

Chemical Analysis Report

CEN-DIST-2022-06-28-02

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

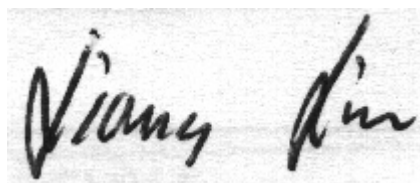
Event Description: **Twin Lakes x2 and Lake Belle LVIs**
Request ID: **RQ-2022-06-27-14**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 21-JUL-2022 10:46

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

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: Twin Lakes @ Center of W Lobe

Collection Date/Time: 06/27/2022 11:58

Field ID: G3CE0037

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337497	DEP SOP: NU-094-1	Color (true)	35		PCU	P415910	
	EPA 180.1 Rev. 2.0	Turbidity	5.9	A	NTU	P415900	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P416148	
		Sulfate	0.91		mg SO4/L	P416151	
	SM 2320 B-2011	Total Alkalinity	36		mg CaCO3/L	P416073	
	SM 2540 C-2011	TDS	70		mg/L	P416077	
	SM 2540 D-2011	TSS	7	I	mg/L	P416035	
	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P416338	
2337499	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P415993	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P416110	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P416406	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P416024	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P416028	
2337501	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P415888	
2337505	EPA 8321B	2,4-D	0.016		ug/L	P415930	
		Acesulfame K	0.10	U	ug/L	P415853	
		2,4,5-T	0.0040	U	ug/L	P415930	
		AMPA	0.10	U	ug/L	P415853	
		Acetaminophen	0.0080	U	ug/L	P415930	
		Acetamiprid	0.0020	U	ug/L	P415930	
		Endothall	0.25	U	ug/L	P415853	
		Glufosinate	0.10	U	ug/L	P415853	
		Glyphosate	0.10	U	ug/L	P415853	
		Afidopyrophen	0.0020	U	ug/L	P415930	
		Bentazon	8.0E-04	U	ug/L	P415930	
		Sucralose	0.17		ug/L	P415853	
		Benzovindiflupyr	0.0020	U	ug/L	P415930	
		Carbamazepine	8.0E-04	U	ug/L	P415930	
		Clothianidin	0.0020	U	ug/L	P415930	
		Dinotefuran	0.0020	U	ug/L	P415930	
		Diuron	0.0020	U	ug/L	P415930	
		Fenuron	0.032	U	ug/L	P415930	
		Fluridone	8.0E-04	U	ug/L	P415930	
		Imazapyr	0.0040	U	ug/L	P415930	
		Hydrocodone	0.0020	U	ug/L	P415930	
		Ibuprofen	0.080	U	ug/L	P415930	
		Imidacloprid	0.0020	U	ug/L	P415930	
		Linuron	0.0040	U	ug/L	P415930	
		Mandestrobin	0.0020	U	ug/L	P415930	
		MCP	0.0040	U	ug/L	P415930	
		Naproxen	0.0080	U	ug/L	P415930	MS, RPD
		Primidone	0.0040	U	ug/L	P415930	
		Pyraclostrobin	0.0020	U	ug/L	P415930	

Field ID: G3CE0037

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337505	EPA 8321B	Silvex	0.0040	U	ug/L	P415930	
		Thiamethoxam	0.0020	U	ug/L	P415930	
		Tolfenpyrad	0.0020	U	ug/L	P415930	
		Triclopyr	0.0040	U	ug/L	P415930	
2337507	EPA 200.7 Rev. 4.4	Calcium	14.2		mg/L	P415918	
		Iron	31	I	ug/L	P415918	
		Magnesium	0.93		mg/L	P415918	
		Potassium	2.0		mg/L	P415918	
		Sodium	2.9		mg/L	P415918	
		Strontium	32.2		ug/L	P415918	
		Tin	3.0	U	ug/L	P415918	
		Titanium	0.97	I	ug/L	P415918	
		Vanadium	2.0	U	ug/L	P415918	
		Zinc	5.0	U	ug/L	P415918	
	EPA 200.8 Rev. 5.4	Aluminum	20		ug/L	P415918	
		Antimony	0.092	I	ug/L	P415918	
		Arsenic	1.30		ug/L	P415918	
		Barium	3.74		ug/L	P415918	
		Beryllium	0.010	U	ug/L	P415918	
		Boron	15.9		ug/L	P415918	
		Cadmium	0.020	U	ug/L	P415918	
		Chromium	0.40	U	ug/L	P415918	
		Cobalt	0.021	I	ug/L	P415918	
		Copper	0.40	U	ug/L	P415918	
2337509	SM 2340 B-2011	Lead	0.20	U	ug/L	P415918	
		Manganese	10.7		ug/L	P415918	
		Molybdenum	0.80		ug/L	P415918	
		Nickel	0.50	U	ug/L	P415918	
		Selenium	0.20	U	ug/L	P415918	
		Silver	0.010	U	ug/L	P415918	
		Thallium	0.10	U	ug/L	P415918	
		Hardness	39.3		mg/L	P415918	
	EPA 8270E	Oxybenzone**	9.6	U	ng/L	P415865	
		Acetochlor	0.24	U	ng/L	P415865	
		Octinoxate**	19	U	ng/L	P415865	RPD
		Alachlor	0.24	U	ng/L	P415865	
		Avobenzone**	96	U	ng/L	P415865	RPD
		Ametryn	0.58	U	ng/L	P415865	
		Atrazine	2.8		ng/L	P415865	
		PBDE-47**	3.8	U	ng/L	P415865	RPD
		Atrazine Desethyl	1.4	U	ng/L	P415865	
		PBDE-99**	4.8	U	ng/L	P415865	RPD
		Azinphos Methyl	1.9	U	ng/L	P415865	
		Tri-o-cresyl Phosphate**	5.8	U	ng/L	P415865	
		Azoxystrobin	0.50	I	ng/L	P415865	

Field ID: G3CE0037

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337509	EPA 8270E	Bromacil	0.48	U	ng/L	P415865	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P415865	RPD
		Butylate	0.38	U	ng/L	P415865	
		Caffeine**	7.2	U	ng/L	P415865	
		Carbophenothion	0.19	U	ng/L	P415865	
		Carfentrazone Ethyl	0.096	U	ng/L	P415865	
		Chlorfenapyr	0.17	U	ng/L	P415865	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P415865	
		Chlorpyrifos Methyl	0.048	U	ng/L	P415865	
		Coumaphos	0.48	U	ng/L	P415865	
		Cyanazine	3.1	U	ng/L	P415865	
		Cyprodinil	0.096	U	ng/L	P415865	
		Demeton	1.4	U	ng/L	P415865	
		Diazinon	0.12	U	ng/L	P415865	
		Difenoconazole	0.58	U	ng/L	P415865	
		Dimethenamid	0.096	UJ	ng/L	P415865	LCS
		Dimethomorph	0.17	U	ng/L	P415865	
		Disulfoton	0.48	U	ng/L	P415865	
		Dithiopyr	0.17	U	ng/L	P415865	
		EPTC	1.2	U	ng/L	P415865	
		Ethion	0.14	UJ	ng/L	P415865	LCS
		Ethoprop	0.096	U	ng/L	P415865	
		Etridiazole	0.14	U	ng/L	P415865	
		Fenamiphos	0.48	U	ng/L	P415865	
		Fenbuconazole	1.1		ng/L	P415865	
		Fipronil	0.24	U	ng/L	P415865	
		Fipronil Desulfinyl**	0.23	I	ng/L	P415865	
		Fipronil Sulfide	0.14	U	ng/L	P415865	
		Fipronil Sulfone	0.14	U	ng/L	P415865	
		Fluazifop-P-butyl	0.096	U	ng/L	P415865	
		Fludioxonil	0.12	U	ng/L	P415865	
		Flumioxazin	1.7	U	ng/L	P415865	
		Flutolanil	0.096	U	ng/L	P415865	
		Fluxapyroxad	0.096	U	ng/L	P415865	
		Fonofos	0.19	U	ng/L	P415865	
		Hexazinone	0.53	I	ng/L	P415865	
		Imazalil	0.72	U	ng/L	P415865	
		Iprodione	0.58	U	ng/L	P415865	MS
		Loratadine**	0.096	U	ng/L	P415865	
		Malathion	0.34	U	ng/L	P415865	
		Metalaxyl	0.72	U	ng/L	P415865	
		Metolachlor	0.34	U	ng/L	P415865	
		Metribuzin	2.4	U	ng/L	P415865	
		Mevinphos	1.0	U	ng/L	P415865	

Field ID: G3CE0037

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337509	EPA 8270E	Molinate	0.29	U	ng/L	P415865	
		Myclobutanil	0.24	U	ng/L	P415865	
		Naled	1.4	U	ng/L	P415865	
		Napropamide	0.38	U	ng/L	P415865	
		Norflurazon	0.48	U	ng/L	P415865	
		Oxadiazon	0.29	U	ng/L	P415865	
		Oxyfluorfen	0.14	U	ng/L	P415865	
		Parathion Ethyl	0.24	U	ng/L	P415865	
		Parathion Methyl	0.53	U	ng/L	P415865	
		Pendimethalin	0.96	U	ng/L	P415865	
		Phenytol**	3.4	U	ng/L	P415865	MS
		Phorate	0.50	U	ng/L	P415865	
		Prodiamine	0.17	U	ng/L	P415865	
		Prometon	0.87	U	ng/L	P415865	
		Prometryn	0.19	U	ng/L	P415865	
		Pronamide	0.14	U	ng/L	P415865	
		Propanil	0.12	U	ng/L	P415865	
		Propargite	1.4	U	ng/L	P415865	
		Propiconazole	0.48	U	ng/L	P415865	
		Pyraflufen Ethyl	0.24	U	ng/L	P415865	
		Pyridaben	2.8		ng/L	P415865	
		Pyriproxyfen	0.12	U	ng/L	P415865	RPD
		Simazine	0.48	U	ng/L	P415865	
		Stirophos	0.12	U	ng/L	P415865	
		Sulfentrazone	0.48	U	ng/L	P415865	MS
		Tebuconazole	0.48	U	ng/L	P415865	
		Terbufos	0.096	U	ng/L	P415865	
		Terbutylazine	0.41	U	ng/L	P415865	
		Thiobencarb	0.58	U	ng/L	P415865	
		Triadimefon	0.24	U	ng/L	P415865	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Twin Lakes @ Center of E Lobe

Collection Date/Time: 06/27/2022 12:52

Field ID: G3CE0063

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337498	DEP SOP: NU-094-1	Color (true)	17	A	PCU	P415910	
	EPA 180.1 Rev. 2.0	Turbidity	8.3		NTU	P415900	
	EPA 300.0 Rev. 2.1	Chloride	3.1		mg Cl/L	P416148	
		Sulfate	1.7		mg SO4/L	P416151	
	SM 2320 B-2011	Total Alkalinity	41		mg CaCO3/L	P416073	
	SM 2540 C-2011	TDS	64		mg/L	P416077	
	SM 2540 D-2011	TSS	7	I	mg/L	P416035	
	SM 4500-F- C-2011	Fluoride	0.11		mg F/L	P416338	
2337500	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P415993	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P416110	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P416406	
	EPA 365.1 Rev. 2.0	Total-P	0.045		mg P/L	P416024	
	SM 5310 B-2011	Organic Carbon	6.1		mg C/L	P416028	
2337502	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P415889	
2337506	EPA 8321B	2,4-D	0.080		ug/L	P415930	
		Acesulfame K	0.12	I	ug/L	P415853	
		2,4,5-T	0.0040	U	ug/L	P415930	
		AMPA	0.10	U	ug/L	P415853	
		Acetaminophen	0.0080	U	ug/L	P415930	
		Acetamiprid	0.0020	U	ug/L	P415930	
		Endothall	0.25	U	ug/L	P415853	
		Glufosinate	0.10	U	ug/L	P415853	
		Glyphosate	0.10	U	ug/L	P415853	
		Afidopyrophen	0.0020	U	ug/L	P415930	
		Bentazon	8.0E-04	U	ug/L	P415930	
		Sucralose	0.21		ug/L	P415853	
		Benzovindiflupyr	0.0020	U	ug/L	P415930	
		Carbamazepine	8.0E-04	U	ug/L	P415930	
		Clothianidin	0.0039	I	ug/L	P415930	
		Dinotefuran	0.0040	I	ug/L	P415930	
		Diuron	0.0079	I	ug/L	P415930	
		Fenuron	0.032	U	ug/L	P415930	
		Fluridone	8.0E-04	U	ug/L	P415930	
		Imazapyr	0.0063	I	ug/L	P415930	
		Hydrocodone	0.0020	U	ug/L	P415930	
		Ibuprofen	0.080	U	ug/L	P415930	
		Imidacloprid	0.0050	I	ug/L	P415930	
		Linuron	0.0040	U	ug/L	P415930	
		Mandestrobin	0.0020	U	ug/L	P415930	
		MCP	0.0078	I	ug/L	P415930	
		Naproxen	0.0080	U	ug/L	P415930	MS, RPD
		Primidone	0.0040	U	ug/L	P415930	
		Pyraclostrobin	0.0020	U	ug/L	P415930	

Field ID: G3CE0063

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337506	EPA 8321B	Silvex	0.0040	U	ug/L	P415930	
		Thiamethoxam	0.0020	U	ug/L	P415930	
		Tolfenpyrad	0.0020	U	ug/L	P415930	
		Triclopyr	0.0040	U	ug/L	P415930	
2337508	EPA 200.7 Rev. 4.4	Calcium	16.2		mg/L	P415918	
		Iron	35	I	ug/L	P415918	
		Magnesium	0.82		mg/L	P415918	
		Potassium	1.1	I	mg/L	P415918	
		Sodium	2.0		mg/L	P415918	
		Strontium	40.8		ug/L	P415918	
		Tin	3.0	U	ug/L	P415918	
		Titanium	1.4	I	ug/L	P415918	
		Vanadium	2.0	U	ug/L	P415918	
		Zinc	5.0	U	ug/L	P415918	
	EPA 200.8 Rev. 5.4	Aluminum	52		ug/L	P415918	
		Antimony	0.33		ug/L	P415918	
		Arsenic	0.59		ug/L	P415918	
		Barium	4.92		ug/L	P415918	
		Beryllium	0.010	U	ug/L	P415918	
		Boron	13.8		ug/L	P415918	
		Cadmium	0.020	U	ug/L	P415918	
		Chromium	0.40	U	ug/L	P415918	
		Cobalt	0.021	I	ug/L	P415918	
		Copper	1.05		ug/L	P415918	
		Lead	0.50		ug/L	P415918	
		Manganese	5.91		ug/L	P415918	
		Molybdenum	0.98		ug/L	P415918	
		Nickel	0.50	U	ug/L	P415918	
		Selenium	0.20	U	ug/L	P415918	
		Silver	0.010	U	ug/L	P415918	
		Thallium	0.10	U	ug/L	P415918	
		Hardness	44.0		mg/L	P415918	
2337510	SM 2340 B-2011						
	EPA 8270E	Oxybenzone**	9.6	U	ng/L	P415865	
		Acetochlor	0.24	U	ng/L	P415865	
		Octinoxate**	19	U	ng/L	P415865	RPD
		Alachlor	0.24	U	ng/L	P415865	
		Avobenzone**	96	U	ng/L	P415865	RPD
		Ametryn	0.57	U	ng/L	P415865	
		Atrazine	31		ng/L	P415865	
		PBDE-47**	3.8	U	ng/L	P415865	RPD
		Atrazine Desethyl	4.2	I	ng/L	P415865	
		PBDE-99**	4.8	U	ng/L	P415865	RPD
		Azinphos Methyl	1.9	U	ng/L	P415865	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P415865	
		Azoxystrobin	1.3	I	ng/L	P415865	

Field ID: G3CE0063

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337510	EPA 8270E	Bromacil	0.48	U	ng/L	P415865	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P415865	RPD
		Butylate	0.38	U	ng/L	P415865	
		Caffeine**	130		ng/L	P415865	
		Carbophenothion	2.4	U	ng/L	P415865	
		Carfentrazone Ethyl	0.096	U	ng/L	P415865	
		Chlorfenapyr	0.17	U	ng/L	P415865	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P415865	
		Chlorpyrifos Methyl	0.048	U	ng/L	P415865	
		Coumaphos	0.48	U	ng/L	P415865	
		Cyanazine	3.1	U	ng/L	P415865	
		Cyprodinil	0.096	U	ng/L	P415865	
		Demeton	1.4	U	ng/L	P415865	
		Diazinon	0.12	U	ng/L	P415865	
		Difenoconazole	0.57	U	ng/L	P415865	
		Dimethenamid	0.096	UJ	ng/L	P415865	LCS
		Dimethomorph	0.17	U	ng/L	P415865	
		Disulfoton	0.48	U	ng/L	P415865	
		Dithiopyr	0.17	U	ng/L	P415865	
		EPTC	1.2	U	ng/L	P415865	
		Ethion	0.14	UJ	ng/L	P415865	LCS
		Ethoprop	0.096	U	ng/L	P415865	
		Etridiazole	0.14	U	ng/L	P415865	
		Fenamiphos	0.48	U	ng/L	P415865	
		Fenbuconazole	1.3		ng/L	P415865	
		Fipronil	0.32	I	ng/L	P415865	
		Fipronil Desulfinyl**	0.97		ng/L	P415865	
		Fipronil Sulfide	0.26	I	ng/L	P415865	
		Fipronil Sulfone	0.25	I	ng/L	P415865	
		Fluazifop-P-butyl	0.096	U	ng/L	P415865	
		Fludioxonil	0.12	U	ng/L	P415865	
		Flumioxazin	1.7	U	ng/L	P415865	
		Flutolanil	0.096	U	ng/L	P415865	
		Fluxapyroxad	0.096	U	ng/L	P415865	
		Fonofos	0.19	U	ng/L	P415865	
		Hexazinone	1.7	I	ng/L	P415865	
		Imazalil	0.72	U	ng/L	P415865	
		Iprodione	0.57	U	ng/L	P415865	MS
		Loratadine**	0.096	U	ng/L	P415865	
		Malathion	0.33	U	ng/L	P415865	
		Metalaxyl	0.72	U	ng/L	P415865	
		Metolachlor	2.8		ng/L	P415865	
		Metribuzin	2.4	U	ng/L	P415865	
		Mevinphos	1.0	U	ng/L	P415865	

Field ID: G3CE0063

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2337510	EPA 8270E	Molinate	0.29	U	ng/L	P415865	
		Myclobutanil	0.24	U	ng/L	P415865	
		Naled	1.4	U	ng/L	P415865	
		Napropamide	0.38	U	ng/L	P415865	
		Norflurazon	0.48	U	ng/L	P415865	
		Oxadiazon	0.43	I	ng/L	P415865	
		Oxyfluorfen	0.14	U	ng/L	P415865	
		Parathion Ethyl	0.24	U	ng/L	P415865	
		Parathion Methyl	0.53	U	ng/L	P415865	
		Pendimethalin	0.96	U	ng/L	P415865	
		Phenytol**	3.3	U	ng/L	P415865	MS
		Phorate	0.50	U	ng/L	P415865	
		Prodiamine	0.29	U	ng/L	P415865	
		Prometon	19		ng/L	P415865	
		Prometryn	0.19	U	ng/L	P415865	
		Pronamide	0.14	U	ng/L	P415865	
		Propanil	0.12	U	ng/L	P415865	
		Propargite	1.4	U	ng/L	P415865	
		Propiconazole	2.0		ng/L	P415865	
		Pyraflufen Ethyl	0.24	U	ng/L	P415865	
		Pyridaben	0.43	U	ng/L	P415865	
		Pyriproxyfen	0.12	U	ng/L	P415865	RPD
		Simazine	10		ng/L	P415865	
		Stirophos	0.12	U	ng/L	P415865	
		Sulfentrazone	0.48	U	ng/L	P415865	MS
		Tebuconazole	0.85	I	ng/L	P415865	
		Terbufos	0.096	U	ng/L	P415865	
		Terbutylazine	0.41	U	ng/L	P415865	
		Thiobencarb	0.57	U	ng/L	P415865	
		Triadimefon	0.24	U	ng/L	P415865	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes. MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P415910

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415900

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415918

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415918

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416148

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: P416151

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415993

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416110

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416406

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416024

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415888

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415889

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

Reference Method: EPA 8270E
Batch ID: P415865

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P415865

Component	Result	Code	Units
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P415865

Component	Result	Code	Units
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P415865

Component	Result	Code	Units
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Proflaminate	0.18	U	ng/L
Proflaminate	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazole	0.50	U	ng/L
Sulfentrazole	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P415865

Component	Result	Code	Units
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B

Batch ID: P415853

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: P415930

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P416073

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P416077

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P416035

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P416338

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P416028

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P415910

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415900

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	97.3		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	95.4		P	85 - 115
Magnesium	97.9		P	85 - 115
Potassium	103		P	85 - 115
Sodium	95.3		P	85 - 115
Strontium	104		P	85 - 115
Tin	105		P	85 - 115
Titanium	106		P	85 - 115
Vanadium	98.5		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	101		P	85 - 115
Barium	105		P	85 - 115
Beryllium	96.1		P	85 - 115
Boron	104		P	85 - 115
Cadmium	98.7		P	85 - 115
Chromium	99.2		P	85 - 115
Cobalt	98.5		P	85 - 115
Copper	96.9		P	85 - 115
Lead	99.4		P	85 - 115
Manganese	101		P	85 - 115
Molybdenum	101		P	85 - 115
Nickel	99.0		P	85 - 115
Selenium	98.8		P	85 - 115
Silver	99.8		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416148

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416151

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415993

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416110

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416406

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416024

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415888

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415889

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

Reference Method: EPA 8270E
Batch ID: P415865

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	97.9		P	50 - 150
Acetochlor	91.0		P	70 - 121
Alachlor	85.1		P	68 - 119
Ametryn	77.7		P	64 - 139
Atrazine	88.7		P	76 - 120
Atrazine Desethyl	64.5		P	44 - 126
Avobenzone	88.9		P	76 - 212
Azinphos Methyl	124		P	43 - 192
Azoxystrobin	114		P	36 - 224
Bromacil	71.1		P	52 - 121

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P415865

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Butylate	51.1		P	28 - 91.0
Caffeine	70.7		P	50 - 134
Carbophenothion	92.4		P	56 - 129
Carfentrazone Ethyl	94.2		P	60 - 141
Chlorfenapyr	76.4		P	56 - 115
Chlorpyrifos Ethyl	79.9		P	60 - 118
Chlorpyrifos Methyl	77.0		P	68 - 119
Coumaphos	80.5		P	18 - 250
Cyanazine	79.7		P	61 - 250
Cyprodinil	77.2		P	55 - 145
Demeton	73.5		P	30 - 159
Diazinon	91.5		P	70 - 123
Difenoconazole	89.3		P	49 - 204
Dimethenamid	58.4		F	64 - 115
Dimethomorph	159		P	12 - 219
Disulfoton	79.1		P	44 - 125
Dithiopyr	84.1		P	64 - 115
EPTC	45.2		P	28 - 86.0
Ethion	28.5		F	33 - 125
Ethoprop	78.9		P	64 - 116
Etridiazole	59.0		P	34 - 91.0
Fenamiphos	71.4		P	12 - 127
Fenbuconazole	87.8		P	59 - 151
Fipronil	85.3		P	67 - 129
Fipronil Desulfinyl	85.0		P	65 - 127
Fipronil Sulfide	64.7		P	61 - 116
Fipronil Sulfone	94.3		P	55 - 117
Fluazifop-P-butyl	92.4		P	62 - 127
Fludioxonil	70.8		P	62 - 128
Flumioxazin	99.2		P	33 - 250
Flutolanil	74.4		P	56 - 127
Fluxapyroxad	63.4		P	45 - 128
Fonofos	68.2		P	62 - 111
Hexazinone	68.2		P	46 - 139
Imazalil	79.9		P	38 - 142
Iprodione	77.3		P	47 - 135
Loratadine	164		P	10 - 244
Malathion	91.4		P	61 - 139
Metalaxyl	86.0		P	10 - 119
Metolachlor	82.9		P	65 - 118
Metribuzin	88.1		P	51 - 250
Mevinphos	71.5		P	53 - 121
Molinate	59.1		P	42 - 96.0
Myclobutanil	78.8		P	55 - 128
Naled	78.5		P	10 - 98.0
Napropamide	54.1		P	49 - 121
Norflurazon	74.6		P	61 - 126
Octinoxate	86.1		P	30 - 159
Oxadiazon	72.2		P	59 - 116
Oxybenzone	78.6		P	61 - 139
Oxyfluorfen	109		P	64 - 137
Parathion Ethyl	80.5		P	70 - 112

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P415865

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Methyl	106		P	76 - 133
PBDE-47	84.7		P	50 - 150
PBDE-99	84.9		P	50 - 150
Pendimethalin	90.1		P	52 - 117
Phenytoin	15.7		P	10 - 199
Phorate	74.2		P	48 - 121
Prodiamine	53.2		P	26 - 142
Prometon	64.0		P	43 - 123
Prometryn	74.6		P	66 - 127
Pronamide	95.9		P	75 - 121
Propanil	77.7		P	45 - 150
Propargite	43.3		P	42 - 208
Propiconazole	74.2		P	60 - 125
Pyraflufen Ethyl	82.8		P	70 - 138
Pyridaben	73.1		P	35 - 245
Pyriproxyfen	70.6		P	30 - 149
Simazine	80.3		P	72 - 125
Stirophos	36.7		P	29 - 164
Sulfentrazone	82.2		P	21 - 139
Tebuconazole	30.7		P	10 - 115
Terbufos	91.2		P	60 - 123
Terbutylazine	89.0		P	72 - 115
Thiobencarb	87.5		P	31 - 139
Tri-o-cresyl Phosphate	82.3		P	50 - 150
Triadimefon	65.6		P	65 - 116

Reference Method: EPA 8321B

Batch ID: P415853

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	98.8		P	40 - 150
AMPA	102		P	40 - 150
Endothall	94.6		P	40 - 150
Glufosinate	95.1		P	40 - 150
Glyphosate	102		P	40 - 150
Sucralose	98.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P415930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	86.8		P	40 - 150
2,4,5-T	56.0		P	40 - 150
Acetaminophen	99.4		P	30 - 150
Acetamiprid	95.3		P	40 - 150
Afidopyropen	70.9		P	30 - 150
Bentazon	79.0		P	30 - 150
Benzovindiflupyr	91.0		P	40 - 150
Carbamazepine	97.9		P	40 - 150
Clothianidin	105		P	40 - 150
Dinotefuran	108		P	40 - 150
Diuron	85.7		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P415930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	107		P	40 - 150
Fluridone	92.9		P	40 - 150
Hydrocodone	99.7		P	40 - 150
Ibuprofen	80.4		P	40 - 150
Imazapyr	96.1		P	40 - 150
Imidacloprid	104		P	40 - 150
Linuron	101		P	40 - 150
Mandestrobin	97.4		P	40 - 150
MCPP	104		P	40 - 150
Naproxen	72.4		P	40 - 150
Primidone	98.9		P	40 - 150
Pyraclostrobin	80.7		P	40 - 150
Silvex	62.7		P	40 - 150
Thiamethoxam	95.3		P	40 - 150
Tolfenpyrad	49.4		P	30 - 150
Triclopyr	63.6		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P416073

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

Reference Method: SM 4500-F- C-2011
Batch ID: P416338

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P416028

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P415918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337508	Calcium	100		P	80 - 120
2337508	Iron	104	99.4	P/P	80 - 120
2337508	Magnesium	106	99.9	P/P	80 - 120
2337508	Potassium	106	101	P/P	80 - 120
2337508	Sodium	103	97.0	P/P	80 - 120
2337508	Strontium	109	105	P/P	80 - 120
2337508	Tin	107	104	P/P	80 - 120
2337508	Titanium	108	105	P/P	80 - 120
2337508	Vanadium	104	101	P/P	80 - 120
2337508	Zinc	109	106	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P415918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337508	Aluminum	99.0	101	P/P	80 - 120
2337508	Antimony	104	104	P/P	80 - 120
2337508	Arsenic	102	101	P/P	80 - 120
2337508	Barium	104	106	P/P	80 - 120
2337508	Beryllium	101	101	P/P	80 - 120
2337508	Boron	99.0	103	P/P	80 - 120
2337508	Cadmium	101	102	P/P	80 - 120
2337508	Chromium	101	102	P/P	80 - 120
2337508	Cobalt	98.8	99.9	P/P	80 - 120
2337508	Copper	97.6	97.6	P/P	80 - 120
2337508	Lead	99.2	101	P/P	80 - 120
2337508	Manganese	99.9	101	P/P	80 - 120
2337508	Molybdenum	102	103	P/P	80 - 120
2337508	Nickel	101	100	P/P	80 - 120
2337508	Selenium	98.7	98.3	P/P	80 - 120
2337508	Silver	98.7	98.3	P/P	80 - 120
2337508	Thallium	99.8	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P416148

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337487	Chloride	98.8		P	90 - 110
2337511	Chloride	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P416151

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337487	Sulfate	93.5		P	90 - 110
2337511	Sulfate	96.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P415993

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337399	Ammonia-N	99.4	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416110

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337378	Kjeldahl Nitrogen	112	114	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416406

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337512	NO2NO3-N	108	110	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416024

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337399	Total-P	103	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337482	O-Phosphate-P	97.2	97.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415889

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337530	O-Phosphate-P	95.2	95.8	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P415865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337570	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	86.6	122	P/P	50 - 150
2337570	Acetochlor	92.9	96.2	P/P	65 - 124
2337570	Alachlor	93.6	115	P/P	61 - 121
2337570	Ametryn	95.7	106	P/P	52 - 216
2337570	Atrazine	107	117	P/P	68 - 133
2337570	Atrazine Desethyl	48.0	56.3	P/P	15 - 160
2337570	Avobenzone	78.4	109	P/P	59 - 206
2337570	Azinphos Methyl	97.9	155	P/P	40 - 292
2337570	Azoxystrobin	126	126	P/P	12 - 242
2337570	Butylate	57.4	49.4	P/P	14 - 94.0
2337570	Caffeine	71.7	75.0	P/P	10 - 226
2337570	Carbophenothion	109	107	P/P	49 - 122
2337570	Carfentrazone Ethyl	107	101	P/P	53 - 138
2337570	Chlorfenapyr	108	107	P/P	50 - 150
2337570	Chlorpyrifos Ethyl	85.7	96.4	P/P	52 - 122
2337570	Chlorpyrifos Methyl	88.2	90.8	P/P	66 - 117
2337570	Coumaphos	76.3	79.6	P/P	50 - 220
2337570	Cyanazine	83.3	77.9	P/P	43 - 245
2337570	Cyprodinil	98.2	84.3	P/P	50 - 150
2337570	Demeton	104	104	P/P	43 - 188
2337570	Diazinon	87.8	103	P/P	69 - 131
2337570	Dimethenamid	64.4	73.0	P/P	55 - 118

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P415865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337570	Dimethomorph	106	102	P/P	50 - 150
2337570	Disulfoton	86.6	92.4	P/P	38 - 141
2337570	Dithiopyr	80.7	80.7	P/P	42 - 116
2337570	EPTC	55.3	53.2	P/P	18 - 85.0
2337570	Ethion	23.6	36.0	P/P	10 - 131
2337570	Ethoprop	93.0	99.9	P/P	65 - 129
2337570	Etridiazole	67.3	62.7	P/P	50 - 150
2337570	Fenamiphos	92.6	94.5	P/P	31 - 137
2337570	Fenbuconazole	81.3	85.0	P/P	57 - 160
2337570	Fipronil	88.8	83.0	P/P	62 - 132
2337570	Fipronil Desulfinyl	83.7	92.6	P/P	57 - 131
2337570	Fipronil Sulfide	90.4	80.4	P/P	15 - 138
2337570	Fipronil Sulfone	123	126	P/P	21 - 134
2337570	Fluazifop-P-butyl	117	129	P/P	54 - 133
2337570	Fludioxonil	89.8	92.4	P/P	58 - 127
2337570	Flumioxazin	88.4	111	P/P	33 - 300
2337570	Flutolanil	95.0	103	P/P	42 - 130
2337570	Fluxapyroxad	81.5	104	P/P	23 - 141
2337570	Fonofos	88.7	100	P/P	58 - 119
2337570	Hexazinone	82.8	91.1	P/P	68 - 172
2337570	Imazalil	185	160	P/P	48 - 283
2337570	Iprodione	131	148	P/F	38 - 140
2337570	Loratadine	99.1	93.5	P/P	50 - 150
2337570	Malathion	103	106	P/P	40 - 137
2337570	Metolachlor	91.7	91.2	P/P	55 - 122
2337570	Metribuzin	105	112	P/P	38 - 187
2337570	Mevinphos	84.8	79.5	P/P	54 - 134
2337570	Molinate	73.6	72.1	P/P	41 - 97.0
2337570	Myclobutanil	96.0	91.6	P/P	56 - 125
2337570	Naled	90.2	91.2	P/P	10 - 108
2337570	Napropamide	68.4	56.7	P/P	50 - 150
2337570	Octinoxate	83.3	114	P/P	25 - 150
2337570	Oxadiazon	104	94.6	P/P	40 - 119
2337570	Oxybenzone	81.5	101	P/P	59 - 147
2337570	Oxyfluorfen	119	123	P/P	61 - 153
2337570	Parathion Ethyl	92.5	94.0	P/P	59 - 130
2337570	Parathion Methyl	122	132	P/P	65 - 155
2337570	PBDE-47	78.0	110	P/P	50 - 150
2337570	PBDE-99	75.0	108	P/P	50 - 150
2337570	Pendimethalin	119	115	P/P	49 - 138
2337570	Phenytol	25.3	29.5	F/F	50 - 200
2337570	Phorate	92.8	95.1	P/P	54 - 161
2337570	Prodiamine	62.3	66.7	P/P	33 - 161
2337570	Prometon	79.8	80.2	P/P	48 - 140
2337570	Prometryn	76.4	71.6	P/P	55 - 134
2337570	Pronamide	102	86.4	P/P	66 - 137
2337570	Propanil	76.1	74.4	P/P	50 - 150
2337570	Propargite	50.4	66.2	P/P	50 - 200
2337570	Propiconazole	71.8	71.7	P/P	36 - 150
2337570	Pyraflufen Ethyl	84.2	89.4	P/P	50 - 150
2337570	Pyridaben	73.3	79.5	P/P	50 - 200
2337570	Pyriproxyfen	45.5	85.3	P/P	10 - 165

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P415865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337570	Stiropfos	74.4	86.3	P/P	50 - 150
2337570	Sulfentrazone	186	224	F/F	34 - 140
2337570	Tebuconazole	41.4	43.3	P/P	10 - 127
2337570	Terbufos	99.6	110	P/P	59 - 138
2337570	Terbuthylazine	93.3	105	P/P	68 - 119
2337570	Thiobencarb	87.7	83.2	P/P	50 - 150
2337570	Tri-o-cresyl Phosphate	81.0	103	P/P	50 - 150
2337570	Triadimefon	63.3	63.8	P/P	50 - 150

Reference Method: EPA 8321B

Batch ID: P415853

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337358	Acesulfame K	101	101	P/P	40 - 150
2337358	AMPA	95.0	97.0	P/P	40 - 150
2337358	Endothall	96.0	96.6	P/P	40 - 150
2337358	Glufosinate	87.6	85.2	P/P	40 - 150
2337358	Glyphosate	78.8	84.4	P/P	40 - 150
2337358	Sucralose	101	101	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P415930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337897	2,4-D	83.6	79.8	P/P	40 - 150
2337897	2,4,5-T	48.0	49.7	P/P	40 - 150
2337897	Acetaminophen	104	101	P/P	30 - 150
2337897	Acetamiprid	101	101	P/P	40 - 150
2337897	Afidopyropen	70.2	71.8	P/P	30 - 150
2337897	Bentazon	52.1	59.6	P/P	30 - 150
2337897	Benzovindiflupyr	85.7	81.8	P/P	40 - 150
2337897	Carbamazepine	92.2	89.3	P/P	40 - 150
2337897	Clothianidin	98.1	102	P/P	40 - 150
2337897	Dinotefuran	126	122	P/P	40 - 150
2337897	Diuron	86.8	80.0	P/P	40 - 150
2337897	Fenuron	90.1	92.0	P/P	40 - 150
2337897	Fluridone	79.5	78.1	P/P	40 - 150
2337897	Hydrocodone	96.5	94.3	P/P	40 - 150
2337897	Ibuprofen	76.1	67.2	P/P	40 - 150
2337897	Imazapyr	85.5	82.5	P/P	40 - 150
2337897	Imidacloprid	122	120	P/P	40 - 150
2337897	Linuron	81.6	79.3	P/P	40 - 150
2337897	Mandestrobin	79.8	79.3	P/P	40 - 150
2337897	MCP	83.7	81.9	P/P	40 - 150
2337897	Naproxen	68.4	38.0	P/F	40 - 150
2337897	Primidone	87.2	89.8	P/P	40 - 150
2337897	Pyraclostrobin	80.6	78.0	P/P	40 - 150
2337897	Silvex	56.1	50.8	P/P	40 - 150
2337897	Thiamethoxam	116	112	P/P	40 - 150
2337897	Tolfenpyrad	47.3	44.5	P/P	30 - 150
2337897	Triclopyr	57.2	59.3	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P416338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337539	Fluoride	102	101	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P416028

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2337500	Organic Carbon	99.4	99.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P415910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337498	Color (true)	5.28	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337497	Turbidity	3.38	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337508	Calcium	3.39	Spike	P	0 - 20
2337508	Iron	4.71	Spike	P	0 - 20
2337508	Magnesium	4.56	Spike	P	0 - 20
2337508	Potassium	4.06	Spike	P	0 - 20
2337508	Sodium	3.72	Spike	P	0 - 20
2337508	Strontium	3.33	Spike	P	0 - 20
2337508	Tin	2.52	Spike	P	0 - 20
2337508	Titanium	3.27	Spike	P	0 - 20
2337508	Vanadium	3.43	Spike	P	0 - 20
2337508	Zinc	3.14	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337508	Aluminum	1.71	Spike	P	0 - 20
2337508	Antimony	0.650	Spike	P	0 - 20
2337508	Arsenic	0.359	Spike	P	0 - 20
2337508	Barium	1.51	Spike	P	0 - 20
2337508	Beryllium	0.0869	Spike	P	0 - 20
2337508	Boron	3.31	Spike	P	0 - 20
2337508	Cadmium	0.940	Spike	P	0 - 20
2337508	Chromium	1.05	Spike	P	0 - 20
2337508	Cobalt	1.13	Spike	P	0 - 20
2337508	Copper	0.0117	Spike	P	0 - 20
2337508	Lead	2.02	Spike	P	0 - 20
2337508	Manganese	0.513	Spike	P	0 - 20
2337508	Molybdenum	0.472	Spike	P	0 - 20
2337508	Nickel	0.979	Spike	P	0 - 20
2337508	Selenium	0.384	Spike	P	0 - 20
2337508	Silver	0.380	Spike	P	0 - 20
2337508	Thallium	3.31	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416148

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337487	Chloride	0.167	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416151

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337487	Sulfate	0.0716	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337399	Ammonia-N	1.48	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337378	Kjeldahl Nitrogen	1.03	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416406

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337512	NO2NO3-N	1.38	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337399	Total-P	0.0227	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337482	O-Phosphate-P	0.513	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P415889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337530	O-Phosphate-P	0.596	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P415865

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337570	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	33.7	Spike	F	0 - 30
2337570	Acetochlor	3.47	Spike	P	0 - 27
2337570	Alachlor	20.7	Spike	P	0 - 27
2337570	Ametryn	9.78	Spike	P	0 - 34
2337570	Atrazine	6.56	Spike	P	0 - 41
2337570	Atrazine Desethyl	15.8	Spike	P	0 - 38
2337570	Avobenzone	32.7	Spike	F	0 - 30
2337570	Azinphos Methyl	45.0	Spike	P	0 - 62
2337570	Azoxystrobin	0.119	Spike	P	0 - 32
2337570	Bromacil	8.50	Spike	P	0 - 30
2337570	Butylate	14.9	Spike	P	0 - 59
2337570	Caffeine	4.51	Spike	P	0 - 60
2337570	Carbophenothion	1.59	Spike	P	0 - 25
2337570	Carfentrazone Ethyl	5.92	Spike	P	0 - 26
2337570	Chlorfenapyr	0.771	Spike	P	0 - 30
2337570	Chlorpyrifos Ethyl	11.8	Spike	P	0 - 27
2337570	Chlorpyrifos Methyl	2.82	Spike	P	0 - 26
2337570	Coumaphos	4.35	Spike	P	0 - 30
2337570	Cyanazine	6.71	Spike	P	0 - 58
2337570	Cyprodinil	15.2	Spike	P	0 - 30
2337570	Demeton	0.277	Spike	P	0 - 25
2337570	Diazinon	15.8	Spike	P	0 - 29
2337570	Difenoconazole	7.19	Spike	P	0 - 25
2337570	Dimethenamid	12.5	Spike	P	0 - 30
2337570	Dimethomorph	3.42	Spike	P	0 - 30
2337570	Disulfoton	6.42	Spike	P	0 - 33
2337570	Dithiopyr	0.0108	Spike	P	0 - 22
2337570	EPTC	3.82	Spike	P	0 - 38
2337570	Ethion	41.6	Spike	P	0 - 79
2337570	Ethoprop	7.07	Spike	P	0 - 23
2337570	Etridiazole	7.02	Spike	P	0 - 30
2337570	Fenamiphos	2.07	Spike	P	0 - 58
2337570	Fenbuconazole	3.99	Spike	P	0 - 37
2337570	Fipronil	6.85	Spike	P	0 - 33
2337570	Fipronil Desulfinyl	10.0	Spike	P	0 - 26
2337570	Fipronil Sulfide	11.7	Spike	P	0 - 37
2337570	Fipronil Sulfone	2.71	Spike	P	0 - 50
2337570	Fluazifop-P-butyl	9.56	Spike	P	0 - 24
2337570	Fludioxonil	2.67	Spike	P	0 - 26
2337570	Flumioxazin	22.7	Spike	P	0 - 37
2337570	Flutolanil	8.03	Spike	P	0 - 26
2337570	Fluxapyroxad	24.1	Spike	P	0 - 34
2337570	Fonofos	12.1	Spike	P	0 - 27
2337570	Hexazinone	9.60	Spike	P	0 - 36
2337570	Imazalil	14.6	Spike	P	0 - 65
2337570	Iprodione	12.4	Spike	P	0 - 33
2337570	Loratadine	5.78	Spike	P	0 - 30
2337570	Malathion	3.06	Spike	P	0 - 44
2337570	Metalaxyl	2.99	Spike	P	0 - 38
2337570	Metolachlor	0.365	Spike	P	0 - 36
2337570	Metribuzin	5.98	Spike	P	0 - 63

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P415865

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337570	Mevinphos	6.39	Spike	P	0 - 26
2337570	Molinate	2.00	Spike	P	0 - 40
2337570	Myclobutanil	4.78	Spike	P	0 - 21
2337570	Naled	1.14	Spike	P	0 - 26
2337570	Napropamide	18.8	Spike	P	0 - 30
2337570	Norflurazon	12.6	Spike	P	0 - 24
2337570	Octinoxate	30.8	Spike	F	0 - 30
2337570	Oxadiazon	9.79	Spike	P	0 - 27
2337570	Oxybenzone	21.8	Spike	P	0 - 30
2337570	Oxyfluorfen	3.55	Spike	P	0 - 24
2337570	Parathion Ethyl	1.65	Spike	P	0 - 28
2337570	Parathion Methyl	7.75	Spike	P	0 - 27
2337570	PBDE-47	34.2	Spike	F	0 - 30
2337570	PBDE-99	36.4	Spike	F	0 - 30
2337570	Pendimethalin	3.57	Spike	P	0 - 31
2337570	Phenytoin	15.1	Spike	P	0 - 30
2337570	Phorate	2.47	Spike	P	0 - 27
2337570	Prodiamine	6.91	Spike	P	0 - 52
2337570	Prometon	0.572	Spike	P	0 - 31
2337570	Prometryn	6.45	Spike	P	0 - 28
2337570	Pronamide	16.4	Spike	P	0 - 26
2337570	Propanil	2.29	Spike	P	0 - 30
2337570	Propargite	27.1	Spike	P	0 - 30
2337570	Propiconazole	0.0425	Spike	P	0 - 31
2337570	Pyraflufen Ethyl	5.97	Spike	P	0 - 30
2337570	Pyridaben	8.11	Spike	P	0 - 30
2337570	Pyriproxyfen	60.9	Spike	F	0 - 50
2337570	Simazine	6.40	Spike	P	0 - 29
2337570	Stirophos	14.8	Spike	P	0 - 30
2337570	Sulfentrazone	14.2	Spike	P	0 - 33
2337570	Tebuconazole	4.58	Spike	P	0 - 44
2337570	Terbufos	9.66	Spike	P	0 - 29
2337570	Terbutylazine	11.4	Spike	P	0 - 27
2337570	Thiobencarb	5.16	Spike	P	0 - 30
2337570	Tri-o-cresyl Phosphate	24.1	Spike	P	0 - 30
2337570	Triadimefon	0.818	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P415853

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337358	Acesulfame K	0.243	Spike	P	0 - 30
2337358	AMPA	2.06	Spike	P	0 - 30
2337358	Endothall	0.564	Spike	P	0 - 30
2337358	Glufosinate	2.77	Spike	P	0 - 30
2337358	Glyphosate	6.86	Spike	P	0 - 30
2337358	Sucralose	0.137	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P415930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337897	2,4-D	4.62	Spike	P	0 - 30
2337897	2,4,5-T	3.53	Spike	P	0 - 30
2337897	Acetaminophen	3.12	Spike	P	0 - 30
2337897	Acetamiprid	0.520	Spike	P	0 - 30
2337897	Afidopyropen	2.21	Spike	P	0 - 30
2337897	Bentazon	13.4	Spike	P	0 - 30
2337897	Benzovindiflupyr	4.67	Spike	P	0 - 30
2337897	Carbamazepine	3.20	Spike	P	0 - 30
2337897	Clothianidin	3.67	Spike	P	0 - 30
2337897	Dinotefuran	2.87	Spike	P	0 - 30
2337897	Diuron	8.21	Spike	P	0 - 30
2337897	Fenuron	2.15	Spike	P	0 - 30
2337897	Fluridone	1.84	Spike	P	0 - 30
2337897	Hydrocodone	2.33	Spike	P	0 - 30
2337897	Ibuprofen	12.4	Spike	P	0 - 30
2337897	Imazapyr	3.57	Spike	P	0 - 30
2337897	Imidacloprid	1.36	Spike	P	0 - 30
2337897	Linuron	2.87	Spike	P	0 - 30
2337897	Mandestrobin	0.610	Spike	P	0 - 30
2337897	MCP	2.22	Spike	P	0 - 30
2337897	Naproxen	57.1	Spike	F	0 - 30
2337897	Primidone	3.00	Spike	P	0 - 30
2337897	Pyraclostrobin	3.24	Spike	P	0 - 30
2337897	Silvex	9.81	Spike	P	0 - 30
2337897	Thiamethoxam	3.26	Spike	P	0 - 30
2337897	Tolfenpyrad	6.03	Spike	P	0 - 30
2337897	Triclopyr	3.58	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P416073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337487	Total Alkalinity	1.11	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011

Batch ID: P416077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337487	TDS	0.823	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P416338

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337539	Fluoride	0.480	Spike	P	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P416028

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2337500	Organic Carbon	0.192	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2337505
Field Sample ID: G3CE0037

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	62.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.5	P	30 - 160
EPA 8321B	Diuron-d6	72.4	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.6	P	30 - 160
EPA 8321B	Primidone-d5	95.6	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Lab Sample ID: 2337506
Field Sample ID: G3CE0063

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	61.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.8	P	30 - 160
EPA 8321B	Diuron-d6	67.6	P	30 - 160
EPA 8321B	Endothall-d6	94.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	104	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.0	P	30 - 160
EPA 8321B	Primidone-d5	92.0	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	30 - 160

Lab Sample ID: 2337509
Field Sample ID: G3CE0037

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	44.7	P	20 - 200
EPA 8270E	Simazine-d10	88.9	P	71 - 140
EPA 8270E	Terbufos-d10	79.0	P	62 - 131
EPA 8270E	Terphenyl-d14	74.9	P	52 - 141

Lab Sample ID: 2337510
Field Sample ID: G3CE0063

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	40.0	P	20 - 200
EPA 8270E	Simazine-d10	81.5	P	71 - 140
EPA 8270E	Terbufos-d10	96.2	P	62 - 131
EPA 8270E	Terphenyl-d14	64.9	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A113139

Included Lab Sample IDs: 2337501, 2337502

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A113141

Included Lab Sample IDs: 2337497, 2337498

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

Reference Method: DEP SOP: NU-094-1

Run ID: A113145

Included Lab Sample IDs: 2337497, 2337498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.3	100	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A113156

Included Lab Sample IDs: 2337497, 2337498

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A113171

Included Lab Sample IDs: 2337499, 2337500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.8	97.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113175

Included Lab Sample IDs: 2337507, 2337508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.3	100	P/P	90 - 110
Antimony	101	102	P/P	90 - 110
Arsenic	100	101	P/P	90 - 110
Barium	101	101	P/P	90 - 110
Beryllium	99.6	100	P/P	90 - 110
Boron	98.5	97.0	P/P	90 - 110
Cadmium	100	101	P/P	90 - 110
Chromium	99.2	100	P/P	90 - 110
Cobalt	97.8	98.2	P/P	90 - 110
Copper	98.8	98.9	P/P	90 - 110
Lead	96.8	96.9	P/P	90 - 110
Manganese	99.3	99.7	P/P	90 - 110
Molybdenum	99.2	99.5	P/P	90 - 110
Nickel	98.8	99.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113175

Included Lab Sample IDs: 2337507, 2337508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	99.4	98.3	P/P	90 - 110
Silver	99.5	99.7	P/P	90 - 110
Thallium	96.5	96.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A113181

Included Lab Sample IDs: 2337505, 2337506

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	101	103	P/P	60 - 160
Sucralose	101	102	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A113183

Included Lab Sample IDs: 2337505, 2337506

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	104	P/P	60 - 160
Endothall	97.4	93.9	P/P	60 - 160
Glufosinate	75.8	77.3	P/P	60 - 160
Glyphosate	98.6	99.3	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A113196

Included Lab Sample IDs: 2337499, 2337500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	98.2	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A113225

Included Lab Sample IDs: 2337497, 2337498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.2	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A113231

Included Lab Sample IDs: 2337505, 2337506

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	98.9	P/P	50 - 150
2,4,5-T	109	94.5	P/P	50 - 150
Acetaminophen	101	99.1	P/P	60 - 160
Acetamiprid	99.9	105	P/P	50 - 150
Afidopyropen	103	104	P/P	50 - 150
Bentazon	113	77.2	P/P	50 - 160
Benzovindiflupyr	101	111	P/P	50 - 150
Carbamazepine	95.2	106	P/P	60 - 150
Clothianidin	101	110	P/P	60 - 150
Dinotefuran	101	104	P/P	50 - 150

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8321B

Run ID: A113231

Included Lab Sample IDs: 2337505, 2337506

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	113	102	P/P	60 - 160
Fenuron	97.8	101	P/P	60 - 150
Fluridone	107	105	P/P	60 - 160
Hydrocodone	101	101	P/P	60 - 150
Ibuprofen	114	127	P/P	50 - 160
Imazapyr	86.9	97.9	P/P	50 - 150
Imidacloprid	90.3	96.2	P/P	60 - 150
Linuron	99.1	108	P/P	60 - 150
Mandestrobin	106	106	P/P	50 - 150
MCPP	114	105	P/P	50 - 150
Naproxen	111	107	P/P	50 - 160
Primidone	95.8	96.6	P/P	60 - 150
Pyraclostrobin	102	103	P/P	60 - 150
Silvex	90.3	90.7	P/P	50 - 150
Thiamethoxam	95.5	97.5	P/P	50 - 150
Tolfenpyrad	101	96.1	P/P	60 - 150
Triclopyr	112	105	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113282

Included Lab Sample IDs: 2337499, 2337500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.5	P/P	90 - 110
Total-P	99.5	101	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A113317

Included Lab Sample IDs: 2337507, 2337508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.8	98.2	P/P	90 - 110
Calcium	99.1	98.8	P/P	95 - 105
Iron	100	98.2	P/P	95 - 105
Iron	98.2	97.1	P/P	90 - 110
Magnesium	97.9	97.3	P/P	90 - 110
Magnesium	99.3	97.9	P/P	95 - 105
Potassium	98.4	98.9	P/P	95 - 105
Potassium	98.9	99.2	P/P	90 - 110
Sodium	100	98.3	P/P	95 - 105
Sodium	98.3	98.4	P/P	90 - 110
Strontium	101	103	P/P	90 - 110
Strontium	102	101	P/P	95 - 105
Tin	101	101	P/P	90 - 110
Tin	101	101	P/P	95 - 105
Titanium	101	101	P/P	95 - 105
Titanium	101	100	P/P	90 - 110
Vanadium	101	101	P/P	95 - 105
Vanadium	101	102	P/P	90 - 110
Zinc	102	101	P/P	90 - 110
Zinc	104	102	P/P	95 - 105

Quality Assurance Report

Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113333

Included Lab Sample IDs: 2337499, 2337500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.0	102	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A113366

Included Lab Sample IDs: 2337509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	111		P	80 - 120
Atrazine	102		P	80 - 120
Atrazine Desethyl	109		P	80 - 120
Azinphos Methyl	110		P	80 - 120
Azoxystrobin	98.7		P	80 - 120
Bromacil	107		P	80 - 120
Butylate	96.5		P	80 - 120
Caffeine	106		P	80 - 120
Carbophenothion	116		P	80 - 120
Carfentrazone Ethyl	111		P	80 - 120
Chlorfenapyr	106		P	80 - 120
Chlorpyrifos Ethyl	106		P	80 - 120
Chlorpyrifos Methyl	104		P	80 - 120
Coumaphos	101		P	80 - 120
Cyanazine	111		P	80 - 120
Cyprodinil	99.9		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	103		P	80 - 120
Difenoconazole	104		P	80 - 120
Dimethenamid	108		P	80 - 120
Dimethomorph	107		P	80 - 120
Disulfoton	96.4		P	80 - 120
Dithiopyr	110		P	80 - 120
EPTC	100		P	80 - 120
Ethion	103		P	80 - 120
Ethoprop	102		P	80 - 120
Etridiazole	107		P	80 - 120
Fenamiphos	107		P	80 - 120
Fenbuconazole	107		P	80 - 120
Fipronil	107		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	117		P	80 - 120
Fluazifop-P-butyl	109		P	80 - 120
Fludioxonil	113		P	80 - 120
Flumioxazin	105		P	80 - 120
Flutolanil	104		P	80 - 120
Fluxapyroxad	101		P	80 - 120
Fonofos	97.6		P	80 - 120
Hexazinone	104		P	80 - 120
Imazalil	108		P	80 - 120
Iprodione	98.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A113366
 Included Lab Sample IDs: 2337509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Loratadine	119		P	80 - 120
Malathion	107		P	80 - 120
Metalaxyl	109		P	80 - 120
Metolachlor	108		P	80 - 120
Metribuzin	102		P	80 - 120
Mevinphos	107		P	80 - 120
Molinate	97.7		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	106		P	80 - 120
Napropamide	115		P	80 - 120
Norflurazon	111		P	80 - 120
Oxadiazon	109		P	80 - 120
Oxyfluorfen	114		P	80 - 120
Parathion Ethyl	99.0		P	80 - 120
Parathion Methyl	95.3		P	80 - 120
Pendimethalin	92.0		P	80 - 120
Phenytoin	104		P	80 - 120
Phorate	106		P	80 - 120
Prodiamine	112		P	80 - 120
Prometon	95.1		P	80 - 120
Prometryn	103		P	80 - 120
Pronamide	101		P	80 - 120
Propanil	101		P	80 - 120
Propargite	113		P	80 - 120
Propiconazole	110		P	80 - 120
Pyraflufen Ethyl	117		P	80 - 120
Pyridaben	101		P	80 - 120
Pyriproxyfen	108		P	80 - 120
Simazine	97.1		P	80 - 120
Stirophos	116		P	80 - 120
Sulfentrazone	118		P	80 - 120
Tebuconazole	114		P	80 - 120
Terbufos	98.5		P	80 - 120
Terbuthylazine	97.8		P	80 - 120
Thiobencarb	101		P	80 - 120
Triadimefon	110		P	80 - 120

Reference Method: SM 4500-F- C-2011
 Run ID: A113368
 Included Lab Sample IDs: 2337497, 2337498

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

Reference Method: EPA 8270E
 Run ID: A113400
 Included Lab Sample IDs: 2337509, 2337510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	103		P	80 - 120
Avobenzone	94.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A113400

Included Lab Sample IDs: 2337509, 2337510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Octinoxate	95.4		P	80 - 120
Oxybenzone	96.5		P	80 - 120
PBDE-47	99.8		P	80 - 120
PBDE-99	102		P	80 - 120
Tri-o-cresyl Phosphate	98.5		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113410

Included Lab Sample IDs: 2337499, 2337500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	109	110	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A113483

Included Lab Sample IDs: 2337510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	88.7		P	80 - 120
Ametryn	99.8		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	88.6		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Bromacil	92.6		P	80 - 120
Butylate	94.4		P	80 - 120
Caffeine	112		P	80 - 120
Carbophenothion	103		P	80 - 120
Carfentrazone Ethyl	92.7		P	80 - 120
Chlorfenapyr	102		P	80 - 120
Chlorpyrifos Ethyl	106		P	80 - 120
Chlorpyrifos Methyl	109		P	80 - 120
Coumaphos	102		P	80 - 120
Cyanazine	89.3		P	80 - 120
Cyprodinil	94.6		P	80 - 120
Demeton	99.9		P	80 - 120
Diazinon	92.5		P	80 - 120
Difenoconazole	90.5		P	80 - 120
Dimethenamid	98.0		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	94.8		P	80 - 120
EPTC	98.1		P	80 - 120
Ethion	106		P	80 - 120
Ethoprop	104		P	80 - 120
Etridiazole	89.6		P	80 - 120
Fenamiphos	105		P	80 - 120
Fenbuconazole	91.1		P	80 - 120
Fipronil	94.3		P	80 - 120
Fipronil Desulfinyl	91.0		P	80 - 120
Fipronil Sulfide	81.5		P	80 - 120
Fipronil Sulfone	93.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A113483
Included Lab Sample IDs: 2337510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluazifop-P-butyl	101		P	80 - 120
Fludioxonil	99.7		P	80 - 120
Flumioxazin	85.6		P	80 - 120
Flutolanil	103		P	80 - 120
Fluxapyroxad	96.6		P	80 - 120
Fonofos	105		P	80 - 120
Hexazinone	107		P	80 - 120
Imazalil	91.6		P	80 - 120
Iprodione	92.9		P	80 - 120
Loratadine	91.3		P	80 - 120
Malathion	104		P	80 - 120
Metalaxyl	96.3		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	106		P	80 - 120
Mevinphos	106		P	80 - 120
Molinate	97.6		P	80 - 120
Myclobutanil	99.0		P	80 - 120
Naled	99.6		P	80 - 120
Napropamide	95.2		P	80 - 120
Norflurazon	98.3		P	80 - 120
Oxadiazon	100		P	80 - 120
Oxyfluorfen	91.0		P	80 - 120
Parathion Ethyl	101		P	80 - 120
Parathion Methyl	107		P	80 - 120
Pendimethalin	105		P	80 - 120
Phenytoin	92.4		P	80 - 120
Phorate	106		P	80 - 120
Prodiamine	92.8		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	93.3		P	80 - 120
Pronamide	101		P	80 - 120
Propanil	111		P	80 - 120
Propargite	92.3		P	80 - 120
Propiconazole	101		P	80 - 120
Pyraflufen Ethyl	91.5		P	80 - 120
Pyridaben	98.0		P	80 - 120
Pyriproxyfen	94.3		P	80 - 120
Simazine	105		P	80 - 120
Stirophos	106		P	80 - 120
Sulfentrazone	96.0		P	80 - 120
Tebuconazole	100		P	80 - 120
Terbufos	106		P	80 - 120
Terbuthylazine	100		P	80 - 120
Thiobencarb	95.0		P	80 - 120
Triadimefon	93.4		P	80 - 120

Reference Method: EPA 8270E
Run ID: A113543
Included Lab Sample IDs: 2337510

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

Calibration Verification

Reference Method: EPA 8270E
Run ID: A113543
Included Lab Sample IDs: 2337510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azoxystrobin	100		P	80 - 120
Dimethomorph	95.9		P	80 - 120

* 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		LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	98.2				5.28	
EPA 180.1 Rev. 2.0	Turbidity	97.3				3.38	
EPA 200.7 Rev. 4.4	Calcium	102	100				3.39
	Iron	95.4	104	99.4			4.71
	Magnesium	97.9	106	99.9			4.56
	Potassium	103	106	101			4.06
	Sodium	95.3	103	97.0			3.72
	Strontium	104	109	105			3.33
	Tin	105	107	104			2.52
	Titanium	106	108	105			3.27
	Vanadium	98.5	104	101			3.43
	Zinc	104	109	106			3.14
EPA 200.8 Rev. 5.4	Aluminum	102	99.0	101			1.71
	Antimony	102	104	104			0.650
	Arsenic	101	102	101			0.359
	Barium	105	104	106			1.51
	Beryllium	96.1	101	101			0.0869
	Boron	104	99.0	103			3.31
	Cadmium	98.7	101	102			0.940
	Chromium	99.2	101	102			1.05
	Cobalt	98.5	98.8	99.9			1.13
	Copper	96.9	97.6	97.6			0.0117
	Lead	99.4	99.2	101			2.02
	Manganese	101	99.9	101			0.513
	Molybdenum	101	102	103			0.472
	Nickel	99.0	101	100			0.979
	Selenium	98.8	98.7	98.3			0.384
	Silver	99.8	98.7	98.3			0.380
	Thallium	100	99.8	103			3.31
EPA 300.0 Rev. 2.1	Chloride	99.5	98.8	99.5		0.167	
	Sulfate	99.4	93.5	96.6		0.0716	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2	99.4	102			1.48
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109	112	114			1.03
EPA 353.2 Rev. 2.0	NO2NO3-N	110	108	110			1.38
EPA 365.1 Rev. 2.0	Total-P	105	103	103			0.0227
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.1	97.2	97.7			0.513
	O-Phosphate-P	95.4	95.2	95.8			0.596
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	97.9	86.6	122			33.7
	Acetochlor	91.0	92.9	96.2			3.47
	Alachlor	85.1	93.6	115			20.7
	Ametryn	77.7	95.7	106			9.78
	Atrazine	88.7	107	117			6.56
	Atrazine Desethyl	64.5	48.0	56.3			15.8
	Avobenzone	88.9	78.4	109			32.7
	Azinphos Methyl	124	97.9	155			45.0
	Azoxystrobin	114	126	126			0.119
	Bromacil	71.1					8.50
	Butylate	51.1	57.4	49.4			14.9
	Caffeine	70.7	71.7	75.0			4.51
	Carbophenothion	92.4	109	107			1.59
	Carfentrazone Ethyl	94.2	107	101			5.92
	Chlorfenapyr	76.4	108	107			0.771

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Ethyl	79.9	85.7	96.4		11.8
	Chlorpyrifos Methyl	77.0	88.2	90.8		2.82
	Coumaphos	80.5	76.3	79.6		4.35
	Cyanazine	79.7	83.3	77.9		6.71
	Cyprodinil	77.2	98.2	84.3		15.2
	Demeton	73.5	104	104		0.277
	Diazinon	91.5	87.8	103		15.8
	Difenoconazole	89.3				7.19
	Dimethenamid	58.4	64.4	73.0		12.5
	Dimethomorph	159	106	102		3.42
	Disulfoton	79.1	86.6	92.4		6.42
	Dithiopyr	84.1	80.7	80.7		0.0108
	EPTC	45.2	55.3	53.2		3.82
	Ethion	28.5	23.6	36.0		41.6
	Ethoprop	78.9	93.0	99.9		7.07
	Etridiazole	59.0	67.3	62.7		7.02
	Fenamiphos	71.4	92.6	94.5		2.07
	Fenbuconazole	87.8	81.3	85.0		3.99
	Fipronil	85.3	88.8	83.0		6.85
	Fipronil Desulfinyl	85.0	83.7	92.6		10.0
	Fipronil Sulfide	64.7	90.4	80.4		11.7
	Fipronil Sulfone	94.3	123	126		2.71
	Fluazifop-P-butyl	92.4	117	129		9.56
	Fludioxonil	70.8	89.8	92.4		2.67
	Flumioxazin	99.2	88.4	111		22.7
	Flutolanil	74.4	95.0	103		8.03
	Fluxapyroxad	63.4	81.5	104		24.1
	Fonofos	68.2	88.7	100		12.1
	Hexazinone	68.2	82.8	91.1		9.60
	Imazalil	79.9	185	160		14.6
	Iprodione	77.3	131	148		12.4
	Loratadine	164	99.1	93.5		5.78
	Malathion	91.4	103	106		3.06
	Metalaxyl	86.0				2.99
	Metolachlor	82.9	91.7	91.2		0.365
	Metribuzin	88.1	105	112		5.98
	Mevinphos	71.5	84.8	79.5		6.39
	Molinate	59.1	73.6	72.1		2.00
	Myclobutanil	78.8	96.0	91.6		4.78
	Naled	78.5	90.2	91.2		1.14
	Napropamide	54.1	68.4	56.7		18.8
	Norflurazon	74.6				12.6
	Octinoxate	86.1	83.3	114		30.8
	Oxadiazon	72.2	104	94.6		9.79
	Oxybenzone	78.6	81.5	101		21.8
	Oxyfluorfen	109	119	123		3.55
	Parathion Ethyl	80.5	92.5	94.0		1.65
	Parathion Methyl	106	122	132		7.75
	PBDE-47	84.7	78.0	110		34.2
	PBDE-99	84.9	75.0	108		36.4
	Pendimethalin	90.1	119	115		3.57
	Phenytoin	15.7	25.3	29.5		15.1
	Phorate	74.2	92.8	95.1		2.47
	Prodiamine	53.2	62.3	66.7		6.91

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Prometon	64.0	79.8	80.2		0.572
	Prometryn	74.6	76.4	71.6		6.45
	Pronamide	95.9	102	86.4		16.4
	Propanil	77.7	76.1	74.4		2.29
	Propargite	43.3	50.4	66.2		27.1
	Propiconazole	74.2	71.8	71.7		0.0425
	Pyraflufen Ethyl	82.8	84.2	89.4		5.97
	Pyridaben	73.1	73.3	79.5		8.11
	Pyriproxyfen	70.6	45.5	85.3		60.9
	Simazine	80.3				6.40
	Stirophos	36.7	74.4	86.3		14.8
	Sulfentrazone	82.2	186	224		14.2
	Tebuconazole	30.7	41.4	43.3		4.58
	Terbufos	91.2	99.6	110		9.66
	Terbuthylazine	89.0	93.3	105		11.4
	Thiobencarb	87.5	87.7	83.2		5.16
	Tri-o-cresyl Phosphate	82.3	81.0	103		24.1
	Triadimefon	65.6	63.3	63.8		0.818
EPA 8321B	2,4-D	86.8	83.6	79.8		4.62
	2,4,5-T	56.0	48.0	49.7		3.53
	Acesulfame K	98.8	101	101		0.243
	Acetaminophen	99.4	104	101		3.12
	Acetamiprid	95.3	101	101		0.520
	Afidopyropen	70.9	70.2	71.8		2.21
	AMPA	102	95.0	97.0		2.06
	Bentazon	79.0	52.1	59.6		13.4
	Benzovindiflupyr	91.0	85.7	81.8		4.67
	Carbamazepine	97.9	92.2	89.3		3.20
	Clothianidin	105	98.1	102		3.67
	Dinotefuran	108	126	122		2.87
	Diuron	85.7	86.8	80.0		8.21
	Endothall	94.6	96.0	96.6		0.564
	Fenuron	107	90.1	92.0		2.15
	Fluridone	92.9	79.5	78.1		1.84
	Glufosinate	95.1	87.6	85.2		2.77
	Glyphosate	102	78.8	84.4		6.86
	Hydrocodone	99.7	96.5	94.3		2.33
	Ibuprofen	80.4	76.1	67.2		12.4
	Imazapyr	96.1	85.5	82.5		3.57
	Imidacloprid	104	122	120		1.36
	Linuron	101	81.6	79.3		2.87
	Mandestrobin	97.4	79.8	79.3		0.610
	MCPP	104	83.7	81.9		2.22
	Naproxen	72.4	68.4	38.0		57.1
	Primidone	98.9	87.2	89.8		3.00
	Pyraclostrobin	80.7	80.6	78.0		3.24
	Silvex	62.7	56.1	50.8		9.81
	Sucralose	98.5	101	101		0.137
	Thiamethoxam	95.3	116	112		3.26
	Tolfenpyrad	49.4	47.3	44.5		6.03
	Triclopyr	63.6	57.2	59.3		3.58
SM 2320 B-2011	Total Alkalinity	100			1.11	
SM 2540 C-2011	TDS				0.823	
SM 4500-F- C-2011	Fluoride	103	102	101		0.480

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 5310 B-2011	Organic Carbon	95.6	99.4 99.6			0.192

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2337497, 2337498
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2337497, 2337498
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2337507, 2337508
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2337507, 2337508
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2337497, 2337498
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2337497, 2337498
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2337499, 2337500
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2337499, 2337500
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2337499, 2337500
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2337499, 2337500
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2337501, 2337502
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2337509, 2337510
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2337509, 2337510
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2337505, 2337506
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2337497, 2337498
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2337507, 2337508
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2337497, 2337498
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2337497, 2337498
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2337497, 2337498
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2337499, 2337500

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	06/28/2022			06/28/2022 15:11	Samantha L Bates	2337497
	06/28/2022			06/28/2022 15:13	Samantha L Bates	2337498
EPA 180.1 Rev. 2.0	06/28/2022			06/28/2022 13:40	Anna M. Plaviak	2337497
	06/28/2022			06/28/2022 13:42	Anna M. Plaviak	2337498
EPA 200.7 Rev. 4.4	06/28/2022	06/29/2022 09:13	Mackenzie Hunt	07/06/2022 15:43	McKinley C Carter	2337508
	06/28/2022	06/29/2022 09:13	Mackenzie Hunt	07/06/2022 16:42	McKinley C Carter	2337507
EPA 200.8 Rev. 5.4	06/28/2022	06/29/2022 09:13	Mackenzie Hunt	06/29/2022 21:11	Alexander Thompson	2337507
	06/28/2022	06/29/2022 09:13	Mackenzie Hunt	06/29/2022 21:31	Alexander Thompson	2337508
EPA 300.0 Rev. 2.1	06/28/2022			07/01/2022 23:03	Anna M. Plaviak	2337497
	06/28/2022			07/01/2022 23:15	Anna M. Plaviak	2337498
EPA 350.1 Rev. 2.0	06/28/2022			06/29/2022 16:07	Judith K. Clark	2337499
	06/28/2022			06/29/2022 16:09	Judith K. Clark	2337500
EPA 351.2 Rev. 2.0	06/28/2022	07/05/2022 14:05	Simonne.V. Calhoun	07/07/2022 12:19	Alexandra J Mattheus	2337499
	06/28/2022	07/05/2022 14:05	Simonne.V. Calhoun	07/07/2022 12:21	Alexandra J Mattheus	2337500
EPA 353.2 Rev. 2.0	06/28/2022			07/08/2022 17:48	Touraj Touran	2337499
	06/28/2022			07/08/2022 17:50	Touraj Touran	2337500
EPA 365.1 Rev. 2.0	06/28/2022	07/01/2022 16:41	Simonne.V. Calhoun	07/05/2022 16:25	James L Waggeberby	2337499
	06/28/2022	07/01/2022 16:41	Simonne.V. Calhoun	07/05/2022 16:33	James L Waggeberby	2337500
EPA 365.1 Rev. 2.0 dissolved	06/28/2022			06/28/2022 13:41	James L Waggeberby	2337501
	06/28/2022			06/28/2022 13:51	James L Waggeberby	2337502
EPA 8270E	06/28/2022	06/30/2022 07:30	Fe-Val Siddell	07/03/2022 19:40	Michael Poppell	2337509
	06/28/2022	06/30/2022 07:30	Fe-Val Siddell	07/07/2022 21:31	Lipi Saha	2337509
	06/28/2022	06/30/2022 07:30	Fe-Val Siddell	07/07/2022 21:51	Lipi Saha	2337510
	06/28/2022	06/30/2022 07:30	Fe-Val Siddell	07/10/2022 00:08	Michael Poppell	2337510
	06/28/2022	06/30/2022 07:30	Fe-Val Siddell	07/15/2022 20:19	Michael Poppell	2337510
EPA 8321B	06/28/2022	06/29/2022 11:30	Umesh Chiluwal	06/29/2022 16:11	Umesh Chiluwal	2337505
	06/28/2022	06/29/2022 11:30	Umesh Chiluwal	06/29/2022 16:24	Umesh Chiluwal	2337506
	06/28/2022	06/29/2022 11:30	Umesh Chiluwal	06/30/2022 03:05	Umesh Chiluwal	2337505
	06/28/2022	06/29/2022 11:30	Umesh Chiluwal	06/30/2022 03:20	Umesh Chiluwal	2337506
	06/28/2022	06/29/2022 13:30	June Rhew	06/30/2022 17:46	Juyoung Kim	2337505
	06/28/2022	06/29/2022 13:30	June Rhew	06/30/2022 18:07	Juyoung Kim	2337506
SM 2320 B-2011	06/28/2022			06/29/2022 21:41	Dale L. Simmons	2337497
	06/28/2022			06/29/2022 21:55	Dale L. Simmons	2337498
SM 2340 B-2011	06/28/2022			07/06/2022 15:43	McKinley C Carter	2337508
	06/28/2022			07/06/2022 16:42	McKinley C Carter	2337507
SM 2540 C-2011	06/28/2022			06/29/2022 14:00	Ping Hua	2337497, 2337498
SM 2540 D-2011	06/28/2022			06/29/2022 14:00	Ping Hua	2337497, 2337498
SM 4500-F- C-2011	06/28/2022			07/08/2022 01:10	Dale L. Simmons	2337497
	06/28/2022			07/08/2022 01:16	Dale L. Simmons	2337498
SM 5310 B-2011	06/28/2022			06/29/2022 13:38	Khloe J Berg	2337500

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	06/28/2022			06/29/2022 14:40	Khloe J Berg	2337499