

Chemical Analysis Report

NE-DIST-2022-03-10-02

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

Event Description: **LSJR South West 2022**

Request ID: **RQ-2022-03-07-24**

Customer: **NE-DIST**

Project ID: **SMP**

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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 29-MAR-2022 10:34



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, Nutrients 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: Swimming Pen CR @ SR 220

Collection Date/Time: 03/09/2022 10:10

Field ID: 20030191

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2311754	DEP SOP: NU-094-1	Color (true)**	98		PCU	P410961	
	EPA 180.1 Rev. 2.0	Turbidity	4.9	A	NTU	P410964	
	EPA 300.0 Rev. 2.1	Chloride	340		mg Cl/L	P411237	
		Sulfate	68		mg SO4/L	P411239	
	SM 2320 B-2011	Total Alkalinity	64		mg CaCO3/L	P411166	
	SM 2540 C-2011	TDS	666		mg/L	P411395	
	SM 2540 D-2011	TSS	6	I	mg/L	P411375	
	SM 4500 F-C-2011	Fluoride	0.12		mg F/L	P411168	
2311755	EPA 350.1 Rev. 2.0	Ammonia-N	0.038		mg N/L	P410995	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P411105	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P411160	
	EPA 365.1 Rev. 2.0	Total-P	0.075		mg P/L	P411144	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P411102	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Swimming Pen Creek at Eagles Creek Dr

Collection Date/Time: 03/09/2022 10:35

Field ID: G2NE1188

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2311778	EPA 200.7 Rev. 4.4	Calcium	28.8		mg/L	P411036	
		Iron	540		ug/L	P411036	
		Magnesium	3.32		mg/L	P411036	
		Potassium	2.7		mg/L	P411036	
		Sodium	16.4		mg/L	P411036	
		Strontium	136		ug/L	P411036	
		Tin	3.0	U	ug/L	P411036	
		Titanium	1.2	I	ug/L	P411036	
		Vanadium	2.0	U	ug/L	P411036	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P411036	
		Aluminum	61		ug/L	P411036	
		Antimony	0.13	I	ug/L	P411036	
		Arsenic	0.75		ug/L	P411036	
		Barium	27.4		ug/L	P411036	
		Beryllium	0.018	I	ug/L	P411036	
		Boron**	35.4		ug/L	P411036	
		Cadmium	0.020	U	ug/L	P411036	
		Chromium	0.40	U	ug/L	P411036	
		Cobalt	0.133		ug/L	P411036	
		Copper	2.52		ug/L	P411036	
		Lead	0.32	I	ug/L	P411036	
		Manganese	17.6		ug/L	P411036	
		Molybdenum	0.63		ug/L	P411036	
		Nickel	0.72	I	ug/L	P411036	
		Selenium	0.20	U	ug/L	P411036	
		Silver	0.010	U	ug/L	P411036	
		Thallium	0.10	U	ug/L	P411036	
	SM 2340B	Hardness	85.6		mg/L	P411036	

Sample Location: Little Black Creek at SR 220

Collection Date/Time: 03/09/2022 11:15

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2311765	EPA 8270E	Aldrin	0.67	U	ng/L	P410935	
		Alpha-BHC	0.10	U	ng/L	P410935	
		Alpha-Chlordane	0.21	U	ng/L	P410935	
		PCB-1016	2.1	U	ng/L	P410935	
		Beta-BHC	0.10	U	ng/L	P410935	
		PCB-1221	2.1	U	ng/L	P410935	
		Beta-Cyfluthrin**	1.3	U	ng/L	P410935	
		PCB-1232	2.1	U	ng/L	P410935	
		Bifenthrin**	0.52	U	ng/L	P410935	
		PCB-1242	2.1	U	ng/L	P410935	
		Carbophenothion	0.93	U	ng/L	P410935	
		PCB-1248	2.1	U	ng/L	P410935	
		Chlorothalonil	1.5	I	ng/L	P410935	
		PCB-1254	2.1	U	ng/L	P410935	
		Cis-Nonachlor**	0.21	U	ng/L	P410935	
		PCB-1260	2.1	U	ng/L	P410935	
		Cypermethrin	1.6	U	ng/L	P410935	
		Dacthal**	0.16	U	ng/L	P410935	
		DDD-p,p'	0.26	U	ng/L	P410935	
		DDE-p,p'	0.21	U	ng/L	P410935	
		DDT-p,p'	0.26	U	ng/L	P410935	
		Delta-BHC	0.41	U	ng/L	P410935	
		Deltamethrin**	1.3	U	ng/L	P410935	
		Dichlobenil**	0.26	U	ng/L	P410935	
		Dicofol	1.3	U	ng/L	P410935	
		Dieldrin	0.41	U	ng/L	P410935	
		Endosulfan I	0.41	U	ng/L	P410935	
		Endosulfan II	0.41	U	ng/L	P410935	
		Endosulfan Sulfate	0.31	U	ng/L	P410935	
		Endrin	0.41	U	ng/L	P410935	
		Endrin Aldehyde	0.78	U	ng/L	P410935	
		Endrin Ketone	0.41	UJ	ng/L	P410935	LCS
		Esfenvalerate**	0.78	U	ng/L	P410935	
		Ethalfuralin**	0.16	U	ng/L	P410935	
		Fenpropathrin**	0.26	U	ng/L	P410935	
		Gamma-BHC	0.13	U	ng/L	P410935	
		Gamma-Chlordane	0.21	U	ng/L	P410935	
		Heptachlor	0.21	U	ng/L	P410935	
		Heptachlor Epoxide	0.26	U	ng/L	P410935	
		Hexachlorobenzene	1.0	U	ng/L	P410935	
		Kepone**	5.2	U	ng/L	P410935	
		Lambda-Cyhalothrin**	0.78	U	ng/L	P410935	
		Methoprene**	0.78	U	ng/L	P410935	
		Methoxychlor	0.31	U	ng/L	P410935	

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2311765	EPA 8270E	MGK-264**	0.21	U	ng/L	P410935	
		Mirex	0.72	U	ng/L	P410935	
		Oxychlordane**	0.31	U	ng/L	P410935	
		Permethrin	1.7	U	ng/L	P410935	
		Phenothrin**	0.93	U	ng/L	P410935	
		Piperonyl Butoxide**	0.23	I	ng/L	P410935	
		Prallethrin**	2.1	U	ng/L	P410935	
		Tau-Fluvalinate**	0.26	U	ng/L	P410935	
		Tetramethrin**	0.78	U	ng/L	P410935	
		Trans-Nonachlor**	0.21	U	ng/L	P410935	
		Triclosan Methyl**	0.16	U	ng/L	P410935	
		Trifluralin	0.21	U	ng/L	P410935	
	EPA 8276	Chlordane	2.6	U	ng/L	P410935	
		Toxaphene	16	U	ng/L	P410935	

Ref. Method and Comment:

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

Sample Location: Little Black CR at SR 21

Collection Date/Time: 03/09/2022 11:55

Field ID: 20030629

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2311766	EPA 8270E	Aldrin	0.68	U	ng/L	P410935	
		Alpha-BHC	0.11	U	ng/L	P410935	
		Alpha-Chlordane	0.21	U	ng/L	P410935	
		PCB-1016	2.1	U	ng/L	P410935	
		Beta-BHC	0.11	U	ng/L	P410935	
		PCB-1221	2.1	U	ng/L	P410935	
		Beta-Cyfluthrin**	1.3	U	ng/L	P410935	
		PCB-1232	2.1	U	ng/L	P410935	
		Bifenthrin**	0.53	U	ng/L	P410935	
		PCB-1242	2.1	U	ng/L	P410935	
		Carbophenothion	0.95	U	ng/L	P410935	
		PCB-1248	2.1	U	ng/L	P410935	
		Chlorothalonil	1.4	I	ng/L	P410935	
		PCB-1254	2.1	U	ng/L	P410935	
		Cis-Nonachlor**	0.21	U	ng/L	P410935	
		PCB-1260	2.1	U	ng/L	P410935	
		Cypermethrin	1.6	U	ng/L	P410935	
		Dacthal**	0.16	U	ng/L	P410935	
		DDD-p,p'	0.26	U	ng/L	P410935	
		DDE-p,p'	0.21	U	ng/L	P410935	
		DDT-p,p'	0.26	U	ng/L	P410935	
		Delta-BHC	0.42	U	ng/L	P410935	
		Deltamethrin**	1.3	U	ng/L	P410935	
		Dichlobenil**	0.26	U	ng/L	P410935	
		Dicofol	1.3	U	ng/L	P410935	
		Dieldrin	0.42	U	ng/L	P410935	
		Endosulfan I	0.42	U	ng/L	P410935	
		Endosulfan II	0.42	U	ng/L	P410935	
		Endosulfan Sulfate	0.32	U	ng/L	P410935	
		Endrin	0.42	U	ng/L	P410935	
		Endrin Aldehyde	0.79	U	ng/L	P410935	
		Endrin Ketone	0.42	UJ	ng/L	P410935	LCS
		Esfenvalerate**	0.79	U	ng/L	P410935	
		Ethalfuralin**	0.16	U	ng/L	P410935	
		Fenpropathrin**	0.26	U	ng/L	P410935	
		Gamma-BHC	0.13	U	ng/L	P410935	
		Gamma-Chlordane	0.21	U	ng/L	P410935	
		Heptachlor	0.21	U	ng/L	P410935	
		Heptachlor Epoxide	0.26	U	ng/L	P410935	
		Hexachlorobenzene	1.1	U	ng/L	P410935	
		Kepone**	5.3	U	ng/L	P410935	
		Lambda-Cyhalothrin**	0.79	U	ng/L	P410935	
		Methoprene**	0.79	U	ng/L	P410935	
		Methoxychlor	0.32	U	ng/L	P410935	

Field ID: 20030629

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2311766	EPA 8270E	MGK-264**	0.21	U	ng/L	P410935	
		Mirex	0.74	U	ng/L	P410935	
		Oxychlordane**	0.32	U	ng/L	P410935	
		Permethrin	1.7	U	ng/L	P410935	
		Phenothrin**	0.95	U	ng/L	P410935	
		Piperonyl Butoxide**	0.16	U	ng/L	P410935	
		Prallethrin**	2.1	U	ng/L	P410935	
		Tau-Fluvalinate**	0.26	U	ng/L	P410935	
		Tetramethrin**	0.79	U	ng/L	P410935	
		Trans-Nonachlor**	0.21	U	ng/L	P410935	
		Triclosan Methyl**	0.16	U	ng/L	P410935	
		Trifluralin	0.21	U	ng/L	P410935	
		Chlordane	2.6	U	ng/L	P410935	
	EPA 8276	Toxaphene	16	U	ng/L	P410935	

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

Sample Location: Peters Creek @ Rosemary Hill Rd

Collection Date/Time: 03/09/2022 14:10

Field ID: 20030571

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2311770	EPA 8321B	2,4-D	0.0020	U	ug/L	411114	
		Acesulfame K	0.10	U	ug/L	P410969	
		2,4,5-T	0.0040	U	ug/L	411114	
		AMPA	0.10	U	ug/L	P410969	
		Sucralose	0.50		ug/L	P410969	
		Acetaminophen	0.0080	U	ug/L	411114	
		Acetamiprid	0.0020	U	ug/L	411114	
		Endothall	0.25	U	ug/L	P410969	RPD
		Glufosinate	0.10	U	ug/L	P410969	
		Glyphosate	0.10	U	ug/L	P410969	
		Afidopyropen	0.0020	U	ug/L	411114	
		Bentazon	8.0E-04	U	ug/L	411114	
		Benzovindiflupyr	0.0020	U	ug/L	411114	
		Carbamazepine	8.0E-04	U	ug/L	411114	
		Clothianidin	0.0020	U	ug/L	411114	
		Dinotefuran	0.0020	U	ug/L	411114	
		Diuron	0.0020	U	ug/L	411114	
		Fenuron	0.016	U	ug/L	411114	
		Fluridone	8.0E-04	U	ug/L	411114	
		Imazapyr	0.0040	U	ug/L	411114	
		Hydrocodone	0.0020	U	ug/L	411114	
		Ibuprofen	0.020	U	ug/L	411114	
		Imidacloprid	0.0020	U	ug/L	411114	
		Linuron	0.0040	U	ug/L	411114	RPD
		Mandestrobin	0.0020	U	ug/L	411114	
		MCPP	0.0040	U	ug/L	411114	
		Naproxen	0.0080	U	ug/L	411114	
		Primidone	0.0040	U	ug/L	411114	
		Pyraclostrobin	0.0020	U	ug/L	411114	
		Silvex	0.0040	U	ug/L	411114	
		Thiamethoxam	0.0020	U	ug/L	411114	
		Tolfenpyrad	0.0020	U	ug/L	411114	
		Triclopyr	0.0040	U	ug/L	411114	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P410961

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P410964

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411036

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: P411036

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 300.0 Rev. 2.1
Batch ID: P411237

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411239

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410995

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411105

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411160

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411144

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 8270E
Batch ID: P410935

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	1.2	U	ng/L
Chlorothalonil	1.2	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P410935

Component	Result	Code	Units
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'	0.25	U	ng/L
DDT-p,p'	0.25	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	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	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
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	5.0	U	ng/L
Kepone	5.0	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P410935

Component	Result	Code	Units
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.70	U	ng/L
Mirex	0.70	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
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: P410935

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B
Batch ID: 411114

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: 411114

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	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	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

Reference Method: EPA 8321B

Batch ID: P410969

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: SM 2320 B-2011

Batch ID: P411166

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-2011

Batch ID: P411395

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P411375

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P411168

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P411102

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P410961

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P410964

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.9		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411036

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	109		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	102		P	85 - 115
Sodium	101		P	85 - 115
Strontium	104		P	85 - 115
Tin	106		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	96.4		P	85 - 115
Zinc	109		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411036

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.6		P	85 - 115
Antimony	100		P	85 - 115
Arsenic	102		P	85 - 115
Barium	103		P	85 - 115
Beryllium	98.6		P	85 - 115
Boron	104		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	97.0		P	85 - 115
Cobalt	102		P	85 - 115
Copper	98.8		P	85 - 115
Lead	97.1		P	85 - 115
Manganese	98.1		P	85 - 115
Molybdenum	99.1		P	85 - 115
Nickel	100		P	85 - 115
Selenium	101		P	85 - 115
Silver	98.7		P	85 - 115
Thallium	99.6		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411237

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	100		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411239

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410995

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	100		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411105

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	102		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	101		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P410935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	67.9		P	10 - 93.0
Alpha-BHC	95.9		P	75 - 106
Alpha-Chlordane	85.6		P	50 - 109
Beta-BHC	111		P	65 - 135
Beta-Cyfluthrin	91.4		P	23 - 167
Bifenthrin	79.6		P	11 - 123
Carbophenothion	68.8		P	18 - 96.0
Chlorothalonil	165		P	26 - 182
Cis-Nonachlor	77.0		P	40 - 111
Cypermethrin	98.7		P	25 - 155
Dacthal	98.5		P	73 - 112
DDD-p,p'	97.1		P	47 - 108
DDE-p,p'	81.4		P	48 - 107
DDT-p,p'	87.2		P	49 - 111
Delta-BHC	95.8		P	68 - 143
Deltamethrin	91.7		P	16 - 176
Dichlobenil	85.9		P	32 - 113
Dicofol	97.2		P	50 - 108
Dieldrin	84.9		P	56 - 110
Endosulfan I	86.7		P	60 - 105
Endosulfan II	88.7		P	50 - 120
Endosulfan Sulfate	84.6		P	55 - 121

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P410935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	82.6		P	31 - 119
Endrin Aldehyde	71.2		P	36 - 116
Endrin Ketone	143		F	56 - 130
Esfenvalerate	98.6		P	10 - 179
Ethalfuralin	84.7		P	49 - 99.0
Fenpropathrin	99.9		P	35 - 119
Gamma-BHC	96.3		P	72 - 115
Gamma-Chlordane	91.4		P	45 - 107
Heptachlor	74.0		P	41 - 100
Heptachlor Epoxide	86.1		P	58 - 106
Hexachlorobenzene	67.2		P	39 - 100
Kepone	138		P	10 - 191
Lambda-Cyhalothrin	100		P	10 - 186
Methoprene	80.4		P	10 - 129
Methoxychlor	105		P	61 - 111
MGK-264	93.1		P	20 - 123
Mirex	72.0		P	10 - 182
Oxychlordane	84.0		P	39 - 110
PCB-1016	61.4		P	49 - 111
PCB-1260	84.9		P	42 - 116
Permethrin	91.0		P	26 - 152
Phenothrin	78.5		P	10 - 109
Piperonyl Butoxide	135		P	27 - 142
Prallethrin	69.1		P	14 - 109
Tau-Fluvalinate	80.5		P	16 - 134
Tetramethrin	114		P	10 - 125
Trans-Nonachlor	78.4		P	45 - 107
Triclosan Methyl	85.0		P	60 - 110
Trifluralin	83.3		P	49 - 98.0

Reference Method: EPA 8276

Batch ID: P410935

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	77.0		P	61 - 118
Toxaphene	69.0		P	51 - 122

Reference Method: EPA 8321B

Batch ID: 411114

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.4		P	40 - 150
2,4,5-T	50.8		P	40 - 150
Acetaminophen	96.9		P	30 - 150
Acetamiprid	80.4		P	40 - 150
Afidopyropen	54.2		P	40 - 150
Bentazon	92.7		P	30 - 150
Benzovindiflupyr	114		P	40 - 150
Carbamazepine	122		P	40 - 150
Clothianidin	112		P	40 - 150
Dinotefuran	106		P	40 - 150
Diuron	93.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: 411114

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	132		P	40 - 150
Fluridone	91.9		P	40 - 150
Hydrocodone	111		P	40 - 150
Ibuprofen	46.0		P	40 - 150
Imazapyr	106		P	40 - 150
Imidacloprid	119		P	40 - 150
Linuron	90.7		P	40 - 150
Mandestrobin	92.9		P	40 - 150
MCPP	92.7		P	40 - 150
Naproxen	52.4		P	40 - 150
Primidone	144		P	40 - 150
Pyraclostrobin	86.6		P	40 - 150
Silvex	47.7		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	40.9		P	30 - 150
Triclopyr	55.7		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P410969

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	92.3		P	40 - 150
AMPA	96.4		P	40 - 150
Endothall	86.8		P	40 - 150
Glufosinate	81.4		P	40 - 150
Glyphosate	89.2		P	40 - 150
Sucralose	86.4		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P411166

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.1		P	94 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P411168

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.6		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P411102

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P411036

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311909	Calcium	108		P	80 - 120
2311909	Iron	107	110	P/P	80 - 120
2311909	Magnesium	109	110	P/P	80 - 120
2311909	Potassium	102	103	P/P	80 - 120
2311909	Sodium	103		P	80 - 120
2311909	Strontium	102	104	P/P	80 - 120
2311909	Tin	106	109	P/P	80 - 120
2311909	Titanium	99.2	102	P/P	80 - 120
2311909	Vanadium	97.1	99.0	P/P	80 - 120
2311909	Zinc	109	111	P/P	80 - 120
2312059	Calcium	108		P	80 - 120
2312059	Iron	108		P	80 - 120
2312059	Magnesium	108		P	80 - 120
2312059	Potassium	101		P	80 - 120
2312059	Sodium	104		P	80 - 120
2312059	Tin	105		P	80 - 120
2312059	Titanium	102		P	80 - 120
2312059	Vanadium	96.1		P	80 - 120
2312059	Zinc	106		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P411036

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311909	Aluminum	105	111	P/P	80 - 120
2311909	Antimony	103	102	P/P	80 - 120
2311909	Arsenic	103	103	P/P	80 - 120
2311909	Barium	105	105	P/P	80 - 120
2311909	Beryllium	99.9	99.3	P/P	80 - 120
2311909	Boron	107	107	P/P	80 - 120
2311909	Cadmium	103	105	P/P	80 - 120
2311909	Chromium	101	103	P/P	80 - 120
2311909	Cobalt	101	102	P/P	80 - 120
2311909	Copper	99.5	99.9	P/P	80 - 120
2311909	Lead	100	99.6	P/P	80 - 120
2311909	Manganese	104	97.9	P/P	80 - 120
2311909	Molybdenum	102	101	P/P	80 - 120
2311909	Nickel	101	102	P/P	80 - 120
2311909	Selenium	102	101	P/P	80 - 120
2311909	Silver	101	101	P/P	80 - 120
2311909	Thallium	106	104	P/P	80 - 120
2312059	Aluminum	99.5		P	80 - 120
2312059	Antimony	101		P	80 - 120
2312059	Arsenic	102		P	80 - 120
2312059	Barium	103		P	80 - 120
2312059	Beryllium	93.9		P	80 - 120
2312059	Boron	110		P	80 - 120
2312059	Cadmium	102		P	80 - 120
2312059	Chromium	98.4		P	80 - 120
2312059	Cobalt	100		P	80 - 120
2312059	Copper	97.2		P	80 - 120
2312059	Lead	98.1		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P411036

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2312059	Manganese	99.1		P	80 - 120
2312059	Molybdenum	102		P	80 - 120
2312059	Nickel	98.3		P	80 - 120
2312059	Selenium	87.3		P	80 - 120
2312059	Silver	101		P	80 - 120
2312059	Thallium	102		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P411237

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311708	Chloride	102		P	90 - 110
2311906	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P411239

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311906	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P410995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311748	Ammonia-N	99.2	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P411105

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311686	Kjeldahl Nitrogen	100	98.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P411160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311755	NO2NO3-N	97.4	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P411144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311686	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P410935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311894	Aldrin	57.6	57.1	P/P	10 - 89.0
2311894	Alpha-BHC	88.2	88.6	P/P	71 - 105
2311894	Alpha-Chlordane	79.0	80.7	P/P	43 - 107
2311894	Beta-BHC	111	114	P/P	57 - 152

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P410935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311894	Beta-Cyfluthrin	75.8	76.7	P/P	29 - 186
2311894	Bifenthrin	66.1	74.6	P/P	19 - 119
2311894	Carbophenothion	63.4	66.4	P/P	19 - 107
2311894	Chlorothalonil	135	143	P/P	10 - 245
2311894	Cis-Nonachlor	68.8	70.8	P/P	36 - 110
2311894	Cypermethrin	80.9	82.4	P/P	24 - 169
2311894	Dacthal	90.5	94.1	P/P	62 - 115
2311894	DDD-p,p'	85.5	86.9	P/P	36 - 109
2311894	DDE-p,p'	73.0	74.8	P/P	30 - 114
2311894	DDT-p,p'	74.2	78.4	P/P	42 - 108
2311894	Delta-BHC	92.1	95.0	P/P	60 - 164
2311894	Deltamethrin	78.3	64.3	P/P	10 - 210
2311894	Dichlobenil	79.1	67.0	P/P	23 - 108
2311894	Dicofol	84.6	88.1	P/P	44 - 109
2311894	Dieldrin	78.1	81.1	P/P	37 - 119
2311894	Endosulfan I	73.2	76.2	P/P	52 - 105
2311894	Endosulfan II	74.9	77.3	P/P	35 - 127
2311894	Endosulfan Sulfate	78.3	77.5	P/P	39 - 130
2311894	Endrin	72.4	76.8	P/P	30 - 116
2311894	Endrin Aldehyde	69.1	68.0	P/P	20 - 110
2311894	Endrin Ketone	104	122	P/P	48 - 134
2311894	Esfenvalerate	82.2	82.9	P/P	10 - 199
2311894	Ethalfuralin	69.4	73.8	P/P	48 - 95.0
2311894	Fenpropathrin	84.5	91.1	P/P	37 - 121
2311894	Gamma-BHC	85.9	89.6	P/P	61 - 126
2311894	Gamma-Chlordane	87.1	90.5	P/P	39 - 105
2311894	Heptachlor	62.1	62.8	P/P	38 - 96.0
2311894	Heptachlor Epoxide	74.5	75.8	P/P	42 - 114
2311894	Hexachlorobenzene	59.9	58.1	P/P	39 - 93.0
2311894	Kepone	121	83.2	P/P	10 - 215
2311894	Lambda-Cyhalothrin	86.1	83.2	P/P	10 - 204
2311894	Methoprene	63.7	76.5	P/P	17 - 108
2311894	Methoxychlor	92.0	102	P/P	56 - 115
2311894	MGK-264	85.9	89.8	P/P	35 - 120
2311894	Mirex	63.7	67.5	P/P	10 - 178
2311894	Oxychlordane	72.4	76.9	P/P	47 - 91.0
2311894	Permethrin	76.3	81.6	P/P	27 - 170
2311894	Phenothrin	69.9	75.6	P/P	10 - 133
2311894	Piperonyl Butoxide	123	129	P/P	23 - 150
2311894	Prallethrin	67.6	69.1	P/P	21 - 113
2311894	Tau-Fluvalinate	70.6	70.9	P/P	16 - 158
2311894	Tetramethrin	126	129	P/P	22 - 132
2311894	Trans-Nonachlor	75.3	79.2	P/P	43 - 102
2311894	Triclosan Methyl	74.1	76.5	P/P	49 - 109
2311894	Trifluralin	71.0	75.6	P/P	48 - 93.0
2311910	PCB-1016	69.2	76.5	P/P	46 - 110
2311910	PCB-1260	91.0	97.1	P/P	42 - 111

Reference Method: EPA 8276
Batch ID: P410935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276

Batch ID: P410935

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311910	Chlordane	106	88.8	P/P	55 - 128
2311910	Toxaphene	81.9	83.9	P/P	57 - 211

Reference Method: EPA 8321B

Batch ID: 411114

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311732	2,4-D	65.3	85.0	P/P	40 - 150
2311732	2,4,5-T	47.7	51.2	P/P	40 - 150
2311732	Acetaminophen	108	101	P/P	30 - 150
2311732	Acetamiprid	82.6	83.5	P/P	40 - 150
2311732	Afidopyropen	61.9	74.2	P/P	40 - 150
2311732	Bentazon	91.3	83.3	P/P	30 - 150
2311732	Benzovindiflupyr	108	85.8	P/P	40 - 150
2311732	Carbamazepine	121	92.5	P/P	40 - 150
2311732	Clothianidin	99.3	97.7	P/P	40 - 150
2311732	Dinotefuran	123	119	P/P	40 - 150
2311732	Diuron	71.0	86.7	P/P	40 - 150
2311732	Fenuron	119	84.3	P/P	40 - 150
2311732	Fluridone	89.8	87.9	P/P	40 - 150
2311732	Hydrocodone	98.5	98.9	P/P	40 - 150
2311732	Ibuprofen	45.1	45.8	P/P	40 - 150
2311732	Imazapyr	96.1	120	P/P	40 - 150
2311732	Imidacloprid	147	142	P/P	40 - 150
2311732	Linuron	66.2	118	P/P	40 - 150
2311732	Mandestrobin	100	94.4	P/P	40 - 150
2311732	MCP	83.1	100	P/P	40 - 150
2311732	Naproxen	61.0	55.7	P/P	40 - 150
2311732	Primidone	135	128	P/P	40 - 150
2311732	Pyraclostrobin	85.2	93.9	P/P	40 - 150
2311732	Silvex	46.9	54.0	P/P	40 - 150
2311732	Thiamethoxam	135	137	P/P	40 - 150
2311732	Tolfenpyrad	36.8	48.3	P/P	30 - 150
2311732	Triclopyr	52.9	55.7	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P410969

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311692	Acesulfame K	103	100	P/P	40 - 150
2311692	AMPA	89.9	90.2	P/P	40 - 150
2311692	Endothall	73.4	105	P/P	40 - 150
2311692	Glufosinate	77.8	80.8	P/P	40 - 150
2311692	Glyphosate	79.9	81.9	P/P	40 - 150
2311692	Sucralose	83.0	88.0	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P411168

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311963	Fluoride	101	101	P/P	92 - 107

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P411102

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2311474	Organic Carbon	97.5	99.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P410961

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311844	Color (true)	0.717	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P410964

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311754	Turbidity	1.44	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P411036

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311909	Calcium	1.03	Spike	P	0 - 20
2311909	Iron	2.29	Spike	P	0 - 20
2311909	Magnesium	0.305	Spike	P	0 - 20
2311909	Potassium	0.325	Spike	P	0 - 20
2311909	Sodium	0.605	Spike	P	0 - 20
2311909	Strontium	1.95	Spike	P	0 - 20
2311909	Tin	2.33	Spike	P	0 - 20
2311909	Titanium	2.67	Spike	P	0 - 20
2311909	Vanadium	1.90	Spike	P	0 - 20
2311909	Zinc	1.19	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P411036

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311909	Aluminum	4.97	Spike	P	0 - 20
2311909	Antimony	0.312	Spike	P	0 - 20
2311909	Arsenic	0.277	Spike	P	0 - 20
2311909	Barium	0.267	Spike	P	0 - 20
2311909	Beryllium	0.524	Spike	P	0 - 20
2311909	Boron	0.186	Spike	P	0 - 20
2311909	Cadmium	1.84	Spike	P	0 - 20
2311909	Chromium	1.95	Spike	P	0 - 20
2311909	Cobalt	0.915	Spike	P	0 - 20
2311909	Copper	0.317	Spike	P	0 - 20
2311909	Lead	0.608	Spike	P	0 - 20
2311909	Manganese	2.50	Spike	P	0 - 20
2311909	Molybdenum	0.146	Spike	P	0 - 20
2311909	Nickel	0.658	Spike	P	0 - 20
2311909	Selenium	1.87	Spike	P	0 - 20
2311909	Silver	0.283	Spike	P	0 - 20
2311909	Thallium	1.03	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411237

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311708	Chloride	0.145	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P411239

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311708	Sulfate	0.503	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311748	Ammonia-N	4.50	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P411105

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311686	Kjeldahl Nitrogen	1.40	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P411160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311755	NO2NO3-N	0.948	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P411144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311686	Total-P	0.714	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P410935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311894	Aldrin	0.872	Spike	P	0 - 37
2311894	Alpha-BHC	0.461	Spike	P	0 - 16
2311894	Alpha-Chlordane	2.19	Spike	P	0 - 28
2311894	Beta-BHC	2.97	Spike	P	0 - 32
2311894	Beta-Cyfluthrin	1.11	Spike	P	0 - 41
2311894	Bifenthrin	12.0	Spike	P	0 - 36
2311894	Carbophenothion	4.64	Spike	P	0 - 81
2311894	Chlorothalonil	5.19	Spike	P	0 - 54
2311894	Cis-Nonachlor	2.90	Spike	P	0 - 33

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P410935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311894	Cypermethrin	1.82	Spike	P	0 - 38
2311894	Dacthal	3.94	Spike	P	0 - 23
2311894	DDD-p,p'	1.65	Spike	P	0 - 35
2311894	DDE-p,p'	2.41	Spike	P	0 - 27
2311894	DDT-p,p'	5.56	Spike	P	0 - 31
2311894	Delta-BHC	3.06	Spike	P	0 - 30
2311894	Deltamethrin	19.6	Spike	P	0 - 76
2311894	Dichlobenil	16.5	Spike	P	0 - 33
2311894	Dicofol	4.00	Spike	P	0 - 24
2311894	Dieldrin	3.85	Spike	P	0 - 35
2311894	Endosulfan I	3.94	Spike	P	0 - 25
2311894	Endosulfan II	3.10	Spike	P	0 - 31
2311894	Endosulfan Sulfate	0.972	Spike	P	0 - 38
2311894	Endrin	5.94	Spike	P	0 - 53
2311894	Endrin Aldehyde	1.62	Spike	P	0 - 81
2311894	Endrin Ketone	15.3	Spike	P	0 - 33
2311894	Esfenvalerate	0.780	Spike	P	0 - 46
2311894	Ethalfuralin	6.11	Spike	P	0 - 22
2311894	Fenpropathrin	7.51	Spike	P	0 - 29
2311894	Gamma-BHC	4.17	Spike	P	0 - 17
2311894	Gamma-Chlordane	3.87	Spike	P	0 - 28
2311894	Heptachlor	1.18	Spike	P	0 - 28
2311894	Heptachlor Epoxide	1.57	Spike	P	0 - 23
2311894	Hexachlorobenzene	3.05	Spike	P	0 - 22
2311894	Kepone	36.7	Spike	P	0 - 61
2311894	Lambda-Cyhalothrin	3.49	Spike	P	0 - 52
2311894	Methoprene	18.2	Spike	P	0 - 38
2311894	Methoxychlor	9.79	Spike	P	0 - 29
2311894	MGK-264	4.33	Spike	P	0 - 41
2311894	Mirex	5.86	Spike	P	0 - 39
2311894	Oxychlordane	6.12	Spike	P	0 - 33
2311894	Permethrin	6.68	Spike	P	0 - 39
2311894	Phenothrin	7.89	Spike	P	0 - 52
2311894	Piperonyl Butoxide	5.24	Spike	P	0 - 91
2311894	Prallethrin	2.29	Spike	P	0 - 34
2311894	Tau-Fluvalinate	0.422	Spike	P	0 - 41
2311894	Tetramethrin	2.28	Spike	P	0 - 43
2311894	Trans-Nonachlor	5.01	Spike	P	0 - 31
2311894	Triclosan Methyl	3.16	Spike	P	0 - 24
2311894	Trifluralin	6.33	Spike	P	0 - 23
2311910	PCB-1016	10.1	Spike	P	0 - 22
2311910	PCB-1260	6.50	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P410935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311910	Chlordane	18.0	Spike	P	0 - 25
2311910	Toxaphene	2.35	Spike	P	0 - 24

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: 411114

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311732	2,4-D	26.2	Spike	P	0 - 30
2311732	2,4,5-T	6.99	Spike	P	0 - 30
2311732	Acetaminophen	6.63	Spike	P	0 - 30
2311732	Acetamiprid	1.07	Spike	P	0 - 30
2311732	Afidopyropen	18.0	Spike	P	0 - 30
2311732	Bentazon	9.17	Spike	P	0 - 30
2311732	Benzovindiflupyr	22.6	Spike	P	0 - 30
2311732	Carbamazepine	26.9	Spike	P	0 - 30
2311732	Clothianidin	1.59	Spike	P	0 - 30
2311732	Dinotefuran	2.99	Spike	P	0 - 30
2311732	Diuron	19.9	Spike	P	0 - 30
2311732	Fenuron	27.6	Spike	P	0 - 30
2311732	Fluridone	2.17	Spike	P	0 - 30
2311732	Hydrocodone	0.343	Spike	P	0 - 30
2311732	Ibuprofen	1.52	Spike	P	0 - 30
2311732	Imazapyr	22.1	Spike	P	0 - 30
2311732	Imidacloprid	3.20	Spike	P	0 - 30
2311732	Linuron	56.2	Spike	F	0 - 30
2311732	Mandestrobin	6.02	Spike	P	0 - 30
2311732	MCP	18.6	Spike	P	0 - 30
2311732	Naproxen	9.05	Spike	P	0 - 30
2311732	Primidone	5.23	Spike	P	0 - 30
2311732	Pyraclostrobin	9.77	Spike	P	0 - 30
2311732	Silvex	14.0	Spike	P	0 - 30
2311732	Thiamethoxam	1.34	Spike	P	0 - 30
2311732	Tolfenpyrad	26.9	Spike	P	0 - 30
2311732	Triclopyr	5.14	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P410969

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311692	Acesulfame K	2.94	Spike	P	0 - 30
2311692	AMPA	0.353	Spike	P	0 - 30
2311692	Endothall	35.8	Spike	F	0 - 30
2311692	Glufosinate	3.67	Spike	P	0 - 30
2311692	Glyphosate	2.56	Spike	P	0 - 30
2311692	Sucralose	5.67	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P411166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311963	Total Alkalinity	0.661	Sample	P	0 - 5.2

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P411395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311422	TDS	6.51	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P411168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311963	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P411102

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2311474	Organic Carbon	1.21	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2311765
Field Sample ID: 20030667

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	86.1	P	38 - 115
EPA 8270E	Decachlorobiphenyl	85.7	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	53.5	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	71.5	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	77.3	P	30 - 97.0
EPA 8276	PCNB	72.9	P	45 - 119

Lab Sample ID: 2311766
Field Sample ID: 20030629

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	85.0	P	38 - 115
EPA 8270E	Decachlorobiphenyl	87.6	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	62.5	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	69.6	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	73.2	P	30 - 97.0
EPA 8276	PCNB	67.6	P	45 - 119

Lab Sample ID: 2311770
Field Sample ID: 20030571

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	79.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	115	P	30 - 160
EPA 8321B	Carbamazepine-d10	96.7	P	30 - 160
EPA 8321B	Diuron-d6	50.9	P	30 - 160
EPA 8321B	Endothall-d6	92.0	P	30 - 160
EPA 8321B	Endothall-d6	92.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.0	P	30 - 160
EPA 8321B	Primidone-d5	97.4	P	30 - 160
EPA 8321B	Sucralose-d6	84.8	P	30 - 160
EPA 8321B	Sucralose-d6	84.8	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A110867

Included Lab Sample IDs: 2311754

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A110868

Included Lab Sample IDs: 2311754

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A110884

Included Lab Sample IDs: 2311755

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	97.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A110903

Included Lab Sample IDs: 2311770

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	87.6	93.5	P/P	60 - 160
Glufosinate	78.2	83.8	P/P	60 - 160
Glyphosate	84.9	87.4	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A110924

Included Lab Sample IDs: 2311778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	104	105	P/P	90 - 110
Antimony	101	100	P/P	90 - 110
Arsenic	103	102	P/P	90 - 110
Barium	104	103	P/P	90 - 110
Beryllium	99.6	98.7	P/P	90 - 110
Boron	107	108	P/P	90 - 110
Cadmium	104	103	P/P	90 - 110
Chromium	103	102	P/P	90 - 110
Cobalt	104	102	P/P	90 - 110
Copper	103	102	P/P	90 - 110
Lead	101	101	P/P	90 - 110
Manganese	104	101	P/P	90 - 110
Molybdenum	104	103	P/P	90 - 110
Nickel	104	102	P/P	90 - 110
Selenium	104	103	P/P	90 - 110
Silver	101	99.5	P/P	90 - 110
Thallium	105	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A110934

Included Lab Sample IDs: 2311755

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	98.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A110937

Included Lab Sample IDs: 2311778

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	105	106	P/P	90 - 110
Iron	106	107	P/P	90 - 110
Magnesium	106	107	P/P	90 - 110
Potassium	103	104	P/P	90 - 110
Sodium	101	102	P/P	90 - 110
Strontium	98.9	99.2	P/P	90 - 110
Tin	101	101	P/P	90 - 110
Titanium	98.4	98.3	P/P	90 - 110
Vanadium	98.1	98.0	P/P	90 - 110
Zinc	107	106	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A110939

Included Lab Sample IDs: 2311770

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	92.8	88.8	P/P	60 - 160
Endothall	103	111	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A110959

Included Lab Sample IDs: 2311755

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A110961

Included Lab Sample IDs: 2311754

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.9	95.9	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A110961

Included Lab Sample IDs: 2311754

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A110962
Included Lab Sample IDs: 2311770

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	89.4	P/P	60 - 160

Reference Method: EPA 8276
Run ID: A110982
Included Lab Sample IDs: 2311765, 2311766

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.0		P	80 - 120
Toxaphene	95.8		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A110994
Included Lab Sample IDs: 2311754

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A111025
Included Lab Sample IDs: 2311770

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	95.3	P/P	50 - 150
2,4,5-T	94.8	107	P/P	50 - 150
Acetaminophen	114	106	P/P	60 - 160
Acetamiprid	97.2	107	P/P	50 - 150
Afidopyropen	92.8	106	P/P	50 - 150
Bentazon	116	112	P/P	50 - 160
Benzovindiflupyr	106	110	P/P	50 - 150
Carbamazepine	110	105	P/P	60 - 150
Clothianidin	76.2	112	P/P	60 - 150
Dinotefuran	106	98.1	P/P	50 - 150
Diuron	78.9	80.5	P/P	60 - 160
Fenuron	96.0	99.1	P/P	60 - 150
Fluridone	92.3	109	P/P	60 - 160
Hydrocodone	106	114	P/P	60 - 150
Ibuprofen	113	86.0	P/P	50 - 160
Imazapyr	107	110	P/P	50 - 150
Imidacloprid	109	119	P/P	60 - 150
Linuron	135	86.5	P/P	60 - 150
Mandestrobin	97.9	100	P/P	50 - 150
MCPP	102	104	P/P	50 - 150
Naproxen	130	80.1	P/P	50 - 160
Primidone	80.8	81.1	P/P	60 - 150
Pyraclostrobin	113	118	P/P	60 - 150
Silvex	107	107	P/P	50 - 150
Thiamethoxam	111	115	P/P	50 - 150
Tolfenpyrad	99.7	70.4	P/P	60 - 150
Triclopyr	113	90.8	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111027

Included Lab Sample IDs: 2311755

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	102	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111058

Included Lab Sample IDs: 2311765, 2311766

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.4		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	99.6		P	80 - 120
Beta-BHC	95.0		P	80 - 120
Beta-Cyfluthrin	98.8		P	80 - 120
Bifenthrin	102		P	80 - 120
Carbophenothion	98.7		P	80 - 120
Chlorothalonil	92.8		P	80 - 120
Cis-Nonachlor	102		P	80 - 120
Cypermethrin	88.0		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	99.3		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	92.1		P	80 - 120
Deltamethrin	95.1		P	80 - 120
Dichlobenil	91.8		P	80 - 120
Dicofol	99.7		P	80 - 120
Dieldrin	99.5		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	100		P	80 - 120
Endosulfan Sulfate	95.4		P	80 - 120
Endrin	100		P	80 - 120
Endrin Aldehyde	93.6		P	80 - 120
Endrin Ketone	110		P	80 - 120
Esfenvalerate	97.1		P	80 - 120
Ethalfuralin	95.9		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	98.4		P	80 - 120
Gamma-Chlordane	98.5		P	80 - 120
Heptachlor	99.4		P	80 - 120
Heptachlor Epoxide	97.4		P	80 - 120
Hexachlorobenzene	98.4		P	80 - 120
Kepone	95.6		P	80 - 120
Lambda-Cyhalothrin	100		P	80 - 120
Methoprene	103		P	80 - 120
Methoxychlor	98.0		P	80 - 120
MGK-264	99.7		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	97.9		P	80 - 120
Permethrin	99.0		P	80 - 120
Phenothrin	100		P	80 - 120
Piperonyl Butoxide	93.1		P	80 - 120
Prallethrin	97.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A111058

Included Lab Sample IDs: 2311765, 2311766

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tau-Fluvalinate	97.6		P	80 - 120
Tetramethrin	103		P	80 - 120
Trans-Nonachlor	99.8		P	80 - 120
Triclosan Methyl	98.8		P	80 - 120
Trifluralin	99.8		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111069

Included Lab Sample IDs: 2311755

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.2	94.0	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111112

Included Lab Sample IDs: 2311765, 2311766

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	99.8		P	80 - 120
PCB-1260	100		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
DEP SOP: NU-094-1	Color (true)	101					0.717	
EPA 180.1 Rev. 2.0	Turbidity	96.9					1.44	
EPA 200.7 Rev. 4.4	Calcium	105	108	108				1.03
	Iron	109	107	110	108			2.29
	Magnesium	111	109	110	108			0.305
	Potassium	102	102	103	101			0.325
	Sodium	101	103	104				0.605
	Strontium	104	102	104				1.95
	Tin	106	106	109	105			2.33
	Titanium	103	99.2	102	102			2.67
	Vanadium	96.4	97.1	99.0	96.1			1.90
	Zinc	109	109	111	106			1.19
EPA 200.8 Rev. 5.4	Aluminum	99.6	105	111	99.5			4.97
	Antimony	100	103	102	101			0.312
	Arsenic	102	103	103	102			0.277
	Barium	103	105	105	103			0.267
	Beryllium	98.6	99.9	99.3	93.9			0.524
	Boron	104	110	107	107			0.186
	Cadmium	100	103	105	102			1.84
	Chromium	97.0	101	103	98.4			1.95
	Cobalt	102	101	102	100			0.915
	Copper	98.8	99.5	99.9	97.2			0.317
	Lead	97.1	100	99.6	98.1			0.608
	Manganese	98.1	104	97.9	99.1			2.50
	Molybdenum	99.1	102	101	102			0.146
	Nickel	100	101	102	98.3			0.658
	Selenium	101	102	101	87.3			1.87
	Silver	98.7	101	101	101			0.283
	Thallium	99.6	106	104	102			1.03
EPA 300.0 Rev. 2.1	Chloride	100	102	100			0.145	
	Sulfate	101	103				0.503	
EPA 350.1 Rev. 2.0	Ammonia-N	100	99.2	104				4.50
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	100	98.2				1.40
EPA 353.2 Rev. 2.0	NO2NO3-N	100	97.4	98.4				0.948
EPA 365.1 Rev. 2.0	Total-P	101	103	104				0.714
EPA 8270E	Aldrin	67.9	57.6	57.1				0.872
	Alpha-BHC	95.9	88.2	88.6				0.461
	Alpha-Chlordane	85.6	79.0	80.7				2.19
	Beta-BHC	111	111	114				2.97
	Beta-Cyfluthrin	91.4	75.8	76.7				1.11
	Bifenthrin	79.6	66.1	74.6				12.0
	Carbophenothion	68.8	63.4	66.4				4.64
	Chlorothalonil	165	135	143				5.19
	Cis-Nonachlor	77.0	68.8	70.8				2.90
	Cypermethrin	98.7	80.9	82.4				1.82
	Dacthal	98.5	90.5	94.1				3.94
	DDD-p,p'	97.1	85.5	86.9				1.65
	DDE-p,p'	81.4	73.0	74.8				2.41
	DDT-p,p'	87.2	74.2	78.4				5.56
	Delta-BHC	95.8	92.1	95.0				3.06
	Deltamethrin	91.7	78.3	64.3				19.6
	Dichlobenil	85.9	79.1	67.0				16.5
	Dicofol	97.2	84.6	88.1				4.00
	Dieldrin	84.9	78.1	81.1				3.85

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Endosulfan I	86.7	73.2	76.2			3.94
	Endosulfan II	88.7	74.9	77.3			3.10
	Endosulfan Sulfate	84.6	78.3	77.5			0.972
	Endrin	82.6	72.4	76.8			5.94
	Endrin Aldehyde	71.2	69.1	68.0			1.62
	Endrin Ketone	143	104	122			15.3
	Esfenvalerate	98.6	82.2	82.9			0.780
	Ethalfuralin	84.7	69.4	73.8			6.11
	Fenpropathrin	99.9	84.5	91.1			7.51
	Gamma-BHC	96.3	85.9	89.6			4.17
	Gamma-Chlordane	91.4	87.1	90.5			3.87
	Heptachlor	74.0	62.1	62.8			1.18
	Heptachlor Epoxide	86.1	74.5	75.8			1.57
	Hexachlorobenzene	67.2	59.9	58.1			3.05
	Kepone	138	121	83.2			36.7
	Lambda-Cyhalothrin	100	86.1	83.2			3.49
	Methoprene	80.4	63.7	76.5			18.2
	Methoxychlor	105	92.0	102			9.79
	MGK-264	93.1	85.9	89.8			4.33
	Mirex	72.0	63.7	67.5			5.86
	Oxychlordane	84.0	72.4	76.9			6.12
	PCB-1016	61.4	69.2	76.5			10.1
	PCB-1260	84.9	91.0	97.1			6.50
	Permethrin	91.0	76.3	81.6			6.68
	Phenothrin	78.5	69.9	75.6			7.89
	Piperonyl Butoxide	135	123	129			5.24
	Prallethrin	69.1	67.6	69.1			2.29
	Tau-Fluvalinate	80.5	70.6	70.9			0.422
	Tetramethrin	114	126	129			2.28
	Trans-Nonachlor	78.4	75.3	79.2			5.01
	Triclosan Methyl	85.0	74.1	76.5			3.16
	Trifluralin	83.3	71.0	75.6			6.33
EPA 8276	Chlordane	77.0	106	88.8			18.0
	Toxaphene	69.0	81.9	83.9			2.35
EPA 8321B	2,4-D	83.4	65.3	85.0			26.2
	2,4,5-T	50.8	47.7	51.2			6.99
	Acesulfame K	92.3	103	100			2.94
	Acetaminophen	96.9	108	101			6.63
	Acetamiprid	80.4	82.6	83.5			1.07
	Afidopyropen	54.2	61.9	74.2			18.0
	AMPA	96.4	89.9	90.2			0.353
	Bentazon	92.7	91.3	83.3			9.17
	Benzovindiflupyr	114	108	85.8			22.6
	Carbamazepine	122	121	92.5			26.9
	Clothianidin	112	99.3	97.7			1.59
	Dinotefuran	106	123	119			2.99
	Diuron	93.3	71.0	86.7			19.9
	Endothall	86.8	73.4	105			35.8
	Fenuron	132	119	84.3			27.6
	Fluridone	91.9	89.8	87.9			2.17
	Glufosinate	81.4	77.8	80.8			3.67
	Glyphosate	89.2	79.9	81.9			2.56
	Hydrocodone	111	98.5	98.9			0.343
	Ibuprofen	46.0	45.1	45.8			1.52

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Imazapyr	106	96.1	120			22.1
	Imidacloprid	119	147	142			3.20
	Linuron	90.7	66.2	118			56.2
	Mandestrobin	92.9	100	94.4			6.02
	MCPP	92.7	83.1	100			18.6
	Naproxen	52.4	61.0	55.7			9.05
	Primidone	144	135	128			5.23
	Pyraclostrobin	86.6	85.2	93.9			9.77
	Silvex	47.7	46.9	54.0			14.0
	Sucralose	86.4	83.0	88.0			5.67
	Thiamethoxam	108	135	137			1.34
	Tolfenpyrad	40.9	36.8	48.3			26.9
	Triclopyr	55.7	52.9	55.7			5.14
SM 2320 B-2011	Total Alkalinity	95.1				0.661	
SM 2540 C-2011	TDS					6.51	
SM 4500 F-C-2011	Fluoride	99.6	101	101			0.0
SM 5310 B-2011	Organic Carbon	95.6	97.5	99.4			1.21

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2311754
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2311754
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2311778
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2311778
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2311754
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2311754
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2311755
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2311755
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2311755
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2311755
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2311765, 2311766
EPA 8270E	PCBs in water matrices by GC/MS/MS	2311765, 2311766
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2311765, 2311766
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2311770
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2311770
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2311754
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2311778
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2311754
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2311754
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2311754
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2311755

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	03/10/2022			03/10/2022 15:43	Anna M. Plaviak	2311754
EPA 180.1 Rev. 2.0	03/10/2022			03/10/2022 14:23	Khloe J Berg	2311754
EPA 200.7 Rev. 4.4	03/10/2022	03/14/2022 10:34	Megan Whitefoot	03/14/2022 20:52	Josef B Mick	2311778
EPA 200.8 Rev. 5.4	03/10/2022	03/14/2022 10:34	Megan Whitefoot	03/14/2022 18:29	Alexander Thompson	2311778
EPA 300.0 Rev. 2.1	03/10/2022			03/17/2022 03:30	Anna M. Plaviak	2311754
EPA 350.1 Rev. 2.0	03/10/2022			03/11/2022 10:10	Judith K. Clark	2311755
EPA 351.2 Rev. 2.0	03/10/2022	03/17/2022 10:56	Samantha L Bates	03/21/2022 16:53	Samantha L Bates	2311755
EPA 353.2 Rev. 2.0	03/10/2022			03/16/2022 11:03	Beverly Y. Sanders	2311755
EPA 365.1 Rev. 2.0	03/10/2022	03/17/2022 15:15	Simonne.V. Calhoun	03/18/2022 13:58	Sarah A Nixon	2311755
EPA 8270E	03/10/2022	03/14/2022 08:00	Fe-Val Siddell	03/18/2022 18:49	Vandana T. Nagar	2311765
	03/10/2022	03/14/2022 08:00	Fe-Val Siddell	03/18/2022 19:18	Vandana T. Nagar	2311766
	03/10/2022	03/14/2022 08:00	Fe-Val Siddell	03/21/2022 23:39	Julie Wi	2311765
	03/10/2022	03/14/2022 08:00	Fe-Val Siddell	03/22/2022 00:09	Julie Wi	2311766
EPA 8276	03/10/2022	03/14/2022 08:00	Fe-Val Siddell	03/16/2022 12:58	Arthur Maknenko	2311765
	03/10/2022	03/14/2022 08:00	Fe-Val Siddell	03/16/2022 13:53	Arthur Maknenko	2311766
EPA 8321B	03/10/2022	03/11/2022 08:00	Manjita Shrestha	03/11/2022 11:03	Manjita Shrestha	2311770
	03/10/2022	03/11/2022 08:00	Manjita Shrestha	03/12/2022 04:46	Manjita Shrestha	2311770
	03/10/2022	03/11/2022 08:00	Manjita Shrestha	03/15/2022 23:51	Manjita Shrestha	2311770
	03/10/2022	03/16/2022 08:00	June Rhew	03/17/2022 22:15	Juyoung Kim	2311770
SM 2320 B-2011	03/10/2022			03/16/2022 03:38	Dale L. Simmons	2311754
SM 2340B	03/10/2022			03/14/2022 20:52	Josef B Mick	2311778
SM 2540 C-2011	03/10/2022			03/14/2022 14:02	Yijie Li	2311754
SM 2540 D-2011	03/10/2022			03/14/2022 15:03	Yijie Li	2311754
SM 4500 F-C-2011	03/10/2022			03/16/2022 03:38	Dale L. Simmons	2311754
SM 5310 B-2011	03/10/2022			03/15/2022 07:42	Khloe J Berg	2311755