

Chemical Analysis Report

SW-DIST-2023-08-01-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

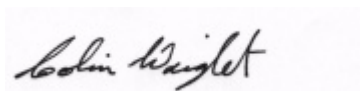
Event Description: **Run 12**
Request ID: **RQ-2023-07-31-13**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Colin Wright, Program Administrator

Date Certified: 17-AUG-2023 15:16

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular 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 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: EAST CANAL AT KNIGHTS GRIFFEN RD

Collection Date/Time: 07/31/2023 09:50

Field ID: G2SW0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427775	EPA 200.7 Rev. 4.4	Calcium	29.1		mg/L	P433394	
		Iron	460		ug/L	P433394	
		Magnesium	5.03		mg/L	P433394	
		Potassium	1.7		mg/L	P433394	
		Sodium	11.1		mg/L	P433394	
		Strontium	56.1		ug/L	P433394	
		Tin	3.4	I	ug/L	P433394	
		Titanium	2.2	I	ug/L	P433394	
		Vanadium	3.8	I	ug/L	P433394	
		Zinc	5.0	U	ug/L	P433394	
	EPA 200.8 Rev. 5.4	Aluminum	93		ug/L	P433394	
		Antimony	0.18	I	ug/L	P433394	
		Arsenic	2.47		ug/L	P433394	
		Barium	6.99		ug/L	P433394	
		Beryllium	0.014	I	ug/L	P433394	
		Boron	47.5		ug/L	P433394	
		Cadmium	0.038	I	ug/L	P433394	
		Chromium	0.62	I	ug/L	P433394	
		Cobalt	0.123		ug/L	P433394	
		Copper	0.77	I	ug/L	P433394	
	SM 2340 B-2011	Lead	0.53		ug/L	P433394	
		Manganese	18.9		ug/L	P433394	
		Molybdenum	0.61		ug/L	P433394	
		Nickel	0.71	I	ug/L	P433394	
		Selenium	0.20	U	ug/L	P433394	
		Silver	0.010	U	ug/L	P433553	
		Thallium	0.10	U	ug/L	P433394	
		Hardness	93.3		mg/L	P433394	

Sample Location: ENGLISH CREEK AT S COUNTY LINE

Collection Date/Time: 07/31/2023 10:20

Field ID: G2SW0169

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427774	EPA 8321B	2,4-D	0.027		ug/L	P433321	
		Acesulfame K	0.12	I	ug/L	P433285	
		2,4,5-T	0.0040	U	ug/L	P433321	
		AMPA	0.68		ug/L	P433285	
		Acetaminophen	0.0080	U	ug/L	P433321	
		Acetamiprid	0.0020	U	ug/L	P433321	
		Endothall	0.25	U	ug/L	P433285	
		Glufosinate	0.10	U	ug/L	P433285	
		Glyphosate	1.8		ug/L	P433285	
		Afidopyropen	0.0020	U	ug/L	P433321	
		Sucralose	0.45		ug/L	P433285	
		Bentazon	0.0035		ug/L	P433321	MS
		Benzovindiflupyr	0.0020	U	ug/L	P433321	
		Carbamazepine	0.0022	I	ug/L	P433321	
		Clothianidin	0.0033	I	ug/L	P433321	
		Dinotefuran	0.0020	U	ug/L	P433321	
		Diuron	0.026		ug/L	P433321	
		Fenuron	0.032	U	ug/L	P433321	
		Fluridone	9.1E-04	I	ug/L	P433321	
		Imazapyr	0.27		ug/L	P433321	
		Hydrocodone	0.0020	U	ug/L	P433321	
		Ibuprofen	0.080	U	ug/L	P433321	
		Imidacloprid	0.0048	I	ug/L	P433321	
		Linuron	0.0040	U	ug/L	P433321	
		Mandestrobin	0.0020	U	ug/L	P433321	
		MCPP	0.0020	U	ug/L	P433321	
		Naproxen	0.0080	U	ug/L	P433321	
		Primidone	0.0040	U	ug/L	P433321	
		Pyraclostrobin	0.0020	U	ug/L	P433321	
		Silvex	0.0040	U	ug/L	P433321	
		Thiamethoxam	0.0032	I	ug/L	P433321	
		Tolfenpyrad	0.0020	U	ug/L	P433321	
		Triclopyr	0.0040	U	ug/L	P433321	

Sample Location: HOWELL BRANCH IN BEALSVILLE PARK

Collection Date/Time: 07/31/2023 11:00

Field ID: G2SW0115

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427777	EPA 8270E	Oxybenzone**	11	U	ng/L	P433263	
		Acetochlor	0.21	U	ng/L	P433263	
		Octinoxate**	160	U	ng/L	P433263	
		Alachlor	0.43	U	ng/L	P433263	
		Avobenzone**	110	U	ng/L	P433263	
		Ametryn	1.2	U	ng/L	P433263	
		Atrazine	1.2		ng/L	P433263	
		PBDE-47**	4.3	U	ng/L	P433263	
		Atrazine Desethyl	1.4	U	ng/L	P433263	
		PBDE-99**	5.3	U	ng/L	P433263	
		Azinphos Methyl	3.2	U	ng/L	P433263	
		Tri-o-cresyl Phosphate**	6.4	U	ng/L	P433263	
		Azoxystrobin	13	J	ng/L	P433263	
		Bromacil	27		ng/L	P433263	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P433263	
		Butylate	0.21	U	ng/L	P433263	
		Dechlorane Plus**	32	U	ng/L	P433263	
		Caffeine**	28	I	ng/L	P433263	
		Dechlorane 602**	5.3	U	ng/L	P433263	
		Carbophenothion	0.53	U	ng/L	P433263	
		Dechlorane 603**	4.3	U	ng/L	P433263	
		Carfentrazone Ethyl	0.16	U	ng/L	P433263	
		Hexabromobenzene**	6.4	U	ng/L	P433263	
		Chlorfenapyr	0.32	U	ng/L	P433263	
		PBB-153**	8.5	U	ng/L	P433263	
		Chlorpyrifos Ethyl	0.32	U	ng/L	P433263	
		Pentabromotoluene**	3.2	U	ng/L	P433263	
		Chlorpyrifos Methyl	0.11	U	ng/L	P433263	
		Tris(2-chloroethyl) phosphate (TCEP)**	74	U	ng/L	P433263	
		Coumaphos	1.1	U	ng/L	P433263	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	78		ng/L	P433263	
		Cyanazine	5.3	U	ng/L	P433263	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	7.8	I	ng/L	P433263	
		Cyprodinil	2.2		ng/L	P433263	
		Tetradecachloro-m-terphenyl**	8.0	U	ng/L	P433263	
		Demeton	3.7	U	ng/L	P433263	
		Diazinon	0.13	U	ng/L	P433263	
		Difenoconazole	1.5	I	ng/L	P433263	
		Dimethenamid	0.11	U	ng/L	P433263	
		Dimethomorph	0.32	U	ng/L	P433263	
		Disulfoton	0.64	U	ng/L	P433263	
		Dithiopyr	1.1	U	ng/L	P433263	

Field ID: G2SW0115

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427777	EPA 8270E	EPTC	0.53	U	ng/L	P433263	
		Ethion	0.32	U	ng/L	P433263	
		Ethoprop	0.13	U	ng/L	P433263	
		Etridiazole	0.11	U	ng/L	P433263	
		Fenamiphos	0.48	U	ng/L	P433263	
		Fenbuconazole	0.53	U	ng/L	P433263	
		Fipronil	0.45	I	ng/L	P433263	MS
		Fipronil Desulfinyl**	3.5		ng/L	P433263	
		Fipronil Sulfide	3.2		ng/L	P433263	
		Fipronil Sulfone	3.8		ng/L	P433263	
		Fluazifop-P-butyl	0.11	U	ng/L	P433263	
		Fludioxonil	6.9		ng/L	P433263	
		Flumioxazin	3.2	U	ng/L	P433263	
		Flutolanil	0.11	U	ng/L	P433263	
		Fluxapyroxad	6.9		ng/L	P433263	
		Fonofos	0.16	U	ng/L	P433263	
		Hexazinone	0.53	U	ng/L	P433263	
		Imazalil	0.69	U	ng/L	P433263	
		Iprodione	0.81	I	ng/L	P433263	
		Loratadine**	0.32	U	ng/L	P433263	
		Malathion	0.37	U	ng/L	P433263	
		Metalaxyl	1.6	I	ng/L	P433263	
		Metolachlor	0.80	U	ng/L	P433263	
		Metribuzin	0.43	U	ng/L	P433263	
		Mevinphos	1.1	U	ng/L	P433263	
		Molinate	0.27	UJ	ng/L	P433263	LCS
		Myclobutanil	4.8		ng/L	P433263	
		Naled	2.7	U	ng/L	P433263	
		Napropamide	0.74	U	ng/L	P433263	
		Norflurazon	2.0	I	ng/L	P433263	
		Oxadiazon	0.57	I	ng/L	P433263	
		Oxyfluorfen	0.21	U	ng/L	P433263	
		Parathion Ethyl	0.16	U	ng/L	P433263	
		Parathion Methyl	0.21	U	ng/L	P433263	MS
		Pendimethalin	0.80	U	ng/L	P433263	
		Phenytol**	5.6	U	ng/L	P433263	
		Phorate	0.27	U	ng/L	P433263	
		Prodiamine	0.36	I	ng/L	P433263	
		Prometon	3.7	I	ng/L	P433263	
		Prometryn	0.37	U	ng/L	P433263	
		Pronamide	0.11	U	ng/L	P433263	
		Propanil	0.11	U	ng/L	P433263	
		Propargite	0.85	U	ng/L	P433263	
		Propiconazole	2.1	I	ng/L	P433263	
		Pyraflufen Ethyl	0.32	U	ng/L	P433263	

Field ID: G2SW0115

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427777	EPA 8270E	Pyridaben	1.5	U	ng/L	P433263	
		Pyriproxyfen	0.27	U	ng/L	P433263	
		Simazine	0.27	U	ng/L	P433263	
		Stirophos	0.43	U	ng/L	P433263	
		Sulfentrazone	29		ng/L	P433263	
		Tebuconazole	1.5	U	ng/L	P433263	
		Terbufos	0.21	U	ng/L	P433263	
		Terbuthylazine	0.21	U	ng/L	P433263	
		Thiobencarb	0.53	U	ng/L	P433263	
		Triadimefon	0.16	U	ng/L	P433263	

Ref. Method and Comment:

EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked. Estimated value for azoxystrobin due to internal standard recovery exceeding control limits. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: SEFFNER CANAL S OF MLK

Collection Date/Time: 07/31/2023 11:40

Field ID: G2SW0087

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2427776	EPA 200.7 Rev. 4.4	Calcium	27.1		mg/L	P433394	
		Iron	700		ug/L	P433394	
		Magnesium	5.45		mg/L	P433394	
		Potassium	6.4		mg/L	P433394	
		Sodium	16.7		mg/L	P433394	
		Strontium	50.1		ug/L	P433394	
		Tin	3.0	U	ug/L	P433394	
		Titanium	13.9		ug/L	P433394	
		Vanadium	5.9	I	ug/L	P433394	
		Zinc	10	I	ug/L	P433394	
	EPA 200.8 Rev. 5.4	Aluminum	740		ug/L	P433394	
		Antimony	0.19	I	ug/L	P433394	
		Arsenic	1.70		ug/L	P433394	
		Barium	9.33		ug/L	P433394	
		Beryllium	0.039	I	ug/L	P433394	
		Boron	59.9		ug/L	P433394	
		Cadmium	0.256		ug/L	P433394	
		Chromium	2.7		ug/L	P433394	
		Cobalt	0.248		ug/L	P433394	
		Copper	4.31		ug/L	P433394	
		Lead	1.80		ug/L	P433394	
		Manganese	60.9		ug/L	P433394	
		Molybdenum	0.90		ug/L	P433394	
		Nickel	1.2	I	ug/L	P433394	
		Selenium	0.20	U	ug/L	P433394	
		Silver	0.025	I	ug/L	P433553	
		Thallium	0.10	U	ug/L	P433394	
	SM 2340 B-2011	Hardness	90.1		mg/L	P433394	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: The cadmium result was confirmed in the undigested sample on 08/07/2023.

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P433394

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: P433394

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
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433553

Component	Result	Code	Units
Silver	0.010	U	ug/L

Reference Method: EPA 8270E

Batch ID: P433263

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	0.20	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine	0.20	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433263

Component	Result	Code	Units
Atrazine Desethyl	1.3	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.20	U	ng/L
Butylate	0.20	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Demeton	3.5	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	0.30	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
EPTC	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433263

Component	Result	Code	Units
Ethion	0.30	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Molinate	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433263

Component	Result	Code	Units
Myclobutanil	0.35	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Octinoxate	150	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	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	0.75	U	ng/L
Pendimethalin	0.75	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L
Phenytoin	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyridaben	1.4	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433263

Component	Result	Code	Units
Pyriproxyfen	0.25	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbufos	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L

Reference Method: EPA 8321B

Batch ID: P433285

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: P433321

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P433321

Component	Result	Code	Units
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	0.0020	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 Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P433394

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	107		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	102		P	85 - 115
Sodium	104		P	85 - 115
Strontium	100		P	85 - 115
Tin	104		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433394

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.3		P	85 - 115
Antimony	96.8		P	85 - 115
Arsenic	98.6		P	85 - 115
Barium	97.7		P	85 - 115
Beryllium	90.0		P	85 - 115
Boron	106		P	85 - 115
Cadmium	98.9		P	85 - 115
Chromium	95.0		P	85 - 115
Cobalt	104		P	85 - 115
Copper	101		P	85 - 115
Lead	96.6		P	85 - 115
Manganese	96.1		P	85 - 115
Molybdenum	98.9		P	85 - 115
Nickel	103		P	85 - 115
Selenium	94.1		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	112		P	85 - 115

Reference Method: EPA 8270E

Batch ID: P433263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	106		P	42 - 162
Acetochlor	88.1		P	69 - 123
Alachlor	92.0		P	65 - 118
Ametryn	104		P	58 - 141
Atrazine	88.8		P	73 - 118
Atrazine Desethyl	84.6		P	32 - 125
Avobenzone	124		P	40 - 203
Azinphos Methyl	122		P	36 - 197
Azoxystrobin	90.8		P	58 - 226
Bromacil	98.7		P	48 - 120

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P433263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Butylate	32.0		P	27 - 85.0
Caffeine	82.4		P	40 - 137
Carbophenothion	101		P	54 - 132
Carfentrazone Ethyl	113		P	60 - 142
Chlorfenapyr	92.8		P	53 - 117
Chlorpyrifos Ethyl	84.7		P	59 - 116
Chlorpyrifos Methyl	91.9		P	66 - 119
Coumaphos	167		P	11 - 234
Cyanazine	111		P	61 - 248
Cyprodinil	82.9		P	50 - 147
Dechlorane 602	107		P	50 - 150
Dechlorane 603	122		P	50 - 150
Dechlorane Plus	113		P	47 - 182
Demeton	58.1		P	30 - 138
Diazinon	93.8		P	67 - 126
Difenoconazole	159		P	38 - 205
Dimethenamid	83.4		P	57 - 111
Dimethomorph	81.8		P	16 - 212
Disulfoton	92.7		P	46 - 126
Dithiopyr	94.4		P	62 - 115
EPTC	30.3		P	28 - 80.0
Ethion	93.8		P	24 - 122
Ethoprop	79.6		P	62 - 113
Etridiazole	33.5		P	28 - 92.0
Fenamiphos	97.6		P	57 - 128
Fenbuconazole	101		P	52 - 155
Fipronil	81.5		P	63 - 130
Fipronil Desulfinyl	91.2		P	61 - 130
Fipronil Sulfide	84.5		P	56 - 117
Fipronil Sulfone	98.9		P	52 - 118
Fluazifop-P-butyl	105		P	61 - 128
Fludioxonil	78.5		P	59 - 129
Flumioxazin	179		P	30 - 250
Flutolanil	81.0		P	53 - 127
Fluxapyroxad	100		P	42 - 132
Fonofos	76.2		P	61 - 110
Hexabromobenzene	107		P	50 - 150
Hexazinone	96.7		P	46 - 139
Imazalil	108		P	40 - 139
Iprodione	97.8		P	40 - 146
Loratadine	65.5		P	10 - 224
Malathion	127		P	61 - 135
Metalaxyl	87.2		P	58 - 121
Metolachlor	105		P	64 - 118
Metribuzin	94.7		P	45 - 245
Mevinphos	67.9		P	49 - 118
Molinate	32.8		F	42 - 92.0
Myclobutanil	90.5		P	55 - 127
Naled	56.6		P	10 - 114
Napropamide	84.9		P	39 - 121
Norflurazon	95.4		P	55 - 129
Octinoxate	122		P	26 - 166

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P433263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxadiazon	84.4		P	54 - 115
Oxybenzone	105		P	49 - 135
Oxyfluorfen	103		P	64 - 139
Parathion Ethyl	86.9		P	70 - 111
Parathion Methyl	87.5		P	76 - 136
PBB-153	119		P	50 - 150
PBDE-47	111		P	41 - 148
PBDE-99	111		P	38 - 147
Pendimethalin	89.5		P	52 - 118
Pentabromotoluene	97.0		P	50 - 150
Phenytoin	141		P	10 - 162
Phorate	81.2		P	40 - 122
Prodiamine	42.8		P	26 - 141
Prometon	82.8		P	54 - 122
Prometryn	90.4		P	61 - 128
Pronamide	108		P	72 - 121
Propanil	118		P	45 - 144
Propargite	121		P	10 - 199
Propiconazole	95.4		P	56 - 127
Pyraflufen Ethyl	101		P	56 - 140
Pyridaben	143		P	26 - 211
Pyriproxyfen	106		P	33 - 194
Simazine	91.1		P	67 - 121
Stirophos	73.6		P	20 - 142
Sulfentrazone	90.0		P	21 - 144
Tebuconazole	97.5		P	10 - 122
Terbufos	87.0		P	60 - 129
Terbutylazine	80.7		P	69 - 113
Tetradecachloro-m-terphenyl	88.1		P	70 - 200
Thiobencarb	96.3		P	51 - 120
Tri-o-cresyl Phosphate	117		P	49 - 150
Triadimefon	89.9		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	114		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	107		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	113		P	70 - 180

Reference Method: EPA 8321B

Batch ID: P433285

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.3		P	40 - 150
AMPA	127		P	40 - 150
Endothall	103		P	40 - 150
Glufosinate	99.2		P	40 - 150
Glyphosate	106		P	40 - 150
Sucralose	100		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P433321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.3		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P433321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	80.8		P	40 - 150
Acetaminophen	87.3		P	30 - 150
Acetamiprid	93.4		P	40 - 150
Afidopyropen	78.9		P	30 - 150
Bentazon	137		P	30 - 150
Benzovindiflupyr	88.3		P	40 - 150
Carbamazepine	66.2		P	40 - 150
Clothianidin	95.4		P	40 - 150
Dinotefuran	114		P	40 - 150
Diuron	63.2		P	40 - 150
Fenuron	94.7		P	40 - 150
Fluridone	102		P	40 - 150
Hydrocodone	97.6		P	40 - 150
Ibuprofen	72.2		P	40 - 150
Imazapyr	77.6		P	40 - 150
Imidacloprid	86.8		P	40 - 150
Linuron	73.7		P	40 - 150
Mandestrobin	95.5		P	40 - 150
MCPP	90.8		P	40 - 150
Naproxen	76.1		P	40 - 150
Primidone	79.2		P	40 - 150
Pyraclostrobin	71.5		P	40 - 150
Silvex	89.4		P	40 - 150
Thiamethoxam	99.0		P	40 - 150
Tolfenpyrad	44.3		P	30 - 150
Triclopyr	82.4		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P433394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427825	Calcium	102	104	P/P	80 - 120
2427825	Iron	105	106	P/P	80 - 120
2427825	Magnesium	104	105	P/P	80 - 120
2427825	Potassium	101	102	P/P	80 - 120
2427825	Sodium	102	104	P/P	80 - 120
2427825	Strontium	101	101	P/P	80 - 120
2427825	Tin	102	105	P/P	80 - 120
2427825	Titanium	101	102	P/P	80 - 120
2427825	Vanadium	102	103	P/P	80 - 120
2427825	Zinc	100	101	P/P	80 - 120
2428063	Calcium	103		P	80 - 120
2428063	Iron	107		P	80 - 120
2428063	Magnesium	105		P	80 - 120
2428063	Potassium	103		P	80 - 120
2428063	Sodium	102		P	80 - 120
2428063	Strontium	101		P	80 - 120
2428063	Tin	106		P	80 - 120
2428063	Titanium	103		P	80 - 120
2428063	Vanadium	103		P	80 - 120
2428063	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427825	Aluminum	95.8	97.5	P/P	80 - 120
2427825	Antimony	96.6	98.1	P/P	80 - 120
2427825	Arsenic	97.5	98.0	P/P	80 - 120
2427825	Barium	96.3	99.9	P/P	80 - 120
2427825	Beryllium	87.9	89.1	P/P	80 - 120
2427825	Boron	103	105	P/P	80 - 120
2427825	Cadmium	98.7	99.9	P/P	80 - 120
2427825	Chromium	95.3	97.5	P/P	80 - 120
2427825	Cobalt	99.9	102	P/P	80 - 120
2427825	Copper	105	102	P/P	80 - 120
2427825	Lead	96.5	98.8	P/P	80 - 120
2427825	Manganese	96.1	98.3	P/P	80 - 120
2427825	Molybdenum	99.3	100	P/P	80 - 120
2427825	Nickel	98.8	101	P/P	80 - 120
2427825	Selenium	91.0	93.5	P/P	80 - 120
2427825	Thallium	103	105	P/P	80 - 120
2428063	Aluminum	95.0		P	80 - 120
2428063	Antimony	99.7		P	80 - 120
2428063	Arsenic	98.2		P	80 - 120
2428063	Barium	98.5		P	80 - 120
2428063	Beryllium	91.4		P	80 - 120
2428063	Boron	104		P	80 - 120
2428063	Cadmium	102		P	80 - 120
2428063	Chromium	94.9		P	80 - 120
2428063	Cobalt	99.5		P	80 - 120
2428063	Copper	97.9		P	80 - 120
2428063	Lead	98.1		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428063	Manganese	95.1		P	80 - 120
2428063	Molybdenum	101		P	80 - 120
2428063	Nickel	97.7		P	80 - 120
2428063	Selenium	91.0		P	80 - 120
2428063	Thallium	106		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428843	Silver	108	110	P/P	80 - 120
2428959	Silver	112		P	80 - 120

Reference Method: EPA 8270E

Batch ID: P433263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427270	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	89.4	107	P/P	26 - 165
2427270	Acetochlor	77.4	73.5	P/P	67 - 124
2427270	Alachlor	70.7	72.1	P/P	60 - 120
2427270	Ametryn	105	104	P/P	54 - 216
2427270	Atrazine Desethyl	66.2	63.9	P/P	15 - 122
2427270	Avobenzone	109	131	P/P	37 - 178
2427270	Azinphos Methyl	113	117	P/P	40 - 292
2427270	Azoxystrobin	108	103	P/P	35 - 220
2427270	Bromacil	88.3	95.5	P/P	45 - 127
2427270	Butylate	46.2	50.1	P/P	20 - 83.0
2427270	Caffeine	65.4	64.1	P/P	10 - 194
2427270	Carbophenothion	83.0	90.1	P/P	57 - 127
2427270	Carfentrazone Ethyl	92.0	93.7	P/P	51 - 141
2427270	Chlorfenapyr	77.9	75.1	P/P	46 - 111
2427270	Chlorpyrifos Ethyl	85.1	79.4	P/P	52 - 120
2427270	Chlorpyrifos Methyl	75.9	80.4	P/P	63 - 119
2427270	Coumaphos	137	147	P/P	10 - 228
2427270	Cyanazine	101	108	P/P	59 - 241
2427270	Cyprodinil	52.2	61.8	P/P	47 - 146
2427270	Dechlorane 602	66.0	73.3	P/P	50 - 150
2427270	Dechlorane 603	94.8	110	P/P	50 - 150
2427270	Dechlorane Plus	77.2	86.6	P/P	50 - 150
2427270	Demeton	70.5	74.9	P/P	40 - 136
2427270	Diazinon	85.9	96.5	P/P	69 - 132
2427270	Difenoconazole	143	139	P/P	57 - 258
2427270	Dimethenamid	69.7	62.6	P/P	54 - 110
2427270	Dimethomorph	151	136	P/P	28 - 210
2427270	Disulfoton	86.3	94.9	P/P	43 - 133
2427270	Dithiopyr	76.6	75.7	P/P	39 - 116
2427270	EPTC	41.5	46.1	P/P	20 - 78.0
2427270	Ethion	48.5	50.7	P/P	17 - 119
2427270	Ethoprop	82.2	87.9	P/P	66 - 120
2427270	Etridiazole	47.5	47.9	P/P	28 - 96.0
2427270	Fenamiphos	60.3	62.2	P/P	41 - 126
2427270	Fenbuconazole	87.5	81.7	P/P	42 - 169

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P433263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427270	Fipronil	60.1	63.7	F/P	61 - 132
2427270	Fipronil Desulfinyl	62.5	66.7	P/P	56 - 132
2427270	Fipronil Sulfide	50.8	59.6	P/P	48 - 119
2427270	Fipronil Sulfone	51.7	57.1	P/P	42 - 131
2427270	Fluazifop-P-butyl	81.6	84.3	P/P	53 - 131
2427270	Fludioxonil	65.2	61.9	P/P	56 - 127
2427270	Flumioxazin	188	181	P/P	19 - 300
2427270	Flutolanil	55.1	56.1	P/P	41 - 127
2427270	Fluxapyroxad	68.0	69.5	P/P	42 - 172
2427270	Fonofos	79.3	79.4	P/P	59 - 113
2427270	Hexabromobenzene	108	125	P/P	50 - 150
2427270	Hexazinone	79.8	80.7	P/P	66 - 122
2427270	Imazalil	80.5	71.9	P/P	21 - 283
2427270	Iprodione	73.6	77.8	P/P	43 - 150
2427270	Loratadine	107	110	P/P	23 - 201
2427270	Malathion	116	123	P/P	58 - 136
2427270	Metalaxyl	71.4	78.4	P/P	55 - 120
2427270	Metolachlor	91.2	98.0	P/P	57 - 121
2427270	Metribuzin	87.8	90.2	P/P	58 - 294
2427270	Mevinphos	86.6	91.7	P/P	50 - 126
2427270	Molinate	47.4	50.0	P/P	42 - 93.0
2427270	Myclobutanil	76.6	76.1	P/P	55 - 125
2427270	Naled	59.5	69.4	P/P	18 - 200
2427270	Napropamide	69.5	69.6	P/P	39 - 110
2427270	Norflurazon	76.8	81.2	P/P	48 - 128
2427270	Octinoxate	129	141	P/P	21 - 159
2427270	Oxadiazon	71.9	76.1	P/P	43 - 112
2427270	Oxybenzone	111	124	P/P	41 - 142
2427270	Oxyfluorfen	88.2	89.8	P/P	64 - 153
2427270	Parathion Ethyl	80.7	87.1	P/P	69 - 114
2427270	Parathion Methyl	78.6	78.3	F/F	79 - 139
2427270	PBB-153	105	125	P/P	50 - 150
2427270	PBDE-47	93.0	107	P/P	27 - 144
2427270	PBDE-99	83.6	97.5	P/P	18 - 150
2427270	Pendimethalin	68.8	83.7	P/P	50 - 139
2427270	Pentabromotoluene	98.2	108	P/P	50 - 150
2427270	Phenytoin	131	142	P/P	10 - 146
2427270	Phorate	94.4	99.6	P/P	54 - 161
2427270	Prodiamine	35.2	32.8	P/P	30 - 161
2427270	Prometon	103	114	P/P	45 - 134
2427270	Prometryn	72.7	72.0	P/P	45 - 137
2427270	Pronamide	99.8	95.7	P/P	65 - 133
2427270	Propanil	108	103	P/P	49 - 142
2427270	Propargite	57.0	62.4	P/P	10 - 203
2427270	Propiconazole	67.2	82.8	P/P	38 - 146
2427270	Pyraflufen Ethyl	76.6	95.6	P/P	34 - 153
2427270	Pyridaben	55.7	70.3	P/P	12 - 192
2427270	Pyriproxyfen	69.7	79.0	P/P	33 - 180
2427270	Simazine	92.0	88.7	P/P	51 - 157
2427270	Stirophos	26.9	31.3	P/P	10 - 128
2427270	Sulfentrazone	70.0	76.3	P/P	53 - 186
2427270	Tebuconazole	48.1	55.4	P/P	10 - 133

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P433263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427270	Terbufos	95.8	97.5	P/P	65 - 139
2427270	Terbutylazine	74.0	76.2	P/P	66 - 117
2427270	Tetradecachloro-m-terphenyl	85.4	87.6	P/P	70 - 200
2427270	Thiobencarb	77.3	76.7	P/P	51 - 119
2427270	Tri-o-cresyl Phosphate	106	122	P/P	31 - 144
2427270	Triadimefon	73.0	70.5	P/P	48 - 119
2427270	Tris(1-chloro-2-propyl) phosphate (TCPP)	114	122	P/P	50 - 150
2427270	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	103	112	P/P	50 - 150
2427270	Tris(2-chloroethyl) phosphate (TCEP)	121	125	P/P	70 - 180

Reference Method: EPA 8321B

Batch ID: P433285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427498	Acesulfame K	115	117	P/P	40 - 150
2427498	AMPA	88.0	89.1	P/P	40 - 150
2427498	Endothall	112	111	P/P	40 - 150
2427498	Glufosinate	79.2	80.9	P/P	40 - 150
2427498	Glyphosate	81.4	96.2	P/P	40 - 150
2427498	Sucralose	97.1	105	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P433321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427704	2,4-D	88.2	95.9	P/P	40 - 150
2427704	2,4,5-T	90.9	102	P/P	40 - 150
2427704	Acetaminophen	104	98.3	P/P	30 - 150
2427704	Acetamiprid	71.7	70.5	P/P	40 - 150
2427704	Afidopyropen	75.4	75.7	P/P	30 - 150
2427704	Bentazon	159	153	F/F	30 - 150
2427704	Benzovindiflupyr	77.9	77.7	P/P	40 - 150
2427704	Carbamazepine	56.9	54.2	P/P	40 - 150
2427704	Clothianidin	115	102	P/P	40 - 150
2427704	Dinotefuran	104	86.7	P/P	40 - 150
2427704	Diuron	70.4	76.1	P/P	40 - 150
2427704	Fenuron	75.5	70.4	P/P	40 - 150
2427704	Fluridone	91.6	86.4	P/P	40 - 150
2427704	Hydrocodone	77.7	74.9	P/P	40 - 150
2427704	Ibuprofen	76.1	77.3	P/P	40 - 150
2427704	Imazapyr	83.6	85.1	P/P	40 - 150
2427704	Imidacloprid	124	120	P/P	40 - 150
2427704	Linuron	55.4	58.9	P/P	40 - 150
2427704	Mandestrobin	85.1	86.8	P/P	40 - 150
2427704	MCPP	97.6	103	P/P	40 - 150
2427704	Naproxen	62.7	70.6	P/P	40 - 150
2427704	Primidone	88.6	87.4	P/P	40 - 150
2427704	Pyraclostrobin	75.0	78.3	P/P	40 - 150
2427704	Silvex	108	101	P/P	40 - 150
2427704	Thiamethoxam	104	96.6	P/P	40 - 150
2427704	Tolfenpyrad	51.0	54.3	P/P	30 - 150
2427704	Triclopyr	91.4	94.2	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P433394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427825	Calcium	0.944	Spike	P	0 - 20
2427825	Iron	1.23	Spike	P	0 - 20
2427825	Magnesium	1.12	Spike	P	0 - 20
2427825	Potassium	0.954	Spike	P	0 - 20
2427825	Sodium	1.21	Spike	P	0 - 20
2427825	Strontium	0.850	Spike	P	0 - 20
2427825	Tin	2.71	Spike	P	0 - 20
2427825	Titanium	1.18	Spike	P	0 - 20
2427825	Vanadium	0.664	Spike	P	0 - 20
2427825	Zinc	0.838	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427825	Aluminum	1.49	Spike	P	0 - 20
2427825	Antimony	1.55	Spike	P	0 - 20
2427825	Arsenic	0.455	Spike	P	0 - 20
2427825	Barium	2.97	Spike	P	0 - 20
2427825	Beryllium	1.22	Spike	P	0 - 20
2427825	Boron	1.88	Spike	P	0 - 20
2427825	Cadmium	1.19	Spike	P	0 - 20
2427825	Chromium	2.24	Spike	P	0 - 20
2427825	Cobalt	2.49	Spike	P	0 - 20
2427825	Copper	2.73	Spike	P	0 - 20
2427825	Lead	2.41	Spike	P	0 - 20
2427825	Manganese	1.61	Spike	P	0 - 20
2427825	Molybdenum	0.926	Spike	P	0 - 20
2427825	Nickel	2.31	Spike	P	0 - 20
2427825	Selenium	2.71	Spike	P	0 - 20
2427825	Thallium	1.75	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428843	Silver	1.43	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P433263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427270	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	17.9	Spike	P	0 - 37
2427270	Acetochlor	5.09	Spike	P	0 - 28
2427270	Alachlor	1.87	Spike	P	0 - 30
2427270	Ametryn	0.882	Spike	P	0 - 32
2427270	Atrazine	1.74	Spike	P	0 - 41
2427270	Atrazine Desethyl	2.49	Spike	P	0 - 36

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P433263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427270	Avobenzone	18.4	Spike	P	0 - 36
2427270	Azinphos Methyl	3.37	Spike	P	0 - 75
2427270	Azoxystrobin	4.80	Spike	P	0 - 39
2427270	Bromacil	7.81	Spike	P	0 - 33
2427270	Butylate	8.06	Spike	P	0 - 44
2427270	Caffeine	0.581	Spike	P	0 - 74
2427270	Carbophenothion	8.22	Spike	P	0 - 25
2427270	Carfentrazone Ethyl	1.77	Spike	P	0 - 27
2427270	Chlorfenapyr	3.60	Spike	P	0 - 24
2427270	Chlorpyrifos Ethyl	6.96	Spike	P	0 - 26
2427270	Chlorpyrifos Methyl	5.78	Spike	P	0 - 26
2427270	Coumaphos	7.04	Spike	P	0 - 28
2427270	Cyanazine	6.21	Spike	P	0 - 48
2427270	Cyprodinil	16.9	Spike	P	0 - 29
2427270	Dechlorane 602	10.4	Spike	P	0 - 30
2427270	Dechlorane 603	15.1	Spike	P	0 - 30
2427270	Dechlorane Plus	11.5	Spike	P	0 - 30
2427270	Demeton	5.98	Spike	P	0 - 33
2427270	Diazinon	11.6	Spike	P	0 - 29
2427270	Difenoconazole	2.45	Spike	P	0 - 34
2427270	Dimethenamid	10.7	Spike	P	0 - 39
2427270	Dimethomorph	10.3	Spike	P	0 - 51
2427270	Disulfoton	9.43	Spike	P	0 - 30
2427270	Dithiopyr	1.21	Spike	P	0 - 26
2427270	EPTC	10.4	Spike	P	0 - 43
2427270	Ethion	4.39	Spike	P	0 - 79
2427270	Ethoprop	6.74	Spike	P	0 - 29
2427270	Etridiazole	0.688	Spike	P	0 - 33
2427270	Fenamiphos	3.12	Spike	P	0 - 40
2427270	Fenbuconazole	6.78	Spike	P	0 - 74
2427270	Fipronil	5.14	Spike	P	0 - 29
2427270	Fipronil Desulfinyl	4.24	Spike	P	0 - 32
2427270	Fipronil Sulfide	11.9	Spike	P	0 - 30
2427270	Fipronil Sulfone	5.29	Spike	P	0 - 33
2427270	Fluazifop-P-butyl	3.21	Spike	P	0 - 38
2427270	Fludioxonil	5.18	Spike	P	0 - 29
2427270	Flumioxazin	3.80	Spike	P	0 - 51
2427270	Flutolanil	1.74	Spike	P	0 - 25
2427270	Fluxapyroxad	2.17	Spike	P	0 - 45
2427270	Fonofos	0.132	Spike	P	0 - 27
2427270	Hexabromobenzene	14.9	Spike	P	0 - 30
2427270	Hexazinone	1.12	Spike	P	0 - 30
2427270	Imazalil	11.2	Spike	P	0 - 100
2427270	Iprodione	5.50	Spike	P	0 - 33
2427270	Loratadine	2.46	Spike	P	0 - 56
2427270	Malathion	5.64	Spike	P	0 - 37
2427270	Metalaxyl	9.31	Spike	P	0 - 40
2427270	Metolachlor	7.18	Spike	P	0 - 29
2427270	Metribuzin	2.60	Spike	P	0 - 45
2427270	Mevinphos	5.71	Spike	P	0 - 29
2427270	Molinate	5.31	Spike	P	0 - 33

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P433263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427270	Myclobutanil	0.609	Spike	P	0 - 26
2427270	Naled	15.4	Spike	P	0 - 37
2427270	Napropamide	0.112	Spike	P	0 - 44
2427270	Norflurazon	5.54	Spike	P	0 - 30
2427270	Octinoxate	8.74	Spike	P	0 - 45
2427270	Oxadiazon	5.65	Spike	P	0 - 28
2427270	Oxybenzone	11.3	Spike	P	0 - 46
2427270	Oxyfluorfen	1.80	Spike	P	0 - 28
2427270	Parathion Ethyl	7.63	Spike	P	0 - 31
2427270	Parathion Methyl	0.362	Spike	P	0 - 29
2427270	PBB-153	17.2	Spike	P	0 - 30
2427270	PBDE-47	13.7	Spike	P	0 - 36
2427270	PBDE-99	15.3	Spike	P	0 - 40
2427270	Pendimethalin	19.6	Spike	P	0 - 33
2427270	Pentabromotoluene	9.76	Spike	P	0 - 30
2427270	Phenytoin	8.36	Spike	P	0 - 100
2427270	Phorate	5.39	Spike	P	0 - 36
2427270	Prodiamine	7.23	Spike	P	0 - 71
2427270	Prometon	10.6	Spike	P	0 - 36
2427270	Prometryn	0.996	Spike	P	0 - 28
2427270	Pronamide	4.17	Spike	P	0 - 24
2427270	Propanil	4.18	Spike	P	0 - 28
2427270	Propargite	9.12	Spike	P	0 - 43
2427270	Propiconazole	12.5	Spike	P	0 - 33
2427270	Pyraflufen Ethyl	22.1	Spike	P	0 - 29
2427270	Pyridaben	6.61	Spike	P	0 - 30
2427270	Pyriproxyfen	12.5	Spike	P	0 - 79
2427270	Simazine	3.65	Spike	P	0 - 29
2427270	Stirophos	14.9	Spike	P	0 - 61
2427270	Sulfentrazone	8.59	Spike	P	0 - 33
2427270	Tebuconazole	11.2	Spike	P	0 - 69
2427270	Terbufos	1.74	Spike	P	0 - 29
2427270	Terbuthylazine	2.96	Spike	P	0 - 32
2427270	Tetradecachloro-m-terphenyl	2.51	Spike	P	0 - 30
2427270	Thiobencarb	0.705	Spike	P	0 - 26
2427270	Tri-o-cresyl Phosphate	13.4	Spike	P	0 - 33
2427270	Triadimefon	3.38	Spike	P	0 - 28
2427270	Tris(1-chloro-2-propyl) phosphate (TCPP)	5.40	Spike	P	0 - 30
2427270	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	8.33	Spike	P	0 - 30
2427270	Tris(2-chloroethyl) phosphate (TCEP)	2.93	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P433285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427498	Acesulfame K	1.58	Spike	P	0 - 30
2427498	AMPA	1.28	Spike	P	0 - 30
2427498	Endothall	1.33	Spike	P	0 - 30
2427498	Glufosinate	2.13	Spike	P	0 - 30
2427498	Glyphosate	16.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P433285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427498	Sucralose	7.95	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P433321

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427704	2,4-D	8.37	Spike	P	0 - 30
2427704	2,4,5-T	11.7	Spike	P	0 - 30
2427704	Acetaminophen	5.21	Spike	P	0 - 30
2427704	Acetamiprid	1.59	Spike	P	0 - 30
2427704	Afidopyropen	0.494	Spike	P	0 - 30
2427704	Bentazon	3.94	Spike	P	0 - 30
2427704	Benzovindiflupyr	0.209	Spike	P	0 - 30
2427704	Carbamazepine	4.86	Spike	P	0 - 30
2427704	Clothianidin	12.0	Spike	P	0 - 30
2427704	Dinotefuran	17.7	Spike	P	0 - 30
2427704	Diuron	7.77	Spike	P	0 - 30
2427704	Fenuron	7.00	Spike	P	0 - 30
2427704	Fluridone	5.83	Spike	P	0 - 30
2427704	Hydrocodone	3.60	Spike	P	0 - 30
2427704	Ibuprofen	1.65	Spike	P	0 - 30
2427704	Imazapyr	1.53	Spike	P	0 - 30
2427704	Imidacloprid	3.22	Spike	P	0 - 30
2427704	Linuron	6.05	Spike	P	0 - 30
2427704	Mandestrobin	2.00	Spike	P	0 - 30
2427704	MCP	5.49	Spike	P	0 - 30
2427704	Naproxen	11.9	Spike	P	0 - 30
2427704	Primidone	1.33	Spike	P	0 - 30
2427704	Pyraclostrobin	4.30	Spike	P	0 - 30
2427704	Silvex	6.40	Spike	P	0 - 30
2427704	Thiamethoxam	7.56	Spike	P	0 - 30
2427704	Tolfenpyrad	6.16	Spike	P	0 - 30
2427704	Triclopyr	3.01	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2427774
Field Sample ID: G2SW0169

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	39.8	P	30 - 160
EPA 8321B	Diuron-d6	32.2	P	30 - 160
EPA 8321B	Endothall-d6	115	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	118	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.1	P	30 - 160
EPA 8321B	Primidone-d5	48.1	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160

Lab Sample ID: 2427777
Field Sample ID: G2SW0115

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	79.1	P	20 - 200
EPA 8270E	Simazine-d10	85.3	P	62 - 142
EPA 8270E	Terbufos-d10	91.2	P	58 - 132
EPA 8270E	Terphenyl-d14	85.1	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120811
Included Lab Sample IDs: 2427774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	70.9	99.5	P/P	60 - 160
Endothall	90.7	90.8	P/P	60 - 160
Glufosinate	86.0	89.8	P/P	60 - 160
Glyphosate	97.8	98.4	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A120812
Included Lab Sample IDs: 2427774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	105	104	P/P	60 - 160
Sucralose	96.6	105	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A120863
Included Lab Sample IDs: 2427775, 2427776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.8	97.3	P/P	90 - 110
Antimony	96.2	97.1	P/P	90 - 110
Arsenic	97.7	98.1	P/P	90 - 110
Barium	94.4	95.8	P/P	90 - 110
Beryllium	92.2	92.2	P/P	90 - 110
Boron	98.4	100	P/P	90 - 110
Cadmium	98.2	99.3	P/P	90 - 110
Chromium	96.5	98.8	P/P	90 - 110
Cobalt	101	102	P/P	90 - 110
Copper	99.0	99.6	P/P	90 - 110
Lead	95.9	97.0	P/P	90 - 110
Manganese	97.4	100	P/P	90 - 110
Molybdenum	98.8	99.1	P/P	90 - 110
Nickel	99.1	99.9	P/P	90 - 110
Selenium	97.3	95.9	P/P	90 - 110
Thallium	102	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A120873
Included Lab Sample IDs: 2427775, 2427776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	100	102	P/P	90 - 110
Potassium	99.3	101	P/P	90 - 110
Sodium	100	102	P/P	90 - 110
Strontium	101	99.6	P/P	90 - 110
Tin	101	101	P/P	90 - 110
Titanium	101	100	P/P	90 - 110
Vanadium	101	99.7	P/P	90 - 110
Zinc	100	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A120910
Included Lab Sample IDs: 2427777

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	89.8		P	80 - 120
Avobenzene	85.2		P	80 - 120
Dechlorane 602	97.2		P	80 - 120
Dechlorane 603	94.6		P	80 - 120
Dechlorane Plus	92.6		P	80 - 120
Hexabromobenzene	90.1		P	80 - 120
Octinoxate	92.2		P	80 - 120
Oxybenzone	95.1		P	80 - 120
PBB-153	91.2		P	80 - 120
PBDE-47	91.4		P	80 - 120
PBDE-99	95.8		P	80 - 120
Pentabromotoluene	94.5		P	80 - 120
Tetradecachloro-m-terphenyl	82.7		P	80 - 120
Tri-o-cresyl Phosphate	94.0		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	95.2		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	94.5		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	95.1		P	80 - 120

Reference Method: EPA 8321B
Run ID: A120922
Included Lab Sample IDs: 2427774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.5	93.9	P/P	50 - 150
2,4,5-T	96.8	94.5	P/P	50 - 150
Acetaminophen	113	108	P/P	60 - 160
Acetamiprid	112	107	P/P	50 - 150
Afidopyropen	118	119	P/P	50 - 150
Bentazon	100	108	P/P	50 - 160
Benzovindiflupyr	112	105	P/P	50 - 150
Carbamazepine	104	108	P/P	60 - 150
Clothianidin	121	104	P/P	60 - 150
Dinotefuran	114	125	P/P	50 - 150
Diuron	114	112	P/P	60 - 160
Fenuron	107	105	P/P	60 - 150
Fluridone	126	108	P/P	60 - 160
Hydrocodone	115	110	P/P	60 - 150
Ibuprofen	109	97.1	P/P	50 - 160
Imazapyr	95.6	93.1	P/P	50 - 150
Imidacloprid	98.6	98.2	P/P	60 - 150
Linuron	88.6	92.4	P/P	60 - 150
Mandestrobin	106	111	P/P	50 - 150
MCPP	91.7	89.9	P/P	50 - 150
Naproxen	50.7	123	P/P	50 - 160
Primidone	95.6	100	P/P	60 - 150
Pyraclostrobin	107	105	P/P	60 - 150
Silvex	95.3	88.7	P/P	50 - 150
Thiamethoxam	106	103	P/P	50 - 150
Tolfenpyrad	99.3	104	P/P	60 - 150
Triclopyr	100	88.3	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120955

Included Lab Sample IDs: 2427775, 2427776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	96.7	98.6	P/P	90 - 110
Silver	98.6	99.4	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A120986

Included Lab Sample IDs: 2427777

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	89.1		P	80 - 120
Alachlor	86.0		P	80 - 120
Ametryn	94.5		P	80 - 120
Atrazine	97.9		P	80 - 120
Atrazine Desethyl	94.5		P	80 - 120
Azinphos Methyl	105		P	80 - 120
Azoxystrobin	96.0		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	99.4		P	80 - 120
Caffeine	95.5		P	80 - 120
Carbophenothion	100		P	80 - 120
Carfentrazone Ethyl	95.8		P	80 - 120
Chlorfenapyr	101		P	80 - 120
Chlorpyrifos Ethyl	87.4		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Coumaphos	113		P	80 - 120
Cyanazine	103		P	80 - 120
Cyprodinil	96.2		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	100		P	80 - 120
Difenoconazole	105		P	80 - 120
Dimethenamid	97.1		P	80 - 120
Dimethomorph	92.4		P	80 - 120
Disulfoton	100		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	101		P	80 - 120
Ethion	90.5		P	80 - 120
Ethoprop	105		P	80 - 120
Etridiazole	95.6		P	80 - 120
Fenamiphos	99.2		P	80 - 120
Fenbuconazole	91.6		P	80 - 120
Fipronil	90.6		P	80 - 120
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	103		P	80 - 120
Fipronil Sulfone	104		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	94.6		P	80 - 120
Flumioxazin	106		P	80 - 120
Flutolanil	96.6		P	80 - 120
Fluxapyroxad	103		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	98.1		P	80 - 120
Imazalil	97.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A120986
 Included Lab Sample IDs: 2427777

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iprodione	90.2		P	80 - 120
Loratadine	86.2		P	80 - 120
Malathion	103		P	80 - 120
Metalaxyl	87.5		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	96.1		P	80 - 120
Mevinphos	99.9		P	80 - 120
Molinate	88.1		P	80 - 120
Myclobutanil	88.1		P	80 - 120
Naled	104		P	80 - 120
Napropamide	97.8		P	80 - 120
Norflurazon	103		P	80 - 120
Oxadiazon	100		P	80 - 120
Oxyfluorfen	105		P	80 - 120
Parathion Ethyl	96.9		P	80 - 120
Parathion Methyl	88.2		P	80 - 120
Pendimethalin	101		P	80 - 120
Phenytoin	101		P	80 - 120
Phorate	114		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	91.8		P	80 - 120
Prometryn	94.5		P	80 - 120
Pronamide	105		P	80 - 120
Propanil	103		P	80 - 120
Propargite	108		P	80 - 120
Propiconazole	85.7		P	80 - 120
Pyraflufen Ethyl	99.0		P	80 - 120
Pyridaben	106		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	90.9		P	80 - 120
Stirophos	88.8		P	80 - 120
Sulfentrazone	86.3		P	80 - 120
Tebuconazole	104		P	80 - 120
Terbufos	94.4		P	80 - 120
Terbuthylazine	87.7		P	80 - 120
Thiobencarb	99.2		P	80 - 120
Triadimefon	92.6		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
EPA 200.7 Rev. 4.4	Calcium	104	102	104	103			0.944
	Iron	107	106	107	105			1.23
	Magnesium	106	104	105	105			1.12
	Potassium	102	101	102	103			0.954
	Sodium	104	102	104	102			1.21
	Strontium	100	101	101	101			0.850
	Tin	104	102	105	106			2.71
	Titanium	102	101	102	103			1.18
	Vanadium	101	102	103	103			0.664
	Zinc	100	100	101	102			0.838
EPA 200.8 Rev. 5.4	Aluminum	98.3	95.8	97.5	95.0			1.49
	Antimony	96.8	96.6	98.1	99.7			1.55
	Arsenic	98.6	97.5	98.0	98.2			0.455
	Barium	97.7	96.3	99.9	98.5			2.97
	Beryllium	90.0	87.9	89.1	91.4			1.22
	Boron	106	105	104	103			1.88
	Cadmium	98.9	98.7	99.9	102			1.19
	Chromium	95.0	95.3	97.5	94.9			2.24
	Cobalt	104	99.9	102	99.5			2.49
	Copper	101	105	102	97.9			2.73
	Lead	96.6	96.5	98.8	98.1			2.41
	Manganese	96.1	96.1	98.3	95.1			1.61
	Molybdenum	98.9	99.3	100	101			0.926
	Nickel	103	98.8	101	97.7			2.31
	Selenium	94.1	91.0	93.5	91.0			2.71
	Silver	112	108	110	112			1.43
	Thallium	102	103	105	106			1.75
	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	106	89.4	107				17.9
EPA 8270E	Acetochlor	88.1	77.4	73.5				5.09
	Alachlor	92.0	70.7	72.1				1.87
	Ametryn	104	105	104				0.882
	Atrazine	88.8						1.74
	Atrazine Desethyl	84.6	66.2	63.9				2.49
	Avobenzone	124	109	131				18.4
	Azinphos Methyl	122	113	117				3.37
	Azoxystrobin	90.8	108	103				4.80
	Bromacil	98.7	88.3	95.5				7.81
	Butylate	32.0	46.2	50.1				8.06
	Caffeine	82.4	65.4	64.1				0.581
	Carbophenothion	101	83.0	90.1				8.22
	Carfentrazone Ethyl	113	92.0	93.7				1.77
	Chlorfenapyr	92.8	77.9	75.1				3.60
	Chlorpyrifos Ethyl	84.7	85.1	79.4				6.96
	Chlorpyrifos Methyl	91.9	75.9	80.4				5.78
	Coumaphos	167	137	147				7.04
	Cyanazine	111	101	108				6.21
	Cyprodinil	82.9	52.2	61.8				16.9
	Dechlorane 602	107	66.0	73.3				10.4
	Dechlorane 603	122	94.8	110				15.1
	Dechlorane Plus	113	77.2	86.6				11.5
	Demeton	58.1	70.5	74.9				5.98
	Diazinon	93.8	85.9	96.5				11.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Difenoconazole	159	143	139			2.45
	Dimethenamid	83.4	69.7	62.6			10.7
	Dimethomorph	81.8	151	136			10.3
	Disulfoton	92.7	86.3	94.9			9.43
	Dithiopyr	94.4	76.6	75.7			1.21
	EPTC	30.3	41.5	46.1			10.4
	Ethion	93.8	48.5	50.7			4.39
	Ethoprop	79.6	82.2	87.9			6.74
	Etridiazole	33.5	47.5	47.9			0.688
	Fenamiphos	97.6	60.3	62.2			3.12
	Fenbuconazole	101	87.5	81.7			6.78
	Fipronil	81.5	60.1	63.7			5.14
	Fipronil Desulfinyl	91.2	62.5	66.7			4.24
	Fipronil Sulfide	84.5	50.8	59.6			11.9
	Fipronil Sulfone	98.9	51.7	57.1			5.29
	Fluazifop-P-butyl	105	81.6	84.3			3.21
	Fludioxonil	78.5	65.2	61.9			5.18
	Flumioxazin	179	188	181			3.80
	Flutolanil	81.0	55.1	56.1			1.74
	Fluxapyroxad	100	68.0	69.5			2.17
	Fonofos	76.2	79.3	79.4			0.132
	Hexabromobenzene	107	108	125			14.9
	Hexazinone	96.7	79.8	80.7			1.12
	Imazalil	108	80.5	71.9			11.2
	Iprodione	97.8	73.6	77.8			5.50
	Loratadine	65.5	107	110			2.46
	Malathion	127	116	123			5.64
	Metalaxyl	87.2	71.4	78.4			9.31
	Metolachlor	105	91.2	98.0			7.18
	Metribuzin	94.7	87.8	90.2			2.60
	Mevinphos	67.9	86.6	91.7			5.71
	Molinate	32.8	47.4	50.0			5.31
	Myclobutanil	90.5	76.6	76.1			0.609
	Naled	56.6	59.5	69.4			15.4
	Napropamide	84.9	69.5	69.6			0.112
	Norflurazon	95.4	76.8	81.2			5.54
	Octinoxate	122	129	141			8.74
	Oxadiazon	84.4	71.9	76.1			5.65
	Oxybenzone	105	111	124			11.3
	Oxyfluorfen	103	88.2	89.8			1.80
	Parathion Ethyl	86.9	80.7	87.1			7.63
	Parathion Methyl	87.5	78.6	78.3			0.362
	PBB-153	119	105	125			17.2
	PBDE-47	111	93.0	107			13.7
	PBDE-99	111	83.6	97.5			15.3
	Pendimethalin	89.5	68.8	83.7			19.6
	Pentabromotoluene	97.0	98.2	108			9.76
	Phenytoin	141	131	142			8.36
	Phorate	81.2	94.4	99.6			5.39
	Prodiamine	42.8	35.2	32.8			7.23
	Prometon	82.8	103	114			10.6
	Prometryn	90.4	72.7	72.0			0.996
	Pronamide	108	99.8	95.7			4.17
	Propanil	118	108	103			4.18

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Propargite	121	57.0	62.4			9.12
	Propiconazole	95.4	67.2	82.8			12.5
	Pyraflufen Ethyl	101	76.6	95.6			22.1
	Pyridaben	143	55.7	70.3			6.61
	Pyriproxyfen	106	69.7	79.0			12.5
	Simazine	91.1	92.0	88.7			3.65
	Stirophos	73.6	26.9	31.3			14.9
	Sulfentrazone	90.0	70.0	76.3			8.59
	Tebuconazole	97.5	48.1	55.4			11.2
	Terbufos	87.0	95.8	97.5			1.74
	Terbutylazine	80.7	74.0	76.2			2.96
	Tetradecachloro-m-terphenyl	88.1	85.4	87.6			2.51
	Thiobencarb	96.3	77.3	76.7			0.705
	Tri-o-cresyl Phosphate	117	106	122			13.4
	Triadimefon	89.9	73.0	70.5			3.38
	Tris(1-chloro-2-propyl) phosphate (TCPP)	114	114	122			5.40
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	107	103	112			8.33
	Tris(2-chloroethyl) phosphate (TCEP)	113	121	125			2.93
EPA 8321B	2,4-D	83.3	88.2	95.9			8.37
	2,4,5-T	80.8	90.9	102			11.7
	Acesulfame K	99.3	115	117			1.58
	Acetaminophen	87.3	104	98.3			5.21
	Acetamiprid	93.4	71.7	70.5			1.59
	Afidopyropen	78.9	75.4	75.7			0.494
	AMPA	127	88.0	89.1			1.28
	Bentazon	137	159	153			3.94
	Benzovindiflupyr	88.3	77.9	77.7			0.209
	Carbamazepine	66.2	56.9	54.2			4.86
	Clothianidin	95.4	115	102			12.0
	Dinotefuran	114	104	86.7			17.7
	Diuron	63.2	70.4	76.1			7.77
	Endothall	103	112	111			1.33
	Fenuron	94.7	75.5	70.4			7.00
	Fluridone	102	91.6	86.4			5.83
	Glufosinate	99.2	79.2	80.9			2.13
	Glyphosate	106	81.4	96.2			16.7
	Hydrocodone	97.6	77.7	74.9			3.60
	Ibuprofen	72.2	76.1	77.3			1.65
	Imazapyr	77.6	83.6	85.1			1.53
	Imidacloprid	86.8	124	120			3.22
	Linuron	73.7	55.4	58.9			6.05
	Mandestrobin	95.5	85.1	86.8			2.00
	MCPP	90.8	97.6	103			5.49
	Naproxen	76.1	62.7	70.6			11.9
	Primidone	79.2	88.6	87.4			1.33
	Pyraclostrobin	71.5	75.0	78.3			4.30
	Silvex	89.4	108	101			6.40
	Sucralose	100	97.1	105			7.95
	Thiamethoxam	99.0	104	96.6			7.56
	Tolfenpyrad	44.3	51.0	54.3			6.16
	Triclopyr	82.4	91.4	94.2			3.01

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2427775, 2427776
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2427775, 2427776
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2427777
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2427777
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2427774
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2427775, 2427776

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 200.7 Rev. 4.4	08/01/2023	08/03/2023 13:05	George D Taylor	08/04/2023 17:17	Samatha Luckman	2427775
	08/01/2023	08/03/2023 13:05	George D Taylor	08/04/2023 17:25	Samatha Luckman	2427776
EPA 200.8 Rev. 5.4	08/01/2023	08/03/2023 13:05	George D Taylor	08/04/2023 20:22	Emily M Philpot	2427775
	08/01/2023	08/03/2023 13:05	George D Taylor	08/04/2023 20:31	Emily M Philpot	2427776
	08/01/2023	08/08/2023 11:55	George D Taylor	08/09/2023 15:31	Emily M Philpot	2427775
	08/01/2023	08/08/2023 11:55	George D Taylor	08/09/2023 16:38	Emily M Philpot	2427776
	08/01/2023	08/02/2023 09:00	Rasheda Ghaffari	08/09/2023 01:07	Arthur Maknenko	2427777
EPA 8270E	08/01/2023	08/02/2023 09:00	Rasheda Ghaffari	08/09/2023 19:50	Vandana T. Nagar	2427777
EPA 8321B	08/01/2023	08/02/2023 08:00	Tae K Lee	08/02/2023 14:02	Hana Lee	2427774
	08/01/2023	08/02/2023 08:00	Tae K Lee	08/03/2023 07:35	Hana Lee	2427774
	08/01/2023	08/03/2023 13:00	Hoor Shaik	08/05/2023 06:02	Juyoung Kim	2427774
SM 2340 B-2011	08/01/2023			08/04/2023 17:17	Samatha Luckman	2427775
	08/01/2023			08/04/2023 17:25	Samatha Luckman	2427776