	105		P	80 - 120
Chlorpyrifos Ethyl	100		P	80 - 120
Chlorpyrifos Methyl	96.3		P	80 - 120
Cyanazine	93.7		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	101		P	80 - 120
Dimethenamid	105		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	98.0		P	80 - 120
EPTC	99.2		P	80 - 120
Ethion	105		P	80 - 120
Ethoprop	98.5		P	80 - 120
Fenamiphos	103		P	80 - 120
Fenbuconazole	104		P	80 - 120
Fipronil	99.0		P	80 - 120
Fipronil Desulfinyl	100		P	80 - 120
Fipronil Sulfide	103		P	80 - 120
Fipronil Sulfone	106		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A104909
Included Lab Sample IDs: 2239453, 2239454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluazifop-P-butyl	96.0		P	80 - 120
Fludioxonil	103		P	80 - 120
Flumioxazin	100		P	80 - 120
Flutolanil	100		P	80 - 120
Fluxapyroxad	108		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	99.3		P	80 - 120
Imazalil	98.4		P	80 - 120
Iprodione	96.9		P	80 - 120
Malathion	103		P	80 - 120
Metalaxyl	106		P	80 - 120
Metolachlor	97.6		P	80 - 120
Mevinphos	106		P	80 - 120
Molinate	97.7		P	80 - 120
Myclobutanil	101		P	80 - 120
Naled	102		P	80 - 120
Norflurazon	104		P	80 - 120
Oxadiazon	99.3		P	80 - 120
Oxyfluorfen	99.4		P	80 - 120
Parathion Ethyl	100		P	80 - 120
Parathion Methyl	108		P	80 - 120
Pendimethalin	99.4		P	80 - 120
Phorate	97.5		P	80 - 120
Prodiamine	94.3		P	80 - 120
Prometon	96.7		P	80 - 120
Prometryn	99.7		P	80 - 120
Pronamide	103		P	80 - 120
Propiconazole	103		P	80 - 120
Pyriproxyfen	97.8		P	80 - 120
Simazine	93.0		P	80 - 120
Sulfentrazone	106		P	80 - 120
Tebuconazole	105		P	80 - 120
Terbufos	100		P	80 - 120
Terbuthylazine	97.7		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A104919
Included Lab Sample IDs: 2239408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	99.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A104922
Included Lab Sample IDs: 2239455, 2239456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	92.7	91.0	P/P	90 - 110
Barium	98.6	92.7	P/P	90 - 110
Calcium	102	99.7	P/P	90 - 110
Calcium	103	102	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A104922
Included Lab Sample IDs: 2239455, 2239456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	100	97.5	P/P	90 - 110
Iron	102	100	P/P	90 - 110
Magnesium	101	99.3	P/P	90 - 110
Magnesium	99.3	96.5	P/P	90 - 110
Manganese	101	94.9	P/P	90 - 110
Manganese	94.9	95.0	P/P	90 - 110
Potassium	98.4	97.1	P/P	90 - 110
Potassium	99.4	98.4	P/P	90 - 110
Sodium	97.9	98.7	P/P	90 - 110
Sodium	98.7	97.4	P/P	90 - 110
Zinc	106	98.5	P/P	90 - 110
Zinc	98.5	97.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A104925
Included Lab Sample IDs: 2239455, 2239456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.7	97.1	P/P	90 - 110
Antimony	97.4	99.5	P/P	90 - 110
Arsenic	98.6	98.4	P/P	90 - 110
Beryllium	98.0	97.7	P/P	90 - 110
Boron	91.9	99.1	P/P	90 - 110
Cadmium	95.2	97.5	P/P	90 - 110
Chromium	95.2	95.5	P/P	90 - 110
Copper	95.5	94.7	P/P	90 - 110
Lead	97.1	99.0	P/P	90 - 110
Nickel	95.6	94.5	P/P	90 - 110
Selenium	96.4	97.6	P/P	90 - 110
Silver	94.9	96.5	P/P	90 - 110
Thallium	98.1	101	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A104953
Included Lab Sample IDs: 2239453, 2239454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azoxystrobin	94.5		P	80 - 120
Difenoconazole	95.6		P	80 - 120
Metribuzin	93.5		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105060
Included Lab Sample IDs: 2239408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	94.2	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A105098
Included Lab Sample IDs: 2239430

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	112	113	P/P	60 - 150
Aldicarb	116	121	P/P	60 - 150
Aldicarb Sulfone	113	114	P/P	50 - 150
Aldicarb Sulfoxide	106	106	P/P	50 - 150
Carbaryl	117	129	P/P	60 - 150
Carbofuran	110	113	P/P	50 - 150
Methiocarb	111	122	P/P	50 - 150
Methomyl	110	112	P/P	50 - 150
Oxamyl	109	109	P/P	50 - 150
Propoxur	103	113	P/P	50 - 150

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							1.11	
EPA 200.7 Rev. 4.4	Barium	92.0		98.7	98.6	100			0.0816
	Calcium	105		106	102				1.63
	Iron	96.3		104	105	106			1.07
	Magnesium	100		100	95.8				0.906
	Manganese	93.9		101	101	102			0.0947
	Potassium	92.7		101	99.8	96.5			0.793
	Sodium	102		103	101				0.517
	Zinc	97.2		104	105	105			0.511
EPA 200.8 Rev. 5.4	Aluminum	90.2		88.9	90.4	85.5			1.42
	Antimony	95.9		95.5	98.6	93.5			3.24
	Arsenic	94.8		93.7	95.9	92.9			2.30
	Beryllium	89.9		88.4	90.0	90.3			1.70
	Boron	91.0		93.2	93.4	89.1			0.220
	Cadmium	95.0		94.7	98.2	92.1			3.58
	Chromium	91.8		91.0	93.6	88.8			2.75
	Copper	92.7		89.4	92.2	89.8			3.01
	Lead	93.8		92.2	94.0	91.3			1.98
	Nickel	92.2		90.0	92.5	88.6			2.80
	Selenium	94.1		92.0	93.0	90.7			1.10
	Silver	93.6		92.1	94.3	91.1			2.41
	Thallium	99.9		99.9	103	98.6			2.66
EPA 300.0 Rev. 2.1	Chloride	102		98.0	101			0.691	
	Sulfate	100		96.2	99.6			0.218	
EPA 350.1 Rev. 2.0	Ammonia-N	99.4		94.8	95.0				0.168
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	110		104	103				0.935
EPA 353.2 Rev. 2.0	NO2NO3-N	97.0		99.0	97.0				1.23
EPA 365.1 Rev. 2.0	Total-P	105		103	101				1.15
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		98.1	96.6				1.32
EPA 8270E	Acetochlor	82.2	99.8	88.5	94.3		19.3		6.32
	Alachlor	82.8	95.5	81.3	90.5		14.2		10.7
	Aldrin	30.5	35.8	40.3	52.0		16.1		25.3
	Aldrin	28.4	26.5	36.5	36.9		6.91		0.916
	Alpha-BHC	79.6	76.6	76.2	80.8		3.82		5.75
	Alpha-Chlordane	70.7	67.7	67.3	75.9		4.27		12.0
	Ametryn	73.9	91.7	101	108		21.6		6.04
	Atrazine	93.3	87.8				6.09		1.98
	Atrazine Desethyl	95.3	90.2	95.3	104		5.45		6.95
	Azinphos Methyl	140	122	132	130		14.1		1.63
	Azoxystrobin	181	159				12.7		9.16
	Beta-BHC	100	104	92.5	109		3.52		15.9
	Beta-Cyfluthrin	58.9	60.9	68.5	82.9		3.34		18.9
	Bifenthrin	51.2	51.0	65.9	69.0		0.356		4.63
	Bromacil	90.2	71.1	91.6	91.7		23.7		0.167
	Butylate	54.0	43.8	33.3	34.2		21.0		2.76
	Caffeine	71.5	72.8	74.2	75.2		1.79		1.40
	Carbophenothion	86.2	102	83.9	85.4		17.0		1.74
	Carfentrazone Ethyl	91.8	109	91.7	90.5		17.0		1.34
	Chlorothalonil	89.6	104	114	130		15.2		13.0
	Chlorpyrifos Ethyl	81.2	94.6	82.2	89.0		15.3		7.92
	Chlorpyrifos Methyl	86.5	98.4	88.8	88.5		13.0		0.350
	Cis-Nonachlor	72.8	71.2	69.1	79.7		2.25		14.3
	Cyanazine	108	130	119	120		18.3		1.02
	Cypermethrin	63.6	62.8	77.6	82.9		1.28		6.61

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Dacthal	88.3	85.2	82.4	88.5	3.62		7.15
	DDD-p,p'	81.9	79.4	74.5	87.7	3.00		16.2
	DDE-p,p'	66.7	62.6	65.1	69.9	6.31		7.04
	DDT-p,p'	66.1	62.5	67.6	69.7	5.74		2.96
	Delta-BHC	111	118	123	141	6.72		13.8
	Deltamethrin	68.7	68.7	82.9	90.7	0.0585		9.01
	Demeton	76.1	87.6	89.0	85.9	14.0		3.52
	Diazinon	86.8	105	103	107	19.0		3.85
	Dichlobenil	62.8	64.1	58.0	49.7	1.94		15.5
	Dicofol	108	88.2	91.4	93.2	19.9		1.86
	Dieldrin	71.7	81.3	70.8	70.6	12.6		0.121
	Dieldrin	80.4	72.6	76.0	80.1	10.2		5.26
	Difenoconazole	128	143			10.9		17.7
	Dimethenamid	81.8	97.1	83.7	85.2	17.0		1.85
	Disulfoton	79.6	94.4	95.7	98.4	17.0		2.84
	Dithiopyr	82.6	98.0	85.9	90.7	17.0		5.43
	Endosulfan I	78.3	76.0	75.9	82.2	2.95		8.01
	Endosulfan II	86.1	88.3	85.1	100	2.47		16.4
	Endosulfan Sulfate	92.2	94.6	93.5	106	2.51		12.8
	Endrin	82.6	78.9	79.8	87.0	4.61		8.69
	Endrin Aldehyde	109	111	99.4	115	1.97		14.3
	Endrin Ketone	86.2	85.6	84.0	93.4	0.728		10.5
	EPTC	40.1	51.4	32.1	35.8	24.6		11.0
	Esfenvalerate	52.3	51.8	61.8	69.8	1.10		12.1
	Ethalfluralin	65.9	62.3	60.7	70.5	5.62		15.0
	Ethion	70.1	79.6	70.3	73.5	12.7		4.41
	Ethoprop	75.3	87.8			15.3		0.0744
	Fenamiphos	81.0	95.4	56.8	71.8	16.4		23.3
	Fenbuconazole	98.4	116	107	114	16.5		5.69
	Fenpropathrin	135	119	114	120	12.6		5.16
	Fipronil	88.9	103			14.6		1.94
	Fipronil Desulfinyl	85.8	105	95.5	95.5	20.3		0.0025
	Fipronil Sulfide	79.5	97.6			20.4		3.83
	Fipronil Sulfone	76.2	84.8			10.7		1.06
	Fluazifop-P-butyl	83.1	105	94.7	94.2	23.5		0.602
	Fludioxonil	101	120			17.2		2.81
	Flumioxazin	143	153	174	176	6.73		1.11
	Flutolanil	84.7	97.6	84.6	89.3	14.1		5.43
	Fluxapyroxad	94.4	84.2			11.4		0.374
	Fonofos	97.9	79.2	84.1	79.6	21.2		5.46
	Gamma-BHC	85.5	85.9	88.9	93.9	0.518		5.49
	Gamma-Chlordane	63.7	61.0	61.0	69.6	4.23		13.1
	Heptachlor	51.3	48.2	51.3	55.0	6.19		7.01
	Heptachlor Epoxide	79.2	75.0	73.0	80.9	5.38		10.3
	Hexachlorobenzene	54.3	48.7	49.3	54.7	11.0		10.3
	Hexazinone	99.6	89.5	98.8	97.1	10.6		1.58
	Imazalil	102	80.7	297	283	23.6		4.79
	Iprodione	101	89.0	86.3	89.7	12.3		3.94
	Kepone	123	124	124	114	0.662		7.89
	Lambda-Cyhalothrin	52.5	55.9	68.9	80.6	6.26		15.7
	Malathion	99.2	83.4	88.4	85.7	17.2		3.12
	Metalaxyl	107	87.1	90.4	91.8	20.2		1.04
	Methoxychlor	87.6	82.0	82.3	89.3	6.66		8.17
	Metolachlor	84.4	73.3			14.2		6.85

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Metribuzin	112	102			9.75		2.19
	Mevinphos	88.4	68.8	91.9	89.4	24.9		2.78
	MGK-264	55.8	59.3	60.4	62.0	6.23		2.63
	Mirex	41.3	39.7	48.9	53.8	4.01		9.70
	Molinate	61.6	55.4	53.2	58.0	10.5		8.66
	Myclobutanil	103	85.5	87.9	92.1	18.1		4.76
	Naled	42.6	34.1	33.7	34.0	22.1		0.804
	Norflurazon	112	98.6	97.5	99.3	12.8		1.86
	Oxadiazon	98.2	80.6	76.3	79.6	19.7		3.12
	Oxyfluorfen	118	102	111	110	14.1		0.345
	Parathion Ethyl	92.6	82.0	90.5	93.0	12.2		2.75
	Parathion Methyl	106	102	106	106	4.38		0.219
	Pendimethalin	93.1	84.6			9.56		1.37
	Permethrin	54.0	52.5	64.9	67.7	2.95		4.14
	Phenothrin	30.4	32.1	43.5	45.4	5.50		4.20
	Phorate	73.8	69.6	78.9	79.6	5.87		0.850
	Piperonyl Butoxide	93.9	95.3	93.6	109	1.52		14.8
	Prallethrin	56.0	58.5	52.1	63.5	4.29		19.8
	Prodiamine	77.7	53.5	48.7	62.5	36.8		24.9
	Prometon	83.1	73.1	86.9	87.2	12.8		0.328
	Prometryn	96.9	79.3	87.2	88.6	20.0		1.65
	Pronamide	93.7	85.0	94.1	94.8	9.72		0.812
	Propiconazole	97.5	82.9	78.3	90.4	16.1		14.4
	Pyriproxyfen	104	85.8	85.5	88.2	18.8		3.14
	Simazine	104	91.9	120	116	12.7		3.47
	Sulfentrazone	66.3	53.3	84.9	83.9	21.8		1.13
	Tau-Fluvalinate	58.9	62.4	74.1	89.3	5.67		18.6
	Tebuconazole	73.0	68.6	59.5	64.4	6.27		7.91
	Terbufos	92.8	75.9	93.4	93.2	20.0		0.133
	Terbuthylazine	93.4	80.6	90.7	94.3	14.7		3.88
	Tetramethrin	72.9	71.7	81.2	83.1	1.69		2.39
	Trans-Nonachlor	65.3	62.5	62.3	69.8	4.47		11.3
	Triclosan Methyl	88.6	84.6	80.5	90.6	4.69		11.9
	Trifluralin	62.9	59.3	60.1	68.5	5.98		13.1
EPA 8276	Chlordane	85.7	96.3	101	96.0	11.7		5.06
	Toxaphene	77.3	87.1	82.9	83.1	11.9		0.269
EPA 8321B	2,4-D	156		167	149			10.9
	2,4,5-T	128		134	109			20.2
	3-Hydroxycarbofuran	90.5		79.0	82.5			4.35
	Acesulfame K	104		108	131			19.0
	Acetaminophen	95.8		118	124			4.71
	Acetamiprid	79.8		91.6	90.5			1.30
	Afidopyropen	68.2		78.0	72.3			7.60
	Aldicarb	98.8		87.2	102			15.4
	Aldicarb Sulfone	98.6		103	111			7.43
	Aldicarb Sulfoxide	69.6		31.0	29.9			3.48
	AMPA	91.3		116	124			6.81
	Bentazon	100		96.1	88.3			8.52
	Benzovindiflupyr	80.2		93.5	94.7			1.31
	Carbamazepine	89.1		102	93.4			7.58
	Carbaryl	72.9		54.3	64.3			16.9
	Carbofuran	75.1		62.8	62.3			0.767
	Clothianidin	107		123	130			5.94
	Dinotefuran	99.5		132	122			8.36

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Diuron	73.5	68.3	62.6			8.73
	Endothall	80.3	94.3	93.9			0.410
	Fenuron	106	112	118			3.34
	Fluridone	92.8	104	101			3.39
	Glufosinate	82.6	104	104			0.212
	Glyphosate	100	76.4	86.2			12.1
	Hydrocodone	97.0	129	118			9.12
	Ibuprofen	99.6	111	105			5.74
	Imazapyr	89.0	129	113			13.6
	Imidacloprid	115	161	153			4.65
	Linuron	76.0	82.9	71.6			14.7
	Mandestrobin	83.1	93.0	90.0			3.24
	MCPP	122	140	129			8.26
	Methiocarb	83.8	73.1	72.2			1.31
	Methomyl	91.0	80.4	83.5			3.76
	Naproxen	88.1	96.2	73.6			26.7
	Oxamyl	90.2	85.4	91.9			5.82
	Primidone	103	125	119			5.20
	Propoxur	68.8	56.3	61.1			8.16
	Pyraclostrobin	78.1	94.2	83.2			12.4
	Sucralose	95.2	96.6	101			3.14
	Thiamethoxam	107	147	127			14.8
	Tolfenpyrad	48.3	58.7	58.4			0.572
	Triclopyr	101	125	98.9			23.0
SM 2120 B-2011	Color (true)	100				0.335	
SM 2320 B-2011	Total Alkalinity	99.9				0.960	
SM 2540 C-2011	TDS					6.50	
SM 4500 F-C-2011	Fluoride	99.1	104	104			0.0
SM 5310 B-2011	Organic Carbon	97.8	99.6	99.8			0.150

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2239407
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2239455, 2239456
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2239455, 2239456
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2239407
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2239407
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2239408
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2239408
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2239408
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2239408
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2239409
EPA 8270E	Dieldrin (ultra low level) in water matrices by GC/MS/MS	2239452
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2239452
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2239453, 2239454
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2239452
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2239430
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2239431, 2239432
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2239431, 2239432

Reference Method Descriptions

Method	Description	Associated Samples
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2239407
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2239407
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2239455, 2239456
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2239407
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2239407
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2239407
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2239408

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/14/2021			04/14/2021 15:46	Yen Ta	2239407
EPA 200.7 Rev. 4.4	04/14/2021	04/21/2021 17:00	Elliott D. Healy	04/22/2021 17:12	Betina Topolski	2239455
	04/14/2021	04/21/2021 17:00	Elliott D. Healy	04/22/2021 17:48	Betina Topolski	2239456
EPA 200.8 Rev. 5.4	04/14/2021	04/21/2021 17:00	Elliott D. Healy	04/22/2021 22:10	Alexander Thompson	2239455
	04/14/2021	04/21/2021 17:00	Elliott D. Healy	04/22/2021 22:19	Alexander Thompson	2239456
EPA 300.0 Rev. 2.1	04/14/2021			04/19/2021 20:57	Lipi Saha	2239407
EPA 350.1 Rev. 2.0	04/14/2021			04/22/2021 17:10	Ping Hua	2239408
EPA 351.2 Rev. 2.0	04/14/2021	04/27/2021 13:45	Benjamin T. Nordmann	04/28/2021 16:04	Virginia P. Brown	2239408
EPA 353.2 Rev. 2.0	04/14/2021			04/19/2021 16:05	Touraj Touran	2239408
EPA 365.1 Rev. 2.0	04/14/2021	04/16/2021 13:47	Yen Ta	04/16/2021 17:13	Shengyu Ding	2239408
EPA 365.1 Rev. 2.0 dissolved	04/14/2021			04/14/2021 14:03	Lipi Saha	2239409
EPA 8270E	04/14/2021	04/15/2021 08:00	Fe-Val Siddell	04/20/2021 02:18	Arthur Maknenko	2239452
	04/14/2021	04/15/2021 08:00	Fe-Val Siddell	04/20/2021 15:29	Michael Poppell	2239452
	04/14/2021	04/19/2021 08:46	Chiran X. Ghimire	04/21/2021 16:34	Michael Poppell	2239453
	04/14/2021	04/19/2021 08:46	Chiran X. Ghimire	04/21/2021 17:51	Michael Poppell	2239454
	04/14/2021	04/19/2021 08:46	Chiran X. Ghimire	04/23/2021 15:33	Michael Poppell	2239453
	04/14/2021	04/19/2021 08:46	Chiran X. Ghimire	04/23/2021 15:58	Michael Poppell	2239454
EPA 8276	04/14/2021	04/15/2021 08:00	Fe-Val Siddell	04/22/2021 02:21	Chiran X. Ghimire	2239452
EPA 8321B	04/14/2021	04/14/2021 18:15	Rebecca Ware	04/15/2021 15:30	Rebecca Ware	2239431
	04/14/2021	04/14/2021 18:15	Rebecca Ware	04/15/2021 15:44	Rebecca Ware	2239432
	04/14/2021	04/14/2021 18:15	Rebecca Ware	04/17/2021 03:25	Mohammad Ghaffari	2239431
	04/14/2021	04/14/2021 18:15	Rebecca Ware	04/17/2021 03:37	Mohammad Ghaffari	2239432
	04/14/2021	04/15/2021 14:00	Hoor Shaik	04/16/2021 05:52	Juyoung Kim	2239431
	04/14/2021	04/15/2021 14:00	Hoor Shaik	04/16/2021 06:26	Juyoung Kim	2239432
	04/14/2021	04/20/2021 09:00	Hoor Shaik	04/30/2021 00:06	Juyoung Kim	2239430
SM 2120 B-2011	04/14/2021			04/14/2021 15:44	Benjamin T. Nordmann	2239407
SM 2320 B-2011	04/14/2021			04/15/2021 21:25	Dale L. Simmons	2239407
SM 2340B	04/14/2021			04/22/2021 17:12	Betina Topolski	2239455
	04/14/2021			04/22/2021 17:48	Betina Topolski	2239456
SM 2540 C-2011	04/14/2021			04/16/2021 15:12	Yijie Li	2239407
SM 2540 D-2011	04/14/2021			04/16/2021 15:36	Yijie Li	2239407
SM 4500 F-C-2011	04/14/2021			04/15/2021 21:25	Dale L. Simmons	2239407
SM 5310 B-2011	04/14/2021			04/21/2021 19:35	Lauren Lees	2239408