

Chemical Analysis Report

NE-DIST-2017-09-22-01

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

Event Description: **LSJR DOWNTOWN**

Request ID: **RQ-2017-09-11-39**

Customer: **NE-DIST**

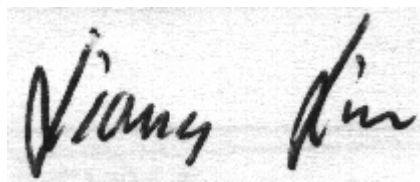
Project ID: **SMP**

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 11-OCT-2017 15:13

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored 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: Hogan Creek @ Washington St

Collection Date/Time: 09/21/2017 09:45

Field ID: G2NE0781 09212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1930893	EPA 180.1 Rev. 2.0	Turbidity	5.8		NTU	P332115	
	EPA 300.0 Rev. 2.1	Chloride	58		mg Cl/L	P332216	
		Sulfate	75		mg SO4/L	P332219	
	SM 2120 B	Color (true)	42	A	PCU	P332105	
	SM 2320 B-97	Total Alkalinity	154		mg CaCO3/L	P332210	
	SM 2540 C-97	TDS	366		mg/L	P332559	
	SM 2540 D-97	TSS	5	I	mg/L	P332584	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P332211	RPD
1930894	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P332336	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P332293	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P332458	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P332233	
	SM 5310 B-00	Organic Carbon	7.3		mg C/L	P332239	
1930895	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P332143	
1930902	EPA 200.7 Rev. 4.4	Calcium	65.2		mg/L	P332179	
		Iron	720		ug/L	P332179	
		Magnesium	15.8		mg/L	P332179	
		Potassium	3.8		mg/L	P332179	
		Sodium	37.6		mg/L	P332179	
	EPA 200.8 Rev. 5.4	Zinc	7.6	I	ug/L	P332179	
		Arsenic	1.48		ug/L	P332179	
		Cadmium	0.020	U	ug/L	P332179	
		Chromium	0.41	I	ug/L	P332179	
		Copper	2.15		ug/L	P332179	
		Lead	2.07		ug/L	P332179	
		Nickel	0.62	I	ug/L	P332179	
		Silver	0.010	U	ug/L	P332179	

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

Sample Location: Hogan Creek @ Washington St

Collection Date/Time: 09/21/2017 09:45

Field ID: G2NE0781 09212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1930899	EPA 8321B	Glyphosate**	0.50	U	ug/L	P331888	
		Pyraclostrobin**	0.0020	U	ug/L	P332072	
		Sucralose**	0.072		ug/L	P332050	
	USGS O-2060-01	2,4-D	0.0038	I	ug/L	P332073	
		Diuron	0.017		ug/L	P332073	
		Fenuron	0.0080	U	ug/L	P332073	
		Imidacloprid	0.057		ug/L	P332073	MS
		Bentazon	0.027		ug/L	P332073	MS
		Linuron	0.0040	U	ug/L	P332073	

Field ID: G2NE0781 09212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1930899	USGS O-2060-01	Acetaminophen**	0.028	IJ	ug/L	P332073	LCS
		MCPD	0.0020	U	ug/L	P332073	
		Carbamazepine**	9.6E-04	I	ug/L	P332073	
		Triclopyr**	0.0040	U	ug/L	P332073	
		Primidone**	0.0040	U	ug/L	P332073	
		Fluridone**	0.0026		ug/L	P332073	
1930900	EPA 8270D	Aldrin	4.3	U	ng/L	P332053	
		Alpha-BHC	2.2	U	ng/L	P332053	
		Beta-BHC	4.3	U	ng/L	P332053	
		Delta-BHC	4.3	U	ng/L	P332053	
		Gamma-BHC	4.3	U	ng/L	P332053	
		Carbophenothion	4.3	U	ng/L	P332053	
		Chlorothalonil	2.2	U	ng/L	P332053	
		Cypermethrin	22	U	ng/L	P332053	
		DDD-p,p'	3.3	U	ng/L	P332053	
		DDE-p,p'	3.3	U	ng/L	P332053	
		DDT-p,p'	3.3	U	ng/L	P332053	
		Dieldrin	4.3	U	ng/L	P332053	
		Endosulfan I	4.3	U	ng/L	P332053	
		Endosulfan II	4.3	U	ng/L	P332053	
		Endosulfan Sulfate	2.2	U	ng/L	P332053	
		Endrin	2.2	U	ng/L	P332053	
		Endrin Aldehyde	2.2	U	ng/L	P332053	
		Heptachlor	1.6	U	ng/L	P332053	
		Heptachlor Epoxide	2.2	U	ng/L	P332053	
		Methoxychlor	4.3	U	ng/L	P332053	
		Mirex	2.2	U	ng/L	P332053	
		Permethrin	11	U	ng/L	P332053	
		Trifluralin	1.1	U	ng/L	P332053	
		Alpha-Chlordane	1.1	U	ng/L	P332053	
		Gamma-Chlordane	1.1	U	ng/L	P332053	
		Endrin Ketone	2.2	U	ng/L	P332053	
		Dicofol	33	UJ	ng/L	P332053	CCV, RPD
	EPA 8276	Chlordane**	3.2	I	ng/L	P332053	
		Toxaphene**	14	U	ng/L	P332053	
1930901	EPA 8270D	Alachlor	0.24	U	ng/L	P332065	
		Ametryn	0.31	U	ng/L	P332065	
		Atrazine	3.9		ng/L	P332065	
		Atrazine Desethyl	1.4	U	ng/L	P332065	
		Azinphos Methyl	2.2	UJ	ng/L	P332065	CCV
		Bromacil	12		ng/L	P332065	
		Butylate	0.38	U	ng/L	P332065	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P332065	
		Chlorpyrifos Methyl	0.096	U	ng/L	P332065	
		Demeton	1.9	U	ng/L	P332065	

Field ID: G2NE0800 0921017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1930889	EPA 350.1 Rev. 2.0	Ammonia-N	0.81		mg N/L	P332336	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P332293	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P332457	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P332233	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P332239	
1930891	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.084		mg P/L	P332143	

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

Sample Location: Big Fishweir Cr NF @ Hamilton St

Collection Date/Time: 09/21/2017 11:20

Field ID: G2NE0786 09212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1930888	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P332115	
	EPA 300.0 Rev. 2.1	Chloride	120		mg Cl/L	P332216	
		Sulfate	59		mg SO4/L	P332219	
		Color (true)	49	A	PCU	P332109	
	SM 2320 B-97	Total Alkalinity	205		mg CaCO3/L	P332210	
	SM 2540 C-97	TDS	528	A	mg/L	P332559	
	SM 2540 D-97	TSS	3	IA	mg/L	P332584	
	SM 4500 F-C-97	Fluoride	0.22		mg F/L	P332211	RPD
	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P332336	
		Kjeldahl Nitrogen	0.69		mg N/L	P332293	
		NO2NO3-N	0.42		mg N/L	P332458	
		Total-P	0.13		mg P/L	P332233	
		Organic Carbon	11		mg C/L	P332239	
1930892	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.10		mg P/L	P332143	

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P332115

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P332179

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: P332179

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: P332179

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: P332216

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332219

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332336

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332293

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332457

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332458

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332233

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332143

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

Reference Method: EPA 8270D
Batch ID: P332053

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: P332065

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D

Batch ID: P332065

Component	Result	Code	Units
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
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
Metalaxyl	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: P332053

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

Reference Method: EPA 8321B

Batch ID: P331888

Component	Result	Code	Units
Glyphosate	0.50	U	ug/L

Reference Method: EPA 8321B

Batch ID: P332050

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P332072

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: SM 2120 B
Batch ID: P332105

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P332109

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P332210

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

Reference Method: SM 2540 C-97
Batch ID: P332559

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P332584

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P332211

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P332239

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

Reference Method: USGS O-2060-01
Batch ID: P332073

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

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P332073

Component	Result	Code	Units
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: P332179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	108		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	102		P	85 - 115
Sodium	102		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	101		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	101		P	85 - 115
Copper	97.0		P	85 - 115
Lead	98.2		P	85 - 115
Nickel	98.9		P	85 - 115
Silver	99.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332216

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332219

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332336

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332336

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: P332293

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332457

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332458

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332233

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	93.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332143

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

Reference Method: EPA 8270D
Batch ID: P332053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	47.0	41.5	P/P	26 - 88.0
Alpha-BHC	72.3	68.9	P/P	63 - 114
Alpha-Chlordane	79.3	71.3	P/P	56 - 117
Beta-BHC	77.4	82.9	P/P	57 - 138
Carbophenothion	55.6	72.5	P/P	36 - 148
Chlorothalonil	90.8	68.7	P/P	26 - 173
Cypermethrin	85.1	88.9	P/P	42 - 159
DDD-p,p'	83.2	82.4	P/P	62 - 126
DDE-p,p'	82.2	72.5	P/P	53 - 115
DDT-p,p'	86.0	79.6	P/P	54 - 117
Delta-BHC	83.2	82.6	P/P	68 - 158
Dicofol	49.8	81.2	P/P	25 - 114
Dieldrin	84.1	75.9	P/P	59 - 126
Endosulfan I	88.8	74.3	P/P	62 - 138
Endosulfan II	79.4	84.4	P/P	61 - 150
Endosulfan Sulfate	78.1	76.1	P/P	63 - 132

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
 Batch ID: P332053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	86.1	73.5	P/P	49 - 148
Endrin Aldehyde	51.6	68.8	P/P	50 - 144
Endrin Ketone	79.3	79.7	P/P	66 - 122
Gamma-BHC	73.1	77.8	P/P	60 - 137
Gamma-Chlordane	77.3	69.5	P/P	54 - 113
Heptachlor	69.2	59.7	P/P	43 - 104
Heptachlor Epoxide	79.2	70.7	P/P	64 - 118
Methoxychlor	95.3	87.1	P/P	63 - 129
Mirex	61.7	64.5	P/P	39 - 93.0
Permethrin	81.0	79.0	P/P	51 - 123
Trifluralin	137	114	P/P	35 - 187

Reference Method: EPA 8270D
 Batch ID: P332065

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	98.4	88.5	P/P	78 - 118
Alachlor	102	99.1	P/P	77 - 119
Ametryn	89.2	68.2	P/P	61 - 136
Atrazine	100	103	P/P	73 - 120
Atrazine Desethyl	81.3	74.7	P/P	16 - 122
Azinphos Methyl	123	109	P/P	69 - 186
Bromacil	87.3	76.6	P/P	40 - 125
Butylate	55.8	51.2	P/P	32 - 87.0
Chlorpyrifos Ethyl	88.6	93.5	P/P	53 - 110
Chlorpyrifos Methyl	105	99.6	P/P	31 - 119
Cyanazine	117	108	P/P	36 - 224
Demeton	73.3	81.3	P/P	39 - 122
Diazinon	99.8	107	P/P	75 - 119
Disulfoton	92.3	88.4	P/P	42 - 139
EPTC	50.6	49.9	P/P	33 - 96.0
Ethion	86.7	79.4	P/P	63 - 127
Ethoprop	80.1	86.0	P/P	65 - 107
Fenamiphos	91.6	86.4	P/P	64 - 137
Fipronil	110	97.2	P/P	60 - 126
Fipronil Sulfide	88.2	79.9	P/P	58 - 124
Fipronil Sulfone	89.5	80.6	P/P	57 - 126
Fonofos	86.8	95.5	P/P	65 - 111
Hexazinone	84.3	88.5	P/P	46 - 151
Malathion	88.6	90.1	P/P	68 - 132
Metalaxyl	94.7	78.6	P/P	51 - 132
Metolachlor	83.9	80.5	P/P	78 - 119
Metribuzin	88.0	86.6	P/P	58 - 148
Mevinphos	90.9	83.3	P/P	34 - 128
Molinate	52.6	56.4	P/P	44 - 101
Norflurazon	87.4	74.6	P/P	63 - 129
Parathion Ethyl	95.7	89.6	P/P	80 - 109
Parathion Methyl	119	109	P/P	74 - 125
Pendimethalin	89.1	90.0	P/P	48 - 134
Phorate	86.2	99.8	P/P	52 - 119
Prometon	94.8	86.7	P/P	69 - 124
Prometryn	108	87.4	P/P	66 - 124

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P332065

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Simazine	99.7	92.5	P/P	61 - 134
Terbufos	89.0	97.1	P/P	58 - 115
Terbutylazine	89.0	88.0	P/P	77 - 113

Reference Method: EPA 8276
Batch ID: P332053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	108	94.9	P/P	48 - 121
Toxaphene	128	103	P/P	43 - 135

Reference Method: EPA 8321B
Batch ID: P331888

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	85.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332050

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	70.7		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332072

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	81.3		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P332210

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P332211

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.6		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P332239

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.8		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P332073

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	86.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
Batch ID: P332073

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	152		F	30 - 150
Bentazon	65.7		P	40 - 150
Carbamazepine	148		P	40 - 150
Diuron	125		P	40 - 150
Fenuron	122		P	40 - 150
Fluridone	135		P	40 - 150
Imidacloprid	112		P	40 - 160
Linuron	125		P	40 - 150
MCPP	82.6		P	40 - 150
Primidone	117		P	40 - 150
Triclopyr	78.8		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P332179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930976	Calcium	107		P	80 - 120
1930976	Iron	105		P	80 - 120
1930976	Magnesium	106		P	80 - 120
1930976	Potassium	104		P	80 - 120
1930976	Sodium	103		P	80 - 120
1930976	Zinc	103		P	80 - 120
1931060	Calcium	95.3		P	80 - 120
1931060	Iron	104	104	P/P	80 - 120
1931060	Magnesium	97.0		P	80 - 120
1931060	Potassium	99.5	99.1	P/P	80 - 120
1931060	Sodium	97.8		P	80 - 120
1931060	Zinc	94.8	95.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930976	Arsenic	101		P	80 - 120
1930976	Cadmium	104		P	80 - 120
1930976	Chromium	98.4		P	80 - 120
1930976	Copper	96.0		P	80 - 120
1930976	Lead	98.9		P	80 - 120
1930976	Nickel	97.0		P	80 - 120
1930976	Silver	98.2		P	80 - 120
1931060	Arsenic	102	101	P/P	80 - 120
1931060	Cadmium	106	103	P/P	80 - 120
1931060	Chromium	99.0	98.2	P/P	80 - 120
1931060	Copper	94.1	93.1	P/P	80 - 120
1931060	Lead	99.5	98.6	P/P	80 - 120
1931060	Nickel	97.4	94.7	P/P	80 - 120
1931060	Silver	99.4	99.4	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332216

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930907	Chloride	98.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930907	Sulfate	108		P	90 - 110
1930908	Sulfate	105		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930669	Ammonia-N	104	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930671	Kjeldahl Nitrogen	97.5	94.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332457

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930668	NO2NO3-N	102		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332458

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930894	NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332233

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930669	Total-P	97.0	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332143

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931006	O-Phosphate-P	100	99.0	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P332053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930900	Aldrin	44.6		P	22 - 97.0
1930900	Alpha-BHC	71.0		P	43 - 132
1930900	Alpha-Chlordane	57.6		P	36 - 126

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P332053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930900	Beta-BHC	66.4		P	41 - 150
1930900	Carbophenothion	76.4		P	13 - 196
1930900	Chlorothalonil	65.9		P	10 - 266
1930900	Cypermethrin	90.2		P	37 - 161
1930900	DDD-p,p'	63.0		P	44 - 131
1930900	DDE-p,p'	55.7		P	32 - 127
1930900	DDT-p,p'	73.1		P	45 - 116
1930900	Delta-BHC	69.1		P	50 - 201
1930900	Dicofol	39.8		P	10 - 100
1930900	Dieldrin	67.6		P	39 - 142
1930900	Endosulfan I	63.7		P	51 - 139
1930900	Endosulfan II	61.9		P	49 - 155
1930900	Endosulfan Sulfate	57.7		P	54 - 136
1930900	Endrin	60.3		P	38 - 141
1930900	Endrin Aldehyde	40.5		P	14 - 152
1930900	Endrin Ketone	71.5		P	60 - 128
1930900	Gamma-BHC	74.8		P	48 - 157
1930900	Gamma-Chlordane	56.3		P	35 - 123
1930900	Heptachlor	55.0		P	25 - 112
1930900	Heptachlor Epoxide	78.2		P	48 - 125
1930900	Methoxychlor	87.5		P	52 - 127
1930900	Mirex	59.3		P	25 - 108
1930900	Permethrin	73.1		P	46 - 133
1930900	Trifluralin	124		P	29 - 254

Reference Method: EPA 8270D
Batch ID: P332065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930901	Acetochlor	90.1	101	P/P	74 - 123
1930901	Alachlor	83.4	98.5	P/P	73 - 124
1930901	Ametryn	100	116	P/P	56 - 149
1930901	Atrazine	84.1	91.8	P/P	73 - 124
1930901	Atrazine Desethyl	97.0	99.0	P/P	12 - 103
1930901	Azinphos Methyl	139	124	P/P	60 - 202
1930901	Bromacil	64.5	108	P/P	42 - 133
1930901	Butylate	52.5	66.3	P/P	10 - 85.0
1930901	Chlorpyrifos Ethyl	87.6	99.5	P/P	53 - 113
1930901	Chlorpyrifos Methyl	96.3	89.7	P/P	40 - 115
1930901	Cyanazine	99.4	104	P/P	22 - 210
1930901	Demeton	79.6	83.9	P/P	17 - 149
1930901	Diazinon	109	121	P/P	72 - 124
1930901	Disulfoton	108	105	P/P	43 - 139
1930901	EPTC	56.3	60.6	P/P	10 - 86.0
1930901	Ethion	81.4	85.0	P/P	65 - 131
1930901	Ethoprop	96.7	93.9	P/P	59 - 110
1930901	Fenamiphos	109	88.7	P/P	57 - 138
1930901	Fipronil	109	91.4	P/P	40 - 130
1930901	Fipronil Sulfide	108	89.4	P/P	36 - 128
1930901	Fipronil Sulfone	102	76.6	P/P	16 - 145
1930901	Fonofos	102	104	P/P	60 - 112
1930901	Hexazinone	87.3	83.3	P/P	69 - 142

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P332065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930901	Malathion	86.1	86.4	P/P	68 - 132
1930901	Metalaxyl	91.5	111	P/P	66 - 118
1930901	Metolachlor	82.5	77.9	P/P	71 - 124
1930901	Metribuzin	130	116	P/P	61 - 140
1930901	Mevinphos	98.2	101	P/P	38 - 130
1930901	Molinate	54.9	58.5	P/P	23 - 99.0
1930901	Norflurazon	79.8	107	P/P	39 - 139
1930901	Parathion Ethyl	84.6	80.8	P/P	75 - 111
1930901	Parathion Methyl	101	94.0	P/P	64 - 130
1930901	Pendimethalin	85.3	71.0	P/P	26 - 173
1930901	Phorate	91.3	85.0	P/P	43 - 127
1930901	Prometon	101	130	P/P	50 - 144
1930901	Prometryn	91.1	117	P/P	69 - 126
1930901	Simazine	89.0	104	P/P	51 - 152
1930901	Terbufos	97.8	105	P/P	54 - 125
1930901	Terbutylazine	86.1	104	P/P	76 - 113

Reference Method: EPA 8276
Batch ID: P332053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930900	Chlordane	95.8		P	44 - 134
1930900	Toxaphene	111		P	36 - 147

Reference Method: EPA 8321B
Batch ID: P331888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1929559	Glyphosate	90.9	89.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930507	Sucralose	61.0	66.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P332072

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930899	Pyraclostrobin	90.6	119	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P332211

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1931054	Fluoride	95.8	101	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P332239

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P332239

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930644	Organic Carbon	95.2	97.2	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P332073

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1930506	2,4-D	49.8	60.0	P/P	40 - 150
1930506	Acetaminophen	104	125	P/P	30 - 150
1930506	Bentazon	41.9	39.5	P/F	40 - 150
1930506	Carbamazepine	136	144	P/P	40 - 150
1930506	Diuron	94.5	106	P/P	40 - 150
1930506	Fenuron	104	111	P/P	40 - 150
1930506	Fluridone	110	130	P/P	40 - 150
1930506	Imidacloprid	252	268	F/F	40 - 160
1930506	Linuron	101	123	P/P	40 - 150
1930506	MCCP	65.4	73.5	P/P	40 - 150
1930506	Primidone	134	148	P/P	40 - 150
1930506	Triclopyr	60.8	63.1	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P332115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930887	Turbidity	4.58	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P332179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931060	Calcium	1.62	Spike	P	0 - 20
1931060	Iron	0.369	Spike	P	0 - 20
1931060	Magnesium	0.166	Spike	P	0 - 20
1931060	Potassium	0.372	Spike	P	0 - 20
1931060	Sodium	1.85	Spike	P	0 - 20
1931060	Zinc	0.518	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P332179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931060	Arsenic	0.710	Spike	P	0 - 20
1931060	Cadmium	2.58	Spike	P	0 - 20
1931060	Chromium	0.776	Spike	P	0 - 20
1931060	Copper	1.12	Spike	P	0 - 20
1931060	Lead	0.898	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P332179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931060	Nickel	2.78	Spike	P	0 - 20
1931060	Silver	0.0193	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332216

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930907	Chloride	4.46	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P332219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930907	Sulfate	8.90	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P332336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930669	Ammonia-N	0.283	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P332293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930671	Kjeldahl Nitrogen	1.86	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332457

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930668	NO2NO3-N	0.579	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P332458

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930894	NO2NO3-N	0.478	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P332233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930669	Total-P	4.35	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P332143

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931006	O-Phosphate-P	1.30	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P332053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Aldrin	12.4	LCS	P	0 - 30
LFB	Alpha-BHC	4.85	LCS	P	0 - 30
LFB	Alpha-Chlordane	10.6	LCS	P	0 - 30
LFB	Beta-BHC	6.88	LCS	P	0 - 30
LFB	Carbophenothion	26.4	LCS	P	0 - 30
LFB	Chlorothalonil	27.8	LCS	P	0 - 30
LFB	Cypermethrin	4.31	LCS	P	0 - 30
LFB	DDD-p,p'	0.936	LCS	P	0 - 30
LFB	DDE-p,p'	12.5	LCS	P	0 - 30
LFB	DDT-p,p'	7.72	LCS	P	0 - 30
LFB	Delta-BHC	0.731	LCS	P	0 - 30
LFB	Dicofol	47.9	LCS	F	0 - 30
LFB	Dieldrin	10.2	LCS	P	0 - 30
LFB	Endosulfan I	17.7	LCS	P	0 - 30
LFB	Endosulfan II	6.07	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.61	LCS	P	0 - 30
LFB	Endrin	15.8	LCS	P	0 - 30
LFB	Endrin Aldehyde	28.6	LCS	P	0 - 30
LFB	Endrin Ketone	0.440	LCS	P	0 - 30
LFB	Gamma-BHC	6.24	LCS	P	0 - 30
LFB	Gamma-Chlordane	10.7	LCS	P	0 - 30
LFB	Heptachlor	14.8	LCS	P	0 - 30
LFB	Heptachlor Epoxide	11.3	LCS	P	0 - 30
LFB	Methoxychlor	9.01	LCS	P	0 - 30
LFB	Mirex	4.39	LCS	P	0 - 30
LFB	Permethrin	2.57	LCS	P	0 - 30
LFB	Trifluralin	19.0	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P332065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930901	Acetochlor	11.8	Spike	P	0 - 30
1930901	Alachlor	16.7	Spike	P	0 - 30
1930901	Ametryn	14.8	Spike	P	0 - 30
1930901	Atrazine	4.05	Spike	P	0 - 30
1930901	Atrazine Desethyl	2.06	Spike	P	0 - 30
1930901	Azinphos Methyl	11.9	Spike	P	0 - 30
1930901	Bromacil	17.8	Spike	P	0 - 30
1930901	Butylate	23.3	Spike	P	0 - 30
1930901	Chlorpyrifos Ethyl	12.7	Spike	P	0 - 30
1930901	Chlorpyrifos Methyl	7.11	Spike	P	0 - 30
1930901	Cyanazine	4.96	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P332065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930901	Demeton	5.18	Spike	P	0 - 30
1930901	Diazinon	10.9	Spike	P	0 - 30
1930901	Disulfoton	2.72	Spike	P	0 - 30
1930901	EPTC	7.29	Spike	P	0 - 30
1930901	Ethion	4.34	Spike	P	0 - 30
1930901	Ethoprop	2.93	Spike	P	0 - 30
1930901	Fenamiphos	20.4	Spike	P	0 - 30
1930901	Fipronil	8.87	Spike	P	0 - 30
1930901	Fipronil Sulfide	8.34	Spike	P	0 - 30
1930901	Fipronil Sulfone	5.90	Spike	P	0 - 30
1930901	Fonofos	1.81	Spike	P	0 - 30
1930901	Hexazinone	3.60	Spike	P	0 - 30
1930901	Malathion	0.346	Spike	P	0 - 30
1930901	Metalaxyl	19.3	Spike	P	0 - 30
1930901	Metolachlor	4.79	Spike	P	0 - 30
1930901	Metribuzin	11.1	Spike	P	0 - 30
1930901	Mevinphos	2.40	Spike	P	0 - 30
1930901	Molinate	6.45	Spike	P	0 - 30
1930901	Norflurazon	29.6	Spike	P	0 - 30
1930901	Parathion Ethyl	4.64	Spike	P	0 - 30
1930901	Parathion Methyl	7.63	Spike	P	0 - 30
1930901	Pendimethalin	14.9	Spike	P	0 - 30
1930901	Phorate	7.17	Spike	P	0 - 30
1930901	Prometon	18.9	Spike	P	0 - 30
1930901	Prometryn	24.7	Spike	P	0 - 30
1930901	Simazine	9.00	Spike	P	0 - 30
1930901	Terbufos	7.47	Spike	P	0 - 30
1930901	Terbutylazine	18.9	Spike	P	0 - 30
LFB	Acetochlor	10.5	LCS	P	0 - 30
LFB	Alachlor	2.69	LCS	P	0 - 30
LFB	Ametryn	26.7	LCS	P	0 - 30
LFB	Atrazine	3.06	LCS	P	0 - 30
LFB	Atrazine Desethyl	8.47	LCS	P	0 - 30
LFB	Azinphos Methyl	12.1	LCS	P	0 - 30
LFB	Bromacil	13.1	LCS	P	0 - 30
LFB	Butylate	8.51	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.37	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.35	LCS	P	0 - 30
LFB	Cyanazine	7.42	LCS	P	0 - 30
LFB	Demeton	10.3	LCS	P	0 - 30
LFB	Diazinon	6.69	LCS	P	0 - 30
LFB	Disulfoton	4.25	LCS	P	0 - 30
LFB	EPTC	1.49	LCS	P	0 - 30
LFB	Ethion	8.73	LCS	P	0 - 30
LFB	Ethoprop	7.11	LCS	P	0 - 30
LFB	Fenamiphos	5.87	LCS	P	0 - 30
LFB	Fipronil	12.7	LCS	P	0 - 30
LFB	Fipronil Sulfide	9.81	LCS	P	0 - 30
LFB	Fipronil Sulfone	10.5	LCS	P	0 - 30
LFB	Fonofos	9.51	LCS	P	0 - 30
LFB	Hexazinone	4.88	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P332065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Malathion	1.70	LCS	P	0 - 30
LFB	Metalaxyl	18.6	LCS	P	0 - 30
LFB	Metolachlor	4.09	LCS	P	0 - 30
LFB	Metribuzin	1.69	LCS	P	0 - 30
LFB	Mevinphos	8.69	LCS	P	0 - 30
LFB	Molinate	6.85	LCS	P	0 - 30
LFB	Norflurazon	15.7	LCS	P	0 - 30
LFB	Parathion Ethyl	6.54	LCS	P	0 - 30
LFB	Parathion Methyl	8.67	LCS	P	0 - 30
LFB	Pendimethalin	0.909	LCS	P	0 - 30
LFB	Phorate	14.7	LCS	P	0 - 30
LFB	Prometon	8.95	LCS	P	0 - 30
LFB	Prometryn	21.1	LCS	P	0 - 30
LFB	Simazine	7.52	LCS	P	0 - 30
LFB	Terbufos	8.70	LCS	P	0 - 30
LFB	Terbutylazine	1.05	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P332053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlordane	12.5	LCS	P	0 - 30
LFB	Toxaphene	21.9	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P331888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1929559	Glyphosate	1.98	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930507	Sucralose	8.66	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P332072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930899	Pyraclostrobin	27.4	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P332105

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P332105

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930893	Color (true)	0.749	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P332109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930888	Color (true)	4.58	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P332210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931054	Total Alkalinity	0.0265	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P332559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930888	TDS	6.26	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P332211

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1931054	Fluoride	4.56	Spike	F	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P332239

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930644	Organic Carbon	1.50	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P332073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930506	2,4-D	4.29	Spike	P	0 - 30
1930506	Acetaminophen	18.2	Spike	P	0 - 30
1930506	Bentazon	3.23	Spike	P	0 - 30
1930506	Carbamazepine	5.64	Spike	P	0 - 30
1930506	Diuron	10.4	Spike	P	0 - 30
1930506	Fenuron	7.13	Spike	P	0 - 30
1930506	Fluridone	16.5	Spike	P	0 - 30
1930506	Imidacloprid	5.18	Spike	P	0 - 30
1930506	Linuron	19.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P332073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1930506	MCP	11.6	Spike	P	0 - 30
1930506	Primidone	9.88	Spike	P	0 - 30
1930506	Triclopyr	3.62	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: 1930899
Field Sample ID: G2NE0781 09212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	108	P	30 - 160
EPA 8321B	Diuron-d6	78.9	P	30 - 160
EPA 8321B	Diuron-d6	101	P	30 - 160
EPA 8321B	Diuron-d6	78.9	P	30 - 160
EPA 8321B	Diuron-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	70.6	P	40 - 160
EPA 8321B	Primidone-d5	119	P	30 - 160
EPA 8321B	Primidone-d5	119	P	30 - 160
EPA 8321B	Sucralose-d6	65.0	P	40 - 160
EPA 8321B	Sucralose-d6	65.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	70.4	P	40 - 160
USGS O-2060-01	Acetaminophen-d4	102	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	108	P	30 - 160
USGS O-2060-01	Diuron-d6	78.9	P	30 - 160
USGS O-2060-01	Diuron-d6	101	P	30 - 160
USGS O-2060-01	Primidone-d5	119	P	30 - 160
USGS O-2060-01	Sucralose-d6	65.0	P	40 - 160

Lab Sample ID: 1930900
Field Sample ID: G2NE0781 09212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	59.7	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	46.6	P	32 - 103
EPA 8276	Decachlorobiphenyl	62.7	P	31 - 100

Lab Sample ID: 1930901
Field Sample ID: G2NE0781 09212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	75.8	P	53 - 135
EPA 8270D	Simazine-d10	103	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A79095
Included Lab Sample IDs: 1930899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	75.8	81.6	P/P	70 - 160

Reference Method: SM 2120 B
Run ID: A79108
Included Lab Sample IDs: 1930887, 1930888, 1930893

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	105	P/P	85 - 115
Color (true)	99.8	103	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A79112
Included Lab Sample IDs: 1930887, 1930888, 1930893

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A79121
Included Lab Sample IDs: 1930891, 1930892, 1930895

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	102	100	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A79144
Included Lab Sample IDs: 1930887, 1930888, 1930893

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.4	P/P	90 - 110
Total Alkalinity	98.4	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A79144
Included Lab Sample IDs: 1930887, 1930888, 1930893

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A79147
Included Lab Sample IDs: 1930887, 1930888, 1930893

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	101	P/P	90 - 110
Sulfate	107	107	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A79154

Included Lab Sample IDs: 1930889, 1930890, 1930894

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	97.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A79163

Included Lab Sample IDs: 1930902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	101	P/P	90 - 110
Iron	103	102	P/P	90 - 110
Magnesium	104	102	P/P	90 - 110
Potassium	100	98.5	P/P	90 - 110
Sodium	101	98.2	P/P	90 - 110
Zinc	98.0	98.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A79179

Included Lab Sample IDs: 1930899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	107	106	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A79179

Included Lab Sample IDs: 1930899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.7	110	P/P	50 - 150
Acetaminophen	98.1	104	P/P	60 - 150
Bentazon	143	146	P/P	50 - 150
Carbamazepine	111	113	P/P	60 - 150
Diuron	101	103	P/P	60 - 150
Fenuron	98.4	101	P/P	60 - 150
Fluridone	113	111	P/P	60 - 160
Imidacloprid	101	94.3	P/P	60 - 150
Linuron	107	105	P/P	60 - 150
MCPP	102	95.4	P/P	50 - 150
Primidone	105	97.9	P/P	60 - 150
Triclopyr	106	98.4	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A79185

Included Lab Sample IDs: 1930889, 1930890, 1930894

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79196

Included Lab Sample IDs: 1930889, 1930890, 1930894

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A79196

Included Lab Sample IDs: 1930889, 1930890, 1930894

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A79198

Included Lab Sample IDs: 1930902

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	103	104	P/P	90 - 110
Cadmium	105	104	P/P	90 - 110
Chromium	103	104	P/P	90 - 110
Copper	101	101	P/P	90 - 110
Lead	101	101	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Silver	100	99.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A79224

Included Lab Sample IDs: 1930889, 1930890, 1930894

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.4	102	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A79227

Included Lab Sample IDs: 1930900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	110		P	80 - 120

Reference Method: EPA 8321B

Run ID: A79230

Included Lab Sample IDs: 1930899

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	98.6	108	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A79237

Included Lab Sample IDs: 1930889, 1930890, 1930894

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

Reference Method: EPA 8270D

Run ID: A79240

Included Lab Sample IDs: 1930900

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

Reference Method: EPA 8270D
 Run ID: A79240
 Included Lab Sample IDs: 1930900

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.8		P	80 - 120
Alpha-BHC	94.9		P	80 - 120
Alpha-Chlordane	95.2		P	80 - 120
Beta-BHC	108		P	80 - 120
Carbophenothion	89.7		P	80 - 120
Chlorothalonil	87.5		P	80 - 120
Cypermethrin	82.1		P	80 - 120
DDD-p,p'	95.4		P	80 - 120
DDE-p,p'	100		P	80 - 120
DDT-p,p'	106		P	80 - 120
Delta-BHC	96.3		P	80 - 120
Dicofol	141*		F	80 - 120
Dieldrin	96.8		P	80 - 120
Endosulfan I	91.3		P	80 - 120
Endosulfan II	94.6		P	80 - 120
Endosulfan Sulfate	95.5		P	80 - 120
Endrin	96.7		P	80 - 120
Endrin Aldehyde	92.3		P	80 - 120
Endrin Ketone	96.9		P	80 - 120
Gamma-BHC	94.2		P	80 - 120
Gamma-Chlordane	95.3		P	80 - 120
Heptachlor	95.5		P	80 - 120
Heptachlor Epoxide	97.1		P	80 - 120
Methoxychlor	101		P	80 - 120
Mirex	101		P	80 - 120
Permethrin	93.4		P	80 - 120
Trifluralin	111		P	80 - 120

Reference Method: EPA 8270D
 Run ID: A79362
 Included Lab Sample IDs: 1930901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	113		P	80 - 120
Ametryn	109		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	95.3		P	80 - 120
Azinphos Methyl	72.1*		F	80 - 120
Bromacil	100		P	80 - 120
Butylate	106		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	83.8		P	80 - 120
Cyanazine	83.0		P	80 - 120
Demeton	93.2		P	80 - 120
Diazinon	110		P	80 - 120
Disulfoton	91.7		P	80 - 120
EPTC	106		P	80 - 120
Ethion	122*		F	80 - 120
Ethoprop	96.3		P	80 - 120
Fenamiphos	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A79362
Included Lab Sample IDs: 1930901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fipronil	115		P	80 - 120
Fipronil Sulfide	100		P	80 - 120
Fipronil Sulfone	111		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	99.2		P	80 - 120
Malathion	86.9		P	80 - 120
Metalaxyl	108		P	80 - 120
Metolachlor	108		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	109		P	80 - 120
Norflurazon	119		P	80 - 120
Parathion Ethyl	90.5		P	80 - 120
Parathion Methyl	88.9		P	80 - 120
Pendimethalin	89.0		P	80 - 120
Phorate	98.2		P	80 - 120
Prometon	105		P	80 - 120
Prometryn	111		P	80 - 120
Simazine	98.7		P	80 - 120
Terbufos	98.9		P	80 - 120
Terbutylazine	113		P	80 - 120

Reference Method: EPA 8270D
Run ID: A79364
Included Lab Sample IDs: 1930901

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metribuzin	85.6		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					4.58	
EPA 200.7 Rev. 4.4	Calcium	105	107	95.3			1.62
	Iron	108	105	104	104		0.369
	Magnesium	105	106	97.0			0.166
	Potassium	102	104	99.5	99.1		0.372
	Sodium	102	103	97.8			1.85
	Zinc	102	103	94.8	95.3		0.518
EPA 200.8 Rev. 5.4	Arsenic	101	101	102	101		0.710
	Cadmium	103	104	106	103		2.58
	Chromium	101	98.4	99.0	98.2		0.776
	Copper	97.0	96.0	94.1	93.1		1.12
	Lead	98.2	98.9	99.5	98.6		0.898
	Nickel	98.9	97.0	97.4	94.7		2.78

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision SMP	MS
EPA 200.8 Rev. 5.4	Silver	99.9		98.2	99.4	99.4		0.0193
EPA 300.0 Rev. 2.1	Chloride	96.4		98.6			4.46	
	Sulfate	102		108	105		8.90	
EPA 350.1 Rev. 2.0	Ammonia-N	103		104	103			0.283
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100		97.5	94.2			1.86
EPA 353.2 Rev. 2.0	NO2NO3-N	104		102				0.579
	NO2NO3-N	105		102				0.478
EPA 365.1 Rev. 2.0	Total-P	93.6		97.0	102			4.35
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	107		100	99.0			1.30
EPA 8270D	Acetochlor	98.4	88.5	90.1	101	10.5		11.8
	Alachlor	102	99.1	83.4	98.5	2.69		16.7
	Aldrin	41.5	47.0	44.6		12.4		
	Alpha-BHC	68.9	72.3	71.0		4.85		
	Alpha-Chlordane	71.3	79.3	57.6		10.6		
	Ametryn	89.2	68.2	100	116	26.7		14.8
	Atrazine	100	103	84.1	91.8	3.06		4.05
	Atrazine Desethyl	81.3	74.7	97.0	99.0	8.47		2.06
	Azinphos Methyl	123	109	139	124	12.1		11.9
	Beta-BHC	82.9	77.4	66.4		6.88		
	Bromacil	87.3	76.6	64.5	108	13.1		17.8
	Butylate	55.8	51.2	52.5	66.3	8.51		23.3
	Carbophenothion	55.6	72.5	76.4		26.4		
	Chlorothalonil	90.8	68.7	65.9		27.8		
	Chlorpyrifos Ethyl	88.6	93.5	87.6	99.5	5.37		12.7
	Chlorpyrifos Methyl	105	99.6	96.3	89.7	5.35		7.11
	Cyanazine	117	108	99.4	104	7.42		4.96
	Cypermethrin	85.1	88.9	90.2		4.31		
	DDD-p,p'	83.2	82.4	63.0		0.936		
	DDE-p,p'	72.5	82.2	55.7		12.5		
	DDT-p,p'	79.6	86.0	73.1		7.72		
	Delta-BHC	83.2	82.6	69.1		0.731		
	Demeton	73.3	81.3	79.6	83.9	10.3		5.18
	Diazinon	99.8	107	109	121	6.69		10.9
	Dicofol	81.2	49.8	39.8		47.9		
	Dieldrin	75.9	84.1	67.6		10.2		
	Disulfoton	92.3	88.4	108	105	4.25		2.72
	Endosulfan I	74.3	88.8	63.7		17.7		
	Endosulfan II	84.4	79.4	61.9		6.07		
	Endosulfan Sulfate	76.1	78.1	57.7		2.61		
	Endrin	73.5	86.1	60.3		15.8		
	Endrin Aldehyde	68.8	51.6	40.5		28.6		
	Endrin Ketone	79.7	79.3	71.5		0.440		
	EPTC	50.6	49.9	56.3	60.6	1.49		7.29
	Ethion	86.7	79.4	81.4	85.0	8.73		4.34
	Ethoprop	80.1	86.0	96.7	93.9	7.11		2.93
	Fenamiphos	91.6	86.4	109	88.7	5.87		20.4
	Fipronil	110	97.2	109	91.4	12.7		8.87
	Fipronil Sulfide	88.2	79.9	108	89.4	9.81		8.34
	Fipronil Sulfone	89.5	80.6	102	76.6	10.5		5.90
	Fonofos	86.8	95.5	102	104	9.51		1.81
	Gamma-BHC	73.1	77.8	74.8		6.24		
	Gamma-Chlordane	69.5	77.3	56.3		10.7		
	Heptachlor	59.7	69.2	55.0		14.8		
	Heptachlor Epoxide	70.7	79.2	78.2		11.3		

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Hexazinone	84.3	88.5	87.3	83.3	4.88	3.60
	Malathion	88.6	90.1	86.1	86.4	1.70	0.346
	Metalaxyl	94.7	78.6	91.5	111	18.6	19.3
	Methoxychlor	87.1	95.3	87.5		9.01	
	Metolachlor	83.9	80.5	82.5	77.9	4.09	4.79
	Metribuzin	88.0	86.6	130	116	1.69	11.1
	Mevinphos	90.9	83.3	98.2	101	8.69	2.40
	Mirex	64.5	61.7	59.3		4.39	
	Molinate	52.6	56.4	54.9	58.5	6.85	6.45
	Norflurazon	87.4	74.6	79.8	107	15.7	29.6
	Parathion Ethyl	95.7	89.6	84.6	80.8	6.54	4.64
	Parathion Methyl	119	109	101	94.0	8.67	7.63
	Pendimethalin	89.1	90.0	85.3	71.0	0.909	14.9
	Permethrin	79.0	81.0	73.1		2.57	
	Phorate	86.2	99.8	91.3	85.0	14.7	7.17
	Prometon	94.8	86.7	101	130	8.95	18.9
	Prometryn	108	87.4	91.1	117	21.1	24.7
	Simazine	99.7	92.5	89.0	104	7.52	9.00
	Terbufos	89.0	97.1	97.8	105	8.70	7.47
	Terbuthylazine	89.0	88.0	86.1	104	1.05	18.9
EPA 8276	Trifluralin	114	137	124		19.0	
	Chlordane	108	94.9	95.8		12.5	
	Toxaphene	128	103	111		21.9	
EPA 8321B	Glyphosate	85.4		90.9	89.1		1.98
	Pyraclostrobin	81.3		90.6	119		27.4
	Sucralose	70.7		61.0	66.5		8.66
SM 2120 B	Color (true)					0.749	
	Color (true)					4.58	
SM 2320 B-97	Total Alkalinity	101				0.0265	
SM 2540 C-97	TDS					6.26	
SM 4500 F-C-97	Fluoride	96.6		95.8	101		4.56
SM 5310 B-00	Organic Carbon	98.8		95.2	97.2		1.50
USGS O-2060-01	2,4-D	86.3		49.8	60.0		4.29
	Acetaminophen	152		104	125		18.2
	Bentazon	65.7		41.9	39.5		3.23
	Carbamazepine	148		136	144		5.64
	Diuron	125		94.5	106		10.4
	Fenuron	122		104	111		7.13
	Fluridone	135		110	130		16.5
	Imidacloprid	112		252	268		5.18
	Linuron	125		101	123		19.2
	MCPP	82.6		65.4	73.5		11.6
	Primidone	117		134	148		9.88
	Triclopyr	78.8		60.8	63.1		3.62

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1930887, 1930888, 1930893
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1930902

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1930902
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1930887, 1930888, 1930893
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1930887, 1930888, 1930893
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1930889, 1930890, 1930894
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1930889, 1930890, 1930894
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1930889, 1930890, 1930894
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1930889, 1930890, 1930894
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1930891, 1930892, 1930895
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1930900
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1930901
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1930900
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1930899
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1930899
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1930899
SM 2120 B / E31780	True Color measured at 450 nm	1930887, 1930888, 1930893
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1930887, 1930888, 1930893
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1930887, 1930888, 1930893
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1930887, 1930888, 1930893
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1930887, 1930888, 1930893
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1930889, 1930890, 1930894
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1930899
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1930899

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	09/22/2017			09/22/2017 17:40	Tanya Welborn	1930887, 1930888, 1930893
EPA 200.7 Rev. 4.4	09/22/2017	09/25/2017	Elliott D. Healy	09/26/2017	Betina Topolski	1930902
EPA 200.8 Rev. 5.4	09/22/2017	09/25/2017	Elliott D. Healy	09/27/2017	Nadine Brooks	1930902
EPA 300.0 Rev. 2.1	09/22/2017			09/25/2017	Julia Storbeck	1930887, 1930888, 1930893
EPA 350.1 Rev. 2.0	09/22/2017			09/26/2017	Sofia Elnemr	1930889, 1930890, 1930894
EPA 351.2 Rev. 2.0	09/22/2017	09/27/2017	Adrian Shelby	09/28/2017	Joseph Suarez	1930889, 1930890, 1930894
EPA 353.2 Rev. 2.0	09/22/2017			09/29/2017	Beverly Y. Sanders	1930889, 1930890, 1930894
EPA 365.1 Rev. 2.0	09/22/2017	09/26/2017	Sima Feizi	09/27/2017	Lipi Saha	1930889, 1930890, 1930894
EPA 365.1 Rev. 2.0 dissolved	09/22/2017			09/22/2017 15:30	Megan Treadwell	1930891
	09/22/2017			09/22/2017 15:31	Megan Treadwell	1930895
	09/22/2017			09/22/2017 15:32	Megan Treadwell	1930892
EPA 8270D	09/22/2017	09/22/2017	John Kaba	09/27/2017	Vandana T. Nagar	1930900
	09/22/2017	09/22/2017	Rasheda Ghaffari	09/26/2017	Irina Carbone	1930901
	09/22/2017	09/22/2017	Rasheda Ghaffari	09/28/2017	Irina Carbone	1930901
EPA 8276	09/22/2017	09/22/2017	John Kaba	09/27/2017	John P. Burgos	1930900
EPA 8321B	09/22/2017	09/22/2017	Julie Michelle Frank	09/22/2017	Juyoung Kim	1930899
	09/22/2017	09/25/2017	Fe-Val Siddell	09/29/2017	Juyoung Kim	1930899
	09/22/2017	09/26/2017	Hoor Shaik	09/28/2017	Julie Michelle Frank	1930899
SM 2120 B	09/22/2017			09/22/2017 15:32	Julia Storbeck	1930893
	09/22/2017			09/22/2017 15:34	Julia Storbeck	1930887
	09/22/2017			09/22/2017 16:21	Julia Storbeck	1930888
SM 2320 B-97	09/22/2017			09/25/2017	Dale L. Simmons	1930887, 1930888, 1930893
SM 2540 C-97	09/22/2017			09/27/2017	Yijie Li	1930887, 1930888, 1930893
SM 2540 D-97	09/22/2017			09/27/2017	Yijie Li	1930887, 1930888, 1930893
SM 4500 F-C-97	09/22/2017			09/25/2017	Dale L. Simmons	1930887, 1930888, 1930893
SM 5310 B-00	09/22/2017			09/26/2017	Ping Hua	1930889, 1930890, 1930894
USGS O-2060-01	09/22/2017	09/25/2017	Hoor Shaik	09/29/2017	Julie Michelle Frank	1930899