

Chemical Analysis Report

NE-DIST-2022-08-18-01

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

Event Description: **Suwannee Central 2022**
Request ID: **RQ-2022-07-11-26**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 09-SEP-2022 10:23



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: 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: Twin Spring at Vent

Collection Date/Time: 08/17/2022 10:55

Field ID: G1NE0943

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350579	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P418340	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P418347	
	EPA 300.0 Rev. 2.1	Chloride	7.0		mg Cl/L	P418868	
		Sulfate	13		mg SO4/L	P418871	
	SM 2320 B-2011	Total Alkalinity	135		mg CaCO3/L	P418456	
	SM 2540 C-2011	TDS	168		mg/L	P418837	
	SM 2540 D-2011	TSS	2	U	mg/L	P418685	
	SM 4500-F- C-2011	Fluoride	0.075	I	mg F/L	P418466	
2350580	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P418540	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.10	I	mg N/L	P419093	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.6		mg N/L	P418659	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P418515	
	SM 5310 B-2011	Organic Carbon	0.61	I	mg C/L	P418502	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Olustee Creek at SE Union Way

Collection Date/Time: 08/17/2022 12:20

Field ID: G1NE0951

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350584	EPA 8270E	Aldrin	0.67	U	ng/L	P418277	
		Alpha-BHC	0.10	U	ng/L	P418277	
		Alpha-Chlordane	0.21	U	ng/L	P418277	
		PCB-1016	2.1	U	ng/L	P418277	
		Beta-BHC	0.10	U	ng/L	P418277	
		PCB-1221	2.1	U	ng/L	P418277	
		Beta-Cyfluthrin	1.3	U	ng/L	P418277	
		PCB-1232	2.1	U	ng/L	P418277	
		Bifenthrin	0.51	U	ng/L	P418277	
		PCB-1242	2.1	U	ng/L	P418277	
		Carbophenothion	0.92	U	ng/L	P418277	
		PCB-1248	2.1	U	ng/L	P418277	
		Chlorothalonil	1.3	U	ng/L	P418277	
		PCB-1254	2.1	U	ng/L	P418277	
		Cis-Nonachlor	0.21	U	ng/L	P418277	
		PCB-1260	2.1	U	ng/L	P418277	
		Cypermethrin	1.5	U	ng/L	P418277	
		Dacthal	0.15	U	ng/L	P418277	
		DDD-p,p'	0.26	U	ng/L	P418277	
		DDE-p,p'	0.21	U	ng/L	P418277	
		DDT-p,p'	0.26	U	ng/L	P418277	
		Delta-BHC	0.41	U	ng/L	P418277	
		Deltamethrin	1.3	U	ng/L	P418277	
		Dichlobenil	0.26	U	ng/L	P418277	
		Dicofol	1.3	U	ng/L	P418277	
		Dieldrin	0.41	U	ng/L	P418277	
		Endosulfan I	0.41	U	ng/L	P418277	
		Endosulfan II	0.41	U	ng/L	P418277	
		Endosulfan Sulfate	0.31	U	ng/L	P418277	
		Endrin	0.41	U	ng/L	P418277	
		Endrin Aldehyde	0.77	U	ng/L	P418277	
		Endrin Ketone	0.41	U	ng/L	P418277	
		Esfenvalerate	0.77	U	ng/L	P418277	
		Ethalfuralin	0.15	U	ng/L	P418277	
		Fenpropathrin	0.26	UJ	ng/L	P418277	CCV
		Gamma-BHC	0.13	U	ng/L	P418277	RPD
		Gamma-Chlordane	0.21	U	ng/L	P418277	
		Heptachlor	0.21	U	ng/L	P418277	
		Heptachlor Epoxide	0.26	U	ng/L	P418277	
		Hexachlorobenzene**	1.0	U	ng/L	P418277	
		Kepone	5.1	U	ng/L	P418277	
		Lambda-Cyhalothrin	0.77	U	ng/L	P418277	
		Methoprene	0.77	U	ng/L	P418277	
		Methoxychlor	0.50	I	ng/L	P418277	

Field ID: G1NE0951

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350584	EPA 8270E	MGK-264	0.21	U	ng/L	P418277	
		Mirex	0.36	U	ng/L	P418277	
		Oxychlordane	0.31	U	ng/L	P418277	
		Permethrin	1.6	U	ng/L	P418277	
		Phenothrin	0.92	U	ng/L	P418277	
		Piperonyl Butoxide	0.30	I	ng/L	P418277	
		Prallethrin	2.1	U	ng/L	P418277	
		Tau-Fluvalinate	0.26	U	ng/L	P418277	
		Tetramethrin	0.77	U	ng/L	P418277	
		Trans-Nonachlor	0.21	U	ng/L	P418277	
		Triclosan Methyl	0.15	U	ng/L	P418277	
		Trifluralin	0.21	U	ng/L	P418277	
	EPA 8276	Chlordane	2.6	U	ng/L	P418277	
		Toxaphene	15	U	ng/L	P418277	

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

Sample Location: Olustee Creek at SR-18

Collection Date/Time: 08/17/2022 11:55

Field ID: 21030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350585	EPA 8270E	Aldrin	0.66	U	ng/L	P418277	
		Alpha-BHC	0.10	U	ng/L	P418277	
		Alpha-Chlordane	0.20	U	ng/L	P418277	
		PCB-1016	2.0	U	ng/L	P418277	
		Beta-BHC	0.10	U	ng/L	P418277	
		PCB-1221	2.0	U	ng/L	P418277	
		Beta-Cyfluthrin	1.3	U	ng/L	P418277	
		PCB-1232	2.0	U	ng/L	P418277	
		Bifenthrin	0.51	U	ng/L	P418277	
		PCB-1242	2.0	U	ng/L	P418277	
		Carbophenothion	0.92	U	ng/L	P418277	
		PCB-1248	2.0	U	ng/L	P418277	
		Chlorothalonil	1.3	U	ng/L	P418277	
		PCB-1254	2.0	U	ng/L	P418277	
		Cis-Nonachlor	0.20	U	ng/L	P418277	
		PCB-1260	2.0	U	ng/L	P418277	
		Cypermethrin	1.5	U	ng/L	P418277	
		Dacthal	0.15	U	ng/L	P418277	
		DDD-p,p'	0.26	U	ng/L	P418277	
		DDE-p,p'	0.20	U	ng/L	P418277	
		DDT-p,p'	0.26	U	ng/L	P418277	
		Delta-BHC	0.41	U	ng/L	P418277	
		Deltamethrin	1.3	U	ng/L	P418277	
		Dichlobenil	0.26	U	ng/L	P418277	
		Dicofol	1.3	U	ng/L	P418277	
		Dieldrin	0.41	U	ng/L	P418277	
		Endosulfan I	0.41	U	ng/L	P418277	
		Endosulfan II	0.41	U	ng/L	P418277	
		Endosulfan Sulfate	0.31	U	ng/L	P418277	
		Endrin	0.41	U	ng/L	P418277	
		Endrin Aldehyde	0.77	U	ng/L	P418277	
		Endrin Ketone	0.41	U	ng/L	P418277	
		Esfenvalerate	0.77	U	ng/L	P418277	
		Ethalfuralin	0.15	U	ng/L	P418277	
		Fenpropathrin	0.26	UJ	ng/L	P418277	CCV
		Gamma-BHC	0.13	U	ng/L	P418277	RPD
		Gamma-Chlordane	0.20	U	ng/L	P418277	
		Heptachlor	0.20	U	ng/L	P418277	
		Heptachlor Epoxide	0.26	U	ng/L	P418277	
		Hexachlorobenzene**	1.0	U	ng/L	P418277	
		Kepone	5.1	U	ng/L	P418277	
		Lambda-Cyhalothrin	0.77	U	ng/L	P418277	
		Methoprene	0.77	U	ng/L	P418277	
		Methoxychlor	0.31	U	ng/L	P418277	

Field ID: 21030071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350585	EPA 8270E	MGK-264	0.20	U	ng/L	P418277	
		Mirex	0.36	U	ng/L	P418277	
		Oxychlordane	0.31	U	ng/L	P418277	
		Permethrin	1.6	U	ng/L	P418277	
		Phenothrin	0.92	U	ng/L	P418277	
		Piperonyl Butoxide	0.24	I	ng/L	P418277	
		Prallethrin	2.0	U	ng/L	P418277	
		Tau-Fluvalinate	0.26	U	ng/L	P418277	
		Tetramethrin	0.77	U	ng/L	P418277	
		Trans-Nonachlor	0.20	U	ng/L	P418277	
		Triclosan Methyl	0.15	U	ng/L	P418277	
		Trifluralin	0.20	U	ng/L	P418277	
	EPA 8276	Chlordane	2.6	U	ng/L	P418277	
		Toxaphene	15	U	ng/L	P418277	

Ref. Method and Comment:

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

Sample Location: FB`

Collection Date/Time: 08/17/2022 12:00

Field ID: FB_08172022

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350586	EPA 8270E	Aldrin	0.65	U	ng/L	P418277	
		Alpha-BHC	0.10	U	ng/L	P418277	
		Alpha-Chlordane	0.20	U	ng/L	P418277	
		PCB-1016	2.0	U	ng/L	P418277	
		Beta-BHC	0.10	U	ng/L	P418277	
		PCB-1221	2.0	U	ng/L	P418277	
		Beta-Cyfluthrin	1.2	U	ng/L	P418277	
		PCB-1232	2.0	U	ng/L	P418277	
		Bifenthrin	0.50	U	ng/L	P418277	
		PCB-1242	2.0	U	ng/L	P418277	
		PCB-1248	2.0	U	ng/L	P418277	
		Chlorothalonil	1.2	U	ng/L	P418277	
		PCB-1254	2.0	U	ng/L	P418277	
		Cis-Nonachlor	0.20	U	ng/L	P418277	
		PCB-1260	2.0	U	ng/L	P418277	
		Cypermethrin	1.5	U	ng/L	P418277	
		Dacthal	0.15	U	ng/L	P418277	
		DDD-p,p'	0.25	U	ng/L	P418277	
		DDE-p,p'	0.20	U	ng/L	P418277	
		DDT-p,p'	0.25	U	ng/L	P418277	
		Delta-BHC	0.40	U	ng/L	P418277	
		Deltamethrin	1.2	U	ng/L	P418277	
		Dichlobenil	0.25	U	ng/L	P418277	
		Dicofol	1.2	U	ng/L	P418277	
		Dieldrin	0.40	U	ng/L	P418277	
		Endosulfan I	0.40	U	ng/L	P418277	
		Endosulfan II	0.40	U	ng/L	P418277	
		Endosulfan Sulfate	0.30	U	ng/L	P418277	
		Endrin	0.40	U	ng/L	P418277	
		Endrin Aldehyde	0.75	U	ng/L	P418277	
		Endrin Ketone	0.40	U	ng/L	P418277	
		Esfenvalerate	0.75	U	ng/L	P418277	
		Ethalfuralin	0.15	U	ng/L	P418277	
		Fenpropathrin	0.25	UJ	ng/L	P418277	CCV
		Gamma-BHC	0.12	U	ng/L	P418277	RPD
		Gamma-Chlordane	0.20	U	ng/L	P418277	
		Heptachlor	0.20	U	ng/L	P418277	
		Heptachlor Epoxide	0.25	U	ng/L	P418277	
		Hexachlorobenzene**	1.0	U	ng/L	P418277	
		Kepone	5.0	U	ng/L	P418277	
		Lambda-Cyhalothrin	0.75	U	ng/L	P418277	
		Methoprene	0.75	U	ng/L	P418277	
		Methoxychlor	0.30	U	ng/L	P418277	
		MGK-264	0.56	I	ng/L	P418277	

Field ID: FB_08172022

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350586	EPA 8270E	Mirex	0.35	U	ng/L	P418277	
		Oxychlordane	0.30	U	ng/L	P418277	
		Permethrin	1.6	U	ng/L	P418277	
		Phenothrin	0.90	U	ng/L	P418277	
		Piperonyl Butoxide	0.15	U	ng/L	P418277	
		Prallethrin	2.0	U	ng/L	P418277	
		Tau-Fluvalinate	0.25	U	ng/L	P418277	
		Tetramethrin	0.75	U	ng/L	P418277	
		Trans-Nonachlor	0.20	U	ng/L	P418277	
		Triclosan Methyl	0.15	U	ng/L	P418277	
		Trifluralin	0.20	U	ng/L	P418277	
	EPA 8276	Chlordane	2.5	U	ng/L	P418277	
		Toxaphene	15	U	ng/L	P418277	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P418340

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418347

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418868

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418871

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418540

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419093

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418659

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418515

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

Reference Method: EPA 8270E
Batch ID: P418277

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P418277

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418277

Component	Result	Code	Units
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
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P418277

Component	Result	Code	Units
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: P418277

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: SM 2320 B-2011
Batch ID: P418456

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

Reference Method: SM 2540 C-2011
Batch ID: P418837

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P418685

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P418466

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P418502

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: P418340

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.6		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418347

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418868

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418540

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: P419093

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418659

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418515

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

Reference Method: EPA 8270E
Batch ID: P418277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	44.2		P	10 - 92.0
Alpha-BHC	93.9		P	75 - 107
Alpha-Chlordane	72.7		P	50 - 108
Beta-BHC	116		P	36 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P418277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	71.2		P	20 - 161
Bifenthrin	50.7		P	10 - 119
Carbophenothion	53.2		P	19 - 94.0
Chlorothalonil	71.3		P	26 - 186
Cis-Nonachlor	74.2		P	42 - 119
Cypermethrin	73.6		P	22 - 150
Dacthal	89.9		P	72 - 119
DDD-p,p'	68.0		P	45 - 107
DDE-p,p'	67.7		P	48 - 106
DDT-p,p'	69.0		P	48 - 110
Delta-BHC	118		P	54 - 140
Deltamethrin	77.2		P	22 - 189
Dichlobenil	93.2		P	36 - 117
Dicofol	72.2		P	46 - 155
Dieldrin	75.9		P	54 - 110
Endosulfan I	76.0		P	59 - 105
Endosulfan II	74.9		P	51 - 118
Endosulfan Sulfate	90.8		P	57 - 121
Endrin	75.0		P	10 - 120
Endrin Aldehyde	83.7		P	34 - 118
Endrin Ketone	87.8		P	69 - 177
Esfenvalerate	71.0		P	23 - 168
Ethalfuralin	70.2		P	49 - 99.0
Fenpropathrin	99.0		P	34 - 117
Gamma-BHC	95.3		P	72 - 117
Gamma-Chlordane	69.6		P	43 - 106
Heptachlor	63.5		P	41 - 98.0
Heptachlor Epoxide	76.4		P	57 - 106
Hexachlorobenzene	73.2		P	36 - 99.0
Kepone	123		P	16 - 215
Lambda-Cyhalothrin	62.9		P	21 - 177
Methoprene	64.4		P	10 - 119
Methoxychlor	68.1		P	60 - 112
MGK-264	80.5		P	26 - 122
Mirex	52.2		P	10 - 169
Oxychlordane	72.2		P	43 - 105
PCB-1016	74.3		P	48 - 112
PCB-1260	72.3		P	44 - 118
Permethrin	72.5		P	24 - 148
Phenothrin	50.3		P	10 - 106
Piperonyl Butoxide	95.7		P	10 - 139
Prallethrin	64.2		P	17 - 109
Tau-Fluvalinate	63.8		P	13 - 131
Tetramethrin	73.7		P	10 - 132
Trans-Nonachlor	77.2		P	44 - 106
Triclosan Methyl	76.3		P	59 - 109
Trifluralin	71.2		P	44 - 101

Reference Method: EPA 8276

Batch ID: P418277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
-----------	---------	---------	-----------	----------------

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P418277

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	79.5		P	61 - 116
Toxaphene	84.3		P	48 - 124

Reference Method: SM 2320 B-2011
Batch ID: P418456

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.7		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P418466

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P418502

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418868

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350379	Chloride	99.0		P	90 - 110
2350628	Chloride	98.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350379	Sulfate	99.2		P	90 - 110
2350628	Sulfate	99.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350540	Ammonia-N	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418659

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350632	NO2NO3-N	94.8	93.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418515

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350689	Total-P	102	103	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P418277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350620	Aldrin	48.6	54.8	P/P	20 - 82.0
2350620	Alpha-BHC	84.2	96.5	P/P	71 - 109
2350620	Alpha-Chlordane	64.9	74.0	P/P	42 - 106
2350620	Beta-BHC	103	122	P/P	69 - 180
2350620	Beta-Cyfluthrin	63.4	71.0	P/P	18 - 175
2350620	Bifenthrin	45.9	49.1	P/P	21 - 128
2350620	Carbophenothion	52.2	66.1	P/P	10 - 126
2350620	Chlorothalonil	71.1	79.0	P/P	10 - 300
2350620	Cis-Nonachlor	64.2	76.7	P/P	34 - 106
2350620	Cypermethrin	61.4	68.9	P/P	22 - 158
2350620	Dacthal	82.2	98.8	P/P	54 - 116
2350620	DDD-p,p'	63.1	72.2	P/P	34 - 107
2350620	DDE-p,p'	65.0	72.3	P/P	33 - 110
2350620	DDT-p,p'	61.4	68.7	P/P	50 - 122
2350620	Delta-BHC	105	132	P/P	77 - 193
2350620	Deltamethrin	62.9	74.6	P/P	10 - 195
2350620	Dichlobenil	86.6	97.6	P/P	25 - 113
2350620	Dicofol	64.5	75.4	P/P	38 - 247
2350620	Dieldrin	67.9	80.5	P/P	45 - 118
2350620	Endosulfan I	70.5	86.3	P/P	51 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P418277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350620	Endosulfan II	68.8	81.2	P/P	37 - 122
2350620	Endosulfan Sulfate	76.2	84.0	P/P	43 - 132
2350620	Endrin	71.0	83.3	P/P	29 - 101
2350620	Endrin Aldehyde	73.1	77.3	P/P	19 - 110
2350620	Endrin Ketone	78.5	92.3	P/P	60 - 140
2350620	Esfenvalerate	59.1	69.5	P/P	26 - 199
2350620	Ethalfuralin	64.9	75.1	P/P	45 - 99.0
2350620	Fenpropathrin	94.5	109	P/P	35 - 120
2350620	Gamma-BHC	89.1	106	P/P	63 - 128
2350620	Gamma-Chlordane	62.9	69.1	P/P	40 - 104
2350620	Heptachlor	59.5	65.0	P/P	36 - 97.0
2350620	Heptachlor Epoxide	71.8	87.1	P/P	49 - 184
2350620	Hexachlorobenzene	68.6	77.6	P/P	39 - 96.0
2350620	Kepone	116	125	P/P	10 - 217
2350620	Lambda-Cyhalothrin	55.1	62.3	P/P	21 - 193
2350620	Methoprene	53.9	60.9	P/P	20 - 106
2350620	Methoxychlor	61.0	74.2	P/P	53 - 118
2350620	MGK-264	77.8	92.0	P/P	40 - 118
2350620	Mirex	51.7	56.2	P/P	26 - 92.0
2350620	Oxychlordane	70.1	80.8	P/P	44 - 99.0
2350620	Permethrin	62.5	68.4	P/P	33 - 182
2350620	Phenothrin	47.4	53.6	P/P	10 - 129
2350620	Piperonyl Butoxide	83.7	101	P/P	10 - 211
2350620	Prallethrin	68.1	73.8	P/P	24 - 113
2350620	Tau-Fluvalinate	57.0	61.6	P/P	14 - 149
2350620	Tetramethrin	72.4	86.5	P/P	17 - 151
2350620	Trans-Nonachlor	72.4	78.0	P/P	42 - 102
2350620	Triclosan Methyl	71.4	81.3	P/P	48 - 108
2350620	Trifluralin	64.8	76.3	P/P	47 - 96.0
2350970	PCB-1016	98.3	81.9	P/P	46 - 111
2350970	PCB-1260	92.3	82.4	P/P	45 - 114

Reference Method: EPA 8276

Batch ID: P418277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350970	Chlordane	115	106	P/P	53 - 126
2350970	Toxaphene	132	118	P/P	56 - 211

Reference Method: SM 4500-F- C-2011

Batch ID: P418466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350630	Fluoride	102	101	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P418502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350304	Organic Carbon	97.7	97.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P418340

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350628	Color (true)	0.869	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350628	Turbidity	6.60	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350379	Chloride	0.804	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350379	Sulfate	1.23	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350540	Ammonia-N	0.870	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350543	Kjeldahl Nitrogen	0.327	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418659

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350632	NO2NO3-N	0.881	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418515

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350689	Total-P	0.522	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P418277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350620	Aldrin	12.0	Spike	P	0 - 41
2350620	Alpha-BHC	13.6	Spike	P	0 - 25
2350620	Alpha-Chlordane	13.1	Spike	P	0 - 33
2350620	Beta-BHC	16.3	Spike	P	0 - 36
2350620	Beta-Cyfluthrin	11.3	Spike	P	0 - 42
2350620	Bifenthrin	6.64	Spike	P	0 - 53
2350620	Carbophenothion	23.5	Spike	P	0 - 49
2350620	Chlorothalonil	10.5	Spike	P	0 - 71
2350620	Cis-Nonachlor	17.7	Spike	P	0 - 29
2350620	Cypermethrin	11.6	Spike	P	0 - 40
2350620	Dacthal	18.4	Spike	P	0 - 26
2350620	DDD-p,p'	13.4	Spike	P	0 - 39
2350620	DDE-p,p'	10.6	Spike	P	0 - 33
2350620	DDT-p,p'	11.3	Spike	P	0 - 40
2350620	Delta-BHC	22.4	Spike	P	0 - 37
2350620	Deltamethrin	17.0	Spike	P	0 - 100
2350620	Dichlobenil	11.9	Spike	P	0 - 40
2350620	Dicofol	15.6	Spike	P	0 - 31
2350620	Dieldrin	17.0	Spike	P	0 - 27
2350620	Endosulfan I	20.1	Spike	P	0 - 23
2350620	Endosulfan II	16.6	Spike	P	0 - 28
2350620	Endosulfan Sulfate	9.64	Spike	P	0 - 38
2350620	Endrin	16.0	Spike	P	0 - 63
2350620	Endrin Aldehyde	5.65	Spike	P	0 - 60
2350620	Endrin Ketone	16.2	Spike	P	0 - 37
2350620	Esfenvalerate	16.1	Spike	P	0 - 52
2350620	Ethalfuralin	14.6	Spike	P	0 - 23
2350620	Fenpropathrin	14.2	Spike	P	0 - 32
2350620	Gamma-BHC	17.5	Spike	F	0 - 17
2350620	Gamma-Chlordane	9.40	Spike	P	0 - 40
2350620	Heptachlor	8.88	Spike	P	0 - 29
2350620	Heptachlor Epoxide	19.3	Spike	P	0 - 25
2350620	Hexachlorobenzene	12.4	Spike	P	0 - 36
2350620	Kepone	7.82	Spike	P	0 - 93
2350620	Lambda-Cyhalothrin	12.2	Spike	P	0 - 55
2350620	Methoprene	12.2	Spike	P	0 - 53
2350620	Methoxychlor	19.5	Spike	P	0 - 29
2350620	MGK-264	16.8	Spike	P	0 - 35
2350620	Mirex	8.32	Spike	P	0 - 46
2350620	Oxychlordane	14.2	Spike	P	0 - 29
2350620	Permethrin	9.05	Spike	P	0 - 44
2350620	Phenothrin	12.3	Spike	P	0 - 56
2350620	Piperonyl Butoxide	19.2	Spike	P	0 - 100
2350620	Prallethrin	7.92	Spike	P	0 - 42
2350620	Tau-Fluvalinate	7.79	Spike	P	0 - 54
2350620	Tetramethrin	17.9	Spike	P	0 - 51
2350620	Trans-Nonachlor	7.39	Spike	P	0 - 37
2350620	Triclosan Methyl	12.9	Spike	P	0 - 31
2350620	Trifluralin	16.3	Spike	P	0 - 30
2350970	PCB-1016	18.2	Spike	P	0 - 32
2350970	PCB-1260	11.3	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P418277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350970	Chlordane	8.62	Spike	P	0 - 25
2350970	Toxaphene	11.5	Spike	P	0 - 26

Reference Method: SM 2320 B-2011
Batch ID: P418456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350630	Total Alkalinity	1.01	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P418837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350478	TDS	5.97	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P418466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350630	Fluoride	0.484	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P418502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350304	Organic Carbon	0.0722	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2350584
Field Sample ID: G1NE0951

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	83.2	P	29 - 130
EPA 8270E	Decachlorobiphenyl	47.0	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	50.7	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	64.2	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	68.8	P	30 - 101
EPA 8276	PCNB	85.6	P	48 - 121

Lab Sample ID: 2350585
Field Sample ID: 21030071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	80.2	P	29 - 130
EPA 8270E	Decachlorobiphenyl	49.6	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	49.5	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	63.7	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	77.0	P	30 - 101
EPA 8276	PCNB	93.0	P	48 - 121

Lab Sample ID: 2350586
Field Sample ID: FB_08172022

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	79.5	P	29 - 130
EPA 8270E	Decachlorobiphenyl	65.5	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	69.9	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	81.8	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	86.7	P	30 - 101
EPA 8276	PCNB	92.0	P	48 - 121

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A114192

Included Lab Sample IDs: 2350579

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114195

Included Lab Sample IDs: 2350579

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

Reference Method: SM 2320 B-2011

Run ID: A114240

Included Lab Sample IDs: 2350579

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	96.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A114240

Included Lab Sample IDs: 2350579

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	103	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A114255

Included Lab Sample IDs: 2350580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.9	96.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114274

Included Lab Sample IDs: 2350580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	99.2	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114311

Included Lab Sample IDs: 2350584, 2350585, 2350586

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	93.9		P	80 - 120
Alpha-BHC	97.3		P	80 - 120
Alpha-Chlordane	98.1		P	80 - 120
Beta-BHC	92.1		P	80 - 120
Beta-Cyfluthrin	93.5		P	80 - 120
Bifenthrin	97.9		P	80 - 120
Carbophenothion	99.6		P	80 - 120
Chlorothalonil	92.5		P	80 - 120
Cis-Nonachlor	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A114311

Included Lab Sample IDs: 2350584, 2350585, 2350586

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cypermethrin	90.9		P	80 - 120
Dacthal	96.1		P	80 - 120
DDD-p,p'	98.1		P	80 - 120
DDE-p,p'	97.6		P	80 - 120
DDT-p,p'	99.0		P	80 - 120
Delta-BHC	88.9		P	80 - 120
Deltamethrin	88.0		P	80 - 120
Dichlobenil	101		P	80 - 120
Dicofol	95.0		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	96.6		P	80 - 120
Endosulfan II	97.9		P	80 - 120
Endosulfan Sulfate	90.4		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	98.7		P	80 - 120
Endrin Ketone	102		P	80 - 120
Esfenvalerate	89.9		P	80 - 120
Ethalfuralin	94.9		P	80 - 120
Fenpropathrin	126*		F	80 - 120
Gamma-BHC	89.3		P	80 - 120
Gamma-Chlordane	93.7		P	80 - 120
Heptachlor	97.2		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120
Hexachlorobenzene	99.3		P	80 - 120
Kepone	82.2		P	80 - 120
Lambda-Cyhalothrin	96.3		P	80 - 120
Methoprene	101		P	80 - 120
Methoxychlor	85.3		P	80 - 120
MGK-264	98.3		P	80 - 120
Mirex	99.6		P	80 - 120
Oxychlordane	98.7		P	80 - 120
Permethrin	95.0		P	80 - 120
Phenothrin	93.3		P	80 - 120
Piperonyl Butoxide	96.2		P	80 - 120
Prallethrin	96.9		P	80 - 120
Tau-Fluvalinate	93.6		P	80 - 120
Tetramethrin	92.0		P	80 - 120
Trans-Nonachlor	108		P	80 - 120
Triclosan Methyl	96.2		P	80 - 120
Trifluralin	97.8		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A114329

Included Lab Sample IDs: 2350580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.0	96.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A114335

Included Lab Sample IDs: 2350579

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.9	99.1	P/P	90 - 110
Sulfate	99.9	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114348

Included Lab Sample IDs: 2350580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.0	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114363

Included Lab Sample IDs: 2350584, 2350585, 2350586

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	102		P	80 - 120
PCB-1260	97.1		P	80 - 120

Reference Method: EPA 8276

Run ID: A114391

Included Lab Sample IDs: 2350584, 2350585, 2350586

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.1		P	80 - 120
Toxaphene	96.7		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A114569

Included Lab Sample IDs: 2350580

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	103	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	98.6				0.869	
EPA 180.1 Rev. 2.0	Turbidity	96.4				6.60	
EPA 300.0 Rev. 2.1	Chloride	98.2	99.0	98.8		0.804	
	Sulfate	98.7	99.2	99.5		1.23	
EPA 350.1 Rev. 2.0	Ammonia-N	100	100	101			0.870
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.5					0.327
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0	94.8	93.8			0.881
EPA 365.1 Rev. 2.0	Total-P	104	102	103			0.522
EPA 8270E	Aldrin	44.2	48.6	54.8			12.0
	Alpha-BHC	93.9	84.2	96.5			13.6
	Alpha-Chlordane	72.7	64.9	74.0			13.1
	Beta-BHC	116	103	122			16.3
	Beta-Cyfluthrin	71.2	63.4	71.0			11.3
	Bifenthrin	50.7	45.9	49.1			6.64
	Carbophenothion	53.2	52.2	66.1			23.5
	Chlorothalonil	71.3	71.1	79.0			10.5
	Cis-Nonachlor	74.2	64.2	76.7			17.7
	Cypermethrin	73.6	61.4	68.9			11.6
	Dacthal	89.9	82.2	98.8			18.4
	DDD-p,p'	68.0	63.1	72.2			13.4
	DDE-p,p'	67.7	65.0	72.3			10.6
	DDT-p,p'	69.0	61.4	68.7			11.3
	Delta-BHC	118	105	132			22.4
	Deltamethrin	77.2	62.9	74.6			17.0
	Dichlobenil	93.2	86.6	97.6			11.9
	Dicofol	72.2	64.5	75.4			15.6
	Dieldrin	75.9	67.9	80.5			17.0
	Endosulfan I	76.0	70.5	86.3			20.1
	Endosulfan II	74.9	68.8	81.2			16.6
	Endosulfan Sulfate	90.8	76.2	84.0			9.64
	Endrin	75.0	71.0	83.3			16.0
	Endrin Aldehyde	83.7	73.1	77.3			5.65
	Endrin Ketone	87.8	78.5	92.3			16.2
	Esfenvalerate	71.0	59.1	69.5			16.1
	Ethalfuralin	70.2	64.9	75.1			14.6
	Fenpropathrin	99.0	94.5	109			14.2
	Gamma-BHC	95.3	89.1	106			17.5
	Gamma-Chlordane	69.6	62.9	69.1			9.40
	Heptachlor	63.5	59.5	65.0			8.88
	Heptachlor Epoxide	76.4	71.8	87.1			19.3
	Hexachlorobenzene	73.2	68.6	77.6			12.4
	Kepone	123	116	125			7.82
	Lambda-Cyhalothrin	62.9	55.1	62.3			12.2
	Methoprene	64.4	53.9	60.9			12.2
	Methoxychlor	68.1	61.0	74.2			19.5
	MGK-264	80.5	77.8	92.0			16.8
	Mirex	52.2	51.7	56.2			8.32
	Oxychlordane	72.2	70.1	80.8			14.2
	PCB-1016	74.3	98.3	81.9			18.2
	PCB-1260	72.3	92.3	82.4			11.3
	Permethrin	72.5	62.5	68.4			9.05
	Phenothrin	50.3	47.4	53.6			12.3
	Piperonyl Butoxide	95.7	83.7	101			19.2
	Prallethrin	64.2	68.1	73.8			7.92

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Tau-Fluvalinate	63.8	57.0	61.6		7.79
	Tetramethrin	73.7	72.4	86.5		17.9
	Trans-Nonachlor	77.2	72.4	78.0		7.39
	Triclosan Methyl	76.3	71.4	81.3		12.9
	Trifluralin	71.2	64.8	76.3		16.3
EPA 8276	Chlordane	79.5	115	106		8.62
	Toxaphene	84.3	132	118		11.5
SM 2320 B-2011	Total Alkalinity	99.7			1.01	
SM 2540 C-2011	TDS				5.97	
SM 4500-F- C-2011	Fluoride	102	102	101		0.484
SM 5310 B-2011	Organic Carbon	95.2	97.7	97.6		0.0722

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2350579
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2350579
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2350579
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2350579
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2350580
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2350580
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2350580
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2350580
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2350584, 2350585, 2350586
EPA 8270E	PCBs in water matrices by GC/MS/MS	2350584, 2350585, 2350586
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2350584, 2350585, 2350586
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2350579
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2350579
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2350579
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2350579
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2350580

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	08/18/2022			08/18/2022 15:53	Anna M. Plaviak	2350579
EPA 180.1 Rev. 2.0	08/18/2022			08/18/2022 14:41	Khloe J Berg	2350579
EPA 300.0 Rev. 2.1	08/18/2022			08/27/2022 02:35	Anna M. Plaviak	2350579
EPA 350.1 Rev. 2.0	08/18/2022			08/23/2022 15:11	Judith K. Clark	2350580
EPA 351.2 Rev. 2.0	08/18/2022	09/06/2022 14:30	Alexandra J Mattheus	09/07/2022 09:32	Alexandra J Mattheus	2350580
EPA 353.2 Rev. 2.0	08/18/2022			08/25/2022 10:42	Beverly Y. Sanders	2350580
EPA 365.1 Rev. 2.0	08/18/2022	08/24/2022 15:20	Simonne.V. Calhoun	08/25/2022 14:43	James L Waggerby	2350580
EPA 8270E	08/18/2022	08/22/2022 08:00	Fe-Val Siddell	08/24/2022 22:39	Vandana T. Nagar	2350584
	08/18/2022	08/22/2022 08:00	Fe-Val Siddell	08/24/2022 23:08	Vandana T. Nagar	2350585
	08/18/2022	08/22/2022 08:00	Fe-Val Siddell	08/24/2022 23:38	Vandana T. Nagar	2350586
	08/18/2022	08/22/2022 08:00	Fe-Val Siddell	08/26/2022 02:36	Julie Wi	2350584
	08/18/2022	08/22/2022 08:00	Fe-Val Siddell	08/26/2022 03:06	Julie Wi	2350585
	08/18/2022	08/22/2022 08:00	Fe-Val Siddell	08/26/2022 03:36	Julie Wi	2350586
EPA 8276	08/18/2022	08/22/2022 08:00	Fe-Val Siddell	08/26/2022 14:47	Arthur Maknenko	2350584
	08/18/2022	08/22/2022 08:00	Fe-Val Siddell	08/26/2022 15:44	Arthur Maknenko	2350585
	08/18/2022	08/22/2022 08:00	Fe-Val Siddell	08/26/2022 16:42	Arthur Maknenko	2350586
SM 2320 B-2011	08/18/2022			08/20/2022 05:00	Adam P Silver	2350579
SM 2540 C-2011	08/18/2022			08/23/2022 13:01	Yijie Li	2350579
SM 2540 D-2011	08/18/2022			08/23/2022 13:01	Yijie Li	2350579
SM 4500-F- C-2011	08/18/2022			08/20/2022 05:00	Adam P Silver	2350579
SM 5310 B-2011	08/18/2022			08/22/2022 21:50	Khloe J Berg	2350580