

Chemical Analysis Report

CEN-DIST-2023-02-10-01

Florida DEP Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

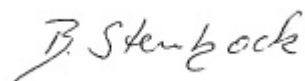
Event Description: **Run 21**
Request ID: **RQ-2023-01-09-54**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 02-MAR-2023 18:10



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: Volusia Blue Spring near vent

Collection Date/Time: 02/09/2023 12:20

Field ID: G2CE0242

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386771	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P425667	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P425673	
	EPA 300.0 Rev. 2.1	Chloride	180		mg Cl/L	P426336	
		Sulfate	33		mg SO4/L	P426339	
	SM 2320 B-2011	Total Alkalinity	137	A	mg CaCO3/L	P426049	
	SM 2540 C-2015	TDS	408		mg/L	P426311	
	SM 2540 D-2015	TSS	2	U	mg/L	P426113	
2386772	SM 4500-F- C-2011	Fluoride	0.069	I	mg F/L	P426053	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P425980	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.14	I	mg N/L	P425912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.3		mg N/L	P425943	
	EPA 365.1 Rev. 2.0	Total-P	0.061		mg P/L	P425930	
2386775	EPA 8270E	SM 5310 B-2011	Organic Carbon	1.5	mg C/L	P426022	
		Aldrin	0.69	U	ng/L	P425594	
		Alpha-BHC	0.11	U	ng/L	P425594	
		Alpha-Chlordane	0.21	U	ng/L	P425594	MS
		PCB-1016	2.1	U	ng/L	P425594	
		Beta-BHC	0.11	U	ng/L	P425594	
		PCB-1221	2.1	U	ng/L	P425594	
		Beta-Cyfluthrin	1.3	U	ng/L	P425594	
		PCB-1232	2.1	U	ng/L	P425594	
		Bifenthrin	0.53	U	ng/L	P425594	
		PCB-1242	2.1	U	ng/L	P425594	
		PCB-1248	2.1	U	ng/L	P425594	
		Chlorothalonil	3.8	U	ng/L	P425594	
		PCB-1254	2.1	U	ng/L	P425594	
		Cis-Nonachlor	0.21	U	ng/L	P425594	
		PCB-1260	2.1	U	ng/L	P425594	
		Cypermethrin	1.6	U	ng/L	P425594	
		Dacthal	0.16	U	ng/L	P425594	
		DDD-p,p'	0.26	U	ng/L	P425594	MS
		DDE-p,p'	0.21	U	ng/L	P425594	MS
		DDT-p,p'	0.26	U	ng/L	P425594	
		Delta-BHC	0.42	U	ng/L	P425594	
		Deltamethrin	1.3	U	ng/L	P425594	
		Dichlobenil	0.26	U	ng/L	P425594	
		Dicofol	1.3	U	ng/L	P425594	
		Diieldrin	1.9	I	ng/L	P425594	
		Endosulfan I	0.42	U	ng/L	P425594	
		Endosulfan II	0.42	U	ng/L	P425594	
		Endosulfan Sulfate	0.32	U	ng/L	P425594	
		Endrin	0.42	U	ng/L	P425594	MS
		Endrin Aldehyde	0.79	U	ng/L	P425594	
		Endrin Ketone	0.42	U	ng/L	P425594	

Field ID: G2CE0242

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386775	EPA 8270E	Esfenvalerate	0.79	U	ng/L	P425594	
		Ethalfuralin	0.16	U	ng/L	P425594	
		Fenpropathrin	0.26	U	ng/L	P425594	
		Gamma-BHC	0.13	U	ng/L	P425594	
		Gamma-Chlordane	0.21	U	ng/L	P425594	
		Heptachlor	0.21	U	ng/L	P425594	
		Heptachlor Epoxide	0.26	U	ng/L	P425594	
		Hexachlorobenzene**	1.1	U	ng/L	P425594	
		Kepone	45		ng/L	P425594	
		Lambda-Cyhalothrin	0.79	U	ng/L	P425594	
		Methoprene	0.79	U	ng/L	P425594	MS
		Methoxychlor	0.32	U	ng/L	P425594	
		MGK-264	0.21	U	ng/L	P425594	
		Mirex	0.37	U	ng/L	P425594	
		Oxychlordane	0.32	U	ng/L	P425594	
		Permethrin	1.7	U	ng/L	P425594	
		Phenothrin	0.95	U	ng/L	P425594	
		Piperonyl Butoxide	0.16	U	ng/L	P425594	
		Prallethrin	2.1	U	ng/L	P425594	MS
		Tau-Fluvalinate	0.26	U	ng/L	P425594	
		Tetramethrin	0.79	U	ng/L	P425594	
		Trans-Nonachlor	0.21	U	ng/L	P425594	
		Triclosan Methyl	0.16	U	ng/L	P425594	
		Trifluralin	0.21	U	ng/L	P425594	
	EPA 8276	Chlordane	2.1	U	ng/L	P425594	
		Toxaphene	16	U	ng/L	P425594	

Ref. Method and Comment:

SM 2540 D-2015: 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 and relative percent difference are unavailable because of high analyte concentration in the QC sample.

Sample Location: East Crystal Lake @ Center

Collection Date/Time: 02/09/2023 10:45

Field ID: G2CE0110

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386769	DEP SOP: NU-094-1	Color (true)	58		PCU	P425666	
	EPA 180.1 Rev. 2.0	Turbidity	0.65	I	NTU	P425673	
	EPA 300.0 Rev. 2.1	Chloride	28		mg Cl/L	P426335	
		Sulfate	3.7		mg SO4/L	P426338	
	SM 2320 B-2011	Total Alkalinity	24		mg CaCO3/L	P426049	
	SM 2540 C-2015	TDS	90		mg/L	P426311	
	SM 2540 D-2015	TSS	3	I	mg/L	P426113	
	SM 4500-F- C-2011	Fluoride	0.055	I	mg F/L	P426053	
2386770	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P425980	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P425912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P425943	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P425930	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P426022	

Ref. Method and Comment:

SM 2540 D-2015: 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 and relative percent difference are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P425666

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P425667

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425673

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426335

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426336

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426338

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426339

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425980

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425912

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425943

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425930

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

Reference Method: EPA 8270E
Batch ID: P425594

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
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425594

Component	Result	Code	Units
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425594

Component	Result	Code	Units
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: P425594

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

Reference Method: SM 2320 B-2011

Batch ID: P426049

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2015

Batch ID: P426311

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P426113

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P426053

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P426022

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: P425666

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

Reference Method: DEP SOP: NU-094-1
Batch ID: P425667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425673

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426335

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426336

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426338

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	107		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426339

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	105		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425912

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P425943

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P425930

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

Reference Method: EPA 8270E

Batch ID: P425594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	61.7		P	10 - 92.0
Alpha-BHC	90.2		P	75 - 107
Alpha-Chlordane	105		P	50 - 108
Beta-BHC	114		P	36 - 138
Beta-Cyfluthrin	88.2		P	20 - 161
Bifenthrin	72.8		P	10 - 119
Chlorothalonil	120		P	26 - 186
Cis-Nonachlor	74.4		P	42 - 119
Cypermethrin	59.0		P	22 - 150
Dacthal	92.3		P	72 - 119
DDD-p,p'	99.8		P	45 - 107
DDE-p,p'	102		P	48 - 106
DDT-p,p'	75.8		P	48 - 110
Delta-BHC	111		P	54 - 140
Deltamethrin	79.8		P	22 - 189
Dichlobenil	88.5		P	36 - 117
Dicofol	87.2		P	46 - 155
Dieldrin	103		P	54 - 110
Endosulfan I	91.8		P	59 - 105
Endosulfan II	115		P	51 - 118
Endosulfan Sulfate	114		P	57 - 121
Endrin	106		P	10 - 120
Endrin Aldehyde	71.7		P	34 - 118
Endrin Ketone	75.2		P	69 - 177
Esfenvalerate	98.1		P	23 - 168
Ethalfuralin	82.5		P	49 - 99.0
Fenpropathrin	73.8		P	34 - 117
Gamma-BHC	84.7		P	72 - 117
Gamma-Chlordane	75.9		P	43 - 106
Heptachlor	80.0		P	41 - 98.0
Heptachlor Epoxide	92.4		P	57 - 106
Hexachlorobenzene	85.4		P	36 - 99.0
Kepone	183		P	16 - 215
Lambda-Cyhalothrin	72.2		P	21 - 177
Methoprene	96.8		P	10 - 119
Methoxychlor	88.5		P	60 - 112
MGK-264	92.9		P	26 - 122
Mirex	63.5		P	10 - 169
Oxychlordane	89.8		P	43 - 105
PCB-1016	90.0		P	48 - 112

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P425594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1260	83.9		P	44 - 118
Permethrin	118		P	24 - 148
Phenothrin	65.3		P	10 - 106
Piperonyl Butoxide	116		P	10 - 139
Prallethrin	109		P	17 - 109
Tau-Fluvalinate	81.5		P	13 - 131
Tetramethrin	112		P	10 - 132
Trans-Nonachlor	88.9		P	44 - 106
Triclosan Methyl	86.2		P	59 - 109
Trifluralin	85.9		P	44 - 101

Reference Method: EPA 8276
Batch ID: P425594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	110		P	53 - 126
Toxaphene	128		P	56 - 211

Reference Method: SM 2320 B-2011
Batch ID: P426049

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.0		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P426311

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	95.8		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P426113

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.9		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P426053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.5		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426022

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426335

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386606	Chloride	99.3		P	90 - 110
2386769	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386877	Chloride	104		P	90 - 110
2387009	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386606	Sulfate	104		P	90 - 110
2386769	Sulfate	109		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386877	Sulfate	94.3		P	90 - 110
2387009	Sulfate	109		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386461	Ammonia-N	99.0	98.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425943

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386770	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386781	Total-P	104	103	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P425594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386475	Aldrin	53.2	59.6	P/P	20 - 82.0
2386475	Alpha-BHC	87.2	87.6	P/P	71 - 109
2386475	Alpha-Chlordane	108	113	F/F	42 - 106
2386475	Beta-BHC	130	134	P/P	69 - 180
2386475	Beta-Cyfluthrin	130	139	P/P	18 - 175
2386475	Bifenthrin	70.5	78.6	P/P	21 - 128

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P425594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386475	Chlorothalonil	111	122	P/P	10 - 300
2386475	Cis-Nonachlor	72.1	78.5	P/P	34 - 106
2386475	Cypermethrin	76.2	84.2	P/P	22 - 158
2386475	Dacthal	90.3	87.4	P/P	54 - 116
2386475	DDD-p,p'	118	114	F/F	34 - 107
2386475	DDE-p,p'	117	118	F/F	33 - 110
2386475	DDT-p,p'	76.6	78.1	P/P	50 - 122
2386475	Delta-BHC	129	131	P/P	77 - 193
2386475	Deltamethrin	139	117	P/P	10 - 195
2386475	Dichlobenil	70.0	63.7	P/P	25 - 113
2386475	Dicofol	84.1	90.6	P/P	38 - 247
2386475	Dieldrin	112	116	P/P	45 - 118
2386475	Endosulfan I	81.9	81.9	P/P	51 - 106
2386475	Endosulfan II	107	108	P/P	37 - 122
2386475	Endosulfan Sulfate	125	115	P/P	43 - 132
2386475	Endrin	116	120	F/F	29 - 101
2386475	Endrin Aldehyde	71.1	71.9	P/P	19 - 110
2386475	Endrin Ketone	80.3	83.1	P/P	60 - 140
2386475	Esfenvalerate	144	158	P/P	26 - 199
2386475	Ethalfuralin	84.5	84.9	P/P	45 - 99.0
2386475	Fenpropathrin	82.5	81.9	P/P	35 - 120
2386475	Gamma-BHC	76.8	78.8	P/P	63 - 128
2386475	Gamma-Chlordane	75.2	82.7	P/P	40 - 104
2386475	Heptachlor	68.2	72.7	P/P	36 - 97.0
2386475	Heptachlor Epoxide	81.3	79.9	P/P	49 - 184
2386475	Hexachlorobenzene	80.7	81.2	P/P	39 - 96.0
2386475	Kepone	180	182	P/P	10 - 217
2386475	Lambda-Cyhalothrin	94.6	100	P/P	21 - 193
2386475	Methoprene	116	122	F/F	20 - 106
2386475	Methoxychlor	86.4	93.0	P/P	53 - 118
2386475	MGK-264	76.4	82.6	P/P	40 - 118
2386475	Mirex	76.1	74.6	P/P	26 - 92.0
2386475	Oxychlordane	77.8	80.1	P/P	44 - 99.0
2386475	Permethrin	127	151	P/P	33 - 182
2386475	Phenothrin	84.6	93.8	P/P	10 - 129
2386475	Piperonyl Butoxide	109	109	P/P	10 - 211
2386475	Prallethrin	107	120	P/F	24 - 113
2386475	Tau-Fluvalinate	132	144	P/P	14 - 149
2386475	Tetramethrin	113	120	P/P	17 - 151
2386475	Trans-Nonachlor	80.1	84.1	P/P	42 - 102
2386475	Triclosan Methyl	83.5	86.1	P/P	48 - 108
2386475	Trifluralin	83.5	85.1	P/P	47 - 96.0
2386481	PCB-1016	85.6	88.5	P/P	46 - 111
2386481	PCB-1260	80.4	81.5	P/P	45 - 114

Reference Method: EPA 8276

Batch ID: P425594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386481	Chlordane	108	115	P/P	53 - 126
2386481	Toxaphene	120	136	P/P	56 - 211

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P426053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386771	Fluoride	100	98.9	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386772	Organic Carbon	92.0	93.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P425666

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386676	Color (true)	1.32	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P425667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386798	Color (true)	1.36	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386743	Turbidity	6.97	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426335

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386606	Chloride	0.590	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386877	Chloride	1.94	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426338

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386606	Sulfate	5.41	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386877	Sulfate	3.03	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386461	Ammonia-N	0.190	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P425943

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386770	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P425930

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386781	Total-P	0.746	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P425594

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386475	Aldrin	11.4	Spike	P	0 - 41
2386475	Alpha-BHC	0.461	Spike	P	0 - 25
2386475	Alpha-Chlordane	4.46	Spike	P	0 - 33
2386475	Beta-BHC	2.85	Spike	P	0 - 36
2386475	Beta-Cyfluthrin	6.38	Spike	P	0 - 42
2386475	Bifenthrin	11.0	Spike	P	0 - 53
2386475	Chlorothalonil	9.51	Spike	P	0 - 71
2386475	Cis-Nonachlor	8.53	Spike	P	0 - 29
2386475	Cypermethrin	9.98	Spike	P	0 - 40
2386475	Dacthal	3.35	Spike	P	0 - 26
2386475	DDD-p,p'	3.48	Spike	P	0 - 39
2386475	DDE-p,p'	0.886	Spike	P	0 - 33
2386475	DDT-p,p'	1.89	Spike	P	0 - 40
2386475	Delta-BHC	1.25	Spike	P	0 - 37
2386475	Deltamethrin	16.9	Spike	P	0 - 100
2386475	Dichlobenil	9.41	Spike	P	0 - 40
2386475	Dicofol	7.41	Spike	P	0 - 31
2386475	Dieldrin	3.27	Spike	P	0 - 27
2386475	Endosulfan I	0.0825	Spike	P	0 - 23
2386475	Endosulfan II	0.549	Spike	P	0 - 28
2386475	Endosulfan Sulfate	7.79	Spike	P	0 - 38
2386475	Endrin	3.18	Spike	P	0 - 63
2386475	Endrin Aldehyde	1.21	Spike	P	0 - 60
2386475	Endrin Ketone	3.33	Spike	P	0 - 37
2386475	Esfenvalerate	9.47	Spike	P	0 - 52
2386475	Ethalfuralin	0.493	Spike	P	0 - 23
2386475	Fenpropathrin	0.707	Spike	P	0 - 32
2386475	Gamma-BHC	2.48	Spike	P	0 - 17
2386475	Gamma-Chlordane	9.53	Spike	P	0 - 40
2386475	Heptachlor	6.31	Spike	P	0 - 29
2386475	Heptachlor Epoxide	1.75	Spike	P	0 - 25
2386475	Hexachlorobenzene	0.594	Spike	P	0 - 36
2386475	Kepone	0.742	Spike	P	0 - 93
2386475	Lambda-Cyhalothrin	5.83	Spike	P	0 - 55
2386475	Methoprene	4.60	Spike	P	0 - 53
2386475	Methoxychlor	7.33	Spike	P	0 - 29
2386475	MGK-264	7.79	Spike	P	0 - 35

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P425594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386475	Mirex	1.97	Spike	P	0 - 46
2386475	Oxychlordane	2.95	Spike	P	0 - 29
2386475	Permethrin	17.4	Spike	P	0 - 44
2386475	Phenothrin	10.3	Spike	P	0 - 56
2386475	Piperonyl Butoxide	0.774	Spike	P	0 - 100
2386475	Prallethrin	11.3	Spike	P	0 - 42
2386475	Tau-Fluvalinate	8.42	Spike	P	0 - 54
2386475	Tetramethrin	5.67	Spike	P	0 - 51
2386475	Trans-Nonachlor	4.84	Spike	P	0 - 37
2386475	Triclosan Methyl	3.04	Spike	P	0 - 31
2386475	Trifluralin	1.86	Spike	P	0 - 30
2386481	PCB-1016	3.27	Spike	P	0 - 32
2386481	PCB-1260	1.38	Spike	P	0 - 31

Reference Method: EPA 8276
Batch ID: P425594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386481	Chlordane	6.27	Spike	P	0 - 25
2386481	Toxaphene	12.3	Spike	P	0 - 26

Reference Method: SM 2320 B-2011
Batch ID: P426049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386771	Total Alkalinity	0.0992	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P426311

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386420	TDS	1.78	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P426053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386771	Fluoride	0.974	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P426022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386772	Organic Carbon	1.30	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2386775

Field Sample ID: G2CE0242

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	70.6	P	29 - 130
EPA 8270E	Decachlorobiphenyl	61.4	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	79.4	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	68.8	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	57.5	P	30 - 101
EPA 8276	PCNB	97.6	P	48 - 121

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A117384

Included Lab Sample IDs: 2386769, 2386771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	98.5	P/P	90 - 110
Color (true)	98.5	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A117388

Included Lab Sample IDs: 2386769, 2386771

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

Reference Method: EPA 8270E

Run ID: A117438

Included Lab Sample IDs: 2386775

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	98.7		P	80 - 120
PCB-1260	94.4		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A117480

Included Lab Sample IDs: 2386770, 2386772

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117495

Included Lab Sample IDs: 2386770, 2386772

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	98.2	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A117520

Included Lab Sample IDs: 2386770, 2386772

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	92.3	96.7	P/P	90 - 110
Organic Carbon	96.5	96.8	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A117530

Included Lab Sample IDs: 2386769, 2386771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.2	96.5	P/P	90 - 110
Total Alkalinity	96.5	95.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A117530

Included Lab Sample IDs: 2386769, 2386771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	102	P/P	90 - 110
Fluoride	100	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A117532

Included Lab Sample IDs: 2386775

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	105		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	105		P	80 - 120
Beta-Cyfluthrin	102		P	80 - 120
Bifenthrin	101		P	80 - 120
Chlorothalonil	93.2		P	80 - 120
Cis-Nonachlor	96.6		P	80 - 120
Cypermethrin	97.4		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	95.7		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	98.9		P	80 - 120
Deltamethrin	99.2		P	80 - 120
Dichlobenil	101		P	80 - 120
Dicofol	99.7		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	95.9		P	80 - 120
Endosulfan Sulfate	100		P	80 - 120
Endrin	105		P	80 - 120
Endrin Aldehyde	96.4		P	80 - 120
Endrin Ketone	93.7		P	80 - 120
Esfenvalerate	96.1		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	104		P	80 - 120
Gamma-BHC	105		P	80 - 120
Gamma-Chlordane	98.2		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	105		P	80 - 120
Hexachlorobenzene	98.4		P	80 - 120
Kepone	87.2		P	80 - 120
Lambda-Cyhalothrin	106		P	80 - 120
Methoprene	100		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	98.9		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	106		P	80 - 120
Permethrin	104		P	80 - 120
Phenothrin	103		P	80 - 120
Piperonyl Butoxide	85.6		P	80 - 120
Prallethrin	97.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117532
Included Lab Sample IDs: 2386775

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tau-Fluvalinate	98.7		P	80 - 120
Tetramethrin	91.5		P	80 - 120
Trans-Nonachlor	103		P	80 - 120
Triclosan Methyl	97.4		P	80 - 120
Trifluralin	106		P	80 - 120

Reference Method: EPA 8276
Run ID: A117561
Included Lab Sample IDs: 2386775

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	103		P	80 - 120
Toxaphene	111		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A117570
Included Lab Sample IDs: 2386770

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A117572
Included Lab Sample IDs: 2386772

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A117607
Included Lab Sample IDs: 2386769, 2386771

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	104	P/P	90 - 110
Chloride	104	105	P/P	90 - 110
Sulfate	105	108	P/P	90 - 110
Sulfate	107	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A117625
Included Lab Sample IDs: 2386770, 2386772

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	97.5	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)	101				1.32	
	Color (true)	100				1.36	
EPA 180.1 Rev. 2.0	Turbidity	101				6.97	
EPA 300.0 Rev. 2.1	Chloride	102	99.3	105		0.590	
	Chloride	101	104	105		1.94	
	Sulfate	107	104	109		5.41	
	Sulfate	105	94.3	109		3.03	
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	99.0	98.8			0.190
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104					
EPA 353.2 Rev. 2.0	NO2NO3-N	102	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	102	104	103			0.746
EPA 8270E	Aldrin	61.7	53.2	59.6			11.4
	Alpha-BHC	90.2	87.2	87.6			0.461
	Alpha-Chlordane	105	108	113			4.46
	Beta-BHC	114	130	134			2.85
	Beta-Cyfluthrin	88.2	130	139			6.38
	Bifenthrin	72.8	70.5	78.6			11.0
	Chlorothalonil	120	111	122			9.51
	Cis-Nonachlor	74.4	72.1	78.5			8.53
	Cypermethrin	59.0	76.2	84.2			9.98
	Dacthal	92.3	90.3	87.4			3.35
	DDD-p,p'	99.8	118	114			3.48
	DDE-p,p'	102	117	118			0.886
	DDT-p,p'	75.8	76.6	78.1			1.89
	Delta-BHC	111	129	131			1.25
	Deltamethrin	79.8	139	117			16.9
	Dichlobenil	88.5	70.0	63.7			9.41
	Dicofol	87.2	84.1	90.6			7.41
	Dieldrin	103	112	116			3.27
	Endosulfan I	91.8	81.9	81.9			0.0825
	Endosulfan II	115	107	108			0.549
	Endosulfan Sulfate	114	125	115			7.79
	Endrin	106	116	120			3.18
	Endrin Aldehyde	71.7	71.1	71.9			1.21
	Endrin Ketone	75.2	80.3	83.1			3.33
	Esfenvalerate	98.1	144	158			9.47
	Ethalfuralin	82.5	84.5	84.9			0.493
	Fenpropathrin	73.8	82.5	81.9			0.707
	Gamma-BHC	84.7	76.8	78.8			2.48
	Gamma-Chlordane	75.9	75.2	82.7			9.53
	Heptachlor	80.0	68.2	72.7			6.31
	Heptachlor Epoxide	92.4	81.3	79.9			1.75
	Hexachlorobenzene	85.4	80.7	81.2			0.594
	Kepone	183	180	182			0.742
	Lambda-Cyhalothrin	72.2	94.6	100			5.83
	Methoprene	96.8	116	122			4.60
	Methoxychlor	88.5	86.4	93.0			7.33
	MGK-264	92.9	76.4	82.6			7.79
	Mirex	63.5	76.1	74.6			1.97
	Oxychlordane	89.8	77.8	80.1			2.95
	PCB-1016	90.0	85.6	88.5			3.27
	PCB-1260	83.9	80.4	81.5			1.38
	Permethrin	118	127	151			17.4
	Phenothrin	65.3	84.6	93.8			10.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Piperonyl Butoxide	116	109	109			0.774
	Prallethrin	109	107	120			11.3
	Tau-Fluvalinate	81.5	132	144			8.42
	Tetramethrin	112	113	120			5.67
	Trans-Nonachlor	88.9	80.1	84.1			4.84
	Triclosan Methyl	86.2	83.5	86.1			3.04
	Trifluralin	85.9	83.5	85.1			1.86
EPA 8276	Chlordane	110	108	115			6.27
	Toxaphene	128	120	136			12.3
SM 2320 B-2011	Total Alkalinity	97.0				0.0992	
SM 2540 C-2015	TDS	95.8				1.78	
SM 2540 D-2015	TSS	91.9					
SM 4500-F- C-2011	Fluoride	98.5	100	98.9			0.974
SM 5310 B-2011	Organic Carbon	96.7	92.0	93.3			1.30

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2386769, 2386771
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2386769, 2386771
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2386769, 2386771
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2386769, 2386771
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2386770, 2386772
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2386770, 2386772
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2386770, 2386772
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2386770, 2386772
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2386775
EPA 8270E	PCBs in water matrices by GC/MS/MS	2386775
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2386775
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2386769, 2386771
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2386769, 2386771
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2386769, 2386771
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2386769, 2386771
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2386770, 2386772

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	02/10/2023			02/10/2023 14:31	Alexis Price	2386769
	02/10/2023			02/10/2023 14:34	Alexis Price	2386771
EPA 180.1 Rev. 2.0	02/10/2023			02/10/2023 14:21	Khloe J Berg	2386769
	02/10/2023			02/10/2023 14:24	Khloe J Berg	2386771
EPA 300.0 Rev. 2.1	02/10/2023			02/23/2023 14:31	Anna M. Plaviak	2386769
	02/10/2023			02/23/2023 21:46	Anna M. Plaviak	2386771
EPA 350.1 Rev. 2.0	02/10/2023			02/16/2023 13:55	Ping Hua	2386770
	02/10/2023			02/16/2023 13:56	Ping Hua	2386772
EPA 351.2 Rev. 2.0	02/10/2023	02/16/2023 11:30	Simonne.V. Calhoun	02/23/2023 11:25	Judith K. Clark	2386770
	02/10/2023	02/16/2023 11:30	Simonne.V. Calhoun	02/23/2023 11:27	Judith K. Clark	2386772
EPA 353.2 Rev. 2.0	02/10/2023			02/16/2023 10:11	Beverly Y. Sanders	2386770
	02/10/2023			02/16/2023 11:37	Beverly Y. Sanders	2386772
EPA 365.1 Rev. 2.0	02/10/2023	02/16/2023 16:29	Adam P Silver	02/17/2023 09:30	James L Waggeberby	2386772
	02/10/2023	02/16/2023 16:29	Adam P Silver	02/21/2023 11:42	Simonne.V. Calhoun	2386770
EPA 8270E	02/10/2023	02/13/2023 08:00	Fe-Val Siddell	02/15/2023 00:40	Vandana T. Nagar	2386775
	02/10/2023	02/13/2023 08:00	Fe-Val Siddell	02/17/2023 20:44	Vandana T. Nagar	2386775
EPA 8276	02/10/2023	02/13/2023 08:00	Fe-Val Siddell	02/17/2023 11:41	Lipi Saha	2386775
SM 2320 B-2011	02/10/2023			02/17/2023 07:46	Chandler E Cox	2386771
	02/10/2023			02/17/2023 10:57	Chandler E Cox	2386769
SM 2540 C-2015	02/10/2023			02/14/2023 15:41	Yijie Li	2386769, 2386771
SM 2540 D-2015	02/10/2023			02/14/2023 15:41	Yijie Li	2386769, 2386771
SM 4500-F- C-2011	02/10/2023			02/17/2023 07:34	Chandler E Cox	2386771
	02/10/2023			02/17/2023 10:57	Chandler E Cox	2386769
SM 5310 B-2011	02/10/2023			02/16/2023 18:20	Elise M. Gillis	2386772
	02/10/2023			02/17/2023 00:43	Elise M. Gillis	2386770