

Chemical Analysis Report

NE-DIST-2023-04-07-01

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

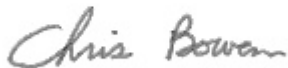
Event Description: **LSJR South West 2023**
Request ID: **RQ-2023-04-10-24**
Customer: **NE-DIST**
Project ID: **SMP**

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

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

Certified by: Chris Bowen, Environmental Administrator

Date Certified: 01-MAY-2023 09:49



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: 04/06/2023 10:20

Field ID: 20030244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2398958	DEP SOP: NU-094-1	Color (true)	140		PCU	P428214	
	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P428210	
	EPA 300.0 Rev. 2.1	Chloride	9.0		mg Cl/L	P428574	
		Sulfate	3.0		mg SO4/L	P428577	
	SM 2320 B-2011	Total Alkalinity	9.9		mg CaCO3/L	P428357	
	SM 2540 C-2015	TDS	65		mg/L	P428708	
	SM 2540 D-2015	TSS	3	I	mg/L	P428570	
2398959	SM 4500-F- C-2011	Fluoride	0.078	I	mg F/L	P428728	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.036		mg N/L	P428453	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P428879	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.057		mg N/L	P428638	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P428340	
2398967	SM 5310 B-2011	Organic Carbon	12		mg C/L	P428294	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P428189	
		Acesulfame K	0.10	U	ug/L	P428127	
		2,4,5-T	0.0040	U	ug/L	P428189	
		AMPA	0.10	U	ug/L	P428127	
		Acetaminophen	0.0080	U	ug/L	P428189	
		Acetamiprid	0.0020	U	ug/L	P428189	
		Endothall	0.25	U	ug/L	P428127	
		Glufosinate	0.10	U	ug/L	P428127	
		Glyphosate	0.10	U	ug/L	P428127	
		Afidopyropen	0.0020	U	ug/L	P428189	
		Bentazon	8.0E-04	U	ug/L	P428189	
		Sucralose	0.44		ug/L	P428127	
		Benzovindiflupyr	0.0020	U	ug/L	P428189	
		Carbamazepine	8.0E-04	U	ug/L	P428189	
		Clothianidin	0.0020	U	ug/L	P428189	
		Dinotefuran	0.0020	U	ug/L	P428189	
		Diuron	0.0020	U	ug/L	P428189	
		Fenuron	0.032	U	ug/L	P428189	
		Fluridone	8.0E-04	U	ug/L	P428189	
		Imazapyr	0.020		ug/L	P428189	
		Hydrocodone	0.0020	U	ug/L	P428189	
		Ibuprofen	0.080	U	ug/L	P428189	
		Imidacloprid	0.0020	U	ug/L	P428189	
		Linuron	0.0040	U	ug/L	P428189	
		Mandestrobin	0.0020	U	ug/L	P428189	
		MCPP	0.0020	U	ug/L	P428189	
		Naproxen	0.0080	U	ug/L	P428189	
		Primidone	0.0040	U	ug/L	P428189	
		Pyraclostrobin	0.0020	U	ug/L	P428189	
		Silvex	0.0040	U	ug/L	P428189	
		Thiamethoxam	0.0020	U	ug/L	P428189	

Field ID: 20030244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2398967	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P428189	
		Triclopyr	0.0040	U	ug/L	P428189	

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

Sample Location: LITTLE BLACK CREEK AT SR 220

Collection Date/Time: 04/06/2023 11:40

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2398966	EPA 8270E	Aldrin	0.67	U	ng/L	P428223	
		Alpha-BHC	0.10	U	ng/L	P428223	
		Alpha-Chlordane	0.21	U	ng/L	P428223	
		PCB-1016	2.1	U	ng/L	P428223	
		Beta-BHC	0.10	U	ng/L	P428223	
		PCB-1221	2.1	U	ng/L	P428223	
		Beta-Cyfluthrin	1.3	U	ng/L	P428223	
		PCB-1232	2.1	U	ng/L	P428223	
		Bifenthrin	0.52	U	ng/L	P428223	
		PCB-1242	2.1	U	ng/L	P428223	
		PCB-1248	2.1	U	ng/L	P428223	
		Chlorothalonil	3.7	U	ng/L	P428223	
		PCB-1254	2.1	U	ng/L	P428223	
		Cis-Nonachlor	0.21	U	ng/L	P428223	
		PCB-1260	2.1	U	ng/L	P428223	
		Cypermethrin	1.6	U	ng/L	P428223	
		Dacthal	0.16	U	ng/L	P428223	
		DDD-p,p'	0.26	U	ng/L	P428223	
		DDE-p,p'	0.21	U	ng/L	P428223	
		DDT-p,p'	0.31	I	ng/L	P428223	
		Delta-BHC	0.41	U	ng/L	P428223	
		Deltamethrin	1.3	U	ng/L	P428223	
		Dichlobenil	0.26	U	ng/L	P428223	
		Dicofol	1.3	U	ng/L	P428223	
		Dieldrin	0.73	I	ng/L	P428223	
		Endosulfan I	0.41	U	ng/L	P428223	
		Endosulfan II	0.41	U	ng/L	P428223	
		Endosulfan Sulfate	0.31	U	ng/L	P428223	
		Endrin	0.41	U	ng/L	P428223	
		Endrin Aldehyde	0.78	U	ng/L	P428223	
		Endrin Ketone	0.41	U	ng/L	P428223	
		Esfenvalerate	0.78	U	ng/L	P428223	
		Ethalfuralin	0.16	U	ng/L	P428223	
		Fenpropathrin	0.26	U	ng/L	P428223	
		Gamma-BHC	0.13	U	ng/L	P428223	
		Gamma-Chlordane	0.21	U	ng/L	P428223	
		Heptachlor	0.21	U	ng/L	P428223	
		Heptachlor Epoxide	0.26	U	ng/L	P428223	
		Hexachlorobenzene**	1.0	U	ng/L	P428223	
		Kepone	5.2	UJ	ng/L	P428223	CCV
		Lambda-Cyhalothrin	0.78	U	ng/L	P428223	
		Methoprene	0.78	U	ng/L	P428223	
		Methoxychlor	0.31	U	ng/L	P428223	
		MGK-264	0.21	U	ng/L	P428223	

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2398966	EPA 8270E	Mirex	0.36	U	ng/L	P428223	
		Oxychlordane	0.31	U	ng/L	P428223	
		Permethrin	1.7	U	ng/L	P428223	
		Phenothrin	0.93	U	ng/L	P428223	
		Piperonyl Butoxide	0.16	U	ng/L	P428223	
		Prallethrin	2.1	U	ng/L	P428223	
		Tau-Fluvalinate	0.26	U	ng/L	P428223	
		Tetramethrin	0.78	U	ng/L	P428223	
		Trans-Nonachlor	0.21	U	ng/L	P428223	
		Triclosan Methyl	0.16	U	ng/L	P428223	
		Trifluralin	0.21	U	ng/L	P428223	
	EPA 8276	Chlordane	2.1	U	ng/L	P428223	
		Toxaphene	16	U	ng/L	P428223	

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: 04/06/2023 12:05

Field ID: G2NE1188

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2398968	EPA 8321B	2,4-D	0.28		ug/L	P428189	
		Acesulfame K	0.11	I	ug/L	P428127	
		2,4,5-T	0.0040	U	ug/L	P428189	
		AMPA	1.9		ug/L	P428127	
		Acetaminophen	0.0080	U	ug/L	P428189	
		Acetamiprid	0.0020	U	ug/L	P428189	
		Endothall	0.25	U	ug/L	P428127	
		Glufosinate	0.10	U	ug/L	P428127	
		Glyphosate	6.6		ug/L	P428127	
		Afidopyropen	0.0020	U	ug/L	P428189	
		Bentazon	0.13		ug/L	P428189	
		Sucralose	5.5		ug/L	P428127	
		Benzovindiflupyr	0.0020	U	ug/L	P428189	
		Carbamazepine	8.7E-04	I	ug/L	P428189	
		Clothianidin	0.0020	U	ug/L	P428189	
		Dinotefuran	0.0020	U	ug/L	P428189	
		Diuron	0.0074	I	ug/L	P428189	
		Fenuron	0.032	U	ug/L	P428189	
		Fluridone	0.0051		ug/L	P428189	
		Imazapyr	0.058		ug/L	P428189	
		Hydrocodone	0.0020	U	ug/L	P428189	
		Ibuprofen	0.080	U	ug/L	P428189	
		Imidacloprid	0.0086		ug/L	P428189	
		Linuron	0.0040	U	ug/L	P428189	
		Mandestrobin	0.0020	U	ug/L	P428189	
		MCPP	0.0020	U	ug/L	P428189	
		Naproxen	0.0080	U	ug/L	P428189	
		Primidone	0.012	I	ug/L	P428189	
		Pyraclostrobin	0.0020	U	ug/L	P428189	
		Silvex	0.0040	U	ug/L	P428189	
		Thiamethoxam	0.0024	I	ug/L	P428189	
		Tolfenpyrad	0.0020	U	ug/L	P428189	
		Triclopyr	0.0040	U	ug/L	P428189	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P428214

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428210

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428574

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428577

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428453

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428879

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P428638

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428340

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

Reference Method: EPA 8270E
Batch ID: P428223

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: P428223

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: P428223

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: P428223

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

Reference Method: EPA 8276
Batch ID: P428223

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: P428127

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: P428189

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: P428189

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

Reference Method: SM 2320 B-2011
Batch ID: P428357

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

Reference Method: SM 2540 C-2015
Batch ID: P428708

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P428570

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P428728

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P428294

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: P428214

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: P428210

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428574

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428577

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428453

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428879

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P428638

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428340

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

Reference Method: EPA 8270E
Batch ID: P428223

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	44.1		P	10 - 92.0
Alpha-BHC	96.4		P	75 - 107
Alpha-Chlordane	66.8		P	50 - 108
Beta-BHC	79.8		P	36 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P428223

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	56.2		P	20 - 161
Bifenthrin	41.9		P	10 - 119
Chlorothalonil	80.6		P	26 - 186
Cis-Nonachlor	63.8		P	42 - 119
Cypermethrin	56.2		P	22 - 150
Dacthal	80.7		P	72 - 119
DDD-p,p'	84.3		P	45 - 107
DDE-p,p'	74.5		P	48 - 106
DDT-p,p'	81.6		P	48 - 110
Delta-BHC	82.1		P	54 - 140
Deltamethrin	71.5		P	22 - 189
Dichlobenil	70.7		P	36 - 117
Dicofol	74.0		P	46 - 155
Dieldrin	74.3		P	54 - 110
Endosulfan I	77.8		P	59 - 105
Endosulfan II	75.7		P	51 - 118
Endosulfan Sulfate	77.8		P	57 - 121
Endrin	78.1		P	10 - 120
Endrin Aldehyde	62.5		P	34 - 118
Endrin Ketone	122		P	69 - 177
Esfenvalerate	52.4		P	23 - 168
Ethalfuralin	78.0		P	49 - 99.0
Fenpropathrin	60.0		P	34 - 117
Gamma-BHC	115		P	72 - 117
Gamma-Chlordane	72.5		P	43 - 106
Heptachlor	63.5		P	41 - 98.0
Heptachlor Epoxide	70.0		P	57 - 106
Hexachlorobenzene	63.8		P	36 - 99.0
Kepone	56.2		P	16 - 215
Lambda-Cyhalothrin	45.3		P	21 - 177
Methoprene	36.7		P	10 - 119
Methoxychlor	96.9		P	60 - 112
MGK-264	60.9		P	26 - 122
Mirex	49.6		P	10 - 169
Oxychlordane	64.3		P	43 - 105
PCB-1016	59.5		P	48 - 112
PCB-1260	74.0		P	44 - 118
Permethrin	50.2		P	24 - 148
Phenothrin	39.9		P	10 - 106
Piperonyl Butoxide	58.1		P	10 - 139
Prallethrin	71.2		P	17 - 109
Tau-Fluvalinate	42.3		P	13 - 131
Tetramethrin	59.8		P	10 - 132
Trans-Nonachlor	65.0		P	44 - 106
Triclosan Methyl	81.8		P	59 - 109
Trifluralin	76.1		P	44 - 101

Reference Method: EPA 8276

Batch ID: P428223

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	63.9		P	61 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P428223

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	70.2		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P428127

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	89.6		P	40 - 150
AMPA	109		P	40 - 150
Endothall	89.8		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	120		P	40 - 150
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P428189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	107		P	40 - 150
2,4,5-T	88.6		P	40 - 150
Acetaminophen	99.2		P	30 - 150
Acetamiprid	83.0		P	40 - 150
Afidopyropen	86.6		P	30 - 150
Bentazon	93.8		P	30 - 150
Benzovindiflupyr	79.3		P	40 - 150
Carbamazepine	81.1		P	40 - 150
Clothianidin	86.0		P	40 - 150
Dinotefuran	92.9		P	40 - 150
Diuron	77.7		P	40 - 150
Fenuron	81.5		P	40 - 150
Fluridone	84.1		P	40 - 150
Hydrocodone	96.2		P	40 - 150
Ibuprofen	68.9		P	40 - 150
Imazapyr	91.3		P	40 - 150
Imidacloprid	82.3		P	40 - 150
Linuron	76.6		P	40 - 150
Mandestrobin	81.8		P	40 - 150
MCPP	95.6		P	40 - 150
Naproxen	78.1		P	40 - 150
Primidone	97.0		P	40 - 150
Pyraclostrobin	75.2		P	40 - 150
Silvex	116		P	40 - 150
Thiamethoxam	92.0		P	40 - 150
Tolfenpyrad	46.9		P	30 - 150
Triclopyr	103		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P428357

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	94.9		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P428708

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

Reference Method: SM 2540 D-2015
Batch ID: P428570

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	96.4		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P428728

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P428294

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398874	Chloride	98.0		P	90 - 110
2399038	Chloride	98.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398874	Sulfate	96.1		P	90 - 110
2399038	Sulfate	96.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398959	Ammonia-N	97.8	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428879

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398897	Kjeldahl Nitrogen	92.8	95.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P428638

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398959	NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428340

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2399366	Total-P	101	99.8	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P428223

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2397780	Aldrin	41.3	43.2	P/P	20 - 82.0
2397780	Alpha-BHC	71.2	80.3	P/P	71 - 109
2397780	Alpha-Chlordane	61.2	58.0	P/P	42 - 106
2397780	Beta-BHC	70.0	80.7	P/P	69 - 180
2397780	Beta-Cyfluthrin	87.2	98.4	P/P	18 - 175
2397780	Bifenthrin	65.9	71.7	P/P	21 - 128
2397780	Chlorothalonil	86.7	96.9	P/P	10 - 300
2397780	Cis-Nonachlor	44.2	46.9	P/P	34 - 106
2397780	Cypermethrin	86.4	93.6	P/P	22 - 158
2397780	Dacthal	71.2	75.8	P/P	54 - 116
2397780	DDD-p,p'	50.8	58.2	P/P	34 - 107
2397780	DDE-p,p'	51.3	57.7	P/P	33 - 110
2397780	DDT-p,p'	63.5	68.3	P/P	50 - 122
2397780	Delta-BHC	77.2	85.5	P/P	77 - 193

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P428223

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2397780	Deltamethrin	109	123	P/P	10 - 195
2397780	Dichlobenil	42.2	45.2	P/P	25 - 113
2397780	Dicofol	63.6	69.9	P/P	38 - 247
2397780	Dieldrin	52.5	59.2	P/P	45 - 118
2397780	Endosulfan I	52.6	57.2	P/P	51 - 106
2397780	Endosulfan II	53.5	58.5	P/P	37 - 122
2397780	Endosulfan Sulfate	55.6	68.2	P/P	43 - 132
2397780	Endrin	53.9	57.4	P/P	29 - 101
2397780	Endrin Aldehyde	41.1	46.8	P/P	19 - 110
2397780	Endrin Ketone	80.9	98.6	P/P	60 - 140
2397780	Esfenvalerate	85.5	97.3	P/P	26 - 199
2397780	Ethalfuralin	58.6	67.4	P/P	45 - 99.0
2397780	Fenpropathrin	71.9	85.3	P/P	35 - 120
2397780	Gamma-BHC	76.3	81.0	P/P	63 - 128
2397780	Gamma-Chlordane	58.7	56.2	P/P	40 - 104
2397780	Heptachlor	51.6	54.3	P/P	36 - 97.0
2397780	Heptachlor Epoxide	59.5	64.0	P/P	49 - 184
2397780	Hexachlorobenzene	50.0	53.3	P/P	39 - 96.0
2397780	Kepone	78.4	84.8	P/P	10 - 217
2397780	Lambda-Cyhalothrin	71.7	72.5	P/P	21 - 193
2397780	Methoprene	53.5	65.5	P/P	20 - 106
2397780	Methoxychlor	79.6	88.3	P/P	53 - 118
2397780	MGK-264	79.2	84.0	P/P	40 - 118
2397780	Mirex	43.1	46.2	P/P	26 - 92.0
2397780	Oxychlordane	48.2	63.9	P/P	44 - 99.0
2397780	Permethrin	76.1	84.3	P/P	33 - 182
2397780	Phenothrin	87.8	89.2	P/P	10 - 129
2397780	Piperonyl Butoxide	71.5	66.4	P/P	10 - 211
2397780	Prallethrin	73.3	82.9	P/P	24 - 113
2397780	Tau-Fluvalinate	83.8	99.6	P/P	14 - 149
2397780	Tetramethrin	90.3	101	P/P	17 - 151
2397780	Trans-Nonachlor	50.4	51.0	P/P	42 - 102
2397780	Triclosan Methyl	57.3	59.2	P/P	48 - 108
2397780	Trifluralin	57.3	63.9	P/P	47 - 96.0
2398276	PCB-1016	65.4	62.2	P/P	46 - 111
2398276	PCB-1260	69.6	68.6	P/P	45 - 114

Reference Method: EPA 8276

Batch ID: P428223

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398276	Chlordane	68.7	71.8	P/P	53 - 126
2398276	Toxaphene	77.2	77.5	P/P	56 - 211

Reference Method: EPA 8321B

Batch ID: P428127

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398314	Acesulfame K	93.7	93.8	P/P	40 - 150
2398314	AMPA	116	114	P/P	40 - 150
2398314	Endothall	98.3	95.1	P/P	40 - 150
2398314	Glufosinate	95.4	99.3	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P428127

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398314	Glyphosate	113	111	P/P	40 - 150
2398314	Sucralose	101	119	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P428189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398266	2,4-D	119	123	P/P	40 - 150
2398266	2,4,5-T	108	109	P/P	40 - 150
2398266	Acetaminophen	110	106	P/P	30 - 150
2398266	Acetamiprid	92.9	93.3	P/P	40 - 150
2398266	Afidopyropen	104	95.1	P/P	30 - 150
2398266	Bentazon	97.5	103	P/P	30 - 150
2398266	Benzovindiflupyr	86.2	84.1	P/P	40 - 150
2398266	Carbamazepine	90.9	98.7	P/P	40 - 150
2398266	Clothianidin	93.2	97.8	P/P	40 - 150
2398266	Dinotefuran	106	116	P/P	40 - 150
2398266	Diuron	70.9	79.9	P/P	40 - 150
2398266	Fenuron	80.7	82.7	P/P	40 - 150
2398266	Fluridone	84.5	83.9	P/P	40 - 150
2398266	Hydrocodone	106	114	P/P	40 - 150
2398266	Ibuprofen	75.3	73.0	P/P	40 - 150
2398266	Imazapyr	108	112	P/P	40 - 150
2398266	Imidacloprid	99.4	104	P/P	40 - 150
2398266	Linuron	79.8	77.3	P/P	40 - 150
2398266	Mandestrobin	90.9	89.8	P/P	40 - 150
2398266	MCPP	108	103	P/P	40 - 150
2398266	Naproxen	116	110	P/P	40 - 150
2398266	Primidone	103	113	P/P	40 - 150
2398266	Pyraclostrobin	81.6	83.8	P/P	40 - 150
2398266	Silvex	115	124	P/P	40 - 150
2398266	Thiamethoxam	91.2	90.4	P/P	40 - 150
2398266	Tolfenpyrad	48.9	51.2	P/P	30 - 150
2398266	Triclopyr	104	99.7	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P428728

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398875	Fluoride	101	101	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P428294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2398896	Organic Carbon	95.0	96.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P428214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398984	Color (true)	2.01	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399038	Turbidity	4.31	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398874	Chloride	1.19	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P428577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398874	Sulfate	0.165	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P428453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398959	Ammonia-N	0.703	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428879

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398897	Kjeldahl Nitrogen	2.54	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P428638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398959	NO2NO3-N	0.781	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428340

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2399366	Total-P	1.32	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P428223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2397780	Aldrin	4.47	Spike	P	0 - 41
2397780	Alpha-BHC	12.0	Spike	P	0 - 25
2397780	Alpha-Chlordane	5.34	Spike	P	0 - 33
2397780	Beta-BHC	14.2	Spike	P	0 - 36
2397780	Beta-Cyfluthrin	12.0	Spike	P	0 - 42
2397780	Bifenthrin	8.42	Spike	P	0 - 53
2397780	Chlorothalonil	11.1	Spike	P	0 - 71
2397780	Cis-Nonachlor	5.94	Spike	P	0 - 29
2397780	Cypermethrin	7.92	Spike	P	0 - 40
2397780	Dacthal	6.35	Spike	P	0 - 26
2397780	DDD-p,p'	13.6	Spike	P	0 - 39
2397780	DDE-p,p'	11.6	Spike	P	0 - 33
2397780	DDT-p,p'	7.20	Spike	P	0 - 40
2397780	Delta-BHC	10.3	Spike	P	0 - 37
2397780	Deltamethrin	12.3	Spike	P	0 - 100
2397780	Dichlobenil	6.87	Spike	P	0 - 40
2397780	Dicofol	9.45	Spike	P	0 - 31
2397780	Dieldrin	12.0	Spike	P	0 - 27
2397780	Endosulfan I	8.33	Spike	P	0 - 23
2397780	Endosulfan II	8.90	Spike	P	0 - 28
2397780	Endosulfan Sulfate	20.5	Spike	P	0 - 38
2397780	Endrin	6.21	Spike	P	0 - 63
2397780	Endrin Aldehyde	13.1	Spike	P	0 - 60
2397780	Endrin Ketone	19.7	Spike	P	0 - 37
2397780	Esfenvalerate	12.9	Spike	P	0 - 52
2397780	Ethalfuralin	13.9	Spike	P	0 - 23
2397780	Fenpropathrin	17.0	Spike	P	0 - 32
2397780	Gamma-BHC	6.00	Spike	P	0 - 17
2397780	Gamma-Chlordane	4.43	Spike	P	0 - 40
2397780	Heptachlor	5.17	Spike	P	0 - 29
2397780	Heptachlor Epoxide	7.34	Spike	P	0 - 25
2397780	Hexachlorobenzene	6.31	Spike	P	0 - 36
2397780	Kepone	7.78	Spike	P	0 - 93
2397780	Lambda-Cyhalothrin	1.07	Spike	P	0 - 55
2397780	Methoprene	20.1	Spike	P	0 - 53
2397780	Methoxychlor	10.3	Spike	P	0 - 29
2397780	MGK-264	5.86	Spike	P	0 - 35
2397780	Mirex	6.85	Spike	P	0 - 46
2397780	Oxychlordane	28.0	Spike	P	0 - 29
2397780	Permethrin	10.2	Spike	P	0 - 44
2397780	Phenothrin	1.58	Spike	P	0 - 56
2397780	Piperonyl Butoxide	7.43	Spike	P	0 - 100
2397780	Prallethrin	12.3	Spike	P	0 - 42
2397780	Tau-Fluvalinate	17.2	Spike	P	0 - 54
2397780	Tetramethrin	11.6	Spike	P	0 - 51
2397780	Trans-Nonachlor	1.18	Spike	P	0 - 37
2397780	Triclosan Methyl	3.22	Spike	P	0 - 31
2397780	Trifluralin	10.9	Spike	P	0 - 30
2398276	PCB-1016	5.03	Spike	P	0 - 32
2398276	PCB-1260	1.39	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P428223

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398276	Chlordane	4.49	Spike	P	0 - 25
2398276	Toxaphene	0.385	Spike	P	0 - 26

Reference Method: EPA 8321B

Batch ID: P428127

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398314	Acesulfame K	0.0610	Spike	P	0 - 30
2398314	AMPA	1.77	Spike	P	0 - 30
2398314	Endothall	3.27	Spike	P	0 - 30
2398314	Glufosinate	4.00	Spike	P	0 - 30
2398314	Glyphosate	1.86	Spike	P	0 - 30
2398314	Sucralose	16.3	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P428189

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398266	2,4-D	3.06	Spike	P	0 - 30
2398266	2,4,5-T	0.103	Spike	P	0 - 30
2398266	Acetaminophen	2.86	Spike	P	0 - 30
2398266	Acetamiprid	0.389	Spike	P	0 - 30
2398266	Afidopyropen	8.59	Spike	P	0 - 30
2398266	Bentazon	4.61	Spike	P	0 - 30
2398266	Benzovindiflupyr	2.44	Spike	P	0 - 30
2398266	Carbamazepine	8.28	Spike	P	0 - 30
2398266	Clothianidin	4.82	Spike	P	0 - 30
2398266	Dinotefuran	8.83	Spike	P	0 - 30
2398266	Diuron	12.0	Spike	P	0 - 30
2398266	Fenuron	2.38	Spike	P	0 - 30
2398266	Fluridone	0.725	Spike	P	0 - 30
2398266	Hydrocodone	6.86	Spike	P	0 - 30
2398266	Ibuprofen	3.12	Spike	P	0 - 30
2398266	Imazapyr	3.99	Spike	P	0 - 30
2398266	Imidacloprid	4.38	Spike	P	0 - 30
2398266	Linuron	3.20	Spike	P	0 - 30
2398266	Mandestrobin	1.26	Spike	P	0 - 30
2398266	MCPP	4.67	Spike	P	0 - 30
2398266	Naproxen	5.99	Spike	P	0 - 30
2398266	Primidone	9.18	Spike	P	0 - 30
2398266	Pyraclostrobin	2.70	Spike	P	0 - 30
2398266	Silvex	7.06	Spike	P	0 - 30
2398266	Thiamethoxam	0.974	Spike	P	0 - 30
2398266	Tolfenpyrad	4.53	Spike	P	0 - 30
2398266	Triclopyr	4.32	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P428357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398875	Total Alkalinity	2.12	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P428708

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398876	TDS	6.33	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P428728

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398875	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P428294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2398896	Organic Carbon	1.70	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2398966
Field Sample ID: 20030667

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	96.6	P	29 - 130
EPA 8270E	Decachlorobiphenyl	102	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	50.5	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	78.0	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	84.4	P	30 - 101
EPA 8276	PCNB	94.4	P	48 - 121

Lab Sample ID: 2398967
Field Sample ID: 20030244

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	67.7	P	30 - 160
EPA 8321B	Diuron-d6	55.0	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	122	P	30 - 160
EPA 8321B	Ibuprofen-d3	70.4	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	99.9	P	30 - 160

Lab Sample ID: 2398968
Field Sample ID: G2NE1188

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	104	P	30 - 160
EPA 8321B	Acetaminophen-d4	107	P	30 - 160
EPA 8321B	Carbamazepine-d10	55.6	P	30 - 160
EPA 8321B	Diuron-d6	48.1	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.9	P	30 - 160
EPA 8321B	Primidone-d5	106	P	30 - 160
EPA 8321B	Sucralose-d6	94.7	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A118453

Included Lab Sample IDs: 2398958

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

Reference Method: DEP SOP: NU-094-1

Run ID: A118455

Included Lab Sample IDs: 2398958

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A118472

Included Lab Sample IDs: 2398967, 2398968

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	88.3	89.0	P/P	60 - 160
Sucralose	101	103	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A118486

Included Lab Sample IDs: 2398959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.5	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A118496

Included Lab Sample IDs: 2398967, 2398968

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.4	88.4	P/P	50 - 150
2,4,5-T	103	101	P/P	50 - 150
Acetaminophen	108	109	P/P	60 - 160
Acetamiprid	94.5	96.7	P/P	50 - 150
Afidopyropen	135	100	P/P	50 - 150
Bentazon	114	115	P/P	50 - 160
Bentazon	124	118	P/P	50 - 160
Benzovindiflupyr	107	101	P/P	50 - 150
Carbamazepine	115	95.5	P/P	60 - 150
Clothianidin	101	99.9	P/P	60 - 150
Dinotefuran	128	123	P/P	50 - 150
Diuron	87.9	97.3	P/P	60 - 160
Fenuron	98.2	97.7	P/P	60 - 150
Fluridone	101	111	P/P	60 - 160
Hydrocodone	134	142	P/P	60 - 150
Ibuprofen	111	98.2	P/P	50 - 160
Imazapyr	106	119	P/P	50 - 150
Imidacloprid	93.4	93.7	P/P	60 - 150
Linuron	95.5	104	P/P	60 - 150
Mandestrobin	96.9	97.3	P/P	50 - 150
MCPP	94.4	88.1	P/P	50 - 150
Naproxen	107	143	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A118496

Included Lab Sample IDs: 2398967, 2398968

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	112	115	P/P	60 - 150
Pyraclostrobin	103	106	P/P	60 - 150
Silvex	87.3	96.2	P/P	50 - 150
Thiamethoxam	113	118	P/P	50 - 150
Tolfenpyrad	95.1	93.2	P/P	60 - 150
Triclopyr	90.4	91.1	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A118497

Included Lab Sample IDs: 2398967, 2398968

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	100	109	P/P	60 - 160
Endothall	100		P	60 - 160
Glufosinate	94.6	84.6	P/P	60 - 160
Glyphosate	108	110	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A118519

Included Lab Sample IDs: 2398958

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.3	94.3	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A118543

Included Lab Sample IDs: 2398966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	102		P	80 - 120
PCB-1260	94.1		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118547

Included Lab Sample IDs: 2398959

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118557

Included Lab Sample IDs: 2398959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.4	97.5	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A118593

Included Lab Sample IDs: 2398966

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A118593
 Included Lab Sample IDs: 2398966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	94.8		P	80 - 120
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	94.4		P	80 - 120
Beta-BHC	87.0		P	80 - 120
Beta-Cyfluthrin	89.9		P	80 - 120
Bifenthrin	86.5		P	80 - 120
Chlorothalonil	86.8		P	80 - 120
Cis-Nonachlor	86.5		P	80 - 120
Cypermethrin	90.2		P	80 - 120
Dacthal	94.0		P	80 - 120
DDD-p,p'	109		P	80 - 120
DDE-p,p'	94.3		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	92.8		P	80 - 120
Deltamethrin	85.3		P	80 - 120
Dichlobenil	90.3		P	80 - 120
Dicofol	91.7		P	80 - 120
Dieldrin	89.5		P	80 - 120
Endosulfan I	93.9		P	80 - 120
Endosulfan II	87.7		P	80 - 120
Endosulfan Sulfate	85.4		P	80 - 120
Endrin	91.8		P	80 - 120
Endrin Aldehyde	84.1		P	80 - 120
Endrin Ketone	104		P	80 - 120
Esfenvalerate	88.0		P	80 - 120
Ethalfuralin	107		P	80 - 120
Fenpropathrin	90.3		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	90.6		P	80 - 120
Heptachlor	88.1		P	80 - 120
Heptachlor Epoxide	93.2		P	80 - 120
Hexachlorobenzene	102		P	80 - 120
Kepone	68.7*		F	80 - 120
Lambda-Cyhalothrin	80.0		P	80 - 120
Methoprene	83.4		P	80 - 120
Methoxychlor	89.1		P	80 - 120
MGK-264	94.0		P	80 - 120
Mirex	82.5		P	80 - 120
Oxychlordane	84.0		P	80 - 120
Permethrin	89.2		P	80 - 120
Phenothrin	95.6		P	80 - 120
Piperonyl Butoxide	83.3		P	80 - 120
Prallethrin	86.1		P	80 - 120
Tau-Fluvalinate	84.2		P	80 - 120
Tetramethrin	87.7		P	80 - 120
Trans-Nonachlor	88.0		P	80 - 120
Triclosan Methyl	97.9		P	80 - 120
Trifluralin	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276
Run ID: A118599
Included Lab Sample IDs: 2398966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.1		P	80 - 120
Toxaphene	91.2		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A118603
Included Lab Sample IDs: 2398958

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	95.6	97.6	P/P	90 - 110
Sulfate	95.3	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A118639
Included Lab Sample IDs: 2398959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	103	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A118673
Included Lab Sample IDs: 2398958

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A118759
Included Lab Sample IDs: 2398959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	95.4	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP MS
DEP SOP: NU-094-1	Color (true)	101			2.01	
EPA 180.1 Rev. 2.0	Turbidity	98.5			4.31	
EPA 300.0 Rev. 2.1	Chloride	98.4	98.0	98.8	1.19	
	Sulfate	96.9	96.1	96.3	0.165	
EPA 350.1 Rev. 2.0	Ammonia-N	94.6	97.8	99.0		0.703
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.0	92.8	95.4		2.54
EPA 353.2 Rev. 2.0	NO2NO3-N	103	99.0	100		0.781
EPA 365.1 Rev. 2.0	Total-P	99.0	101	99.8		1.32
EPA 8270E	Aldrin	44.1	41.3	43.2		4.47
	Alpha-BHC	96.4	71.2	80.3		12.0
	Alpha-Chlordane	66.8	61.2	58.0		5.34
	Beta-BHC	79.8	70.0	80.7		14.2
	Beta-Cyfluthrin	56.2	87.2	98.4		12.0
	Bifenthrin	41.9	65.9	71.7		8.42
	Chlorothalonil	80.6	86.7	96.9		11.1
	Cis-Nonachlor	63.8	44.2	46.9		5.94
	Cypermethrin	56.2	86.4	93.6		7.92
	Dacthal	80.7	71.2	75.8		6.35
	DDD-p,p'	84.3	50.8	58.2		13.6
	DDE-p,p'	74.5	51.3	57.7		11.6
	DDT-p,p'	81.6	63.5	68.3		7.20
	Delta-BHC	82.1	77.2	85.5		10.3
	Deltamethrin	71.5	109	123		12.3
	Dichlobenil	70.7	42.2	45.2		6.87
	Dicofol	74.0	63.6	69.9		9.45
	Dieldrin	74.3	52.5	59.2		12.0
	Endosulfan I	77.8	52.6	57.2		8.33
	Endosulfan II	75.7	53.5	58.5		8.90
	Endosulfan Sulfate	77.8	55.6	68.2		20.5
	Endrin	78.1	53.9	57.4		6.21
	Endrin Aldehyde	62.5	41.1	46.8		13.1
	Endrin Ketone	122	80.9	98.6		19.7
	Esfenvalerate	52.4	85.5	97.3		12.9
	Ethalfuralin	78.0	58.6	67.4		13.9
	Fenpropathrin	60.0	71.9	85.3		17.0
	Gamma-BHC	115	76.3	81.0		6.00
	Gamma-Chlordane	72.5	58.7	56.2		4.43
	Heptachlor	63.5	51.6	54.3		5.17
	Heptachlor Epoxide	70.0	59.5	64.0		7.34
	Hexachlorobenzene	63.8	50.0	53.3		6.31
	Kepone	56.2	78.4	84.8		7.78
	Lambda-Cyhalothrin	45.3	71.7	72.5		1.07
	Methoprene	36.7	53.5	65.5		20.1
	Methoxychlor	96.9	79.6	88.3		10.3
	MGK-264	60.9	79.2	84.0		5.86
	Mirex	49.6	43.1	46.2		6.85
	Oxychlordane	64.3	48.2	63.9		28.0
	PCB-1016	59.5	65.4	62.2		5.03
	PCB-1260	74.0	69.6	68.6		1.39
	Permethrin	50.2	76.1	84.3		10.2
	Phenothrin	39.9	87.8	89.2		1.58
	Piperonyl Butoxide	58.1	71.5	66.4		7.43
	Prallethrin	71.2	73.3	82.9		12.3
	Tau-Fluvalinate	42.3	83.8	99.6		17.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Tetramethrin	59.8	90.3	101			11.6
	Trans-Nonachlor	65.0	50.4	51.0			1.18
	Triclosan Methyl	81.8	57.3	59.2			3.22
	Trifluralin	76.1	57.3	63.9			10.9
EPA 8276	Chlordane	63.9	68.7	71.8			4.49
	Toxaphene	70.2	77.2	77.5			0.385
EPA 8321B	2,4-D	107	119	123			3.06
	2,4,5-T	88.6	108	109			0.103
	Acesulfame K	89.6	93.7	93.8			0.0610
	Acetaminophen	99.2	110	106			2.86
	Acetamiprid	83.0	92.9	93.3			0.389
	Afidopyropen	86.6	104	95.1			8.59
	AMPA	109	116	114			1.77
	Bentazon	93.8	97.5	103			4.61
	Benzovindiflupyr	79.3	86.2	84.1			2.44
	Carbamazepine	81.1	90.9	98.7			8.28
	Clothianidin	86.0	93.2	97.8			4.82
	Dinotefuran	92.9	106	116			8.83
	Diuron	77.7	70.9	79.9			12.0
	Endothall	89.8	98.3	95.1			3.27
	Fenuron	81.5	80.7	82.7			2.38
	Fluridone	84.1	84.5	83.9			0.725
	Glufosinate	105	95.4	99.3			4.00
	Glyphosate	120	113	111			1.86
	Hydrocodone	96.2	106	114			6.86
	Ibuprofen	68.9	75.3	73.0			3.12
	Imazapyr	91.3	108	112			3.99
	Imidacloprid	82.3	99.4	104			4.38
	Linuron	76.6	79.8	77.3			3.20
	Mandestrobin	81.8	90.9	89.8			1.26
	MCPP	95.6	108	103			4.67
	Naproxen	78.1	116	110			5.99
	Primidone	97.0	103	113			9.18
	Pyraclostrobin	75.2	81.6	83.8			2.70
	Silvex	116	115	124			7.06
	Sucralose	102	101	119			16.3
	Thiamethoxam	92.0	91.2	90.4			0.974
	Tolfenpyrad	46.9	48.9	51.2			4.53
	Triclopyr	103	104	99.7			4.32
SM 2320 B-2011	Total Alkalinity	94.9				2.12	
SM 2540 C-2015	TDS	96.8				6.33	
SM 2540 D-2015	TSS	96.4					
SM 4500-F- C-2011	Fluoride	100	101	101			0.0
SM 5310 B-2011	Organic Carbon	99.0	95.0	96.7			1.70

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2398958
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2398958
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2398958
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2398958
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2398959

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2398959
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2398959
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2398959
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2398966
EPA 8270E	PCBs in water matrices by GC/MS/MS	2398966
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2398966
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2398967, 2398968
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2398958
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2398958
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2398958
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2398958
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2398959

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	04/07/2023			04/07/2023 14:11	Alexis Price	2398958
EPA 180.1 Rev. 2.0	04/07/2023			04/07/2023 13:20	Chandler E Cox	2398958
EPA 300.0 Rev. 2.1	04/07/2023			04/14/2023 16:45	Anna M. Plaviak	2398958
EPA 350.1 Rev. 2.0	04/07/2023			04/13/2023 12:15	Khloe J Berg	2398959
EPA 351.2 Rev. 2.0	04/07/2023	04/24/2023 10:23	Dana G. Hughes	04/25/2023 13:02	Samantha L Bates	2398959
EPA 353.2 Rev. 2.0	04/07/2023			04/18/2023 11:11	Anna M. Plaviak	2398959
EPA 365.1 Rev. 2.0	04/07/2023	04/12/2023 12:30	Simonne.V. Calhoun	04/13/2023 09:10	James L Waggeberby	2398959
EPA 8270E	04/07/2023	04/10/2023 08:30	Rasheda Ghaffari	04/13/2023 00:45	Julie Wi	2398966
	04/07/2023	04/10/2023 08:30	Rasheda Ghaffari	04/13/2023 20:19	Michael Poppell	2398966
EPA 8276	04/07/2023	04/10/2023 08:30	Rasheda Ghaffari	04/13/2023 07:42	Lipi Saha	2398966
EPA 8321B	04/07/2023	04/07/2023 15:00	Touraj Touran	04/08/2023 16:49	Manjita Shrestha	2398967
	04/07/2023	04/07/2023 15:00	Touraj Touran	04/08/2023 17:03	Manjita Shrestha	2398968
	04/07/2023	04/07/2023 15:00	Touraj Touran	04/09/2023 17:33	Manjita Shrestha	2398967
	04/07/2023	04/07/2023 15:00	Touraj Touran	04/09/2023 17:47	Manjita Shrestha	2398968
	04/07/2023	04/10/2023 09:00	Hoor Shaik	04/11/2023 02:01	Juyoung Kim	2398967
	04/07/2023	04/10/2023 09:00	Hoor Shaik	04/11/2023 02:20	Juyoung Kim	2398968
	04/07/2023	04/10/2023 09:00	Hoor Shaik	04/11/2023 11:06	Juyoung Kim	2398968
SM 2320 B-2011	04/07/2023			04/12/2023 06:37	Dale L. Simmons	2398958
SM 2540 C-2015	04/07/2023			04/10/2023 16:07	Yijie Li	2398958
SM 2540 D-2015	04/07/2023			04/10/2023 16:07	Yijie Li	2398958
SM 4500-F- C-2011	04/07/2023			04/19/2023 19:10	Dale L. Simmons	2398958
SM 5310 B-2011	04/07/2023			04/11/2023 03:36	Elise M. Gillis	2398959