

Chemical Analysis Report

NW-DIST-2023-09-22-01

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

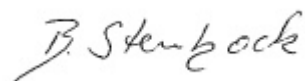
Event Description: **Western Lake Run**
Request ID: **RQ-2023-08-14-21**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 13-OCT-2023 11:16



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: POND CREEK WEST OF HEADWATERS OF
BLACKWATER BAY**

Collection Date/Time: 09/21/2023 09:20

Field ID: G4NW0277

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2439301	EPA 8270E	Aldrin	0.66	U	ng/L	P435296	
		Alpha-BHC	0.10	U	ng/L	P435296	
		Alpha-Chlordane	0.20	U	ng/L	P435296	
		PCB-1016	2.0	U	ng/L	P435296	
		Beta-BHC	0.10	U	ng/L	P435296	
		PCB-1221	2.0	U	ng/L	P435296	
		Beta-Cyfluthrin	1.3	U	ng/L	P435296	
		PCB-1232	2.0	U	ng/L	P435296	
		Bifenthrin	0.51	U	ng/L	P435296	
		PCB-1242	2.0	U	ng/L	P435296	
		Carbophenothion	0.92	U	ng/L	P435296	
		PCB-1248	2.0	U	ng/L	P435296	
		Chlorothalonil	3.7	U	ng/L	P435296	
		PCB-1254	2.0	U	ng/L	P435296	
		Cis-Nonachlor	0.20	U	ng/L	P435296	
		PCB-1260	2.0	U	ng/L	P435296	
		Cypermethrin	1.5	U	ng/L	P435296	
		Dacthal	0.15	U	ng/L	P435296	
		DDD-p,p'	0.25	U	ng/L	P435296	
		DDE-p,p'	0.20	U	ng/L	P435296	
		DDT-p,p'	0.81	U	ng/L	P435296	
		Delta-BHC	0.41	U	ng/L	P435296	
		Deltamethrin	1.3	U	ng/L	P435296	
		Dichlobenil	0.25	U	ng/L	P435296	
		Dicofol	1.3	U	ng/L	P435296	
		Dieldrin	0.45	I	ng/L	P435296	
		Endosulfan I	0.41	U	ng/L	P435296	MS
		Endosulfan II	0.92	U	ng/L	P435296	
		Endosulfan Sulfate	0.31	U	ng/L	P435296	
		Endrin	0.92	U	ng/L	P435296	
		Endrin Aldehyde	0.76	U	ng/L	P435296	
		Endrin Ketone	0.41	U	ng/L	P435296	
		Esfenvalerate	0.76	U	ng/L	P435296	
		Ethalfuralin	0.15	U	ng/L	P435296	
		Fenpropathrin	0.25	U	ng/L	P435296	
		Gamma-BHC	0.13	U	ng/L	P435296	
		Gamma-Chlordane	0.20	U	ng/L	P435296	
		Heptachlor	0.20	U	ng/L	P435296	
		Heptachlor Epoxide	0.25	U	ng/L	P435296	
		Hexachlorobenzene**	1.0	U	ng/L	P435296	
		Kepone	14	UJ	ng/L	P435296	CCV
		Lambda-Cyhalothrin	0.76	U	ng/L	P435296	
		Methoprene	0.76	U	ng/L	P435296	

Field ID: G4NW0277

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2439301	EPA 8270E	Methoxychlor	0.31	U	ng/L	P435296	
		MGK-264	0.20	U	ng/L	P435296	MS
		Mirex	0.36	U	ng/L	P435296	
		Oxychlordane	0.31	U	ng/L	P435296	MS
		Permethrin	1.6	U	ng/L	P435296	
		Phenothrin	0.92	U	ng/L	P435296	
		Piperonyl Butoxide	0.15	U	ng/L	P435296	
		Prallethrin	2.0	U	ng/L	P435296	
		Tau-Fluvalinate	0.25	U	ng/L	P435296	
		Tetramethrin	0.76	U	ng/L	P435296	
		Trans-Nonachlor	0.20	U	ng/L	P435296	MS
		Triclosan Methyl	0.15	U	ng/L	P435296	
		Trifluralin	0.20	U	ng/L	P435296	
	EPA 8276	Chlordane	2.0	U	ng/L	P435296	
		Toxaphene	15	U	ng/L	P435296	

Ref. Method and Comment:
 EPA 8270E: MS accuracy for kepone not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: CRESCENT LAKE

Collection Date/Time: 09/21/2023 11:00

Field ID: G5NW0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2439290	DEP SOP: NU-094-1	Color (true)	13		PCU	P435402	
	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P435405	
	EPA 300.0 Rev. 2.1	Chloride	8.6		mg Cl/L	P435833	
		Sulfate	4.9		mg SO4/L	P435836	
	SM 2320 B-2011	Total Alkalinity	24		mg CaCO3/L	P435732	
	SM 2540 C-2015	TDS	54		mg/L	P435880	
	SM 2540 D-2015	TSS	4	I	mg/L	P435850	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P435735	
2439291	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P435513	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P435937	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P436189	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P435539	
	SM 5310 B-2011	Organic Carbon	3.6		mg C/L	P435757	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: FB

Collection Date/Time: 09/21/2023 11:05

Field ID: FB_09212023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2439292	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P435402	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P435405	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P435833	
		Sulfate	0.20	U	mg SO4/L	P435836	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P435732	
	SM 2540 C-2015	TDS	15	U	mg/L	P435879	
	SM 2540 D-2015	TSS	2	U	mg/L	P435849	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P435735	
2439293	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P435513	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P436228	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P436189	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P435539	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P435757	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P435402

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435405

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435833

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435836

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435513

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435937

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436228

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436189

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435539

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P435296

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P435296

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

Reference Method: EPA 8276
Batch ID: P435296

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

Reference Method: SM 2320 B-2011
Batch ID: P435732

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

Reference Method: SM 2540 C-2015
Batch ID: P435879

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015
Batch ID: P435880

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P435849

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P435850

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P435735

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P435757

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P435757

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: P435402

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.7		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435405

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435833

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435836

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435513

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: P435937

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436228

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: P436189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435539

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	108		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P435296

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	49.4		P	30 - 96.0
Alpha-BHC	77.1		P	70 - 109
Alpha-Chlordane	70.8		P	45 - 107
Beta-BHC	75.6		P	64 - 138
Beta-Cyfluthrin	53.6		P	17 - 141
Bifenthrin	40.6		P	10 - 113
Carbophenothion	40.4		P	24 - 91.0
Chlorothalonil	42.8		P	26 - 180
Cis-Nonachlor	53.2		P	37 - 102
Cypermethrin	45.1		P	20 - 133
Dacthal	70.3		P	69 - 114
DDD-p,p'	66.0		P	42 - 105
DDE-p,p'	60.2		P	42 - 106
DDT-p,p'	63.5		P	42 - 107
Delta-BHC	77.3		P	67 - 144
Deltamethrin	63.1		P	15 - 149
Dichlobenil	73.1		P	46 - 117
Dicofol	63.2		P	34 - 114
Dieldrin	64.8		P	50 - 108
Endosulfan I	75.2		P	55 - 104
Endosulfan II	65.7		P	51 - 111
Endosulfan Sulfate	72.4		P	56 - 121
Endrin	66.7		P	10 - 106
Endrin Aldehyde	67.6		P	34 - 114
Endrin Ketone	79.8		P	63 - 177
Esfenvalerate	50.2		P	29 - 143
Ethalfuralin	63.0		P	46 - 96.0
Fenpropathrin	51.3		P	28 - 115
Gamma-BHC	74.7		P	65 - 121
Gamma-Chlordane	72.9		P	39 - 103
Heptachlor	62.4		P	39 - 94.0
Heptachlor Epoxide	70.5		P	54 - 104
Hexachlorobenzene	57.2		P	36 - 100
Kepone	137		P	10 - 225
Lambda-Cyhalothrin	38.2		P	10 - 135
Methoprene	41.3		P	10 - 109
Methoxychlor	71.7		P	52 - 112
MGK-264	84.7		P	44 - 117
Mirex	45.9		P	20 - 90.0
Oxychlordane	69.6		P	44 - 102
PCB-1016	72.9		P	45 - 107
PCB-1260	78.8		P	40 - 118
Permethrin	54.7		P	18 - 135
Phenothrin	37.9		P	10 - 102
Piperonyl Butoxide	82.4		P	28 - 156
Prallethrin	58.1		P	28 - 113
Tau-Fluvalinate	42.2		P	10 - 123
Tetramethrin	77.9		P	18 - 158
Trans-Nonachlor	62.1		P	39 - 104
Triclosan Methyl	70.5		P	54 - 108
Trifluralin	66.5		P	46 - 97.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P435296

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	72.9		P	52 - 117
Toxaphene	82.9		P	44 - 125

Reference Method: SM 2320 B-2011
Batch ID: P435732

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.8		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P435879

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.1		P	90 - 110

Reference Method: SM 2540 C-2015
Batch ID: P435880

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	91.8		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P435849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	99.6		P	85 - 106

Reference Method: SM 2540 D-2015
Batch ID: P435850

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	93.1		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P435735

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435757

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439768	Chloride	101		P	90 - 110
2439794	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439768	Sulfate	103		P	90 - 110
2439794	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439123	Ammonia-N	97.2	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435937

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439752	Kjeldahl Nitrogen	102	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436228

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2442732	Kjeldahl Nitrogen	96.6	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2437482	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435539

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439291	Total-P	108	108	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P435296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438896	Aldrin	46.4	44.7	P/P	24 - 81.0
2438896	Alpha-BHC	88.9	92.7	P/P	65 - 110
2438896	Alpha-Chlordane	89.9	99.1	P/P	43 - 119
2438896	Beta-BHC	76.3	84.9	P/P	54 - 165
2438896	Beta-Cyfluthrin	60.9	57.1	P/P	27 - 165
2438896	Bifenthrin	43.3	56.2	P/P	17 - 117
2438896	Carbophenothion	45.8	49.6	P/P	21 - 108
2438896	Chlorothalonil	128	95.0	P/P	10 - 255

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P435296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438896	Cis-Nonachlor	59.6	56.2	P/P	34 - 98.0
2438896	Cypermethrin	52.9	50.6	P/P	25 - 143
2438896	Dacthal	81.4	84.0	P/P	55 - 139
2438896	DDD-p,p'	54.6	60.5	P/P	30 - 109
2438896	DDE-p,p'	55.0	53.8	P/P	35 - 106
2438896	DDT-p,p'	58.3	59.4	P/P	41 - 101
2438896	Delta-BHC	104	90.0	P/P	58 - 165
2438896	Deltamethrin	52.8	53.9	P/P	10 - 194
2438896	Dichlobenil	79.6	78.7	P/P	22 - 114
2438896	Dicofol	64.2	64.7	P/P	17 - 133
2438896	Dieldrin	53.2	56.7	P/P	45 - 129
2438896	Endosulfan I	99.2	112	P/F	49 - 104
2438896	Endosulfan II	70.3	63.6	P/P	37 - 117
2438896	Endosulfan Sulfate	62.5	76.4	P/P	38 - 128
2438896	Endrin	57.6	59.3	P/P	35 - 116
2438896	Endrin Aldehyde	53.2	64.8	P/P	19 - 108
2438896	Endrin Ketone	73.0	71.3	P/P	44 - 134
2438896	Esfenvalerate	57.7	57.2	P/P	27 - 176
2438896	Ethalfuralin	59.1	60.2	P/P	49 - 100
2438896	Fenpropathrin	45.3	51.5	P/P	34 - 117
2438896	Gamma-BHC	106	111	P/P	59 - 129
2438896	Gamma-Chlordane	86.4	106	P/P	33 - 107
2438896	Heptachlor	76.1	76.1	P/P	37 - 94.0
2438896	Heptachlor Epoxide	102	116	P/P	38 - 118
2438896	Hexachlorobenzene	59.7	68.3	P/P	35 - 97.0
2438896	Lambda-Cyhalothrin	54.8	50.9	P/P	23 - 190
2438896	Methoprene	41.2	48.4	P/P	21 - 109
2438896	Methoxychlor	66.0	65.9	P/P	46 - 118
2438896	MGK-264	107	149	P/F	39 - 122
2438896	Mirex	50.6	46.8	P/P	25 - 90.0
2438896	Oxychlordane	86.4	102	P/F	42 - 100
2438896	Permethrin	57.4	49.9	P/P	33 - 181
2438896	Phenothrin	50.0	45.5	P/P	12 - 125
2438896	Piperonyl Butoxide	82.2	85.7	P/P	10 - 178
2438896	Prallethrin	72.4	61.9	P/P	24 - 122
2438896	Tau-Fluvalinate	51.2	53.1	P/P	13 - 151
2438896	Tetramethrin	68.4	80.2	P/P	16 - 172
2438896	Trans-Nonachlor	87.7	105	P/F	39 - 100
2438896	Triclosan Methyl	58.6	60.7	P/P	43 - 110
2438896	Trifluralin	60.7	61.9	P/P	45 - 94.0
2438918	PCB-1016	73.5	69.1	P/P	45 - 107
2438918	PCB-1260	82.9	71.6	P/P	40 - 112

Reference Method: EPA 8276

Batch ID: P435296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438918	Chlordane	88.8	83.1	P/P	43 - 123
2438918	Toxaphene	99.7	95.8	P/P	27 - 156

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P435735

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439769	Fluoride	103	102	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435757

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439027	Organic Carbon	98.6		P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P435402

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439177	Color (true)	12.7	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435405

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439148	Turbidity	1.50	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439768	Chloride	0.484	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439768	Sulfate	0.773	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435513

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439123	Ammonia-N	0.192	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439752	Kjeldahl Nitrogen	0.678	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436228

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2442732	Kjeldahl Nitrogen	6.11	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2437482	NO2NO3-N	0.487	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P435539

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439291	Total-P	0.158	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P435296

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438896	Aldrin	3.82	Spike	P	0 - 41
2438896	Alpha-BHC	4.22	Spike	P	0 - 25
2438896	Alpha-Chlordane	9.65	Spike	P	0 - 32
2438896	Beta-BHC	10.7	Spike	P	0 - 33
2438896	Beta-Cyfluthrin	6.50	Spike	P	0 - 43
2438896	Bifenthrin	25.9	Spike	P	0 - 52
2438896	Carbophenothion	8.07	Spike	P	0 - 30
2438896	Chlorothalonil	29.4	Spike	P	0 - 82
2438896	Cis-Nonachlor	5.82	Spike	P	0 - 33
2438896	Cypermethrin	4.54	Spike	P	0 - 51
2438896	Dacthal	3.19	Spike	P	0 - 27
2438896	DDD-p,p'	10.4	Spike	P	0 - 39
2438896	DDE-p,p'	2.28	Spike	P	0 - 31
2438896	DDT-p,p'	1.90	Spike	P	0 - 29
2438896	Delta-BHC	14.2	Spike	P	0 - 35
2438896	Deltamethrin	2.01	Spike	P	0 - 100
2438896	Dichlobenil	1.07	Spike	P	0 - 40
2438896	Dicofol	0.815	Spike	P	0 - 37
2438896	Dieldrin	5.70	Spike	P	0 - 27
2438896	Endosulfan I	12.3	Spike	P	0 - 23
2438896	Endosulfan II	10.0	Spike	P	0 - 34
2438896	Endosulfan Sulfate	20.0	Spike	P	0 - 36
2438896	Endrin	2.84	Spike	P	0 - 45
2438896	Endrin Aldehyde	19.6	Spike	P	0 - 76
2438896	Endrin Ketone	2.34	Spike	P	0 - 43
2438896	Esfenvalerate	0.935	Spike	P	0 - 51
2438896	Ethalfuralin	1.87	Spike	P	0 - 22
2438896	Fenpropathrin	12.8	Spike	P	0 - 49
2438896	Gamma-BHC	4.25	Spike	P	0 - 28
2438896	Gamma-Chlordane	20.4	Spike	P	0 - 40
2438896	Heptachlor	0.0842	Spike	P	0 - 29
2438896	Heptachlor Epoxide	10.7	Spike	P	0 - 33
2438896	Hexachlorobenzene	13.4	Spike	P	0 - 36
2438896	Kepone	12.8	Spike	P	0 - 85
2438896	Lambda-Cyhalothrin	7.31	Spike	P	0 - 55
2438896	Methoprene	16.1	Spike	P	0 - 53
2438896	Methoxychlor	0.197	Spike	P	0 - 50
2438896	MGK-264	32.7	Spike	P	0 - 43
2438896	Mirex	7.79	Spike	P	0 - 40
2438896	Oxychlordane	16.9	Spike	P	0 - 31
2438896	Permethrin	14.0	Spike	P	0 - 50
2438896	Phenothrin	9.43	Spike	P	0 - 58
2438896	Piperonyl Butoxide	4.17	Spike	P	0 - 100
2438896	Prallethrin	15.6	Spike	P	0 - 39

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P435296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438896	Tau-Fluvalinate	3.67	Spike	P	0 - 54
2438896	Tetramethrin	15.8	Spike	P	0 - 51
2438896	Trans-Nonachlor	17.7	Spike	P	0 - 39
2438896	Triclosan Methyl	3.63	Spike	P	0 - 31
2438896	Trifluralin	1.99	Spike	P	0 - 22
2438918	PCB-1016	6.19	Spike	P	0 - 25
2438918	PCB-1260	14.7	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P435296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438918	Chlordane	6.67	Spike	P	0 - 28
2438918	Toxaphene	3.96	Spike	P	0 - 27

Reference Method: SM 2320 B-2011
Batch ID: P435732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439769	Total Alkalinity	0.0418	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P435879

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438524	TDS	1.90	Sample	P	0 - 10

Reference Method: SM 2540 C-2015
Batch ID: P435880

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439024	TDS	8.12	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P435735

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439769	Fluoride	0.516	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P435757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439027	Organic Carbon	0.0616	Sample	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: 2439301

Field Sample ID: G4NW0277

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	73.8	P	37 - 129
EPA 8270E	Decachlorobiphenyl	60.0	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	42.5	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	55.6	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	60.9	P	28 - 102
EPA 8276	PCNB	62.3	P	49 - 115

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A121726

Included Lab Sample IDs: 2439290, 2439292

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.9	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A121728

Included Lab Sample IDs: 2439290, 2439292

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121764

Included Lab Sample IDs: 2439291, 2439293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.9	98.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121771

Included Lab Sample IDs: 2439290, 2439292

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.5	98.1	P/P	90 - 110
Sulfate	99.7	99.9	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A121816

Included Lab Sample IDs: 2439301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.5		P	80 - 120
PCB-1260	97.6		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121830

Included Lab Sample IDs: 2439291, 2439293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.2	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121844

Included Lab Sample IDs: 2439290, 2439292

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.0	95.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121844

Included Lab Sample IDs: 2439290, 2439292

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A121844

Included Lab Sample IDs: 2439290, 2439292

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	104	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A121855

Included Lab Sample IDs: 2439291, 2439293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	96.6	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A121861

Included Lab Sample IDs: 2439301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.7		P	80 - 120
Toxaphene	98.2		P	80 - 120

Reference Method: EPA 8270E

Run ID: A121877

Included Lab Sample IDs: 2439301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	93.6		P	80 - 120
Alpha-BHC	94.7		P	80 - 120
Alpha-Chlordane	91.2		P	80 - 120
Beta-BHC	82.7		P	80 - 120
Beta-Cyfluthrin	88.7		P	80 - 120
Bifenthrin	83.9		P	80 - 120
Carbophenothion	103		P	80 - 120
Chlorothalonil	88.3		P	80 - 120
Cis-Nonachlor	105		P	80 - 120
Cypermethrin	88.1		P	80 - 120
Dacthal	96.3		P	80 - 120
DDD-p,p'	116		P	80 - 120
DDE-p,p'	90.1		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	92.2		P	80 - 120
Deltamethrin	108		P	80 - 120
Dichlobenil	92.1		P	80 - 120
Dicofol	105		P	80 - 120
Dieldrin	114		P	80 - 120
Endosulfan I	85.1		P	80 - 120
Endosulfan II	95.0		P	80 - 120
Endosulfan Sulfate	103		P	80 - 120
Endrin	88.2		P	80 - 120
Endrin Aldehyde	99.6		P	80 - 120
Endrin Ketone	81.1		P	80 - 120
Esfenvalerate	86.8		P	80 - 120
Ethalfuralin	87.9		P	80 - 120
Fenpropathrin	81.2		P	80 - 120
Gamma-BHC	106		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A121877
Included Lab Sample IDs: 2439301

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-Chlordane	92.3		P	80 - 120
Heptachlor	111		P	80 - 120
Heptachlor Epoxide	89.2		P	80 - 120
Hexachlorobenzene	104		P	80 - 120
Kepone	59.5*		F	80 - 120
Lambda-Cyhalothrin	95.9		P	80 - 120
Methoprene	80.5		P	80 - 120
Methoxychlor	85.2		P	80 - 120
MGK-264	85.1		P	80 - 120
Mirex	101		P	80 - 120
Oxychlordane	86.2		P	80 - 120
Permethrin	94.8		P	80 - 120
Phenothrin	94.8		P	80 - 120
Piperonyl Butoxide	80.6		P	80 - 120
Prallethrin	80.3		P	80 - 120
Tau-Fluvalinate	91.5		P	80 - 120
Tetramethrin	116		P	80 - 120
Trans-Nonachlor	89.3		P	80 - 120
Triclosan Methyl	106		P	80 - 120
Trifluralin	104		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A122021
Included Lab Sample IDs: 2439291, 2439293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A122024
Included Lab Sample IDs: 2439291

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A122092
Included Lab Sample IDs: 2439293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	92.7	96.4	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		Precision	
					LCS	MS
DEP SOP: NU-094-1	Color (true)	98.7			12.7	
EPA 180.1 Rev. 2.0	Turbidity	105			1.50	
EPA 300.0 Rev. 2.1	Chloride	101	101	101	0.484	
	Sulfate	103	103	101	0.773	
EPA 350.1 Rev. 2.0	Ammonia-N	100	97.2	97.0		0.192
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	102	101		0.678
	Kjeldahl Nitrogen	102	96.6	106		6.11
EPA 353.2 Rev. 2.0	NO2NO3-N	103	102	103		0.487
EPA 365.1 Rev. 2.0	Total-P	108	108	108		0.158
EPA 8270E	Aldrin	49.4	46.4	44.7		3.82
	Alpha-BHC	77.1	88.9	92.7		4.22
	Alpha-Chlordane	70.8	89.9	99.1		9.65
	Beta-BHC	75.6	76.3	84.9		10.7
	Beta-Cyfluthrin	53.6	60.9	57.1		6.50
	Bifenthrin	40.6	43.3	56.2		25.9
	Carbophenothion	40.4	45.8	49.6		8.07
	Chlorothalonil	42.8	128	95.0		29.4
	Cis-Nonachlor	53.2	59.6	56.2		5.82
	Cypermethrin	45.1	52.9	50.6		4.54
	Dacthal	70.3	81.4	84.0		3.19
	DDD-p,p'	66.0	54.6	60.5		10.4
	DDE-p,p'	60.2	55.0	53.8		2.28
	DDT-p,p'	63.5	58.3	59.4		1.90
	Delta-BHC	77.3	104	90.0		14.2
	Deltamethrin	63.1	52.8	53.9		2.01
	Dichlobenil	73.1	79.6	78.7		1.07
	Dicofol	63.2	64.2	64.7		0.815
	Dieldrin	64.8	53.2	56.7		5.70
	Endosulfan I	75.2	99.2	112		12.3
	Endosulfan II	65.7	70.3	63.6		10.0
	Endosulfan Sulfate	72.4	62.5	76.4		20.0
	Endrin	66.7	57.6	59.3		2.84
	Endrin Aldehyde	67.6	53.2	64.8		19.6
	Endrin Ketone	79.8	73.0	71.3		2.34
	Esfenvalerate	50.2	57.7	57.2		0.935
	Ethalfuralin	63.0	59.1	60.2		1.87
	Fenpropathrin	51.3	45.3	51.5		12.8
	Gamma-BHC	74.7	106	111		4.25
	Gamma-Chlordane	72.9	86.4	106		20.4
	Heptachlor	62.4	76.1	76.1		0.0842
	Heptachlor Epoxide	70.5	102	116		10.7
	Hexachlorobenzene	57.2	59.7	68.3		13.4
	Kepone	137				12.8
	Lambda-Cyhalothrin	38.2	54.8	50.9		7.31
	Methoprene	41.3	41.2	48.4		16.1
	Methoxychlor	71.7	66.0	65.9		0.197
	MGK-264	84.7	107	149		32.7
	Mirex	45.9	50.6	46.8		7.79
	Oxychlordane	69.6	86.4	102		16.9
	PCB-1016	72.9	73.5	69.1		6.19
	PCB-1260	78.8	82.9	71.6		14.7
	Permethrin	54.7	57.4	49.9		14.0
	Phenothrin	37.9	50.0	45.5		9.43
	Piperonyl Butoxide	82.4	82.2	85.7		4.17

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Prallethrin	58.1	72.4	61.9		15.6
	Tau-Fluvalinate	42.2	51.2	53.1		3.67
	Tetramethrin	77.9	68.4	80.2		15.8
	Trans-Nonachlor	62.1	87.7	105		17.7
	Triclosan Methyl	70.5	58.6	60.7		3.63
	Trifluralin	66.5	60.7	61.9		1.99
EPA 8276	Chlordane	72.9	88.8	83.1		6.67
	Toxaphene	82.9	99.7	95.8		3.96
SM 2320 B-2011	Total Alkalinity	96.8			0.0418	
SM 2540 C-2015	TDS	96.1			1.90	
	TDS	91.8			8.12	
SM 2540 D-2015	TSS	99.6				
	TSS	93.1				
SM 4500-F- C-2011	Fluoride	102	103	102		0.516
SM 5310 B-2011	Organic Carbon	99.8	98.6		0.0616	

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2439290, 2439292
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2439290, 2439292
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2439290, 2439292
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2439290, 2439292
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2439291, 2439293
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2439291, 2439293
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2439291, 2439293
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2439291, 2439293
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2439301
EPA 8270E	PCBs in water matrices by GC/MS/MS	2439301
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2439301
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2439290, 2439292
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2439290, 2439292
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2439290, 2439292
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2439290, 2439292
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2439291, 2439293

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	09/22/2023			09/22/2023 14:15	Alexis Price	2439290
	09/22/2023			09/22/2023 14:16	Alexis Price	2439292
EPA 180.1 Rev. 2.0	09/22/2023			09/22/2023 13:35	Alexis Price	2439290
	09/22/2023			09/22/2023 13:36	Alexis Price	2439292
EPA 300.0 Rev. 2.1	09/22/2023			09/28/2023 05:30	James L Waggeberby	2439290
	09/22/2023			09/28/2023 05:45	James L Waggeberby	2439292
EPA 350.1 Rev. 2.0	09/22/2023			09/26/2023 15:00	Ping Hua	2439291
	09/22/2023			09/26/2023 15:01	Ping Hua	2439293
EPA 351.2 Rev. 2.0	09/22/2023	10/04/2023 14:26	Simonne.V. Calhoun	10/09/2023 09:49	Samantha L Bates	2439291
	09/22/2023	10/10/2023 11:24	Simonne.V. Calhoun	10/11/2023 16:14	Samantha L Bates	2439293
EPA 353.2 Rev. 2.0	09/22/2023			10/06/2023 12:24	Anna M. Plaviak	2439291
	09/22/2023			10/06/2023 12:25	Anna M. Plaviak	2439293
EPA 365.1 Rev. 2.0	09/22/2023	09/27/2023 14:07	Adam P Silver	09/28/2023 14:48	James L Waggeberby	2439293
	09/22/2023	09/27/2023 14:07	Adam P Silver	09/28/2023 14:49	James L Waggeberby	2439291
EPA 8270E	09/22/2023	09/25/2023 08:00	Fe-Val Siddell	09/28/2023 06:08	Julie Wi	2439301
	09/22/2023	09/25/2023 08:00	Fe-Val Siddell	09/28/2023 07:08	Julie Wi	2439301
EPA 8276	09/22/2023	09/25/2023 08:00	Fe-Val Siddell	09/29/2023 15:19	Arthur Maknenko	2439301
SM 2320 B-2011	09/22/2023			09/29/2023 01:16	Adam P Silver	2439290
	09/22/2023			09/29/2023 01:25	Adam P Silver	2439292
SM 2540 C-2015	09/22/2023			09/25/2023 15:40	Yijie Li	2439290, 2439292
SM 2540 D-2015	09/22/2023			09/25/2023 15:40	Yijie Li	2439290, 2439292
SM 4500-F- C-2011	09/22/2023			09/29/2023 01:16	Adam P Silver	2439290
	09/22/2023			09/29/2023 01:25	Adam P Silver	2439292
SM 5310 B-2011	09/22/2023			09/29/2023 09:26	Khloe J Berg	2439291
	09/22/2023			09/29/2023 09:39	Khloe J Berg	2439293