

Chemical Analysis Report

SO-DIST-2023-09-26-01

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

Event Description: **2023 SMP: SARASOTA**
Request ID: **RQ-2023-09-25-21**
Customer: **SO-DIST**
Project ID: **SMP**

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FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 20-OCT-2023 10:20



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: 09/25/2023 13:00

Field ID: G3SD0092

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440412	EPA 8321B	2,4-D	0.16	Q	ug/L	P436051	
		Acesulfame K	0.10	I	ug/L	P435496	
		2,4,5-T	0.0040	U	ug/L	P435567	
		AMPA	1.4		ug/L	P435496	
		Acetaminophen	0.0080	U	ug/L	P435567	
		Acetamiprid	0.0020	U	ug/L	P435567	
		Endothall	0.25	U	ug/L	P435496	MS
		Glufosinate	0.10	U	ug/L	P435496	
		Glyphosate	100		ug/L	P435496	
		Afidopyropen	0.0020	U	ug/L	P435567	
		Bentazon	0.0038		ug/L	P435567	
		Sucralose	0.27		ug/L	P435496	
		Benzovindiflupyr	0.0020	U	ug/L	P435567	
		Carbamazepine	8.0E-04	U	ug/L	P435567	
		Clothianidin	0.0020	U	ug/L	P435567	
		Dinotefuran	0.0020	U	ug/L	P435567	
		Diuron	0.0020	U	ug/L	P435567	
		Fenuron	0.032	U	ug/L	P435567	
		Fluridone	0.031		ug/L	P435567	MS
		Imazapyr	22		ug/L	P435567	
		Hydrocodone	0.0020	U	ug/L	P435567	
		Ibuprofen	0.080	U	ug/L	P435567	
		Imidacloprid	0.18		ug/L	P435567	
		Linuron	0.0040	U	ug/L	P435567	
		Mandestrobin	0.0020	U	ug/L	P435567	
		MCPP	0.0020	U	ug/L	P435567	
		Naproxen	0.0080	U	ug/L	P435567	
		Primidone	0.0040	U	ug/L	P435567	
		Pyraclostrobin	0.0020	U	ug/L	P435567	
		Silvex	0.0040	U	ug/L	P435567	
		Thiamethoxam	0.0020	U	ug/L	P435567	
		Tolfenpyrad	0.0020	U	ug/L	P435567	
		Triclopyr	0.0040	U	ug/L	P435567	

Ref. Method and Comment:

EPA 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample. 2,4-D - reported beyond holding time due to technical difficulties in the first analysis.

Sample Location: North Creek (Tidal) at US 41

Collection Date/Time: 09/25/2023 13:20

Field ID: G3SD0089

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440413	EPA 8321B	2,4-D	0.010		ug/L	P435737	
		Acesulfame K	0.10	I	ug/L	P435496	
		2,4,5-T	0.0040	U	ug/L	P435567	
		AMPA	1.0	U	ug/L	P435496	
		Acetaminophen	0.0080	U	ug/L	P435567	
		Acetamiprid	0.0020	U	ug/L	P435567	
		Endothall	0.25	U	ug/L	P435496	MS
		Glufosinate	1.0	U	ug/L	P435496	
		Glyphosate	1.0	U	ug/L	P435496	
		Afidopyropen	0.0020	U	ug/L	P435567	
		Bentazon	0.0082		ug/L	P435567	
		Sucralose	1.9		ug/L	P435496	
		Benzovindiflupyr	0.0020	U	ug/L	P435567	
		Carbamazepine	9.0E-04	I	ug/L	P435567	
		Clothianidin	0.0032	I	ug/L	P435567	
		Dinotefuran	0.0025	I	ug/L	P435567	
		Diuron	0.0020	U	ug/L	P435567	
		Fenuron	0.032	U	ug/L	P435567	
		Fluridone	0.023		ug/L	P435567	MS
		Imazapyr	0.50		ug/L	P435567	
		Hydrocodone	0.0020	U	ug/L	P435567	
		Ibuprofen	0.080	U	ug/L	P435567	
		Imidacloprid	0.021		ug/L	P435567	
		Linuron	0.0040	U	ug/L	P435567	
		Mandestrobin	0.0020	U	ug/L	P435567	
		MCPP	0.0020	U	ug/L	P435567	
		Naproxen	0.0080	U	ug/L	P435567	
		Primidone	0.0046	I	ug/L	P435567	
		Pyraclostrobin	0.0020	U	ug/L	P435567	
		Silvex	0.0040	U	ug/L	P435567	
		Thiamethoxam	0.0020	U	ug/L	P435567	
		Tolfenpyrad	0.0020	U	ug/L	P435567	
		Triclopyr	0.0040	U	ug/L	P435567	

Ref. Method and Comment:

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

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

Sample Location: North Creek by Oaks Creek Ct

Collection Date/Time: 09/25/2023 13:35

Field ID: G3SD0064

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440414	EPA 8321B	2,4-D	0.0036	I	ug/L	P435737	
		Acesulfame K	0.10	U	ug/L	P435496	
		2,4,5-T	0.0040	U	ug/L	P435567	
		AMPA	0.18	I	ug/L	P435496	
		Acetaminophen	0.0080	U	ug/L	P435567	
		Acetamiprid	0.0020	U	ug/L	P435567	
		Endothall	0.25	U	ug/L	P435496	MS
		Glufosinate	0.10	U	ug/L	P435496	
		Glyphosate	0.50		ug/L	P435496	
		Afidopyropen	0.0020	U	ug/L	P435567	
		Bentazon	0.018		ug/L	P435567	
		Sucralose	0.64		ug/L	P435496	
		Benzovindiflupyr	0.0020	U	ug/L	P435567	
		Carbamazepine	8.0E-04	U	ug/L	P435567	
		Clothianidin	0.0067	I	ug/L	P435567	
		Dinotefuran	0.0020	U	ug/L	P435567	
		Diuron	0.0020	U	ug/L	P435567	
		Fenuron	0.032	U	ug/L	P435567	
		Fluridone	0.0071		ug/L	P435567	MS
		Imazapyr	0.20		ug/L	P435567	
		Hydrocodone	0.0020	U	ug/L	P435567	
		Ibuprofen	0.080	U	ug/L	P435567	
		Imidacloprid	0.014		ug/L	P435567	
		Linuron	0.0040	U	ug/L	P435567	
		Mandestrobin	0.0020	U	ug/L	P435567	
		MCPP	0.0020	U	ug/L	P435567	
		Naproxen	0.0080	U	ug/L	P435567	
		Primidone	0.0040	U	ug/L	P435567	
		Pyraclostrobin	0.0020	U	ug/L	P435567	
		Silvex	0.0040	U	ug/L	P435567	
		Thiamethoxam	0.0020	U	ug/L	P435567	
		Tolfenpyrad	0.0020	U	ug/L	P435567	
		Triclopyr	0.0040	U	ug/L	P435567	

Ref. Method and Comment:

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

Sample Location: South Creek near Legacy

Collection Date/Time: 09/25/2023 14:00

Field ID: G3SD0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440409	EPA 8270E	Aldrin	0.67	U	ng/L	P435653	
		Alpha-BHC	0.10	U	ng/L	P435653	
		Alpha-Chlordane	0.21	U	ng/L	P435653	
		PCB-1016	2.1	U	ng/L	P435653	
		Beta-BHC	0.10	U	ng/L	P435653	
		PCB-1221	2.1	U	ng/L	P435653	
		Beta-Cyfluthrin	1.3	U	ng/L	P435653	
		PCB-1232	2.1	U	ng/L	P435653	
		Bifenthrin	0.51	U	ng/L	P435653	
		PCB-1242	2.1	U	ng/L	P435653	
		Carbophenothion	0.92	U	ng/L	P435653	
		PCB-1248	2.1	U	ng/L	P435653	
		Chlorothalonil	3.7	U	ng/L	P435653	
		PCB-1254	2.1	U	ng/L	P435653	
		Cis-Nonachlor	0.21	U	ng/L	P435653	
		PCB-1260	2.1	U	ng/L	P435653	
		Cypermethrin	1.5	U	ng/L	P435653	
		Dacthal	0.15	U	ng/L	P435653	
		DDD-p,p'	0.26	U	ng/L	P435653	
		DDE-p,p'	0.21	U	ng/L	P435653	
		DDT-p,p'	0.82	U	ng/L	P435653	
		Delta-BHC	0.46	I	ng/L	P435653	
		Deltamethrin	1.3	U	ng/L	P435653	
		Dichlobenil	0.26	U	ng/L	P435653	
		Dicofol	1.3	U	ng/L	P435653	
		Dieldrin	0.41	U	ng/L	P435653	
		Endosulfan I	0.41	U	ng/L	P435653	
		Endosulfan II	0.92	U	ng/L	P435653	
		Endosulfan Sulfate	0.31	U	ng/L	P435653	
		Endrin	0.92	U	ng/L	P435653	
		Endrin Aldehyde	0.77	U	ng/L	P435653	
		Endrin Ketone	0.41	U	ng/L	P435653	
		Esfenvalerate	0.77	U	ng/L	P435653	
		Ethalfuralin	0.15	U	ng/L	P435653	
		Fenpropathrin	0.26	U	ng/L	P435653	
		Gamma-BHC	0.13	U	ng/L	P435653	RPD
		Gamma-Chlordane	0.21	U	ng/L	P435653	
		Heptachlor	0.21	U	ng/L	P435653	
		Heptachlor Epoxide	0.26	U	ng/L	P435653	
		Hexachlorobenzene**	1.0	U	ng/L	P435653	
		Kepone	14	U	ng/L	P435653	
		Lambda-Cyhalothrin	0.77	U	ng/L	P435653	
		Methoprene	0.77	U	ng/L	P435653	
		Methoxychlor	0.31	U	ng/L	P435653	

Field ID: G3SD0183

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2440409	EPA 8270E	MGK-264	0.21	U	ng/L	P435653	
		Mirex	0.36	U	ng/L	P435653	
		Oxychlordane	0.31	U	ng/L	P435653	
		Permethrin	1.6	U	ng/L	P435653	
		Phenothrin	0.92	U	ng/L	P435653	
		Piperonyl Butoxide	0.15	U	ng/L	P435653	
		Prallethrin	2.1	U	ng/L	P435653	
		Tau-Fluvalinate	0.26	U	ng/L	P435653	
		Tetramethrin	0.77	U	ng/L	P435653	
		Trans-Nonachlor	0.21	U	ng/L	P435653	
		Triclosan Methyl	0.15	U	ng/L	P435653	
		Trifluralin	0.21	U	ng/L	P435653	
	EPA 8276	Chlordane	2.1	U	ng/L	P435653	
		Toxaphene	270		ng/L	P435653	

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P435653

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P435653

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

Reference Method: EPA 8276
Batch ID: P435653

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

Reference Method: EPA 8321B
Batch ID: P435496

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: P435567

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P435567

Component	Result	Code	Units
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P435737

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P436051

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P435653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.2		P	30 - 96.0
Alpha-BHC	77.4		P	70 - 109
Alpha-Chlordane	88.3		P	45 - 107
Beta-BHC	73.8		P	64 - 138
Beta-Cyfluthrin	77.8		P	17 - 141
Bifenthrin	54.3		P	10 - 113
Carbophenothion	50.2		P	24 - 91.0
Chlorothalonil	107		P	26 - 180
Cis-Nonachlor	70.4		P	37 - 102
Cypermethrin	69.5		P	20 - 133
Dacthal	99.0		P	69 - 114
DDD-p,p'	61.9		P	42 - 105
DDE-p,p'	68.2		P	42 - 106
DDT-p,p'	56.4		P	42 - 107
Delta-BHC	103		P	67 - 144
Deltamethrin	76.9		P	15 - 149
Dichlobenil	74.7		P	46 - 117
Dicofol	67.4		P	34 - 114
Dieldrin	74.6		P	50 - 108
Endosulfan I	76.2		P	55 - 104
Endosulfan II	93.6		P	51 - 111
Endosulfan Sulfate	83.1		P	56 - 121
Endrin	77.6		P	10 - 106
Endrin Aldehyde	62.1		P	34 - 114
Endrin Ketone	94.7		P	63 - 177
Esfenvalerate	64.6		P	29 - 143
Ethalfuralin	73.9		P	46 - 96.0
Fenpropathrin	71.8		P	28 - 115
Gamma-BHC	79.0		P	65 - 121
Gamma-Chlordane	73.4		P	39 - 103
Heptachlor	56.5		P	39 - 94.0
Heptachlor Epoxide	74.6		P	54 - 104
Hexachlorobenzene	78.3		P	36 - 100
Kepone	140		P	10 - 225
Lambda-Cyhalothrin	56.8		P	10 - 135
Methoprene	48.4		P	10 - 109
Methoxychlor	74.2		P	52 - 112
MGK-264	60.6		P	44 - 117
Mirex	64.9		P	20 - 90.0
Oxychlordane	70.1		P	44 - 102
PCB-1016	77.3		P	45 - 107
PCB-1260	89.1		P	40 - 118
Permethrin	73.3		P	18 - 135
Phenothrin	55.1		P	10 - 102
Piperonyl Butoxide	81.5		P	28 - 156
Prallethrin	71.7		P	28 - 113
Tau-Fluvalinate	68.8		P	10 - 123
Tetramethrin	65.5		P	18 - 158
Trans-Nonachlor	71.0		P	39 - 104
Triclosan Methyl	66.1		P	54 - 108
Trifluralin	69.8		P	46 - 97.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276

Batch ID: P435653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	92.2		P	52 - 117
Toxaphene	99.8		P	44 - 125

Reference Method: EPA 8321B

Batch ID: P435496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.9		P	40 - 150
AMPA	76.6		P	40 - 150
Endothall	99.7		P	40 - 150
Glufosinate	126		P	40 - 150
Glyphosate	72.5		P	40 - 150
Sucralose	99.3		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P435567

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	119		P	40 - 150
Acetaminophen	98.9		P	30 - 150
Acetamiprid	92.1		P	40 - 150
Afidopyropen	48.0		P	30 - 150
Bentazon	93.0		P	30 - 150
Benzovindiflupyr	91.2		P	40 - 150
Carbamazepine	95.8		P	40 - 150
Clothianidin	110		P	40 - 150
Dinotefuran	116		P	40 - 150
Diuron	90.0		P	40 - 150
Fenuron	98.1		P	40 - 150
Fluridone	79.7		P	40 - 150
Hydrocodone	97.7		P	40 - 150
Ibuprofen	74.8		P	40 - 150
Imazapyr	98.0		P	40 - 150
Imidacloprid	96.6		P	40 - 150
Linuron	71.1		P	40 - 150
Mandestrobin	90.9		P	40 - 150
MCPP	110		P	40 - 150
Naproxen	70.8		P	40 - 150
Primidone	97.3		P	40 - 150
Pyraclostrobin	88.9		P	40 - 150
Silvex	85.4		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	59.2		P	30 - 150
Triclopyr	114		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P435737

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	130		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P436051

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	89.1		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P435653

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440340	PCB-1016	78.1	85.7	P/P	45 - 107
2440340	PCB-1260	78.4	88.8	P/P	40 - 112
2441048	Aldrin	63.9	65.3	P/P	24 - 81.0
2441048	Alpha-BHC	96.5	83.3	P/P	65 - 110
2441048	Alpha-Chlordane	91.1	76.7	P/P	43 - 119
2441048	Beta-BHC	83.7	89.6	P/P	54 - 165
2441048	Beta-Cyfluthrin	94.0	105	P/P	27 - 165
2441048	Bifenthrin	71.4	60.2	P/P	17 - 117
2441048	Carbophenothion	77.0	66.1	P/P	21 - 108
2441048	Chlorothalonil	11.8	12.1	P/P	10 - 255
2441048	Cis-Nonachlor	72.0	79.4	P/P	34 - 98.0
2441048	Cypermethrin	94.0	101	P/P	25 - 143
2441048	Dacthal	97.2	84.7	P/P	55 - 139
2441048	DDD-p,p'	59.8	64.8	P/P	30 - 109
2441048	DDE-p,p'	68.4	57.5	P/P	35 - 106
2441048	DDT-p,p'	58.6	61.1	P/P	41 - 101
2441048	Delta-BHC	150	117	P/P	58 - 165
2441048	Deltamethrin	119	118	P/P	10 - 194
2441048	Dichlobenil	50.7	52.3	P/P	22 - 114
2441048	Dicofol	86.9	76.9	P/P	17 - 133
2441048	Dieldrin	85.4	72.7	P/P	45 - 129
2441048	Endosulfan I	99.7	86.7	P/P	49 - 104
2441048	Endosulfan II	90.0	88.7	P/P	37 - 117
2441048	Endosulfan Sulfate	83.9	77.4	P/P	38 - 128
2441048	Endrin	89.0	76.2	P/P	35 - 116
2441048	Endrin Aldehyde	54.9	55.9	P/P	19 - 108
2441048	Endrin Ketone	96.9	102	P/P	44 - 134
2441048	Esfenvalerate	106	99.0	P/P	27 - 176
2441048	Ethalfuralin	78.3	63.7	P/P	49 - 100
2441048	Fenpropathrin	82.5	75.7	P/P	34 - 117
2441048	Gamma-BHC	119	88.7	P/P	59 - 129
2441048	Gamma-Chlordane	90.6	71.9	P/P	33 - 107
2441048	Heptachlor	85.0	67.2	P/P	37 - 94.0
2441048	Heptachlor Epoxide	94.2	70.6	P/P	38 - 118
2441048	Hexachlorobenzene	73.0	66.5	P/P	35 - 97.0
2441048	Kepone	119	116	P/P	10 - 221
2441048	Lambda-Cyhalothrin	96.9	107	P/P	23 - 190
2441048	Methoprene	50.1	53.5	P/P	21 - 109
2441048	Methoxychlor	115	97.9	P/P	46 - 118
2441048	MGK-264	64.3	63.9	P/P	39 - 122
2441048	Mirex	73.5	71.6	P/P	25 - 90.0
2441048	Oxychlordane	81.6	66.7	P/P	42 - 100
2441048	Permethrin	80.1	99.1	P/P	33 - 181
2441048	Phenothrin	71.6	103	P/P	12 - 125
2441048	Piperonyl Butoxide	86.4	78.1	P/P	10 - 178
2441048	Prallethrin	80.3	82.0	P/P	24 - 122
2441048	Tau-Fluvalinate	103	100	P/P	13 - 151
2441048	Tetramethrin	84.7	93.5	P/P	16 - 172
2441048	Trans-Nonachlor	96.9	75.3	P/P	39 - 100
2441048	Triclosan Methyl	79.0	79.6	P/P	43 - 110
2441048	Trifluralin	74.0	70.2	P/P	45 - 94.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P435653

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440340	Chlordane	72.0	67.8	P/P	43 - 123
2440340	Toxaphene	82.9	76.9	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P435496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440366	Acesulfame K	88.0	87.9	P/P	40 - 150
2440366	AMPA	64.6	64.3	P/P	40 - 150
2440366	Endothall	155	156	F/F	40 - 150
2440366	Glufosinate	119	108	P/P	40 - 150
2440366	Glyphosate	115	96.5	P/P	40 - 150
2440366	Sucralose	96.9	108	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P435567

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2440342	2,4,5-T	93.3	86.5	P/P	40 - 150
2440342	Acetaminophen	116	111	P/P	30 - 150
2440342	Acetamiprid	65.1	66.9	P/P	40 - 150
2440342	Afidopyrophen	51.3	57.3	P/P	30 - 150
2440342	Bentazon	37.7	37.6	P/P	30 - 150
2440342	Benzovindiflupyr	83.3	80.2	P/P	40 - 150
2440342	Carbamazepine	67.4	65.1	P/P	40 - 150
2440342	Clothianidin	83.2	79.4	P/P	40 - 150
2440342	Dinotefuran	95.6	87.5	P/P	40 - 150
2440342	Diuron	56.3	56.0	P/P	40 - 150
2440342	Fenuron	57.0	55.5	P/P	40 - 150
2440342	Fluridone	44.9	39.9	P/F	40 - 150
2440342	Hydrocodone	59.4	55.5	P/P	40 - 150
2440342	Ibuprofen	50.8	60.8	P/P	40 - 150
2440342	Imidacloprid	116	108	P/P	40 - 150
2440342	Linuron	50.8	46.9	P/P	40 - 150
2440342	Mandestrobin	69.7	66.7	P/P	40 - 150
2440342	MCPP	91.5	85.3	P/P	40 - 150
2440342	Naproxen	55.5	60.3	P/P	40 - 150
2440342	Primidone	75.1	68.6	P/P	40 - 150
2440342	Pyraclostrobin	81.2	77.0	P/P	40 - 150
2440342	Silvex	83.1	72.3	P/P	40 - 150
2440342	Thiamethoxam	82.7	78.2	P/P	40 - 150
2440342	Tolfenpyrad	60.0	61.2	P/P	30 - 150
2440342	Triclopyr	99.1	93.7	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P435737

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441446	2,4-D	93.5	90.8	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P436051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2442904	2,4-D	97.0	100	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P435653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440340	PCB-1016	9.27	Spike	P	0 - 25
2440340	PCB-1260	12.5	Spike	P	0 - 30
2441048	Aldrin	2.25	Spike	P	0 - 41
2441048	Alpha-BHC	14.6	Spike	P	0 - 25
2441048	Alpha-Chlordane	17.2	Spike	P	0 - 32
2441048	Beta-BHC	6.78	Spike	P	0 - 33
2441048	Beta-Cyfluthrin	11.5	Spike	P	0 - 43
2441048	Bifenthrin	17.0	Spike	P	0 - 52
2441048	Carbophenothion	15.2	Spike	P	0 - 30
2441048	Chlorothalonil	2.54	Spike	P	0 - 82
2441048	Cis-Nonachlor	9.80	Spike	P	0 - 33
2441048	Cypermethrin	7.34	Spike	P	0 - 51
2441048	Dacthal	13.7	Spike	P	0 - 27
2441048	DDD-p,p'	7.97	Spike	P	0 - 39
2441048	DDE-p,p'	17.3	Spike	P	0 - 31
2441048	DDT-p,p'	4.24	Spike	P	0 - 29
2441048	Delta-BHC	25.0	Spike	P	0 - 35
2441048	Deltamethrin	0.276	Spike	P	0 - 100
2441048	Dichlobenil	3.01	Spike	P	0 - 40
2441048	Dicofol	12.3	Spike	P	0 - 37
2441048	Dieldrin	16.1	Spike	P	0 - 27
2441048	Endosulfan I	14.0	Spike	P	0 - 23
2441048	Endosulfan II	1.45	Spike	P	0 - 34
2441048	Endosulfan Sulfate	7.99	Spike	P	0 - 36
2441048	Endrin	15.5	Spike	P	0 - 45
2441048	Endrin Aldehyde	1.87	Spike	P	0 - 76
2441048	Endrin Ketone	5.33	Spike	P	0 - 43
2441048	Esfenvalerate	7.02	Spike	P	0 - 51
2441048	Ethalfuralin	20.6	Spike	P	0 - 22
2441048	Fenpropathrin	8.62	Spike	P	0 - 49
2441048	Gamma-BHC	29.3	Spike	F	0 - 28
2441048	Gamma-Chlordane	23.0	Spike	P	0 - 40
2441048	Heptachlor	23.4	Spike	P	0 - 29
2441048	Heptachlor Epoxide	28.6	Spike	P	0 - 33
2441048	Hexachlorobenzene	9.29	Spike	P	0 - 36
2441048	Kepone	3.04	Spike	P	0 - 85
2441048	Lambda-Cyhalothrin	9.76	Spike	P	0 - 55
2441048	Methoprene	6.67	Spike	P	0 - 53
2441048	Methoxychlor	15.8	Spike	P	0 - 50
2441048	MGK-264	0.739	Spike	P	0 - 43
2441048	Mirex	2.68	Spike	P	0 - 40
2441048	Oxychlordane	20.1	Spike	P	0 - 31
2441048	Permethrin	21.2	Spike	P	0 - 50
2441048	Phenothrin	36.3	Spike	P	0 - 58
2441048	Piperonyl Butoxide	10.1	Spike	P	0 - 100
2441048	Prallethrin	2.10	Spike	P	0 - 39
2441048	Tau-Fluvalinate	2.18	Spike	P	0 - 54
2441048	Tetramethrin	9.88	Spike	P	0 - 51
2441048	Trans-Nonachlor	25.1	Spike	P	0 - 39
2441048	Triclosan Methyl	0.814	Spike	P	0 - 31
2441048	Trifluralin	5.26	Spike	P	0 - 22

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P435653

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440340	Chlordane	5.59	Spike	P	0 - 28
2440340	Toxaphene	7.50	Spike	P	0 - 27

Reference Method: EPA 8321B

Batch ID: P435496

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440366	Acesulfame K	0.157	Spike	P	0 - 30
2440366	AMPA	0.354	Spike	P	0 - 30
2440366	Endothall	0.668	Spike	P	0 - 30
2440366	Glufosinate	9.58	Spike	P	0 - 30
2440366	Glyphosate	17.4	Spike	P	0 - 30
2440366	Sucralose	10.5	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P435567

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440342	2,4,5-T	7.48	Spike	P	0 - 30
2440342	Acetaminophen	5.12	Spike	P	0 - 30
2440342	Acetamiprid	2.84	Spike	P	0 - 30
2440342	Afidopyropen	11.1	Spike	P	0 - 30
2440342	Bentazon	0.151	Spike	P	0 - 30
2440342	Benzovindiflupyr	3.79	Spike	P	0 - 30
2440342	Carbamazepine	3.44	Spike	P	0 - 30
2440342	Clothianidin	4.66	Spike	P	0 - 30
2440342	Dinotefuran	8.80	Spike	P	0 - 30
2440342	Diuron	0.585	Spike	P	0 - 30
2440342	Fenuron	2.57	Spike	P	0 - 30
2440342	Fluridone	11.8	Spike	P	0 - 30
2440342	Hydrocodone	6.74	Spike	P	0 - 30
2440342	Ibuprofen	17.9	Spike	P	0 - 30
2440342	Imazapyr	0.792	Spike	P	0 - 30
2440342	Imidacloprid	6.34	Spike	P	0 - 30
2440342	Linuron	8.07	Spike	P	0 - 30
2440342	Mandestrobin	4.45	Spike	P	0 - 30
2440342	MCPP	7.06	Spike	P	0 - 30
2440342	Naproxen	8.29	Spike	P	0 - 30
2440342	Primidone	8.95	Spike	P	0 - 30
2440342	Pyraclostrobin	5.32	Spike	P	0 - 30
2440342	Silvex	13.8	Spike	P	0 - 30
2440342	Thiamethoxam	5.57	Spike	P	0 - 30
2440342	Tolfenpyrad	2.01	Spike	P	0 - 30
2440342	Triclopyr	5.61	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P435737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441446	2,4-D	2.97	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P436051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2442904	2,4-D	3.12	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2440409
Field Sample ID: G3SD0183

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	89.8	P	37 - 129
EPA 8270E	Decachlorobiphenyl	92.0	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	68.1	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	66.4	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	56.5	P	28 - 102
EPA 8276	PCNB	107	P	49 - 115

Lab Sample ID: 2440412
Field Sample ID: G3SD0092

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	99.3	P	30 - 160
EPA 8321B	2,4-D-d3	85.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	67.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	66.5	P	30 - 160
EPA 8321B	Diuron-d6	36.1	P	30 - 160
EPA 8321B	Endothall-d6	147	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	53.4	P	30 - 160
EPA 8321B	Primidone-d5	57.8	P	30 - 160
EPA 8321B	Sucralose-d6	152	P	30 - 160

Lab Sample ID: 2440413
Field Sample ID: G3SD0089

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	105	P	30 - 160
EPA 8321B	2,4-D-d3	100	P	30 - 160
EPA 8321B	Acetaminophen-d4	62.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	75.0	P	30 - 160
EPA 8321B	Diuron-d6	45.0	P	30 - 160
EPA 8321B	Endothall-d6	104	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.1	P	30 - 160
EPA 8321B	Primidone-d5	59.7	P	30 - 160
EPA 8321B	Sucralose-d6	149	P	30 - 160

Lab Sample ID: 2440414
Field Sample ID: G3SD0064

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	79.8	P	30 - 160
EPA 8321B	2,4-D-d3	95.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	56.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.0	P	30 - 160
EPA 8321B	Diuron-d6	41.5	P	30 - 160
EPA 8321B	Endothall-d6	128	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	38.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.5	P	30 - 160
EPA 8321B	Primidone-d5	50.9	P	30 - 160
EPA 8321B	Sucralose-d6	59.3	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A121765

Included Lab Sample IDs: 2440412, 2440413, 2440414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	107	108	P/P	60 - 160
AMPA	82.3	107	P/P	60 - 160
AMPA	95.4	82.3	P/P	60 - 160
Endothall	108	112	P/P	60 - 160
Endothall	112	99.0	P/P	60 - 160
Glufosinate	111	127	P/P	60 - 160
Glufosinate	113	111	P/P	60 - 160
Glufosinate	114	113	P/P	60 - 160
Glyphosate	86.7	99.2	P/P	60 - 160
Glyphosate	89.1	82.6	P/P	60 - 160
Glyphosate	99.2	91.0	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A121824

Included Lab Sample IDs: 2440412, 2440413, 2440414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	102	97.6	P/P	60 - 160
Acesulfame K	97.6	97.7	P/P	60 - 160
Acesulfame K	97.7	95.6	P/P	60 - 160
Sucralose	101	97.0	P/P	60 - 160
Sucralose	107	101	P/P	60 - 160
Sucralose	108	107	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A121893

Included Lab Sample IDs: 2440412, 2440413, 2440414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	107	84.7	P/P	50 - 150
2,4,5-T	84.7	76.4	P/P	50 - 150
Acetaminophen	111	115	P/P	60 - 160
Acetaminophen	115	111	P/P	60 - 160
Acetamiprid	110	111	P/P	50 - 150
Acetamiprid	111	114	P/P	50 - 150
Bentazon	121	121	P/P	50 - 160
Bentazon	124	121	P/P	50 - 160
Benzovindiflupyr	87.9	77.6	P/P	50 - 150
Benzovindiflupyr	95.9	87.9	P/P	50 - 150
Carbamazepine	106	88.0	P/P	60 - 150
Carbamazepine	88.0	76.3	P/P	60 - 150
Clothianidin	120	122	P/P	60 - 150
Clothianidin	122	118	P/P	60 - 150
Dinotefuran	108	114	P/P	50 - 150
Dinotefuran	114	117	P/P	50 - 150
Diuron	109	83.4	P/P	60 - 160
Diuron	83.4	67.7	P/P	60 - 160
Fenuron	104	105	P/P	60 - 150
Fenuron	105	105	P/P	60 - 150
Fluridone	103	82.7	P/P	60 - 160
Fluridone	82.7	76.3	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A121893

Included Lab Sample IDs: 2440412, 2440413, 2440414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Hydrocodone	113	117	P/P	60 - 150
Hydrocodone	118	113	P/P	60 - 150
Ibuprofen	140	73.2	P/P	50 - 160
Ibuprofen	73.2	96.1	P/P	50 - 160
Imazapyr	104	107	P/P	50 - 150
Imazapyr	123	110	P/P	50 - 150
Imazapyr	99.3	104	P/P	50 - 150
Imidacloprid	104	111	P/P	60 - 150
Imidacloprid	106	104	P/P	60 - 150
Linuron	74.8	79.1	P/P	60 - 150
Linuron	86.5	74.8	P/P	60 - 150
Mandestrobin	85.0	77.5	P/P	50 - 150
Mandestrobin	92.9	85.0	P/P	50 - 150
MCPPE	107	84.3	P/P	50 - 150
MCPPE	84.3	74.0	P/P	50 - 150
Naproxen	141	115	P/P	50 - 160
Naproxen	142	141	P/P	50 - 160
Primidone	107	107	P/P	60 - 150
Primidone	107	106	P/P	60 - 150
Pyraclostrobin	102	82.3	P/P	60 - 150
Pyraclostrobin	105	102	P/P	60 - 150
Silvex	114	73.3	P/P	50 - 150
Silvex	73.3	67.9	P/P	50 - 150
Thiamethoxam	118	119	P/P	50 - 150
Thiamethoxam	119	119	P/P	50 - 150
Tolfenpyrad	90.6	68.6	P/P	60 - 150
Tolfenpyrad	99.2	90.6	P/P	60 - 150
Triclopyr	81.9	88.7	P/P	50 - 150
Triclopyr	90.1	81.9	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A121918

Included Lab Sample IDs: 2440412, 2440413, 2440414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Afidopyropen	76.5	80.5	P/P	50 - 150
Afidopyropen	77.3	76.5	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A121944

Included Lab Sample IDs: 2440413, 2440414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	109	89.4	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A121970

Included Lab Sample IDs: 2440409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	93.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A121970
Included Lab Sample IDs: 2440409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1260	93.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A122040
Included Lab Sample IDs: 2440409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	96.0		P	80 - 120
Alpha-Chlordane	81.1		P	80 - 120
Beta-BHC	83.8		P	80 - 120
Beta-Cyfluthrin	93.4		P	80 - 120
Bifenthrin	108		P	80 - 120
Carbophenothion	109		P	80 - 120
Chlorothalonil	94.0		P	80 - 120
Cis-Nonachlor	91.2		P	80 - 120
Cypermethrin	87.6		P	80 - 120
Dacthal	98.2		P	80 - 120
DDD-p,p'	109		P	80 - 120
DDE-p,p'	107		P	80 - 120
DDT-p,p'	94.3		P	80 - 120
Delta-BHC	92.9		P	80 - 120
Deltamethrin	91.1		P	80 - 120
Dichlobenil	91.6		P	80 - 120
Dieldrin	113		P	80 - 120
Endosulfan I	81.7		P	80 - 120
Endosulfan II	99.2		P	80 - 120
Endosulfan Sulfate	104		P	80 - 120
Endrin	110		P	80 - 120
Endrin Aldehyde	104		P	80 - 120
Endrin Ketone	99.5		P	80 - 120
Esfenvalerate	89.7		P	80 - 120
Ethalfuralin	96.7		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	84.0		P	80 - 120
Gamma-Chlordane	82.2		P	80 - 120
Heptachlor	110		P	80 - 120
Heptachlor Epoxide	85.8		P	80 - 120
Hexachlorobenzene	87.2		P	80 - 120
Kepone	92.9		P	80 - 120
Lambda-Cyhalothrin	93.7		P	80 - 120
Methoprene	96.2		P	80 - 120
MGK-264	96.1		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	84.8		P	80 - 120
Permethrin	101		P	80 - 120
Phenothrin	90.2		P	80 - 120
Piperonyl Butoxide	92.5		P	80 - 120
Prallethrin	92.9		P	80 - 120
Tau-Fluvalinate	92.6		P	80 - 120
Tetramethrin	97.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A122040
Included Lab Sample IDs: 2440409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Trans-Nonachlor	87.9		P	80 - 120
Triclosan Methyl	107		P	80 - 120
Trifluralin	103		P	80 - 120

Reference Method: EPA 8270E
Run ID: A122041
Included Lab Sample IDs: 2440409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dicofol	93.7		P	80 - 120
Methoxychlor	96.9		P	80 - 120

Reference Method: EPA 8321B
Run ID: A122063
Included Lab Sample IDs: 2440412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	93.3	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A122071
Included Lab Sample IDs: 2440409

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.3		P	80 - 120
Toxaphene	95.8		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		Precision SMP	MS
			LCS			
EPA 8270E	Aldrin	52.2	63.9	65.3		2.25
	Alpha-BHC	77.4	96.5	83.3		14.6
	Alpha-Chlordane	88.3	91.1	76.7		17.2
	Beta-BHC	73.8	83.7	89.6		6.78
	Beta-Cyfluthrin	77.8	94.0	105		11.5
	Bifenthrin	54.3	71.4	60.2		17.0
	Carbophenothion	50.2	77.0	66.1		15.2
	Chlorothalonil	107	11.8	12.1		2.54
	Cis-Nonachlor	70.4	72.0	79.4		9.80
	Cypermethrin	69.5	94.0	101		7.34
	Dacthal	99.0	97.2	84.7		13.7
	DDD-p,p'	61.9	59.8	64.8		7.97
	DDE-p,p'	68.2	68.4	57.5		17.3
	DDT-p,p'	56.4	58.6	61.1		4.24
	Delta-BHC	103	150	117		25.0
	Deltamethrin	76.9	119	118		0.276
	Dichlobenil	74.7	50.7	52.3		3.01
	Dicofol	67.4	86.9	76.9		12.3
	Dieldrin	74.6	85.4	72.7		16.1
	Endosulfan I	76.2	99.7	86.7		14.0
	Endosulfan II	93.6	90.0	88.7		1.45
	Endosulfan Sulfate	83.1	83.9	77.4		7.99
	Endrin	77.6	89.0	76.2		15.5
	Endrin Aldehyde	62.1	54.9	55.9		1.87
	Endrin Ketone	94.7	96.9	102		5.33
	Esfenvalerate	64.6	106	99.0		7.02
	Ethalfuralin	73.9	78.3	63.7		20.6
	Fenpropathrin	71.8	82.5	75.7		8.62
	Gamma-BHC	79.0	119	88.7		29.3
	Gamma-Chlordane	73.4	90.6	71.9		23.0
	Heptachlor	56.5	85.0	67.2		23.4
	Heptachlor Epoxide	74.6	94.2	70.6		28.6
	Hexachlorobenzene	78.3	73.0	66.5		9.29
	Kepone	140	119	116		3.04
	Lambda-Cyhalothrin	56.8	96.9	107		9.76
	Methoprene	48.4	50.1	53.5		6.67
	Methoxychlor	74.2	115	97.9		15.8
	MGK-264	60.6	64.3	63.9		0.739
	Mirex	64.9	73.5	71.6		2.68
	Oxychlordane	70.1	81.6	66.7		20.1
	PCB-1016	77.3	78.1	85.7		9.27
	PCB-1260	89.1	78.4	88.8		12.5
	Permethrin	73.3	80.1	99.1		21.2
	Phenothrin	55.1	71.6	103		36.3
	Piperonyl Butoxide	81.5	86.4	78.1		10.1
	Prallethrin	71.7	80.3	82.0		2.10
	Tau-Fluvalinate	68.8	103	100		2.18
	Tetramethrin	65.5	84.7	93.5		9.88
	Trans-Nonachlor	71.0	96.9	75.3		25.1
	Triclosan Methyl	66.1	79.0	79.6		0.814
	Trifluralin	69.8	74.0	70.2		5.26
EPA 8276	Chlordane	92.2	72.0	67.8		5.59
	Toxaphene	99.8	82.9	76.9		7.50
EPA 8321B	2,4-D	130	93.5	90.8		2.97

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	2,4-D	89.1	97.0	100			3.12
	2,4,5-T	119	93.3	86.5			7.48
	Acesulfame K	95.9	88.0	87.9			0.157
	Acetaminophen	98.9	116	111			5.12
	Acetamiprid	92.1	65.1	66.9			2.84
	Afidopyropen	48.0	51.3	57.3			11.1
	AMPA	76.6	64.6	64.3			0.354
	Bentazon	93.0	37.7	37.6			0.151
	Benzovindiflupyr	91.2	83.3	80.2			3.79
	Carbamazepine	95.8	67.4	65.1			3.44
	Clothianidin	110	83.2	79.4			4.66
	Dinotefuran	116	95.6	87.5			8.80
	Diuron	90.0	56.3	56.0			0.585
	Endothall	99.7	155	156			0.668
	Fenuron	98.1	57.0	55.5			2.57
	Fluridone	79.7	44.9	39.9			11.8
	Glufosinate	126	119	108			9.58
	Glyphosate	72.5	115	96.5			17.4
	Hydrocodone	97.7	59.4	55.5			6.74
	Ibuprofen	74.8	50.8	60.8			17.9
	Imazapyr	98.0					0.792
	Imidacloprid	96.6	116	108			6.34
	Linuron	71.1	50.8	46.9			8.07
	Mandestrobin	90.9	69.7	66.7			4.45
	MCPP	110	91.5	85.3			7.06
	Naproxen	70.8	55.5	60.3			8.29
	Primidone	97.3	75.1	68.6			8.95
	Pyraclostrobin	88.9	81.2	77.0			5.32
	Silvex	85.4	83.1	72.3			13.8
	Sucralose	99.3	96.9	108			10.5
	Thiamethoxam	108	82.7	78.2			5.57
	Tolfenpyrad	59.2	60.0	61.2			2.01
	Triclopyr	114	99.1	93.7			5.61

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2440409
EPA 8270E	PCBs in water matrices by GC/MS/MS	2440409
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2440409
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2440412, 2440413, 2440414

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/04/2023 01:34	Julie Wi	2440409
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/04/2023 02:47	Julie Wi	2440409
	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/05/2023 04:31	Julie Wi	2440409
EPA 8276	09/26/2023	10/02/2023 08:00	Fe-Val Siddell	10/06/2023 07:42	Arthur Maknenko	2440409
EPA 8321B	09/26/2023	09/27/2023 12:00	Hana Lee	09/27/2023 14:29	Tae K Lee	2440412
	09/26/2023	09/27/2023 12:00	Hana Lee	09/27/2023 15:11	Tae K Lee	2440414
	09/26/2023	09/27/2023 12:00	Hana Lee	09/27/2023 18:56	Tae K Lee	2440413
	09/26/2023	09/27/2023 12:00	Hana Lee	09/27/2023 23:22	Tae K Lee	2440412
	09/26/2023	09/27/2023 12:00	Hana Lee	09/27/2023 23:35	Tae K Lee	2440413
	09/26/2023	09/27/2023 12:00	Hana Lee	09/28/2023 00:01	Tae K Lee	2440414
	09/26/2023	09/27/2023 12:00	Hana Lee	09/28/2023 03:31	Tae K Lee	2440413
	09/26/2023	09/27/2023 12:00	Hana Lee	09/28/2023 07:51	Tae K Lee	2440412
	09/26/2023	09/29/2023 09:00	Hoor Shaik	09/29/2023 19:22	Juyoung Kim	2440412
	09/26/2023	09/29/2023 09:00	Hoor Shaik	09/29/2023 19:39	Juyoung Kim	2440413
	09/26/2023	09/29/2023 09:00	Hoor Shaik	09/29/2023 20:15	Juyoung Kim	2440414
	09/26/2023	09/29/2023 09:00	Hoor Shaik	10/02/2023 10:23	Juyoung Kim	2440412
	09/26/2023	09/29/2023 09:00	Hoor Shaik	10/02/2023 22:03	Juyoung Kim	2440412
	09/26/2023	09/29/2023 09:00	Hoor Shaik	10/02/2023 22:21	Juyoung Kim	2440413
	09/26/2023	09/29/2023 09:00	Hoor Shaik	10/02/2023 22:57	Juyoung Kim	2440414
	09/26/2023	10/02/2023 13:15	Hoor Shaik	10/03/2023 20:41	Juyoung Kim	2440413
	09/26/2023	10/02/2023 13:15	Hoor Shaik	10/03/2023 20:58	Juyoung Kim	2440414
	09/26/2023	10/06/2023 13:00	Hoor Shaik	10/09/2023 21:59	Juyoung Kim	2440412