

Chemical Analysis Report

NE-DIST-2023-10-17-02

Florida DEP Laboratory
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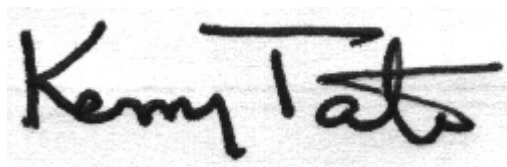
Event Description: **LSJR North 2 2023**
Request ID: **RQ-2023-10-16-19**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 02-NOV-2023 11:43

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the 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 groups are included in this report: Metals and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: HIGHLANDS CR AT BROWARD RD

Collection Date/Time: 10/16/2023 10:35

Field ID: 20030025

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445337	EPA 200.7 Rev. 4.4	Calcium	132		mg/L	P436809	
		Iron	230	I	ug/L	P436809	
		Magnesium	340		mg/L	P436809	
		Potassium	104		mg/L	P436809	
		Sodium	2.78E+03		mg/L	P436809	
		Strontium	2.05E+03		ug/L	P436809	
		Tin	9.4	I	ug/L	P436809	
		Titanium	3.7	I	ug/L	P436809	
		Vanadium	6.0	U	ug/L	P436809	
		Zinc	15	U	ug/L	P436809	
	EPA 200.8 Rev. 5.4	Aluminum	182		ug/L	P436809	
		Antimony	0.20	U	ug/L	P436809	
		Arsenic	1.80		ug/L	P436809	
		Barium	21.3		ug/L	P436809	
		Beryllium	0.040	U	ug/L	P436809	
		Boron	1.03E+03		ug/L	P436809	
		Cadmium	0.080	U	ug/L	P436809	
		Chromium	1.6	U	ug/L	P436809	
		Cobalt	0.51		ug/L	P436809	
		Copper	1.6	U	ug/L	P436809	
		Lead	0.80	U	ug/L	P436809	
		Manganese	20.5		ug/L	P436809	
		Molybdenum	3.5	I	ug/L	P436809	
		Nickel	2.0	U	ug/L	P436809	
		Selenium	0.80	U	ug/L	P436809	
		Silver	0.040	U	ug/L	P436809	
		Thallium	0.40	U	ug/L	P436809	
	SM 2340 B-2011	Hardness	1.73E+03		mg/L	P436809	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium, potassium and sodium are unavailable because of high analyte concentration in the QC sample.

Sample Location: BLOCKHOUSE CR AT LEONID RD

Collection Date/Time: 10/16/2023 10:55

Field ID: 20030027FLA

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445334	EPA 8270E	Aldrin	0.66	U	ng/L	P436590	
		Alpha-BHC	0.10	U	ng/L	P436590	
		Alpha-Chlordane	0.20	U	ng/L	P436590	
		PCB-1016	2.0	U	ng/L	P436590	
		Beta-BHC	0.10	U	ng/L	P436590	
		PCB-1221	2.0	U	ng/L	P436590	
		Beta-Cyfluthrin	1.3	U	ng/L	P436590	
		PCB-1232	2.0	U	ng/L	P436590	
		Bifenthrin	0.51	U	ng/L	P436590	
		PCB-1242	2.0	U	ng/L	P436590	
		PCB-1248	2.0	U	ng/L	P436590	
		Chlorothalonil	3.7	U	ng/L	P436590	
		PCB-1254	2.0	U	ng/L	P436590	
		Cis-Nonachlor	0.20	U	ng/L	P436590	
		PCB-1260	2.0	U	ng/L	P436590	
		Cypermethrin	1.5	U	ng/L	P436590	
		Dacthal	0.15	U	ng/L	P436590	
		DDD-p,p'	0.26	U	ng/L	P436590	
		DDE-p,p'	0.20	U	ng/L	P436590	
		DDT-p,p'	6.5		ng/L	P436590	
		Delta-BHC	0.41	U	ng/L	P436590	
		Deltamethrin	1.3	U	ng/L	P436590	
		Dichlobenil	0.26	U	ng/L	P436590	
		Dicofol	1.3	U	ng/L	P436590	
		Dieldrin	0.41	U	ng/L	P436590	
		Endosulfan I	0.41	U	ng/L	P436590	MS
		Endosulfan II	0.92	U	ng/L	P436590	
		Endosulfan Sulfate	0.31	U	ng/L	P436590	
		Endrin	0.92	U	ng/L	P436590	
		Endrin Aldehyde	0.77	U	ng/L	P436590	
		Endrin Ketone	0.41	U	ng/L	P436590	
		Esfenvalerate	0.77	U	ng/L	P436590	
		Ethalfuralin	0.15	U	ng/L	P436590	
		Fenpropathrin	0.26	U	ng/L	P436590	
		Gamma-BHC	0.13	U	ng/L	P436590	
		Gamma-Chlordane	0.20	U	ng/L	P436590	
		Heptachlor	0.20	U	ng/L	P436590	
		Heptachlor Epoxide	0.26	U	ng/L	P436590	MS
		Hexachlorobenzene**	1.0	U	ng/L	P436590	
		Kepone	14	U	ng/L	P436590	
		Lambda-Cyhalothrin	0.77	U	ng/L	P436590	
		Methoprene	0.77	U	ng/L	P436590	
		Methoxychlor	0.31	U	ng/L	P436590	
		MGK-264	0.20	U	ng/L	P436590	

Field ID: 20030027FLA

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445334	EPA 8270E	Mirex	0.36	U	ng/L	P436590	
		Oxychlordane	0.31	U	ng/L	P436590	
		Permethrin	1.6	U	ng/L	P436590	
		Phenothrin	0.92	U	ng/L	P436590	
		Piperonyl Butoxide	1.6		ng/L	P436590	
		Prallethrin	2.0	U	ng/L	P436590	
		Tau-Fluvalinate	0.26	U	ng/L	P436590	
		Tetramethrin	0.77	U	ng/L	P436590	
		Trans-Nonachlor	0.20	U	ng/L	P436590	
		Triclosan Methyl	0.15	U	ng/L	P436590	
		Trifluralin	0.20	U	ng/L	P436590	
	EPA 8276	Chlordane	2.0	UJ	ng/L	P436590	SUR
		Toxaphene	15	UJ	ng/L	P436590	SUR
2445336	EPA 200.7 Rev. 4.4	Calcium	114		mg/L	P436809	
		Iron	290	I	ug/L	P436809	
		Magnesium	298		mg/L	P436809	
		Potassium	97		mg/L	P436809	
		Sodium	2.62E+03		mg/L	P436809	
		Strontium	1.87E+03		ug/L	P436809	
		Tin	12	I	ug/L	P436809	
		Titanium	2.7	I	ug/L	P436809	
		Vanadium	6.0	U	ug/L	P436809	
		Zinc	15	U	ug/L	P436809	
	EPA 200.8 Rev. 5.4	Aluminum	152		ug/L	P436809	
		Antimony	0.20	U	ug/L	P436809	
		Arsenic	1.56		ug/L	P436809	
		Barium	23.9		ug/L	P436809	
		Beryllium	0.040	U	ug/L	P436809	
		Boron	990		ug/L	P436809	
		Cadmium	0.080	U	ug/L	P436809	
		Chromium	1.6	U	ug/L	P436809	
		Cobalt	0.26	I	ug/L	P436809	
		Copper	1.6	U	ug/L	P436809	
		Lead	0.80	U	ug/L	P436809	
		Manganese	22.9		ug/L	P436809	
		Molybdenum	3.2	I	ug/L	P436809	
		Nickel	2.0	U	ug/L	P436809	
		Selenium	0.80	U	ug/L	P436809	
	SM 2340 B-2011	Silver	0.040	U	ug/L	P436809	
		Thallium	0.40	U	ug/L	P436809	
		Hardness	1.51E+03		mg/L	P436809	

Ref. Method and Comment:

EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium, potassium and sodium are unavailable because of high analyte concentration in the QC sample.

Sample Location: BLOCKHOUSE 100M ABV IRMA RD

Collection Date/Time: 10/16/2023 11:15

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445335	EPA 8270E	Aldrin	0.71	U	ng/L	P436590	
		Alpha-BHC	0.11	U	ng/L	P436590	
		Alpha-Chlordane	0.22	U	ng/L	P436590	
		PCB-1016	2.2	U	ng/L	P436590	
		Beta-BHC	0.11	U	ng/L	P436590	
		PCB-1221	2.2	U	ng/L	P436590	
		Beta-Cyfluthrin	1.4	U	ng/L	P436590	
		PCB-1232	2.2	U	ng/L	P436590	
		Bifenthrin	0.55	U	ng/L	P436590	
		PCB-1242	2.2	U	ng/L	P436590	
		PCB-1248	2.2	U	ng/L	P436590	
		Chlorothalonil	3.9	U	ng/L	P436590	
		PCB-1254	2.2	U	ng/L	P436590	
		Cis-Nonachlor	0.22	U	ng/L	P436590	
		PCB-1260	2.2	U	ng/L	P436590	
		Cypermethrin	1.6	U	ng/L	P436590	
		Dacthal	0.16	U	ng/L	P436590	
		DDD-p,p'	0.27	U	ng/L	P436590	
		DDE-p,p'	0.22	U	ng/L	P436590	
		DDT-p,p'	0.88	U	ng/L	P436590	
		Delta-BHC	0.44	U	ng/L	P436590	
		Deltamethrin	1.4	U	ng/L	P436590	
		Dichlobenil	0.27	U	ng/L	P436590	
		Dicofol	1.4	U	ng/L	P436590	
		Dieldrin	0.44	U	ng/L	P436590	
		Endosulfan I	0.44	U	ng/L	P436590	MS
		Endosulfan II	0.99	U	ng/L	P436590	
		Endosulfan Sulfate	0.33	U	ng/L	P436590	
		Endrin	0.99	U	ng/L	P436590	
		Endrin Aldehyde	0.82	U	ng/L	P436590	
		Endrin Ketone	0.44	U	ng/L	P436590	
		Esfenvalerate	0.82	U	ng/L	P436590	
		Ethalfuralin	0.16	U	ng/L	P436590	
		Fenpropathrin	0.27	U	ng/L	P436590	
		Gamma-BHC	0.14	U	ng/L	P436590	
		Gamma-Chlordane	0.22	U	ng/L	P436590	
		Heptachlor	0.22	U	ng/L	P436590	
		Heptachlor Epoxide	0.27	U	ng/L	P436590	MS
		Hexachlorobenzene**	1.1	U	ng/L	P436590	
		Kepone	15	U	ng/L	P436590	
		Lambda-Cyhalothrin	0.82	U	ng/L	P436590	
		Methoprene	0.82	U	ng/L	P436590	
		Methoxychlor	0.33	U	ng/L	P436590	
		MGK-264	0.22	U	ng/L	P436590	

Field ID: G2NE1159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445335	EPA 8270E	Mirex	0.38	U	ng/L	P436590	
		Oxychlordane	0.33	U	ng/L	P436590	
		Permethrin	1.8	U	ng/L	P436590	
		Phenothrin	0.99	U	ng/L	P436590	
		Piperonyl Butoxide	0.59	I	ng/L	P436590	
		Prallethrin	2.2	U	ng/L	P436590	
		Tau-Fluvalinate	0.27	U	ng/L	P436590	
		Tetramethrin	0.82	U	ng/L	P436590	
		Trans-Nonachlor	0.22	U	ng/L	P436590	
		Triclosan Methyl	0.16	U	ng/L	P436590	
		Trifluralin	0.22	U	ng/L	P436590	
	EPA 8276	Chlordane	2.2	UJ	ng/L	P436590	SUR
		Toxaphene	16	UJ	ng/L	P436590	SUR

Ref. Method and Comment:
EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: TERRAPIN CREEK AT ALTA ROAD

Collection Date/Time: 10/16/2023 12:00

Field ID: 20030654

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2445338	EPA 200.7 Rev. 4.4	Calcium	102		mg/L	P436809	
		Iron	180	I	ug/L	P436809	
		Magnesium	238		mg/L	P436809	
		Potassium	75		mg/L	P436809	
		Sodium	2.14E+03		mg/L	P436809	
		Strontium	1.77E+03		ug/L	P436809	
		Tin	9.0	U	ug/L	P436809	
		Titanium	3.1	I	ug/L	P436809	
		Vanadium	6.0	U	ug/L	P436809	
	EPA 200.8 Rev. 5.4	Zinc	15	U	ug/L	P436809	
		Aluminum	140		ug/L	P436809	
		Antimony	0.20	U	ug/L	P436809	
		Arsenic	1.61		ug/L	P436809	
		Barium	15.6		ug/L	P436809	
		Beryllium	0.040	U	ug/L	P436809	
		Boron	791		ug/L	P436809	
		Cadmium	0.080	U	ug/L	P436809	
		Chromium	1.6	U	ug/L	P436809	
		Cobalt	1.15		ug/L	P436809	
		Copper	1.6	U	ug/L	P436809	
		Lead	0.80	U	ug/L	P436809	
		Manganese	11.3		ug/L	P436809	
		Molybdenum	3.0	I	ug/L	P436809	
		Nickel	2.0	U	ug/L	P436809	
		Selenium	0.80	U	ug/L	P436809	
		Silver	0.040	U	ug/L	P436809	
		Thallium	0.40	U	ug/L	P436809	
	SM 2340 B-2011	Hardness	1.23E+03		mg/L	P436809	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium, potassium and sodium are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P436809

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

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P436809

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

Reference Method: EPA 8270E

Batch ID: P436590

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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P436590

Component	Result	Code	Units
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
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: P436590

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P436809

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	102		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	95.9		P	85 - 115
Sodium	101		P	85 - 115
Strontium	96.6		P	85 - 115
Tin	106		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	103		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P436809

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	96.9		P	85 - 115
Arsenic	98.1		P	85 - 115
Barium	99.5		P	85 - 115
Beryllium	90.0		P	85 - 115
Boron	107		P	85 - 115
Cadmium	98.3		P	85 - 115
Chromium	96.6		P	85 - 115
Cobalt	94.9		P	85 - 115
Copper	97.3		P	85 - 115
Lead	93.4		P	85 - 115
Manganese	100		P	85 - 115
Molybdenum	96.6		P	85 - 115
Nickel	95.2		P	85 - 115
Selenium	97.0		P	85 - 115
Silver	105		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 8270E

Batch ID: P436590

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	68.2		P	30 - 96.0
Alpha-BHC	91.2		P	70 - 109
Alpha-Chlordane	92.2		P	45 - 107
Beta-BHC	91.9		P	64 - 138
Beta-Cyfluthrin	86.4		P	17 - 141
Bifenthrin	62.9		P	10 - 113
Chlorothalonil	64.8		P	26 - 180
Cis-Nonachlor	69.4		P	37 - 102
Cypermethrin	59.3		P	20 - 133
Dacthal	101		P	69 - 114
DDD-p,p'	69.2		P	42 - 105
DDE-p,p'	68.9		P	42 - 106
DDT-p,p'	68.6		P	42 - 107
Delta-BHC	104		P	67 - 144
Deltamethrin	104		P	15 - 149

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P436590

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dichlobenil	70.5		P	46 - 117
Dicofol	74.8		P	34 - 114
Dieldrin	74.9		P	50 - 108
Endosulfan I	99.1		P	55 - 104
Endosulfan II	99.0		P	51 - 111
Endosulfan Sulfate	79.7		P	56 - 121
Endrin	71.4		P	10 - 106
Endrin Aldehyde	60.9		P	34 - 114
Endrin Ketone	83.7		P	63 - 177
Esfenvalerate	102		P	29 - 143
Ethalfuralin	73.7		P	46 - 96.0
Fenpropathrin	69.0		P	28 - 115
Gamma-BHC	92.5		P	65 - 121
Gamma-Chlordane	86.6		P	39 - 103
Heptachlor	55.7		P	39 - 94.0
Heptachlor Epoxide	95.7		P	54 - 104
Hexachlorobenzene	77.5		P	36 - 100
Kepone	81.1		P	10 - 225
Lambda-Cyhalothrin	90.4		P	10 - 135
Methoprene	60.3		P	10 - 109
Methoxychlor	80.7		P	52 - 112
MGK-264	94.3		P	44 - 117
Mirex	71.8		P	20 - 90.0
Oxychlordane	66.4		P	44 - 102
PCB-1016	85.2		P	45 - 107
PCB-1260	77.8		P	40 - 118
Permethrin	87.0		P	18 - 135
Phenothrin	69.5		P	10 - 102
Piperonyl Butoxide	95.1		P	28 - 156
Prallethrin	85.6		P	28 - 113
Tau-Fluvalinate	99.0		P	10 - 123
Tetramethrin	86.5		P	18 - 158
Trans-Nonachlor	84.5		P	39 - 104
Triclosan Methyl	69.9		P	54 - 108
Trifluralin	68.5		P	46 - 97.0

Reference Method: EPA 8276
Batch ID: P436590

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	89.1		P	52 - 117
Toxaphene	91.3		P	44 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P436809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445338	Iron	102	100	P/P	80 - 120
2445338	Strontium	94.5	94.4	P/P	80 - 120
2445338	Tin	100	108	P/P	80 - 120
2445338	Titanium	100	98.0	P/P	80 - 120
2445338	Vanadium	107	105	P/P	80 - 120
2445338	Zinc	102	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P436809

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445338	Aluminum	102	99.5	P/P	70 - 130
2445338	Antimony	96.0	96.0	P/P	70 - 130
2445338	Arsenic	108	108	P/P	70 - 130
2445338	Barium	97.4	97.9	P/P	70 - 130
2445338	Beryllium	94.0	97.5	P/P	70 - 130
2445338	Boron	108	95.8	P/P	70 - 130
2445338	Cadmium	93.9	94.5	P/P	70 - 130
2445338	Chromium	93.5	91.5	P/P	70 - 130
2445338	Cobalt	91.6	91.2	P/P	70 - 130
2445338	Copper	104	105	P/P	70 - 130
2445338	Lead	96.3	96.1	P/P	70 - 130
2445338	Manganese	94.7	94.3	P/P	70 - 130
2445338	Molybdenum	100	104	P/P	70 - 130
2445338	Nickel	93.8	93.1	P/P	70 - 130
2445338	Selenium	97.9	100	P/P	70 - 130
2445338	Silver	95.3	95.2	P/P	70 - 130
2445338	Thallium	102	102	P/P	70 - 130

Reference Method: EPA 8270E

Batch ID: P436590

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445022	Aldrin	53.2	64.4	P/P	24 - 81.0
2445022	Alpha-BHC	89.8	100	P/P	65 - 110
2445022	Alpha-Chlordane	107	104	P/P	43 - 119
2445022	Beta-BHC	107	90.1	P/P	54 - 165
2445022	Beta-Cyfluthrin	65.5	86.6	P/P	27 - 165
2445022	Bifenthrin	58.1	74.2	P/P	17 - 117
2445022	Chlorothalonil	171	94.6	P/P	10 - 255
2445022	Cis-Nonachlor	65.7	80.2	P/P	34 - 98.0
2445022	Cypermethrin	54.3	60.9	P/P	25 - 143
2445022	Dacthal	93.7	96.5	P/P	55 - 139
2445022	DDD-p,p'	73.1	80.7	P/P	30 - 109
2445022	DDE-p,p'	68.0	77.9	P/P	35 - 106
2445022	DDT-p,p'	64.7	67.4	P/P	41 - 101
2445022	Delta-BHC	138	118	P/P	58 - 165
2445022	Deltamethrin	97.4	107	P/P	10 - 194
2445022	Dichlobenil	77.4	72.0	P/P	22 - 114
2445022	Dicofol	80.8	74.8	P/P	17 - 133
2445022	Dieldrin	75.4	77.4	P/P	45 - 129
2445022	Endosulfan I	110	101	F/P	49 - 104

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P436590

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445022	Endosulfan II	95.7	99.7	P/P	37 - 117
2445022	Endosulfan Sulfate	81.4	77.1	P/P	38 - 128
2445022	Endrin	72.2	81.7	P/P	35 - 116
2445022	Endrin Aldehyde	72.8	67.3	P/P	19 - 108
2445022	Endrin Ketone	91.5	92.4	P/P	44 - 134
2445022	Esfenvalerate	78.6	100	P/P	27 - 176
2445022	Ethalfuralin	79.1	79.3	P/P	49 - 100
2445022	Fenpropathrin	69.2	78.4	P/P	34 - 117
2445022	Gamma-BHC	106	94.0	P/P	59 - 129
2445022	Gamma-Chlordane	105	106	P/P	33 - 107
2445022	Heptachlor	50.0	64.3	P/P	37 - 94.0
2445022	Heptachlor Epoxide	121	95.1	F/P	38 - 118
2445022	Hexachlorobenzene	73.2	75.4	P/P	35 - 97.0
2445022	Kepone	81.9	70.8	P/P	10 - 221
2445022	Lambda-Cyhalothrin	69.1	81.0	P/P	23 - 190
2445022	Methoprene	50.1	63.8	P/P	21 - 109
2445022	Methoxychlor	85.2	89.2	P/P	46 - 118
2445022	MGK-264	114	115	P/P	39 - 122
2445022	Mirex	67.9	76.9	P/P	25 - 90.0
2445022	Oxychlordane	65.7	70.1	P/P	42 - 100
2445022	Permethrin	72.0	86.9	P/P	33 - 181
2445022	Phenothrin	55.5	71.6	P/P	12 - 125
2445022	Piperonyl Butoxide	115	116	P/P	10 - 178
2445022	Prallethrin	80.4	85.8	P/P	24 - 122
2445022	Tau-Fluvalinate	70.9	93.8	P/P	13 - 151
2445022	Tetramethrin	77.5	78.2	P/P	16 - 172
2445022	Trans-Nonachlor	98.9	92.0	P/P	39 - 100
2445022	Triclosan Methyl	66.4	78.1	P/P	43 - 110
2445022	Trifluralin	67.1	68.6	P/P	45 - 94.0
2445046	PCB-1016	92.9	93.3	P/P	45 - 107
2445046	PCB-1260	84.1	88.0	P/P	40 - 112

Reference Method: EPA 8276

Batch ID: P436590

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2445046	Chlordane	92.5	82.8	P/P	43 - 123
2445046	Toxaphene	93.6	86.9	P/P	27 - 156

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P436809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445338	Calcium	0.898	Spike	P	0 - 20
2445338	Iron	1.41	Spike	P	0 - 20
2445338	Magnesium	0.110	Spike	P	0 - 20
2445338	Potassium	0.786	Spike	P	0 - 20
2445338	Sodium	2.54	Spike	P	0 - 20
2445338	Strontium	0.0227	Spike	P	0 - 20
2445338	Tin	7.03	Spike	P	0 - 20
2445338	Titanium	2.08	Spike	P	0 - 20
2445338	Vanadium	1.35	Spike	P	0 - 20
2445338	Zinc	0.195	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P436809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445338	Aluminum	2.07	Spike	P	0 - 20
2445338	Antimony	0.0708	Spike	P	0 - 20
2445338	Arsenic	0.790	Spike	P	0 - 20
2445338	Barium	0.536	Spike	P	0 - 20
2445338	Beryllium	3.68	Spike	P	0 - 20
2445338	Boron	2.51	Spike	P	0 - 20
2445338	Cadmium	0.556	Spike	P	0 - 20
2445338	Chromium	2.15	Spike	P	0 - 20
2445338	Cobalt	0.429	Spike	P	0 - 20
2445338	Copper	0.722	Spike	P	0 - 20
2445338	Lead	0.164	Spike	P	0 - 20
2445338	Manganese	0.365	Spike	P	0 - 20
2445338	Molybdenum	3.10	Spike	P	0 - 20
2445338	Nickel	0.784	Spike	P	0 - 20
2445338	Selenium	2.54	Spike	P	0 - 20
2445338	Silver	0.179	Spike	P	0 - 20
2445338	Thallium	0.0289	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P436590

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445022	Aldrin	19.1	Spike	P	0 - 41
2445022	Alpha-BHC	10.9	Spike	P	0 - 25
2445022	Alpha-Chlordane	3.18	Spike	P	0 - 32
2445022	Beta-BHC	17.3	Spike	P	0 - 33
2445022	Beta-Cyfluthrin	27.7	Spike	P	0 - 43
2445022	Bifenthrin	24.3	Spike	P	0 - 52
2445022	Chlorothalonil	57.6	Spike	P	0 - 82
2445022	Cis-Nonachlor	19.9	Spike	P	0 - 33
2445022	Cypermethrin	11.5	Spike	P	0 - 51
2445022	Dacthal	2.91	Spike	P	0 - 27
2445022	DDD-p,p'	9.88	Spike	P	0 - 39
2445022	DDE-p,p'	13.7	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P436590

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445022	DDT-p,p'	4.10	Spike	P	0 - 29
2445022	Delta-BHC	16.0	Spike	P	0 - 35
2445022	Deltamethrin	9.63	Spike	P	0 - 100
2445022	Dichlobenil	7.32	Spike	P	0 - 40
2445022	Dicofol	7.77	Spike	P	0 - 37
2445022	Dieldrin	2.59	Spike	P	0 - 27
2445022	Endosulfan I	7.91	Spike	P	0 - 23
2445022	Endosulfan II	4.07	Spike	P	0 - 34
2445022	Endosulfan Sulfate	5.43	Spike	P	0 - 36
2445022	Endrin	12.3	Spike	P	0 - 45
2445022	Endrin Aldehyde	7.96	Spike	P	0 - 76
2445022	Endrin Ketone	0.939	Spike	P	0 - 43
2445022	Esfenvalerate	24.3	Spike	P	0 - 51
2445022	Ethalfuralin	0.237	Spike	P	0 - 22
2445022	Fenpropathrin	12.5	Spike	P	0 - 49
2445022	Gamma-BHC	11.8	Spike	P	0 - 28
2445022	Gamma-Chlordane	1.11	Spike	P	0 - 40
2445022	Heptachlor	25.0	Spike	P	0 - 29
2445022	Heptachlor Epoxide	23.6	Spike	P	0 - 33
2445022	Hexachlorobenzene	2.94	Spike	P	0 - 36
2445022	Kepone	3.69	Spike	P	0 - 85
2445022	Lambda-Cyhalothrin	15.8	Spike	P	0 - 55
2445022	Methoprene	24.0	Spike	P	0 - 53
2445022	Methoxychlor	4.57	Spike	P	0 - 50
2445022	MGK-264	0.369	Spike	P	0 - 43
2445022	Mirex	12.4	Spike	P	0 - 40
2445022	Oxychlordane	6.54	Spike	P	0 - 31
2445022	Permethrin	18.8	Spike	P	0 - 50
2445022	Phenothrin	25.3	Spike	P	0 - 58
2445022	Piperonyl Butoxide	0.715	Spike	P	0 - 100
2445022	Prallethrin	6.51	Spike	P	0 - 39
2445022	Tau-Fluvalinate	27.8	Spike	P	0 - 54
2445022	Tetramethrin	0.895	Spike	P	0 - 51
2445022	Trans-Nonachlor	7.18	Spike	P	0 - 39
2445022	Triclosan Methyl	16.2	Spike	P	0 - 31
2445022	Trifluralin	2.16	Spike	P	0 - 22
2445046	PCB-1016	0.354	Spike	P	0 - 25
2445046	PCB-1260	4.50	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P436590

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2445046	Chlordane	11.1	Spike	P	0 - 28
2445046	Toxaphene	7.49	Spike	P	0 - 27

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

Quality Assurance Report Surrogates

Lab Sample ID: 2445334

Field Sample ID: 20030027FLA

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	78.2	P	37 - 129
EPA 8270E	Decachlorobiphenyl	68.0	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	82.1	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	59.1	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	63.3	P	28 - 102
EPA 8276	PCNB	135	F	49 - 115

Lab Sample ID: 2445335

Field Sample ID: G2NE1159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	74.8	P	37 - 129
EPA 8270E	Decachlorobiphenyl	58.6	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	60.9	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	58.5	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	57.4	P	28 - 102
EPA 8276	PCNB	142	F	49 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122297

Included Lab Sample IDs: 2445336, 2445337, 2445338

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.6	98.7	P/P	90 - 110
Antimony	94.6	92.6	P/P	90 - 110
Arsenic	98.3	97.5	P/P	90 - 110
Barium	96.2	94.9	P/P	90 - 110
Beryllium	96.2	95.4	P/P	90 - 110
Boron	94.2	97.8	P/P	90 - 110
Cadmium	97.4	95.5	P/P	90 - 110
Cobalt	95.9	94.6	P/P	90 - 110
Copper	97.5	97.2	P/P	90 - 110
Lead	91.0	90.5	P/P	90 - 110
Manganese	95.4	96.2	P/P	90 - 110
Molybdenum	96.4	96.2	P/P	90 - 110
Nickel	97.1	96.3	P/P	90 - 110
Selenium	98.0	97.0	P/P	90 - 110
Silver	96.3	94.7	P/P	90 - 110
Thallium	96.2	96.1	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A122325

Included Lab Sample IDs: 2445336, 2445337, 2445338

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	101	P/P	90 - 110
Calcium	103	102	P/P	95 - 105
Iron	101	102	P/P	90 - 110
Iron	102	101	P/P	95 - 105
Magnesium	101	100	P/P	90 - 110
Magnesium	102	101	P/P	95 - 105
Potassium	101	100	P/P	90 - 110
Potassium	96.6	99.2	P/P	95 - 105
Sodium	100	103	P/P	95 - 105
Sodium	105	104	P/P	90 - 110
Strontium	97.7	100	P/P	95 - 105
Strontium	100	99.3	P/P	90 - 110
Tin	102	103	P/P	95 - 105
Tin	103	103	P/P	90 - 110
Titanium	101	103	P/P	95 - 105
Titanium	103	103	P/P	90 - 110
Vanadium	102	103	P/P	95 - 105
Vanadium	103	103	P/P	90 - 110
Zinc	103	104	P/P	95 - 105
Zinc	104	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122343

Included Lab Sample IDs: 2445336, 2445337, 2445338

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	98.9	97.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276

Run ID: A122350

Included Lab Sample IDs: 2445334, 2445335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	89.6		P	80 - 120
Chlordane	96.4		P	80 - 120
Toxaphene	92.1		P	80 - 120
Toxaphene	96.9		P	80 - 120

Reference Method: EPA 8270E

Run ID: A122352

Included Lab Sample IDs: 2445334, 2445335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	120		P	80 - 120
Alpha-Chlordane	109		P	80 - 120
Beta-BHC	85.8		P	80 - 120
Beta-Cyfluthrin	103		P	80 - 120
Bifenthrin	105		P	80 - 120
Chlorothalonil	98.7		P	80 - 120
Cis-Nonachlor	98.7		P	80 - 120
Cypermethrin	91.5		P	80 - 120
Dacthal	106		P	80 - 120
DDD-p,p'	108		P	80 - 120
DDE-p,p'	112		P	80 - 120
DDT-p,p'	104		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	107		P	80 - 120
Dichlobenil	101		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	108		P	80 - 120
Endosulfan I	111		P	80 - 120
Endosulfan II	113		P	80 - 120
Endosulfan Sulfate	86.2		P	80 - 120
Endrin	103		P	80 - 120
Endrin Aldehyde	90.4		P	80 - 120
Endrin Ketone	102		P	80 - 120
Esfenvalerate	106		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	94.8		P	80 - 120
Gamma-BHC	105		P	80 - 120
Gamma-Chlordane	109		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	111		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Kepone	87.2		P	80 - 120
Lambda-Cyhalothrin	114		P	80 - 120
Methoprene	103		P	80 - 120
Methoxychlor	103		P	80 - 120
MGK-264	111		P	80 - 120
Mirex	105		P	80 - 120
Oxychlordane	107		P	80 - 120
Permethrin	107		P	80 - 120
Phenothrin	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A122352

Included Lab Sample IDs: 2445334, 2445335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Piperonyl Butoxide	98.4		P	80 - 120
Prallethrin	98.2		P	80 - 120
Tau-Fluvalinate	105		P	80 - 120
Tetramethrin	99.1		P	80 - 120
Trans-Nonachlor	108		P	80 - 120
Triclosan Methyl	97.0		P	80 - 120
Trifluralin	97.1		P	80 - 120

Reference Method: EPA 8270E

Run ID: A122431

Included Lab Sample IDs: 2445334, 2445335

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	108		P	80 - 120
PCB-1260	106		P	80 - 120

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 200.7 Rev. 4.4	Calcium	102					0.898
	Iron	102	102	100			1.41
	Magnesium	102					0.110
	Potassium	95.9					0.786
	Sodium	101					2.54
	Strontium	96.6	94.5	94.4			0.0227
	Tin	106	100	108			7.03
	Titanium	102	100	98.0			2.08
	Vanadium	103	107	105			1.35
	Zinc	104	102	102			0.195
EPA 200.8 Rev. 5.4	Aluminum	100	102	99.5			2.07
	Antimony	96.9	96.0	96.0			0.0708
	Arsenic	98.1	108	108			0.790
	Barium	99.5	97.4	97.9			0.536
	Beryllium	90.0	94.0	97.5			3.68
	Boron	107	108	95.8			2.51
	Cadmium	98.3	93.9	94.5			0.556
	Chromium	96.6	93.5	91.5			2.15
	Cobalt	94.9	91.6	91.2			0.429
	Copper	97.3	104	105			0.722
	Lead	93.4	96.3	96.1			0.164
	Manganese	100	94.7	94.3			0.365
	Molybdenum	96.6	100	104			3.10
	Nickel	95.2	93.8	93.1			0.784
	Selenium	97.0	97.9	100			2.54
	Silver	105	95.3	95.2			0.179
	Thallium	100	102	102			0.0289
	Aldrin	68.2	53.2	64.4			19.1
	Alpha-BHC	91.2	89.8	100			10.9
EPA 8270E	Alpha-Chlordane	92.2	107	104			3.18
	Beta-BHC	91.9	107	90.1			17.3
	Beta-Cyfluthrin	86.4	65.5	86.6			27.7
	Bifenthrin	62.9	58.1	74.2			24.3
	Chlorothalonil	64.8	171	94.6			57.6
	Cis-Nonachlor	69.4	65.7	80.2			19.9
	Cypermethrin	59.3	54.3	60.9			11.5
	Dacthal	101	93.7	96.5			2.91
	DDD-p,p'	69.2	73.1	80.7			9.88
	DDE-p,p'	68.9	68.0	77.9			13.7
	DDT-p,p'	68.6	64.7	67.4			4.10
	Delta-BHC	104	138	118			16.0
	Deltamethrin	104	97.4	107			9.63
	Dichlobenil	70.5	77.4	72.0			7.32
	Dicofol	74.8	80.8	74.8			7.77
	Dieldrin	74.9	75.4	77.4			2.59
	Endosulfan I	99.1	110	101			7.91
	Endosulfan II	99.0	95.7	99.7			4.07
	Endosulfan Sulfate	79.7	81.4	77.1			5.43
	Endrin	71.4	72.2	81.7			12.3
	Endrin Aldehyde	60.9	72.8	67.3			7.96
	Endrin Ketone	83.7	91.5	92.4			0.939
	Esfenvalerate	102	78.6	100			24.3
	Ethalfuralin	73.7	79.1	79.3			0.237
	Fenpropathrin	69.0	69.2	78.4			12.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Gamma-BHC	92.5	106	94.0			11.8
	Gamma-Chlordane	86.6	105	106			1.11
	Heptachlor	55.7	50.0	64.3			25.0
	Heptachlor Epoxide	95.7	121	95.1			23.6
	Hexachlorobenzene	77.5	73.2	75.4			2.94
	Kepone	81.1	81.9	70.8			3.69
	Lambda-Cyhalothrin	90.4	69.1	81.0			15.8
	Methoprene	60.3	50.1	63.8			24.0
	Methoxychlor	80.7	85.2	89.2			4.57
	MGK-264	94.3	114	115			0.369
	Mirex	71.8	67.9	76.9			12.4
	Oxychlordane	66.4	65.7	70.1			6.54
	PCB-1016	85.2	92.9	93.3			0.354
	PCB-1260	77.8	84.1	88.0			4.50
	Permethrin	87.0	72.0	86.9			18.8
	Phenothrin	69.5	55.5	71.6			25.3
	Piperonyl Butoxide	95.1	115	116			0.715
	Prallethrin	85.6	80.4	85.8			6.51
	Tau-Fluvalinate	99.0	70.9	93.8			27.8
	Tetramethrin	86.5	77.5	78.2			0.895
	Trans-Nonachlor	84.5	98.9	92.0			7.18
	Triclosan Methyl	69.9	66.4	78.1			16.2
	Trifluralin	68.5	67.1	68.6			2.16
EPA 8276	Chlordane	89.1	92.5	82.8			11.1
	Toxaphene	91.3	93.6	86.9			7.49

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2445336, 2445337, 2445338
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2445336, 2445337, 2445338
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2445334, 2445335
EPA 8270E	PCBs in water matrices by GC/MS/MS	2445334, 2445335
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2445334, 2445335
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2445336, 2445337, 2445338

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 200.7 Rev. 4.4	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 12:14	Samatha Luckman	2445336
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 12:22	Samatha Luckman	2445336
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 12:30	Samatha Luckman	2445337
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 12:39	Samatha Luckman	2445337
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 13:14	Samatha Luckman	2445338
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 14:19	Samatha Luckman	2445338
EPA 200.8 Rev. 5.4	10/17/2023	10/20/2023 12:55	George D Taylor	10/23/2023 22:10	Conrad Hartmann	2445336
	10/17/2023	10/20/2023 12:55	George D Taylor	10/23/2023 22:20	Conrad Hartmann	2445337
	10/17/2023	10/20/2023 12:55	George D Taylor	10/23/2023 22:58	Conrad Hartmann	2445338
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 00:54	Conrad Hartmann	2445336
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 01:04	Conrad Hartmann	2445337
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 01:42	Conrad Hartmann	2445338
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 14:10	Conrad Hartmann	2445336
	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 14:17	Conrad Hartmann	2445337
EPA 8270E	10/17/2023	10/20/2023 12:55	George D Taylor	10/24/2023 14:44	Conrad Hartmann	2445338
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/24/2023 03:33	Lipi Saha	2445334
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/24/2023 04:05	Lipi Saha	2445335
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/25/2023 04:59	Julie Wi	2445334
EPA 8276	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/25/2023 05:31	Julie Wi	2445335
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/25/2023 08:04	Arthur Maknenko	2445334
	10/17/2023	10/18/2023 08:00	Fe-Val Siddell	10/25/2023 09:59	Arthur Maknenko	2445335
SM 2340 B-2011	10/17/2023			10/24/2023 12:14	Samatha Luckman	2445336
	10/17/2023			10/24/2023 12:39	Samatha Luckman	2445337
	10/17/2023			10/24/2023 13:14	Samatha Luckman	2445338