

Chemical Analysis Report

SO-DIST-2023-07-26-01

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

Event Description: **2023 SMP: SARASOTA**
Request ID: **RQ-2023-07-24-44**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 09-AUG-2023 10:13



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: MATHENY CREEK AT BENEVA RD

Collection Date/Time: 07/25/2023 09:15

Field ID: G3SD0092

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426806	EPA 8321B	2,4-D	1.4		ug/L	P433066	
		Acesulfame K	0.19	I	ug/L	P432932	
		2,4,5-T	0.0040	U	ug/L	P433066	
		AMPA	0.98		ug/L	P432932	
		Acetaminophen	0.0080	U	ug/L	P433066	
		Endothall	0.25	U	ug/L	P432932	
		Acetamiprid	0.0020	U	ug/L	P433066	RPD
		Glufosinate	0.10	U	ug/L	P432932	
		Glyphosate	10		ug/L	P432932	
		Afidopyropen	0.0020	U	ug/L	P433066	
		Sucralose	0.20		ug/L	P432932	
		Bentazon	0.019		ug/L	P433066	MS
		Benzovindiflupyr	0.0020	U	ug/L	P433066	
		Carbamazepine	8.0E-04	U	ug/L	P433066	
		Clothianidin	0.0020	U	ug/L	P433066	
		Dinotefuran	0.0020	U	ug/L	P433066	
		Diuron	0.0020	U	ug/L	P433066	MS
		Fenuron	0.032	U	ug/L	P433066	
		Fluridone	0.062		ug/L	P433066	
		Imazapyr	2.9		ug/L	P433066	
		Hydrocodone	0.0020	U	ug/L	P433066	
		Ibuprofen	0.080	U	ug/L	P433066	
		Imidacloprid	0.025		ug/L	P433066	
		Linuron	0.0040	U	ug/L	P433066	
		Mandestrobin	0.0020	U	ug/L	P433066	
		MCPP	0.0020	U	ug/L	P433066	
		Naproxen	0.0080	U	ug/L	P433066	
		Primidone	0.0040	U	ug/L	P433066	
		Pyraclostrobin	0.0020	U	ug/L	P433066	
		Silvex	0.0040	U	ug/L	P433066	
		Thiamethoxam	0.0020	U	ug/L	P433066	
		Tolfenpyrad	0.0020	U	ug/L	P433066	
		Triclopyr	0.0040	U	ug/L	P433066	

Sample Location: NORTH CREEK (TIDAL) AT US 41

Collection Date/Time: 07/25/2023 09:40

Field ID: G3SD0089

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426807	EPA 8321B	Acesulfame K	0.10	U	ug/L	P432932	
		2,4-D	0.022		ug/L	P433066	
		AMPA	2.2	I	ug/L	P432932	
		2,4,5-T	0.0040	U	ug/L	P433066	
		Acetaminophen	0.0080	U	ug/L	P433066	
		Endothall	0.25	U	ug/L	P432932	
		Acetamiprid	0.0020	U	ug/L	P433066	RPD
		Glufosinate	1.0	U	ug/L	P432932	
		Glyphosate	1.0	U	ug/L	P432932	
		Afidopyropen	0.0020	U	ug/L	P433066	
		Sucralose	1.7		ug/L	P432932	
		Bentazon	0.050		ug/L	P433066	MS
		Benzovindiflupyr	0.0020	U	ug/L	P433066	
		Carbamazepine	8.0E-04	U	ug/L	P433066	
		Clothianidin	0.011		ug/L	P433066	
		Dinotefuran	0.0052	I	ug/L	P433066	
		Diuron	0.0020	U	ug/L	P433066	MS
		Fenuron	0.032	U	ug/L	P433066	
		Fluridone	0.041		ug/L	P433066	
		Imazapyr	0.29		ug/L	P433066	
		Hydrocodone	0.0020	U	ug/L	P433066	
		Ibuprofen	0.080	U	ug/L	P433066	
		Imidacloprid	0.041		ug/L	P433066	
		Linuron	0.0040	U	ug/L	P433066	
		Mandestrobin	0.0020	U	ug/L	P433066	
		MCPP	0.0020	U	ug/L	P433066	
		Naproxen	0.0080	U	ug/L	P433066	
		Primidone	0.0076	I	ug/L	P433066	
		Pyraclostrobin	0.0020	U	ug/L	P433066	
		Silvex	0.0040	U	ug/L	P433066	
		Thiamethoxam	0.0020	U	ug/L	P433066	
		Tolfenpyrad	0.0020	U	ug/L	P433066	
		Triclopyr	0.0040	U	ug/L	P433066	

Ref. Method and Comment:
EPA 8321B: Some MDLs are elevated due to required dilution of sample matrix.

Sample Location: NORTH CREEK BY OAKS CREEK CT

Collection Date/Time: 07/25/2023 09:40

Field ID: G3SD0064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426808	EPA 8321B	Acesulfame K	0.10	U	ug/L	P432932	
		2,4-D	0.0025	I	ug/L	P433066	
		AMPA	2.9	I	ug/L	P432932	
		2,4,5-T	0.0040	U	ug/L	P433066	
		Acetaminophen	0.0080	U	ug/L	P433066	
		Endothall	0.25	U	ug/L	P432932	
		Acetamiprid	0.0020	U	ug/L	P433066	RPD
		Glufosinate	1.0	U	ug/L	P432932	
		Glyphosate	7.7		ug/L	P432932	
		Afidopyropen	0.0020	U	ug/L	P433066	
		Sucralose	0.38		ug/L	P432932	
		Bentazon	0.086		ug/L	P433066	MS
		Benzovindiflupyr	0.0020	U	ug/L	P433066	
		Carbamazepine	8.0E-04	U	ug/L	P433066	
		Clothianidin	0.015		ug/L	P433066	
		Dinotefuran	0.0020	U	ug/L	P433066	
		Diuron	0.0020	U	ug/L	P433066	MS
		Fenuron	0.032	U	ug/L	P433066	
		Fluridone	0.032		ug/L	P433066	
		Imazapyr	0.27		ug/L	P433066	
		Hydrocodone	0.0020	U	ug/L	P433066	
		Ibuprofen	0.080	U	ug/L	P433066	
		Imidacloprid	0.048		ug/L	P433066	
		Linuron	0.0040	U	ug/L	P433066	
		Mandestrobin	0.0020	U	ug/L	P433066	
		MCPP	0.0020	U	ug/L	P433066	
		Naproxen	0.0080	U	ug/L	P433066	
		Primidone	0.0040	U	ug/L	P433066	
		Pyraclostrobin	0.0020	U	ug/L	P433066	
		Silvex	0.0040	U	ug/L	P433066	
		Thiamethoxam	0.0020	U	ug/L	P433066	
		Tolfenpyrad	0.0020	U	ug/L	P433066	
		Triclopyr	0.0040	U	ug/L	P433066	

Ref. Method and Comment:
EPA 8321B: Some MDLs are elevated due to required dilution of sample matrix.

Sample Location: SOUTH CREEK NEAR LEGACY

Collection Date/Time: 07/25/2023 10:50

Field ID: G3SD0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426805	EPA 8270E	Aldrin	0.67	U	ng/L	P433117	
		Alpha-BHC	0.10	U	ng/L	P433117	
		Alpha-Chlordane	0.21	U	ng/L	P433117	
		PCB-1016	2.1	U	ng/L	P433117	
		Beta-BHC	0.10	U	ng/L	P433117	
		PCB-1221	2.1	U	ng/L	P433117	
		Beta-Cyfluthrin	1.3	U	ng/L	P433117	
		PCB-1232	2.1	U	ng/L	P433117	
		Bifenthrin	0.51	U	ng/L	P433117	
		PCB-1242	2.1	U	ng/L	P433117	
		Carbophenothion	0.93	U	ng/L	P433117	
		PCB-1248	2.1	U	ng/L	P433117	
		Chlorothalonil	3.7	U	ng/L	P433117	
		PCB-1254	2.1	U	ng/L	P433117	
		Cis-Nonachlor	0.21	U	ng/L	P433117	
		PCB-1260	2.1	U	ng/L	P433117	
		Cypermethrin	1.5	U	ng/L	P433117	
		Dacthal	0.15	U	ng/L	P433117	
		DDD-p,p'	0.26	U	ng/L	P433117	
		DDE-p,p'	0.21	U	ng/L	P433117	
		DDT-p,p'	0.82	U	ng/L	P433117	
		Delta-BHC	0.41	U	ng/L	P433117	
		Deltamethrin	1.3	U	ng/L	P433117	
		Dichlobenil	0.26	U	ng/L	P433117	
		Dicofol	1.3	U	ng/L	P433117	
		Dieldrin	0.41	U	ng/L	P433117	
		Endosulfan I	0.41	U	ng/L	P433117	
		Endosulfan II	0.93	U	ng/L	P433117	
		Endosulfan Sulfate	0.31	U	ng/L	P433117	
		Endrin	0.93	U	ng/L	P433117	
		Endrin Aldehyde	0.77	U	ng/L	P433117	
		Endrin Ketone	0.41	U	ng/L	P433117	
		Esfenvalerate	0.77	U	ng/L	P433117	
		Ethalfuralin	0.15	U	ng/L	P433117	
		Fenpropathrin	0.26	U	ng/L	P433117	
		Gamma-BHC	0.13	U	ng/L	P433117	
		Gamma-Chlordane	0.21	U	ng/L	P433117	
		Heptachlor	0.21	U	ng/L	P433117	
		Heptachlor Epoxide	0.26	U	ng/L	P433117	
		Hexachlorobenzene**	1.0	U	ng/L	P433117	
		Kepone	14	U	ng/L	P433117	
		Lambda-Cyhalothrin	0.77	U	ng/L	P433117	
		Methoprene	0.77	U	ng/L	P433117	
		Methoxychlor	0.31	U	ng/L	P433117	

Field ID: G3SD0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2426805	EPA 8270E	MGK-264	0.21	U	ng/L	P433117	
		Mirex	0.36	U	ng/L	P433117	
		Oxychlordane	0.31	U	ng/L	P433117	
		Permethrin	1.6	U	ng/L	P433117	
		Phenothrin	0.93	U	ng/L	P433117	
		Piperonyl Butoxide	0.15	U	ng/L	P433117	
		Prallethrin	2.1	U	ng/L	P433117	
		Tau-Fluvalinate	0.26	U	ng/L	P433117	
		Tetramethrin	0.77	U	ng/L	P433117	
		Trans-Nonachlor	0.21	U	ng/L	P433117	MS
		Triclosan Methyl	0.15	U	ng/L	P433117	
		Trifluralin	0.21	U	ng/L	P433117	
		Chlordane	2.1	U	ng/L	P433117	
	EPA 8276	Toxaphene	73		ng/L	P433117	

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433117

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433117

Component	Result	Code	Units
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433117

Component	Result	Code	Units
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P433117

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P432932

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: P433066

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P433066

Component	Result	Code	Units
MCP	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 8270E
Batch ID: P433117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	54.6		P	30 - 96.0
Alpha-BHC	84.3		P	70 - 109
Alpha-Chlordane	75.3		P	45 - 107
Beta-BHC	74.9		P	64 - 138
Beta-Cyfluthrin	100		P	17 - 141
Bifenthrin	77.2		P	10 - 113
Carbophenothion	48.8		P	24 - 91.0
Chlorothalonil	87.3		P	26 - 180
Cis-Nonachlor	81.9		P	37 - 102
Cypermethrin	110		P	20 - 133
Dacthal	112		P	69 - 114
DDD-p,p'	88.1		P	42 - 105
DDE-p,p'	63.5		P	42 - 106
DDT-p,p'	66.8		P	42 - 107
Delta-BHC	101		P	67 - 144
Deltamethrin	140		P	15 - 149
Dichlobenil	64.7		P	46 - 117
Dicofol	56.8		P	34 - 114
Dieldrin	69.2		P	50 - 108
Endosulfan I	76.6		P	55 - 104
Endosulfan II	68.0		P	51 - 111
Endosulfan Sulfate	71.4		P	56 - 121
Endrin	69.8		P	10 - 106
Endrin Aldehyde	64.2		P	34 - 114
Endrin Ketone	109		P	63 - 177
Esfenvalerate	117		P	29 - 143
Ethalfuralin	70.0		P	46 - 96.0
Fenpropathrin	88.9		P	28 - 115
Gamma-BHC	101		P	65 - 121
Gamma-Chlordane	58.9		P	39 - 103
Heptachlor	66.8		P	39 - 94.0
Heptachlor Epoxide	73.9		P	54 - 104
Hexachlorobenzene	69.4		P	36 - 100
Kepone	98.2		P	10 - 225
Lambda-Cyhalothrin	75.6		P	10 - 135
Methoprene	56.7		P	10 - 109
Methoxychlor	62.5		P	52 - 112
MGK-264	68.8		P	44 - 117
Mirex	53.5		P	20 - 90.0
Oxychlordane	65.7		P	44 - 102
PCB-1016	81.1		P	45 - 107
PCB-1260	74.1		P	40 - 118
Permethrin	85.9		P	18 - 135
Phenothrin	58.7		P	10 - 102
Piperonyl Butoxide	68.3		P	28 - 156
Prallethrin	79.1		P	28 - 113
Tau-Fluvalinate	93.4		P	10 - 123
Tetramethrin	129		P	18 - 158
Trans-Nonachlor	58.2		P	39 - 104
Triclosan Methyl	63.1		P	54 - 108
Trifluralin	67.7		P	46 - 97.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P433117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	70.8		P	52 - 117
Toxaphene	66.8		P	44 - 125

Reference Method: EPA 8321B
Batch ID: P432932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	94.9		P	40 - 150
AMPA	57.2		P	40 - 150
Endothall	91.1		P	40 - 150
Glufosinate	104		P	40 - 150
Glyphosate	110		P	40 - 150
Sucralose	96.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P433066

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	85.2		P	40 - 150
2,4,5-T	79.8		P	40 - 150
Acetaminophen	83.3		P	30 - 150
Acetamiprid	80.9		P	40 - 150
Afidopyropen	54.4		P	30 - 150
Bentazon	137		P	30 - 150
Benzovindiflupyr	79.0		P	40 - 150
Carbamazepine	73.7		P	40 - 150
Clothianidin	97.5		P	40 - 150
Dinotefuran	114		P	40 - 150
Diuron	60.5		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	96.6		P	40 - 150
Hydrocodone	96.8		P	40 - 150
Ibuprofen	70.8		P	40 - 150
Imazapyr	84.6		P	40 - 150
Imidacloprid	86.4		P	40 - 150
Linuron	66.0		P	40 - 150
Mandestrobin	89.7		P	40 - 150
MCPP	85.6		P	40 - 150
Naproxen	78.2		P	40 - 150
Primidone	91.1		P	40 - 150
Pyraclostrobin	57.1		P	40 - 150
Silvex	85.4		P	40 - 150
Thiamethoxam	93.2		P	40 - 150
Tolfenpyrad	30.6		P	30 - 150
Triclopyr	79.8		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P433117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426854	Aldrin	46.1	53.0	P/P	24 - 81.0
2426854	Alpha-BHC	74.7	72.9	P/P	65 - 110
2426854	Alpha-Chlordane	53.6	60.8	P/P	43 - 119
2426854	Beta-BHC	55.4	56.8	P/P	54 - 165
2426854	Beta-Cyfluthrin	71.4	91.0	P/P	27 - 165
2426854	Bifenthrin	62.0	76.3	P/P	17 - 117
2426854	Carbophenothion	34.5	42.5	P/P	21 - 108
2426854	Chlorothalonil	83.2	83.4	P/P	10 - 255
2426854	Cis-Nonachlor	53.3	47.2	P/P	34 - 98.0
2426854	Cypermethrin	93.7	107	P/P	25 - 143
2426854	Dacthal	67.9	70.0	P/P	55 - 139
2426854	DDD-p,p'	54.0	53.5	P/P	30 - 109
2426854	DDE-p,p'	56.8	55.5	P/P	35 - 106
2426854	DDT-p,p'	53.7	52.5	P/P	41 - 101
2426854	Delta-BHC	86.2	89.8	P/P	58 - 165
2426854	Deltamethrin	93.4	118	P/P	10 - 194
2426854	Dichlobenil	52.4	55.5	P/P	22 - 114
2426854	Dicofol	51.3	56.7	P/P	17 - 133
2426854	Dieldrin	60.9	59.6	P/P	45 - 129
2426854	Endosulfan I	64.8	63.1	P/P	49 - 104
2426854	Endosulfan II	49.5	51.5	P/P	37 - 117
2426854	Endosulfan Sulfate	50.5	56.1	P/P	38 - 128
2426854	Endrin	57.3	62.8	P/P	35 - 116
2426854	Endrin Aldehyde	57.8	61.4	P/P	19 - 108
2426854	Endrin Ketone	73.8	66.8	P/P	44 - 134
2426854	Esfenvalerate	97.6	122	P/P	27 - 176
2426854	Ethalfuralin	52.6	65.3	P/P	49 - 100
2426854	Fenpropathrin	66.5	77.9	P/P	34 - 117
2426854	Gamma-BHC	69.5	64.2	P/P	59 - 129
2426854	Gamma-Chlordane	41.2	46.4	P/P	33 - 107
2426854	Heptachlor	50.3	49.0	P/P	37 - 94.0
2426854	Heptachlor Epoxide	58.9	62.1	P/P	38 - 118
2426854	Hexachlorobenzene	46.2	48.0	P/P	35 - 97.0
2426854	Kepone	103	101	P/P	10 - 221
2426854	Lambda-Cyhalothrin	54.4	68.6	P/P	23 - 190
2426854	Methoprene	42.7	43.1	P/P	21 - 109
2426854	Methoxychlor	57.0	65.1	P/P	46 - 118
2426854	MGK-264	51.2	58.5	P/P	39 - 122
2426854	Mirex	46.9	49.7	P/P	25 - 90.0
2426854	Oxychlordane	53.2	54.8	P/P	42 - 100
2426854	Permethrin	62.9	94.7	P/P	33 - 181
2426854	Phenothrin	52.2	71.4	P/P	12 - 125
2426854	Piperonyl Butoxide	54.5	57.2	P/P	10 - 178
2426854	Prallethrin	68.7	69.6	P/P	24 - 122
2426854	Tau-Fluvalinate	70.3	92.6	P/P	13 - 151
2426854	Tetramethrin	93.6	99.0	P/P	16 - 172
2426854	Trans-Nonachlor	36.4	44.3	F/P	39 - 100
2426854	Triclosan Methyl	59.7	58.1	P/P	43 - 110
2426854	Trifluralin	53.3	65.8	P/P	45 - 94.0
2426978	PCB-1016	67.0	56.0	P/P	45 - 107
2426978	PCB-1260	61.2	56.6	P/P	40 - 112

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P433117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426978	Chlordane	57.1	53.4	P/P	43 - 123
2426978	Toxaphene	60.2	46.7	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P432932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426070	Acesulfame K	109	118	P/P	40 - 150
2426070	AMPA	61.9	66.9	P/P	40 - 150
2426070	Endothall	128	127	P/P	40 - 150
2426070	Glufosinate	82.2	77.1	P/P	40 - 150
2426070	Glyphosate	116	111	P/P	40 - 150
2426070	Sucralose	104	94.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P433066

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2426540	2,4-D	93.6	91.2	P/P	40 - 150
2426540	2,4,5-T	104	90.1	P/P	40 - 150
2426540	Acetaminophen	89.1	84.9	P/P	30 - 150
2426540	Acetamiprid	59.0	40.7	P/P	40 - 150
2426540	Afidopyropen	49.2	36.7	P/P	30 - 150
2426540	Bentazon	153	157	F/F	30 - 150
2426540	Benzovindiflupyr	79.5	78.6	P/P	40 - 150
2426540	Carbamazepine	56.5	56.5	P/P	40 - 150
2426540	Clothianidin	92.3	94.4	P/P	40 - 150
2426540	Dinotefuran	84.5	81.0	P/P	40 - 150
2426540	Diuron	32.0	24.8	F/F	40 - 150
2426540	Fenuron	71.4	61.6	P/P	40 - 150
2426540	Fluridone	91.1	84.2	P/P	40 - 150
2426540	Hydrocodone	66.6	65.9	P/P	40 - 150
2426540	Ibuprofen	84.5	75.5	P/P	40 - 150
2426540	Imazapyr	107	99.5	P/P	40 - 150
2426540	Imidacloprid	121	117	P/P	40 - 150
2426540	Linuron	61.3	61.0	P/P	40 - 150
2426540	Mandestrobin	87.2	82.0	P/P	40 - 150
2426540	MCPP	115	108	P/P	40 - 150
2426540	Naproxen	89.1	86.8	P/P	40 - 150
2426540	Primidone	89.7	83.2	P/P	40 - 150
2426540	Pyraclostrobin	83.8	83.4	P/P	40 - 150
2426540	Silvex	95.8	96.6	P/P	40 - 150
2426540	Thiamethoxam	81.0	80.3	P/P	40 - 150
2426540	Tolfenpyrad	59.7	58.5	P/P	30 - 150
2426540	Triclopyr	89.1	90.4	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P433117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426854	Aldrin	13.9	Spike	P	0 - 41
2426854	Alpha-BHC	2.40	Spike	P	0 - 25
2426854	Alpha-Chlordane	12.5	Spike	P	0 - 32
2426854	Beta-BHC	2.47	Spike	P	0 - 33
2426854	Beta-Cyfluthrin	24.1	Spike	P	0 - 43
2426854	Bifenthrin	20.7	Spike	P	0 - 52
2426854	Carbophenothion	20.9	Spike	P	0 - 49
2426854	Chlorothalonil	0.254	Spike	P	0 - 82
2426854	Cis-Nonachlor	12.2	Spike	P	0 - 33
2426854	Cypermethrin	13.7	Spike	P	0 - 51
2426854	Dacthal	3.10	Spike	P	0 - 27
2426854	DDD-p,p'	1.08	Spike	P	0 - 39
2426854	DDE-p,p'	2.28	Spike	P	0 - 31
2426854	DDT-p,p'	2.28	Spike	P	0 - 29
2426854	Delta-BHC	4.07	Spike	P	0 - 35
2426854	Deltamethrin	22.8	Spike	P	0 - 100
2426854	Dichlobenil	5.82	Spike	P	0 - 40
2426854	Dicofol	9.94	Spike	P	0 - 37
2426854	Dieldrin	2.15	Spike	P	0 - 27
2426854	Endosulfan I	2.65	Spike	P	0 - 23
2426854	Endosulfan II	3.98	Spike	P	0 - 34
2426854	Endosulfan Sulfate	10.6	Spike	P	0 - 36
2426854	Endrin	9.17	Spike	P	0 - 45
2426854	Endrin Aldehyde	6.16	Spike	P	0 - 76
2426854	Endrin Ketone	10.0	Spike	P	0 - 43
2426854	Esfenvalerate	22.5	Spike	P	0 - 51
2426854	Ethalfuralin	21.6	Spike	P	0 - 22
2426854	Fenpropathrin	15.9	Spike	P	0 - 49
2426854	Gamma-BHC	7.93	Spike	P	0 - 28
2426854	Gamma-Chlordane	11.8	Spike	P	0 - 40
2426854	Heptachlor	2.59	Spike	P	0 - 29
2426854	Heptachlor Epoxide	5.37	Spike	P	0 - 33
2426854	Hexachlorobenzene	3.63	Spike	P	0 - 36
2426854	Kepone	2.17	Spike	P	0 - 85
2426854	Lambda-Cyhalothrin	23.1	Spike	P	0 - 55
2426854	Methoprene	1.03	Spike	P	0 - 53
2426854	Methoxychlor	13.2	Spike	P	0 - 50
2426854	MGK-264	13.2	Spike	P	0 - 43
2426854	Mirex	5.74	Spike	P	0 - 40
2426854	Oxychlordane	2.98	Spike	P	0 - 31
2426854	Permethrin	40.3	Spike	P	0 - 50
2426854	Phenothrin	30.9	Spike	P	0 - 58
2426854	Piperonyl Butoxide	4.84	Spike	P	0 - 100
2426854	Prallethrin	1.24	Spike	P	0 - 39
2426854	Tau-Fluvalinate	27.4	Spike	P	0 - 54
2426854	Tetramethrin	5.61	Spike	P	0 - 51
2426854	Trans-Nonachlor	19.7	Spike	P	0 - 39
2426854	Triclosan Methyl	2.71	Spike	P	0 - 31
2426854	Trifluralin	21.1	Spike	P	0 - 22
2426978	PCB-1016	17.8	Spike	P	0 - 25
2426978	PCB-1260	7.79	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P433117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426978	Chlordane	6.76	Spike	P	0 - 28
2426978	Toxaphene	25.2	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P432932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426070	Acesulfame K	7.96	Spike	P	0 - 30
2426070	AMPA	5.89	Spike	P	0 - 30
2426070	Endothall	0.873	Spike	P	0 - 30
2426070	Glufosinate	6.34	Spike	P	0 - 30
2426070	Glyphosate	4.09	Spike	P	0 - 30
2426070	Sucralose	9.11	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P433066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2426540	2,4-D	2.60	Spike	P	0 - 30
2426540	2,4,5-T	14.3	Spike	P	0 - 30
2426540	Acetaminophen	4.80	Spike	P	0 - 30
2426540	Acetamiprid	36.9	Spike	F	0 - 30
2426540	Afidopyropen	29.1	Spike	P	0 - 30
2426540	Bentazon	2.84	Spike	P	0 - 30
2426540	Benzovindiflupyr	1.20	Spike	P	0 - 30
2426540	Carbamazepine	0.00991	Spike	P	0 - 30
2426540	Clothianidin	2.22	Spike	P	0 - 30
2426540	Dinotefuran	4.28	Spike	P	0 - 30
2426540	Diuron	25.7	Spike	P	0 - 30
2426540	Fenuron	14.8	Spike	P	0 - 30
2426540	Fluridone	7.87	Spike	P	0 - 30
2426540	Hydrocodone	1.00	Spike	P	0 - 30
2426540	Ibuprofen	11.3	Spike	P	0 - 30
2426540	Imazapyr	6.94	Spike	P	0 - 30
2426540	Imidacloprid	3.86	Spike	P	0 - 30
2426540	Linuron	0.422	Spike	P	0 - 30
2426540	Mandestrobin	6.05	Spike	P	0 - 30
2426540	MCPP	6.47	Spike	P	0 - 30
2426540	Naproxen	2.64	Spike	P	0 - 30
2426540	Primidone	7.53	Spike	P	0 - 30
2426540	Pyraclostrobin	0.378	Spike	P	0 - 30
2426540	Silvex	0.857	Spike	P	0 - 30
2426540	Thiamethoxam	0.849	Spike	P	0 - 30
2426540	Tolfenpyrad	1.96	Spike	P	0 - 30
2426540	Triclopyr	1.47	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2426805
Field Sample ID: G3SD0183

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	74.7	P	37 - 129
EPA 8270E	Decachlorobiphenyl	67.5	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	50.7	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	53.5	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	54.8	P	28 - 102
EPA 8276	PCNB	89.5	P	49 - 115

Lab Sample ID: 2426806
Field Sample ID: G3SD0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	34.1	P	30 - 160
EPA 8321B	Diuron-d6	30.4	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.6	P	30 - 160
EPA 8321B	Primidone-d5	50.8	P	30 - 160
EPA 8321B	Sucralose-d6	83.6	P	30 - 160

Lab Sample ID: 2426807
Field Sample ID: G3SD0089

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	113	P	30 - 160
EPA 8321B	Acetaminophen-d4	70.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	36.8	P	30 - 160
EPA 8321B	Diuron-d6	35.6	P	30 - 160
EPA 8321B	Endothall-d6	95.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	48.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.1	P	30 - 160
EPA 8321B	Primidone-d5	58.5	P	30 - 160
EPA 8321B	Sucralose-d6	98.3	P	30 - 160

Lab Sample ID: 2426808
Field Sample ID: G3SD0064

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	87.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	73.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	30.3	P	30 - 160
EPA 8321B	Diuron-d6	46.4	P	30 - 160
EPA 8321B	Endothall-d6	118	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	52.3	P	30 - 160
EPA 8321B	Primidone-d5	48.5	P	30 - 160
EPA 8321B	Sucralose-d6	43.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A120726

Included Lab Sample IDs: 2426806, 2426807, 2426808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	96.2	106	P/P	60 - 160
Sucralose	87.9	87.3	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A120727

Included Lab Sample IDs: 2426806, 2426807, 2426808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	107	P/P	60 - 160
AMPA	108	97.6	P/P	60 - 160
AMPA	97.6	102	P/P	60 - 160
Endothall	86.8	88.4	P/P	60 - 160
Endothall	89.9	86.8	P/P	60 - 160
Glufosinate	91.5	94.7	P/P	60 - 160
Glufosinate	94.7	95.4	P/P	60 - 160
Glufosinate	94.9	91.5	P/P	60 - 160
Glyphosate	103	101	P/P	60 - 160
Glyphosate	93.6	99.0	P/P	60 - 160
Glyphosate	99.0	103	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A120735

Included Lab Sample IDs: 2426806, 2426807, 2426808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.3	83.1	P/P	50 - 150
2,4,5-T	105	98.2	P/P	50 - 150
Acetaminophen	89.5	90.2	P/P	60 - 160
Acetamiprid	102	105	P/P	50 - 150
Afidopyropen	98.0	89.1	P/P	50 - 150
Bentazon	126	112	P/P	50 - 160
Benzovindiflupyr	112	113	P/P	50 - 150
Carbamazepine	103	103	P/P	60 - 150
Clothianidin	117	104	P/P	60 - 150
Dinotefuran	108	105	P/P	50 - 150
Diuron	97.2	91.6	P/P	60 - 160
Fenuron	107	103	P/P	60 - 150
Fluridone	109	104	P/P	60 - 160
Hydrocodone	118	113	P/P	60 - 150
Ibuprofen	113	91.5	P/P	50 - 160
Imazapyr	89.9	90.7	P/P	50 - 150
Imidacloprid	96.2	94.1	P/P	60 - 150
Linuron	130	94.9	P/P	60 - 150
Mandestrobin	104	101	P/P	50 - 150
MCPP	105	92.3	P/P	50 - 150
Naproxen	133	145	P/P	50 - 160
Primidone	113	103	P/P	60 - 150
Pyraclostrobin	113	113	P/P	60 - 150
Silvex	87.2	97.2	P/P	50 - 150
Thiamethoxam	108	115	P/P	50 - 150
Tolfenpyrad	94.3	106	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A120735

Included Lab Sample IDs: 2426806, 2426807, 2426808

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Triclopyr	91.8	92.6	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A120755

Included Lab Sample IDs: 2426805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	109		P	80 - 120
Alpha-BHC	104		P	80 - 120
Alpha-Chlordane	108		P	80 - 120
Beta-BHC	98.8		P	80 - 120
Beta-Cyfluthrin	108		P	80 - 120
Bifenthrin	102		P	80 - 120
Carbophenothion	104		P	80 - 120
Chlorothalonil	115		P	80 - 120
Cis-Nonachlor	118		P	80 - 120
Cypermethrin	112		P	80 - 120
Dacthal	113		P	80 - 120
DDD-p,p'	114		P	80 - 120
DDE-p,p'	104		P	80 - 120
DDT-p,p'	98.3		P	80 - 120
Delta-BHC	115		P	80 - 120
Deltamethrin	112		P	80 - 120
Dichlobenil	116		P	80 - 120
Dicofol	94.7		P	80 - 120
Dieldrin	108		P	80 - 120
Endosulfan I	110		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	96.5		P	80 - 120
Endrin	111		P	80 - 120
Endrin Aldehyde	114		P	80 - 120
Endrin Ketone	112		P	80 - 120
Esfenvalerate	112		P	80 - 120
Ethalfuralin	117		P	80 - 120
Fenpropathrin	115		P	80 - 120
Gamma-BHC	114		P	80 - 120
Gamma-Chlordane	96.8		P	80 - 120
Heptachlor	104		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120
Hexachlorobenzene	98.2		P	80 - 120
Kepone	102		P	80 - 120
Lambda-Cyhalothrin	94.6		P	80 - 120
Methoprene	92.4		P	80 - 120
Methoxychlor	91.7		P	80 - 120
MGK-264	97.5		P	80 - 120
Mirex	94.4		P	80 - 120
Oxychlordane	104		P	80 - 120
Permethrin	98.3		P	80 - 120
Phenothrin	95.0		P	80 - 120
Piperonyl Butoxide	98.3		P	80 - 120
Prallethrin	110		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A120755
Included Lab Sample IDs: 2426805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tau-Fluvalinate	103		P	80 - 120
Tetramethrin	107		P	80 - 120
Trans-Nonachlor	101		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	111		P	80 - 120

Reference Method: EPA 8321B
Run ID: A120758
Included Lab Sample IDs: 2426806

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	125	107	P/P	50 - 150
Imazapyr	129	127	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A120815
Included Lab Sample IDs: 2426805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	98.8		P	80 - 120
PCB-1260	91.6		P	80 - 120

Reference Method: EPA 8276
Run ID: A120845
Included Lab Sample IDs: 2426805

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	90.2		P	80 - 120
Toxaphene	84.0		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	MS
						SMP	
EPA 8270E	Aldrin	54.6	46.1	53.0			13.9
	Alpha-BHC	84.3	74.7	72.9			2.40
	Alpha-Chlordane	75.3	53.6	60.8			12.5
	Beta-BHC	74.9	55.4	56.8			2.47
	Beta-Cyfluthrin	100	71.4	91.0			24.1
	Bifenthrin	77.2	62.0	76.3			20.7
	Carbophenothion	48.8	34.5	42.5			20.9
	Chlorothalonil	87.3	83.2	83.4			0.254
	Cis-Nonachlor	81.9	53.3	47.2			12.2
	Cypermethrin	110	93.7	107			13.7
	Dacthal	112	67.9	70.0			3.10
	DDD-p,p'	88.1	54.0	53.5			1.08
	DDE-p,p'	63.5	56.8	55.5			2.28
	DDT-p,p'	66.8	53.7	52.5			2.28
	Delta-BHC	101	86.2	89.8			4.07
	Deltamethrin	140	93.4	118			22.8
	Dichlobenil	64.7	52.4	55.5			5.82
	Dicofol	56.8	51.3	56.7			9.94
	Dieldrin	69.2	60.9	59.6			2.15
	Endosulfan I	76.6	64.8	63.1			2.65
	Endosulfan II	68.0	49.5	51.5			3.98
	Endosulfan Sulfate	71.4	50.5	56.1			10.6
	Endrin	69.8	57.3	62.8			9.17
	Endrin Aldehyde	64.2	57.8	61.4			6.16
	Endrin Ketone	109	73.8	66.8			10.0
	Esfenvalerate	117	97.6	122			22.5
	Ethalfuralin	70.0	52.6	65.3			21.6
	Fenpropathrin	88.9	66.5	77.9			15.9
	Gamma-BHC	101	69.5	64.2			7.93
	Gamma-Chlordane	58.9	41.2	46.4			11.8
	Heptachlor	66.8	50.3	49.0			2.59
	Heptachlor Epoxide	73.9	58.9	62.1			5.37
	Hexachlorobenzene	69.4	46.2	48.0			3.63
	Kepone	98.2	103	101			2.17
	Lambda-Cyhalothrin	75.6	54.4	68.6			23.1
	Methoprene	56.7	42.7	43.1			1.03
	Methoxychlor	62.5	57.0	65.1			13.2
	MGK-264	68.8	51.2	58.5			13.2
	Mirex	53.5	46.9	49.7			5.74
	Oxychlordane	65.7	53.2	54.8			2.98
	PCB-1016	81.1	67.0	56.0			17.8
	PCB-1260	74.1	61.2	56.6			7.79
	Permethrin	85.9	62.9	94.7			40.3
	Phenothrin	58.7	52.2	71.4			30.9
	Piperonyl Butoxide	68.3	54.5	57.2			4.84
	Prallethrin	79.1	68.7	69.6			1.24
	Tau-Fluvalinate	93.4	70.3	92.6			27.4
	Tetramethrin	129	93.6	99.0			5.61
	Trans-Nonachlor	58.2	36.4	44.3			19.7
	Triclosan Methyl	63.1	59.7	58.1			2.71
	Trifluralin	67.7	53.3	65.8			21.1
EPA 8276	Chlordane	70.8	57.1	53.4			6.76
	Toxaphene	66.8	60.2	46.7			25.2
EPA 8321B	2,4-D	85.2	93.6	91.2			2.60

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	2,4,5-T	79.8	104	90.1		14.3
	Acesulfame K	94.9	109	118		7.96
	Acetaminophen	83.3	89.1	84.9		4.80
	Acetamiprid	80.9	59.0	40.7		36.9
	Afidopyropen	54.4	49.2	36.7		29.1
	AMPA	57.2	61.9	66.9		5.89
	Bentazon	137	153	157		2.84
	Benzovindiflupyr	79.0	79.5	78.6		1.20
	Carbamazepine	73.7	56.5	56.5		0.0099
	Clothianidin	97.5	92.3	94.4		2.22
	Dinotefuran	114	84.5	81.0		4.28
	Diuron	60.5	32.0	24.8		25.7
	Endothall	91.1	128	127		0.873
	Fenuron	103	71.4	61.6		14.8
	Fluridone	96.6	91.1	84.2		7.87
	Glufosinate	104	82.2	77.1		6.34
	Glyphosate	110	116	111		4.09
	Hydrocodone	96.8	66.6	65.9		1.00
	Ibuprofen	70.8	84.5	75.5		11.3
	Imazapyr	84.6	107	99.5		6.94
	Imidacloprid	86.4	121	117		3.86
	Linuron	66.0	61.3	61.0		0.422
	Mandestrobin	89.7	87.2	82.0		6.05
	MCPP	85.6	115	108		6.47
	Naproxen	78.2	89.1	86.8		2.64
	Primidone	91.1	89.7	83.2		7.53
	Pyraclostrobin	57.1	83.8	83.4		0.378
	Silvex	85.4	95.8	96.6		0.857
	Sucralose	96.0	104	94.5		9.11
	Thiamethoxam	93.2	81.0	80.3		0.849
	Tolfenpyrad	30.6	59.7	58.5		1.96
	Triclopyr	79.8	89.1	90.4		1.47

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2426805
EPA 8270E	PCBs in water matrices by GC/MS/MS	2426805
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2426805
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2426806, 2426807, 2426808

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	07/26/2023	07/28/2023 08:00	Fe-Val Siddell	07/31/2023 21:23	Michael Poppell	2426805
	07/26/2023	07/28/2023 08:00	Fe-Val Siddell	08/03/2023 02:15	Julie Wi	2426805
EPA 8276	07/26/2023	07/28/2023 08:00	Fe-Val Siddell	08/03/2023 20:26	Arthur Maknenko	2426805
EPA 8321B	07/26/2023	07/26/2023 12:30	Hana Lee	07/26/2023 12:57	Tae K Lee	2426806
	07/26/2023	07/26/2023 12:30	Hana Lee	07/26/2023 14:42	Tae K Lee	2426807
	07/26/2023	07/26/2023 12:30	Hana Lee	07/26/2023 14:55	Tae K Lee	2426808
	07/26/2023	07/26/2023 12:30	Hana Lee	07/26/2023 16:14	Tae K Lee	2426807
	07/26/2023	07/26/2023 12:30	Hana Lee	07/26/2023 16:40	Tae K Lee	2426808
	07/26/2023	07/26/2023 12:30	Hana Lee	07/27/2023 12:01	Tae K Lee	2426806
	07/26/2023	07/26/2023 12:30	Hana Lee	07/27/2023 12:15	Tae K Lee	2426807
	07/26/2023	07/26/2023 12:30	Hana Lee	07/27/2023 12:29	Tae K Lee	2426808
	07/26/2023	07/27/2023 09:00	Hoor Shaik	07/28/2023 20:32	Juyoung Kim	2426806
	07/26/2023	07/27/2023 09:00	Hoor Shaik	07/28/2023 20:51	Juyoung Kim	2426807
	07/26/2023	07/27/2023 09:00	Hoor Shaik	07/28/2023 21:10	Juyoung Kim	2426808
	07/26/2023	07/27/2023 09:00	Hoor Shaik	07/31/2023 17:31	Juyoung Kim	2426806