Chemical Analysis Report

TLH-ROC-2021-07-29-02

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

Event Description: **Run 9**
Request ID: **RQ-2021-07-26-57**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
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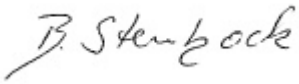
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 24-AUG-2021 18:46



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: Fort Gadsden Creek near SR65 **Collection Date/Time: 07/29/2021 10:20**

Field ID: G2TLHR0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265952	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P401730	
	EPA 300.0 Rev. 2.1	Chloride	2.6		mg Cl/L	P402078	
		Sulfate	0.56		mg SO4/L	P402080	
	SM 2120 B-2011	Color (true)	170		PCU	P401720	
	SM 2320 B-2011	Total Alkalinity	1.5	I	mg CaCO3/L	P401937	
	SM 2540 C-2011	TDS	42		mg/L	P402221	
	SM 2540 D-2011	TSS	2	I	mg/L	P402224	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P401939	
2265953	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P402182	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P402635	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P401809	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P401843	
	SM 5310 B-2011	Organic Carbon	19		mg C/L	P402468	
2265954	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401768	
2265963	EPA 8321B	2,4-D	0.0020	U	ug/L	P401918	
		Acesulfame K	0.10	U	ug/L	P401726	
		2,4,5-T	0.0040	U	ug/L	P401918	
		AMPA	0.10	U	ug/L	P401726	
		Acetaminophen	0.028	I	ug/L	P401918	
		Acetamiprid	0.0020	U	ug/L	P401918	
		Endothall	0.25	U	ug/L	P401726	
		Glufosinate	0.10	U	ug/L	P401726	
		Glyphosate	0.10	U	ug/L	P401726	
		Afidopyropen	0.0020	U	ug/L	P401918	
		Bentazon	8.0E-04	U	ug/L	P401918	
		Sucralose	0.010	U	ug/L	P401726	
		Benzovindiflupyr	0.0020	U	ug/L	P401918	
		Carbamazepine	8.0E-04	U	ug/L	P401918	
		Clothianidin	0.0020	U	ug/L	P401918	
		Dinotefuran	0.0020	U	ug/L	P401918	
		Diuron	0.0020	U	ug/L	P401918	
		Fenuron	0.016	U	ug/L	P401918	
		Fluridone	8.0E-04	U	ug/L	P401918	
		Imazapyr	0.0040	U	ug/L	P401918	
		Hydrocodone	0.0020	U	ug/L	P401918	
		Ibuprofen	0.020	U	ug/L	P401918	
		Imidacloprid	0.0020	U	ug/L	P401918	
		Linuron	0.0040	U	ug/L	P401918	
		Mandestrobin	0.0020	U	ug/L	P401918	
		MCPP	0.0020	U	ug/L	P401918	
		Naproxen	0.0080	U	ug/L	P401918	
		Primidone	0.0040	U	ug/L	P401918	
		Pyraclostrobin	0.0020	U	ug/L	P401918	

Field ID: G2TLHR0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265963	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P401918	
		Tolfenpyrad	0.0020	U	ug/L	P401918	MS
		Triclopyr	0.0040	U	ug/L	P401918	
2265968	EPA 200.7 Rev. 4.4	Barium	23.9		ug/L	P401881	
		Calcium	15.7		mg/L	P401881	
		Iron	710		ug/L	P401881	
		Magnesium	2.01		mg/L	P401881	
		Manganese	72.2		ug/L	P401881	
		Potassium	2.0		mg/L	P401881	
		Sodium	1.6	I	mg/L	P402375	
		Zinc	5.0	U	ug/L	P402375	
	EPA 200.8 Rev. 5.4	Aluminum	279		ug/L	P401881	
		Antimony	0.070	I	ug/L	P401881	
		Arsenic	0.54		ug/L	P401881	
		Beryllium	0.037	I	ug/L	P401881	
		Boron**	16.2		ug/L	P401881	
		Cadmium	0.020	U	ug/L	P401881	
		Chromium	0.64	I	ug/L	P401881	
		Copper	1.11		ug/L	P402243	
		Lead	0.52		ug/L	P401881	
		Nickel	0.51	I	ug/L	P401881	
		Selenium	0.20	U	ug/L	P401881	
		Silver	0.010	U	ug/L	P401881	
		Thallium	0.10	U	ug/L	P401881	
	SM 2340B	Hardness	47.4		mg/L	P401881	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Apalachicola River .8 miles upstream Owl Creek **Collection Date/Time: 07/29/2021 09:40**

Field ID: G2TLHR0042 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265955	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P401730	
	EPA 300.0 Rev. 2.1	Chloride	4.9		mg Cl/L	P402078	
		Sulfate	4.6		mg SO4/L	P402080	
	SM 2120 B-2011	Color (true)	28		PCU	P401720	
	SM 2320 B-2011	Total Alkalinity	43		mg CaCO3/L	P401937	
	SM 2540 C-2011	TDS	66		mg/L	P402221	
	SM 2540 D-2011	TSS	15		mg/L	P402224	
	SM 4500 F-C-2011	Fluoride	0.065	I	mg F/L	P401939	
2265956	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P402179	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P402635	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.30		mg N/L	P401809	
	EPA 365.1 Rev. 2.0	Total-P	0.040		mg P/L	P401843	
	SM 5310 B-2011	Organic Carbon	4.0		mg C/L	P402468	
2265957	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P401768	
2265969	EPA 200.7 Rev. 4.4	Barium	3.7	I	ug/L	P401881	
		Calcium	15.1		mg/L	P402375	
		Iron	880		ug/L	P402375	
		Magnesium	1.98		mg/L	P402375	
		Manganese	5.4		ug/L	P401881	
		Potassium	1.8		mg/L	P402375	
		Sodium	5.5		mg/L	P402375	
		Zinc	5.0	U	ug/L	P402375	
	EPA 200.8 Rev. 5.4	Aluminum	482		ug/L	P401881	
		Antimony	0.050	U	ug/L	P401881	
		Arsenic	0.34		ug/L	P401881	
		Beryllium	0.022	I	ug/L	P401881	
		Boron**	10.7		ug/L	P401881	
		Cadmium	0.020	U	ug/L	P401881	
		Chromium	0.79	I	ug/L	P401881	
		Copper	0.73	I	ug/L	P402243	
		Lead	0.60		ug/L	P401881	
		Nickel	0.65	I	ug/L	P401881	
		Selenium	0.20	U	ug/L	P401881	
		Silver	0.010	U	ug/L	P401881	
		Thallium	0.10	U	ug/L	P401881	
	SM 2340B	Hardness	45.8		mg/L	P402375	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Brothers River @ Mouth **Collection Date/Time: 07/29/2021 11:20**

Field ID: G2TLHR0013 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265964	EPA 8321B	Aldicarb	0.020	U	ug/L	P401862	
		Aldicarb Sulfone	0.0020	U	ug/L	P401862	
		Aldicarb Sulfoxide	0.0020	UJ	ug/L	P401862	MS
		Carbaryl	0.0020	U	ug/L	P401862	
		Carbofuran	0.0020	U	ug/L	P401862	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P401862	
		Methiocarb	0.0020	U	ug/L	P401862	
		Methomyl	0.0020	U	ug/L	P401862	
		Oxamyl	0.0020	U	ug/L	P401862	
		Propoxur	0.0020	U	ug/L	P401862	
2265965		2,4-D	0.011		ug/L	P401918	
		Acesulfame K	0.10	U	ug/L	P401726	
		2,4,5-T	0.0040	U	ug/L	P401918	
		AMPA	0.10	U	ug/L	P401726	
		Acetaminophen	0.012	I	ug/L	P401918	
		Acetamiprid	0.0020	U	ug/L	P401918	
		Endothall	0.25	U	ug/L	P401726	
		Glufosinate	0.10	U	ug/L	P401726	
		Glyphosate	0.10	U	ug/L	P401726	
		Afidopyropen	0.0020	U	ug/L	P401918	
		Bentazon	0.0034		ug/L	P401918	
		Sucralose	0.010	U	ug/L	P401726	
		Benzovindiflupyr	0.0020	U	ug/L	P401918	
		Carbamazepine	0.0011	I	ug/L	P401918	
		Clothianidin	0.0020	U	ug/L	P401918	
		Dinotefuran	0.0020	U	ug/L	P401918	
		Diuron	0.0088		ug/L	P401918	
		Fenuron	0.016	U	ug/L	P401918	
		Fluridone	8.0E-04	U	ug/L	P401918	
		Imazapyr	0.029		ug/L	P401918	
		Hydrocodone	0.0020	U	ug/L	P401918	
		Ibuprofen	0.020	U	ug/L	P401918	
		Imidacloprid	0.0042	I	ug/L	P401918	
		Linuron	0.0040	U	ug/L	P401918	
		Mandestrobin	0.0020	U	ug/L	P401918	
		MCPP	0.0037	I	ug/L	P401918	
		Naproxen	0.0080	U	ug/L	P401918	
		Primidone	0.0040	U	ug/L	P401918	
		Pyraclostrobin	0.0020	U	ug/L	P401918	
		Thiamethoxam	0.0020	U	ug/L	P401918	
		Tolfenpyrad	0.0020	UJ	ug/L	P401918	MS
		Triclopyr	0.0040	U	ug/L	P401918	
2265966	EPA 8270E	Aldrin	0.70	UJ	ng/L	P401662	LCS, RPD
		Alpha-BHC	0.11	U	ng/L	P401662	

Field ID: G2TLHR0013 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265966	EPA 8270E	Alpha-Chlordane	0.21	U	ng/L	P401662	
		Beta-BHC	0.11	U	ng/L	P401662	
		Beta-Cyfluthrin**	1.3	U	ng/L	P401662	
		Bifenthrin**	0.54	U	ng/L	P401662	
		Chlorothalonil	0.54	U	ng/L	P401662	
		Cis-Nonachlor**	0.21	U	ng/L	P401662	
		Cypermethrin	1.6	U	ng/L	P401662	
		Dacthal**	0.16	U	ng/L	P401662	
		DDD-p,p'	0.27	U	ng/L	P401662	
		DDE-p,p'	0.86	I J	ng/L	P401662	MS
		DDT-p,p'	0.50	I	ng/L	P401662	
		Delta-BHC	0.43	U	ng/L	P401662	
		Deltamethrin**	1.3	U	ng/L	P401662	
		Dichlobenil**	0.11	U	ng/L	P401662	
		Dicofol	1.3	U	ng/L	P401662	
		Dieldrin	0.60	I	ng/L	P401662	
		Endosulfan I	0.43	U	ng/L	P401662	
		Endosulfan II	0.43	U	ng/L	P401662	
		Endosulfan Sulfate	0.32	U	ng/L	P401662	
		Endrin	0.43	U	ng/L	P401662	
		Endrin Aldehyde	0.80	U	ng/L	P401662	
		Endrin Ketone	0.43	U	ng/L	P401662	
		Esfenvalerate**	0.80	UJ	ng/L	P401662	MS
		Ethalfluralin**	0.16	U	ng/L	P401662	
		Fenpropathrin**	0.27	U	ng/L	P401662	
		Gamma-BHC	0.13	U	ng/L	P401662	
		Gamma-Chlordane	0.26	I	ng/L	P401662	
		Heptachlor	0.21	U	ng/L	P401662	
		Heptachlor Epoxide	0.27	U	ng/L	P401662	
		Hexachlorobenzene	1.1	U	ng/L	P401662	
		Kepone**	5.4	U	ng/L	P401662	
		Lambda-Cyhalothrin**	0.80	U	ng/L	P401662	
		Methoxychlor	0.32	U	ng/L	P401662	
		MGK-264**	0.21	UJ	ng/L	P401662	RPD
		Mirex	0.75	U	ng/L	P401662	
		Permethrin	2.7	I	ng/L	P401662	
		Phenothrin**	0.96	UJ	ng/L	P401662	RPD
		Piperonyl Butoxide**	0.16	U	ng/L	P401662	
		Prallethrin**	2.1	UJ	ng/L	P401662	RPD
		Tau-Fluvalinate**	0.27	U	ng/L	P401662	
		Tetramethrin**	0.80	UJ	ng/L	P401662	LCS, RPD
		Trans-Nonachlor**	0.21	U	ng/L	P401662	
		Triclosan Methyl**	0.16	U	ng/L	P401662	
		Trifluralin	0.21	U	ng/L	P401662	
	EPA 8276	Chlordane	5.4	U	ng/L	P401662	

Field ID: G2TLHR0013 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265966	EPA 8276	Toxaphene	32	U	ng/L	P401662	
2265967	EPA 8270E	Acetochlor	3.1		ng/L	P401725	
		Alachlor	0.26	U	ng/L	P401725	
		Ametryn	0.63	U	ng/L	P401725	
		Atrazine	20		ng/L	P401725	
		Atrazine Desethyl	3.9	I	ng/L	P401725	
		Azinphos Methyl	2.1	U	ng/L	P401725	
		Azoxystrobin**	17		ng/L	P401725	
		Bromacil	0.53	U	ng/L	P401725	
		Butylate	0.42	U	ng/L	P401725	
		Caffeine**	16	I V	ng/L	P401725	
		Carbophenothion	0.53	U	ng/L	P401725	
		Carfentrazone Ethyl**	0.11	U	ng/L	P401725	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P401725	
		Chlorpyrifos Methyl	0.053	U	ng/L	P401725	
		Cyanazine	3.4	U	ng/L	P401725	
		Demeton	1.6	U	ng/L	P401725	
		Diazinon	0.13	U	ng/L	P401725	
		Difenoconazole**	0.63	U	ng/L	P401725	
		Dimethenamid**	1.3		ng/L	P401725	
		Disulfoton	0.53	U	ng/L	P401725	
		Dithiopyr**	0.42	I	ng/L	P401725	
		EPTC	1.3	U	ng/L	P401725	
		Ethion	0.16	U	ng/L	P401725	
		Ethoprop	0.11	U	ng/L	P401725	
		Fenamiphos	0.53	U	ng/L	P401725	
		Fenbuconazole**	0.13	U	ng/L	P401725	
		Fipronil	0.26	U	ng/L	P401725	
		Fipronil Desulfinyl**	0.33	I	ng/L	P401725	
		Fipronil Sulfide	0.16	U	ng/L	P401725	
		Fipronil Sulfone	0.20	I	ng/L	P401725	
		Fluazifop-P-butyl**	0.11	U	ng/L	P401725	
		Fludioxonil**	0.13	U	ng/L	P401725	
		Flumioxazin**	1.8	U	ng/L	P401725	
		Flutolanil**	3.6		ng/L	P401725	
		Fluxapyroxad**	1.2		ng/L	P401725	
		Fonofos	0.21	U	ng/L	P401725	
		Hexazinone	3.1		ng/L	P401725	
		Imazalil**	0.79	U	ng/L	P401725	
		Iprodione**	0.63	UJ	ng/L	P401725	LCS
		Malathion	0.37	U	ng/L	P401725	
		Metalaxyl	0.79	U	ng/L	P401725	
		Metolachlor	33		ng/L	P401725	
		Metribuzin	3.4	U	ng/L	P401725	
		Mevinphos	1.1	U	ng/L	P401725	

Field ID: G2TLHR0013 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265967	EPA 8270E	Molinate	0.32	U	ng/L	P401725	
		Myclobutanil**	0.26	U	ng/L	P401725	
		Naled**	1.6	UJ	ng/L	P401725	LCS
		Norflurazon	0.53	U	ng/L	P401725	
		Oxadiazon	2.6		ng/L	P401725	
		Oxyfluorfen**	0.16	U	ng/L	P401725	
		Parathion Ethyl	0.26	U	ng/L	P401725	
		Parathion Methyl	0.58	U	ng/L	P401725	
		Pendimethalin	1.1	U	ng/L	P401725	
		Phorate	0.55	U	ng/L	P401725	
		Prodiamine**	0.18	U	ng/L	P401725	
		Prometon	0.95	U	ng/L	P401725	
		Prometryn	0.21	U	ng/L	P401725	
		Pronamide**	0.16	U	ng/L	P401725	
		Propiconazole**	1.8	I	ng/L	P401725	
		Pyriproxyfen**	0.13	U	ng/L	P401725	
		Simazine	12		ng/L	P401725	
		Sulfentrazone**	0.53	U	ng/L	P401725	
		Tebuconazole**	5.8		ng/L	P401725	
		Terbufos	0.11	U	ng/L	P401725	
		Terbuthylazine	0.45	U	ng/L	P401725	
2265970	EPA 200.7 Rev. 4.4	Barium	23.3		ug/L	P401881	
		Calcium	14.8		mg/L	P401881	
		Iron	880		ug/L	P401881	
		Magnesium	2.02		mg/L	P401881	
		Manganese	72.4		ug/L	P401881	
		Potassium	2.0		mg/L	P401881	
		Sodium	5.4		mg/L	P402375	
		Zinc	5.0	U	ug/L	P402375	
	EPA 200.8 Rev. 5.4	Aluminum	394		ug/L	P401881	
		Antimony	0.076	I	ug/L	P401881	
		Arsenic	0.55		ug/L	P401881	
		Beryllium	0.037	I	ug/L	P401881	
		Boron**	16.7		ug/L	P401881	
		Cadmium	0.020	U	ug/L	P401881	
		Chromium	0.80	I	ug/L	P401881	
		Copper	0.76	I	ug/L	P402243	
		Lead	0.62		ug/L	P401881	
		Nickel	0.71	I	ug/L	P401881	
		Selenium	0.20	U	ug/L	P401881	
		Silver	0.010	U	ug/L	P401881	
		Thallium	0.10	U	ug/L	P401881	
	SM 2340B	Hardness	45.2		mg/L	P401881	

Field ID: G2TLHR0013 Matrix: W-SURF-FRH

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

Ref. Method and Comment:
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 several parameters not assessed due to high content of these parameters in the sample spiked. V - Due to the presence of Caffeine in both the Method Blank and the sample. 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: P401730

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P401881

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.21	I	mg/L
Iron	30	U	ug/L
Magnesium	0.059	I	mg/L
Manganese	1.0	U	ug/L
Potassium	0.30	U	mg/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402375

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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401881

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
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 200.8 Rev. 5.4
Batch ID: P402243

Component	Result	Code	Units
Copper	0.40	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402078

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402080

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402179

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402182

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402635

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401809

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401843

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401768

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

Reference Method: EPA 8270E
Batch ID: P401662

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P401662

Component	Result	Code	Units
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Chlorothalonil	0.50	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	0.10	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P401662

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

Reference Method: EPA 8270E
Batch ID: P401725

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P401725

Component	Result	Code	Units
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	18	I	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	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
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	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
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P401725

Component	Result	Code	Units
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
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	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
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
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P401725

Component	Result	Code	Units
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P401662

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

Reference Method: EPA 8321B
Batch ID: P401726

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: P401862

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

Reference Method: EPA 8321B
Batch ID: P401918

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P401918

Component	Result	Code	Units
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: SM 2120 B-2011
Batch ID: P401720

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P401937

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

Reference Method: SM 2540 C-2011
Batch ID: P402221

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P402224

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P401939

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P401939

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P402468

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: P401881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	104		P	85 - 115
Calcium	101		P	85 - 115
Iron	96.9		P	85 - 115
Magnesium	103		P	85 - 115
Manganese	98.1		P	85 - 115
Potassium	106		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402375

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	111		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	108		P	85 - 115
Sodium	103		P	85 - 115
Zinc	108		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	107		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	103		P	85 - 115
Boron	104		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	100		P	85 - 115
Lead	105		P	85 - 115
Nickel	103		P	85 - 115
Selenium	99.0		P	85 - 115
Silver	102		P	85 - 115
Thallium	107		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402243

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	96.7		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402078

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402080

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402179

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402182

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402635

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401809

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401843

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401768

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

Reference Method: EPA 8270E
Batch ID: P401662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	9.05	31.5	F/P	20 - 150
Alpha-BHC	87.8	88.0	P/P	50 - 150
Alpha-Chlordane	80.8	83.1	P/P	50 - 150
Beta-BHC	105	105	P/P	50 - 150
Beta-Cyfluthrin	144	130	P/P	50 - 150
Bifenthrin	72.4	76.2	P/P	40 - 150
Chlorothalonil	140	134	P/P	20 - 150
Cis-Nonachlor	81.5	81.5	P/P	50 - 150
Cypermethrin	128	115	P/P	50 - 150
Dacthal	94.1	95.5	P/P	50 - 150
DDD-p,p'	79.1	80.5	P/P	50 - 150
DDE-p,p'	74.1	77.4	P/P	50 - 150
DDT-p,p'	81.0	84.0	P/P	50 - 150
Delta-BHC	116	116	P/P	50 - 150
Deltamethrin	144	129	P/P	50 - 150
Dichlobenil	41.6	45.7	P/P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P401662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	87.1	86.9	P/P	50 - 150
Dieldrin	86.0	89.7	P/P	50 - 150
Endosulfan I	82.2	86.4	P/P	50 - 150
Endosulfan II	88.1	85.5	P/P	50 - 150
Endosulfan Sulfate	101	99.2	P/P	50 - 150
Endrin	81.4	81.8	P/P	50 - 150
Endrin Aldehyde	82.6	73.4	P/P	50 - 150
Endrin Ketone	96.0	89.8	P/P	50 - 150
Esfenvalerate	147	132	P/P	50 - 180
Ethalfluralin	70.5	72.9	P/P	50 - 150
Fenpropathrin	92.6	90.3	P/P	50 - 150
Gamma-BHC	97.0	97.5	P/P	50 - 150
Gamma-Chlordane	76.2	79.1	P/P	50 - 150
Heptachlor	69.4	70.4	P/P	50 - 150
Heptachlor Epoxide	84.1	86.0	P/P	50 - 150
Hexachlorobenzene	59.7	60.9	P/P	50 - 150
Kepone	128	122	P/P	30 - 180
Lambda-Cyhalothrin	145	121	P/P	50 - 200
Methoxychlor	89.4	88.6	P/P	50 - 150
MGK-264	34.1	61.0	P/P	30 - 150
Mirex	58.1	60.2	P/P	50 - 180
Permethrin	114	106	P/P	50 - 150
Phenothrin	21.1	49.0	P/P	20 - 150
Piperonyl Butoxide	94.2	84.0	P/P	50 - 150
Prallethrin	31.8	50.6	P/P	30 - 150
Tau-Fluvalinate	104	93.5	P/P	40 - 150
Tetramethrin	18.4	45.1	F/P	30 - 150
Trans-Nonachlor	75.3	77.3	P/P	50 - 150
Triclosan Methyl	83.6	86.5	P/P	50 - 150
Trifluralin	73.9	73.7	P/P	50 - 150

Reference Method: EPA 8270E
Batch ID: P401725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	110	114	P/P	70 - 121
Alachlor	107	105	P/P	70 - 119
Ametryn	106	120	P/P	61 - 135
Atrazine	106	103	P/P	76 - 123
Atrazine Desethyl	73.2	63.8	P/P	35 - 140
Azinphos Methyl	143	137	P/P	57 - 163
Azoxystrobin	93.6	106	P/P	43 - 231
Bromacil	116	119	P/P	42 - 123
Butylate	43.1	40.0	P/P	34 - 92.0
Caffeine	120	91.3	P/P	70 - 130
Carbophenothion	104	113	P/P	61 - 121
Carfentrazone Ethyl	127	132	P/P	62 - 139
Chlorpyrifos Ethyl	93.5	94.9	P/P	67 - 121
Chlorpyrifos Methyl	92.5	96.1	P/P	67 - 120
Cyanazine	216	224	P/P	20 - 226
Demeton	64.7	47.9	P/P	35 - 125
Diazinon	121	115	P/P	70 - 122

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P401725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Difenoconazole	90.4	90.1	P/P	56 - 186
Dimethenamid	91.1	91.4	P/P	67 - 119
Disulfoton	71.8	53.9	P/P	47 - 120
Dithiopyr	110	112	P/P	67 - 118
EPTC	36.8	40.3	P/P	33 - 90.0
Ethion	98.1	93.3	P/P	40 - 133
Ethoprop	90.6	88.9	P/P	61 - 121
Fenamiphos	92.2	82.2	P/P	31 - 139
Fenbuconazole	139	132	P/P	66 - 141
Fipronil	84.4	89.5	P/P	62 - 129
Fipronil Desulfinyl	115	120	P/P	59 - 126
Fipronil Sulfide	93.2	96.9	P/P	63 - 117
Fipronil Sulfone	84.8	91.1	P/P	57 - 117
Fluazifop-P-butyl	112	118	P/P	63 - 124
Fludioxonil	109	108	P/P	63 - 123
Flumioxazin	244	233	P/P	34 - 245
Flutolanil	111	109	P/P	56 - 131
Fluxapyroxad	103	107	P/P	57 - 117
Fonofos	79.2	82.1	P/P	61 - 116
Hexazinone	104	105	P/P	55 - 138
Imazalil	99.4	81.6	P/P	33 - 143
Iprodione	133	128	F/F	59 - 118
Malathion	111	113	P/P	62 - 138
Metalaxyl	94.6	96.9	P/P	24 - 147
Metolachlor	112	103	P/P	68 - 118
Metribuzin	103	96.1	P/P	20 - 239
Mevinphos	74.5	74.9	P/P	46 - 124
Molinate	55.3	51.6	P/P	46 - 100
Myclobutanil	107	104	P/P	32 - 149
Naled	24.3	24.0	F/F	32 - 95.0
Norflurazon	101	107	P/P	57 - 127
Oxadiazon	98.3	97.6	P/P	63 - 118
Oxyfluorfen	118	112	P/P	69 - 137
Parathion Ethyl	91.2	96.3	P/P	70 - 113
Parathion Methyl	87.8	101	P/P	71 - 130
Pendimethalin	87.9	83.1	P/P	55 - 118
Phorate	80.8	75.0	P/P	46 - 125
Prodiamine	56.1	52.7	P/P	20 - 141
Prometon	104	102	P/P	54 - 122
Prometryn	112	114	P/P	66 - 124
Pronamide	107	107	P/P	79 - 122
Propiconazole	104	105	P/P	61 - 126
Pyriproxyfen	103	102	P/P	52 - 131
Simazine	105	102	P/P	75 - 128
Sulfentrazone	103	116	P/P	20 - 132
Tebuconazole	57.0	58.0	P/P	20 - 116
Terbufos	104	96.9	P/P	61 - 117
Terbuthylazine	98.0	98.5	P/P	74 - 116

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P401662

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	81.5	86.6	P/P	56 - 117
Toxaphene	86.9	81.4	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P401726

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	79.4		P	40 - 150
AMPA	116		P	40 - 150
Endothall	83.5		P	40 - 150
Glufosinate	108		P	40 - 150
Glyphosate	107		P	40 - 150
Sucralose	93.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401862

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	86.7		P	40 - 150
Aldicarb	75.3		P	30 - 150
Aldicarb Sulfone	87.3		P	40 - 150
Aldicarb Sulfoxide	82.3		P	40 - 150
Carbaryl	78.8		P	40 - 150
Carbofuran	79.2		P	40 - 150
Methiocarb	79.0		P	40 - 150
Methomyl	86.9		P	40 - 150
Oxamyl	88.7		P	40 - 150
Propoxur	83.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	98.3		P	40 - 150
2,4,5-T	95.2		P	40 - 150
Acetaminophen	96.7		P	30 - 150
Acetamiprid	75.6		P	40 - 150
Afidopyropen	58.5		P	40 - 150
Bentazon	99.0		P	30 - 150
Benzovindiflupyr	85.7		P	40 - 150
Carbamazepine	78.9		P	40 - 150
Clothianidin	79.0		P	40 - 150
Dinotefuran	83.4		P	40 - 150
Diuron	81.0		P	40 - 150
Fenuron	86.8		P	40 - 150
Fluridone	89.8		P	40 - 150
Hydrocodone	84.7		P	40 - 150
Ibuprofen	79.6		P	40 - 150
Imazapyr	95.6		P	40 - 150
Imidacloprid	80.5		P	40 - 150
Linuron	80.3		P	40 - 150
Mandestrobin	88.2		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P401918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
MCPP	94.2		P	40 - 150
Naproxen	80.5		P	40 - 150
Primidone	79.4		P	40 - 150
Pyraclostrobin	83.4		P	40 - 150
Thiamethoxam	86.1		P	40 - 150
Tolfenpyrad	48.5		P	30 - 150
Triclopyr	96.0		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P401720

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

Reference Method: SM 2320 B-2011
Batch ID: P401937

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P401939

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P402468

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P401881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265970	Barium	111		P	80 - 120
2265970	Calcium	104		P	80 - 120
2265970	Iron	107		P	80 - 120
2265970	Magnesium	109		P	80 - 120
2265970	Manganese	105		P	80 - 120
2265970	Potassium	110		P	80 - 120
2266597	Barium	106	105	P/P	80 - 120
2266597	Calcium	104		P	80 - 120
2266597	Iron	96.1	99.8	P/P	80 - 120
2266597	Magnesium	100	103	P/P	80 - 120
2266597	Manganese	100	99.7	P/P	80 - 120
2266597	Potassium	102	105	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402375

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265002	Calcium	104		P	80 - 120
2265002	Iron	107		P	80 - 120
2265002	Magnesium	107		P	80 - 120
2265002	Potassium	103		P	80 - 120
2265002	Sodium	103		P	80 - 120
2265002	Zinc	108		P	80 - 120
2265969	Calcium	102		P	80 - 120
2265969	Iron	109	106	P/P	80 - 120
2265969	Magnesium	108	105	P/P	80 - 120
2265969	Potassium	106	103	P/P	80 - 120
2265969	Sodium	103		P	80 - 120
2265969	Zinc	105	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265970	Aluminum	118		P	80 - 120
2265970	Antimony	103		P	80 - 120
2265970	Arsenic	97.9		P	80 - 120
2265970	Beryllium	102		P	80 - 120
2265970	Boron	107		P	80 - 120
2265970	Cadmium	103		P	80 - 120
2265970	Chromium	102		P	80 - 120
2265970	Lead	100		P	80 - 120
2265970	Nickel	101		P	80 - 120
2265970	Selenium	95.3		P	80 - 120
2265970	Silver	103		P	80 - 120
2265970	Thallium	110		P	80 - 120
2266597	Aluminum	101	102	P/P	80 - 120
2266597	Antimony	104	106	P/P	80 - 120
2266597	Arsenic	97.3	98.3	P/P	80 - 120
2266597	Beryllium	98.5	98.3	P/P	80 - 120
2266597	Boron	103	105	P/P	80 - 120
2266597	Cadmium	100	102	P/P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266597	Chromium	98.0	99.8	P/P	80 - 120
2266597	Lead	102	102	P/P	80 - 120
2266597	Nickel	97.8	99.3	P/P	80 - 120
2266597	Selenium	94.5	94.7	P/P	80 - 120
2266597	Silver	101	101	P/P	80 - 120
2266597	Thallium	108	108	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264588	Copper	87.4		P	80 - 120
2265305	Copper	90.1	92.5	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265759	Chloride	98.7		P	90 - 110
2265947	Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402080

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265759	Sulfate	94.5		P	90 - 110
2265947	Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265956	Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265760	Ammonia-N	99.2	99.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265948	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265949	O-Phosphate-P	96.0	97.2	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P401662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265966	Aldrin	39.5	38.8	P/P	20 - 170
2265966	Alpha-BHC	80.5	81.5	P/P	50 - 170
2265966	Alpha-Chlordane	67.3	66.8	P/P	50 - 170
2265966	Beta-BHC	106	106	P/P	50 - 170
2265966	Beta-Cyfluthrin	140	161	P/P	50 - 170
2265966	Bifenthrin	68.3	76.1	P/P	40 - 170
2265966	Chlorothalonil	149	147	P/P	20 - 170
2265966	Cis-Nonachlor	69.7	71.8	P/P	50 - 170
2265966	Cypermethrin	125	157	P/P	50 - 170
2265966	Dacthal	75.9	77.2	P/P	50 - 170
2265966	DDD-p,p'	66.6	68.9	P/P	50 - 170
2265966	DDE-p,p'	32.5	34.5	F/F	50 - 170
2265966	DDT-p,p'	60.3	59.8	P/P	50 - 170
2265966	Delta-BHC	116	115	P/P	50 - 170
2265966	Deltamethrin	97.2	123	P/P	50 - 170
2265966	Dichlobenil	53.8	48.7	P/P	40 - 170
2265966	Dicofol	80.9	69.5	P/P	50 - 170
2265966	Dieldrin	63.0	60.3	P/P	50 - 170
2265966	Endosulfan I	64.4	61.3	P/P	50 - 170
2265966	Endosulfan II	72.7	69.8	P/P	50 - 170
2265966	Endosulfan Sulfate	89.4	87.4	P/P	50 - 170
2265966	Endrin	66.0	63.2	P/P	50 - 170
2265966	Endrin Aldehyde	62.6	59.3	P/P	50 - 170
2265966	Endrin Ketone	87.1	81.4	P/P	50 - 170
2265966	Esfenvalerate	164	199	P/F	50 - 180
2265966	Ethalfluralin	58.6	56.1	P/P	50 - 170
2265966	Fenpropathrin	87.1	94.3	P/P	50 - 170
2265966	Gamma-BHC	94.6	94.3	P/P	50 - 170
2265966	Gamma-Chlordane	57.2	57.0	P/P	50 - 170
2265966	Heptachlor	56.1	56.6	P/P	50 - 170
2265966	Heptachlor Epoxide	64.6	63.4	P/P	50 - 170
2265966	Hexachlorobenzene	50.2	52.0	P/P	50 - 170
2265966	Kepone	106	109	P/P	30 - 180
2265966	Lambda-Cyhalothrin	134	178	P/P	50 - 200
2265966	Methoxychlor	69.2	68.7	P/P	50 - 170
2265966	MGK-264	79.2	77.0	P/P	30 - 170
2265966	Mirex	63.0	65.7	P/P	50 - 180
2265966	Permethrin	76.3	99.7	P/P	50 - 170
2265966	Phenothrin	71.3	95.1	P/P	20 - 170
2265966	Piperonyl Butoxide	89.1	87.1	P/P	50 - 170
2265966	Prallethrin	78.2	69.9	P/P	30 - 170
2265966	Tau-Fluvalinate	155	147	P/P	40 - 170
2265966	Tetramethrin	58.6	64.8	P/P	30 - 170
2265966	Trans-Nonachlor	60.8	63.6	P/P	50 - 170
2265966	Triclosan Methyl	58.9	60.5	P/P	50 - 170
2265966	Trifluralin	57.3	57.5	P/P	50 - 170

Reference Method: EPA 8270E
Batch ID: P401725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265967	Acetochlor	99.7	113	P/P	66 - 122

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P401725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265967	Alachlor	96.7	102	P/P	65 - 122
2265967	Ametryn	141	113	P/P	45 - 173
2265967	Atrazine Desethyl	72.2	55.2	P/P	25 - 150
2265967	Azinphos Methyl	115	109	P/P	44 - 174
2265967	Bromacil	114	122	P/P	31 - 145
2265967	Butylate	42.9	50.4	P/P	15 - 97.0
2265967	Caffeine	103	106	P/P	70 - 130
2265967	Carbophenothion	87.9	101	P/P	42 - 129
2265967	Carfentrazone Ethyl	108	113	P/P	62 - 145
2265967	Chlorpyrifos Ethyl	77.1	79.6	P/P	60 - 124
2265967	Chlorpyrifos Methyl	86.6	95.7	P/P	66 - 119
2265967	Cyanazine	201	203	P/P	17 - 225
2265967	Demeton	91.2	97.4	P/P	36 - 142
2265967	Diazinon	108	119	P/P	70 - 128
2265967	Difenoconazole	208	208	P/P	33 - 222
2265967	Dimethenamid	79.5	96.1	P/P	54 - 125
2265967	Disulfoton	78.9	79.7	P/P	49 - 133
2265967	Dithiopyr	97.5	111	P/P	55 - 123
2265967	EPTC	42.9	52.1	P/P	19 - 91.0
2265967	Ethion	86.0	97.0	P/P	13 - 143
2265967	Ethoprop	92.6	94.9	P/P	49 - 144
2265967	Fenamiphos	78.3	78.2	P/P	32 - 136
2265967	Fenbuconazole	134	137	P/P	73 - 148
2265967	Fipronil	123	128	P/P	57 - 129
2265967	Fipronil Desulfinyl	114	127	P/P	49 - 127
2265967	Fipronil Sulfide	84.2	93.2	P/P	44 - 127
2265967	Fipronil Sulfone	83.7	92.5	P/P	35 - 126
2265967	Fluazifop-P-butyl	108	116	P/P	67 - 129
2265967	Fludioxonil	95.0	108	P/P	61 - 126
2265967	Flumioxazin	247	237	P/P	38 - 279
2265967	Flutolanil	103	109	P/P	55 - 136
2265967	Fluxapyroxad	95.5	100	P/P	33 - 140
2265967	Fonofos	73.0	92.4	P/P	58 - 125
2265967	Hexazinone	91.6	99.9	P/P	57 - 148
2265967	Imazalil	111	103	P/P	10 - 221
2265967	Iprodione	121	119	P/P	32 - 140
2265967	Malathion	92.7	101	P/P	52 - 138
2265967	Metalaxyl	91.9	104	P/P	46 - 134
2265967	Metribuzin	95.8	104	P/P	16 - 272
2265967	Mevinphos	84.1	87.9	P/P	45 - 140
2265967	Molinate	55.0	60.8	P/P	41 - 103
2265967	Myclobutanil	98.0	101	P/P	60 - 134
2265967	Naled	22.3	24.7	P/P	20 - 113
2265967	Norflurazon	92.7	98.1	P/P	51 - 123
2265967	Oxadiazon	82.2	91.5	P/P	44 - 125
2265967	Oxyfluorfen	116	127	P/P	66 - 176
2265967	Parathion Ethyl	90.6	91.4	P/P	57 - 132
2265967	Parathion Methyl	102	114	P/P	59 - 156
2265967	Pendimethalin	89.6	91.8	P/P	59 - 129
2265967	Phorate	88.7	95.5	P/P	47 - 136
2265967	Prodiamine	69.1	83.0	P/P	10 - 159
2265967	Prometon	101	102	P/P	59 - 127

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P401725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265967	Prometryn	98.8	105	P/P	59 - 129
2265967	Pronamide	97.7	113	P/P	65 - 145
2265967	Propiconazole	101	112	P/P	28 - 165
2265967	Pyriproxyfen	84.4	91.9	P/P	21 - 180
2265967	Sulfentrazone	103	110	P/P	32 - 136
2265967	Tebuconazole	72.9	78.6	P/P	-8.3 - 117
2265967	Terbufos	100	111	P/P	61 - 131
2265967	Terbuthylazine	92.3	93.8	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P401662

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265137	Chlordane	93.9	92.3	P/P	47 - 128
2265137	Toxaphene	91.4	99.3	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P401726

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265882	Acesulfame K	136	135	P/P	40 - 150
2265882	AMPA	89.2	90.6	P/P	40 - 150
2265882	Endothall	98.2	98.8	P/P	40 - 150
2265882	Glufosinate	117	125	P/P	40 - 150
2265882	Glyphosate	99.3	103	P/P	40 - 150
2265882	Sucralose	94.1	95.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265964	3-Hydroxycarbofuran	85.8	90.3	P/P	40 - 150
2265964	Aldicarb	78.7	83.9	P/P	30 - 150
2265964	Aldicarb Sulfone	96.2	106	P/P	40 - 150
2265964	Aldicarb Sulfoxide	38.3	42.3	F/P	40 - 150
2265964	Carbaryl	76.8	79.3	P/P	40 - 150
2265964	Carbofuran	79.7	83.2	P/P	40 - 150
2265964	Methiocarb	77.6	81.6	P/P	40 - 150
2265964	Methomyl	84.3	90.9	P/P	40 - 150
2265964	Oxamyl	89.8	96.7	P/P	40 - 150
2265964	Propoxur	81.5	86.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265965	2,4-D	81.9	74.1	P/P	40 - 150
2265965	2,4,5-T	77.8	67.2	P/P	40 - 150
2265965	Acetaminophen	119	105	P/P	30 - 150
2265965	Acetamiprid	70.0	72.6	P/P	40 - 150
2265965	Afidopyropen	44.8	51.7	P/P	40 - 150
2265965	Bentazon	69.7	57.9	P/P	30 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P401918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265965	Benzovindiflupyr	61.3	49.5	P/P	40 - 150
2265965	Carbamazepine	77.4	78.6	P/P	40 - 150
2265965	Clothianidin	84.6	81.1	P/P	40 - 150
2265965	Dinotefuran	98.5	108	P/P	40 - 150
2265965	Diuron	69.6	61.7	P/P	40 - 150
2265965	Fenuron	84.8	85.8	P/P	40 - 150
2265965	Fluridone	71.8	62.4	P/P	40 - 150
2265965	Hydrocodone	92.2	102	P/P	40 - 150
2265965	Ibuprofen	58.0	48.3	P/P	40 - 150
2265965	Imazapyr	124	127	P/P	40 - 150
2265965	Imidacloprid	93.2	93.0	P/P	40 - 150
2265965	Linuron	63.0	52.0	P/P	40 - 150
2265965	Mandestrobin	70.0	59.3	P/P	40 - 150
2265965	MCPP	82.0	70.1	P/P	40 - 150
2265965	Naproxen	62.2	55.7	P/P	40 - 150
2265965	Primidone	83.1	86.4	P/P	40 - 150
2265965	Pyraclostrobin	59.3	46.1	P/P	40 - 150
2265965	Thiamethoxam	100	103	P/P	40 - 150
2265965	Tolfenpyrad	35.4	29.0	P/F	30 - 150
2265965	Triclopyr	78.7	67.7	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P401939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266207	Fluoride	99.2	101	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P402468

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266214	Organic Carbon	98.6	99.0	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265836	Turbidity	2.47	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P401881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266597	Barium	0.563	Spike	P	0 - 20
2266597	Calcium	0.583	Spike	P	0 - 20
2266597	Iron	3.11	Spike	P	0 - 20
2266597	Magnesium	2.06	Spike	P	0 - 20
2266597	Manganese	0.353	Spike	P	0 - 20
2266597	Potassium	3.04	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402375

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265969	Calcium	2.53	Spike	P	0 - 20
2265969	Iron	1.84	Spike	P	0 - 20
2265969	Magnesium	2.13	Spike	P	0 - 20
2265969	Potassium	1.93	Spike	P	0 - 20
2265969	Sodium	2.21	Spike	P	0 - 20
2265969	Zinc	2.48	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266597	Aluminum	1.19	Spike	P	0 - 20
2266597	Antimony	1.21	Spike	P	0 - 20
2266597	Arsenic	1.03	Spike	P	0 - 20
2266597	Beryllium	0.121	Spike	P	0 - 20
2266597	Boron	0.996	Spike	P	0 - 20
2266597	Cadmium	1.63	Spike	P	0 - 20
2266597	Chromium	1.78	Spike	P	0 - 20
2266597	Lead	0.0791	Spike	P	0 - 20
2266597	Nickel	1.56	Spike	P	0 - 20
2266597	Selenium	0.304	Spike	P	0 - 20
2266597	Silver	0.635	Spike	P	0 - 20
2266597	Thallium	0.523	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402243

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265305	Copper	2.65	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265759	Chloride	0.114	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402080

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265759	Sulfate	0.795	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265956	Ammonia-N	0.394	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265760	Ammonia-N	0.149	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402635

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265865	Kjeldahl Nitrogen	2.99	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265948	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266066	Total-P	2.96	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265949	O-Phosphate-P	1.24	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P401662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265966	Aldrin	1.78	Spike	P	0 - 30
2265966	Alpha-BHC	1.26	Spike	P	0 - 30
2265966	Alpha-Chlordane	0.685	Spike	P	0 - 30
2265966	Beta-BHC	0.714	Spike	P	0 - 30
2265966	Beta-Cyfluthrin	13.7	Spike	P	0 - 30
2265966	Bifenthrin	10.8	Spike	P	0 - 30
2265966	Chlorothalonil	1.21	Spike	P	0 - 50
2265966	Cis-Nonachlor	3.01	Spike	P	0 - 30
2265966	Cypermethrin	22.6	Spike	P	0 - 30
2265966	Dacthal	1.75	Spike	P	0 - 30
2265966	DDD-p,p'	3.50	Spike	P	0 - 30
2265966	DDE-p,p'	3.49	Spike	P	0 - 30
2265966	DDT-p,p'	0.711	Spike	P	0 - 30
2265966	Delta-BHC	0.555	Spike	P	0 - 30
2265966	Deltamethrin	23.4	Spike	P	0 - 30
2265966	Dichlobenil	9.82	Spike	P	0 - 30
2265966	Dicofol	15.1	Spike	P	0 - 30
2265966	Dieldrin	4.08	Spike	P	0 - 30
2265966	Endosulfan I	4.93	Spike	P	0 - 30
2265966	Endosulfan II	3.86	Spike	P	0 - 30
2265966	Endosulfan Sulfate	2.30	Spike	P	0 - 30
2265966	Endrin	4.31	Spike	P	0 - 30
2265966	Endrin Aldehyde	5.32	Spike	P	0 - 30
2265966	Endrin Ketone	6.71	Spike	P	0 - 30
2265966	Esfenvalerate	19.4	Spike	P	0 - 30
2265966	Ethalfluralin	4.39	Spike	P	0 - 30
2265966	Fenpropathrin	7.84	Spike	P	0 - 30
2265966	Gamma-BHC	0.253	Spike	P	0 - 30
2265966	Gamma-Chlordane	0.299	Spike	P	0 - 30
2265966	Heptachlor	0.965	Spike	P	0 - 30
2265966	Heptachlor Epoxide	1.94	Spike	P	0 - 30
2265966	Hexachlorobenzene	3.36	Spike	P	0 - 30
2265966	Kepone	3.32	Spike	P	0 - 30
2265966	Lambda-Cyhalothrin	28.7	Spike	P	0 - 30
2265966	Methoxychlor	0.682	Spike	P	0 - 30
2265966	MGK-264	2.82	Spike	P	0 - 30
2265966	Mirex	4.20	Spike	P	0 - 30
2265966	Permethrin	17.8	Spike	P	0 - 30
2265966	Phenothrin	28.7	Spike	P	0 - 30
2265966	Piperonyl Butoxide	2.30	Spike	P	0 - 30
2265966	Prallethrin	11.2	Spike	P	0 - 30
2265966	Tau-Fluvalinate	5.34	Spike	P	0 - 30
2265966	Tetramethrin	10.0	Spike	P	0 - 30
2265966	Trans-Nonachlor	4.41	Spike	P	0 - 30
2265966	Triclosan Methyl	2.73	Spike	P	0 - 30
2265966	Trifluralin	0.219	Spike	P	0 - 30
LFB	Aldrin	111	LCS	F	0 - 30
LFB	Alpha-BHC	0.258	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.83	LCS	P	0 - 30
LFB	Beta-BHC	0.374	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	9.97	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P401662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Bifenthrin	5.13	LCS	P	0 - 30
LFB	Chlorothalonil	4.67	LCS	P	0 - 50
LFB	Cis-Nonachlor	0.00766	LCS	P	0 - 30
LFB	Cypermethrin	10.0	LCS	P	0 - 30
LFB	Dacthal	1.50	LCS	P	0 - 30
LFB	DDD-p,p'	1.75	LCS	P	0 - 30
LFB	DDE-p,p'	4.40	LCS	P	0 - 30
LFB	DDT-p,p'	3.56	LCS	P	0 - 30
LFB	Delta-BHC	0.566	LCS	P	0 - 30
LFB	Deltamethrin	10.7	LCS	P	0 - 30
LFB	Dichlobenil	9.38	LCS	P	0 - 30
LFB	Dicofol	0.277	LCS	P	0 - 30
LFB	Dieldrin	4.24	LCS	P	0 - 30
LFB	Endosulfan I	4.94	LCS	P	0 - 30
LFB	Endosulfan II	3.00	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.06	LCS	P	0 - 30
LFB	Endrin	0.509	LCS	P	0 - 30
LFB	Endrin Aldehyde	11.8	LCS	P	0 - 30
LFB	Endrin Ketone	6.66	LCS	P	0 - 30
LFB	Esfenvalerate	10.7	LCS	P	0 - 30
LFB	Ethalfluralin	3.32	LCS	P	0 - 30
LFB	Fenpropathrin	2.56	LCS	P	0 - 30
LFB	Gamma-BHC	0.474	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.85	LCS	P	0 - 30
LFB	Heptachlor	1.40	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.18	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.02	LCS	P	0 - 30
LFB	Kepone	4.81	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	18.3	LCS	P	0 - 30
LFB	Methoxychlor	0.871	LCS	P	0 - 30
LFB	MGK-264	56.6	LCS	F	0 - 30
LFB	Mirex	3.52	LCS	P	0 - 30
LFB	Permethrin	6.91	LCS	P	0 - 30
LFB	Phenothrin	79.6	LCS	F	0 - 30
LFB	Piperonyl Butoxide	11.4	LCS	P	0 - 30
LFB	Prallethrin	45.6	LCS	F	0 - 30
LFB	Tau-Fluvalinate	11.0	LCS	P	0 - 30
LFB	Tetramethrin	83.9	LCS	F	0 - 30
LFB	Trans-Nonachlor	2.64	LCS	P	0 - 30
LFB	Triclosan Methyl	3.32	LCS	P	0 - 30
LFB	Trifluralin	0.279	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265967	Acetochlor	7.42	Spike	P	0 - 30
2265967	Alachlor	5.49	Spike	P	0 - 30
2265967	Ametryn	21.4	Spike	P	0 - 30
2265967	Atrazine	3.83	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265967	Atrazine Desethyl	19.7	Spike	P	0 - 30
2265967	Azinphos Methyl	4.96	Spike	P	0 - 30
2265967	Azoxystrobin	7.55	Spike	P	0 - 30
2265967	Bromacil	6.53	Spike	P	0 - 30
2265967	Butylate	16.0	Spike	P	0 - 30
2265967	Caffeine	1.77	Spike	P	0 - 30
2265967	Carbophenothion	14.1	Spike	P	0 - 30
2265967	Carfentrazone Ethyl	4.27	Spike	P	0 - 30
2265967	Chlorpyrifos Ethyl	3.23	Spike	P	0 - 30
2265967	Chlorpyrifos Methyl	9.96	Spike	P	0 - 30
2265967	Cyanazine	1.08	Spike	P	0 - 30
2265967	Demeton	6.56	Spike	P	0 - 30
2265967	Diazinon	9.66	Spike	P	0 - 30
2265967	Difenoconazole	0.291	Spike	P	0 - 30
2265967	Dimethenamid	11.1	Spike	P	0 - 30
2265967	Disulfoton	0.947	Spike	P	0 - 30
2265967	Dithiopyr	12.1	Spike	P	0 - 30
2265967	EPTC	19.4	Spike	P	0 - 30
2265967	Ethion	12.0	Spike	P	0 - 30
2265967	Ethoprop	2.52	Spike	P	0 - 30
2265967	Fenamiphos	0.174	Spike	P	0 - 30
2265967	Fenbuconazole	2.32	Spike	P	0 - 30
2265967	Fipronil	4.12	Spike	P	0 - 30
2265967	Fipronil Desulfinyl	9.68	Spike	P	0 - 30
2265967	Fipronil Sulfide	10.2	Spike	P	0 - 30
2265967	Fipronil Sulfone	9.02	Spike	P	0 - 30
2265967	Fluazifop-P-butyl	7.21	Spike	P	0 - 30
2265967	Fludioxonil	13.1	Spike	P	0 - 30
2265967	Flumioxazin	3.88	Spike	P	0 - 30
2265967	Flutolanil	3.33	Spike	P	0 - 30
2265967	Fluxapyroxad	3.90	Spike	P	0 - 30
2265967	Fonofos	23.4	Spike	P	0 - 30
2265967	Hexazinone	6.85	Spike	P	0 - 30
2265967	Imazalil	7.54	Spike	P	0 - 30
2265967	Iprodione	1.76	Spike	P	0 - 30
2265967	Malathion	8.05	Spike	P	0 - 30
2265967	Metalaxyl	12.6	Spike	P	0 - 30
2265967	Metolachlor	1.60	Spike	P	0 - 30
2265967	Metribuzin	8.05	Spike	P	0 - 30
2265967	Mevinphos	4.39	Spike	P	0 - 30
2265967	Molinate	10.1	Spike	P	0 - 30
2265967	Myclobutanil	2.76	Spike	P	0 - 30
2265967	Naled	10.3	Spike	P	0 - 30
2265967	Norflurazon	5.61	Spike	P	0 - 30
2265967	Oxadiazon	6.27	Spike	P	0 - 30
2265967	Oxyfluorfen	8.93	Spike	P	0 - 30
2265967	Parathion Ethyl	0.927	Spike	P	0 - 30
2265967	Parathion Methyl	11.2	Spike	P	0 - 30
2265967	Pendimethalin	2.47	Spike	P	0 - 30
2265967	Phorate	7.36	Spike	P	0 - 30
2265967	Prodiamine	18.4	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265967	Prometon	0.208	Spike	P	0 - 30
2265967	Prometryn	5.95	Spike	P	0 - 30
2265967	Pronamide	14.1	Spike	P	0 - 30
2265967	Propiconazole	7.54	Spike	P	0 - 30
2265967	Pyriproxyfen	8.58	Spike	P	0 - 30
2265967	Simazine	5.41	Spike	P	0 - 30
2265967	Sulfentrazone	7.09	Spike	P	0 - 30
2265967	Tebuconazole	5.19	Spike	P	0 - 30
2265967	Terbufos	9.90	Spike	P	0 - 30
2265967	Terbuthylazine	1.61	Spike	P	0 - 30
LFB	Acetochlor	3.48	LCS	P	0 - 30
LFB	Alachlor	1.21	LCS	P	0 - 30
LFB	Ametryn	13.0	LCS	P	0 - 30
LFB	Atrazine	2.90	LCS	P	0 - 30
LFB	Atrazine Desethyl	13.6	LCS	P	0 - 30
LFB	Azinphos Methyl	4.09	LCS	P	0 - 30
LFB	Azoxystrobin	12.0	LCS	P	0 - 30
LFB	Bromacil	2.20	LCS	P	0 - 30
LFB	Butylate	7.31	LCS	P	0 - 30
LFB	Caffeine	27.4	LCS	P	0 - 30
LFB	Carbophenothion	7.66	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	3.91	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.52	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.82	LCS	P	0 - 30
LFB	Cyanazine	3.69	LCS	P	0 - 30
LFB	Demeton	30.0	LCS	P	0 - 30
LFB	Diazinon	4.67	LCS	P	0 - 30
LFB	Difenoconazole	0.285	LCS	P	0 - 30
LFB	Dimethenamid	0.366	LCS	P	0 - 30
LFB	Disulfoton	28.4	LCS	P	0 - 30
LFB	Dithiopyr	1.25	LCS	P	0 - 30
LFB	EPTC	9.21	LCS	P	0 - 30
LFB	Ethion	5.06	LCS	P	0 - 30
LFB	Ethoprop	1.82	LCS	P	0 - 30
LFB	Fenamiphos	11.6	LCS	P	0 - 30
LFB	Fenbuconazole	5.78	LCS	P	0 - 30
LFB	Fipronil	5.88	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	4.07	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.90	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.13	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	6.02	LCS	P	0 - 30
LFB	Fludioxonil	0.927	LCS	P	0 - 30
LFB	Flumioxazin	4.40	LCS	P	0 - 30
LFB	Flutolanil	1.81	LCS	P	0 - 30
LFB	Fluxapyroxad	3.69	LCS	P	0 - 30
LFB	Fonofos	3.71	LCS	P	0 - 30
LFB	Hexazinone	1.61	LCS	P	0 - 30
LFB	Imazalil	19.7	LCS	P	0 - 30
LFB	Iprodione	3.58	LCS	P	0 - 30
LFB	Malathion	1.95	LCS	P	0 - 30
LFB	Metalaxyl	2.39	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metolachlor	8.30	LCS	P	0 - 30
LFB	Metribuzin	6.99	LCS	P	0 - 30
LFB	Mevinphos	0.520	LCS	P	0 - 30
LFB	Molinate	6.91	LCS	P	0 - 30
LFB	Myclobutanil	2.50	LCS	P	0 - 30
LFB	Naled	1.33	LCS	P	0 - 30
LFB	Norflurazon	5.92	LCS	P	0 - 30
LFB	Oxadiazon	0.738	LCS	P	0 - 30
LFB	Oxyfluorfen	5.46	LCS	P	0 - 30
LFB	Parathion Ethyl	5.47	LCS	P	0 - 30
LFB	Parathion Methyl	14.2	LCS	P	0 - 30
LFB	Pendimethalin	5.61	LCS	P	0 - 30
LFB	Phorate	7.53	LCS	P	0 - 30
LFB	Prodiamine	6.24	LCS	P	0 - 30
LFB	Prometon	2.80	LCS	P	0 - 30
LFB	Prometryn	1.86	LCS	P	0 - 30
LFB	Pronamide	0.628	LCS	P	0 - 30
LFB	Propiconazole	0.635	LCS	P	0 - 30
LFB	Pyriproxyfen	1.20	LCS	P	0 - 30
LFB	Simazine	2.20	LCS	P	0 - 30
LFB	Sulfentrazone	12.2	LCS	P	0 - 30
LFB	Tebuconazole	1.69	LCS	P	0 - 30
LFB	Terbufos	7.05	LCS	P	0 - 30
LFB	Terbuthylazine	0.490	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P401662

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265137	Chlordane	1.68	Spike	P	0 - 30
2265137	Toxaphene	8.27	Spike	P	0 - 30
LFB	Chlordane	6.03	LCS	P	0 - 30
LFB	Toxaphene	6.54	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265882	Acesulfame K	0.980	Spike	P	0 - 30
2265882	AMPA	1.01	Spike	P	0 - 30
2265882	Endothall	0.681	Spike	P	0 - 30
2265882	Glufosinate	6.72	Spike	P	0 - 30
2265882	Glyphosate	1.41	Spike	P	0 - 30
2265882	Sucralose	1.02	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P401862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265964	3-Hydroxycarbofuran	5.07	Spike	P	0 - 30
2265964	Aldicarb	6.39	Spike	P	0 - 30
2265964	Aldicarb Sulfone	9.60	Spike	P	0 - 30
2265964	Aldicarb Sulfoxide	9.77	Spike	P	0 - 30
2265964	Carbaryl	3.32	Spike	P	0 - 30
2265964	Carbofuran	4.33	Spike	P	0 - 30
2265964	Methiocarb	5.08	Spike	P	0 - 30
2265964	Methomyl	7.57	Spike	P	0 - 30
2265964	Oxamyl	7.37	Spike	P	0 - 30
2265964	Propoxur	5.93	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265965	2,4-D	8.53	Spike	P	0 - 30
2265965	2,4,5-T	14.6	Spike	P	0 - 30
2265965	Acetaminophen	12.4	Spike	P	0 - 30
2265965	Acetamiprid	3.65	Spike	P	0 - 30
2265965	Afidopyropen	14.2	Spike	P	0 - 30
2265965	Bentazon	10.6	Spike	P	0 - 30
2265965	Benzovindiflupyr	21.2	Spike	P	0 - 30
2265965	Carbamazepine	1.36	Spike	P	0 - 30
2265965	Clothianidin	4.27	Spike	P	0 - 30
2265965	Dinotefuran	9.20	Spike	P	0 - 30
2265965	Diuron	10.2	Spike	P	0 - 30
2265965	Fenuron	1.16	Spike	P	0 - 30
2265965	Fluridone	14.1	Spike	P	0 - 30
2265965	Hydrocodone	10.1	Spike	P	0 - 30
2265965	Ibuprofen	18.1	Spike	P	0 - 30
2265965	Imazapyr	2.32	Spike	P	0 - 30
2265965	Imidacloprid	0.285	Spike	P	0 - 30
2265965	Linuron	19.0	Spike	P	0 - 30
2265965	Mandestrobin	16.7	Spike	P	0 - 30
2265965	MCPP	15.0	Spike	P	0 - 30
2265965	Naproxen	11.0	Spike	P	0 - 30
2265965	Primidone	3.93	Spike	P	0 - 30
2265965	Pyraclostrobin	25.1	Spike	P	0 - 30
2265965	Thiamethoxam	2.50	Spike	P	0 - 30
2265965	Tolfenpyrad	20.1	Spike	P	0 - 30
2265965	Triclopyr	15.0	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P401720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265836	Color (true)	2.39	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2320 B-2011
Batch ID: P401937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266207	Total Alkalinity	0.690	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P402221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265774	TDS	6.74	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P401939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266207	Fluoride	0.897	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P402468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266214	Organic Carbon	0.218	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2265963
Field Sample ID: G2TLHR0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	122	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	97.4	P	30 - 160
EPA 8321B	Diuron-d6	75.1	P	30 - 160
EPA 8321B	Endothall-d6	90.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	61.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.2	P	30 - 160
EPA 8321B	Primidone-d5	87.7	P	30 - 160
EPA 8321B	Sucralose-d6	94.7	P	30 - 160

Lab Sample ID: 2265964
Field Sample ID: G2TLHR0013

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	71.7	P	30 - 160

Lab Sample ID: 2265965
Field Sample ID: G2TLHR0013

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	109	P	30 - 160
EPA 8321B	Acetaminophen-d4	79.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.8	P	30 - 160
EPA 8321B	Diuron-d6	75.1	P	30 - 160
EPA 8321B	Endothall-d6	99.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	72.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.0	P	30 - 160
EPA 8321B	Primidone-d5	85.6	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160

Lab Sample ID: 2265966
Field Sample ID: G2TLHR0013

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	99.0	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	52.1	P	30 - 110
EPA 8276	Decachlorobiphenyl	68.6	P	29 - 92.0
EPA 8276	PCNB	74.2	P	43 - 134

Lab Sample ID: 2265967
Field Sample ID: G2TLHR0013

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	31.1	P	20 - 200
EPA 8270E	Simazine-d10	116	P	73 - 135
EPA 8270E	Terbufos-d10	112	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: SM 2120 B-2011
Run ID: A106921
Included Lab Sample IDs: 2265952, 2265955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115
Color (true)	99.8	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A106926
Included Lab Sample IDs: 2265952, 2265955

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A106947
Included Lab Sample IDs: 2265954, 2265957

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	96.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A106974
Included Lab Sample IDs: 2265953, 2265956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A106987
Included Lab Sample IDs: 2265963, 2265965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	112	136	P/P	60 - 160
Glufosinate	90.9	101	P/P	60 - 160
Glyphosate	93.4	107	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A107002
Included Lab Sample IDs: 2265963, 2265965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	115	124	P/P	60 - 160
Acesulfame K	124	115	P/P	60 - 160
Endothall	84.7	79.6	P/P	60 - 160
Endothall	89.2	84.7	P/P	60 - 160
Sucralose	104	108	P/P	60 - 160
Sucralose	110	104	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A107005
Included Lab Sample IDs: 2265953, 2265956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	97.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8276
Run ID: A107020
Included Lab Sample IDs: 2265966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.3		P	80 - 120
Toxaphene	105		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A107025
Included Lab Sample IDs: 2265952, 2265955

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

Reference Method: SM 2320 B-2011
Run ID: A107027
Included Lab Sample IDs: 2265952, 2265955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	100	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A107027
Included Lab Sample IDs: 2265952, 2265955

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A107048
Included Lab Sample IDs: 2265968, 2265969, 2265970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	104	104	P/P	90 - 110
Antimony	105	106	P/P	90 - 110
Arsenic	102	102	P/P	90 - 110
Beryllium	99.0	101	P/P	90 - 110
Boron	104	102	P/P	90 - 110
Cadmium	104	104	P/P	90 - 110
Chromium	100	100	P/P	90 - 110
Nickel	101	100	P/P	90 - 110
Selenium	101	101	P/P	90 - 110
Silver	96.8	97.0	P/P	90 - 110
Thallium	109	108	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A107053
Included Lab Sample IDs: 2265966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	93.7		P	80 - 120
Alpha-BHC	97.4		P	80 - 120
Alpha-Chlordane	103		P	80 - 120
Beta-BHC	102		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A107053
Included Lab Sample IDs: 2265966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-Cyfluthrin	103		P	80 - 120
Bifenthrin	93.2		P	80 - 120
Chlorothalonil	114		P	80 - 120
Cis-Nonachlor	100		P	80 - 120
Cypermethrin	104		P	80 - 120
Dacthal	95.7		P	80 - 120
DDD-p,p'	99.8		P	80 - 120
DDE-p,p'	94.8		P	80 - 120
DDT-p,p'	96.2		P	80 - 120
Delta-BHC	107		P	80 - 120
Deltamethrin	101		P	80 - 120
Dichlobenil	102		P	80 - 120
Dicofol	102		P	80 - 120
Dieldrin	98.9		P	80 - 120
Endosulfan I	96.4		P	80 - 120
Endosulfan II	98.0		P	80 - 120
Endosulfan Sulfate	102		P	80 - 120
Endrin	96.0		P	80 - 120
Endrin Aldehyde	100		P	80 - 120
Endrin Ketone	101		P	80 - 120
Esfenvalerate	102		P	80 - 120
Ethalfluralin	95.8		P	80 - 120
Fenpropathrin	90.3		P	80 - 120
Gamma-BHC	98.4		P	80 - 120
Gamma-Chlordane	99.4		P	80 - 120
Heptachlor	96.1		P	80 - 120
Heptachlor Epoxide	96.3		P	80 - 120
Hexachlorobenzene	98.7		P	80 - 120
Kepone	87.2		P	80 - 120
Lambda-Cyhalothrin	103		P	80 - 120
Methoxychlor	97.2		P	80 - 120
MGK-264	98.0		P	80 - 120
Mirex	90.5		P	80 - 120
Permethrin	97.4		P	80 - 120
Phenothrin	91.4		P	80 - 120
Piperonyl Butoxide	101		P	80 - 120
Prallethrin	99.3		P	80 - 120
Tau-Fluvalinate	102		P	80 - 120
Tetramethrin	110		P	80 - 120
Trans-Nonachlor	96.1		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	95.4		P	80 - 120

Reference Method: EPA 8321B
Run ID: A107055
Included Lab Sample IDs: 2265964

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	102	103	P/P	60 - 150
Aldicarb	95.9	107	P/P	60 - 150
Aldicarb Sulfone	99.9	102	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A107055
Included Lab Sample IDs: 2265964

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldicarb Sulfoxide	100	103	P/P	50 - 150
Carbaryl	104	104	P/P	60 - 150
Carbofuran	104	105	P/P	50 - 150
Methiocarb	100	102	P/P	50 - 150
Methomyl	101	102	P/P	50 - 150
Oxamyl	101	103	P/P	50 - 150
Propoxur	106	105	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A107070
Included Lab Sample IDs: 2265968, 2265969, 2265970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	99.8	101	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A107074
Included Lab Sample IDs: 2265967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	106		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	116		P	80 - 120
Azinphos Methyl	95.7		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	101		P	70 - 120
Carbophenothion	99.3		P	80 - 120
Carfentrazone Ethyl	101		P	80 - 120
Chlorpyrifos Ethyl	99.4		P	80 - 120
Chlorpyrifos Methyl	99.2		P	80 - 120
Cyanazine	108		P	80 - 120
Demeton	96.1		P	80 - 120
Diazinon	99.5		P	80 - 120
Difenoconazole	92.5		P	80 - 120
Dimethenamid	104		P	80 - 120
Disulfoton	99.4		P	80 - 120
Dithiopyr	97.7		P	80 - 120
EPTC	102		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	92.0		P	80 - 120
Fenbuconazole	100		P	80 - 120
Fipronil	98.9		P	80 - 120
Fipronil Desulfinyl	92.6		P	80 - 120
Fipronil Sulfide	93.9		P	80 - 120
Fipronil Sulfone	98.7		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	99.9		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A107074
Included Lab Sample IDs: 2265967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Flumioxazin	89.9		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	99.2		P	80 - 120
Fonofos	95.4		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	105		P	80 - 120
Iprodione	96.8		P	80 - 120
Malathion	92.8		P	80 - 120
Metalaxyl	101		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	93.8		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	101		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	97.2		P	80 - 120
Parathion Ethyl	104		P	80 - 120
Parathion Methyl	103		P	80 - 120
Pendimethalin	112		P	80 - 120
Phorate	100		P	80 - 120
Prodiamine	110		P	80 - 120
Prometryn	100		P	80 - 120
Pronamide	95.1		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	104		P	80 - 120
Sulfentrazone	94.6		P	80 - 120
Tebuconazole	104		P	80 - 120
Terbufos	94.6		P	80 - 120
Terbuthylazine	95.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A107084
Included Lab Sample IDs: 2265967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azoxystrobin	82.6		P	80 - 120
Prometon	97.2		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A107121
Included Lab Sample IDs: 2265953, 2265956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.9	P/P	90 - 110
Ammonia-N	99.2	98.7	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A107122
Included Lab Sample IDs: 2265963

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.1	97.3	P/P	50 - 150
2,4,5-T	95.5	102	P/P	50 - 150
Acetaminophen	114	111	P/P	60 - 160
Acetamiprid	96.1	109	P/P	50 - 150
Afidopyropen	99.2	112	P/P	50 - 150
Bentazon	108	126	P/P	50 - 160
Benzovindiflupyr	107	117	P/P	50 - 150
Carbamazepine	95.0	112	P/P	60 - 150
Clothianidin	91.5	97.7	P/P	60 - 150
Dinotefuran	105	111	P/P	50 - 150
Diuron	106	118	P/P	60 - 160
Fenuron	99.1	108	P/P	60 - 150
Fluridone	109	123	P/P	60 - 160
Hydrocodone	103	112	P/P	60 - 150
Ibuprofen	95.0	106	P/P	50 - 160
Imazapyr	108	114	P/P	50 - 150
Imidacloprid	91.2	100	P/P	60 - 150
Linuron	99.2	107	P/P	60 - 150
Mandestrobin	110	122	P/P	50 - 150
MCPP	82.1	94.1	P/P	50 - 150
Naproxen	89.1	86.8	P/P	50 - 160
Primidone	85.4	96.1	P/P	60 - 150
Pyraclostrobin	105	118	P/P	60 - 150
Thiamethoxam	103	113	P/P	50 - 150
Tolfenpyrad	96.7	107	P/P	60 - 150
Triclopyr	90.1	100	P/P	50 - 150

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A107127
Included Lab Sample IDs: 2265968, 2265969, 2265970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	105	107	P/P	90 - 110
Calcium	98.9	100	P/P	90 - 110
Iron	94.5	95.9	P/P	90 - 110
Magnesium	95.9	97.1	P/P	90 - 110
Manganese	100	103	P/P	90 - 110
Potassium	105	105	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A107150
Included Lab Sample IDs: 2265965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.1	95.1	P/P	50 - 150
2,4,5-T	97.9	97.5	P/P	50 - 150
Acetaminophen	92.0	90.6	P/P	60 - 160
Acetamiprid	99.9	100	P/P	50 - 150
Afidopyropen	93.1	91.7	P/P	50 - 150
Bentazon	108	110	P/P	50 - 160
Benzovindiflupyr	99.4	98.3	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A107150
Included Lab Sample IDs: 2265965

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbamazepine	101	104	P/P	60 - 150
Clothianidin	95.0	98.6	P/P	60 - 150
Dinotefuran	98.9	98.8	P/P	50 - 150
Diuron	104	105	P/P	60 - 160
Fenuron	101	102	P/P	60 - 150
Fluridone	102	103	P/P	60 - 160
Hydrocodone	105	104	P/P	60 - 150
Ibuprofen	91.2	98.6	P/P	50 - 160
Imazapyr	101	113	P/P	50 - 150
Imidacloprid	95.6	97.8	P/P	60 - 150
Linuron	97.9	95.4	P/P	60 - 150
Mandestrobin	100	97.3	P/P	50 - 150
MCPP	95.7	92.9	P/P	50 - 150
Naproxen	110	105	P/P	50 - 160
Primidone	92.6	93.5	P/P	60 - 150
Pyraclostrobin	101	99.9	P/P	60 - 150
Thiamethoxam	106	103	P/P	50 - 150
Tolfenpyrad	93.6	96.6	P/P	60 - 150
Triclopyr	99.1	99.3	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A107192
Included Lab Sample IDs: 2265968, 2265969, 2265970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	93.4	91.6	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A107246
Included Lab Sample IDs: 2265953, 2265956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.6	97.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A107254
Included Lab Sample IDs: 2265968, 2265969, 2265970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	102	105	P/P	90 - 110
Sodium	101	102	P/P	90 - 110
Zinc	99.4	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A107354
Included Lab Sample IDs: 2265953, 2265956

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A107354
Included Lab Sample IDs: 2265953, 2265956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	101	P/P	90 - 110
Kjeldahl Nitrogen	98.8	104	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
EPA 180.1 Rev. 2.0	Turbidity							2.47	
EPA 200.7 Rev. 4.4	Barium	104		111	106	105			0.563
	Calcium	101		104	104				0.583
	Calcium	104		104	102				2.53
	Iron	96.9		107	96.1	99.8			3.11
	Iron	111		107	109	106			1.84
	Magnesium	103		109	100	103			2.06
	Magnesium	111		107	108	105			2.13
	Manganese	98.1		105	100	99.7			0.353
	Potassium	106		110	102	105			3.04
	Potassium	108		103	106	103			1.93
	Sodium	103		103	103				2.21
	Zinc	108		108	105	102			2.48
EPA 200.8 Rev. 5.4	Aluminum	103		101	102	118			1.19
	Antimony	107		104	106	103			1.21
	Arsenic	102		97.3	98.3	97.9			1.03
	Beryllium	103		98.5	98.3	102			0.121
	Boron	104		103	105	107			0.996
	Cadmium	103		100	102	103			1.63
	Chromium	100		98.0	99.8	102			1.78
	Copper	96.7		90.1	92.5	87.4			2.65
	Lead	105		102	102	100			0.0791
	Nickel	103		97.8	99.3	101			1.56
	Selenium	99.0		94.5	94.7	95.3			0.304
	Silver	102		101	101	103			0.635
	Thallium	107		108	108	110			0.523
EPA 300.0 Rev. 2.1	Chloride	98.2		98.7	99.4			0.114	
	Sulfate	96.6		94.5	99.2			0.795	
EPA 350.1 Rev. 2.0	Ammonia-N	101		102	101				0.394
	Ammonia-N	100		99.2	99.4				0.149
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106							2.99
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0		100	100				0.0
EPA 365.1 Rev. 2.0	Total-P	109							2.96
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.1		96.0	97.2				1.24
EPA 8270E	Acetochlor	110	114	99.7	113		3.48		7.42
	Alachlor	107	105	96.7	102		1.21		5.49
	Aldrin	9.05	31.5	39.5	38.8		111		1.78
	Alpha-BHC	87.8	88.0	80.5	81.5		0.258		1.26
	Alpha-Chlordane	80.8	83.1	67.3	66.8		2.83		0.685
	Ametryn	106	120	141	113		13.0		21.4
	Atrazine	106	103				2.90		3.83
	Atrazine Desethyl	73.2	63.8	72.2	55.2		13.6		19.7
	Azinphos Methyl	143	137	115	109		4.09		4.96
	Azoxystrobin	93.6	106				12.0		7.55
	Beta-BHC	105	105	106	106		0.374		0.714
	Beta-Cyfluthrin	144	130	140	161		9.97		13.7
	Bifenthrin	72.4	76.2	68.3	76.1		5.13		10.8
	Bromacil	116	119	114	122		2.20		6.53
	Butylate	43.1	40.0	42.9	50.4		7.31		16.0
	Caffeine	120	91.3	103	106		27.4		1.77
	Carbophenothion	104	113	87.9	101		7.66		14.1
	Carfentrazone Ethyl	127	132	108	113		3.91		4.27
	Chlorothalonil	140	134	149	147		4.67		1.21
	Chlorpyrifos Ethyl	93.5	94.9	77.1	79.6		1.52		3.23

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Chlorpyrifos Methyl	92.5	96.1	86.6	95.7	3.82		9.96
	Cis-Nonachlor	81.5	81.5	69.7	71.8	0.0076		3.01
	Cyanazine	216	224	201	203	3.69		1.08
	Cypermethrin	128	115	125	157	10.0		22.6
	Dacthal	94.1	95.5	75.9	77.2	1.50		1.75
	DDD-p,p'	79.1	80.5	66.6	68.9	1.75		3.50
	DDE-p,p'	74.1	77.4	32.5	34.5	4.40		3.49
	DDT-p,p'	81.0	84.0	60.3	59.8	3.56		0.711
	Delta-BHC	116	116	116	115	0.566		0.555
	Deltamethrin	129	144	97.2	123	10.7		23.4
	Demeton	64.7	47.9	91.2	97.4	30.0		6.56
	Diazinon	121	115	108	119	4.67		9.66
	Dichlobenil	41.6	45.7	53.8	48.7	9.38		9.82
	Dicofol	87.1	86.9	80.9	69.5	0.277		15.1
	Dieldrin	86.0	89.7	63.0	60.3	4.24		4.08
	Difenoconazole	90.4	90.1	208	208	0.285		0.291
	Dimethenamid	91.1	91.4	79.5	96.1	0.366		11.1
	Disulfoton	71.8	53.9	78.9	79.7	28.4		0.947
	Dithiopyr	110	112	97.5	111	1.25		12.1
	Endosulfan I	82.2	86.4	64.4	61.3	4.94		4.93
	Endosulfan II	88.1	85.5	72.7	69.8	3.00		3.86
	Endosulfan Sulfate	101	99.2	89.4	87.4	2.06		2.30
	Endrin	81.4	81.8	66.0	63.2	0.509		4.31
	Endrin Aldehyde	82.6	73.4	62.6	59.3	11.8		5.32
	Endrin Ketone	96.0	89.8	87.1	81.4	6.66		6.71
	EPTC	36.8	40.3	42.9	52.1	9.21		19.4
	Esfenvalerate	147	132	164	199	10.7		19.4
	Ethalfluralin	70.5	72.9	58.6	56.1	3.32		4.39
	Ethion	98.1	93.3	86.0	97.0	5.06		12.0
	Ethoprop	90.6	88.9	92.6	94.9	1.82		2.52
	Fenamiphos	92.2	82.2	78.3	78.2	11.6		0.174
	Fenbuconazole	139	132	134	137	5.78		2.32
	Fenpropathrin	92.6	90.3	87.1	94.3	2.56		7.84
	Fipronil	84.4	89.5	123	128	5.88		4.12
	Fipronil Desulfinyl	115	120	114	127	4.07		9.68
	Fipronil Sulfide	93.2	96.9	84.2	93.2	3.90		10.2
	Fipronil Sulfone	84.8	91.1	83.7	92.5	7.13		9.02
	Fluazifop-P-butyl	112	118	108	116	6.02		7.21
	Fludioxonil	109	108	95.0	108	0.927		13.1
	Flumioxazin	244	233	247	237	4.40		3.88
	Flutolanil	111	109	103	109	1.81		3.33
	Fluxapyroxad	103	107	95.5	100	3.69		3.90
	Fonofos	79.2	82.1	73.0	92.4	3.71		23.4
	Gamma-BHC	97.0	97.5	94.6	94.3	0.474		0.253
	Gamma-Chlordane	76.2	79.1	57.2	57.0	3.85		0.299
	Heptachlor	69.4	70.4	56.1	56.6	1.40		0.965
	Heptachlor Epoxide	84.1	86.0	64.6	63.4	2.18		1.94
	Hexachlorobenzene	59.7	60.9	50.2	52.0	2.02		3.36
	Hexazinone	104	105	91.6	99.9	1.61		6.85
	Imazalil	99.4	81.6	111	103	19.7		7.54
	Iprodione	133	128	121	119	3.58		1.76
	Kepone	128	122	106	109	4.81		3.32
	Lambda-Cyhalothrin	145	121	134	178	18.3		28.7
	Malathion	111	113	92.7	101	1.95		8.05

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Metalaxyl	94.6	96.9	91.9	104	2.39		12.6
	Methoxychlor	89.4	88.6	69.2	68.7	0.871		0.682
	Metolachlor	112	103			8.30		1.60
	Metribuzin	103	96.1	95.8	104	6.99		8.05
	Mevinphos	74.5	74.9	84.1	87.9	0.520		4.39
	MGK-264	34.1	61.0	79.2	77.0	56.6		2.82
	Mirex	58.1	60.2	63.0	65.7	3.52		4.20
	Molinate	55.3	51.6	55.0	60.8	6.91		10.1
	Myclobutanil	107	104	98.0	101	2.50		2.76
	Naled	24.3	24.0	22.3	24.7	1.33		10.3
	Norflurazon	101	107	92.7	98.1	5.92		5.61
	Oxadiazon	98.3	97.6	82.2	91.5	0.738		6.27
	Oxyfluorfen	118	112	116	127	5.46		8.93
	Parathion Ethyl	91.2	96.3	90.6	91.4	5.47		0.927
	Parathion Methyl	87.8	101	102	114	14.2		11.2
	Pendimethalin	87.9	83.1	89.6	91.8	5.61		2.47
	Permethrin	114	106	76.3	99.7	6.91		17.8
	Phenothrin	21.1	49.0	71.3	95.1	79.6		28.7
	Phorate	80.8	75.0	88.7	95.5	7.53		7.36
	Piperonyl Butoxide	94.2	84.0	89.1	87.1	11.4		2.30
	Prallethrin	31.8	50.6	78.2	69.9	45.6		11.2
	Prodiamine	56.1	52.7	69.1	83.0	6.24		18.4
	Prometon	104	102	101	102	2.80		0.208
	Prometryn	112	114	98.8	105	1.86		5.95
	Pronamide	107	107	97.7	113	0.628		14.1
	Propiconazole	104	105	101	112	0.635		7.54
	Pyriproxyfen	103	102	84.4	91.9	1.20		8.58
	Simazine	105	102			2.20		5.41
	Sulfentrazone	103	116	103	110	12.2		7.09
	Tau-Fluvalinate	104	93.5	155	147	11.0		5.34
	Tebuconazole	57.0	58.0	72.9	78.6	1.69		5.19
	Terbufos	104	96.9	100	111	7.05		9.90
	Terbuthylazine	98.0	98.5	92.3	93.8	0.490		1.61
	Tetramethrin	18.4	45.1	58.6	64.8	83.9		10.0
	Trans-Nonachlor	75.3	77.3	60.8	63.6	2.64		4.41
	Triclosan Methyl	83.6	86.5	58.9	60.5	3.32		2.73
	Trifluralin	73.9	73.7	57.3	57.5	0.279		0.219
EPA 8276	Chlordane	81.5	86.6	93.9	92.3	6.03		1.68
	Toxaphene	86.9	81.4	91.4	99.3	6.54		8.27
EPA 8321B	2,4-D	98.3		81.9	74.1			8.53
	2,4,5-T	95.2		77.8	67.2			14.6
	3-Hydroxycarbofuran	86.7		85.8	90.3			5.07
	Acesulfame K	79.4		136	135			0.980
	Acetaminophen	96.7		119	105			12.4
	Acetamiprid	75.6		70.0	72.6			3.65
	Afidopyropen	58.5		44.8	51.7			14.2
	Aldicarb	75.3		78.7	83.9			6.39
	Aldicarb Sulfone	87.3		96.2	106			9.60
	Aldicarb Sulfoxide	82.3		38.3	42.3			9.77
	AMPA	116		89.2	90.6			1.01
	Bentazon	99.0		69.7	57.9			10.6
	Benzovindiflupyr	85.7		61.3	49.5			21.2
	Carbamazepine	78.9		77.4	78.6			1.36
	Carbaryl	78.8		76.8	79.3			3.32

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Carbofuran	79.2	79.7	83.2			4.33
	Clothianidin	79.0	84.6	81.1			4.27
	Dinotefuran	83.4	98.5	108			9.20
	Diuron	81.0	69.6	61.7			10.2
	Endothall	83.5	98.2	98.8			0.681
	Fenuron	86.8	84.8	85.8			1.16
	Fluridone	89.8	71.8	62.4			14.1
	Glufosinate	108	117	125			6.72
	Glyphosate	107	99.3	103			1.41
	Hydrocodone	84.7	92.2	102			10.1
	Ibuprofen	79.6	58.0	48.3			18.1
	Imazapyr	95.6	124	127			2.32
	Imidacloprid	80.5	93.2	93.0			0.285
	Linuron	80.3	63.0	52.0			19.0
	Mandestrobin	88.2	70.0	59.3			16.7
	MCPP	94.2	82.0	70.1			15.0
	Methiocarb	79.0	77.6	81.6			5.08
	Methomyl	86.9	84.3	90.9			7.57
	Naproxen	80.5	62.2	55.7			11.0
	Oxamyl	88.7	89.8	96.7			7.37
	Primidone	79.4	83.1	86.4			3.93
	Propoxur	83.6	81.5	86.4			5.93
	Pyraclostrobin	83.4	59.3	46.1			25.1
	Sucralose	93.2	94.1	95.3			1.02
	Thiamethoxam	86.1	100	103			2.50
	Tolfenpyrad	48.5	35.4	29.0			20.1
	Triclopyr	96.0	78.7	67.7			15.0
SM 2120 B-2011	Color (true)	101				2.39	
SM 2320 B-2011	Total Alkalinity	102				0.690	
SM 2540 C-2011	TDS					6.74	
SM 4500 F-C-2011	Fluoride	101	99.2	101			0.897
SM 5310 B-2011	Organic Carbon	97.6	98.6	99.0			0.218

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2265952, 2265955
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2265968, 2265969, 2265970
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2265968, 2265969, 2265970
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2265952, 2265955
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2265952, 2265955
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2265953, 2265956
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2265953, 2265956
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2265953, 2265956
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2265953, 2265956
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2265954, 2265957
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2265966
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2265967
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2265966
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2265964

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2265963, 2265965
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2265952, 2265955
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2265952, 2265955
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2265968, 2265969, 2265970
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2265952, 2265955
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2265952, 2265955
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2265952, 2265955
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2265953, 2265956

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	07/29/2021			07/29/2021 16:09	Blanca Fach	2265952, 2265955
EPA 200.7 Rev. 4.4	07/29/2021	08/03/2021 13:50	Elliott D. Healy	08/09/2021 20:16	Josef B Mick	2265968
	07/29/2021	08/03/2021 13:50	Elliott D. Healy	08/09/2021 20:23	Josef B Mick	2265969
	07/29/2021	08/03/2021 13:50	Elliott D. Healy	08/09/2021 20:29	Josef B Mick	2265970
	07/29/2021	08/12/2021 14:40	Elliott D. Healy	08/13/2021 22:34	Josef B Mick	2265968
	07/29/2021	08/12/2021 14:40	Elliott D. Healy	08/13/2021 22:39	Josef B Mick	2265969
	07/29/2021	08/12/2021 14:40	Elliott D. Healy	08/13/2021 23:19	Josef B Mick	2265970
EPA 200.8 Rev. 5.4	07/29/2021	08/03/2021 13:50	Elliott D. Healy	08/05/2021 03:59	Alexander Thompson	2265968
	07/29/2021	08/03/2021 13:50	Elliott D. Healy	08/05/2021 04:08	Alexander Thompson	2265969
	07/29/2021	08/03/2021 13:50	Elliott D. Healy	08/05/2021 04:47	Alexander Thompson	2265970
	07/29/2021	08/03/2021 13:50	Elliott D. Healy	08/05/2021 20:33	Alexander Thompson	2265968
	07/29/2021	08/03/2021 13:50	Elliott D. Healy	08/05/2021 20:40	Alexander Thompson	2265969
	07/29/2021	08/03/2021 13:50	Elliott D. Healy	08/05/2021 21:07	Alexander Thompson	2265970
	07/29/2021	08/10/2021 13:10	Elliott D. Healy	08/11/2021 14:49	Alexander Thompson	2265968
	07/29/2021	08/10/2021 13:10	Elliott D. Healy	08/11/2021 14:54	Alexander Thompson	2265969
	07/29/2021	08/10/2021 13:10	Elliott D. Healy	08/11/2021 15:00	Alexander Thompson	2265970
EPA 300.0 Rev. 2.1	07/29/2021			08/06/2021 00:20	Lipi Saha	2265952
	07/29/2021			08/06/2021 00:32	Lipi Saha	2265955
EPA 350.1 Rev. 2.0	07/29/2021			08/09/2021 12:18	Ping Hua	2265956
	07/29/2021			08/09/2021 13:47	Ping Hua	2265953
EPA 351.2 Rev. 2.0	07/29/2021	08/18/2021 14:21	Benjamin T. Nordmann	08/19/2021 11:58	Virginia P. Brown	2265953
	07/29/2021	08/18/2021 14:21	Benjamin T. Nordmann	08/19/2021 12:03	Virginia P. Brown	2265956
EPA 353.2 Rev. 2.0	07/29/2021			08/02/2021 09:23	Beverly Y. Sanders	2265953
	07/29/2021			08/02/2021 09:24	Beverly Y. Sanders	2265956
EPA 365.1 Rev. 2.0	07/29/2021	08/02/2021 17:13	Simonne.V. Calhoun	08/03/2021 14:17	Lipi Saha	2265953
	07/29/2021	08/02/2021 17:13	Simonne.V. Calhoun	08/03/2021 14:18	Lipi Saha	2265956
EPA 365.1 Rev. 2.0 dissolved	07/29/2021			07/30/2021 15:04	Ping Hua	2265954
	07/29/2021			07/30/2021 15:05	Ping Hua	2265957
EPA 8270E	07/29/2021	07/30/2021 08:00	Fe-Val Siddell	08/04/2021 23:34	Arthur Maknenko	2265966
	07/29/2021	08/02/2021 08:00	Rasheda Ghaffari	08/03/2021 19:22	Michael Poppell	2265967
	07/29/2021	08/02/2021 08:00	Rasheda Ghaffari	08/04/2021 15:57	Michael Poppell	2265967
EPA 8276	07/29/2021	07/30/2021 08:00	Fe-Val Siddell	08/03/2021 11:29	Julie Wi	2265966
EPA 8321B	07/29/2021	08/02/2021 09:00	Pramila Ghimire	08/02/2021 11:24	Juyoung Kim	2265963
	07/29/2021	08/02/2021 09:00	Pramila Ghimire	08/02/2021 11:35	Juyoung Kim	2265965
	07/29/2021	08/02/2021 09:00	Pramila Ghimire	08/03/2021 10:14	Pramila Ghimire	2265963
	07/29/2021	08/02/2021 09:00	Pramila Ghimire	08/03/2021 10:41	Pramila Ghimire	2265965
	07/29/2021	08/04/2021 08:30	Hoor Shaik	08/04/2021 20:50	Juyoung Kim	2265964
	07/29/2021	08/04/2021 14:00	Hoor Shaik	08/06/2021 18:53	Juyoung Kim	2265963
	07/29/2021	08/04/2021 14:00	Hoor Shaik	08/10/2021 09:06	Juyoung Kim	2265965
SM 2120 B-2011	07/29/2021			07/29/2021 16:17	Sarah A Nixon	2265955

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B-2011	07/29/2021			07/29/2021 16:30	Sarah A Nixon	2265952
SM 2320 B-2011	07/29/2021			08/03/2021 16:16	Dale L. Simmons	2265952
	07/29/2021			08/03/2021 16:31	Dale L. Simmons	2265955
SM 2340B	07/29/2021			08/09/2021 20:16	Josef B Mick	2265968
	07/29/2021			08/09/2021 20:29	Josef B Mick	2265970
	07/29/2021			08/13/2021 22:39	Josef B Mick	2265969
SM 2540 C-2011	07/29/2021			08/03/2021 14:36	Yijie Li	2265952, 2265955
SM 2540 D-2011	07/29/2021			08/03/2021 14:36	Yijie Li	2265952, 2265955
SM 4500 F-C-2011	07/29/2021			08/03/2021 16:16	Dale L. Simmons	2265952
	07/29/2021			08/03/2021 16:31	Dale L. Simmons	2265955
SM 5310 B-2011	07/29/2021			08/12/2021 05:01	Madeline Gruver	2265953
	07/29/2021			08/12/2021 05:14	Madeline Gruver	2265956