

Chemical Analysis Report

NE-DIST-2023-06-08-01

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

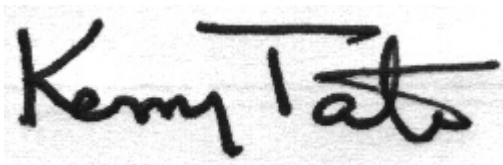
Event Description: **LSJR South West 2023**
Request ID: **RQ-2023-06-12-11**
Customer: **NE-DIST**
Project ID: **SMP**

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: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 26-JUN-2023 11:34

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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: 06/07/2023 10:15

Field ID: 20030244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2416088	DEP SOP: NU-094-1	Color (true)	140		PCU	P431021	
	EPA 180.1 Rev. 2.0	Turbidity	2.1	A	NTU	P431025	
	EPA 300.0 Rev. 2.1	Chloride	9.1		mg Cl/L	P431228	
		Sulfate	3.4		mg SO4/L	P431230	
	SM 2320 B-2011	Total Alkalinity	8.7		mg CaCO3/L	P431205	
	SM 2540 C-2015	TDS	52		mg/L	P431272	
	SM 2540 D-2015	TSS	2	U	mg/L	P431161	
2416089	SM 4500-F- C-2011	Fluoride	0.079	I	mg F/L	P431630	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P431158	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P431265	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P431367	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P431123	
2416097	SM 5310 B-2011	Organic Carbon	13		mg C/L	P431165	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P431068	
		Acesulfame K	0.10	U	ug/L	P431014	
		2,4,5-T	0.0040	U	ug/L	P431068	
		AMPA	0.10	U	ug/L	P431014	
		Acetaminophen	0.0080	U	ug/L	P431068	
		Acetamiprid	0.0020	U	ug/L	P431068	
		Endothall	0.25	U	ug/L	P431014	
		Glufosinate	0.10	U	ug/L	P431014	
		Glyphosate	0.10	U	ug/L	P431014	
		Afidopyropen	0.0020	U	ug/L	P431068	
		Bentazon	8.0E-04	U	ug/L	P431068	
		Sucralose	0.21		ug/L	P431014	
		Benzovindiflupyr	0.0020	U	ug/L	P431068	
		Carbamazepine	8.0E-04	U	ug/L	P431068	
		Clothianidin	0.0020	U	ug/L	P431068	
		Dinotefuran	0.0020	U	ug/L	P431068	
		Diuron	0.0020	U	ug/L	P431068	
		Fenuron	0.032	U	ug/L	P431068	
		Fluridone	8.0E-04	U	ug/L	P431068	
		Imazapyr	0.014	I	ug/L	P431068	
		Hydrocodone	0.0020	U	ug/L	P431068	
		Ibuprofen	0.080	U	ug/L	P431068	
		Imidacloprid	0.0020	U	ug/L	P431068	
		Linuron	0.0040	U	ug/L	P431068	
		Mandestrobin	0.0020	U	ug/L	P431068	
		MCPP	0.0020	U	ug/L	P431068	
		Naproxen	0.0080	U	ug/L	P431068	
		Primidone	0.0040	U	ug/L	P431068	
		Pyraclostrobin	0.0020	U	ug/L	P431068	
		Silvex	0.0040	U	ug/L	P431068	
		Thiamethoxam	0.0020	U	ug/L	P431068	

Field ID: 20030244

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2416097	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P431068	
		Triclopyr	0.0040	U	ug/L	P431068	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: LITTLE BLACK CREEK AT SR 220

Collection Date/Time: 06/07/2023 11:20

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2416096	EPA 8270E	Aldrin	0.68	U	ng/L	P431101	LCS, MS
		Alpha-BHC	0.11	UJ	ng/L	P431101	
		Alpha-Chlordane	0.21	U	ng/L	P431101	
		PCB-1016	2.1	U	ng/L	P431101	
		Beta-BHC	1.2		ng/L	P431101	
		PCB-1221	2.1	U	ng/L	P431101	
		Beta-Cyfluthrin	1.3	U	ng/L	P431101	
		PCB-1232	2.1	U	ng/L	P431101	
		Bifenthrin	0.53	U	ng/L	P431101	
		PCB-1242	2.1	U	ng/L	P431101	
		PCB-1248	2.1	U	ng/L	P431101	
		Chlorothalonil	3.8	U	ng/L	P431101	
		PCB-1254	2.1	U	ng/L	P431101	
		Cis-Nonachlor	0.21	U	ng/L	P431101	
		PCB-1260	2.1	U	ng/L	P431101	LCS
		Cypermethrin	1.6	U	ng/L	P431101	
		Dacthal	0.16	UJ	ng/L	P431101	
		DDD-p,p'	0.26	U	ng/L	P431101	
		DDE-p,p'	0.21	U	ng/L	P431101	
		DDT-p,p'	0.98	IV	ng/L	P431101	
		Delta-BHC	0.42	U	ng/L	P431101	
		Deltamethrin	1.3	U	ng/L	P431101	
		Dichlobenil	0.26	U	ng/L	P431101	
		Dicofol	1.3	U	ng/L	P431101	
		Dieldrin	0.60	I	ng/L	P431101	
		Endosulfan I	0.42	U	ng/L	P431101	CCV
		Endosulfan II	0.42	U	ng/L	P431101	
		Endosulfan Sulfate	0.32	U	ng/L	P431101	
		Endrin	0.42	U	ng/L	P431101	
		Endrin Aldehyde	0.79	U	ng/L	P431101	
		Endrin Ketone	0.42	U	ng/L	P431101	
		Esfenvalerate	0.79	U	ng/L	P431101	
		Ethalfuralin	0.16	U	ng/L	P431101	
		Fenpropathrin	0.26	U	ng/L	P431101	
		Gamma-BHC	0.13	UJ	ng/L	P431101	
		Gamma-Chlordane	0.21	U	ng/L	P431101	
		Heptachlor	0.21	U	ng/L	P431101	
		Heptachlor Epoxide	0.26	U	ng/L	P431101	
		Hexachlorobenzene**	1.1	U	ng/L	P431101	
		Kepone	5.3	UJ	ng/L	P431101	
		Lambda-Cyhalothrin	0.79	U	ng/L	P431101	
		Methoprene	0.79	U	ng/L	P431101	
		Methoxychlor	0.32	U	ng/L	P431101	
		MGK-264	0.21	U	ng/L	P431101	

Field ID: 20030667

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2416096	EPA 8270E	Mirex	0.37	U	ng/L	P431101	
		Oxychlordane	0.32	U	ng/L	P431101	
		Permethrin	1.7	U	ng/L	P431101	
		Phenothrin	0.95	U	ng/L	P431101	
		Piperonyl Butoxide	0.16	U	ng/L	P431101	
		Prallethrin	2.1	U	ng/L	P431101	
		Tau-Fluvalinate	0.26	U	ng/L	P431101	
		Tetramethrin	0.79	U	ng/L	P431101	
		Trans-Nonachlor	0.21	U	ng/L	P431101	
		Triclosan Methyl	0.16	U	ng/L	P431101	
		Trifluralin	0.21	U	ng/L	P431101	
	EPA 8276	Chlordane	2.1	U	ng/L	P431101	
		Toxaphene	71	J	ng/L	P431101	MS

Ref. Method and Comment:

EPA 8270E: V - Due to the presence of ddt-p,p' in both the Method Blank and the sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

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

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

Collection Date/Time: 06/07/2023 11:40

Field ID: G2NE1188

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2416098	EPA 8321B	2,4-D	0.034		ug/L	P431068	
		Acesulfame K	0.11	I	ug/L	P431014	
		2,4,5-T	0.0040	U	ug/L	P431068	
		AMPA	0.94		ug/L	P431014	
		Acetaminophen	0.0080	U	ug/L	P431068	
		Acetamiprid	0.0020	U	ug/L	P431068	
		Endothall	0.25	U	ug/L	P431014	
		Glufosinate	0.10	U	ug/L	P431014	
		Glyphosate	0.58		ug/L	P431014	
		Afidopyropen	0.0020	U	ug/L	P431068	
		Bentazon	0.30		ug/L	P431068	
		Sucralose	6.8		ug/L	P431014	
		Benzovindiflupyr	0.0020	U	ug/L	P431068	
		Carbamazepine	0.0025	I	ug/L	P431068	
		Clothianidin	0.14		ug/L	P431068	
		Dinotefuran	0.0020	U	ug/L	P431068	
		Diuron	0.027		ug/L	P431068	
		Fenuron	0.032	U	ug/L	P431068	
		Fluridone	0.0056		ug/L	P431068	
		Imazapyr	0.031		ug/L	P431068	
		Hydrocodone	0.0020	U	ug/L	P431068	
		Ibuprofen	0.080	U	ug/L	P431068	
		Imidacloprid	0.060		ug/L	P431068	
		Linuron	0.0040	U	ug/L	P431068	
		Mandestrobin	0.0020	U	ug/L	P431068	
		MCPP	0.0030	I	ug/L	P431068	
		Naproxen	0.0080	U	ug/L	P431068	
		Primidone	0.012	I	ug/L	P431068	
		Pyraclostrobin	0.0020	U	ug/L	P431068	
		Silvex	0.0040	U	ug/L	P431068	
		Thiamethoxam	0.0029	I	ug/L	P431068	
		Tolfenpyrad	0.0020	U	ug/L	P431068	
		Triclopyr	0.0040	U	ug/L	P431068	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P431021

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431025

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431228

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431230

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431158

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431265

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431367

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431123

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

Reference Method: EPA 8270E
Batch ID: P431101

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: P431101

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'	0.68	I	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: P431101

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: P431101

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

Reference Method: EPA 8276
Batch ID: P431101

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: P431014

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: P431068

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: P431068

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

Reference Method: SM 2320 B-2011
Batch ID: P431205

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

Reference Method: SM 2540 C-2015
Batch ID: P431272

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P431161

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P431630

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P431165

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: P431021

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: P431025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431228

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431230

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431158

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431265

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431367

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431123

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

Reference Method: EPA 8270E
Batch ID: P431101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	33.8		P	10 - 92.0
Alpha-BHC	64.9		F	75 - 107
Alpha-Chlordane	51.0		P	50 - 108
Beta-BHC	76.6		P	36 - 138

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P431101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	43.4		P	20 - 161
Bifenthrin	36.2		P	10 - 119
Chlorothalonil	79.4		P	26 - 186
Cis-Nonachlor	45.4		P	42 - 119
Cypermethrin	62.2		P	22 - 150
Dacthal	62.2		F	72 - 119
DDD-p,p'	46.6		P	45 - 107
DDE-p,p'	53.0		P	48 - 106
DDT-p,p'	71.6		P	48 - 110
Delta-BHC	83.2		P	54 - 140
Deltamethrin	59.2		P	22 - 189
Dichlobenil	57.7		P	36 - 117
Dicofol	55.5		P	46 - 155
Dieldrin	58.7		P	54 - 110
Endosulfan I	62.0		P	59 - 105
Endosulfan II	56.8		P	51 - 118
Endosulfan Sulfate	59.7		P	57 - 121
Endrin	54.0		P	10 - 120
Endrin Aldehyde	51.7		P	34 - 118
Endrin Ketone	105		P	69 - 177
Esfenvalerate	59.0		P	23 - 168
Ethalfuralin	49.9		P	49 - 99.0
Fenpropathrin	52.7		P	34 - 117
Gamma-BHC	55.6		F	72 - 117
Gamma-Chlordane	51.6		P	43 - 106
Heptachlor	51.6		P	41 - 98.0
Heptachlor Epoxide	60.3		P	57 - 106
Hexachlorobenzene	50.0		P	36 - 99.0
Kepone	80.8		P	16 - 215
Lambda-Cyhalothrin	45.0		P	21 - 177
Methoprene	31.9		P	10 - 119
Methoxychlor	61.8		P	60 - 112
MGK-264	58.7		P	26 - 122
Mirex	34.4		P	10 - 169
Oxychlordane	59.0		P	43 - 105
PCB-1016	51.8		P	48 - 112
PCB-1260	50.1		P	44 - 118
Permethrin	56.8		P	24 - 148
Phenothrin	32.9		P	10 - 106
Piperonyl Butoxide	69.0		P	10 - 139
Prallethrin	47.1		P	17 - 109
Tau-Fluvalinate	41.4		P	13 - 131
Tetramethrin	70.5		P	10 - 132
Trans-Nonachlor	48.5		P	44 - 106
Triclosan Methyl	59.1		P	59 - 109
Trifluralin	49.3		P	44 - 101

Reference Method: EPA 8276

Batch ID: P431101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	70.8		P	61 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P431101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	83.2		P	48 - 124

Reference Method: EPA 8321B
Batch ID: P431014

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	122		P	40 - 150
AMPA	124		P	40 - 150
Endothall	108		P	40 - 150
Glufosinate	105		P	40 - 150
Glyphosate	98.5		P	40 - 150
Sucralose	97.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P431068

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	104		P	40 - 150
2,4,5-T	77.2		P	40 - 150
Acetaminophen	67.4		P	30 - 150
Acetamiprid	72.2		P	40 - 150
Afidopyropen	69.1		P	30 - 150
Bentazon	115		P	30 - 150
Benzovindiflupyr	89.8		P	40 - 150
Carbamazepine	71.4		P	40 - 150
Clothianidin	92.6		P	40 - 150
Dinotefuran	87.0		P	40 - 150
Diuron	85.4		P	40 - 150
Fenuron	82.1		P	40 - 150
Fluridone	89.3		P	40 - 150
Hydrocodone	96.7		P	40 - 150
Ibuprofen	79.5		P	40 - 150
Imazapyr	92.5		P	40 - 150
Imidacloprid	84.6		P	40 - 150
Linuron	59.8		P	40 - 150
Mandestrobin	88.1		P	40 - 150
MCPP	101		P	40 - 150
Naproxen	78.7		P	40 - 150
Primidone	79.8		P	40 - 150
Pyraclostrobin	81.4		P	40 - 150
Silvex	103		P	40 - 150
Thiamethoxam	87.7		P	40 - 150
Tolfenpyrad	50.1		P	30 - 150
Triclopyr	88.2		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P431205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	92 - 105

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P431272

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.3		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P431161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	92.2		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P431630

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P431165

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431228

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416069	Chloride	96.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431230

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416069	Sulfate	95.9		P	90 - 110
2416243	Sulfate	96.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416070	Ammonia-N	94.2	95.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416070	Kjeldahl Nitrogen	102	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431367

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416089	NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416145	Total-P	103	103	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P431101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416028	Aldrin	39.7	38.4	P/P	20 - 82.0
2416028	Alpha-BHC	68.8	66.6	F/F	71 - 109
2416028	Alpha-Chlordane	45.2	42.7	P/P	42 - 106
2416028	Beta-BHC	89.1	75.9	P/P	69 - 180
2416028	Beta-Cyfluthrin	51.9	52.8	P/P	18 - 175
2416028	Bifenthrin	56.2	62.4	P/P	21 - 128
2416028	Chlorothalonil	87.0	95.6	P/P	10 - 300
2416028	Cis-Nonachlor	50.6	49.5	P/P	34 - 106
2416028	Cypermethrin	77.6	81.3	P/P	22 - 158
2416028	Dacthal	57.7	58.3	P/P	54 - 116
2416028	DDD-p,p'	37.3	38.5	P/P	34 - 107
2416028	DDE-p,p'	43.4	46.0	P/P	33 - 110
2416028	DDT-p,p'	59.5	67.6	P/P	50 - 122
2416028	Delta-BHC	98.2	100	P/P	77 - 193
2416028	Deltamethrin	73.0	26.9	P/P	10 - 195

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P431101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416028	Dichlobenil	35.3	37.1	P/P	25 - 113
2416028	Dicofol	41.7	44.7	P/P	38 - 247
2416028	Dieldrin	68.9	69.5	P/P	45 - 118
2416028	Endosulfan I	67.2	65.9	P/P	51 - 106
2416028	Endosulfan II	58.0	61.5	P/P	37 - 122
2416028	Endosulfan Sulfate	52.0	61.5	P/P	43 - 132
2416028	Endrin	52.7	55.3	P/P	29 - 101
2416028	Endrin Aldehyde	50.6	58.4	P/P	19 - 110
2416028	Endrin Ketone	84.1	86.8	P/P	60 - 140
2416028	Esfenvalerate	83.4	88.0	P/P	26 - 199
2416028	Ethalfuralin	51.9	51.2	P/P	45 - 99.0
2416028	Fenpropathrin	55.9	63.1	P/P	35 - 120
2416028	Gamma-BHC	110	110	P/P	63 - 128
2416028	Gamma-Chlordane	47.5	49.2	P/P	40 - 104
2416028	Heptachlor	69.7	67.7	P/P	36 - 97.0
2416028	Heptachlor Epoxide	71.0	67.4	P/P	49 - 184
2416028	Hexachlorobenzene	50.2	49.0	P/P	39 - 96.0
2416028	Kepone	97.3	117	P/P	10 - 217
2416028	Lambda-Cyhalothrin	68.3	73.8	P/P	21 - 193
2416028	Methoprene	40.9	50.3	P/P	20 - 106
2416028	Methoxychlor	54.9	60.0	P/P	53 - 118
2416028	MGK-264	54.5	57.1	P/P	40 - 118
2416028	Mirex	32.2	31.9	P/P	26 - 92.0
2416028	Oxychlordane	55.8	57.3	P/P	44 - 99.0
2416028	Permethrin	71.6	71.7	P/P	33 - 182
2416028	Phenothrin	50.3	51.6	P/P	10 - 129
2416028	Piperonyl Butoxide	79.9	84.3	P/P	10 - 211
2416028	Prallethrin	45.8	45.6	P/P	24 - 113
2416028	Tau-Fluvalinate	64.5	64.3	P/P	14 - 149
2416028	Tetramethrin	67.0	73.9	P/P	17 - 151
2416028	Trans-Nonachlor	42.1	43.4	P/P	42 - 102
2416028	Triclosan Methyl	61.3	60.0	P/P	48 - 108
2416028	Trifluralin	52.9	53.0	P/P	47 - 96.0
2416096	PCB-1016	52.9	49.4	P/P	46 - 111
2416096	PCB-1260	49.7	51.3	P/P	45 - 114

Reference Method: EPA 8276

Batch ID: P431101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416096	Chlordane	60.1	62.1	P/P	53 - 126
2416096	Toxaphene	49.1	54.2	F/F	56 - 211

Reference Method: EPA 8321B

Batch ID: P431014

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415133	Acesulfame K	119	116	P/P	40 - 150
2415133	AMPA	73.6	78.6	P/P	40 - 150
2415133	Endothall	110	116	P/P	40 - 150
2415133	Glufosinate	88.2	96.2	P/P	40 - 150
2415133	Glyphosate	96.6	100	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P431014

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415133	Sucralose	90.1	84.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P431068

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2415085	2,4-D	96.1	87.7	P/P	40 - 150
2415085	2,4,5-T	93.8	97.3	P/P	40 - 150
2415085	Acetaminophen	72.3	71.8	P/P	30 - 150
2415085	Acetamiprid	60.4	54.6	P/P	40 - 150
2415085	Afidopyropen	66.6	69.9	P/P	30 - 150
2415085	Bentazon	53.5	54.2	P/P	30 - 150
2415085	Benzovindiflupyr	71.1	74.0	P/P	40 - 150
2415085	Carbamazepine	68.3	63.6	P/P	40 - 150
2415085	Clothianidin	77.1	75.1	P/P	40 - 150
2415085	Dinotefuran	66.7	66.4	P/P	40 - 150
2415085	Diuron	72.1	70.2	P/P	40 - 150
2415085	Fenuron	57.2	64.4	P/P	40 - 150
2415085	Fluridone	88.5	76.0	P/P	40 - 150
2415085	Hydrocodone	63.7	60.1	P/P	40 - 150
2415085	Ibuprofen	75.9	82.0	P/P	40 - 150
2415085	Imazapyr	77.2	67.0	P/P	40 - 150
2415085	Imidacloprid	115	115	P/P	40 - 150
2415085	Linuron	61.7	73.6	P/P	40 - 150
2415085	Mandestrobin	89.2	79.7	P/P	40 - 150
2415085	MCPP	103	101	P/P	40 - 150
2415085	Naproxen	76.3	75.4	P/P	40 - 150
2415085	Primidone	68.2	71.5	P/P	40 - 150
2415085	Pyraclostrobin	86.1	77.5	P/P	40 - 150
2415085	Silvex	93.9	88.5	P/P	40 - 150
2415085	Thiamethoxam	82.5	82.1	P/P	40 - 150
2415085	Tolfenpyrad	56.1	52.9	P/P	30 - 150
2415085	Triclopyr	95.8	102	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P431630

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416069	Fluoride	102	102	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P431165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2416263	Organic Carbon	93.2	94.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P431021

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416013	Color (true)	6.64	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P431025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416088	Turbidity	10.7	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431228

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416069	Chloride	1.01	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P431230

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416069	Sulfate	0.937	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P431158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416070	Ammonia-N	1.53	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P431265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416070	Kjeldahl Nitrogen	2.50	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P431367

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416089	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P431123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416145	Total-P	0.267	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P431101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416028	Aldrin	3.25	Spike	P	0 - 41
2416028	Alpha-BHC	3.12	Spike	P	0 - 25
2416028	Alpha-Chlordane	5.77	Spike	P	0 - 33
2416028	Beta-BHC	14.8	Spike	P	0 - 36
2416028	Beta-Cyfluthrin	1.66	Spike	P	0 - 42
2416028	Bifenthrin	10.5	Spike	P	0 - 53
2416028	Chlorothalonil	9.47	Spike	P	0 - 71
2416028	Cis-Nonachlor	2.30	Spike	P	0 - 29
2416028	Cypermethrin	4.62	Spike	P	0 - 40
2416028	Dacthal	1.01	Spike	P	0 - 26
2416028	DDD-p,p'	3.13	Spike	P	0 - 39
2416028	DDE-p,p'	5.88	Spike	P	0 - 33
2416028	DDT-p,p'	11.6	Spike	P	0 - 40
2416028	Delta-BHC	2.10	Spike	P	0 - 37
2416028	Deltamethrin	92.4	Spike	P	0 - 100
2416028	Dichlobenil	5.12	Spike	P	0 - 40
2416028	Dicofol	6.79	Spike	P	0 - 31
2416028	Dieldrin	0.814	Spike	P	0 - 27
2416028	Endosulfan I	1.89	Spike	P	0 - 23
2416028	Endosulfan II	5.99	Spike	P	0 - 28
2416028	Endosulfan Sulfate	16.7	Spike	P	0 - 38
2416028	Endrin	4.80	Spike	P	0 - 63
2416028	Endrin Aldehyde	14.4	Spike	P	0 - 60
2416028	Endrin Ketone	3.18	Spike	P	0 - 37
2416028	Esfenvalerate	5.38	Spike	P	0 - 52
2416028	Ethalfuralin	1.34	Spike	P	0 - 23
2416028	Fenpropathrin	12.0	Spike	P	0 - 32
2416028	Gamma-BHC	0.719	Spike	P	0 - 17
2416028	Gamma-Chlordane	3.54	Spike	P	0 - 40
2416028	Heptachlor	2.86	Spike	P	0 - 29
2416028	Heptachlor Epoxide	5.25	Spike	P	0 - 25
2416028	Hexachlorobenzene	2.52	Spike	P	0 - 36
2416028	Kepone	18.8	Spike	P	0 - 93
2416028	Lambda-Cyhalothrin	7.73	Spike	P	0 - 55
2416028	Methoprene	20.6	Spike	P	0 - 53
2416028	Methoxychlor	8.92	Spike	P	0 - 29
2416028	MGK-264	4.57	Spike	P	0 - 35
2416028	Mirex	0.702	Spike	P	0 - 46
2416028	Oxychlordane	2.68	Spike	P	0 - 29
2416028	Permethrin	0.160	Spike	P	0 - 44
2416028	Phenothrin	2.48	Spike	P	0 - 56
2416028	Piperonyl Butoxide	5.31	Spike	P	0 - 100
2416028	Prallethrin	0.367	Spike	P	0 - 42
2416028	Tau-Fluvalinate	0.357	Spike	P	0 - 54
2416028	Tetramethrin	9.75	Spike	P	0 - 51
2416028	Trans-Nonachlor	2.97	Spike	P	0 - 37
2416028	Triclosan Methyl	2.21	Spike	P	0 - 31
2416028	Trifluralin	0.134	Spike	P	0 - 30
2416096	PCB-1016	6.69	Spike	P	0 - 32
2416096	PCB-1260	3.00	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P431101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416096	Chlordane	3.24	Spike	P	0 - 25
2416096	Toxaphene	6.79	Spike	P	0 - 26

Reference Method: EPA 8321B
Batch ID: P431014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415133	Acesulfame K	2.58	Spike	P	0 - 30
2415133	AMPA	6.61	Spike	P	0 - 30
2415133	Endothall	5.38	Spike	P	0 - 30
2415133	Glufosinate	8.75	Spike	P	0 - 30
2415133	Glyphosate	3.88	Spike	P	0 - 30
2415133	Sucralose	5.65	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P431068

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415085	2,4-D	8.33	Spike	P	0 - 30
2415085	2,4,5-T	3.57	Spike	P	0 - 30
2415085	Acetaminophen	0.692	Spike	P	0 - 30
2415085	Acetamiprid	10.1	Spike	P	0 - 30
2415085	Afidopyropen	4.76	Spike	P	0 - 30
2415085	Bentazon	1.19	Spike	P	0 - 30
2415085	Benzovindiflupyr	4.07	Spike	P	0 - 30
2415085	Carbamazepine	5.89	Spike	P	0 - 30
2415085	Clothianidin	2.52	Spike	P	0 - 30
2415085	Dinotefuran	0.411	Spike	P	0 - 30
2415085	Diuron	2.72	Spike	P	0 - 30
2415085	Fenuron	12.0	Spike	P	0 - 30
2415085	Fluridone	7.31	Spike	P	0 - 30
2415085	Hydrocodone	5.91	Spike	P	0 - 30
2415085	Ibuprofen	7.73	Spike	P	0 - 30
2415085	Imazapyr	11.6	Spike	P	0 - 30
2415085	Imidacloprid	0.271	Spike	P	0 - 30
2415085	Linuron	17.7	Spike	P	0 - 30
2415085	Mandestrobin	11.2	Spike	P	0 - 30
2415085	MCPP	2.18	Spike	P	0 - 30
2415085	Naproxen	1.29	Spike	P	0 - 30
2415085	Primidone	4.79	Spike	P	0 - 30
2415085	Pyraclostrobin	10.5	Spike	P	0 - 30
2415085	Silvex	5.89	Spike	P	0 - 30
2415085	Thiamethoxam	0.547	Spike	P	0 - 30
2415085	Tolfenpyrad	5.96	Spike	P	0 - 30
2415085	Triclopyr	5.82	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P431205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416411	Total Alkalinity	0.292	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P431272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2415975	TDS	1.69	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P431630

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416069	Fluoride	0.520	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P431165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2416263	Organic Carbon	1.24	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2416096
Field Sample ID: 20030667

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	94.2	P	29 - 130
EPA 8270E	Decachlorobiphenyl	67.3	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	59.8	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	50.2	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	78.8	P	30 - 101
EPA 8276	PCNB	106	P	48 - 121

Lab Sample ID: 2416097
Field Sample ID: 20030244

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	70.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	63.5	P	30 - 160
EPA 8321B	Diuron-d6	66.8	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.4	P	30 - 160
EPA 8321B	Primidone-d5	81.7	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Lab Sample ID: 2416098
Field Sample ID: G2NE1188

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	63.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.2	P	30 - 160
EPA 8321B	Diuron-d6	59.7	P	30 - 160
EPA 8321B	Endothall-d6	109	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.1	P	30 - 160
EPA 8321B	Primidone-d5	74.5	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A119671

Included Lab Sample IDs: 2416088

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.4	98.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119672

Included Lab Sample IDs: 2416088

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.0	97.0	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A119721

Included Lab Sample IDs: 2416097, 2416098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	140	152	P/P	60 - 160
Sucralose	79.6	95.5	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A119722

Included Lab Sample IDs: 2416097, 2416098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	107	107	P/P	60 - 160
Endothall	104	107	P/P	60 - 160
Glufosinate	93.7	97.4	P/P	60 - 160
Glyphosate	106	111	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119733

Included Lab Sample IDs: 2416089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.0	97.1	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A119749

Included Lab Sample IDs: 2416089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119763

Included Lab Sample IDs: 2416089

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A119765

Included Lab Sample IDs: 2416088

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.7	94.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119778

Included Lab Sample IDs: 2416088

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.5	99.6	P/P	90 - 110
Sulfate	98.4	99.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119838

Included Lab Sample IDs: 2416089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A119842

Included Lab Sample IDs: 2416096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.7		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	107		P	80 - 120
Beta-BHC	102		P	80 - 120
Beta-Cyfluthrin	95.8		P	80 - 120
Bifenthrin	96.0		P	80 - 120
Chlorothalonil	88.7		P	80 - 120
Cis-Nonachlor	102		P	80 - 120
Cypermethrin	101		P	80 - 120
Dacthal	102		P	80 - 120
DDD-p,p'	108		P	80 - 120
DDE-p,p'	105		P	80 - 120
DDT-p,p'	111		P	80 - 120
Delta-BHC	97.3		P	80 - 120
Deltamethrin	101		P	80 - 120
Dichlobenil	102		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	94.6		P	80 - 120
Endosulfan I	95.7		P	80 - 120
Endosulfan II	108		P	80 - 120
Endosulfan Sulfate	112		P	80 - 120
Endrin	109		P	80 - 120
Endrin Aldehyde	91.1		P	80 - 120
Endrin Ketone	115		P	80 - 120
Esfenvalerate	99.5		P	80 - 120
Ethalfuralin	99.7		P	80 - 120
Fenpropathrin	97.7		P	80 - 120
Gamma-BHC	80.8		P	80 - 120
Gamma-Chlordane	111		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119842
Included Lab Sample IDs: 2416096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Heptachlor	92.5		P	80 - 120
Heptachlor Epoxide	93.0		P	80 - 120
Hexachlorobenzene	91.3		P	80 - 120
Kepone	70.2*		F	80 - 120
Lambda-Cyhalothrin	100		P	80 - 120
Methoprene	107		P	80 - 120
Methoxychlor	102		P	80 - 120
MGK-264	107		P	80 - 120
Mirex	109		P	80 - 120
Oxychlordane	108		P	80 - 120
Permethrin	99.7		P	80 - 120
Phenothrin	94.3		P	80 - 120
Piperonyl Butoxide	87.6		P	80 - 120
Prallethrin	109		P	80 - 120
Tau-Fluvalinate	93.7		P	80 - 120
Tetramethrin	97.9		P	80 - 120
Trans-Nonachlor	107		P	80 - 120
Triclosan Methyl	92.2		P	80 - 120
Trifluralin	102		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A119856
Included Lab Sample IDs: 2416089

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

Reference Method: EPA 8276
Run ID: A119871
Included Lab Sample IDs: 2416096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.0		P	80 - 120
Toxaphene	102		P	80 - 120

Reference Method: EPA 8321B
Run ID: A119900
Included Lab Sample IDs: 2416097, 2416098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.0	84.0	P/P	50 - 150
2,4,5-T	105	89.4	P/P	50 - 150
Acetaminophen	95.1	78.4	P/P	60 - 160
Acetamiprid	103	107	P/P	50 - 150
Afidopyropen	143	99.3	P/P	50 - 150
Bentazon	120	141	P/P	50 - 160
Bentazon	132	125	P/P	50 - 160
Benzovindiflupyr	118	122	P/P	50 - 150
Carbamazepine	104	98.2	P/P	60 - 150
Clothianidin	121	120	P/P	60 - 150
Dinotefuran	114	101	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A119900

Included Lab Sample IDs: 2416097, 2416098

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	114	130	P/P	60 - 160
Fenuron	97.2	95.5	P/P	60 - 150
Fluridone	112	98.2	P/P	60 - 160
Hydrocodone	116	120	P/P	60 - 150
Ibuprofen	106	91.3	P/P	50 - 160
Imazapyr	103	103	P/P	50 - 150
Imidacloprid	83.2	82.3	P/P	60 - 150
Linuron	100	103	P/P	60 - 150
Mandestrobin	105	102	P/P	50 - 150
MCPP	98.9	100	P/P	50 - 150
Naproxen	101	104	P/P	50 - 160
Primidone	90.1	93.2	P/P	60 - 150
Pyraclostrobin	107	121	P/P	60 - 150
Silvex	103	102	P/P	50 - 150
Thiamethoxam	94.9	136	P/P	50 - 150
Tolfenpyrad	103	102	P/P	60 - 150
Triclopyr	110	91.8	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A119912

Included Lab Sample IDs: 2416096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	103		P	80 - 120
PCB-1260	95.4		P	80 - 120

Reference Method: SM 4500-F- C-2011

Run ID: A119960

Included Lab Sample IDs: 2416088

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	100	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
DEP SOP: NU-094-1	Color (true)	101				6.64
EPA 180.1 Rev. 2.0	Turbidity	96.3				10.7
EPA 300.0 Rev. 2.1	Chloride	101	96.7			1.01
	Sulfate	99.7	95.9	96.8		0.937
EPA 350.1 Rev. 2.0	Ammonia-N	95.8	94.2	95.8		1.53
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	102	98.4		2.50
EPA 353.2 Rev. 2.0	NO2NO3-N	106	103	103		0.0
EPA 365.1 Rev. 2.0	Total-P	102	103	103		0.267
EPA 8270E	Aldrin	33.8	39.7	38.4		3.25
	Alpha-BHC	64.9	68.8	66.6		3.12
	Alpha-Chlordane	51.0	45.2	42.7		5.77
	Beta-BHC	76.6	89.1	75.9		14.8
	Beta-Cyfluthrin	43.4	51.9	52.8		1.66
	Bifenthrin	36.2	56.2	62.4		10.5
	Chlorothalonil	79.4	87.0	95.6		9.47
	Cis-Nonachlor	45.4	50.6	49.5		2.30
	Cypermethrin	62.2	77.6	81.3		4.62
	Dacthal	62.2	57.7	58.3		1.01
	DDD-p,p'	46.6	37.3	38.5		3.13
	DDE-p,p'	53.0	43.4	46.0		5.88
	DDT-p,p'	71.6	59.5	67.6		11.6
	Delta-BHC	83.2	98.2	100		2.10
	Deltamethrin	59.2	73.0	26.9		92.4
	Dichlobenil	57.7	35.3	37.1		5.12
	Dicofol	55.5	41.7	44.7		6.79
	Dieldrin	58.7	68.9	69.5		0.814
	Endosulfan I	62.0	67.2	65.9		1.89
	Endosulfan II	56.8	58.0	61.5		5.99
	Endosulfan Sulfate	59.7	52.0	61.5		16.7
	Endrin	54.0	52.7	55.3		4.80
	Endrin Aldehyde	51.7	50.6	58.4		14.4
	Endrin Ketone	105	84.1	86.8		3.18
	Esfenvalerate	59.0	83.4	88.0		5.38
	Ethalfuralin	49.9	51.9	51.2		1.34
	Fenpropathrin	52.7	55.9	63.1		12.0
	Gamma-BHC	55.6	110	110		0.719
	Gamma-Chlordane	51.6	47.5	49.2		3.54
	Heptachlor	51.6	67.7	69.7		2.86
	Heptachlor Epoxide	60.3	71.0	67.4		5.25
	Hexachlorobenzene	50.0	50.2	49.0		2.52
	Kepone	80.8	97.3	117		18.8
	Lambda-Cyhalothrin	45.0	68.3	73.8		7.73
	Methoprene	31.9	40.9	50.3		20.6
	Methoxychlor	61.8	54.9	60.0		8.92
	MGK-264	58.7	54.5	57.1		4.57
	Mirex	34.4	32.2	31.9		0.702
	Oxychlordane	59.0	55.8	57.3		2.68
	PCB-1016	51.8	52.9	49.4		6.69
	PCB-1260	50.1	49.7	51.3		3.00
	Permethrin	56.8	71.6	71.7		0.160
	Phenothrin	32.9	50.3	51.6		2.48
	Piperonyl Butoxide	69.0	79.9	84.3		5.31
	Prallethrin	47.1	45.8	45.6		0.367
	Tau-Fluvalinate	41.4	64.5	64.3		0.357

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Tetramethrin	70.5	67.0	73.9		9.75
	Trans-Nonachlor	48.5	42.1	43.4		2.97
	Triclosan Methyl	59.1	61.3	60.0		2.21
	Trifluralin	49.3	52.9	53.0		0.134
EPA 8276	Chlordane	70.8	60.1	62.1		3.24
	Toxaphene	83.2	49.1	54.2		6.79
EPA 8321B	2,4-D	104	96.1	87.7		8.33
	2,4,5-T	77.2	93.8	97.3		3.57
	Acesulfame K	122	119	116		2.58
	Acetaminophen	67.4	71.8	72.3		0.692
	Acetamiprid	72.2	54.6	60.4		10.1
	Afidopyropen	69.1	69.9	66.6		4.76
	AMPA	124	73.6	78.6		6.61
	Bentazon	115	53.5	54.2		1.19
	Benzovindiflupyr	89.8	71.1	74.0		4.07
	Carbamazepine	71.4	63.6	68.3		5.89
	Clothianidin	92.6	75.1	77.1		2.52
	Dinotefuran	87.0	66.4	66.7		0.411
	Diuron	85.4	70.2	72.1		2.72
	Endothall	108	110	116		5.38
	Fenuron	82.1	64.4	57.2		12.0
	Fluridone	89.3	88.5	76.0		7.31
	Glufosinate	105	88.2	96.2		8.75
	Glyphosate	98.5	96.6	100		3.88
	Hydrocodone	96.7	60.1	63.7		5.91
	Ibuprofen	79.5	75.9	82.0		7.73
	Imazapyr	92.5	77.2	67.0		11.6
	Imidacloprid	84.6	115	115		0.271
	Linuron	59.8	61.7	73.6		17.7
	Mandestrobin	88.1	89.2	79.7		11.2
	MCPP	101	103	101		2.18
	Naproxen	78.7	76.3	75.4		1.29
	Primidone	79.8	71.5	68.2		4.79
	Pyraclostrobin	81.4	86.1	77.5		10.5
	Silvex	103	93.9	88.5		5.89
	Sucralose	97.2	90.1	84.9		5.65
	Thiamethoxam	87.7	82.1	82.5		0.547
	Tolfenpyrad	50.1	56.1	52.9		5.96
	Triclopyr	88.2	95.8	102		5.82
SM 2320 B-2011	Total Alkalinity	98.4			0.292	
SM 2540 C-2015	TDS	96.3			1.69	
SM 2540 D-2015	TSS	92.2				
SM 4500-F- C-2011	Fluoride	98.9	102	102		0.520
SM 5310 B-2011	Organic Carbon	94.7	93.2	94.7		1.24

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2416088
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2416088
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2416088
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2416088
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2416089

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2416089
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2416089
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2416089
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2416096
EPA 8270E	PCBs in water matrices by GC/MS/MS	2416096
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2416096
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2416097, 2416098
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2416088
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2416088
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2416088
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2416088
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2416089

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	06/08/2023			06/08/2023 15:27	Samantha L Bates	2416088
EPA 180.1 Rev. 2.0	06/08/2023			06/08/2023 14:53	Anna M. Plaviak	2416088
EPA 300.0 Rev. 2.1	06/08/2023			06/13/2023 20:17	James L Waggeberby	2416088
EPA 350.1 Rev. 2.0	06/08/2023			06/12/2023 15:41	Khloe J Berg	2416089
EPA 351.2 Rev. 2.0	06/08/2023	06/14/2023 12:52	Ping Hua	06/16/2023 10:33	Samantha L Bates	2416089
EPA 353.2 Rev. 2.0	06/08/2023			06/15/2023 10:17	Beverly Y. Sanders	2416089
EPA 365.1 Rev. 2.0	06/08/2023	06/12/2023 13:00	Alexis Price	06/13/2023 12:31	Simonne.V. Calhoun	2416089
EPA 8270E	06/08/2023	06/12/2023 08:30	Rasheda Ghaffari	06/14/2023 19:45	Michael Poppell	2416096
	06/08/2023	06/12/2023 08:30	Rasheda Ghaffari	06/16/2023 23:42	Julie Wi	2416096
EPA 8276	06/08/2023	06/12/2023 08:30	Rasheda Ghaffari	06/16/2023 07:03	Arthur Maknenko	2416096
EPA 8321B	06/08/2023	06/10/2023 20:00	Touraj Touran	06/11/2023 01:36	Touraj Touran	2416097
	06/08/2023	06/10/2023 20:00	Touraj Touran	06/11/2023 01:49	Touraj Touran	2416098
	06/08/2023	06/10/2023 20:00	Touraj Touran	06/11/2023 10:59	Touraj Touran	2416097
	06/08/2023	06/10/2023 20:00	Touraj Touran	06/11/2023 11:13	Touraj Touran	2416098
	06/08/2023	06/12/2023 13:00	Hoor Shaik	06/20/2023 00:45	Juyoung Kim	2416097
	06/08/2023	06/12/2023 13:00	Hoor Shaik	06/20/2023 01:04	Juyoung Kim	2416098
	06/08/2023	06/12/2023 13:00	Hoor Shaik	06/20/2023 12:20	Juyoung Kim	2416098
SM 2320 B-2011	06/08/2023			06/12/2023 18:38	Dale L. Simmons	2416088
SM 2540 C-2015	06/08/2023			06/09/2023 13:09	Dana G. Hughes	2416088
SM 2540 D-2015	06/08/2023			06/09/2023 13:09	Dana G. Hughes	2416088
SM 4500-F- C-2011	06/08/2023			06/21/2023 22:26	Dale L. Simmons	2416088
SM 5310 B-2011	06/08/2023			06/13/2023 02:20	Elise M. Gillis	2416089