

Chemical Analysis Report

WQAP-2017-08-23-06

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

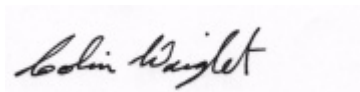
Event Description: **kit C_pesticides**
Request ID: **RQ-2017-08-14-46**
Customer: **WQAP**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
Attn: Michael Eckles

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Certified by: Colin Wright, Program Administrator

Date Certified: 18-SEP-2017 11:44

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light-colored rectangular background.

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: Metals, 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 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: Allen Mill Pond Spring

Collection Date/Time: 08/23/2017 14:00

Field ID: G1TLHR0006-2017-03

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1923920	EPA 180.1 Rev. 2.0	Turbidity	0.10		NTU	P330823	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P330840	
		Sulfate	6.8		mg SO4/L	P330842	
	SM 2120 B	Color (true)	6.3		PCU	P330744	
	SM 2320 B-97	Total Alkalinity	205	A	mg CaCO3/L	P330955	
	SM 2540 C-97	TDS	229		mg/L	P331045	
	SM 2540 D-97	TSS	2	U	mg/L	P331178	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P330957	
1923921	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P331096	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P330868	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.9		mg N/L	P330852	
	EPA 365.1 Rev. 2.0	Total-P	0.045		mg P/L	P330877	
	SM 5310 B-00	Organic Carbon	1.6		mg C/L	P330971	
1923922	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.039		mg P/L	P330731	
1923927	EPA 200.7 Rev. 4.4	Calcium	63.9		mg/L	P330940	
		Iron	30	U	ug/L	P330940	
		Magnesium	16.0		mg/L	P330940	
		Potassium	1.1	I	mg/L	P330940	
		Sodium	3.4		mg/L	P330940	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P330940	
		Arsenic	0.90		ug/L	P330940	
		Cadmium	0.023	I	ug/L	P330940	
		Chromium	0.40	U	ug/L	P330940	
		Copper	0.20	U	ug/L	P330940	
		Lead	0.050	U	ug/L	P330940	
		Nickel	0.20	U	ug/L	P330940	
		Silver	0.010	U	ug/L	P330940	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Allen Mill Pond Spring

Collection Date/Time: 08/23/2017 14:00

Field ID: G1TLHR0006-2017-03

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1923924	EPA 8321B	Glyphosate**	0.50	U	ug/L	P330738	
		Pyraclostrobin**	0.0020	U	ug/L	P330680	
		Sucralose**	0.010	U	ug/L	P330689	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P330679	
		Diuron	8.0E-04	U	ug/L	P330679	
		Fenuron	0.0080	U	ug/L	P330679	
		Imidacloprid	8.0E-04	U	ug/L	P330679	MS
		Bentazon	8.0E-04	U	ug/L	P330679	
		Linuron	0.0040	U	ug/L	P330679	
		Acetaminophen**	0.0080	U	ug/L	P330679	

Field ID: G1TLHR0006-2017-03

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1923924	USGS O-2060-01	MCP	0.0020	U	ug/L	P330679	
		Carbamazepine**	4.0E-04	U	ug/L	P330679	MS
		Triclopyr**	0.0040	U	ug/L	P330679	
		Primidone**	0.0040	U	ug/L	P330679	
		Fluridone**	4.0E-04	U	ug/L	P330679	
1923925	EPA 8270D	Aldrin	4.6	UJ	ng/L	P330732	RPD
		Alpha-BHC	2.3	U	ng/L	P330732	
		Beta-BHC	4.6	U	ng/L	P330732	
		Delta-BHC	4.6	U	ng/L	P330732	
		Gamma-BHC	4.6	U	ng/L	P330732	
		Carbophenothion	4.6	U	ng/L	P330732	RPD
		Chlorothalonil	2.3	U	ng/L	P330732	
		Cypermethrin	23	U	ng/L	P330732	
		DDD-p,p'	3.4	U	ng/L	P330732	
		DDE-p,p'	3.4	U	ng/L	P330732	
		DDT-p,p'	3.4	U	ng/L	P330732	
		Dieldrin	4.6	U	ng/L	P330732	
		Endosulfan I	4.6	U	ng/L	P330732	
		Endosulfan II	4.6	U	ng/L	P330732	
		Endosulfan Sulfate	2.3	U	ng/L	P330732	
		Endrin	2.3	U	ng/L	P330732	
		Endrin Aldehyde	2.3	U	ng/L	P330732	RPD
		Heptachlor	1.7	U	ng/L	P330732	
		Heptachlor Epoxide	2.3	U	ng/L	P330732	
		Methoxychlor	4.6	U	ng/L	P330732	
		Mirex	2.3	U	ng/L	P330732	
		Permethrin	11	U	ng/L	P330732	
		Trifluralin	1.1	U	ng/L	P330732	RPD
		Alpha-Chlordane	1.1	U	ng/L	P330732	
		Gamma-Chlordane	1.1	U	ng/L	P330732	
		Endrin Ketone	2.3	U	ng/L	P330732	
		Dicofol	34	UJ	ng/L	P330732	CCV
		Chlordane**	2.9	U	ng/L	P330732	
		Toxaphene**	14	U	ng/L	P330732	
1923926	EPA 8270D	Alachlor	0.24	U	ng/L	P330733	
		Ametryn	0.31	U	ng/L	P330733	
		Atrazine	0.24	U	ng/L	P330733	
		Atrazine Desethyl	1.5	U	ng/L	P330733	
		Azinphos Methyl	2.2	U	ng/L	P330733	
		Bromacil	8.8		ng/L	P330733	
		Butylate	0.39	U	ng/L	P330733	RPD
		Chlorpyrifos Ethyl	0.24	U	ng/L	P330733	
		Chlorpyrifos Methyl	0.097	U	ng/L	P330733	
		Demeton	1.9	U	ng/L	P330733	
		Diazinon	0.12	U	ng/L	P330733	
	EPA 8276						

Field ID: G1TLHR0006-2017-03

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1923926	EPA 8270D	Disulfoton	0.48	U	ng/L	P330733	
		EPTC	1.2	U	ng/L	P330733	RPD
		Ethion	0.15	U	ng/L	P330733	
		Ethoprop	0.097	U	ng/L	P330733	
		Fenamiphos	0.24	U	ng/L	P330733	
		Fipronil	0.24	U	ng/L	P330733	
		Fipronil Sulfide	0.15	U	ng/L	P330733	
		Fipronil Sulfone	0.15	U	ng/L	P330733	
		Hexazinone	1.1	I	ng/L	P330733	
		Malathion	0.34	U	ng/L	P330733	
		Metribuzin	0.19	UJ	ng/L	P330733	CCV, MS
		Mevinphos	0.48	U	ng/L	P330733	
		Molinate	0.29	U	ng/L	P330733	
		Norflurazon	0.48	U	ng/L	P330733	
		Pendimethalin	0.97	U	ng/L	P330733	
		Phorate	0.24	U	ng/L	P330733	
		Prometon	0.87	U	ng/L	P330733	
		Prometryn	0.19	U	ng/L	P330733	
		Simazine	0.48	U	ng/L	P330733	
		Terbufos	0.097	U	ng/L	P330733	
		Terbutylazine	0.41	U	ng/L	P330733	
		Fonofos	0.19	U	ng/L	P330733	
		Metalaxyl	0.19	U	ng/L	P330733	
		Metolachlor	0.33	I	ng/L	P330733	
		Acetochlor	0.24	U	ng/L	P330733	
		Cyanazine	0.48	U	ng/L	P330733	
		Parathion Ethyl	0.24	U	ng/L	P330733	
		Parathion Methyl	0.24	U	ng/L	P330733	

Ref. Method and Comment:

EPA 8270D: MS accuracy for Heptachlor Epoxide and Dieldrin not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P330823

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P330940

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P330940

Component	Result	Code	Units
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P330940

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330840

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330842

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331096

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330868

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330852

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330877

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330731

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8270D
Batch ID: P330732

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	3.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8270D
Batch ID: P330733

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	2.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.50	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P330733

Component	Result	Code	Units
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P330732

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	12	U	ng/L

Reference Method: EPA 8321B
Batch ID: P330680

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P330689

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P330738

Component	Result	Code	Units
Glyphosate	0.50	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P330744

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P330955

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-97
Batch ID: P331045

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P331178

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P330957

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P330971

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: USGS O-2060-01
Batch ID: P330679

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P330940

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	107		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	101		P	85 - 115
Sodium	99.8		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P330940

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	102		P	85 - 115
Cadmium	97.3		P	85 - 115
Chromium	98.0		P	85 - 115
Copper	95.7		P	85 - 115
Lead	97.2		P	85 - 115
Nickel	98.1		P	85 - 115
Silver	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330840

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330842

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331096

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330868

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: P330852

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P330877

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P330731

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

Reference Method: EPA 8270D

Batch ID: P330732

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	33.0	47.9	P/P	26 - 88.0
Alpha-BHC	79.4	80.9	P/P	63 - 114
Alpha-Chlordane	80.1	83.3	P/P	56 - 117
Beta-BHC	87.8	87.0	P/P	57 - 138
Carbophenothion	71.1	93.6	P/P	36 - 148
Chlorothalonil	53.0	55.6	P/P	26 - 173
Cypermethrin	74.1	79.4	P/P	42 - 159
DDD-p,p'	81.3	83.0	P/P	62 - 126
DDE-p,p'	77.8	83.1	P/P	53 - 115
DDT-p,p'	79.8	82.0	P/P	54 - 117
Delta-BHC	94.5	88.6	P/P	68 - 158
Dicofol	77.3	61.9	P/P	25 - 114
Dieldrin	77.5	80.6	P/P	59 - 126
Endosulfan I	80.8	84.4	P/P	62 - 138
Endosulfan II	83.9	83.1	P/P	61 - 150
Endosulfan Sulfate	77.4	74.1	P/P	63 - 132
Endrin	80.4	74.7	P/P	49 - 148
Endrin Aldehyde	77.5	75.8	P/P	50 - 144
Endrin Ketone	78.3	79.2	P/P	66 - 122
Gamma-BHC	86.5	87.1	P/P	60 - 137
Gamma-Chlordane	77.9	81.0	P/P	54 - 113
Heptachlor	67.1	69.6	P/P	43 - 104
Heptachlor Epoxide	78.2	79.9	P/P	64 - 118
Methoxychlor	82.5	87.7	P/P	63 - 129
Mirex	65.6	70.9	P/P	39 - 93.0
Permethrin	73.6	79.3	P/P	51 - 123
Trifluralin	97.8	108	P/P	35 - 187

Reference Method: EPA 8270D

Batch ID: P330733

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	98.0	89.3	P/P	78 - 118
Alachlor	97.6	92.7	P/P	77 - 119
Ametryn	92.2	106	P/P	61 - 136
Atrazine	87.5	87.1	P/P	73 - 120
Atrazine Desethyl	90.8	97.4	P/P	16 - 122
Azinphos Methyl	113	109	P/P	69 - 186
Bromacil	93.9	90.9	P/P	40 - 125
Butylate	50.3	51.0	P/P	32 - 87.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P330733

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Ethyl	87.9	83.5	P/P	53 - 110
Chlorpyrifos Methyl	90.8	88.7	P/P	31 - 119
Cyanazine	156	146	P/P	36 - 224
Demeton	75.7	68.3	P/P	39 - 122
Diazinon	92.7	89.5	P/P	75 - 119
Disulfoton	86.7	87.7	P/P	42 - 139
EPTC	45.6	47.4	P/P	33 - 96.0
Ethion	85.5	82.3	P/P	63 - 127
Ethoprop	69.4	70.7	P/P	65 - 107
Fenamiphos	93.5	91.0	P/P	64 - 137
Fipronil	102	96.6	P/P	60 - 126
Fipronil Sulfide	92.2	82.8	P/P	58 - 124
Fipronil Sulfone	78.3	74.4	P/P	57 - 126
Fonofos	78.3	84.5	P/P	65 - 111
Hexazinone	87.2	81.7	P/P	46 - 151
Malathion	87.3	83.3	P/P	68 - 132
Metalaxyl	92.5	83.9	P/P	51 - 132
Metolachlor	91.1	85.7	P/P	78 - 119
Metribuzin	98.4	122	P/P	58 - 148
Mevinphos	70.7	72.1	P/P	34 - 128
Molinate	48.4	49.0	P/P	44 - 101
Norflurazon	93.7	89.3	P/P	63 - 129
Parathion Ethyl	85.3	85.4	P/P	80 - 109
Parathion Methyl	98.4	96.3	P/P	74 - 125
Pendimethalin	75.7	72.5	P/P	48 - 134
Phorate	68.9	75.1	P/P	52 - 119
Prometon	90.6	83.2	P/P	69 - 124
Prometryn	101	90.5	P/P	66 - 124
Simazine	89.6	95.1	P/P	61 - 134
Terbufos	79.1	79.6	P/P	58 - 115
Terbutylazine	82.5	81.1	P/P	77 - 113

Reference Method: EPA 8276
Batch ID: P330732

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	110	102	P/P	48 - 121
Toxaphene	107	98.2	P/P	43 - 135

Reference Method: EPA 8321B
Batch ID: P330680

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	119		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P330689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	93.5		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P330738

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	102		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P330955

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P330957

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P330971

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P330679

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	134		P	40 - 150
Acetaminophen	117		P	30 - 150
Bentazon	87.2		P	40 - 150
Carbamazepine	128		P	40 - 150
Diuron	141		P	40 - 150
Fenuron	144		P	40 - 150
Fluridone	126		P	40 - 150
Imidacloprid	137		P	40 - 160
Linuron	119		P	40 - 150
MCPP	103		P	40 - 150
Primidone	133		P	40 - 150
Triclopyr	85.6		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P330940

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923927	Calcium	101		P	80 - 120
1923927	Iron	106		P	80 - 120
1923927	Magnesium	104		P	80 - 120
1923927	Potassium	100		P	80 - 120
1923927	Sodium	104		P	80 - 120
1923927	Zinc	98.2		P	80 - 120
1924613	Calcium	101		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P330940

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1924613	Iron	106	105	P/P	80 - 120
1924613	Magnesium	104		P	80 - 120
1924613	Potassium	100	101	P/P	80 - 120
1924613	Sodium	99.2		P	80 - 120
1924613	Zinc	97.6	99.9	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P330940

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923927	Arsenic	104		P	80 - 120
1923927	Cadmium	99.5		P	80 - 120
1923927	Chromium	96.8		P	80 - 120
1923927	Copper	92.8		P	80 - 120
1923927	Lead	98.4		P	80 - 120
1923927	Nickel	95.4		P	80 - 120
1923927	Silver	103		P	80 - 120
1924613	Arsenic	105	105	P/P	80 - 120
1924613	Cadmium	99.1	101	P/P	80 - 120
1924613	Chromium	97.0	97.1	P/P	80 - 120
1924613	Copper	93.8	94.0	P/P	80 - 120
1924613	Lead	99.1	99.0	P/P	80 - 120
1924613	Nickel	96.6	96.8	P/P	80 - 120
1924613	Silver	105	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330840

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923773	Chloride	96.1		P	90 - 110
1923912	Chloride	90.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330842

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923773	Sulfate	95.9		P	90 - 110
1923912	Sulfate	90.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923921	Ammonia-N	101	98.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330868

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923946	Kjeldahl Nitrogen	91.3	90.9	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923913	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923921	Total-P	99.0	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923784	O-Phosphate-P	93.7	95.4	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P330732

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1924296	Aldrin	50.1	60.0	P/P	22 - 97.0
1924296	Alpha-BHC	83.0	77.6	P/P	43 - 132
1924296	Alpha-Chlordane	80.0	80.7	P/P	36 - 126
1924296	Beta-BHC	95.6	77.9	P/P	41 - 150
1924296	Carbophenothion	90.3	59.1	P/P	13 - 196
1924296	Chlorothalonil	79.0	82.4	P/P	10 - 266
1924296	Cypermethrin	75.4	58.9	P/P	37 - 161
1924296	DDD-p,p'	78.8	69.4	P/P	44 - 131
1924296	DDE-p,p'	81.5	81.0	P/P	32 - 127
1924296	DDT-p,p'	82.5	76.2	P/P	45 - 116
1924296	Delta-BHC	111	87.2	P/P	50 - 201
1924296	Dicofol	44.8	34.3	P/P	10 - 100
1924296	Endosulfan I	80.8	82.4	P/P	51 - 139
1924296	Endosulfan II	90.1	90.6	P/P	49 - 155
1924296	Endosulfan Sulfate	69.6	65.4	P/P	54 - 136
1924296	Endrin	72.6	69.5	P/P	38 - 141
1924296	Endrin Aldehyde	52.2	74.3	P/P	14 - 152
1924296	Endrin Ketone	76.0	73.7	P/P	60 - 128
1924296	Gamma-BHC	93.9	75.4	P/P	48 - 157
1924296	Gamma-Chlordane	78.6	78.2	P/P	35 - 123
1924296	Heptachlor	68.3	70.5	P/P	25 - 112
1924296	Methoxychlor	85.4	79.6	P/P	52 - 127
1924296	Mirex	70.4	66.9	P/P	25 - 108
1924296	Permethrin	76.3	66.9	P/P	46 - 133
1924296	Trifluralin	145	107	P/P	29 - 254

Reference Method: EPA 8270D
Batch ID: P330733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923026	Acetochlor	89.2	95.3	P/P	74 - 123
1923026	Alachlor	86.7	92.3	P/P	73 - 124
1923026	Ametryn	94.8	97.1	P/P	56 - 149
1923026	Atrazine	88.0	94.0	P/P	73 - 124

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P330733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923026	Atrazine Desethyl	76.4	87.2	P/P	12 - 103
1923026	Azinphos Methyl	103	104	P/P	60 - 202
1923026	Bromacil	105	94.0	P/P	42 - 133
1923026	Butylate	24.8	38.7	P/P	10 - 85.0
1923026	Chlorpyrifos Ethyl	76.8	84.1	P/P	53 - 113
1923026	Chlorpyrifos Methyl	83.5	86.9	P/P	40 - 115
1923026	Cyanazine	115	127	P/P	22 - 210
1923026	Demeton	82.7	84.3	P/P	17 - 149
1923026	Diazinon	92.9	99.7	P/P	72 - 124
1923026	Disulfoton	90.6	100	P/P	43 - 139
1923026	EPTC	24.9	35.5	P/P	10 - 86.0
1923026	Ethion	87.3	91.9	P/P	65 - 131
1923026	Ethoprop	72.5	77.8	P/P	59 - 110
1923026	Fenamiphos	86.3	80.8	P/P	57 - 138
1923026	Fipronil	104	105	P/P	40 - 130
1923026	Fipronil Sulfide	88.4	89.9	P/P	36 - 128
1923026	Fipronil Sulfone	74.4	76.0	P/P	16 - 145
1923026	Fonofos	75.3	88.6	P/P	60 - 112
1923026	Hexazinone	88.9	91.1	P/P	69 - 142
1923026	Malathion	78.1	82.9	P/P	68 - 132
1923026	Metaxyl	87.8	88.0	P/P	66 - 118
1923026	Metolachlor	87.1	91.1	P/P	71 - 124
1923026	Metribuzin	150	161	F/F	61 - 140
1923026	Mevinphos	66.3	73.6	P/P	38 - 130
1923026	Molinate	33.0	41.4	P/P	23 - 99.0
1923026	Norflurazon	98.0	93.3	P/P	39 - 139
1923026	Parathion Ethyl	86.0	86.1	P/P	75 - 111
1923026	Parathion Methyl	96.7	100	P/P	64 - 130
1923026	Pendimethalin	80.5	81.4	P/P	26 - 173
1923026	Phorate	70.8	76.5	P/P	43 - 127
1923026	Prometon	92.2	100	P/P	50 - 144
1923026	Prometryn	96.3	101	P/P	69 - 126
1923026	Simazine	95.0	103	P/P	51 - 152
1923026	Terbufos	79.5	88.6	P/P	54 - 125
1923026	Terbutylazine	82.4	84.6	P/P	76 - 113

Reference Method: EPA 8276
Batch ID: P330732

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1924366	Chlordane	98.6	103	P/P	44 - 134
1924366	Toxaphene	102	110	P/P	36 - 147

Reference Method: EPA 8321B
Batch ID: P330680

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923412	Pyraclostrobin	120	115	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P330689

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923138	Sucralose	111	106	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P330738

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923017	Glyphosate	92.6	95.6	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P330957

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923920	Fluoride	98.1	101	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P330971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923536	Organic Carbon	99.2	98.2	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P330679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1923137	2,4-D	138	130	P/P	40 - 150
1923137	Acetaminophen	109	112	P/P	30 - 150
1923137	Bentazon	51.6	52.6	P/P	40 - 150
1923137	Carbamazepine	155	153	F/F	40 - 150
1923137	Diuron	113	122	P/P	40 - 150
1923137	Fenuron	113	128	P/P	40 - 150
1923137	Fluridone	94.5	110	P/P	40 - 150
1923137	Imidacloprid	220	235	F/F	40 - 160
1923137	Linuron	110	126	P/P	40 - 150
1923137	MCP	99.5	111	P/P	40 - 150
1923137	Primidone	129	145	P/P	40 - 150
1923137	Triclopyr	101	106	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P330823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1924339	Turbidity	4.53	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P330940

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1924613	Calcium	1.19	Spike	P	0 - 20
1924613	Iron	0.533	Spike	P	0 - 20
1924613	Magnesium	0.247	Spike	P	0 - 20
1924613	Potassium	1.07	Spike	P	0 - 20
1924613	Sodium	0.342	Spike	P	0 - 20
1924613	Zinc	2.31	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P330940

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1924613	Arsenic	0.0697	Spike	P	0 - 20
1924613	Cadmium	1.62	Spike	P	0 - 20
1924613	Chromium	0.108	Spike	P	0 - 20
1924613	Copper	0.151	Spike	P	0 - 20
1924613	Lead	0.139	Spike	P	0 - 20
1924613	Nickel	0.230	Spike	P	0 - 20
1924613	Silver	0.507	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330840

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923773	Chloride	0.120	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P330842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923773	Sulfate	0.224	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P331096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923921	Ammonia-N	1.72	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P330868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923946	Kjeldahl Nitrogen	0.374	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P330852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923913	NO2NO3-N	0.499	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P330877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923921	Total-P	0.615	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P330731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923784	O-Phosphate-P	1.80	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P330732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1924296	Aldrin	18.0	Spike	P	0 - 30
1924296	Alpha-BHC	6.63	Spike	P	0 - 30
1924296	Alpha-Chlordane	0.608	Spike	P	0 - 30
1924296	Beta-BHC	20.4	Spike	P	0 - 30
1924296	Carbophenothion	41.8	Spike	F	0 - 30
1924296	Chlorothalonil	4.29	Spike	P	0 - 30
1924296	Cypermethrin	24.5	Spike	P	0 - 30
1924296	DDD-p,p'	12.8	Spike	P	0 - 30
1924296	DDE-p,p'	0.550	Spike	P	0 - 30
1924296	DDT-p,p'	7.98	Spike	P	0 - 30
1924296	Delta-BHC	24.1	Spike	P	0 - 30
1924296	Dicofol	26.5	Spike	P	0 - 30
1924296	Dieldrin	3.24	Spike	P	0 - 30
1924296	Endosulfan I	1.87	Spike	P	0 - 30
1924296	Endosulfan II	0.585	Spike	P	0 - 30
1924296	Endosulfan Sulfate	6.17	Spike	P	0 - 30
1924296	Endrin	4.29	Spike	P	0 - 30
1924296	Endrin Aldehyde	34.8	Spike	F	0 - 30
1924296	Endrin Ketone	2.51	Spike	P	0 - 30
1924296	Gamma-BHC	21.9	Spike	P	0 - 30
1924296	Gamma-Chlordane	0.424	Spike	P	0 - 30
1924296	Heptachlor	3.16	Spike	P	0 - 30
1924296	Heptachlor Epoxide	1.61	Spike	P	0 - 30
1924296	Methoxychlor	7.02	Spike	P	0 - 30
1924296	Mirex	5.10	Spike	P	0 - 30
1924296	Permethrin	13.1	Spike	P	0 - 30
1924296	Trifluralin	30.4	Spike	F	0 - 30
LFB	Aldrin	36.7	LCS	F	0 - 30
LFB	Alpha-BHC	1.86	LCS	P	0 - 30
LFB	Alpha-Chlordane	3.97	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P330732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Beta-BHC	0.974	LCS	P	0 - 30
LFB	Carbophenothion	27.4	LCS	P	0 - 30
LFB	Chlorothalonil	4.86	LCS	P	0 - 30
LFB	Cypermethrin	6.98	LCS	P	0 - 30
LFB	DDD-p,p'	1.97	LCS	P	0 - 30
LFB	DDE-p,p'	6.66	LCS	P	0 - 30
LFB	DDT-p,p'	2.74	LCS	P	0 - 30
LFB	Delta-BHC	6.51	LCS	P	0 - 30
LFB	Dicofol	22.2	LCS	P	0 - 30
LFB	Dieldrin	3.93	LCS	P	0 - 30
LFB	Endosulfan I	4.37	LCS	P	0 - 30
LFB	Endosulfan II	1.01	LCS	P	0 - 30
LFB	Endosulfan Sulfate	4.28	LCS	P	0 - 30
LFB	Endrin	7.38	LCS	P	0 - 30
LFB	Endrin Aldehyde	2.19	LCS	P	0 - 30
LFB	Endrin Ketone	1.09	LCS	P	0 - 30
LFB	Gamma-BHC	0.685	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.79	LCS	P	0 - 30
LFB	Heptachlor	3.78	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.16	LCS	P	0 - 30
LFB	Methoxychlor	6.09	LCS	P	0 - 30
LFB	Mirex	7.79	LCS	P	0 - 30
LFB	Permethrin	7.52	LCS	P	0 - 30
LFB	Trifluralin	9.84	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P330733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923026	Acetochlor	6.70	Spike	P	0 - 30
1923026	Alachlor	6.24	Spike	P	0 - 30
1923026	Ametryn	2.40	Spike	P	0 - 30
1923026	Atrazine	5.43	Spike	P	0 - 30
1923026	Atrazine Desethyl	13.3	Spike	P	0 - 30
1923026	Azinphos Methyl	1.26	Spike	P	0 - 30
1923026	Bromacil	10.7	Spike	P	0 - 30
1923026	Butylate	43.9	Spike	F	0 - 30
1923026	Chlorpyrifos Ethyl	6.79	Spike	P	0 - 30
1923026	Chlorpyrifos Methyl	4.05	Spike	P	0 - 30
1923026	Cyanazine	10.1	Spike	P	0 - 30
1923026	Demeton	1.91	Spike	P	0 - 30
1923026	Diazinon	6.99	Spike	P	0 - 30
1923026	Disulfoton	10.1	Spike	P	0 - 30
1923026	EPTC	35.1	Spike	F	0 - 30
1923026	Ethion	5.12	Spike	P	0 - 30
1923026	Ethoprop	6.94	Spike	P	0 - 30
1923026	Fenamiphos	6.63	Spike	P	0 - 30
1923026	Fipronil	0.945	Spike	P	0 - 30
1923026	Fipronil Sulfide	1.63	Spike	P	0 - 30
1923026	Fipronil Sulfone	2.20	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P330733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923026	Fonofos	16.2	Spike	P	0 - 30
1923026	Hexazinone	2.44	Spike	P	0 - 30
1923026	Malathion	6.05	Spike	P	0 - 30
1923026	Metalaxyl	0.166	Spike	P	0 - 30
1923026	Metolachlor	3.99	Spike	P	0 - 30
1923026	Metribuzin	6.59	Spike	P	0 - 30
1923026	Mevinphos	10.5	Spike	P	0 - 30
1923026	Molinate	22.4	Spike	P	0 - 30
1923026	Norflurazon	4.98	Spike	P	0 - 30
1923026	Parathion Ethyl	0.0871	Spike	P	0 - 30
1923026	Parathion Methyl	3.42	Spike	P	0 - 30
1923026	Pendimethalin	1.20	Spike	P	0 - 30
1923026	Phorate	7.85	Spike	P	0 - 30
1923026	Prometon	8.08	Spike	P	0 - 30
1923026	Prometryn	5.08	Spike	P	0 - 30
1923026	Simazine	8.15	Spike	P	0 - 30
1923026	Terbufos	10.8	Spike	P	0 - 30
1923026	Terbutylazine	2.69	Spike	P	0 - 30
LFB	Acetochlor	9.29	LCS	P	0 - 30
LFB	Alachlor	5.10	LCS	P	0 - 30
LFB	Ametryn	13.5	LCS	P	0 - 30
LFB	Atrazine	0.505	LCS	P	0 - 30
LFB	Atrazine Desethyl	6.95	LCS	P	0 - 30
LFB	Azinphos Methyl	4.19	LCS	P	0 - 30
LFB	Bromacil	3.27	LCS	P	0 - 30
LFB	Butylate	1.39	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.14	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.34	LCS	P	0 - 30
LFB	Cyanazine	6.39	LCS	P	0 - 30
LFB	Demeton	10.2	LCS	P	0 - 30
LFB	Diazinon	3.53	LCS	P	0 - 30
LFB	Disulfoton	1.21	LCS	P	0 - 30
LFB	EPTC	3.76	LCS	P	0 - 30
LFB	Ethion	3.81	LCS	P	0 - 30
LFB	Ethoprop	1.94	LCS	P	0 - 30
LFB	Fenamiphos	2.65	LCS	P	0 - 30
LFB	Fipronil	5.34	LCS	P	0 - 30
LFB	Fipronil Sulfide	10.7	LCS	P	0 - 30
LFB	Fipronil Sulfone	5.19	LCS	P	0 - 30
LFB	Fonofos	7.61	LCS	P	0 - 30
LFB	Hexazinone	6.58	LCS	P	0 - 30
LFB	Malathion	4.73	LCS	P	0 - 30
LFB	Metalaxyl	9.75	LCS	P	0 - 30
LFB	Metolachlor	6.13	LCS	P	0 - 30
LFB	Metribuzin	21.7	LCS	P	0 - 30
LFB	Mevinphos	1.96	LCS	P	0 - 30
LFB	Molinate	1.21	LCS	P	0 - 30
LFB	Norflurazon	4.77	LCS	P	0 - 30
LFB	Parathion Ethyl	0.129	LCS	P	0 - 30
LFB	Parathion Methyl	2.08	LCS	P	0 - 30
LFB	Pendimethalin	4.30	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P330733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Phorate	8.62	LCS	P	0 - 30
LFB	Prometon	8.61	LCS	P	0 - 30
LFB	Prometryn	10.5	LCS	P	0 - 30
LFB	Simazine	5.88	LCS	P	0 - 30
LFB	Terbufos	0.640	LCS	P	0 - 30
LFB	Terbutylazine	1.78	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P330732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1924366	Chlordane	4.23	Spike	P	0 - 30
1924366	Toxaphene	7.71	Spike	P	0 - 30
LFB	Chlordane	7.42	LCS	P	0 - 30
LFB	Toxaphene	8.54	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P330680

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923412	Pyraclostrobin	4.19	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P330689

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923138	Sucralose	4.46	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P330738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923017	Glyphosate	3.12	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P330744

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923906	Color (true)	2.50	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P330955

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923920	Total Alkalinity	0.292	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P331045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923775	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P330957

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923920	Fluoride	2.41	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P330971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923536	Organic Carbon	0.481	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P330679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1923137	2,4-D	5.84	Spike	P	0 - 30
1923137	Acetaminophen	2.40	Spike	P	0 - 30
1923137	Bentazon	1.88	Spike	P	0 - 30
1923137	Carbamazepine	1.77	Spike	P	0 - 30
1923137	Diuron	7.51	Spike	P	0 - 30
1923137	Fenuron	12.6	Spike	P	0 - 30
1923137	Fluridone	14.7	Spike	P	0 - 30
1923137	Imidacloprid	6.75	Spike	P	0 - 30
1923137	Linuron	13.3	Spike	P	0 - 30
1923137	MCP	11.0	Spike	P	0 - 30
1923137	Primidone	11.3	Spike	P	0 - 30
1923137	Triclopyr	4.49	Spike	P	0 - 30

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 1923924
Field Sample ID: G1TLHR0006-2017-03

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	142	P	30 - 160
EPA 8321B	Acetaminophen-d4	142	P	30 - 160
EPA 8321B	Carbamazepine-d10	148	P	30 - 160
EPA 8321B	Carbamazepine-d10	148	P	30 - 160
EPA 8321B	Diuron-d6	121	P	30 - 160
EPA 8321B	Diuron-d6	128	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1923924

Field Sample ID: G1TLHR0006-2017-03

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	121	P	30 - 160
EPA 8321B	Diuron-d6	128	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.6	P	40 - 160
EPA 8321B	Primidone-d5	156	P	30 - 160
EPA 8321B	Primidone-d5	156	P	30 - 160
EPA 8321B	Sucralose-d6	80.9	P	40 - 160
EPA 8321B	Sucralose-d6	80.9	P	40 - 160
USGS O-2060-01	2,4-D-d3	118	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	142	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	148	P	30 - 160
USGS O-2060-01	Diuron-d6	121	P	30 - 160
USGS O-2060-01	Diuron-d6	128	P	30 - 160
USGS O-2060-01	Primidone-d5	156	P	30 - 160
USGS O-2060-01	Sucralose-d6	80.9	P	40 - 160

Lab Sample ID: 1923925

Field Sample ID: G1TLHR0006-2017-03

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	61.4	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	45.9	P	32 - 103
EPA 8276	Decachlorobiphenyl	54.2	P	31 - 100

Lab Sample ID: 1923926

Field Sample ID: G1TLHR0006-2017-03

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	75.0	P	53 - 135
EPA 8270D	Simazine-d10	93.8	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A78584

Included Lab Sample IDs: 1923920

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.3	99.4	P/P	90 - 110
Sulfate	100	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A78589

Included Lab Sample IDs: 1923922

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.7	97.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A78592
Included Lab Sample IDs: 1923920

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	104	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A78610
Included Lab Sample IDs: 1923920

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A78616
Included Lab Sample IDs: 1923921

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

Reference Method: EPA 8321B
Run ID: A78653
Included Lab Sample IDs: 1923924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	95.9	92.4	P/P	70 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A78657
Included Lab Sample IDs: 1923921

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

Reference Method: SM 2320 B-97
Run ID: A78669
Included Lab Sample IDs: 1923920

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A78669
Included Lab Sample IDs: 1923920

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.0	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A78670
Included Lab Sample IDs: 1923921

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.1	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A78672
Included Lab Sample IDs: 1923921

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	99.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A78686
Included Lab Sample IDs: 1923927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	98.8	99.1	P/P	90 - 110
Sodium	99.8	99.5	P/P	90 - 110
Zinc	101	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A78691
Included Lab Sample IDs: 1923927

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	102	100	P/P	90 - 110
Cadmium	98.8	98.1	P/P	90 - 110
Chromium	99.1	99.5	P/P	90 - 110
Copper	101	99.3	P/P	90 - 110
Lead	98.8	99.3	P/P	90 - 110
Nickel	99.9	98.4	P/P	90 - 110
Silver	96.9	96.7	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A78700
Included Lab Sample IDs: 1923924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	113	114	P/P	60 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A78720
Included Lab Sample IDs: 1923921

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

Reference Method: USGS O-2060-01
Run ID: A78770
Included Lab Sample IDs: 1923924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	118	121	P/P	50 - 150
Acetaminophen	75.0	91.0	P/P	60 - 150
Bentazon	104	106	P/P	50 - 150
Carbamazepine	102	133	P/P	60 - 150
Diuron	114	140	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A78770

Included Lab Sample IDs: 1923924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	124	142	P/P	60 - 150
Fluridone	82.7	112	P/P	60 - 160
Imidacloprid	116	144	P/P	60 - 150
Linuron	99.5	136	P/P	60 - 150
MCPP	103	117	P/P	50 - 150
Primidone	127	142	P/P	60 - 150
Triclopyr	110	114	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A78774

Included Lab Sample IDs: 1923924

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	134	130	P/P	60 - 150

Reference Method: EPA 8276

Run ID: A78819

Included Lab Sample IDs: 1923925

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	105		P	80 - 120
Toxaphene	113		P	80 - 120

Reference Method: EPA 8270D

Run ID: A78826

Included Lab Sample IDs: 1923925

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.8		P	80 - 120
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	99.8		P	80 - 120
Carbophenothion	95.9		P	80 - 120
Chlorothalonil	80.0		P	80 - 120
Cypermethrin	92.1		P	80 - 120
DDD-p,p'	95.3		P	80 - 120
DDE-p,p'	99.5		P	80 - 120
DDT-p,p'	104		P	80 - 120
Delta-BHC	99.9		P	80 - 120
Dicofol	157*		F	80 - 120
Dieldrin	96.7		P	80 - 120
Endosulfan I	95.5		P	80 - 120
Endosulfan II	94.3		P	80 - 120
Endosulfan Sulfate	96.0		P	80 - 120
Endrin	95.2		P	80 - 120
Endrin Aldehyde	94.9		P	80 - 120
Endrin Ketone	96.9		P	80 - 120
Gamma-BHC	104		P	80 - 120
Gamma-Chlordane	99.1		P	80 - 120
Heptachlor	95.3		P	80 - 120
Heptachlor Epoxide	98.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A78826

Included Lab Sample IDs: 1923925

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Methoxychlor	102		P	80 - 120
Mirex	96.9		P	80 - 120
Permethrin	94.7		P	80 - 120
Trifluralin	83.5		P	80 - 120

Reference Method: EPA 8270D

Run ID: A78885

Included Lab Sample IDs: 1923926

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.8		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine	96.5		P	80 - 120
Atrazine Desethyl	92.6		P	80 - 120
Azinphos Methyl	87.8		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	97.5		P	80 - 120
Chlorpyrifos Ethyl	98.2		P	80 - 120
Chlorpyrifos Methyl	97.1		P	80 - 120
Cyanazine	95.4		P	80 - 120
Demeton	83.2		P	80 - 120
Diazinon	101		P	80 - 120
Disulfoton	94.5		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	92.9		P	80 - 120
Ethoprop	97.5		P	80 - 120
Fenamiphos	93.3		P	80 - 120
Fipronil	90.9		P	80 - 120
Fipronil Sulfide	95.9		P	80 - 120
Fipronil Sulfone	95.3		P	80 - 120
Fonofos	97.9		P	80 - 120
Hexazinone	98.1		P	80 - 120
Malathion	94.5		P	80 - 120
Metaxyl	94.9		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	79.1*		F	80 - 120
Mevinphos	93.6		P	80 - 120
Molinate	106		P	80 - 120
Norflurazon	93.1		P	80 - 120
Parathion Ethyl	94.4		P	80 - 120
Parathion Methyl	96.8		P	80 - 120
Pendimethalin	90.3		P	80 - 120
Phorate	92.9		P	80 - 120
Prometon	95.4		P	80 - 120
Prometryn	101		P	80 - 120
Simazine	88.8		P	80 - 120
Terbufos	101		P	80 - 120
Terbutylazine	97.2		P	80 - 120

Quality Assurance Report Calibration Verification

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision	MS
								SMP	
EPA 180.1 Rev. 2.0	Turbidity							4.53	
EPA 200.7 Rev. 4.4	Calcium	102		101	101				1.19
	Iron	107		106	106	105			0.533
	Magnesium	104		104	104				0.247
	Potassium	101		100	100	101			1.07
	Sodium	99.8		104	99.2				0.342
	Zinc	102		98.2	97.6	99.9			2.31
EPA 200.8 Rev. 5.4	Arsenic	102		104	105	105			0.0697
	Cadmium	97.3		99.5	99.1	101			1.62
	Chromium	98.0		96.8	97.0	97.1			0.108
	Copper	95.7		92.8	93.8	94.0			0.151
	Lead	97.2		98.4	99.1	99.0			0.139
	Nickel	98.1		95.4	96.6	96.8			0.230
	Silver	103		103	105	105			0.507
EPA 300.0 Rev. 2.1	Chloride	96.7		96.1	90.2			0.120	
	Sulfate	96.8		95.9	90.7			0.224	
EPA 350.1 Rev. 2.0	Ammonia-N	103		101	98.9				1.72
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		91.3	90.9				0.374
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	106		100	100				0.499
EPA 365.1 Rev. 2.0	Total-P	95.2		99.0	99.6				0.615
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103		93.7	95.4				1.80
EPA 8270D	Acetochlor	98.0	89.3	95.3	89.2		9.29		6.70
	Alachlor	97.6	92.7	86.7	92.3		5.10		6.24
	Aldrin	33.0	47.9	50.1	60.0		36.7		18.0
	Alpha-BHC	79.4	80.9	83.0	77.6		1.86		6.63
	Alpha-Chlordane	80.1	83.3	80.0	80.7		3.97		0.608
	Ametryn	92.2	106	94.8	97.1		13.5		2.40
	Atrazine	87.5	87.1	88.0	94.0		0.505		5.43
	Atrazine Desethyl	90.8	97.4	76.4	87.2		6.95		13.3
	Azinphos Methyl	113	109	103	104		4.19		1.26
	Beta-BHC	87.8	87.0	95.6	77.9		0.974		20.4
	Bromacil	93.9	90.9	105	94.0		3.27		10.7
	Butylate	50.3	51.0	24.8	38.7		1.39		43.9
	Carbophenothion	71.1	93.6	90.3	59.1		27.4		41.8
	Chlorothalonil	53.0	55.6	79.0	82.4		4.86		4.29
	Chlorpyrifos Ethyl	87.9	83.5	76.8	84.1		5.14		6.79
	Chlorpyrifos Methyl	90.8	88.7	83.5	86.9		2.34		4.05
	Cyanazine	156	146	115	127		6.39		10.1
	Cypermethrin	74.1	79.4	75.4	58.9		6.98		24.5
	DDD-p,p'	81.3	83.0	78.8	69.4		1.97		12.8
	DDE-p,p'	77.8	83.1	81.5	81.0		6.66		0.550
	DDT-p,p'	79.8	82.0	82.5	76.2		2.74		7.98
	Delta-BHC	94.5	88.6	111	87.2		6.51		24.1
	Demeton	75.7	68.3	82.7	84.3		10.2		1.91
	Diazinon	92.7	89.5	92.9	99.7		3.53		6.99
	Dicofol	77.3	61.9	44.8	34.3		22.2		26.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270D	Dieldrin	77.5	80.6			3.93		3.24
	Disulfoton	86.7	87.7	90.6	100	1.21		10.1
	Endosulfan I	80.8	84.4	80.8	82.4	4.37		1.87
	Endosulfan II	83.9	83.1	90.1	90.6	1.01		0.585
	Endosulfan Sulfate	77.4	74.1	69.6	65.4	4.28		6.17
	Endrin	80.4	74.7	72.6	69.5	7.38		4.29
	Endrin Aldehyde	77.5	75.8	52.2	74.3	2.19		34.8
	Endrin Ketone	78.3	79.2	76.0	73.7	1.09		2.51
	EPTC	45.6	47.4	24.9	35.5	3.76		35.1
	Ethion	85.5	82.3	87.3	91.9	3.81		5.12
	Ethoprop	69.4	70.7	72.5	77.8	1.94		6.94
	Fenamiphos	93.5	91.0	86.3	80.8	2.65		6.63
	Fipronil	102	96.6	104	105	5.34		0.945
	Fipronil Sulfide	92.2	82.8	88.4	89.9	10.7		1.63
	Fipronil Sulfone	78.3	74.4	74.4	76.0	5.19		2.20
	Fonofos	78.3	84.5	75.3	88.6	7.61		16.2
	Gamma-BHC	86.5	87.1	93.9	75.4	0.685		21.9
	Gamma-Chlordane	77.9	81.0	78.6	78.2	3.79		0.424
	Heptachlor	67.1	69.6	68.3	70.5	3.78		3.16
	Heptachlor Epoxide	78.2	79.9			2.16		1.61
	Hexazinone	87.2	81.7	88.9	91.1	6.58		2.44
	Malathion	87.3	83.3	78.1	82.9	4.73		6.05
	Metalaxyl	92.5	83.9	87.8	88.0	9.75		0.166
	Methoxychlor	82.5	87.7	85.4	79.6	6.09		7.02
	Metolachlor	91.1	85.7	87.1	91.1	6.13		3.99
	Metribuzin	98.4	122	150	161	21.7		6.59
	Mevinphos	70.7	72.1	66.3	73.6	1.96		10.5
	Mirex	65.6	70.9	70.4	66.9	7.79		5.10
	Molinate	48.4	49.0	33.0	41.4	1.21		22.4
	Norflurazon	93.7	89.3	98.0	93.3	4.77		4.98
	Parathion Ethyl	85.3	85.4	86.0	86.1	0.129		0.0871
	Parathion Methyl	98.4	96.3	96.7	100	2.08		3.42
	Pendimethalin	75.7	72.5	80.5	81.4	4.30		1.20
	Permethrin	73.6	79.3	76.3	66.9	7.52		13.1
	Phorate	68.9	75.1	70.8	76.5	8.62		7.85
	Prometon	90.6	83.2	92.2	100	8.61		8.08
	Prometryn	101	90.5	96.3	101	10.5		5.08
	Simazine	89.6	95.1	95.0	103	5.88		8.15
	Terbufos	79.1	79.6	79.5	88.6	0.640		10.8
	Terbuthylazine	82.5	81.1	82.4	84.6	1.78		2.69
	Trifluralin	97.8	108	145	107	9.84		30.4
EPA 8276	Chlordane	110	102	98.6	103	7.42		4.23
	Toxaphene	107	98.2	102	110	8.54		7.71
EPA 8321B	Glyphosate	102		92.6	95.6			3.12
	Pyraclostrobin	119		120	115			4.19
	Sucralose	93.5		111	106			4.46
SM 2120 B	Color (true)						2.50	
SM 2320 B-97	Total Alkalinity	103					0.292	
SM 2540 C-97	TDS						0.0	
SM 4500 F-C-97	Fluoride	96.1		98.1	101			2.41
SM 5310 B-00	Organic Carbon	100		99.2	98.2			0.481
USGS O-2060-01	2,4-D	134		138	130			5.84
	Acetaminophen	117		109	112			2.40
	Bentazon	87.2		51.6	52.6			1.88

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
USGS O-2060-01	Carbamazepine	128	155	153		1.77
	Diuron	141	113	122		7.51
	Fenuron	144	113	128		12.6
	Fluridone	126	94.5	110		14.7
	Imidacloprid	137	220	235		6.75
	Linuron	119	110	126		13.3
	MCPP	103	99.5	111		11.0
	Primidone	133	129	145		11.3
	Triclopyr	85.6	101	106		4.49

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1923920
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1923927
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1923927
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1923920
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1923920
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1923921
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1923921
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1923921
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1923921
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1923922
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1923925
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1923926
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1923925
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1923924
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1923924
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1923924
SM 2120 B / E31780	True Color measured at 450 nm	1923920
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1923920
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1923920
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1923920
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1923920
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1923921
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1923924
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1923924

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	08/23/2017			08/24/2017 16:33	DeAsia Armster	1923920
EPA 200.7 Rev. 4.4	08/23/2017	08/28/2017	Elliott D. Healy	08/29/2017	Betina Topolski	1923927
EPA 200.8 Rev. 5.4	08/23/2017	08/28/2017	Elliott D. Healy	08/29/2017	Nadine Brooks	1923927
EPA 300.0 Rev. 2.1	08/23/2017			08/24/2017	Julia Storbeck	1923920
EPA 350.1 Rev. 2.0	08/23/2017			08/29/2017	Sofia Elnemr	1923921
EPA 351.2 Rev. 2.0	08/23/2017	08/25/2017	Adrian Shelby	08/29/2017	Joseph Suarez	1923921
EPA 353.2 Rev. 2.0	08/23/2017			08/25/2017	Beverly Y. Sanders	1923921
EPA 365.1 Rev. 2.0	08/23/2017	08/25/2017	Sima Feizi	08/28/2017	Lipi Saha	1923921
EPA 365.1 Rev. 2.0 dissolved	08/23/2017			08/23/2017 17:25	Megan Treadwell	1923922
EPA 8270D	08/23/2017	08/25/2017	John Kaba	08/30/2017	Irina Carbone	1923926
	08/23/2017	08/28/2017	Fe-Val Siddell	08/30/2017	Vandana T. Nagar	1923925
EPA 8276	08/23/2017	08/28/2017	Fe-Val Siddell	08/30/2017	John P. Burgos	1923925
EPA 8321B	08/23/2017	08/24/2017	Julie Michelle Frank	08/24/2017	Julie Michelle Frank	1923924
	08/23/2017	08/28/2017	Julie Michelle Frank	09/02/2017	Julie Michelle Frank	1923924
	08/23/2017	08/29/2017	Hoor Shaik	08/30/2017	Juyoung Kim	1923924
SM 2120 B	08/23/2017			08/23/2017 17:33	Tanya Welborn	1923920
SM 2320 B-97	08/23/2017			08/28/2017	Dale L. Simmons	1923920
SM 2540 C-97	08/23/2017			08/25/2017	Yijie Li	1923920
SM 2540 D-97	08/23/2017			08/25/2017	Yijie Li	1923920
SM 4500 F-C-97	08/23/2017			08/28/2017	Dale L. Simmons	1923920
SM 5310 B-00	08/23/2017			08/28/2017	Ping Hua	1923921
USGS O-2060-01	08/23/2017	08/24/2017	Hoor Shaik	08/26/2017	Juyoung Kim	1923924