

Chemical Analysis Report

SW-DIST-2021-01-08-02

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

Event Description: **SCIs**
Request ID: **RQ-2021-01-04-46**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 25-JAN-2021 11:57

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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 group are included in this report: 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: Mizelle Creek in Park

Collection Date/Time: 01/07/2021 11:30

Field ID: G2SW0131

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2217805	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P392242	
		2,4-D	0.0020	U	ug/L	P392144	
		AMPA**	1.0	U	ug/L	P392242	
		Sucralose**	0.12		ug/L	P392242	
		Acetaminophen**	0.0080	U	ug/L	P392144	
		Endothall**	0.25	U	ug/L	P392242	
		Acetamiprid**	0.0020	U	ug/L	P392144	
		Glufosinate**	1.0	U	ug/L	P392242	
		Glyphosate**	1.0	U	ug/L	P392242	
		Afidopyropen**	0.0020	U	ug/L	P392144	
		Bentazon	8.0E-04	U	ug/L	P392144	
		Benzovindiflupyr**	0.0020	U	ug/L	P392144	
		Carbamazepine**	8.0E-04	U	ug/L	P392144	
		Clothianidin**	0.0020	U	ug/L	P392144	
		Dinotefuran**	0.0020	U	ug/L	P392144	
		Diuron	0.0020	U	ug/L	P392144	
		Fenuron	0.016	U	ug/L	P392144	
		Fluridone**	8.0E-04	U	ug/L	P392144	
		Imazapyr**	0.13		ug/L	P392144	
		Hydrocodone**	0.0020	U	ug/L	P392144	
		Ibuprofen**	0.020	U	ug/L	P392144	
		Imidacloprid	0.0020	U	ug/L	P392144	
		Linuron	0.0040	U	ug/L	P392144	
		Mandestrobin**	0.0020	U	ug/L	P392144	
		MCPP	0.0020	U	ug/L	P392144	
		Naproxen**	0.0080	U	ug/L	P392144	
		Primidone**	0.0040	U	ug/L	P392144	
		Pyraclostrobin**	0.0020	U	ug/L	P392144	
		Thiamethoxam**	0.0020	U	ug/L	P392144	
		Tolfenpyrad**	0.0020	U	ug/L	P392144	
		Triclopyr**	0.0040	U	ug/L	P392144	
2217807	EPA 8270E	Acetochlor	0.26	U	ng/L	P392107	
		Alachlor	0.26	U	ng/L	P392107	
		Ametryn	0.63	U	ng/L	P392107	
		Atrazine	0.26	U	ng/L	P392107	
		Atrazine Desethyl	1.6	U	ng/L	P392107	
		Azinphos Methyl	2.1	UJ	ng/L	P392107	CCV, LCS, MS
		Azoxystrobin**	0.52	U	ng/L	P392107	
		Bromacil	34		ng/L	P392107	
		Butylate	0.42	U	ng/L	P392107	
		Carbophenothion	0.52	U	ng/L	P392107	
		Carfentrazone Ethyl**	0.10	U	ng/L	P392107	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P392107	

Field ID: G2SW0131

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2217807	EPA 8270E	Chlorpyrifos Methyl	0.052	U	ng/L	P392107	
		Cyanazine	3.4	U	ng/L	P392107	
		Demeton	1.6	U	ng/L	P392107	
		Diazinon	0.13	U	ng/L	P392107	
		Difenoconazole**	0.63	U	ng/L	P392107	
		Dimethenamid**	0.10	U	ng/L	P392107	
		Disulfoton	0.52	U	ng/L	P392107	
		Dithiopyr**	0.18	U	ng/L	P392107	
		EPTC	1.3	U	ng/L	P392107	
		Ethion	0.16	U	ng/L	P392107	
		Ethoprop	0.10	U	ng/L	P392107	
		Fenamiphos	0.52	U	ng/L	P392107	
		Fenbuconazole**	0.13	U	ng/L	P392107	
		Fipronil	0.26	U	ng/L	P392107	
		Fipronil Desulfinyl**	0.13	U	ng/L	P392107	
		Fipronil Sulfide	0.16	U	ng/L	P392107	
		Fipronil Sulfone	0.16	U	ng/L	P392107	
		Fluazifop-P-butyl**	0.10	U	ng/L	P392107	
		Fludioxonil**	0.13	U	ng/L	P392107	
		Flumioxazin**	1.8	UJ	ng/L	P392107	CCV
		Flutolanil**	0.10	U	ng/L	P392107	
		Fluxapyroxad**	0.10	U	ng/L	P392107	RPD
		Fonofos	0.21	U	ng/L	P392107	
		Hexazinone	0.84	I	ng/L	P392107	
		Imazalil**	0.79	U	ng/L	P392107	
		Iprodione**	0.63	U	ng/L	P392107	
		Malathion	0.37	U	ng/L	P392107	
		Metalaxyl	2.7	I	ng/L	P392107	
		Metolachlor	0.37	U	ng/L	P392107	
		Metribuzin	3.4	U	ng/L	P392107	
		Mevinphos	1.1	U	ng/L	P392107	
		Molinate	0.31	U	ng/L	P392107	
		Myclobutanil**	0.26	U	ng/L	P392107	
		Naled**	1.6	U	ng/L	P392107	
		Norflurazon	3.0		ng/L	P392107	
		Oxadiazon	0.31	U	ng/L	P392107	
		Oxyfluorfen**	0.16	U	ng/L	P392107	
		Parathion Ethyl	0.26	U	ng/L	P392107	
		Parathion Methyl	0.58	U	ng/L	P392107	
		Pendimethalin	1.0	U	ng/L	P392107	
		Phorate	0.55	U	ng/L	P392107	
		Prodiamine**	0.18	U	ng/L	P392107	RPD
		Prometon	0.94	U	ng/L	P392107	
		Prometryn	0.21	U	ng/L	P392107	
		Pronamide**	0.16	U	ng/L	P392107	

Field ID: G2SW0131

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2217807	EPA 8270E	Propiconazole**	0.52	U	ng/L	P392107	CCV, LCS, MS
		Pyriproxyfen**	0.13	UJ	ng/L	P392107	
		Simazine	0.52	U	ng/L	P392107	
		Sulfentrazone**	0.52	U	ng/L	P392107	
		Tebuconazole**	0.52	U	ng/L	P392107	
		Terbufos	0.10	U	ng/L	P392107	
		Terbuthylazine	0.45	U	ng/L	P392107	

Ref. Method and Comment:

EPA 8321B: MDL for some parameters elevated due to matrix interference.

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Owens Branch in Park

Collection Date/Time: 01/07/2021 12:00

Field ID: G2SW0132

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2217806	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P392242	
		2,4-D	0.0020	U	ug/L	P392144	
		AMPA**	1.0	U	ug/L	P392242	
		Sucralose**	0.053		ug/L	P392242	
		Acetaminophen**	0.0080	U	ug/L	P392144	
		Endothall**	0.25	U	ug/L	P392242	
		Acetamiprid**	0.0020	U	ug/L	P392144	
		Glufosinate**	1.0	U	ug/L	P392242	
		Glyphosate**	1.0	U	ug/L	P392242	
		Afidopyropen**	0.0020	U	ug/L	P392144	
		Bentazon	8.0E-04	U	ug/L	P392144	
		Benzovindiflupyr**	0.0020	U	ug/L	P392144	
		Carbamazepine**	8.0E-04	U	ug/L	P392144	
		Clothianidin**	0.013		ug/L	P392144	
		Dinotefuran**	0.0020	U	ug/L	P392144	
		Diuron	0.0020	U	ug/L	P392144	
		Fenuron	0.016	U	ug/L	P392144	
		Fluridone**	8.0E-04	U	ug/L	P392144	
		Imazapyr**	0.25		ug/L	P392144	
		Hydrocodone**	0.0020	U	ug/L	P392144	
		Ibuprofen**	0.020	U	ug/L	P392144	
		Imidacloprid	0.016		ug/L	P392144	
		Linuron	0.0040	U	ug/L	P392144	
		Mandestrobin**	0.0020	U	ug/L	P392144	
		MCPP	0.0020	U	ug/L	P392144	
		Naproxen**	0.0080	U	ug/L	P392144	
		Primidone**	0.0040	U	ug/L	P392144	
		Pyraclostrobin**	0.0020	U	ug/L	P392144	
		Thiamethoxam**	0.037		ug/L	P392144	
		Tolfenpyrad**	0.0020	U	ug/L	P392144	
		Triclopyr**	0.0040	U	ug/L	P392144	
2217808	EPA 8270E	Acetochlor	0.25	U	ng/L	P392107	
		Alachlor	0.25	U	ng/L	P392107	
		Ametryn	0.59	U	ng/L	P392107	
		Atrazine	0.25	U	ng/L	P392107	
		Atrazine Desethyl	1.5	U	ng/L	P392107	
		Azinphos Methyl	2.0	UJ	ng/L	P392107	CCV, LCS, MS
		Azoxystrobin**	0.49	U	ng/L	P392107	
		Bromacil	52		ng/L	P392107	
		Butylate	0.40	U	ng/L	P392107	
		Carbophenothion	0.49	U	ng/L	P392107	
		Carfentrazone Ethyl**	0.099	U	ng/L	P392107	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P392107	

Field ID: G2SW0132

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2217808	EPA 8270E	Chlorpyrifos Methyl	0.049	U	ng/L	P392107	
		Cyanazine	3.2	U	ng/L	P392107	
		Demeton	1.5	U	ng/L	P392107	
		Diazinon	0.12	U	ng/L	P392107	
		Difenoconazole**	0.59	U	ng/L	P392107	
		Dimethenamid**	0.099	U	ng/L	P392107	
		Disulfoton	0.49	U	ng/L	P392107	
		Dithiopyr**	0.17	U	ng/L	P392107	
		EPTC	1.2	U	ng/L	P392107	
		Ethion	0.15	U	ng/L	P392107	
		Ethoprop	0.099	U	ng/L	P392107	
		Fenamiphos	0.49	U	ng/L	P392107	
		Fenbuconazole**	0.12	U	ng/L	P392107	
		Fipronil	0.25	U	ng/L	P392107	
		Fipronil Desulfinyl**	0.12	U	ng/L	P392107	
		Fipronil Sulfide	0.15	U	ng/L	P392107	
		Fipronil Sulfone	0.15	U	ng/L	P392107	
		Fluazifop-P-butyl**	0.099	U	ng/L	P392107	
		Fludioxonil**	2.1		ng/L	P392107	
		Flumioxazin**	1.7	UJ	ng/L	P392107	CCV
		Flutolanil**	0.099	U	ng/L	P392107	
		Fluxapyroxad**	1.3		ng/L	P392107	RPD
		Fonofos	0.20	U	ng/L	P392107	
		Hexazinone	0.49	U	ng/L	P392107	
		Imazalil**	0.74	U	ng/L	P392107	
		Iprodione**	0.59	U	ng/L	P392107	
		Malathion	1.9		ng/L	P392107	
		Metalaxyl	14		ng/L	P392107	
		Metolachlor	0.51	I	ng/L	P392107	
		Metribuzin	3.2	U	ng/L	P392107	
		Mevinphos	1.0	U	ng/L	P392107	
		Molinate	0.30	U	ng/L	P392107	
		Myclobutanil**	0.25	U	ng/L	P392107	
		Naled**	1.5	U	ng/L	P392107	
		Norflurazon	10		ng/L	P392107	
		Oxadiazon	0.30	U	ng/L	P392107	
		Oxyfluorfen**	0.15	U	ng/L	P392107	
		Parathion Ethyl	0.25	U	ng/L	P392107	
		Parathion Methyl	0.54	U	ng/L	P392107	
		Pendimethalin	0.99	U	ng/L	P392107	
		Phorate	0.52	U	ng/L	P392107	
		Prodiamine**	0.17	U	ng/L	P392107	RPD
		Prometon	0.89	U	ng/L	P392107	
		Prometryn	0.20	U	ng/L	P392107	
		Pronamide**	0.15	U	ng/L	P392107	

Field ID: G2SW0132

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2217808	EPA 8270E	Propiconazole**	0.49	U	ng/L	P392107	CCV, LCS, MS
		Pyriproxyfen**	0.12	UJ	ng/L	P392107	
		Simazine	0.49	U	ng/L	P392107	
		Sulfentrazone**	4.3		ng/L	P392107	
		Tebuconazole**	0.49	U	ng/L	P392107	
		Terbufos	0.099	U	ng/L	P392107	
		Terbuthylazine	0.42	U	ng/L	P392107	

Ref. Method and Comment:

EPA 8321B: MDL for some parameters elevated due to matrix interference.

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P392107

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P392107

Component	Result	Code	Units
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P392144

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P392242

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P392242

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P392107

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	104	94.7	P/P	70 - 121
Alachlor	104	103	P/P	70 - 119
Ametryn	112	96.2	P/P	61 - 135
Atrazine	106	97.7	P/P	76 - 123
Atrazine Desethyl	86.4	81.6	P/P	35 - 140
Azinphos Methyl	283	281	F/F	57 - 163
Azoxystrobin	207	167	P/P	43 - 231
Bromacil	89.8	83.7	P/P	42 - 123
Butylate	68.7	58.1	P/P	34 - 92.0
Carbophenothion	103	93.8	P/P	61 - 121
Carfentrazone Ethyl	103	96.2	P/P	62 - 139
Chlorpyrifos Ethyl	98.7	94.5	P/P	67 - 121
Chlorpyrifos Methyl	102	98.9	P/P	67 - 120
Cyanazine	146	135	P/P	20 - 226
Demeton	98.8	98.1	P/P	35 - 125
Diazinon	97.4	87.3	P/P	70 - 122
Difenoconazole	166	141	P/P	56 - 186
Dimethenamid	104	92.8	P/P	67 - 119
Disulfoton	101	90.4	P/P	47 - 120
Dithiopyr	95.0	84.4	P/P	67 - 118
EPTC	65.1	57.1	P/P	33 - 90.0
Ethion	85.3	80.9	P/P	40 - 133
Ethoprop	96.8	92.1	P/P	61 - 121
Fenamiphos	112	109	P/P	31 - 139
Fenbuconazole	118	102	P/P	66 - 141
Fipronil	98.6	92.4	P/P	62 - 129
Fipronil Desulfinyil	98.0	88.9	P/P	59 - 126
Fipronil Sulfide	92.8	94.4	P/P	63 - 117
Fipronil Sulfone	90.4	85.1	P/P	57 - 117
Fluazifop-P-butyl	100	84.9	P/P	63 - 124
Fludioxonil	97.4	92.5	P/P	63 - 123
Flumioxazin	210	191	P/P	34 - 245
Flutolanil	99.3	93.5	P/P	56 - 131
Fluxapyroxad	98.5	87.4	P/P	57 - 117
Fonofos	99.5	88.3	P/P	61 - 116
Hexazinone	105	98.7	P/P	55 - 138
Imazalil	123	116	P/P	33 - 143
Iprodione	104	96.7	P/P	59 - 118
Malathion	117	103	P/P	62 - 138
Metaxyl	106	99.6	P/P	24 - 147
Metolachlor	103	100	P/P	68 - 118
Metribuzin	100	105	P/P	20 - 239
Mevinphos	83.3	81.0	P/P	46 - 124
Molinate	81.0	71.7	P/P	46 - 100
Myclobutanil	98.4	94.1	P/P	32 - 149
Naled	49.3	44.8	P/P	32 - 95.0
Norflurazon	102	88.1	P/P	57 - 127
Oxadiazon	94.5	87.2	P/P	63 - 118
Oxyfluorfen	108	100	P/P	69 - 137
Parathion Ethyl	104	93.1	P/P	70 - 113
Parathion Methyl	112	98.2	P/P	71 - 130
Pendimethalin	87.7	79.7	P/P	55 - 118

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P392107

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	99.0	97.0	P/P	46 - 125
Prodiamine	110	107	P/P	20 - 141
Prometon	104	96.8	P/P	54 - 122
Prometryn	102	96.9	P/P	66 - 124
Pronamide	105	95.8	P/P	79 - 122
Propiconazole	102	90.7	P/P	61 - 126
Pyriproxyfen	166	173	F/F	52 - 131
Simazine	115	102	P/P	75 - 128
Sulfentrazone	98.1	118	P/P	20 - 132
Tebuconazole	63.2	54.2	P/P	20 - 116
Terbufos	90.5	85.6	P/P	61 - 117
Terbuthylazine	105	99.4	P/P	74 - 116

Reference Method: EPA 8321B
Batch ID: P392144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	118		P	30 - 160
Acetaminophen	74.6		P	30 - 160
Acetamiprid	92.6		P	30 - 160
Afidopyropen	80.5		P	30 - 160
Bentazon	87.0		P	30 - 160
Benzovindiflupyr	78.4		P	30 - 160
Carbamazepine	77.8		P	30 - 160
Clothianidin	98.7		P	30 - 160
Dinotefuran	87.3		P	30 - 160
Diuron	61.2		P	30 - 160
Fenuron	92.7		P	30 - 160
Fluridone	83.1		P	30 - 160
Hydrocodone	106		P	30 - 160
Ibuprofen	93.2		P	30 - 160
Imazapyr	93.5		P	30 - 160
Imidacloprid	109		P	30 - 160
Linuron	73.5		P	30 - 160
Mandestrobin	88.7		P	30 - 160
MCPP	110		P	30 - 160
Naproxen	62.6		P	30 - 160
Primidone	112		P	30 - 160
Pyraclostrobin	85.1		P	30 - 160
Thiamethoxam	106		P	30 - 160
Tolfenpyrad	53.2		P	30 - 160
Triclopyr	90.8		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P392242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	61.4		P	40 - 150
AMPA	79.1		P	40 - 150
Endothall	91.3		P	40 - 150
Glufosinate	92.3		P	40 - 150
Glyphosate	110		P	40 - 140

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P392242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	98.4		P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P392107

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2217423	Acetochlor	100	97.4	P/P	66 - 122
2217423	Alachlor	104	107	P/P	65 - 122
2217423	Ametryn	93.5	96.4	P/P	45 - 173
2217423	Atrazine	103	104	P/P	70 - 134
2217423	Atrazine Desethyl	83.4	67.5	P/P	25 - 150
2217423	Azinphos Methyl	293	276	F/F	44 - 174
2217423	Azoxystrobin	158	150	P/P	10 - 268
2217423	Bromacil	77.2	70.2	P/P	31 - 145
2217423	Butylate	56.1	53.4	P/P	15 - 97.0
2217423	Carbophenothion	122	99.9	P/P	42 - 129
2217423	Carfentrazone Ethyl	116	102	P/P	62 - 145
2217423	Chlorpyrifos Ethyl	99.2	102	P/P	60 - 124
2217423	Chlorpyrifos Methyl	97.2	101	P/P	66 - 119
2217423	Cyanazine	134	160	P/P	17 - 225
2217423	Demeton	101	95.1	P/P	36 - 142
2217423	Diazinon	94.7	93.7	P/P	70 - 128
2217423	Difenoconazole	157	147	P/P	33 - 222
2217423	Dimethenamid	99.6	99.7	P/P	54 - 125
2217423	Disulfoton	92.2	85.4	P/P	49 - 133
2217423	Dithiopyr	93.5	96.9	P/P	55 - 123
2217423	EPTC	52.3	53.7	P/P	19 - 91.0
2217423	Ethion	68.8	85.4	P/P	13 - 143
2217423	Ethoprop	94.9	93.4	P/P	49 - 144
2217423	Fenamiphos	111	114	P/P	32 - 136
2217423	Fenbuconazole	108	105	P/P	73 - 148
2217423	Fipronil	99.0	103	P/P	57 - 129
2217423	Fipronil Desulfinyl	92.0	92.8	P/P	49 - 127
2217423	Fipronil Sulfide	87.3	91.4	P/P	44 - 127
2217423	Fipronil Sulfone	91.8	102	P/P	35 - 126
2217423	Fluazifop-P-butyl	95.9	108	P/P	67 - 129
2217423	Fludioxonil	95.5	104	P/P	61 - 126
2217423	Flumioxazin	210	191	P/P	38 - 279
2217423	Flutolanil	98.7	114	P/P	55 - 136
2217423	Fluxapyroxad	90.0	134	P/P	33 - 140
2217423	Fonofos	90.4	88.9	P/P	58 - 125
2217423	Hexazinone	106	108	P/P	57 - 148
2217423	Imazalil	87.1	71.5	P/P	10 - 221
2217423	Iprodione	97.0	131	P/P	32 - 140
2217423	Malathion	114	134	P/P	52 - 138
2217423	Metalaxyl	98.6	103	P/P	46 - 134
2217423	Metolachlor	89.0	99.5	P/P	58 - 122
2217423	Metribuzin	105	104	P/P	16 - 272
2217423	Mevinphos	85.2	87.5	P/P	45 - 140
2217423	Molinate	73.9	70.8	P/P	41 - 103
2217423	Myclobutanil	96.3	115	P/P	60 - 134
2217423	Naled	44.5	48.3	P/P	20 - 113
2217423	Norflurazon	91.3	119	P/P	51 - 123
2217423	Oxadiazon	92.0	115	P/P	44 - 125
2217423	Oxyfluorfen	118	147	P/P	66 - 176
2217423	Parathion Ethyl	97.0	95.1	P/P	57 - 132
2217423	Parathion Methyl	106	94.1	P/P	59 - 156
2217423	Pendimethalin	97.3	93.9	P/P	59 - 129

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P392107

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2217423	Phorate	106	97.7	P/P	47 - 136
2217423	Prodiamine	127	90.1	P/P	10 - 159
2217423	Prometon	107	106	P/P	59 - 127
2217423	Prometryn	100	98.2	P/P	59 - 129
2217423	Pronamide	98.6	101	P/P	65 - 145
2217423	Propiconazole	89.2	121	P/P	28 - 165
2217423	Pyriproxyfen	183	207	F/F	21 - 180
2217423	Simazine	95.5	80.1	P/P	63 - 147
2217423	Sulfentrazone	109	117	P/P	32 - 136
2217423	Tebuconazole	58.9	68.2	P/P	10 - 117
2217423	Terbufos	94.2	92.2	P/P	61 - 131
2217423	Terbutylazine	104	98.1	P/P	62 - 126

Reference Method: EPA 8321B
Batch ID: P392144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2216796	2,4-D	93.1	92.3	P/P	30 - 160
2216796	Acetaminophen	75.3	85.8	P/P	30 - 160
2216796	Acetamiprid	77.2	78.5	P/P	30 - 160
2216796	Afidopyrophen	64.3	64.8	P/P	30 - 160
2216796	Benzovindiflupyr	64.3	62.2	P/P	30 - 160
2216796	Carbamazepine	51.6	49.0	P/P	30 - 160
2216796	Clothianidin	88.5	79.5	P/P	30 - 160
2216796	Dinotefuran	94.4	85.3	P/P	30 - 160
2216796	Diuron	42.6	39.3	P/P	30 - 160
2216796	Fenuron	60.0	63.4	P/P	30 - 160
2216796	Fluridone	61.1	48.8	P/P	30 - 160
2216796	Hydrocodone	95.9	91.1	P/P	30 - 160
2216796	Ibuprofen	64.1	71.1	P/P	30 - 160
2216796	Imidacloprid	111	114	P/P	30 - 160
2216796	Linuron	52.4	50.3	P/P	30 - 160
2216796	Mandestrobin	69.4	65.0	P/P	30 - 160
2216796	MCPD	78.3	78.8	P/P	30 - 160
2216796	Naproxen	66.1	79.6	P/P	30 - 160
2216796	Primidone	99.4	74.8	P/P	30 - 160
2216796	Pyraclostrobin	72.2	72.4	P/P	30 - 160
2216796	Thiamethoxam	93.4	104	P/P	30 - 160
2216796	Tolfenpyrad	52.7	52.4	P/P	30 - 160
2216796	Triclopyr	72.2	79.9	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P392242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2217556	Acesulfame K	58.6	58.4	P/P	40 - 150
2217556	AMPA	93.5	86.3	P/P	40 - 150
2217556	Endothall	96.9	93.0	P/P	40 - 150
2217556	Glufosinate	101	98.6	P/P	40 - 150
2217556	Glyphosate	94.7	97.3	P/P	40 - 140
2217556	Sucralose	103	104	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P392107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2217423	Acetochlor	2.99	Spike	P	0 - 30
2217423	Alachlor	2.39	Spike	P	0 - 30
2217423	Ametryn	3.06	Spike	P	0 - 30
2217423	Atrazine	0.543	Spike	P	0 - 30
2217423	Atrazine Desethyl	21.1	Spike	P	0 - 30
2217423	Azinphos Methyl	5.84	Spike	P	0 - 30
2217423	Azoxystrobin	5.22	Spike	P	0 - 30
2217423	Bromacil	8.70	Spike	P	0 - 30
2217423	Butylate	4.80	Spike	P	0 - 30
2217423	Carbophenothion	20.0	Spike	P	0 - 30
2217423	Carfentrazone Ethyl	12.7	Spike	P	0 - 30
2217423	Chlorpyrifos Ethyl	2.39	Spike	P	0 - 30
2217423	Chlorpyrifos Methyl	3.69	Spike	P	0 - 30
2217423	Cyanazine	17.7	Spike	P	0 - 30
2217423	Demeton	5.85	Spike	P	0 - 30
2217423	Diazinon	1.08	Spike	P	0 - 30
2217423	Difenoconazole	6.79	Spike	P	0 - 30
2217423	Dimethenamid	0.147	Spike	P	0 - 30
2217423	Disulfoton	7.67	Spike	P	0 - 30
2217423	Dithiopyr	3.60	Spike	P	0 - 30
2217423	EPTC	2.69	Spike	P	0 - 30
2217423	Ethion	21.5	Spike	P	0 - 30
2217423	Ethoprop	1.60	Spike	P	0 - 30
2217423	Fenamiphos	2.18	Spike	P	0 - 30
2217423	Fenbuconazole	3.17	Spike	P	0 - 30
2217423	Fipronil	3.90	Spike	P	0 - 30
2217423	Fipronil Desulfinyl	0.849	Spike	P	0 - 30
2217423	Fipronil Sulfide	4.60	Spike	P	0 - 30
2217423	Fipronil Sulfone	10.4	Spike	P	0 - 30
2217423	Fluazifop-P-butyl	12.2	Spike	P	0 - 30
2217423	Fludioxonil	8.55	Spike	P	0 - 30
2217423	Flumioxazin	9.35	Spike	P	0 - 30
2217423	Flutolanil	12.6	Spike	P	0 - 30
2217423	Fluxapyroxad	37.1	Spike	F	0 - 30
2217423	Fonofos	1.72	Spike	P	0 - 30
2217423	Hexazinone	1.34	Spike	P	0 - 30
2217423	Imazalil	19.6	Spike	P	0 - 30
2217423	Iprodione	29.6	Spike	P	0 - 30
2217423	Malathion	15.8	Spike	P	0 - 30
2217423	Metalaxyl	4.41	Spike	P	0 - 30
2217423	Metolachlor	9.40	Spike	P	0 - 30
2217423	Metribuzin	0.650	Spike	P	0 - 30
2217423	Mevinphos	2.74	Spike	P	0 - 30
2217423	Molinate	4.26	Spike	P	0 - 30
2217423	Myclobutanil	17.8	Spike	P	0 - 30
2217423	Naled	8.12	Spike	P	0 - 30
2217423	Norflurazon	26.4	Spike	P	0 - 30
2217423	Oxadiazon	22.0	Spike	P	0 - 30
2217423	Oxyfluorfen	21.5	Spike	P	0 - 30
2217423	Parathion Ethyl	1.97	Spike	P	0 - 30
2217423	Parathion Methyl	11.5	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P392107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2217423	Pendimethalin	3.50	Spike	P	0 - 30
2217423	Phorate	7.87	Spike	P	0 - 30
2217423	Prodiamine	34.2	Spike	F	0 - 30
2217423	Prometon	0.998	Spike	P	0 - 30
2217423	Prometryn	2.28	Spike	P	0 - 30
2217423	Pronamide	2.17	Spike	P	0 - 30
2217423	Propiconazole	29.9	Spike	P	0 - 30
2217423	Pyriproxyfen	12.5	Spike	P	0 - 30
2217423	Simazine	17.6	Spike	P	0 - 30
2217423	Sulfentrazone	7.33	Spike	P	0 - 30
2217423	Tebuconazole	13.5	Spike	P	0 - 30
2217423	Terbufos	2.10	Spike	P	0 - 30
2217423	Terbuthylazine	6.19	Spike	P	0 - 30
LFB	Acetochlor	9.67	LCS	P	0 - 30
LFB	Alachlor	1.48	LCS	P	0 - 30
LFB	Ametryn	15.1	LCS	P	0 - 30
LFB	Atrazine	8.65	LCS	P	0 - 30
LFB	Atrazine Desethyl	5.71	LCS	P	0 - 30
LFB	Azinphos Methyl	0.690	LCS	P	0 - 30
LFB	Azoxystrobin	21.8	LCS	P	0 - 30
LFB	Bromacil	7.00	LCS	P	0 - 30
LFB	Butylate	16.7	LCS	P	0 - 30
LFB	Carbophenothion	9.43	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	6.99	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.31	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.09	LCS	P	0 - 30
LFB	Cyanazine	8.33	LCS	P	0 - 30
LFB	Demeton	0.666	LCS	P	0 - 30
LFB	Diazinon	10.9	LCS	P	0 - 30
LFB	Difenoconazole	15.9	LCS	P	0 - 30
LFB	Dimethenamid	11.1	LCS	P	0 - 30
LFB	Disulfoton	11.3	LCS	P	0 - 30
LFB	Dithiopyr	11.8	LCS	P	0 - 30
LFB	EPTC	12.9	LCS	P	0 - 30
LFB	Ethion	5.24	LCS	P	0 - 30
LFB	Ethoprop	4.93	LCS	P	0 - 30
LFB	Fenamiphos	3.14	LCS	P	0 - 30
LFB	Fenbuconazole	14.3	LCS	P	0 - 30
LFB	Fipronil	6.48	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	9.77	LCS	P	0 - 30
LFB	Fipronil Sulfide	1.68	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.10	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	16.3	LCS	P	0 - 30
LFB	Fludioxonil	5.23	LCS	P	0 - 30
LFB	Flumioxazin	9.53	LCS	P	0 - 30
LFB	Flutolanil	6.06	LCS	P	0 - 30
LFB	Fluxapyroxad	11.9	LCS	P	0 - 30
LFB	Fonofos	11.9	LCS	P	0 - 30
LFB	Hexazinone	5.85	LCS	P	0 - 30
LFB	Imazalil	6.18	LCS	P	0 - 30
LFB	Iprodione	7.15	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P392107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Malathion	11.9	LCS	P	0 - 30
LFB	Metalaxyl	6.27	LCS	P	0 - 30
LFB	Metolachlor	2.60	LCS	P	0 - 30
LFB	Metribuzin	4.28	LCS	P	0 - 30
LFB	Mevinphos	2.85	LCS	P	0 - 30
LFB	Molinate	12.1	LCS	P	0 - 30
LFB	Myclobutanil	4.46	LCS	P	0 - 30
LFB	Naled	9.67	LCS	P	0 - 30
LFB	Norflurazon	14.6	LCS	P	0 - 30
LFB	Oxadiazon	8.06	LCS	P	0 - 30
LFB	Oxyfluorfen	7.87	LCS	P	0 - 30
LFB	Parathion Ethyl	11.3	LCS	P	0 - 30
LFB	Parathion Methyl	13.2	LCS	P	0 - 30
LFB	Pendimethalin	9.53	LCS	P	0 - 30
LFB	Phorate	2.08	LCS	P	0 - 30
LFB	Prodiamine	2.47	LCS	P	0 - 30
LFB	Prometon	6.79	LCS	P	0 - 30
LFB	Prometryn	4.90	LCS	P	0 - 30
LFB	Pronamide	9.43	LCS	P	0 - 30
LFB	Propiconazole	11.7	LCS	P	0 - 30
LFB	Pyriproxyfen	4.18	LCS	P	0 - 30
LFB	Simazine	12.0	LCS	P	0 - 30
LFB	Sulfentrazone	18.3	LCS	P	0 - 30
LFB	Tebuconazole	15.4	LCS	P	0 - 30
LFB	Terbufos	5.57	LCS	P	0 - 30
LFB	Terbutylazine	5.69	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P392144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2216796	2,4-D	0.714	Spike	P	0 - 30
2216796	Acetaminophen	7.39	Spike	P	0 - 30
2216796	Acetamiprid	1.72	Spike	P	0 - 30
2216796	Afidopyropen	0.897	Spike	P	0 - 30
2216796	Bentazon	3.71	Spike	P	0 - 30
2216796	Benzovindiflupyr	3.33	Spike	P	0 - 30
2216796	Carbamazepine	5.20	Spike	P	0 - 30
2216796	Clothianidin	10.7	Spike	P	0 - 30
2216796	Dinotefuran	10.1	Spike	P	0 - 30
2216796	Diuron	7.45	Spike	P	0 - 30
2216796	Fenuron	5.56	Spike	P	0 - 30
2216796	Fluridone	18.9	Spike	P	0 - 30
2216796	Hydrocodone	5.14	Spike	P	0 - 30
2216796	Ibuprofen	10.3	Spike	P	0 - 30
2216796	Imazapyr	11.4	Spike	P	0 - 30
2216796	Imidacloprid	2.92	Spike	P	0 - 30
2216796	Linuron	4.07	Spike	P	0 - 30
2216796	Mandestrobin	6.57	Spike	P	0 - 30
2216796	MCP	0.582	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P392144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2216796	Naproxen	18.6	Spike	P	0 - 30
2216796	Primidone	28.2	Spike	P	0 - 30
2216796	Pyraclostrobin	0.305	Spike	P	0 - 30
2216796	Thiamethoxam	11.1	Spike	P	0 - 30
2216796	Tolfenpyrad	0.595	Spike	P	0 - 30
2216796	Triclopyr	10.1	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P392242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2217556	Acesulfame K	0.346	Spike	P	0 - 30
2217556	AMPA	8.09	Spike	P	0 - 30
2217556	Endothall	4.06	Spike	P	0 - 30
2217556	Glufosinate	2.87	Spike	P	0 - 30
2217556	Glyphosate	2.70	Spike	P	0 - 30
2217556	Sucralose	1.28	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2217805
Field Sample ID: G2SW0131

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	73.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	44.1	P	30 - 160
EPA 8321B	Diuron-d6	40.7	P	30 - 160
EPA 8321B	Endothall-d6	111	P	40 - 160
EPA 8321B	Endothall-d6	111	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	112	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	112	P	40 - 160
EPA 8321B	Ibuprofen-d3	60.6	P	30 - 160
EPA 8321B	Primidone-d5	61.7	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Lab Sample ID: 2217806
Field Sample ID: G2SW0132

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	104	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.4	P	30 - 160
EPA 8321B	Diuron-d6	40.9	P	30 - 160
EPA 8321B	Endothall-d6	98.0	P	40 - 160
EPA 8321B	Endothall-d6	98.0	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	105	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	105	P	40 - 160
EPA 8321B	Ibuprofen-d3	58.9	P	30 - 160
EPA 8321B	Primidone-d5	74.3	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Lab Sample ID: 2217807
Field Sample ID: G2SW0131

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	96.3	P	73 - 135
EPA 8270E	Terbufos-d10	94.0	P	58 - 130

Lab Sample ID: 2217808
Field Sample ID: G2SW0132

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	95.9	P	73 - 135
EPA 8270E	Terbufos-d10	97.0	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A103028

Included Lab Sample IDs: 2217805, 2217806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	69.3	65.7	P/P	60 - 160
AMPA	97.4	106	P/P	60 - 160
Endothall	92.1	95.2	P/P	60 - 160
Glufosinate	95.5	104	P/P	60 - 160
Glyphosate	160	144	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A103029

Included Lab Sample IDs: 2217805, 2217806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.5	91.6	P/P	50 - 150
Acetaminophen	107	106	P/P	60 - 160
Acetamiprid	114	97.3	P/P	50 - 150
Afidopyropen	105	109	P/P	50 - 150
Bentazon	94.3	92.4	P/P	50 - 160
Benzovindiflupyr	112	113	P/P	50 - 160
Carbamazepine	106	111	P/P	60 - 150
Clothianidin	107	97.3	P/P	60 - 150
Dinotefuran	108	110	P/P	50 - 150
Diuron	117	113	P/P	60 - 160
Fenuron	108	83.3	P/P	60 - 150
Fluridone	120	119	P/P	60 - 160
Hydrocodone	97.8	130	P/P	60 - 150
Ibuprofen	116	107	P/P	50 - 160
Imazapyr	88.1	90.7	P/P	50 - 160
Imidacloprid	101	112	P/P	60 - 150
Linuron	98.7	98.7	P/P	60 - 150
Mandestrobin	112	106	P/P	50 - 150
MCPP	94.0	98.0	P/P	50 - 150
Naproxen	108	109	P/P	50 - 160
Primidone	109	111	P/P	60 - 150
Pyraclostrobin	107	107	P/P	60 - 150
Thiamethoxam	109	107	P/P	50 - 150
Tolfenpyrad	104	102	P/P	60 - 150
Triclopyr	96.0	99.0	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A103048

Included Lab Sample IDs: 2217807, 2217808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.1		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	81.6		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	107		P	80 - 120
Azinphos Methyl	355*		F	80 - 120
Azoxystrobin	83.8		P	80 - 120
Bromacil	92.0		P	80 - 120
Butylate	96.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A103048

Included Lab Sample IDs: 2217807, 2217808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbophenothion	99.6		P	80 - 120
Carfentrazone Ethyl	94.9		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	107		P	80 - 120
Cyanazine	106		P	80 - 120
Demeton	93.1		P	80 - 120
Diazinon	103		P	80 - 120
Difenoconazole	80.3		P	80 - 120
Dimethenamid	97.0		P	80 - 120
Disulfoton	115		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	96.9		P	80 - 120
Ethion	97.0		P	80 - 120
Ethoprop	94.6		P	80 - 120
Fenamiphos	87.0		P	80 - 120
Fenbuconazole	89.9		P	80 - 120
Fipronil	90.6		P	80 - 120
Fipronil Desulfinyl	96.5		P	80 - 120
Fipronil Sulfide	89.7		P	80 - 120
Fipronil Sulfone	90.2		P	80 - 120
Fluazifop-P-butyl	97.4		P	80 - 120
Fludioxonil	91.2		P	80 - 120
Flumioxazin	77.2*		F	80 - 120
Flutolanil	93.7		P	80 - 120
Fluxapyroxad	87.7		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	97.8		P	80 - 120
Imazalil	85.8		P	80 - 120
Iprodione	89.1		P	80 - 120
Malathion	97.9		P	80 - 120
Metaxyl	104		P	80 - 120
Metolachlor	93.8		P	80 - 120
Metribuzin	85.0		P	80 - 120
Mevinphos	91.6		P	80 - 120
Molinate	99.0		P	80 - 120
Myclobutanil	89.8		P	80 - 120
Naled	104		P	80 - 120
Norflurazon	96.1		P	80 - 120
Oxadiazon	101		P	80 - 120
Oxyfluorfen	90.4		P	80 - 120
Parathion Ethyl	97.5		P	80 - 120
Parathion Methyl	96.4		P	80 - 120
Pendimethalin	98.5		P	80 - 120
Phorate	99.3		P	80 - 120
Prodiamine	89.3		P	80 - 120
Prometon	94.3		P	80 - 120
Prometryn	92.1		P	80 - 120
Pronamide	97.9		P	80 - 120
Propiconazole	87.9		P	80 - 120
Pyriproxyfen	246*		F	80 - 120
Simazine	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A103048

Included Lab Sample IDs: 2217807, 2217808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfentrazone	92.9		P	80 - 120
Tebuconazole	97.9		P	80 - 120
Terbufos	98.0		P	80 - 120
Terbuthylazine	95.3		P	80 - 120

Reference Method: EPA 8321B

Run ID: A103189

Included Lab Sample IDs: 2217805, 2217806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	87.3	84.6	P/P	60 - 160

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Acetochlor	104	94.7	100	97.4	9.67	2.99
	Alachlor	104	103	104	107	1.48	2.39
	Ametryn	112	96.2	93.5	96.4	15.1	3.06
	Atrazine	106	97.7	103	104	8.65	0.543
	Atrazine Desethyl	86.4	81.6	83.4	67.5	5.71	21.1
	Azinphos Methyl	283	281	293	276	0.690	5.84
	Azoxystrobin	207	167	150	158	21.8	5.22
	Bromacil	89.8	83.7	70.2	77.2	7.00	8.70
	Butylate	68.7	58.1	53.4	56.1	16.7	4.80
	Carbophenothion	103	93.8	122	99.9	9.43	20.0
	Carfentrazone Ethyl	103	96.2	116	102	6.99	12.7
	Chlorpyrifos Ethyl	98.7	94.5	99.2	102	4.31	2.39
	Chlorpyrifos Methyl	102	98.9	97.2	101	3.09	3.69
	Cyanazine	146	135	134	160	8.33	17.7
	Demeton	98.8	98.1	101	95.1	0.666	5.85
	Diazinon	97.4	87.3	94.7	93.7	10.9	1.08
	Difenoconazole	166	141	157	147	15.9	6.79
	Dimethenamid	104	92.8	99.6	99.7	11.1	0.147
	Disulfoton	101	90.4	92.2	85.4	11.3	7.67
	Dithiopyr	95.0	84.4	93.5	96.9	11.8	3.60
	EPTC	65.1	57.1	52.3	53.7	12.9	2.69
	Ethion	85.3	80.9	68.8	85.4	5.24	21.5
	Ethoprop	96.8	92.1	94.9	93.4	4.93	1.60
	Fenamiphos	112	109	111	114	3.14	2.18
	Fenbuconazole	118	102	108	105	14.3	3.17
	Fipronil	98.6	92.4	99.0	103	6.48	3.90
	Fipronil Desulfinyl	98.0	88.9	92.0	92.8	9.77	0.849
	Fipronil Sulfide	92.8	94.4	87.3	91.4	1.68	4.60
	Fipronil Sulfone	90.4	85.1	91.8	102	6.10	10.4
	Fluazifop-P-butyl	100	84.9	95.9	108	16.3	12.2
	Fludioxonil	97.4	92.5	95.5	104	5.23	8.55
	Flumioxazin	210	191	210	191	9.53	9.35
	Flutolanil	99.3	93.5	98.7	114	6.06	12.6
	Fluxapyroxad	98.5	87.4	90.0	134	11.9	37.1
	Fonofos	99.5	88.3	90.4	88.9	11.9	1.72
	Hexazinone	105	98.7	106	108	5.85	1.34
	Imazalil	123	116	87.1	71.5	6.18	19.6
	Iprodione	104	96.7	97.0	131	7.15	29.6
	Malathion	117	103	114	134	11.9	15.8
	Metalaxyl	106	99.6	98.6	103	6.27	4.41
	Metolachlor	103	100	89.0	99.5	2.60	9.40
	Metribuzin	100	105	105	104	4.28	0.650
	Mevinphos	83.3	81.0	85.2	87.5	2.85	2.74
	Molinate	81.0	71.7	73.9	70.8	12.1	4.26
	Myclobutanil	98.4	94.1	96.3	115	4.46	17.8
	Naled	49.3	44.8	44.5	48.3	9.67	8.12
	Norflurazon	102	88.1	91.3	119	14.6	26.4
	Oxadiazon	94.5	87.2	92.0	115	8.06	22.0
	Oxyfluorfen	108	100	118	147	7.87	21.5
	Parathion Ethyl	104	93.1	97.0	95.1	11.3	1.97
	Parathion Methyl	112	98.2	106	94.1	13.2	11.5
	Pendimethalin	87.7	79.7	97.3	93.9	9.53	3.50
	Phorate	99.0	97.0	106	97.7	2.08	7.87
	Prodiamine	110	107	127	90.1	2.47	34.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Prometon	104	96.8	107	106	6.79	0.998
	Prometryn	102	96.9	100	98.2	4.90	2.28
	Pronamide	105	95.8	98.6	101	9.43	2.17
	Propiconazole	102	90.7	89.2	121	11.7	29.9
	Pyriproxyfen	166	173	183	207	4.18	12.5
	Simazine	115	102	95.5	80.1	12.0	17.6
	Sulfentrazone	98.1	118	109	117	18.3	7.33
	Tebuconazole	63.2	54.2	58.9	68.2	15.4	13.5
	Terbufos	90.5	85.6	94.2	92.2	5.57	2.10
	Terbutylazine	105	99.4	104	98.1	5.69	6.19
EPA 8321B	2,4-D	118		93.1	92.3		0.714
	Acesulfame K	61.4		58.6	58.4		0.346
	Acetaminophen	74.6		75.3	85.8		7.39
	Acetamiprid	92.6		77.2	78.5		1.72
	Afidopyropen	80.5		64.3	64.8		0.897
	AMPA	79.1		93.5	86.3		8.09
	Bentazon	87.0					3.71
	Benzovindiflupyr	78.4		64.3	62.2		3.33
	Carbamazepine	77.8		51.6	49.0		5.20
	Clothianidin	98.7		88.5	79.5		10.7
	Dinotefuran	87.3		94.4	85.3		10.1
	Diuron	61.2		42.6	39.3		7.45
	Endothall	91.3		96.9	93.0		4.06
	Fenuron	92.7		60.0	63.4		5.56
	Fluridone	83.1		61.1	48.8		18.9
	Glufosinate	92.3		101	98.6		2.87
	Glyphosate	110		94.7	97.3		2.70
	Hydrocodone	106		95.9	91.1		5.14
	Ibuprofen	93.2		64.1	71.1		10.3
	Imazapyr	93.5					11.4
	Imidacloprid	109		111	114		2.92
	Linuron	73.5		52.4	50.3		4.07
	Mandestrobin	88.7		69.4	65.0		6.57
	MCPP	110		78.3	78.8		0.582
	Naproxen	62.6		66.1	79.6		18.6
	Primidone	112		99.4	74.8		28.2
	Pyraclostrobin	85.1		72.2	72.4		0.305
	Sucralose	98.4		103	104		1.28
	Thiamethoxam	106		93.4	104		11.1
	Tolfenpyrad	53.2		52.7	52.4		0.595
	Triclopyr	90.8		72.2	79.9		10.1

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2217807, 2217808
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2217805, 2217806
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2217805, 2217806

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	01/08/2021	01/11/2021 08:30	Rasheda Ghaffari	01/13/2021 15:42	Vandana T. Nagar	2217807
	01/08/2021	01/11/2021 08:30	Rasheda Ghaffari	01/13/2021 16:08	Vandana T. Nagar	2217808
EPA 8321B	01/08/2021	01/11/2021 09:00	Hoor Shaik	01/13/2021 08:01	Juyoung Kim	2217805
	01/08/2021	01/11/2021 09:00	Hoor Shaik	01/13/2021 08:35	Juyoung Kim	2217806
	01/08/2021	01/12/2021 11:00	Rebecca Ware	01/12/2021 14:46	Rebecca Ware	2217805
	01/08/2021	01/12/2021 11:00	Rebecca Ware	01/12/2021 15:00	Rebecca Ware	2217806
	01/08/2021	01/12/2021 11:00	Rebecca Ware	01/13/2021 12:33	Rebecca Ware	2217805
	01/08/2021	01/12/2021 11:00	Rebecca Ware	01/13/2021 12:47	Rebecca Ware	2217806
	01/08/2021	01/12/2021 11:00	Rebecca Ware	01/20/2021 22:39	Rebecca Ware	2217805
	01/08/2021	01/12/2021 11:00	Rebecca Ware	01/20/2021 22:51	Rebecca Ware	2217806