

Chemical Analysis Report

NE-DIST-2023-11-15-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **LSJR South West 2023**
Request ID: **RQ-2023-11-20-05**
Customer: **NE-DIST**
Project ID: **SMP**

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8800 Baymeadows Way West
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 13-DEC-2023 11:48



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: BLACK CR SOUTH FORK AT CR218

Collection Date/Time: 11/14/2023 10:10

Field ID: 20030244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2451412	DEP SOP: NU-094-1	Color (true)	110		PCU	P437805	
	EPA 180.1 Rev. 2.0	Turbidity	7.2		NTU	P437851	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P438147	
		Sulfate	3.8		mg SO4/L	P438151	
	SM 2320 B-2011	Total Alkalinity	13		mg CaCO3/L	P438013	
	SM 2540 C-2015	TDS	58		mg/L	P438247	
	SM 2540 D-2015	TSS	4	I	mg/L	P438201	
2451413	SM 4500-F- C-2011	Fluoride	0.080	I	mg F/L	P438017	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P438242	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P437855	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.055		mg N/L	P438103	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P438116	
2451421	EPA 8321B	SM 5310 B-2011	Organic Carbon	8.8	mg C/L	P437963	
		2,4-D	0.0020	U	ug/L	P437880	
		Acesulfame K	0.10	U	ug/L	P437799	
		2,4,5-T	0.0040	U	ug/L	P437880	
		AMPA	0.10	U	ug/L	P437799	
		Acetaminophen	0.0080	U	ug/L	P437880	
		Acetamiprid	0.0020	U	ug/L	P437880	
		Endothall	0.25	U	ug/L	P437799	
		Glufosinate	0.10	U	ug/L	P437799	
		Glyphosate	0.10	U	ug/L	P437799	
		Afidopyropen	0.0020	U	ug/L	P437880	
		Sucralose	0.63		ug/L	P437799	
		Bentazon	8.0E-04	UJ	ug/L	P437880	MS
		Benzovindiflupyr	0.0020	U	ug/L	P437880	
		Carbamazepine	8.0E-04	U	ug/L	P437880	
		Clothianidin	0.0020	U	ug/L	P437880	
		Dinotefuran	0.0020	U	ug/L	P437880	
		Diuron	0.0020	U	ug/L	P437880	
		Fenuron	0.032	U	ug/L	P437880	
		Fluridone	8.0E-04	U	ug/L	P437880	
		Imazapyr	0.014	I	ug/L	P437880	
		Hydrocodone	0.0020	U	ug/L	P437880	
		Ibuprofen	0.080	U	ug/L	P437880	
		Imidacloprid	0.0020	U	ug/L	P437880	
		Linuron	0.0040	U	ug/L	P437880	
		Mandestrobin	0.0020	U	ug/L	P437880	
		MCP	0.0020	U	ug/L	P437880	
		Naproxen	0.0080	U	ug/L	P437880	
		Primidone	0.0040	U	ug/L	P437880	
		Pyraclostrobin	0.0020	U	ug/L	P437880	
		Silvex	0.0040	U	ug/L	P437880	
		Thiamethoxam	0.0020	U	ug/L	P437880	

Field ID: 20030244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2451421	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P437880	
		Triclopyr	0.0040	U	ug/L	P437880	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: The matrix spike and LCS recoveries for afidopyropen could not be evaluated due to laboratory technical difficulties. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: LITTLE BLACK CREEK AT SR 220

Collection Date/Time: 11/14/2023 11:05

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2451420	EPA 8270E	Aldrin	0.67	U	ng/L	P437988	LCS, MS
		Alpha-BHC	0.10	UJ	ng/L	P437988	
		Alpha-Chlordane	0.21	U	ng/L	P437988	
		PCB-1016	2.1	U	ng/L	P437988	
		Beta-BHC	0.10	U	ng/L	P437988	
		PCB-1221	2.1	U	ng/L	P437988	
		Beta-Cyfluthrin	1.3	U	ng/L	P437988	
		PCB-1232	2.1	U	ng/L	P437988	
		Bifenthrin	0.51	U	ng/L	P437988	
		PCB-1242	2.1	U	ng/L	P437988	
		PCB-1248	2.1	U	ng/L	P437988	
		Chlorothalonil	3.7	U	ng/L	P437988	
		PCB-1254	2.1	U	ng/L	P437988	
		Cis-Nonachlor	0.21	U	ng/L	P437988	
		PCB-1260	2.1	U	ng/L	P437988	LCS
		Cypermethrin	1.5	U	ng/L	P437988	
		Dacthal	0.15	UJ	ng/L	P437988	
		DDD-p,p'	0.26	U	ng/L	P437988	
		DDE-p,p'	0.21	U	ng/L	P437988	
		DDT-p,p'	0.82	U	ng/L	P437988	
		Delta-BHC	0.41	U	ng/L	P437988	
		Deltamethrin	1.3	U	ng/L	P437988	
		Dichlobenil	0.26	U	ng/L	P437988	
		Dicofol	1.3	U	ng/L	P437988	
		Dieldrin	0.41	U	ng/L	P437988	CCV LCS, MS
		Endosulfan I	0.41	U	ng/L	P437988	
		Endosulfan II	0.92	U	ng/L	P437988	
		Endosulfan Sulfate	0.31	U	ng/L	P437988	
		Endrin	0.92	U	ng/L	P437988	
		Endrin Aldehyde	0.77	UJ	ng/L	P437988	
		Endrin Ketone	0.41	UJ	ng/L	P437988	
		Esfenvalerate	0.77	U	ng/L	P437988	
		Ethalfuralin	0.15	U	ng/L	P437988	
		Fenpropathrin	0.26	U	ng/L	P437988	
		Gamma-BHC	0.13	U	ng/L	P437988	
		Gamma-Chlordane	0.21	U	ng/L	P437988	
		Heptachlor	0.21	U	ng/L	P437988	
		Heptachlor Epoxide	0.26	U	ng/L	P437988	
		Hexachlorobenzene**	1.0	U	ng/L	P437988	
		Kepone	14	U	ng/L	P437988	
		Lambda-Cyhalothrin	0.77	U	ng/L	P437988	
		Methoprene	0.77	U	ng/L	P437988	
		Methoxychlor	0.31	U	ng/L	P437988	
		MGK-264	0.21	U	ng/L	P437988	

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2451420	EPA 8270E	Mirex	0.36	U	ng/L	P437988	
		Oxychlordane	0.31	U	ng/L	P437988	
		Permethrin	1.6	U	ng/L	P437988	
		Phenothrin	0.92	U	ng/L	P437988	
		Piperonyl Butoxide	0.15	U	ng/L	P437988	
		Prallethrin	2.1	U	ng/L	P437988	
		Tau-Fluvalinate	0.26	U	ng/L	P437988	
		Tetramethrin	0.77	U	ng/L	P437988	
		Trans-Nonachlor	0.21	U	ng/L	P437988	
		Triclosan Methyl	0.15	U	ng/L	P437988	
		Trifluralin	0.21	U	ng/L	P437988	
	EPA 8276	Chlordane	2.1	U	ng/L	P437988	
		Toxaphene	15	U	ng/L	P437988	

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

**Sample Location: SWIMMING PEN CREEK AT EAGLES CREEK
DR**

Collection Date/Time: 11/14/2023 11:25

Field ID: G2NE1188

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2451422	EPA 8321B	2,4-D	0.0078	I	ug/L	P437880	
		Acesulfame K	0.10	U	ug/L	P437799	
		2,4,5-T	0.0040	U	ug/L	P437880	
		AMPA	0.14	I	ug/L	P437799	
		Acetaminophen	0.0080	U	ug/L	P437880	
		Acetamiprid	0.0020	U	ug/L	P437880	
		Endothall	0.25	U	ug/L	P437799	
		Glufosinate	0.10	U	ug/L	P437799	
		Glyphosate	0.14	I	ug/L	P437799	
		Afidopyropen	0.0020	U	ug/L	P437880	
		Sucralose	2.1		ug/L	P437799	
		Bentazon	0.015		ug/L	P437880	MS
		Benzovindiflupyr	0.0020	U	ug/L	P437880	
		Carbamazepine	8.0E-04	U	ug/L	P437880	
		Clothianidin	0.0046	I	ug/L	P437880	
		Dinotefuran	0.0020	U	ug/L	P437880	
		Diuron	0.0020	U	ug/L	P437880	
		Fenuron	0.032	U	ug/L	P437880	
		Fluridone	0.0029	I	ug/L	P437880	
		Imazapyr	0.12		ug/L	P437880	
		Hydrocodone	0.0020	U	ug/L	P437880	
		Ibuprofen	0.080	U	ug/L	P437880	
		Imidacloprid	0.0061	I	ug/L	P437880	
		Linuron	0.0040	U	ug/L	P437880	
		Mandestrobin	0.0020	U	ug/L	P437880	
		MCPP	0.0020	U	ug/L	P437880	
		Naproxen	0.0080	U	ug/L	P437880	
		Primidone	0.0040	U	ug/L	P437880	
		Pyraclostrobin	0.0020	U	ug/L	P437880	
		Silvex	0.0040	U	ug/L	P437880	
		Thiamethoxam	0.0020	U	ug/L	P437880	
		Tolfenpyrad	0.0020	U	ug/L	P437880	
		Triclopyr	0.0040	U	ug/L	P437880	

Ref. Method and Comment:

EPA 8321B: The matrix spike and LCS recoveries for afidopyropen could not be evaluated due to laboratory technical difficulties.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P437805

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437851

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438147

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438151

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438242

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437855

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438103

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438116

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

Reference Method: EPA 8270E
Batch ID: P437988

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P437988

Component	Result	Code	Units
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8276

Batch ID: P437988

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

Reference Method: EPA 8321B

Batch ID: P437799

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: P437880

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
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P438013

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P438247

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P438201

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P438017

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P437963

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: P437805

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: P437851

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438147

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438151

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437855

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438103

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438116

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

Reference Method: EPA 8270E
Batch ID: P437988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	41.8		P	30 - 96.0
Alpha-BHC	61.4		F	70 - 109
Alpha-Chlordane	58.3		P	45 - 107
Beta-BHC	77.8		P	64 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P437988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	54.9		P	17 - 141
Bifenthrin	43.4		P	10 - 113
Chlorothalonil	90.3		P	26 - 180
Cis-Nonachlor	71.3		P	37 - 102
Cypermethrin	60.2		P	20 - 133
Dacthal	67.4		F	69 - 114
DDD-p,p'	51.5		P	42 - 105
DDE-p,p'	57.0		P	42 - 106
DDT-p,p'	60.4		P	42 - 107
Delta-BHC	79.7		P	67 - 144
Deltamethrin	99.0		P	15 - 149
Dichlobenil	59.6		P	46 - 117
Dicofol	73.5		P	34 - 114
Dieldrin	61.1		P	50 - 108
Endosulfan I	76.6		P	55 - 104
Endosulfan II	79.0		P	51 - 111
Endosulfan Sulfate	75.5		P	56 - 121
Endrin	68.4		P	10 - 106
Endrin Aldehyde	70.1		P	34 - 114
Endrin Ketone	37.0		F	63 - 177
Esfenvalerate	71.8		P	29 - 143
Ethalfuralin	73.3		P	46 - 96.0
Fenpropathrin	71.8		P	28 - 115
Gamma-BHC	67.3		P	65 - 121
Gamma-Chlordane	50.2		P	39 - 103
Heptachlor	56.7		P	39 - 94.0
Heptachlor Epoxide	72.0		P	54 - 104
Hexachlorobenzene	51.2		P	36 - 100
Kepone	91.6		P	10 - 225
Lambda-Cyhalothrin	50.8		P	10 - 135
Methoprene	45.3		P	10 - 109
Methoxychlor	69.2		P	52 - 112
MGK-264	54.9		P	44 - 117
Mirex	33.3		P	20 - 90.0
Oxychlordane	77.6		P	44 - 102
PCB-1016	80.8		P	45 - 107
PCB-1260	82.3		P	40 - 118
Permethrin	57.9		P	18 - 135
Phenothrin	38.8		P	10 - 102
Piperonyl Butoxide	54.2		P	28 - 156
Prallethrin	53.5		P	28 - 113
Tau-Fluvalinate	72.1		P	10 - 123
Tetramethrin	44.3		P	18 - 158
Trans-Nonachlor	52.3		P	39 - 104
Triclosan Methyl	80.6		P	54 - 108
Trifluralin	46.3		P	46 - 97.0

Reference Method: EPA 8276

Batch ID: P437988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	63.1		P	52 - 117

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P437988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	73.8		P	44 - 125

Reference Method: EPA 8321B
Batch ID: P437799

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	109		P	40 - 150
AMPA	104		P	40 - 160
Endothall	108		P	40 - 160
Glufosinate	100		P	40 - 160
Glyphosate	101		P	40 - 160
Sucralose	99.0		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P437880

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	105		P	40 - 150
2,4,5-T	91.0		P	40 - 150
Acetaminophen	95.2		P	30 - 150
Acetamiprid	95.8		P	40 - 150
Bentazon	66.4		P	30 - 150
Benzovindiflupyr	92.8		P	40 - 150
Carbamazepine	76.6		P	40 - 150
Clothianidin	97.7		P	40 - 150
Dinotefuran	99.6		P	40 - 150
Diuron	70.8		P	40 - 150
Fenuron	93.2		P	40 - 150
Fluridone	88.6		P	40 - 150
Hydrocodone	112		P	40 - 150
Ibuprofen	65.0		P	40 - 150
Imazapyr	91.6		P	40 - 150
Imidacloprid	94.8		P	40 - 150
Linuron	76.6		P	40 - 150
Mandestrobin	101		P	40 - 150
MCPP	96.4		P	40 - 150
Naproxen	60.7		P	40 - 150
Primidone	92.3		P	40 - 150
Pyraclostrobin	93.9		P	40 - 150
Silvex	87.1		P	40 - 150
Thiamethoxam	93.1		P	40 - 150
Tolfenpyrad	62.6		P	30 - 150
Triclopyr	105		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P438013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.6		P	92 - 105

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P438247

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.2		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P438201

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	109		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P438017

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437963

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450409	Chloride	101		P	90 - 110
2451426	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438151

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450409	Sulfate	96.4		P	90 - 110
2451426	Sulfate	96.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451413	Ammonia-N	99.8	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437855

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451432	Kjeldahl Nitrogen	104	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451413	NO2NO3-N	98.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438116

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451435	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P437988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451509	PCB-1016	103	99.4	P/P	45 - 107
2451509	PCB-1260	106	105	P/P	40 - 112
2451647	Aldrin	59.8	65.5	P/P	24 - 81.0
2451647	Alpha-BHC	64.7	75.6	F/P	65 - 110
2451647	Alpha-Chlordane	57.9	50.5	P/P	43 - 119
2451647	Beta-BHC	71.2	69.4	P/P	54 - 165
2451647	Beta-Cyfluthrin	74.1	79.6	P/P	27 - 165
2451647	Bifenthrin	68.5	73.3	P/P	17 - 117
2451647	Chlorothalonil	104	104	P/P	10 - 255
2451647	Cis-Nonachlor	72.4	57.4	P/P	34 - 98.0
2451647	Cypermethrin	72.8	81.3	P/P	25 - 143
2451647	Dacthal	64.6	67.0	P/P	55 - 139
2451647	DDD-p,p'	48.2	39.2	P/P	30 - 109
2451647	DDE-p,p'	62.0	55.1	P/P	35 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P437988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451647	DDT-p,p'	76.8	75.8	P/P	41 - 101
2451647	Delta-BHC	83.4	89.0	P/P	58 - 165
2451647	Deltamethrin	157	161	P/P	10 - 194
2451647	Dichlobenil	43.9	41.4	P/P	22 - 114
2451647	Dicofol	82.6	76.4	P/P	17 - 133
2451647	Dieldrin	60.7	53.7	P/P	45 - 129
2451647	Endosulfan I	78.9	77.9	P/P	49 - 104
2451647	Endosulfan II	87.2	86.0	P/P	37 - 117
2451647	Endosulfan Sulfate	81.8	74.9	P/P	38 - 128
2451647	Endrin	62.7	53.9	P/P	35 - 116
2451647	Endrin Aldehyde	41.4	34.4	P/P	19 - 108
2451647	Endrin Ketone	35.1	30.7	F/F	44 - 134
2451647	Esfenvalerate	127	145	P/P	27 - 176
2451647	Ethalfuralin	74.8	69.8	P/P	49 - 100
2451647	Fenpropathrin	80.6	87.7	P/P	34 - 117
2451647	Gamma-BHC	65.4	66.1	P/P	59 - 129
2451647	Gamma-Chlordane	51.7	54.8	P/P	33 - 107
2451647	Heptachlor	62.9	61.4	P/P	37 - 94.0
2451647	Heptachlor Epoxide	72.8	68.4	P/P	38 - 118
2451647	Hexachlorobenzene	47.3	39.7	P/P	35 - 97.0
2451647	Kepone	95.9	107	P/P	10 - 221
2451647	Lambda-Cyhalothrin	84.3	91.2	P/P	23 - 190
2451647	Methoprene	86.6	77.9	P/P	21 - 109
2451647	Methoxychlor	65.5	71.7	P/P	46 - 118
2451647	MGK-264	63.5	65.4	P/P	39 - 122
2451647	Mirex	50.8	54.0	P/P	25 - 90.0
2451647	Oxychlordane	60.5	61.4	P/P	42 - 100
2451647	Permethrin	84.7	83.1	P/P	33 - 181
2451647	Phenothrin	64.4	59.0	P/P	12 - 125
2451647	Piperonyl Butoxide	55.9	46.7	P/P	10 - 178
2451647	Prallethrin	70.8	90.3	P/P	24 - 122
2451647	Tau-Fluvalinate	129	138	P/P	13 - 151
2451647	Tetramethrin	76.1	122	P/P	16 - 172
2451647	Trans-Nonachlor	55.2	56.3	P/P	39 - 100
2451647	Triclosan Methyl	76.3	72.1	P/P	43 - 110
2451647	Trifluralin	56.3	49.5	P/P	45 - 94.0

Reference Method: EPA 8276
Batch ID: P437988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451509	Chlordane	89.8	82.8	P/P	43 - 123
2451509	Toxaphene	113	111	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P437799

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451421	Acesulfame K	121	124	P/P	40 - 150
2451421	AMPA	97.9	97.4	P/P	40 - 160
2451421	Endothall	108	102	P/P	40 - 160
2451421	Glufosinate	98.7	99.3	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P437799

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451421	Glyphosate	101	93.1	P/P	40 - 160
2451421	Sucralose	94.0	95.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P437880

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451421	2,4-D	89.5	103	P/P	40 - 150
2451421	2,4,5-T	84.6	89.0	P/P	40 - 150
2451421	Acetaminophen	108	106	P/P	30 - 150
2451421	Acetamiprid	44.1	41.6	P/P	40 - 150
2451421	Bentazon	23.3	24.0	F/F	30 - 150
2451421	Benzovindiflupyr	79.4	84.4	P/P	40 - 150
2451421	Carbamazepine	56.7	58.3	P/P	40 - 150
2451421	Clothianidin	76.0	81.0	P/P	40 - 150
2451421	Dinotefuran	67.7	70.7	P/P	40 - 150
2451421	Diuron	54.3	56.2	P/P	40 - 150
2451421	Fenuron	50.7	52.3	P/P	40 - 150
2451421	Fluridone	65.6	70.7	P/P	40 - 150
2451421	Hydrocodone	73.0	78.8	P/P	40 - 150
2451421	Ibuprofen	53.8	54.7	P/P	40 - 150
2451421	Imazapyr	87.4	90.6	P/P	40 - 150
2451421	Imidacloprid	101	106	P/P	40 - 150
2451421	Linuron	63.1	62.4	P/P	40 - 150
2451421	Mandestrobin	83.0	84.7	P/P	40 - 150
2451421	MCPP	83.5	90.4	P/P	40 - 150
2451421	Naproxen	79.7	70.7	P/P	40 - 150
2451421	Primidone	76.2	73.7	P/P	40 - 150
2451421	Pyraclostrobin	84.6	90.3	P/P	40 - 150
2451421	Silvex	88.6	90.1	P/P	40 - 150
2451421	Thiamethoxam	77.0	82.2	P/P	40 - 150
2451421	Tolfenpyrad	52.9	54.2	P/P	30 - 150
2451421	Triclopyr	82.5	87.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P438017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450964	Fluoride	101	101	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437963

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2451413	Organic Carbon	97.5	99.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P437805

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451367	Color (true)	1.97	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451366	Turbidity	0.539	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450409	Chloride	0.278	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P438151

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450409	Sulfate	0.335	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451413	Ammonia-N	0.799	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437855

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451432	Kjeldahl Nitrogen	1.72	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451413	NO2NO3-N	1.18	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438116

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451435	Total-P	0.139	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P437988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451509	PCB-1016	3.13	Spike	P	0 - 25
2451509	PCB-1260	0.829	Spike	P	0 - 30
2451647	Aldrin	9.11	Spike	P	0 - 41
2451647	Alpha-BHC	15.5	Spike	P	0 - 25
2451647	Alpha-Chlordane	13.5	Spike	P	0 - 32
2451647	Beta-BHC	2.62	Spike	P	0 - 33
2451647	Beta-Cyfluthrin	7.08	Spike	P	0 - 43
2451647	Bifenthrin	6.74	Spike	P	0 - 52
2451647	Chlorothalonil	0.513	Spike	P	0 - 82
2451647	Cis-Nonachlor	23.2	Spike	P	0 - 33
2451647	Cypermethrin	11.0	Spike	P	0 - 51
2451647	Dacthal	3.72	Spike	P	0 - 27
2451647	DDD-p,p'	20.6	Spike	P	0 - 39
2451647	DDE-p,p'	11.8	Spike	P	0 - 31
2451647	DDT-p,p'	1.37	Spike	P	0 - 29
2451647	Delta-BHC	6.42	Spike	P	0 - 35
2451647	Deltamethrin	3.04	Spike	P	0 - 100
2451647	Dichlobenil	5.71	Spike	P	0 - 40
2451647	Dicofol	7.76	Spike	P	0 - 37
2451647	Dieldrin	12.3	Spike	P	0 - 27
2451647	Endosulfan I	1.23	Spike	P	0 - 23
2451647	Endosulfan II	1.40	Spike	P	0 - 34
2451647	Endosulfan Sulfate	8.82	Spike	P	0 - 36
2451647	Endrin	15.0	Spike	P	0 - 45
2451647	Endrin Aldehyde	18.4	Spike	P	0 - 76
2451647	Endrin Ketone	13.3	Spike	P	0 - 43
2451647	Esfenvalerate	13.2	Spike	P	0 - 51
2451647	Ethalfuralin	7.03	Spike	P	0 - 22
2451647	Fenpropathrin	7.59	Spike	P	0 - 49
2451647	Gamma-BHC	1.08	Spike	P	0 - 28
2451647	Gamma-Chlordane	5.86	Spike	P	0 - 40
2451647	Heptachlor	2.32	Spike	P	0 - 29
2451647	Heptachlor Epoxide	6.19	Spike	P	0 - 33
2451647	Hexachlorobenzene	17.6	Spike	P	0 - 36
2451647	Kepone	10.7	Spike	P	0 - 85
2451647	Lambda-Cyhalothrin	7.95	Spike	P	0 - 55
2451647	Methoprene	10.6	Spike	P	0 - 53
2451647	Methoxychlor	9.12	Spike	P	0 - 50
2451647	MGK-264	2.91	Spike	P	0 - 43
2451647	Mirex	6.00	Spike	P	0 - 40
2451647	Oxychlordane	1.53	Spike	P	0 - 31
2451647	Permethrin	1.99	Spike	P	0 - 50
2451647	Phenothrin	8.82	Spike	P	0 - 58
2451647	Piperonyl Butoxide	14.5	Spike	P	0 - 100
2451647	Prallethrin	24.2	Spike	P	0 - 39
2451647	Tau-Fluvalinate	6.49	Spike	P	0 - 54
2451647	Tetramethrin	46.6	Spike	P	0 - 51
2451647	Trans-Nonachlor	2.04	Spike	P	0 - 39
2451647	Triclosan Methyl	5.61	Spike	P	0 - 31
2451647	Trifluralin	12.7	Spike	P	0 - 22

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P437988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451509	Chlordane	8.07	Spike	P	0 - 28
2451509	Toxaphene	2.01	Spike	P	0 - 27

Reference Method: EPA 8321B
Batch ID: P437799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451421	Acesulfame K	1.98	Spike	P	0 - 30
2451421	AMPA	0.489	Spike	P	0 - 30
2451421	Endothall	5.95	Spike	P	0 - 30
2451421	Glufosinate	0.549	Spike	P	0 - 30
2451421	Glyphosate	7.98	Spike	P	0 - 30
2451421	Sucralose	1.26	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P437880

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451421	2,4-D	13.8	Spike	P	0 - 30
2451421	2,4,5-T	5.15	Spike	P	0 - 30
2451421	Acetaminophen	2.31	Spike	P	0 - 30
2451421	Acetamiprid	5.73	Spike	P	0 - 30
2451421	Bentazon	2.98	Spike	P	0 - 30
2451421	Benzovindiflupyr	6.13	Spike	P	0 - 30
2451421	Carbamazepine	2.70	Spike	P	0 - 30
2451421	Clothianidin	6.39	Spike	P	0 - 30
2451421	Dinotefuran	4.43	Spike	P	0 - 30
2451421	Diuron	3.43	Spike	P	0 - 30
2451421	Fenuron	3.13	Spike	P	0 - 30
2451421	Fluridone	7.45	Spike	P	0 - 30
2451421	Hydrocodone	7.64	Spike	P	0 - 30
2451421	Ibuprofen	1.77	Spike	P	0 - 30
2451421	Imazapyr	3.10	Spike	P	0 - 30
2451421	Imidacloprid	4.86	Spike	P	0 - 30
2451421	Linuron	1.04	Spike	P	0 - 30
2451421	Mandestrobin	2.10	Spike	P	0 - 30
2451421	MCPP	7.95	Spike	P	0 - 30
2451421	Naproxen	11.9	Spike	P	0 - 30
2451421	Primidone	3.35	Spike	P	0 - 30
2451421	Pyraclostrobin	6.58	Spike	P	0 - 30
2451421	Silvex	1.73	Spike	P	0 - 30
2451421	Thiamethoxam	6.55	Spike	P	0 - 30
2451421	Tolfenpyrad	2.43	Spike	P	0 - 30
2451421	Triclopyr	5.52	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P438013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450964	Total Alkalinity	1.18	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P438247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450787	TDS	3.75	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P438017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450964	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P437963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2451413	Organic Carbon	1.68	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2451420
Field Sample ID: 20030667

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	104	P	37 - 129
EPA 8270E	Decachlorobiphenyl	88.3	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	54.1	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	48.4	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	56.5	P	28 - 102
EPA 8276	PCNB	105	P	49 - 115

Lab Sample ID: 2451421
Field Sample ID: 20030244

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	104	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.4	P	30 - 160
EPA 8321B	Diuron-d6	59.1	P	30 - 160
EPA 8321B	Endothall-d6	88.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	62.5	P	30 - 160
EPA 8321B	Primidone-d5	63.8	P	30 - 160
EPA 8321B	Sucralose-d6	95.0	P	30 - 160

Lab Sample ID: 2451422
Field Sample ID: G2NE1188

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	77.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	60.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	42.6	P	30 - 160
EPA 8321B	Diuron-d6	38.8	P	30 - 160
EPA 8321B	Endothall-d6	94.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	87.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	54.7	P	30 - 160
EPA 8321B	Primidone-d5	39.4	P	30 - 160
EPA 8321B	Sucralose-d6	70.1	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A122732
Included Lab Sample IDs: 2451412

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A122747
Included Lab Sample IDs: 2451412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.0	P/P	95 - 105

Reference Method: SM 5310 B-2011
Run ID: A122791
Included Lab Sample IDs: 2451413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	95.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A122798
Included Lab Sample IDs: 2451413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A122799
Included Lab Sample IDs: 2451421, 2451422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	98.3	97.8	P/P	60 - 160
Endothall	94.6	110	P/P	60 - 160
Glufosinate	95.2	101	P/P	60 - 160
Glyphosate	99.3	98.4	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A122812
Included Lab Sample IDs: 2451421, 2451422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	107	122	P/P	60 - 160
Sucralose	96.3	106	P/P	60 - 160

Reference Method: SM 2320 B-2011
Run ID: A122815
Included Lab Sample IDs: 2451412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.2	95.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A122815

Included Lab Sample IDs: 2451412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122849

Included Lab Sample IDs: 2451413

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A122874

Included Lab Sample IDs: 2451412

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122886

Included Lab Sample IDs: 2451413

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.4	99.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122914

Included Lab Sample IDs: 2451413

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

Reference Method: EPA 8321B

Run ID: A122934

Included Lab Sample IDs: 2451421, 2451422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.5	97.9	P/P	50 - 150
2,4,5-T	103	109	P/P	50 - 150
Acetaminophen	110	111	P/P	60 - 160
Acetamiprid	108	109	P/P	50 - 150
Afidopyropen	96.0	96.9	P/P	50 - 150
Bentazon	99.9	97.8	P/P	50 - 160
Benzovindiflupyr	102	105	P/P	50 - 150
Carbamazepine	111	110	P/P	60 - 150
Clothianidin	106	104	P/P	60 - 150
Dinotefuran	105	108	P/P	50 - 150
Diuron	118	117	P/P	60 - 160
Fenuron	105	105	P/P	60 - 150
Fluridone	104	108	P/P	60 - 160
Hydrocodone	114	112	P/P	60 - 150
Ibuprofen	90.4	84.5	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A122934

Included Lab Sample IDs: 2451421, 2451422

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	96.0	88.0	P/P	50 - 150
Imidacloprid	94.6	96.5	P/P	60 - 150
Linuron	100	101	P/P	60 - 150
Mandestrobin	111	106	P/P	50 - 150
MCPP	106	107	P/P	50 - 150
Naproxen	75.7	85.2	P/P	50 - 160
Primidone	100	97.3	P/P	60 - 150
Pyraclostrobin	117	117	P/P	60 - 150
Silvex	90.4	102	P/P	50 - 150
Thiamethoxam	105	108	P/P	50 - 150
Tolfenpyrad	96.9	101	P/P	60 - 150
Triclopyr	102	104	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A122979

Included Lab Sample IDs: 2451420

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

Reference Method: EPA 8270E

Run ID: A123010

Included Lab Sample IDs: 2451420

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	110		P	80 - 120
Alpha-BHC	94.9		P	80 - 120
Alpha-Chlordane	81.7		P	80 - 120
Beta-BHC	84.1		P	80 - 120
Beta-Cyfluthrin	89.2		P	80 - 120
Bifenthrin	88.8		P	80 - 120
Chlorothalonil	97.2		P	80 - 120
Cis-Nonachlor	109		P	80 - 120
Cypermethrin	81.2		P	80 - 120
Dacthal	89.2		P	80 - 120
DDD-p,p'	97.4		P	80 - 120
DDE-p,p'	85.0		P	80 - 120
DDT-p,p'	94.7		P	80 - 120
Delta-BHC	99.3		P	80 - 120
Deltamethrin	118		P	80 - 120
Dichlobenil	92.8		P	80 - 120
Dicofol	93.0		P	80 - 120
Dieldrin	88.6		P	80 - 120
Endosulfan I	97.6		P	80 - 120
Endosulfan II	105		P	80 - 120
Endosulfan Sulfate	114		P	80 - 120
Endrin	94.8		P	80 - 120
Endrin Aldehyde	164*		F	80 - 120
Endrin Ketone	90.6		P	80 - 120
Esfenvalerate	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A123010
Included Lab Sample IDs: 2451420

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethalfuralin	107		P	80 - 120
Fenpropathrin	90.7		P	80 - 120
Gamma-BHC	83.0		P	80 - 120
Gamma-Chlordane	86.1		P	80 - 120
Heptachlor	94.3		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120
Hexachlorobenzene	85.0		P	80 - 120
Kepone	99.0		P	80 - 120
Lambda-Cyhalothrin	98.9		P	80 - 120
Methoprene	81.9		P	80 - 120
Methoxychlor	86.9		P	80 - 120
MGK-264	80.1		P	80 - 120
Mirex	119		P	80 - 120
Oxychlordane	96.8		P	80 - 120
Permethrin	94.7		P	80 - 120
Phenothrin	90.6		P	80 - 120
Piperonyl Butoxide	114		P	80 - 120
Prallethrin	84.4		P	80 - 120
Tau-Fluvalinate	109		P	80 - 120
Tetramethrin	110		P	80 - 120
Trans-Nonachlor	86.0		P	80 - 120
Triclosan Methyl	86.2		P	80 - 120
Trifluralin	99.9		P	80 - 120

Reference Method: EPA 8276
Run ID: A123147
Included Lab Sample IDs: 2451420

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.0		P	80 - 120
Toxaphene	109		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	100				1.97	
EPA 180.1 Rev. 2.0	Turbidity	103				0.539	
EPA 300.0 Rev. 2.1	Chloride	102	101	101		0.278	
	Sulfate	100	96.4	96.7		0.335	
EPA 350.1 Rev. 2.0	Ammonia-N	94.4	99.8	98.8			0.799
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	104	102			1.72
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	101	98.8	100			1.18
EPA 365.1 Rev. 2.0	Total-P	103	104	104			0.139
EPA 8270E	Aldrin	41.8	65.5	59.8			9.11
	Alpha-BHC	61.4	75.6	64.7			15.5
	Alpha-Chlordane	58.3	50.5	57.9			13.5
	Beta-BHC	77.8	69.4	71.2			2.62
	Beta-Cyfluthrin	54.9	79.6	74.1			7.08
	Bifenthrin	43.4	73.3	68.5			6.74
	Chlorothalonil	90.3	104	104			0.513
	Cis-Nonachlor	71.3	57.4	72.4			23.2
	Cypermethrin	60.2	81.3	72.8			11.0
	Dacthal	67.4	67.0	64.6			3.72
	DDD-p,p'	51.5	39.2	48.2			20.6
	DDE-p,p'	57.0	55.1	62.0			11.8
	DDT-p,p'	60.4	75.8	76.8			1.37
	Delta-BHC	79.7	89.0	83.4			6.42
	Deltamethrin	99.0	161	157			3.04
	Dichlobenil	59.6	41.4	43.9			5.71
	Dicofol	73.5	76.4	82.6			7.76
	Dieldrin	61.1	53.7	60.7			12.3
	Endosulfan I	76.6	77.9	78.9			1.23
	Endosulfan II	79.0	86.0	87.2			1.40
	Endosulfan Sulfate	75.5	74.9	81.8			8.82
	Endrin	68.4	53.9	62.7			15.0
	Endrin Aldehyde	70.1	34.4	41.4			18.4
	Endrin Ketone	37.0	30.7	35.1			13.3
	Esfenvalerate	71.8	145	127			13.2
	Ethalfuralin	73.3	69.8	74.8			7.03
	Fenpropathrin	71.8	87.7	80.6			7.59
	Gamma-BHC	67.3	66.1	65.4			1.08
	Gamma-Chlordane	50.2	54.8	51.7			5.86
	Heptachlor	56.7	61.4	62.9			2.32
	Heptachlor Epoxide	72.0	68.4	72.8			6.19
	Hexachlorobenzene	51.2	39.7	47.3			17.6
	Kepone	91.6	107	95.9			10.7
	Lambda-Cyhalothrin	50.8	91.2	84.3			7.95
	Methoprene	45.3	86.6	77.9			10.6
	Methoxychlor	69.2	65.5	71.7			9.12
	MGK-264	54.9	63.5	65.4			2.91
	Mirex	33.3	50.8	54.0			6.00
	Oxychlordane	77.6	60.5	61.4			1.53
	PCB-1016	80.8	103	99.4			3.13
	PCB-1260	82.3	106	105			0.829
	Permethrin	57.9	84.7	83.1			1.99
	Phenothrin	38.8	64.4	59.0			8.82
	Piperonyl Butoxide	54.2	55.9	46.7			14.5
	Prallethrin	53.5	70.8	90.3			24.2
	Tau-Fluvalinate	72.1	129	138			6.49

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Tetramethrin	44.3	76.1	122		46.6
	Trans-Nonachlor	52.3	55.2	56.3		2.04
	Triclosan Methyl	80.6	76.3	72.1		5.61
	Trifluralin	46.3	56.3	49.5		12.7
EPA 8276	Chlordane	63.1	89.8	82.8		8.07
	Toxaphene	73.8	113	111		2.01
EPA 8321B	2,4-D	105	89.5	103		13.8
	2,4,5-T	91.0	84.6	89.0		5.15
	Acesulfame K	109	121	124		1.98
	Acetaminophen	95.2	106	108		2.31
	Acetamiprid	95.8	44.1	41.6		5.73
	AMPA	104	97.9	97.4		0.489
	Bentazon	66.4	23.3	24.0		2.98
	Benzovindiflupyr	92.8	79.4	84.4		6.13
	Carbamazepine	76.6	56.7	58.3		2.70
	Clothianidin	97.7	76.0	81.0		6.39
	Dinotefuran	99.6	67.7	70.7		4.43
	Diuron	70.8	54.3	56.2		3.43
	Endothall	108	108	102		5.95
	Fenuron	93.2	50.7	52.3		3.13
	Fluridone	88.6	65.6	70.7		7.45
	Glufosinate	100	98.7	99.3		0.549
	Glyphosate	101	101	93.1		7.98
	Hydrocodone	112	73.0	78.8		7.64
	Ibuprofen	65.0	53.8	54.7		1.77
	Imazapyr	91.6	87.4	90.6		3.10
	Imidacloprid	94.8	101	106		4.86
	Linuron	76.6	63.1	62.4		1.04
	Mandestrobin	101	83.0	84.7		2.10
	MCPP	96.4	83.5	90.4		7.95
	Naproxen	60.7	79.7	70.7		11.9
	Primidone	92.3	76.2	73.7		3.35
	Pyraclostrobin	93.9	84.6	90.3		6.58
	Silvex	87.1	88.6	90.1		1.73
	Sucralose	99.0	94.0	95.6		1.26
	Thiamethoxam	93.1	77.0	82.2		6.55
	Tolfenpyrad	62.6	52.9	54.2		2.43
	Triclopyr	105	82.5	87.2		5.52
SM 2320 B-2011	Total Alkalinity	97.6			1.18	
SM 2540 C-2015	TDS	93.2			3.75	
SM 2540 D-2015	TSS	109				
SM 4500-F- C-2011	Fluoride	101	101	101		0.0
SM 5310 B-2011	Organic Carbon	96.6	97.5	99.9		1.68

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2451412
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2451412
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2451412
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2451412
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2451413
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2451413

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2451413
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2451413
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2451420
EPA 8270E	PCBs in water matrices by GC/MS/MS	2451420
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2451420
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2451421, 2451422
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2451412
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2451412
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2451412
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2451412
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2451413

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	11/15/2023			11/15/2023 13:03	Samantha L Bates	2451412
EPA 180.1 Rev. 2.0	11/15/2023			11/15/2023 13:17	Khloe J Berg	2451412
EPA 300.0 Rev. 2.1	11/15/2023			11/22/2023 04:21	James L Waggeberby	2451412
EPA 350.1 Rev. 2.0	11/15/2023			11/28/2023 13:35	Khloe J Berg	2451413
EPA 351.2 Rev. 2.0	11/15/2023	11/16/2023 10:44	Simonne.V. Calhoun	11/17/2023 13:02	Ping Hua	2451413
EPA 353.2 Rev. 2.0	11/15/2023			11/20/2023 15:07	Anna M. Plaviak	2451413
EPA 365.1 Rev. 2.0	11/15/2023	11/21/2023 12:58	Adam P Silver	11/27/2023 10:47	Chandler E Cox	2451413
EPA 8270E	11/15/2023	11/20/2023 08:30	Rasheda Ghaffari	11/30/2023 23:42	Lipi Saha	2451420
	11/15/2023	11/20/2023 08:30	Rasheda Ghaffari	12/01/2023 20:31	Vandana T. Nagar	2451420
EPA 8276	11/15/2023	11/20/2023 08:30	Rasheda Ghaffari	12/10/2023 11:38	Arthur Maknenko	2451420
EPA 8321B	11/15/2023	11/16/2023 12:00	Tae K Lee	11/16/2023 13:40	Hana Lee	2451421
	11/15/2023	11/16/2023 12:00	Tae K Lee	11/16/2023 14:21	Hana Lee	2451422
	11/15/2023	11/16/2023 12:00	Tae K Lee	11/17/2023 00:33	Hana Lee	2451421
	11/15/2023	11/16/2023 12:00	Tae K Lee	11/17/2023 01:15	Hana Lee	2451422
	11/15/2023	11/20/2023 09:00	Hoor Shaik	11/28/2023 15:35	Juyoung Kim	2451421
	11/15/2023	11/20/2023 09:00	Hoor Shaik	11/28/2023 15:53	Juyoung Kim	2451422
SM 2320 B-2011	11/15/2023			11/18/2023 09:08	Adam P Silver	2451412
SM 2540 C-2015	11/15/2023			11/16/2023 15:42	Yijie Li	2451412
SM 2540 D-2015	11/15/2023			11/16/2023 15:42	Yijie Li	2451412
SM 4500-F- C-2011	11/15/2023			11/18/2023 09:08	Adam P Silver	2451412
SM 5310 B-2011	11/15/2023			11/16/2023 19:28	Khloe J Berg	2451413