

Chemical Analysis Report

SE-DIST-2023-03-28-01

Florida DEP Laboratory
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DOH Accreditation E31780

Event Description: **SMP - Melbourne**
Request ID: **RQ-2023-03-06-34**
Customer: **SE-DIST**
Project ID: **SMP**

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Date Certified: 14-APR-2023 09:31



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: Sawgrass Lake East of Center

Collection Date/Time: 03/27/2023 10:20

Field ID: G3SE0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396609	DEP SOP: NU-094-1	Color (true)	120		PCU	P427768	
	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P427773	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P427938	
		Sulfate	31		mg SO4/L	P427940	
	SM 2320 B-2011	Total Alkalinity	109		mg CaCO3/L	P427943	
	SM 2540 C-2015	TDS	448	A	mg/L	P428328	
	SM 2540 D-2015	TSS	3	IA	mg/L	P428170	
	SM 4500-F- C-2011	Fluoride	0.32		mg F/L	P427950	
2396610	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P427877	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P427848	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P427994	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P427871	
	SM 5310 B-2011	Organic Carbon	23		mg C/L	P427937	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: Crane Creek East of RR Bridge

Collection Date/Time: 03/27/2023 11:30

Field ID: G3SE0071

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396617	EPA 8270E	Aldrin	0.66	U	ng/L	P427803	
		Alpha-BHC	0.10	U	ng/L	P427803	
		Alpha-Chlordane	0.20	U	ng/L	P427803	
		PCB-1016	2.0	U	ng/L	P427803	
		Beta-BHC	0.10	U	ng/L	P427803	
		PCB-1221	2.0	U	ng/L	P427803	
		Beta-Cyfluthrin	1.3	U	ng/L	P427803	
		PCB-1232	2.0	U	ng/L	P427803	
		Bifenthrin	0.51	U	ng/L	P427803	
		PCB-1242	2.0	U	ng/L	P427803	
		PCB-1248	2.0	U	ng/L	P427803	
		Chlorothalonil	3.7	U	ng/L	P427803	
		PCB-1254	2.0	U	ng/L	P427803	
		Cis-Nonachlor	0.20	U	ng/L	P427803	
		PCB-1260	2.0	U	ng/L	P427803	
		Cypermethrin	1.5	U	ng/L	P427803	
		Dacthal	0.15	U	ng/L	P427803	
		DDD-p,p'	0.26	U	ng/L	P427803	
		DDE-p,p'	0.20	U	ng/L	P427803	
		DDT-p,p'	0.26	U	ng/L	P427803	
		Delta-BHC	0.41	U	ng/L	P427803	
		Deltamethrin	1.3	U	ng/L	P427803	
		Dichlobenil	0.26	U	ng/L	P427803	
		Dicofol	1.3	U	ng/L	P427803	
		Dieldrin	0.41	U	ng/L	P427803	
		Endosulfan I	0.41	U	ng/L	P427803	
		Endosulfan II	0.41	U	ng/L	P427803	
		Endosulfan Sulfate	0.31	U	ng/L	P427803	
		Endrin	0.41	U	ng/L	P427803	
		Endrin Aldehyde	0.77	U	ng/L	P427803	
		Endrin Ketone	0.41	U	ng/L	P427803	
		Esfenvalerate	0.77	U	ng/L	P427803	
		Ethalfuralin	0.15	U	ng/L	P427803	
		Fenpropathrin	0.26	U	ng/L	P427803	
		Gamma-BHC	0.13	U	ng/L	P427803	MS
		Gamma-Chlordane	0.20	U	ng/L	P427803	
		Heptachlor	0.20	U	ng/L	P427803	
		Heptachlor Epoxide	0.34	I	ng/L	P427803	
		Hexachlorobenzene**	1.0	U	ng/L	P427803	
		Kepone	5.1	U	ng/L	P427803	
		Lambda-Cyhalothrin	0.77	U	ng/L	P427803	
		Methoprene	0.77	U	ng/L	P427803	
		Methoxychlor	0.31	U	ng/L	P427803	RPD
		MGK-264	0.20	U	ng/L	P427803	

Field ID: G3SE0071

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396617	EPA 8270E	Mirex	0.36	U	ng/L	P427803	
		Oxychlordane	0.31	U	ng/L	P427803	
		Permethrin	1.6	U	ng/L	P427803	
		Phenothrin	0.92	U	ng/L	P427803	
		Piperonyl Butoxide	0.25	I	ng/L	P427803	
		Prallethrin	2.0	U	ng/L	P427803	
		Tau-Fluvalinate	0.26	U	ng/L	P427803	
		Tetramethrin	0.77	U	ng/L	P427803	
		Trans-Nonachlor	0.20	U	ng/L	P427803	
		Triclosan Methyl	0.15	U	ng/L	P427803	
		Trifluralin	0.20	U	ng/L	P427803	
	EPA 8276	Chlordane	2.0	UJ	ng/L	P427803	LCS
		Toxaphene	15	U	ng/L	P427803	

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

Sample Location: Kid Creek at Old Dixie Highway

Collection Date/Time: 03/27/2023 12:00

Field ID: G5SE0050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2396618	EPA 8321B	2,4-D	0.0020	U	ug/L	P427927	
		Acesulfame K	0.10	I	ug/L	P427744	
		2,4,5-T	0.0040	U	ug/L	P427927	
		AMPA	0.37	I	ug/L	P427744	
		Acetaminophen	0.0080	U	ug/L	P427927	
		Acetamiprid	0.0020	U	ug/L	P427927	
		Endothall	0.25	U	ug/L	P427744	
		Glufosinate	0.10	U	ug/L	P427744	
		Glyphosate	0.10	U	ug/L	P427744	
		Afidopyropen	0.0020	U	ug/L	P427927	
		Bentazon	0.035		ug/L	P427927	
		Sucralose	0.26		ug/L	P427744	
		Benzovindiflupyr	0.0020	U	ug/L	P427927	
		Carbamazepine	8.0E-04	U	ug/L	P427927	
		Clothianidin	0.0020	U	ug/L	P427927	
		Dinotefuran	0.0020	U	ug/L	P427927	
		Diuron	0.0020	U	ug/L	P427927	
		Fenuron	0.032	U	ug/L	P427927	
		Fluridone	8.0E-04	U	ug/L	P427927	
		Imazapyr	0.25		ug/L	P427927	
		Hydrocodone	0.0020	U	ug/L	P427927	
		Ibuprofen	0.080	U	ug/L	P427927	
		Imidacloprid	0.0020	U	ug/L	P427927	
		Linuron	0.0040	U	ug/L	P427927	
		Mandestrobin	0.0020	U	ug/L	P427927	
		MCPP	0.0020	U	ug/L	P427927	
		Naproxen	0.0080	U	ug/L	P427927	
		Primidone	0.0040	U	ug/L	P427927	
		Pyraclostrobin	0.0020	U	ug/L	P427927	
		Silvex	0.0040	U	ug/L	P427927	
		Thiamethoxam	0.0020	U	ug/L	P427927	
		Tolfenpyrad	0.0020	U	ug/L	P427927	
		Triclopyr	0.0040	U	ug/L	P427927	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P427768

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427773

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427938

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427940

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427877

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427848

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427994

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427871

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

Reference Method: EPA 8270E
Batch ID: P427803

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: P427803

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
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P427803

Component	Result	Code	Units
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
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P427803

Component	Result	Code	Units
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276
Batch ID: P427803

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: EPA 8321B
Batch ID: P427744

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P427927

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P427927

Component	Result	Code	Units
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P427943

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

Reference Method: SM 2540 C-2015
Batch ID: P428328

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P428170

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P427950

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P427937

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: P427768

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427773

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427938

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427940

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427877

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427848

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.4		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427994

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427871

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

Reference Method: EPA 8270E
Batch ID: P427803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	39.6		P	10 - 92.0
Alpha-BHC	80.5		P	75 - 107
Alpha-Chlordane	61.4		P	50 - 108
Beta-BHC	71.1		P	36 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P427803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	63.8		P	20 - 161
Bifenthrin	46.3		P	10 - 119
Chlorothalonil	76.7		P	26 - 186
Cis-Nonachlor	61.5		P	42 - 119
Cypermethrin	64.7		P	22 - 150
Dacthal	72.9		P	72 - 119
DDD-p,p'	63.5		P	45 - 107
DDE-p,p'	64.2		P	48 - 106
DDT-p,p'	57.8		P	48 - 110
Delta-BHC	80.6		P	54 - 140
Deltamethrin	83.4		P	22 - 189
Dichlobenil	57.8		P	36 - 117
Dicofol	56.0		P	46 - 155
Dieldrin	68.5		P	54 - 110
Endosulfan I	70.9		P	59 - 105
Endosulfan II	68.1		P	51 - 118
Endosulfan Sulfate	68.1		P	57 - 121
Endrin	69.6		P	10 - 120
Endrin Aldehyde	55.8		P	34 - 118
Endrin Ketone	75.1		P	69 - 177
Esfenvalerate	71.1		P	23 - 168
Ethalfuralin	64.9		P	49 - 99.0
Fenpropathrin	58.9		P	34 - 117
Gamma-BHC	72.2		P	72 - 117
Gamma-Chlordane	62.4		P	43 - 106
Heptachlor	56.9		P	41 - 98.0
Heptachlor Epoxide	67.2		P	57 - 106
Hexachlorobenzene	52.1		P	36 - 99.0
Kepone	76.5		P	16 - 215
Lambda-Cyhalothrin	55.1		P	21 - 177
Methoprene	45.6		P	10 - 119
Methoxychlor	71.9		P	60 - 112
MGK-264	62.4		P	26 - 122
Mirex	48.1		P	10 - 169
Oxychlordane	69.8		P	43 - 105
PCB-1016	48.6		P	48 - 112
PCB-1260	59.3		P	44 - 118
Permethrin	67.2		P	24 - 148
Phenothrin	38.1		P	10 - 106
Piperonyl Butoxide	78.3		P	10 - 139
Prallethrin	61.4		P	17 - 109
Tau-Fluvalinate	53.3		P	13 - 131
Tetramethrin	66.0		P	10 - 132
Trans-Nonachlor	61.5		P	44 - 106
Triclosan Methyl	70.8		P	59 - 109
Trifluralin	65.4		P	44 - 101

Reference Method: EPA 8276

Batch ID: P427803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	58.0		F	61 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P427803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	65.2		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P427744

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	93.9		P	40 - 150
AMPA	113		P	40 - 150
Endothall	91.3		P	40 - 150
Glufosinate	110		P	40 - 150
Glyphosate	125		P	40 - 150
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P427927

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	102		P	40 - 150
2,4,5-T	91.7		P	40 - 150
Acetaminophen	84.5		P	30 - 150
Acetamiprid	76.6		P	40 - 150
Afidopyropen	67.0		P	30 - 150
Bentazon	98.8		P	30 - 150
Benzovindiflupyr	86.7		P	40 - 150
Carbamazepine	81.1		P	40 - 150
Clothianidin	89.7		P	40 - 150
Dinotefuran	94.3		P	40 - 150
Diuron	73.5		P	40 - 150
Fenuron	87.5		P	40 - 150
Fluridone	81.9		P	40 - 150
Hydrocodone	95.2		P	40 - 150
Ibuprofen	66.4		P	40 - 150
Imazapyr	96.3		P	40 - 150
Imidacloprid	83.8		P	40 - 150
Linuron	75.2		P	40 - 150
Mandestrobin	92.3		P	40 - 150
MCPP	101		P	40 - 150
Naproxen	65.0		P	40 - 150
Primidone	82.9		P	40 - 150
Pyraclostrobin	86.1		P	40 - 150
Silvex	103		P	40 - 150
Thiamethoxam	91.7		P	40 - 150
Tolfenpyrad	61.5		P	30 - 150
Triclopyr	97.0		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P427943

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.3		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P428328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.8		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P428170

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	93.3		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P427950

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P427937

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: P427938

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396562	Chloride	99.2		P	90 - 110
2396602	Chloride	98.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427940

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396562	Sulfate	98.0		P	90 - 110
2396602	Sulfate	96.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396564	Ammonia-N	98.4	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427848

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396627	Kjeldahl Nitrogen	97.0	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427994

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396623	NO2NO3-N	106	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396646	Total-P	102	103	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P427803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396761	Aldrin	47.5	60.2	P/P	20 - 82.0
2396761	Alpha-BHC	77.2	89.7	P/P	71 - 109
2396761	Alpha-Chlordane	59.0	76.6	P/P	42 - 106
2396761	Beta-BHC	70.7	81.0	P/P	69 - 180
2396761	Beta-Cyfluthrin	79.4	99.8	P/P	18 - 175
2396761	Bifenthrin	63.2	79.6	P/P	21 - 128
2396761	Chlorothalonil	10.2	11.6	P/P	10 - 300
2396761	Cis-Nonachlor	63.7	63.4	P/P	34 - 106
2396761	Cypermethrin	81.6	103	P/P	22 - 158
2396761	Dacthal	68.7	86.3	P/P	54 - 116
2396761	DDD-p,p'	58.0	60.9	P/P	34 - 107
2396761	DDE-p,p'	63.4	72.8	P/P	33 - 110
2396761	DDT-p,p'	58.1	73.0	P/P	50 - 122
2396761	Delta-BHC	77.2	91.9	P/P	77 - 193

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P427803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396761	Deltamethrin	108	145	P/P	10 - 195
2396761	Dichlobenil	31.1	42.1	P/P	25 - 113
2396761	Dicofol	58.5	70.4	P/P	38 - 247
2396761	Dieldrin	66.9	76.2	P/P	45 - 118
2396761	Endosulfan I	72.4	78.9	P/P	51 - 106
2396761	Endosulfan II	66.4	67.2	P/P	37 - 122
2396761	Endosulfan Sulfate	58.4	63.0	P/P	43 - 132
2396761	Endrin	68.1	74.0	P/P	29 - 101
2396761	Endrin Aldehyde	43.6	52.0	P/P	19 - 110
2396761	Endrin Ketone	68.2	69.2	P/P	60 - 140
2396761	Esfenvalerate	88.8	118	P/P	26 - 199
2396761	Ethalfuralin	66.0	76.6	P/P	45 - 99.0
2396761	Fenpropathrin	67.0	91.2	P/P	35 - 120
2396761	Gamma-BHC	55.8	52.4	F/F	63 - 128
2396761	Gamma-Chlordane	67.8	73.4	P/P	40 - 104
2396761	Heptachlor	57.4	73.5	P/P	36 - 97.0
2396761	Heptachlor Epoxide	64.2	81.3	P/P	49 - 184
2396761	Hexachlorobenzene	42.8	58.1	P/P	39 - 96.0
2396761	Kepone	60.5	60.5	P/P	10 - 217
2396761	Lambda-Cyhalothrin	83.7	99.2	P/P	21 - 193
2396761	Methoprene	55.1	63.9	P/P	20 - 106
2396761	Methoxychlor	71.6	97.7	P/P	53 - 118
2396761	MGK-264	63.6	76.6	P/P	40 - 118
2396761	Mirex	54.4	58.4	P/P	26 - 92.0
2396761	Oxychlordane	70.8	87.8	P/P	44 - 99.0
2396761	Permethrin	73.7	99.2	P/P	33 - 182
2396761	Phenothrin	63.6	95.0	P/P	10 - 129
2396761	Piperonyl Butoxide	80.0	96.7	P/P	10 - 211
2396761	Prallethrin	76.2	74.3	P/P	24 - 113
2396761	Tau-Fluvalinate	78.3	100	P/P	14 - 149
2396761	Tetramethrin	90.5	118	P/P	17 - 151
2396761	Trans-Nonachlor	61.0	70.0	P/P	42 - 102
2396761	Triclosan Methyl	66.4	76.5	P/P	48 - 108
2396761	Trifluralin	64.4	78.2	P/P	47 - 96.0
2396778	PCB-1016	75.8	62.2	P/P	46 - 111
2396778	PCB-1260	67.7	61.6	P/P	45 - 114

Reference Method: EPA 8276

Batch ID: P427803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396778	Chlordane	88.8	78.0	P/P	53 - 126
2396778	Toxaphene	99.2	89.1	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P427744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396497	Acesulfame K	89.6	88.5	P/P	40 - 150
2396497	AMPA	101	98.8	P/P	40 - 150
2396497	Endothall	101	99.0	P/P	40 - 150
2396497	Glufosinate	94.3	88.5	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P427744

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396497	Glyphosate	104	97.1	P/P	40 - 150
2396497	Sucralose	103	104	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P427927

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396497	2,4-D	115	122	P/P	40 - 150
2396497	2,4,5-T	110	106	P/P	40 - 150
2396497	Acetaminophen	82.1	77.0	P/P	30 - 150
2396497	Acetamiprid	77.5	82.7	P/P	40 - 150
2396497	Afidopyropen	54.6	70.6	P/P	30 - 150
2396497	Bentazon	104	104	P/P	30 - 150
2396497	Benzovindiflupyr	82.6	85.4	P/P	40 - 150
2396497	Carbamazepine	87.3	87.1	P/P	40 - 150
2396497	Clothianidin	87.9	87.3	P/P	40 - 150
2396497	Dinotefuran	99.8	101	P/P	40 - 150
2396497	Diuron	63.6	63.0	P/P	40 - 150
2396497	Fenuron	85.7	80.5	P/P	40 - 150
2396497	Fluridone	83.5	80.3	P/P	40 - 150
2396497	Hydrocodone	108	113	P/P	40 - 150
2396497	Ibuprofen	74.0	62.9	P/P	40 - 150
2396497	Imazapyr	111	115	P/P	40 - 150
2396497	Imidacloprid	100	91.4	P/P	40 - 150
2396497	Linuron	48.5	46.6	P/P	40 - 150
2396497	Mandestrobin	93.5	93.1	P/P	40 - 150
2396497	MCPP	111	109	P/P	40 - 150
2396497	Naproxen	77.2	102	P/P	40 - 150
2396497	Primidone	92.2	88.9	P/P	40 - 150
2396497	Pyraclostrobin	83.6	81.5	P/P	40 - 150
2396497	Silvex	113	112	P/P	40 - 150
2396497	Thiamethoxam	79.0	77.3	P/P	40 - 150
2396497	Tolfenpyrad	54.6	54.0	P/P	30 - 150
2396497	Triclopyr	102	105	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P427950

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396626	Fluoride	102	101	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P427937

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2396532	Organic Carbon	89.5	89.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P427768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396534	Color (true)	2.71	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P427773

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396534	Turbidity	5.59	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P427938

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396562	Chloride	0.326	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P427877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396564	Ammonia-N	0.968	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P427848

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396627	Kjeldahl Nitrogen	6.44	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P427994

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396623	NO2NO3-N	1.43	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P427871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396646	Total-P	1.05	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P427803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396761	Aldrin	23.6	Spike	P	0 - 41
2396761	Alpha-BHC	15.0	Spike	P	0 - 25

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P427803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396761	Alpha-Chlordane	26.0	Spike	P	0 - 33
2396761	Beta-BHC	13.6	Spike	P	0 - 36
2396761	Beta-Cyfluthrin	22.8	Spike	P	0 - 42
2396761	Bifenthrin	23.0	Spike	P	0 - 53
2396761	Chlorothalonil	12.9	Spike	P	0 - 71
2396761	Cis-Nonachlor	0.538	Spike	P	0 - 29
2396761	Cypermethrin	22.9	Spike	P	0 - 40
2396761	Dacthal	22.7	Spike	P	0 - 26
2396761	DDD-p,p'	4.90	Spike	P	0 - 39
2396761	DDE-p,p'	13.8	Spike	P	0 - 33
2396761	DDT-p,p'	22.7	Spike	P	0 - 40
2396761	Delta-BHC	17.5	Spike	P	0 - 37
2396761	Deltamethrin	29.8	Spike	P	0 - 100
2396761	Dichlobenil	30.0	Spike	P	0 - 40
2396761	Dicofol	18.5	Spike	P	0 - 31
2396761	Dieldrin	13.0	Spike	P	0 - 27
2396761	Endosulfan I	8.57	Spike	P	0 - 23
2396761	Endosulfan II	1.21	Spike	P	0 - 28
2396761	Endosulfan Sulfate	7.54	Spike	P	0 - 38
2396761	Endrin	8.20	Spike	P	0 - 63
2396761	Endrin Aldehyde	17.8	Spike	P	0 - 60
2396761	Endrin Ketone	1.37	Spike	P	0 - 37
2396761	Esfenvalerate	28.3	Spike	P	0 - 52
2396761	Ethalfuralin	14.8	Spike	P	0 - 23
2396761	Fenpropathrin	30.6	Spike	P	0 - 32
2396761	Gamma-BHC	6.29	Spike	P	0 - 17
2396761	Gamma-Chlordane	7.96	Spike	P	0 - 40
2396761	Heptachlor	24.5	Spike	P	0 - 29
2396761	Heptachlor Epoxide	23.6	Spike	P	0 - 25
2396761	Hexachlorobenzene	30.3	Spike	P	0 - 36
2396761	Kepone	0.0817	Spike	P	0 - 93
2396761	Lambda-Cyhalothrin	16.9	Spike	P	0 - 55
2396761	Methoprene	14.7	Spike	P	0 - 53
2396761	Methoxychlor	30.8	Spike	F	0 - 29
2396761	MGK-264	18.5	Spike	P	0 - 35
2396761	Mirex	7.14	Spike	P	0 - 46
2396761	Oxychlordane	21.4	Spike	P	0 - 29
2396761	Permethrin	29.5	Spike	P	0 - 44
2396761	Phenothrin	39.6	Spike	P	0 - 56
2396761	Piperonyl Butoxide	18.9	Spike	P	0 - 100
2396761	Prallethrin	2.56	Spike	P	0 - 42
2396761	Tau-Fluvalinate	24.8	Spike	P	0 - 54
2396761	Tetramethrin	26.8	Spike	P	0 - 51
2396761	Trans-Nonachlor	13.8	Spike	P	0 - 37
2396761	Triclosan Methyl	14.2	Spike	P	0 - 31
2396761	Trifluralin	19.4	Spike	P	0 - 30
2396778	PCB-1016	19.7	Spike	P	0 - 32
2396778	PCB-1260	9.34	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P427803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396778	Chlordane	12.9	Spike	P	0 - 25
2396778	Toxaphene	10.7	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P427744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396497	Acesulfame K	1.25	Spike	P	0 - 30
2396497	AMPA	2.25	Spike	P	0 - 30
2396497	Endothall	2.34	Spike	P	0 - 30
2396497	Glufosinate	6.33	Spike	P	0 - 30
2396497	Glyphosate	6.59	Spike	P	0 - 30
2396497	Sucralose	1.38	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P427927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396497	2,4-D	5.63	Spike	P	0 - 30
2396497	2,4,5-T	3.82	Spike	P	0 - 30
2396497	Acetaminophen	4.95	Spike	P	0 - 30
2396497	Acetamiprid	6.42	Spike	P	0 - 30
2396497	Afidopyropen	25.6	Spike	P	0 - 30
2396497	Bentazon	0.288	Spike	P	0 - 30
2396497	Benzovindiflupyr	3.32	Spike	P	0 - 30
2396497	Carbamazepine	0.215	Spike	P	0 - 30
2396497	Clothianidin	0.712	Spike	P	0 - 30
2396497	Dinotefuran	0.760	Spike	P	0 - 30
2396497	Diuron	0.994	Spike	P	0 - 30
2396497	Fenuron	6.25	Spike	P	0 - 30
2396497	Fluridone	3.86	Spike	P	0 - 30
2396497	Hydrocodone	4.50	Spike	P	0 - 30
2396497	Ibuprofen	16.3	Spike	P	0 - 30
2396497	Imazapyr	3.08	Spike	P	0 - 30
2396497	Imidacloprid	8.99	Spike	P	0 - 30
2396497	Linuron	3.89	Spike	P	0 - 30
2396497	Mandestrobin	0.486	Spike	P	0 - 30
2396497	MCPP	1.48	Spike	P	0 - 30
2396497	Naproxen	27.3	Spike	P	0 - 30
2396497	Primidone	3.73	Spike	P	0 - 30
2396497	Pyraclostrobin	2.57	Spike	P	0 - 30
2396497	Silvex	0.624	Spike	P	0 - 30
2396497	Thiamethoxam	2.19	Spike	P	0 - 30
2396497	Tolfenpyrad	1.08	Spike	P	0 - 30
2396497	Triclopyr	2.57	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P427943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396626	Total Alkalinity	0.697	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P428328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396609	TDS	3.12	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P427950

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396626	Fluoride	0.476	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P427937

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2396532	Organic Carbon	0.332	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2396617
Field Sample ID: G3SE0071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	81.4	P	29 - 130
EPA 8270E	Decachlorobiphenyl	82.0	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	75.2	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	59.6	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	60.5	P	30 - 101
EPA 8276	PCNB	93.7	P	48 - 121

Lab Sample ID: 2396618
Field Sample ID: G5SE0050

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	118	P	30 - 160
EPA 8321B	Acetaminophen-d4	121	P	30 - 160
EPA 8321B	Carbamazepine-d10	66.0	P	30 - 160
EPA 8321B	Diuron-d6	52.8	P	30 - 160
EPA 8321B	Endothall-d6	98.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.0	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A118237

Included Lab Sample IDs: 2396609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A118239

Included Lab Sample IDs: 2396609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A118247

Included Lab Sample IDs: 2396609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.1	96.3	P/P	90 - 110
Sulfate	97.0	95.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118293

Included Lab Sample IDs: 2396610

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.3	99.6	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A118328

Included Lab Sample IDs: 2396610

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

Reference Method: SM 2320 B-2011

Run ID: A118331

Included Lab Sample IDs: 2396609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.7	93.0	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A118331

Included Lab Sample IDs: 2396609

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A118343

Included Lab Sample IDs: 2396610

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118346

Included Lab Sample IDs: 2396610

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	98.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A118355

Included Lab Sample IDs: 2396618

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	93.7	93.8	P/P	60 - 160
Sucralose	96.0	106	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A118357

Included Lab Sample IDs: 2396618

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	121	118	P/P	60 - 160
Endothall	95.3	99.9	P/P	60 - 160
Glufosinate	97.2	100	P/P	60 - 160
Glyphosate	107	119	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A118361

Included Lab Sample IDs: 2396610

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A118405

Included Lab Sample IDs: 2396617

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.9		P	80 - 120
Toxaphene	100		P	80 - 120

Reference Method: EPA 8270E

Run ID: A118457

Included Lab Sample IDs: 2396617

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.1		P	80 - 120
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	102		P	80 - 120
Beta-Cyfluthrin	102		P	80 - 120
Bifenthrin	97.9		P	80 - 120
Chlorothalonil	109		P	80 - 120
Cis-Nonachlor	96.6		P	80 - 120
Cypermethrin	102		P	80 - 120
Dacthal	100		P	80 - 120
DDD-p,p'	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A118457
Included Lab Sample IDs: 2396617

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDE-p,p'	98.5		P	80 - 120
DDT-p,p'	99.8		P	80 - 120
Delta-BHC	106		P	80 - 120
Deltamethrin	103		P	80 - 120
Dichlobenil	102		P	80 - 120
Dicofol	96.5		P	80 - 120
Dieldrin	99.0		P	80 - 120
Endosulfan I	100		P	80 - 120
Endosulfan II	97.2		P	80 - 120
Endosulfan Sulfate	99.3		P	80 - 120
Endrin	98.8		P	80 - 120
Endrin Aldehyde	96.8		P	80 - 120
Endrin Ketone	92.0		P	80 - 120
Esfenvalerate	107		P	80 - 120
Ethalfuralin	99.1		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	97.1		P	80 - 120
Heptachlor	97.3		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120
Hexachlorobenzene	99.4		P	80 - 120
Kepone	82.6		P	80 - 120
Lambda-Cyhalothrin	101		P	80 - 120
Methoprene	101		P	80 - 120
Methoxychlor	95.8		P	80 - 120
MGK-264	102		P	80 - 120
Mirex	99.7		P	80 - 120
Oxychlordane	99.2		P	80 - 120
Permethrin	99.8		P	80 - 120
Phenothrin	99.6		P	80 - 120
Piperonyl Butoxide	96.6		P	80 - 120
Prallethrin	101		P	80 - 120
Tau-Fluvalinate	104		P	80 - 120
Tetramethrin	101		P	80 - 120
Trans-Nonachlor	97.7		P	80 - 120
Triclosan Methyl	97.2		P	80 - 120
Trifluralin	98.9		P	80 - 120

Reference Method: EPA 8270E
Run ID: A118485
Included Lab Sample IDs: 2396617

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	96.3		P	80 - 120
PCB-1260	99.2		P	80 - 120

Reference Method: EPA 8321B
Run ID: A118491
Included Lab Sample IDs: 2396618

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

Reference Method: EPA 8321B
Run ID: A118491
Included Lab Sample IDs: 2396618

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	89.3	84.6	P/P	50 - 150
2,4,5-T	83.0	85.4	P/P	50 - 150
Acetaminophen	116	94.5	P/P	60 - 160
Acetamiprid	101	103	P/P	50 - 150
Afidopyropen	86.6	73.7	P/P	50 - 150
Bentazon	123	124	P/P	50 - 160
Benzovindiflupyr	89.3	84.3	P/P	50 - 150
Carbamazepine	95.4	102	P/P	60 - 150
Clothianidin	102	101	P/P	60 - 150
Dinotefuran	108	112	P/P	50 - 150
Diuron	106	107	P/P	60 - 160
Fenuron	97.7	105	P/P	60 - 150
Fluridone	95.8	97.4	P/P	60 - 160
Hydrocodone	142	148	P/P	60 - 150
Ibuprofen	111	118	P/P	50 - 160
Imazapyr	113	118	P/P	50 - 150
Imidacloprid	93.2	91.5	P/P	60 - 150
Linuron	101	94.6	P/P	60 - 150
Mandestrobin	95.2	99.0	P/P	50 - 150
MCPP	89.0	94.5	P/P	50 - 150
Naproxen	119	91.3	P/P	50 - 160
Primidone	110	109	P/P	60 - 150
Pyraclostrobin	86.5	89.2	P/P	60 - 150
Silvex	84.6	76.4	P/P	50 - 150
Thiamethoxam	122	123	P/P	50 - 150
Tolfenpyrad	84.5	82.8	P/P	60 - 150
Triclopyr	89.9	86.8	P/P	50 - 150

* 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				2.71	
EPA 180.1 Rev. 2.0	Turbidity	100				5.59	
EPA 300.0 Rev. 2.1	Chloride	102	99.2	98.1		0.326	
	Sulfate	98.4	98.0	96.0			
EPA 350.1 Rev. 2.0	Ammonia-N	95.8	98.4	100			0.968
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.4	97.0	108			6.44
EPA 353.2 Rev. 2.0	NO2NO3-N	104	106	104			1.43
EPA 365.1 Rev. 2.0	Total-P	102	102	103			1.05
EPA 8270E	Aldrin	39.6	47.5	60.2			23.6
	Alpha-BHC	80.5	77.2	89.7			15.0
	Alpha-Chlordane	61.4	59.0	76.6			26.0
	Beta-BHC	71.1	70.7	81.0			13.6
	Beta-Cyfluthrin	63.8	79.4	99.8			22.8
	Bifenthrin	46.3	63.2	79.6			23.0
	Chlorothalonil	76.7	10.2	11.6			12.9
	Cis-Nonachlor	61.5	63.7	63.4			0.538
	Cypermethrin	64.7	81.6	103			22.9
	Dacthal	72.9	68.7	86.3			22.7
	DDD-p,p'	63.5	58.0	60.9			4.90
	DDE-p,p'	64.2	63.4	72.8			13.8
	DDT-p,p'	57.8	58.1	73.0			22.7
	Delta-BHC	80.6	77.2	91.9			17.5
	Deltamethrin	83.4	108	145			29.8
	Dichlobenil	57.8	31.1	42.1			30.0
	Dicofol	56.0	58.5	70.4			18.5
	Dieldrin	68.5	66.9	76.2			13.0
	Endosulfan I	70.9	72.4	78.9			8.57
	Endosulfan II	68.1	66.4	67.2			1.21
	Endosulfan Sulfate	68.1	58.4	63.0			7.54
	Endrin	69.6	68.1	74.0			8.20
	Endrin Aldehyde	55.8	43.6	52.0			17.8
	Endrin Ketone	75.1	68.2	69.2			1.37
	Esfenvalerate	71.1	88.8	118			28.3
	Ethalfuralin	64.9	66.0	76.6			14.8
	Fenpropathrin	58.9	67.0	91.2			30.6
	Gamma-BHC	72.2	55.8	52.4			6.29
	Gamma-Chlordane	62.4	67.8	73.4			7.96
	Heptachlor	56.9	57.4	73.5			24.5
	Heptachlor Epoxide	67.2	64.2	81.3			23.6
	Hexachlorobenzene	52.1	42.8	58.1			30.3
	Kepone	76.5	60.5	60.5			0.0817
	Lambda-Cyhalothrin	55.1	83.7	99.2			16.9
	Methoprene	45.6	55.1	63.9			14.7
	Methoxychlor	71.9	71.6	97.7			30.8
	MGK-264	62.4	63.6	76.6			18.5
	Mirex	48.1	54.4	58.4			7.14
	Oxychlordane	69.8	70.8	87.8			21.4
	PCB-1016	48.6	75.8	62.2			19.7
	PCB-1260	59.3	67.7	61.6			9.34
	Permethrin	67.2	73.7	99.2			29.5
	Phenothrin	38.1	63.6	95.0			39.6
	Piperonyl Butoxide	78.3	80.0	96.7			18.9
	Prallethrin	61.4	76.2	74.3			2.56
	Tau-Fluvalinate	53.3	78.3	100			24.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Tetramethrin	66.0	90.5	118		26.8
	Trans-Nonachlor	61.5	61.0	70.0		13.8
	Triclosan Methyl	70.8	66.4	76.5		14.2
	Trifluralin	65.4	64.4	78.2		19.4
EPA 8276	Chlordane	58.0	88.8	78.0		12.9
	Toxaphene	65.2	99.2	89.1		10.7
EPA 8321B	2,4-D	102	115	122		5.63
	2,4,5-T	91.7	110	106		3.82
	Acesulfame K	93.9	89.6	88.5		1.25
	Acetaminophen	84.5	82.1	77.0		4.95
	Acetamiprid	76.6	77.5	82.7		6.42
	Afidopyropen	67.0	54.6	70.6		25.6
	AMPA	113	101	98.8		2.25
	Bentazon	98.8	104	104		0.288
	Benzovindiflupyr	86.7	82.6	85.4		3.32
	Carbamazepine	81.1	87.3	87.1		0.215
	Clothianidin	89.7	87.9	87.3		0.712
	Dinotefuran	94.3	99.8	101		0.760
	Diuron	73.5	63.6	63.0		0.994
	Endothall	91.3	101	99.0		2.34
	Fenuron	87.5	85.7	80.5		6.25
	Fluridone	81.9	83.5	80.3		3.86
	Glufosinate	110	94.3	88.5		6.33
	Glyphosate	125	104	97.1		6.59
	Hydrocodone	95.2	108	113		4.50
	Ibuprofen	66.4	74.0	62.9		16.3
	Imazapyr	96.3	111	115		3.08
	Imidacloprid	83.8	100	91.4		8.99
	Linuron	75.2	48.5	46.6		3.89
	Mandestrobin	92.3	93.5	93.1		0.486
	MCPP	101	111	109		1.48
	Naproxen	65.0	77.2	102		27.3
	Primidone	82.9	92.2	88.9		3.73
	Pyraclostrobin	86.1	83.6	81.5		2.57
	Silvex	103	113	112		0.624
	Sucralose	102	103	104		1.38
	Thiamethoxam	91.7	79.0	77.3		2.19
	Tolfenpyrad	61.5	54.6	54.0		1.08
	Triclopyr	97.0	102	105		2.57
SM 2320 B-2011	Total Alkalinity	96.3			0.697	
SM 2540 C-2015	TDS	96.8			3.12	
SM 2540 D-2015	TSS	93.3				
SM 4500-F- C-2011	Fluoride	101	102	101		0.476
SM 5310 B-2011	Organic Carbon	99.8	89.5	89.9		0.332

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2396609
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2396609
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2396609
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2396609
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2396610

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2396610
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2396610
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2396610
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2396617
EPA 8270E	PCBs in water matrices by GC/MS/MS	2396617
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2396617
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2396618
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2396609
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2396609
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2396609
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2396609
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2396610

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	03/28/2023			03/28/2023 14:43	Alexis Price	2396609
EPA 180.1 Rev. 2.0	03/28/2023			03/28/2023 14:19	Chandler E Cox	2396609
EPA 300.0 Rev. 2.1	03/28/2023			03/31/2023 15:21	James L Waggeberby	2396609
EPA 350.1 Rev. 2.0	03/28/2023			03/30/2023 12:49	Khloe J Berg	2396610
EPA 351.2 Rev. 2.0	03/28/2023	03/30/2023 12:29	Samantha L Bates	04/03/2023 11:37	Samantha L Bates	2396610
EPA 353.2 Rev. 2.0	03/28/2023			04/04/2023 10:19	Beverly Y. Sanders	2396610
EPA 365.1 Rev. 2.0	03/28/2023	03/30/2023 14:30	Alexis Price	04/03/2023 13:51	James L Waggeberby	2396610
EPA 8270E	03/28/2023	03/30/2023 11:00	Fe-Val Siddell	04/06/2023 18:54	Michael Poppell	2396617
	03/28/2023	03/30/2023 11:00	Fe-Val Siddell	04/10/2023 23:23	Julie Wi	2396617
EPA 8276	03/28/2023	03/30/2023 11:00	Fe-Val Siddell	04/01/2023 05:09	Lipi Saha	2396617
EPA 8321B	03/28/2023	03/31/2023 13:00	Manjita Shrestha	03/31/2023 18:17	Manjita Shrestha	2396618
	03/28/2023	03/31/2023 13:00	Manjita Shrestha	04/01/2023 03:27	Manjita Shrestha	2396618
	03/28/2023	04/03/2023 09:00	Hoor Shaik	04/07/2023 21:38	Juyoung Kim	2396618
SM 2320 B-2011	03/28/2023			03/31/2023 20:39	Dale L. Simmons	2396609
SM 2540 C-2015	03/28/2023			03/29/2023 16:02	Yijie Li	2396609
SM 2540 D-2015	03/28/2023			03/29/2023 16:02	Yijie Li	2396609
SM 4500-F- C-2011	03/28/2023			03/31/2023 20:39	Dale L. Simmons	2396609
SM 5310 B-2011	03/28/2023			04/01/2023 06:44	Khloe J Berg	2396610