Chemical Analysis Report

WQAP-2017-04-26-01

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

Event Description: **pesticide template kit: C**
Request ID: **RQ-2017-04-24-38**
Customer: **WQAP**
Project ID: **SMP**

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

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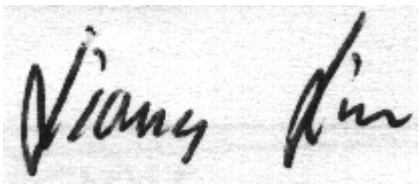
Certified by: Liang Lin, Environmental Administrator

Date Certified: 22-MAY-2017 15:41



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: Little Alapaha @ US 129 **Collection Date/Time: 04/25/2017 11:10**

Field ID: G1TLHR0037-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892216	EPA 180.1 Rev. 2.0	Turbidity	4.7	A	NTU	P324091	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P324477	
		Sulfate	1.4		mg SO4/L	P324475	
	SM 2120 B	Color (true)	340		PCU	P324065	
	SM 2320 B-97	Total Alkalinity	47		mg CaCO3/L	P324656	
	SM 2540 C-97	TDS	127		mg/L	P324735	
	SM 2540 D-97	TSS	12		mg/L	P324779	
	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P325469	RPD
1892220	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P324248	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.97		mg N/L	P324116	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P324203	
	EPA 365.1 Rev. 2.0	Total-P	0.36		mg P/L	P324104	
	SM 5310 B-00	Organic Carbon	36		mg C/L	P324172	
1892224	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.28		mg P/L	P324084	
1892248	EPA 200.7 Rev. 4.4	Calcium	13.8		mg/L	P324338	
		Iron	1.19E+03		ug/L	P324338	
		Magnesium	8.80		mg/L	P324338	
		Potassium	0.76	I	mg/L	P324338	
		Sodium	5.2		mg/L	P324338	
		Zinc	5.0	U	ug/L	P324338	
	EPA 200.8 Rev. 5.4	Arsenic	0.91		ug/L	P324338	
		Cadmium	0.020	U	ug/L	P324338	
		Chromium	3.7		ug/L	P324338	
		Copper	0.20	I	ug/L	P324338	
		Lead	0.56		ug/L	P324338	
		Nickel	0.97		ug/L	P324338	
		Silver	0.010	U	ug/L	P324338	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for sodium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Little Alapaha @ US 129 **Collection Date/Time: 04/25/2017 11:10**

Field ID: G1TLHR0037-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892232	EPA 8321B	Glyphosate**	10	U	ug/L	P324039	
		Sucralose**	0.010	U	ug/L	P323999	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P323974	
		Diuron	8.0E-04	U	ug/L	P323974	
		Fenuron	0.0040	U	ug/L	P323974	
		Imidacloprid	8.0E-04	U	ug/L	P323974	MS
		Bentazon	8.0E-04	U	ug/L	P323974	
		Linuron	0.0040	U	ug/L	P323974	
		Acetaminophen**	0.0080	U	ug/L	P323974	

Field ID: G1TLHR0037-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892232	USGS O-2060-01	MCPP	8.0E-04	U	ug/L	P323974	
		Carbamazepine**	4.0E-04	U	ug/L	P323974	
		Triclopyr**	0.0040	U	ug/L	P323974	
		Primidone**	0.0040	U	ug/L	P323974	
		Fluridone**	4.0E-04	U	ug/L	P323974	
1892236	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P324033	
1892240	EPA 8270D	Aldrin	4.4	U	ng/L	P324073	
		Alpha-BHC	2.2	U	ng/L	P324073	
		Beta-BHC	4.4	U	ng/L	P324073	
		Delta-BHC	4.4	U	ng/L	P324073	
		Gamma-BHC	4.4	U	ng/L	P324073	
		Carbophenothion	4.4	U	ng/L	P324073	
		Chlorothalonil	2.2	UJ	ng/L	P324073	LCS, RPD
		Cypermethrin	22	U	ng/L	P324073	
		DDD-p,p'	2.2	U	ng/L	P324073	
		DDE-p,p'	3.3	U	ng/L	P324073	
		DDT-p,p'	3.3	U	ng/L	P324073	
		Dieldrin	4.4	U	ng/L	P324073	
		Endosulfan I	4.4	U	ng/L	P324073	
		Endosulfan II	4.4	U	ng/L	P324073	
		Endosulfan Sulfate	2.2	U	ng/L	P324073	
		Endrin	2.2	U	ng/L	P324073	
		Endrin Aldehyde	2.2	U	ng/L	P324073	
		Heptachlor	1.6	U	ng/L	P324073	
		Heptachlor Epoxide	2.2	U	ng/L	P324073	
		Methoxychlor	4.4	U	ng/L	P324073	
		Mirex	2.2	U	ng/L	P324073	
		Permethrin	11	U	ng/L	P324073	
		Trifluralin	1.1	U	ng/L	P324073	MS
		Alpha-Chlordane	1.1	U	ng/L	P324073	
		Gamma-Chlordane	1.1	U	ng/L	P324073	
		Endrin Ketone	2.2	U	ng/L	P324073	
		Dicofol	33	U	ng/L	P324073	MS, RPD
	EPA 8276	Chlordane**	2.7	U	ng/L	P324073	
		Toxaphene**	14	U	ng/L	P324073	
1892244	EPA 8270D	Ametryn	0.32	U	ng/L	P324314	
		Atrazine	0.84	I	ng/L	P324314	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P324314	
		Chlorpyrifos Methyl	0.097	U	ng/L	P324314	
		Disulfoton	0.32	U	ng/L	P324314	
		Ethion	0.15	U	ng/L	P324314	
		Ethoprop	0.097	U	ng/L	P324314	
		Hexazinone	1.2	I	ng/L	P324314	
		Malathion	0.34	U	ng/L	P324314	
		Metribuzin	0.19	U	ng/L	P324314	

Field ID: G1TLHR0037-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892244	EPA 8270D	Mevinphos	0.48	U	ng/L	P324314	
		Norflurazon	0.48	U	ng/L	P324314	
		Phorate	0.24	U	ng/L	P324314	
		Prometryn	0.19	U	ng/L	P324314	
		Simazine	0.48	U	ng/L	P324314	
		Atrazine Desethyl	1.5	U	ng/L	P324314	
		Prometon	0.87	U	ng/L	P324314	
		Fipronil	0.24	U	ng/L	P324314	
		Molinate	0.29	U	ng/L	P324314	
		Pendimethalin	1.5	U	ng/L	P324314	
		Terbufos	0.097	U	ng/L	P324314	
		EPTC	1.2	U	ng/L	P324314	
		Terbuthylazine	0.41	U	ng/L	P324314	
		Bromacil	0.48	U	ng/L	P324314	
		Fipronil Sulfide	0.15	U	ng/L	P324314	
		Fipronil Sulfone	0.15	U	ng/L	P324314	
		Alachlor	0.24	U	ng/L	P324314	
		Azinphos Methyl	2.2	U	ng/L	P324314	
		Butylate	0.39	U	ng/L	P324314	
		Demeton	1.9	U	ng/L	P324314	
		Diazinon	0.12	U	ng/L	P324314	
		Fenamiphos	0.24	UJ	ng/L	P324314	LCS, MS
		Fonofos	0.19	U	ng/L	P324314	
		Metalaxyl	0.19	U	ng/L	P324314	
		Metolachlor	0.96	I	ng/L	P324314	
		Acetochlor	3.8		ng/L	P324314	
		Cyanazine	0.48	U	ng/L	P324314	
		Parathion Ethyl	0.24	U	ng/L	P324314	
		Parathion Methyl	0.24	U	ng/L	P324314	

Ref. Method and Comment:
EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Sample Location: Suwannee River @ Ellaville **Collection Date/Time: 04/25/2017 13:10**

Field ID: G1TLHR0035-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892217	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P324091	
	EPA 300.0 Rev. 2.1	Chloride	8.5		mg Cl/L	P324477	
		Sulfate	19		mg SO4/L	P324475	
	SM 2120 B	Color (true)	110		PCU	P324065	
	SM 2320 B-97	Total Alkalinity	98		mg CaCO3/L	P324656	
	SM 2540 C-97	TDS	168		mg/L	P324735	
	SM 2540 D-97	TSS	5	I	mg/L	P324779	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P325522	
1892221	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P324248	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51	J	mg N/L	P324116	MS

Field ID: G1TLHR0035-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892221	EPA 353.2 Rev. 2.0	NO2NO3-N	0.40		mg N/L	P324203	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P324104	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P324172	
1892225	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.082		mg P/L	P324084	
1892249	EPA 200.7 Rev. 4.4	Calcium	41.2		mg/L	P324338	
		Iron	740		ug/L	P324338	
		Magnesium	6.61		mg/L	P324338	
		Potassium	1.9		mg/L	P324338	
		Sodium	4.9		mg/L	P324338	
		Zinc	5.0	U	ug/L	P324338	
	EPA 200.8 Rev. 5.4	Arsenic	0.78		ug/L	P324338	
		Cadmium	0.020	U	ug/L	P324338	
		Chromium	0.61	I	ug/L	P324338	
		Copper	0.34	I	ug/L	P324338	
		Lead	0.42		ug/L	P324338	
		Nickel	0.35	I	ug/L	P324338	
		Silver	0.010	U	ug/L	P324338	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Refer to the narrative for an explanation of QC Codes.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for sodium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Suwannee River @ Ellaville **Collection Date/Time: 04/25/2017 13:10**

Field ID: G1TLHR0035-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892233	EPA 8321B	Glyphosate**	10	U	ug/L	P324039	
		Sucralose**	0.13		ug/L	P323816	
	USGS O-2060-01	2,4-D	7.2E-04	T	ug/L	P323974	
		Diuron	0.0039		ug/L	P323974	
		Fenuron	0.0040	U	ug/L	P323974	
		Imidacloprid	0.0040		ug/L	P323974	MS
		Bentazon	0.012		ug/L	P323974	
		Linuron	0.0040	U	ug/L	P323974	
		Acetaminophen**	0.0080	U	ug/L	P323974	
		MCPP	8.0E-04	U	ug/L	P323974	
		Carbamazepine**	4.0E-04	U	ug/L	P323974	
		Triclopyr**	0.0040	U	ug/L	P323974	
		Primidone**	0.0040	U	ug/L	P323974	
		Fluridone**	4.0E-04	U	ug/L	P323974	
1892237	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P324033	
1892241	EPA 8270D	Aldrin	4.5	U	ng/L	P324073	
		Alpha-BHC	2.3	U	ng/L	P324073	
		Beta-BHC	4.5	U	ng/L	P324073	
		Delta-BHC	4.5	U	ng/L	P324073	
		Gamma-BHC	4.5	U	ng/L	P324073	

Field ID: G1TLHR0035-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892241	EPA 8270D	Carbophenothion	4.5	U	ng/L	P324073	
		Chlorothalonil	2.3	UJ	ng/L	P324073	LCS, RPD
		Cypermethrin	23	U	ng/L	P324073	
		DDD-p,p'	2.3	U	ng/L	P324073	
		DDE-p,p'	3.4	U	ng/L	P324073	
		DDT-p,p'	3.4	U	ng/L	P324073	
		Dieldrin	4.5	U	ng/L	P324073	
		Endosulfan I	4.5	U	ng/L	P324073	
		Endosulfan II	4.5	U	ng/L	P324073	
		Endosulfan Sulfate	2.3	U	ng/L	P324073	
		Endrin	2.3	U	ng/L	P324073	
		Endrin Aldehyde	2.3	U	ng/L	P324073	
		Heptachlor	1.7	U	ng/L	P324073	
		Heptachlor Epoxide	2.3	U	ng/L	P324073	
		Methoxychlor	4.5	U	ng/L	P324073	
		Mirex	2.3	U	ng/L	P324073	
		Permethrin	11	U	ng/L	P324073	
		Trifluralin	1.1	U	ng/L	P324073	MS
		Alpha-Chlordane	1.1	U	ng/L	P324073	
		Gamma-Chlordane	1.1	U	ng/L	P324073	
		Endrin Ketone	2.3	U	ng/L	P324073	
		Dicofol	34	U	ng/L	P324073	MS, RPD
	EPA 8276	Chlordane**	2.8	U	ng/L	P324073	
		Toxaphene**	14	U	ng/L	P324073	
1892245	EPA 8270D	Ametryn	0.32	U	ng/L	P324314	
		Atrazine	21		ng/L	P324314	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P324314	
		Chlorpyrifos Methyl	0.097	U	ng/L	P324314	
		Disulfoton	0.32	U	ng/L	P324314	
		Ethion	0.15	U	ng/L	P324314	
		Ethoprop	0.097	U	ng/L	P324314	
		Hexazinone	0.58	I	ng/L	P324314	
		Malathion	0.34	U	ng/L	P324314	
		Metribuzin	0.86		ng/L	P324314	
		Mevinphos	0.49	U	ng/L	P324314	
		Norflurazon	0.49	U	ng/L	P324314	
		Phorate	0.24	U	ng/L	P324314	
		Prometryn	0.19	U	ng/L	P324314	
		Simazine	3.3		ng/L	P324314	
		Atrazine Desethyl	1.4	T	ng/L	P324314	
		Prometon	0.88	U	ng/L	P324314	
		Fipronil	0.24	U	ng/L	P324314	
		Molinate	0.29	U	ng/L	P324314	
		Pendimethalin	1.5	U	ng/L	P324314	
		Terbufos	0.097	U	ng/L	P324314	

Field ID: G1TLHR0035-2017-01 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892245	EPA 8270D	EPTC	1.2	U	ng/L	P324314	
		Terbuthylazine	0.41	U	ng/L	P324314	
		Bromacil	3.4		ng/L	P324314	
		Fipronil Sulfide	0.15	U	ng/L	P324314	
		Fipronil Sulfone	0.15	U	ng/L	P324314	
		Alachlor	0.24	U	ng/L	P324314	
		Azinphos Methyl	2.2	U	ng/L	P324314	
		Butylate	0.39	U	ng/L	P324314	
		Demeton	1.9	UJ	ng/L	P324314	CCV
		Diazinon	0.12	U	ng/L	P324314	
		Fenamiphos	0.24	UJ	ng/L	P324314	LCS, MS
		Fonofos	0.19	U	ng/L	P324314	
		Metalaxyl	0.89		ng/L	P324314	
		Metolachlor	4.1		ng/L	P324314	
		Acetochlor	0.24	U	ng/L	P324314	
		Cyanazine	0.49	UJ	ng/L	P324314	CCV
		Parathion Ethyl	0.24	U	ng/L	P324314	
		Parathion Methyl	0.24	U	ng/L	P324314	

Ref. Method and Comment:
EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Sample Location: Suwannee River @ Ellaville **Collection Date/Time: 04/25/2017 13:10**

Field ID: G1TLHR0035-2017-01-DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892218	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P324091	
	EPA 300.0 Rev. 2.1	Chloride	8.6		mg Cl/L	P324477	
		Sulfate	19		mg SO4/L	P324475	
	SM 2120 B	Color (true)	110		PCU	P324065	
	SM 2320 B-97	Total Alkalinity	98		mg CaCO3/L	P324656	
	SM 2540 C-97	TDS	160		mg/L	P324735	
	SM 2540 D-97	TSS	4	I	mg/L	P324779	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P325522	
1892222	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P324248	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P324116	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.40		mg N/L	P324203	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P324104	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P324172	
1892226	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.083		mg P/L	P324084	
1892250	EPA 200.7 Rev. 4.4	Calcium	41.8		mg/L	P324338	
		Iron	730		ug/L	P324338	
		Magnesium	6.70		mg/L	P324338	
		Potassium	1.9		mg/L	P324338	
		Sodium	5.0		mg/L	P324338	
		Zinc	5.0	U	ug/L	P324338	

Field ID: G1TLHR0035-2017-01-DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892250	EPA 200.8 Rev. 5.4	Arsenic	0.77		ug/L	P324338	
		Cadmium	0.025	I	ug/L	P324338	
		Chromium	0.53	I	ug/L	P324338	
		Copper	0.35	I	ug/L	P324338	
		Lead	0.41		ug/L	P324338	
		Nickel	0.34	I	ug/L	P324338	
		Silver	0.010	U	ug/L	P324338	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for sodium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Suwannee River @ Ellaville **Collection Date/Time: 04/25/2017 13:10**

Field ID: G1TLHR0035-2017-01-DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892234	EPA 8321B	Glyphosate**	10	U	ug/L	P324039	
		Sucralose**	0.13		ug/L	P323816	
	USGS O-2060-01	2,4-D	0.0014	I	ug/L	P323974	
		Diuron	0.0036		ug/L	P323974	
		Fenuron	0.0040	U	ug/L	P323974	
		Imidacloprid	0.0038		ug/L	P323974	MS
		Bentazon	0.012		ug/L	P323974	
		Linuron	0.0040	U	ug/L	P323974	
		Acetaminophen**	0.0080	U	ug/L	P323974	
		MCPP	8.0E-04	U	ug/L	P323974	
		Carbamazepine**	4.0E-04	U	ug/L	P323974	
		Triclopyr**	0.0040	U	ug/L	P323974	
		Primidone**	0.0040	U	ug/L	P323974	
		Fluridone**	4.0E-04	U	ug/L	P323974	
1892238	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P324033	
1892242	EPA 8270D	Aldrin	4.1	U	ng/L	P324073	
		Alpha-BHC	2.0	U	ng/L	P324073	
		Beta-BHC	4.1	U	ng/L	P324073	
		Delta-BHC	4.1	U	ng/L	P324073	
		Gamma-BHC	4.1	U	ng/L	P324073	
		Carbophenothion	4.1	U	ng/L	P324073	
		Chlorothalonil	2.0	UJ	ng/L	P324073	LCS, RPD
		Cypermethrin	20	U	ng/L	P324073	
		DDD-p,p'	2.0	U	ng/L	P324073	
		DDE-p,p'	3.0	U	ng/L	P324073	
		DDT-p,p'	3.0	U	ng/L	P324073	
		Dieldrin	4.1	U	ng/L	P324073	
		Endosulfan I	4.1	U	ng/L	P324073	
		Endosulfan II	4.1	U	ng/L	P324073	
		Endosulfan Sulfate	2.0	U	ng/L	P324073	
		Endrin	2.0	U	ng/L	P324073	

Field ID: G1TLHR0035-2017-01-DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892242	EPA 8270D	Endrin Aldehyde	2.0	U	ng/L	P324073	
		Heptachlor	1.5	U	ng/L	P324073	
		Heptachlor Epoxide	2.0	U	ng/L	P324073	
		Methoxychlor	4.1	U	ng/L	P324073	
		Mirex	2.0	U	ng/L	P324073	
		Permethrin	10	U	ng/L	P324073	
		Trifluralin	1.0	U	ng/L	P324073	MS
		Alpha-Chlordane	1.0	U	ng/L	P324073	
		Gamma-Chlordane	1.0	U	ng/L	P324073	
		Endrin Ketone	2.0	U	ng/L	P324073	
		Dicofol	30	U	ng/L	P324073	MS, RPD
	EPA 8276	Chlordane**	2.5	U	ng/L	P324073	
		Toxaphene**	13	U	ng/L	P324073	
1892246	EPA 8270D	Ametryn	0.31	U	ng/L	P324314	
		Atrazine	22		ng/L	P324314	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P324314	
		Chlorpyrifos Methyl	0.096	U	ng/L	P324314	
		Disulfoton	0.31	U	ng/L	P324314	
		Ethion	0.14	U	ng/L	P324314	
		Ethoprop	0.096	U	ng/L	P324314	
		Hexazinone	0.67	I	ng/L	P324314	
		Malathion	0.33	U	ng/L	P324314	
		Metribuzin	0.91		ng/L	P324314	
		Mevinphos	0.48	U	ng/L	P324314	
		Norflurazon	0.48	U	ng/L	P324314	
		Phorate	0.24	U	ng/L	P324314	
		Prometryn	0.19	U	ng/L	P324314	
		Simazine	3.7		ng/L	P324314	
		Atrazine Desethyl	1.3	T	ng/L	P324314	
		Prometon	0.86	U	ng/L	P324314	
		Fipronil	0.24	U	ng/L	P324314	
		Molinate	0.29	U	ng/L	P324314	
		Pendimethalin	1.4	U	ng/L	P324314	
		Terbufos	0.096	U	ng/L	P324314	
		EPTC	1.2	U	ng/L	P324314	
		Terbuthylazine	0.41	U	ng/L	P324314	
		Bromacil	3.6		ng/L	P324314	
		Fipronil Sulfide	0.14	U	ng/L	P324314	
		Fipronil Sulfone	0.14	U	ng/L	P324314	
		Alachlor	0.24	U	ng/L	P324314	
		Azinphos Methyl	2.2	U	ng/L	P324314	
		Butylate	0.38	U	ng/L	P324314	
		Demeton	1.9	UJ	ng/L	P324314	CCV
		Diazinon	0.12	U	ng/L	P324314	
		Fenamiphos	0.24	UJ	ng/L	P324314	LCS, MS

Field ID: G1TLHR0035-2017-01-DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892246	EPA 8270D	Fonofos	0.19	U	ng/L	P324314	
		Metalaxyl	0.94		ng/L	P324314	
		Metolachlor	4.7		ng/L	P324314	
		Acetochlor	0.24	U	ng/L	P324314	
		Cyanazine	0.48	UJ	ng/L	P324314	CCV
		Parathion Ethyl	0.24	U	ng/L	P324314	
		Parathion Methyl	0.24	U	ng/L	P324314	

Ref. Method and Comment:
EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Sample Location: Field Blank #1 **Collection Date/Time: 04/25/2017 13:00**

Field ID: Field Blank #1 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892219	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P324091	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P324477	
		Sulfate	0.20	U	mg SO4/L	P324475	
	SM 2120 B	Color (true)	2.5	U	PCU	P324065	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P324656	
	SM 2540 C-97	TDS	15	U	mg/L	P324735	
	SM 2540 D-97	TSS	2	U	mg/L	P324779	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325522	
1892223	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P324248	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P324117	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P324203	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P324104	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P324172	
1892227	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324084	
1892251	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P324338	
		Iron	30	U	ug/L	P324338	
		Magnesium	0.040	U	mg/L	P324338	
		Potassium	0.30	U	mg/L	P324338	
		Sodium	0.50	U	mg/L	P324338	
		Zinc	5.0	U	ug/L	P324338	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P324338	
		Cadmium	0.020	U	ug/L	P324338	
		Chromium	0.40	U	ug/L	P324338	
		Copper	0.20	U	ug/L	P324338	
		Lead	0.050	U	ug/L	P324338	
		Nickel	0.20	U	ug/L	P324338	
		Silver	0.010	U	ug/L	P324338	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for sodium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Field Blank #1 **Collection Date/Time: 04/25/2017 13:00**

Field ID: Field Blank #1 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892235	EPA 8321B	Glyphosate**	10	U	ug/L	P324039	
		Sucralose**	0.010	U	ug/L	P323999	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P323974	
		Diuron	8.0E-04	U	ug/L	P323974	
		Fenuron	0.0040	U	ug/L	P323974	
		Imidacloprid	8.0E-04	U	ug/L	P323974	MS
		Bentazon	8.0E-04	U	ug/L	P323974	
		Linuron	0.0040	U	ug/L	P323974	
		Acetaminophen**	0.0080	U	ug/L	P323974	
		MCPP	8.0E-04	U	ug/L	P323974	
		Carbamazepine**	4.0E-04	U	ug/L	P323974	
		Triclopyr**	0.0040	U	ug/L	P323974	
		Primidone**	0.0040	U	ug/L	P323974	
		Fluridone**	4.0E-04	U	ug/L	P323974	
1892239	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P324033	
1892243	EPA 8270D	Aldrin	4.2	UQJ	ng/L	P325094	LCS
		Alpha-BHC	2.1	UQ	ng/L	P325094	
		Beta-BHC	4.2	UQ	ng/L	P325094	
		Delta-BHC	4.2	UQ	ng/L	P325094	MS
		Gamma-BHC	4.2	UQ	ng/L	P325094	
		Carbophenothion	4.2	UQ	ng/L	P325094	
		Chlorothalonil	2.1	UQ	ng/L	P325094	
		Cypermethrin	21	UQ	ng/L	P325094	
		DDD-p,p'	2.1	UQ	ng/L	P325094	
		DDE-p,p'	3.2	UQ	ng/L	P325094	
		DDT-p,p'	3.2	UQ	ng/L	P325094	
		Dieldrin	4.2	UQ	ng/L	P325094	
		Endosulfan I	4.2	UQ	ng/L	P325094	
		Endosulfan II	4.2	UQ	ng/L	P325094	
		Endosulfan Sulfate	2.1	UQ	ng/L	P325094	
		Endrin	2.1	UQ	ng/L	P325094	
		Endrin Aldehyde	2.1	UQ	ng/L	P325094	
		Heptachlor	1.6	UQ	ng/L	P325094	
		Heptachlor Epoxide	2.1	UQ	ng/L	P325094	
		Methoxychlor	4.2	UQ	ng/L	P325094	
		Mirex	2.1	UQ	ng/L	P325094	
		Permethrin	11	UQ	ng/L	P325094	
		Trifluralin	1.1	UQ	ng/L	P325094	
		Alpha-Chlordane	1.1	UQ	ng/L	P325094	
		Gamma-Chlordane	1.1	UQ	ng/L	P325094	
		Endrin Ketone	2.1	UQ	ng/L	P325094	
		Dicofol	32	UQ	ng/L	P325094	
	EPA 8276	Chlordane**	2.6	U	ng/L	P324073	
		Toxaphene**	13	U	ng/L	P324073	
1892247	EPA 8270D	Ametryn	0.31	U	ng/L	P324314	

Field ID: Field Blank #1 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892247	EPA 8270D	Atrazine	0.24	U	ng/L	P324314	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P324314	
		Chlorpyrifos Methyl	0.095	U	ng/L	P324314	
		Disulfoton	0.31	U	ng/L	P324314	
		Ethion	0.14	U	ng/L	P324314	
		Ethoprop	0.095	U	ng/L	P324314	
		Hexazinone	0.48	U	ng/L	P324314	
		Malathion	0.33	U	ng/L	P324314	
		Metribuzin	0.19	U	ng/L	P324314	
		Mevinphos	0.48	U	ng/L	P324314	
		Norflurazon	0.48	U	ng/L	P324314	
		Phorate	0.24	U	ng/L	P324314	
		Prometryn	0.19	U	ng/L	P324314	
		Simazine	0.48	U	ng/L	P324314	
		Atrazine Desethyl	1.4	U	ng/L	P324314	
		Prometon	0.86	U	ng/L	P324314	
		Fipronil	0.24	U	ng/L	P324314	
		Molinate	0.29	U	ng/L	P324314	
		Pendimethalin	1.4	U	ng/L	P324314	
		Terbufos	0.095	U	ng/L	P324314	
		EPTC	1.2	U	ng/L	P324314	
		Terbuthylazine	0.41	U	ng/L	P324314	
		Bromacil	0.48	U	ng/L	P324314	
		Fipronil Sulfide	0.14	U	ng/L	P324314	
		Fipronil Sulfone	0.14	U	ng/L	P324314	
		Alachlor	0.24	U	ng/L	P324314	
		Azinphos Methyl	2.1	U	ng/L	P324314	
		Butylate	0.38	U	ng/L	P324314	
		Demeton	1.9	UJ	ng/L	P324314	CCV
		Diazinon	0.12	U	ng/L	P324314	
		Fenamiphos	0.24	UJ	ng/L	P324314	LCS, MS
		Fonofos	0.19	U	ng/L	P324314	
		Metalaxyl	0.19	U	ng/L	P324314	
		Metolachlor	0.24	U	ng/L	P324314	
		Acetochlor	0.24	U	ng/L	P324314	
		Cyanazine	0.48	UJ	ng/L	P324314	CCV
		Parathion Ethyl	0.24	U	ng/L	P324314	
		Parathion Methyl	0.24	U	ng/L	P324314	

Ref. Method and Comment:
EPA 8270D: Refer to the narrative for an explanation of QC Codes. Insufficient sample available to perform duplicate matrix spike. Sample expired due to need for re-extraction.

Quality Assurance Report
Method Blank Results

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P324091

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P324338

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
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: P324338

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: P324475

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324477

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324248

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324116

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324117

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324203

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324104

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324084

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

Reference Method: EPA 8270D
Batch ID: P324073

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'	2.0	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P324314

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	0.32	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	1.5	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
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270D
Batch ID: P325094

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'	2.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P325094

Component	Result	Code	Units
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 8276
Batch ID: P324073

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

Reference Method: EPA 8321B
Batch ID: P323816

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P323999

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P324033

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P324039

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2120 B
Batch ID: P324065

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P324656

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

Reference Method: SM 2540 C-97
Batch ID: P324735

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P324779

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P325469

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P325522

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P324172

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

Reference Method: USGS O-2060-01
Batch ID: P323974

Component	Result	Code	Units
2,4-D	8.0E-04	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	0.0040	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	8.0E-04	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P323974

Component	Result	Code	Units
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: P324338

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	104		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	100		P	85 - 115
Sodium	102		P	85 - 115
Zinc	97.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P324338

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	101		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	100		P	85 - 115
Copper	98.7		P	85 - 115
Lead	102		P	85 - 115
Nickel	100		P	85 - 115
Silver	99.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324475

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324477

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324248

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324116

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324116

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324117

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324203

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324104

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324084

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.6		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P324073

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	49.7	46.3	P/P	30 - 83.0
Alpha-BHC	93.1	92.6	P/P	62 - 119
Alpha-Chlordane	94.0	86.3	P/P	56 - 119
Beta-BHC	107	107	P/P	54 - 141
Carbophenothion	109	110	P/P	33 - 147
Chlorothalonil	23.8	61.7	F/P	25 - 175
Cypermethrin	101	83.2	P/P	50 - 155
DDD-p,p'	100	91.7	P/P	56 - 135
DDE-p,p'	92.0	89.0	P/P	48 - 120
DDT-p,p'	98.8	95.4	P/P	51 - 121
Delta-BHC	124	127	P/P	65 - 163
Dicofol	44.1	33.8	P/P	15 - 112
Dieldrin	92.6	85.6	P/P	59 - 134
Endosulfan I	100	95.3	P/P	65 - 142
Endosulfan II	102	98.3	P/P	65 - 154
Endosulfan Sulfate	95.2	93.0	P/P	65 - 136
Endrin	102	91.2	P/P	53 - 156
Endrin Aldehyde	89.3	82.8	P/P	47 - 156
Endrin Ketone	93.6	91.1	P/P	70 - 124
Gamma-BHC	103	102	P/P	64 - 142
Gamma-Chlordane	91.1	82.9	P/P	55 - 114
Heptachlor	76.6	73.7	P/P	42 - 105

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P324073

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Heptachlor Epoxide	94.2	87.8	P/P	67 - 120
Methoxychlor	108	100	P/P	63 - 134
Mirex	77.1	72.4	P/P	40 - 90.0
Permethrin	99.6	83.3	P/P	36 - 144
Trifluralin	147	126	P/P	40 - 170

Reference Method: EPA 8270D
Batch ID: P324314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	105	89.2	P/P	78 - 118
Alachlor	102	84.5	P/P	77 - 119
Ametryn	126	109	P/P	61 - 136
Atrazine	108	92.0	P/P	73 - 120
Atrazine Desethyl	76.0	67.8	P/P	16 - 122
Azinphos Methyl	144	131	P/P	69 - 186
Bromacil	88.1	77.3	P/P	40 - 125
Butylate	52.5	48.4	P/P	32 - 87.0
Chlorpyrifos Ethyl	99.8	87.2	P/P	53 - 110
Chlorpyrifos Methyl	97.7	86.1	P/P	31 - 119
Cyanazine	122	105	P/P	36 - 224
Demeton	102	94.6	P/P	39 - 122
Diazinon	101	84.5	P/P	75 - 119
Disulfoton	99.3	92.0	P/P	42 - 139
EPTC	51.4	47.9	P/P	33 - 96.0
Ethion	126	112	P/P	63 - 127
Ethoprop	103	85.1	P/P	65 - 107
Fenamiphos	150	131	F/P	64 - 137
Fipronil	113	99.2	P/P	60 - 126
Fipronil Sulfide	106	88.1	P/P	58 - 124
Fipronil Sulfone	102	91.1	P/P	57 - 126
Fonofos	97.9	82.9	P/P	65 - 111
Hexazinone	93.3	95.5	P/P	46 - 151
Malathion	102	98.5	P/P	68 - 132
Metalaxyl	98.8	85.1	P/P	51 - 132
Metolachlor	110	91.1	P/P	78 - 119
Metribuzin	111	94.2	P/P	64 - 138
Mevinphos	95.4	81.9	P/P	34 - 128
Molinate	63.3	55.7	P/P	44 - 101
Norflurazon	112	97.5	P/P	63 - 129
Parathion Ethyl	98.7	87.9	P/P	80 - 109
Parathion Methyl	91.9	85.8	P/P	74 - 125
Pendimethalin	97.4	86.1	P/P	48 - 134
Phorate	109	87.1	P/P	52 - 119
Prometon	115	94.8	P/P	69 - 124
Prometryn	118	102	P/P	66 - 124
Simazine	105	88.9	P/P	61 - 134
Terbufos	100	85.9	P/P	58 - 115
Terbuthylazine	99.0	86.0	P/P	77 - 113

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P325094

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	23.8	21.8	F/F	30 - 83.0
Alpha-BHC	86.2	85.3	P/P	62 - 119
Alpha-Chlordane	89.1	89.4	P/P	56 - 119
Beta-BHC	102	105	P/P	54 - 141
Carbophenothion	71.6	84.3	P/P	33 - 147
Chlorothalonil	118	103	P/P	25 - 175
Cypermethrin	82.5	82.3	P/P	50 - 155
DDD-p,p'	94.8	95.5	P/P	56 - 135
DDE-p,p'	90.3	91.4	P/P	48 - 120
DDT-p,p'	88.5	88.5	P/P	51 - 121
Delta-BHC	120	131	P/P	65 - 163
Dicofol	65.5	70.0	P/P	15 - 112
Dieldrin	92.4	95.3	P/P	59 - 134
Endosulfan I	93.5	97.5	P/P	65 - 142
Endosulfan II	97.8	100	P/P	65 - 154
Endosulfan Sulfate	96.7	99.6	P/P	65 - 136
Endrin	113	101	P/P	53 - 156
Endrin Aldehyde	96.4	98.7	P/P	47 - 156
Endrin Ketone	90.5	91.0	P/P	70 - 124
Gamma-BHC	100	101	P/P	64 - 142
Gamma-Chlordane	88.0	85.2	P/P	55 - 114
Heptachlor	72.7	70.9	P/P	42 - 105
Heptachlor Epoxide	90.4	91.0	P/P	67 - 120
Methoxychlor	90.1	93.7	P/P	63 - 134
Mirex	69.9	68.6	P/P	40 - 90.0
Permethrin	83.6	80.0	P/P	36 - 144
Trifluralin	93.3	91.9	P/P	40 - 170

Reference Method: EPA 8276
Batch ID: P324073

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	77.2	84.6	P/P	44 - 118
Toxaphene	92.7	90.9	P/P	36 - 136

Reference Method: EPA 8321B
Batch ID: P323816

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	88.4		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P323999

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	92.6		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P324033

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	94.4		P	40 - 140

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P324039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	129		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P324656

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P325469

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P325522

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P324172

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

Reference Method: USGS O-2060-01
Batch ID: P323974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	69.8		P	40 - 140
Acetaminophen	48.4		P	40 - 140
Bentazon	51.9		P	40 - 140
Carbamazepine	98.5		P	40 - 140
Diuron	94.8		P	40 - 140
Fenuron	93.6		P	40 - 140
Fluridone	89.0		P	40 - 140
Imidacloprid	93.5		P	40 - 160
Linuron	83.4		P	40 - 140
MCPP	78.5		P	40 - 140
Primidone	93.4		P	40 - 140
Triclopyr	75.2		P	40 - 140

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P324338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892307	Calcium	105		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P324338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892307	Iron	104		P	80 - 120
1892307	Magnesium	105		P	80 - 120
1892307	Potassium	99.5		P	80 - 120
1892307	Zinc	104		P	80 - 120
1892481	Calcium	102		P	80 - 120
1892481	Iron	104	101	P/P	80 - 120
1892481	Magnesium	104	99.6	P/P	80 - 120
1892481	Potassium	99.7		P	80 - 120
1892481	Zinc	104	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P324338

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892307	Arsenic	102		P	80 - 120
1892307	Cadmium	101		P	80 - 120
1892307	Chromium	96.7		P	80 - 120
1892307	Copper	97.2		P	80 - 120
1892307	Lead	101		P	80 - 120
1892307	Nickel	97.2		P	80 - 120
1892307	Silver	93.6		P	80 - 120
1892481	Arsenic	103	104	P/P	80 - 120
1892481	Cadmium	101	101	P/P	80 - 120
1892481	Chromium	95.6	97.4	P/P	80 - 120
1892481	Copper	96.8	96.6	P/P	80 - 120
1892481	Lead	102	103	P/P	80 - 120
1892481	Nickel	96.2	97.2	P/P	80 - 120
1892481	Silver	94.2	94.8	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324475

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892103	Sulfate	101		P	90 - 110
1892216	Sulfate	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324477

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892103	Chloride	95.1		P	90 - 110
1892216	Chloride	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324248

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892220	Ammonia-N	92.4	93.3	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324116

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892221	Kjeldahl Nitrogen	115	113	F/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892276	Kjeldahl Nitrogen	106	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324203

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892220	NO2NO3-N	100	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324104

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892277	Total-P	99.2	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324084

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892224	O-Phosphate-P	96.7	96.3	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P324073

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892624	Aldrin	59.2	70.7	P/P	30 - 83.0
1892624	Alpha-BHC	86.6	110	P/P	62 - 119
1892624	Alpha-Chlordane	75.0	88.4	P/P	56 - 119
1892624	Beta-BHC	89.2	109	P/P	54 - 141
1892624	Carbophenothion	125	147	P/P	33 - 147
1892624	Chlorothalonil	148	153	P/P	25 - 175
1892624	Cypermethrin	109	140	P/P	50 - 155
1892624	DDD-p,p'	78.7	95.2	P/P	56 - 135
1892624	DDE-p,p'	68.5	85.6	P/P	48 - 120
1892624	DDT-p,p'	68.7	79.0	P/P	51 - 121
1892624	Delta-BHC	116	135	P/P	65 - 163
1892624	Dicofol	11.8	20.1	F/P	15 - 112
1892624	Dieldrin	72.3	85.5	P/P	59 - 134
1892624	Endosulfan I	84.3	96.8	P/P	65 - 142
1892624	Endosulfan II	88.6	105	P/P	65 - 154
1892624	Endosulfan Sulfate	86.4	96.2	P/P	65 - 136
1892624	Endrin	84.6	87.7	P/P	53 - 156
1892624	Endrin Aldehyde	81.3	96.8	P/P	47 - 156
1892624	Endrin Ketone	90.6	110	P/P	70 - 124
1892624	Gamma-BHC	84.0	103	P/P	64 - 142
1892624	Gamma-Chlordane	74.9	87.6	P/P	55 - 114
1892624	Heptachlor	66.6	73.5	P/P	42 - 105

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P324073

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892624	Heptachlor Epoxide	75.6	88.9	P/P	67 - 120
1892624	Methoxychlor	80.3	93.5	P/P	63 - 134
1892624	Mirex	64.5	78.7	P/P	40 - 90.0
1892624	Permethrin	98.9	124	P/P	36 - 144
1892624	Trifluralin	139	176	P/F	40 - 170

Reference Method: EPA 8270D
Batch ID: P324314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1893765	Acetochlor	99.0	98.8	P/P	74 - 123
1893765	Alachlor	92.5	92.4	P/P	73 - 124
1893765	Ametryn	122	125	P/P	56 - 149
1893765	Atrazine	99.3	97.3	P/P	73 - 124
1893765	Atrazine Desethyl	65.9	61.9	P/P	12 - 103
1893765	Azinphos Methyl	147	127	P/P	60 - 202
1893765	Bromacil	92.7	92.1	P/P	42 - 133
1893765	Butylate	41.4	39.2	P/P	10 - 85.0
1893765	Chlorpyrifos Ethyl	93.3	93.3	P/P	53 - 113
1893765	Chlorpyrifos Methyl	89.3	85.7	P/P	40 - 115
1893765	Cyanazine	115	109	P/P	22 - 210
1893765	Demeton	96.9	94.3	P/P	17 - 149
1893765	Diazinon	97.6	97.4	P/P	72 - 124
1893765	Disulfoton	98.6	89.5	P/P	43 - 139
1893765	EPTC	39.7	37.3	P/P	10 - 86.0
1893765	Ethion	120	117	P/P	65 - 131
1893765	Ethoprop	96.8	93.6	P/P	59 - 110
1893765	Fenamiphos	143	141	F/F	57 - 138
1893765	Fipronil	113	108	P/P	40 - 130
1893765	Fipronil Sulfide	99.5	91.9	P/P	36 - 128
1893765	Fipronil Sulfone	100	90.2	P/P	16 - 145
1893765	Fonofos	95.5	89.3	P/P	60 - 112
1893765	Hexazinone	94.1	87.9	P/P	69 - 142
1893765	Malathion	103	92.9	P/P	68 - 132
1893765	Metalaxyl	96.7	95.4	P/P	66 - 118
1893765	Metolachlor	97.9	101	P/P	71 - 124
1893765	Metribuzin	104	98.0	P/P	61 - 140
1893765	Mevinphos	95.6	84.4	P/P	38 - 130
1893765	Molinate	54.5	52.2	P/P	23 - 99.0
1893765	Norflurazon	114	105	P/P	39 - 139
1893765	Parathion Ethyl	98.1	90.6	P/P	75 - 111
1893765	Parathion Methyl	91.6	85.6	P/P	64 - 130
1893765	Pendimethalin	99.3	93.9	P/P	26 - 173
1893765	Phorate	97.3	95.5	P/P	43 - 127
1893765	Prometon	115	112	P/P	50 - 144
1893765	Prometryn	116	115	P/P	69 - 126
1893765	Simazine	94.0	89.3	P/P	51 - 152
1893765	Terbufos	96.1	93.2	P/P	54 - 125
1893765	Terbuthylazine	92.3	90.5	P/P	76 - 113

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P325094

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1898675	Aldrin	34.0		P	30 - 83.0
1898675	Alpha-BHC	90.4		P	62 - 119
1898675	Alpha-Chlordane	66.1		P	56 - 119
1898675	Beta-BHC	123		P	54 - 141
1898675	Carbophenothion	110		P	33 - 147
1898675	Chlorothalonil	151		P	25 - 175
1898675	Cypermethrin	74.8		P	50 - 155
1898675	DDD-p,p'	77.3		P	56 - 135
1898675	DDE-p,p'	64.9		P	48 - 120
1898675	DDT-p,p'	65.8		P	51 - 121
1898675	Delta-BHC	181		F	65 - 163
1898675	Dicofol	36.5		P	15 - 112
1898675	Dieldrin	73.6		P	59 - 134
1898675	Endosulfan I	81.9		P	65 - 142
1898675	Endosulfan II	95.9		P	65 - 154
1898675	Endosulfan Sulfate	103		P	65 - 136
1898675	Endrin	76.0		P	53 - 156
1898675	Endrin Aldehyde	79.4		P	47 - 156
1898675	Endrin Ketone	102		P	70 - 124
1898675	Gamma-BHC	116		P	64 - 142
1898675	Gamma-Chlordane	60.9		P	55 - 114
1898675	Heptachlor	46.0		P	42 - 105
1898675	Heptachlor Epoxide	76.5		P	67 - 120
1898675	Methoxychlor	78.1		P	63 - 134
1898675	Mirex	48.2		P	40 - 90.0
1898675	Permethrin	69.1		P	36 - 144
1898675	Trifluralin	112		P	40 - 170

Reference Method: EPA 8276
Batch ID: P324073

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1893803	Chlordane	83.4	76.9	P/P	44 - 118
1893803	Toxaphene	115	112	P/P	36 - 136

Reference Method: EPA 8321B
Batch ID: P323816

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1891019	Sucralose	111	112	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P323999

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892232	Sucralose	84.6	87.2	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P324033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892645	Pyraclostrobin	94.2	86.2	P/P	40 - 140

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P324039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892980	Glyphosate	124	128	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P325469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892554	Fluoride	102	97.9	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P325522

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892682	Fluoride	101	102	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P324172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892220	Organic Carbon	106		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P323974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892054	2,4-D	68.5	70.2	P/P	40 - 140
1892054	Acetaminophen	90.9	97.5	P/P	40 - 140
1892054	Bentazon	47.3	47.4	P/P	40 - 140
1892054	Carbamazepine	82.0	90.4	P/P	40 - 140
1892054	Diuron	74.8	76.8	P/P	40 - 140
1892054	Fenuron	69.9	66.1	P/P	40 - 140
1892054	Fluridone	76.0	81.2	P/P	40 - 140
1892054	Imidacloprid	166	164	F/F	40 - 160
1892054	Linuron	93.5	95.9	P/P	40 - 140
1892054	MCPP	60.9	62.0	P/P	40 - 140
1892054	Primidone	101	94.9	P/P	40 - 140
1892054	Triclopyr	63.5	65.6	P/P	40 - 140

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P324091

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892216	Turbidity	3.61	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P324338

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892481	Calcium	2.82	Spike	P	0 - 20
1892481	Iron	2.80	Spike	P	0 - 20
1892481	Magnesium	2.58	Spike	P	0 - 20
1892481	Potassium	1.29	Spike	P	0 - 20
1892481	Sodium	3.01	Spike	P	0 - 20
1892481	Zinc	1.09	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P324338

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892481	Arsenic	0.659	Spike	P	0 - 20
1892481	Cadmium	0.0931	Spike	P	0 - 20
1892481	Chromium	1.85	Spike	P	0 - 20
1892481	Copper	0.212	Spike	P	0 - 20
1892481	Lead	1.46	Spike	P	0 - 20
1892481	Nickel	1.06	Spike	P	0 - 20
1892481	Silver	0.632	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324475

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892103	Sulfate	0.370	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324477

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892103	Chloride	0.203	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324248

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892220	Ammonia-N	0.888	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324116

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892221	Kjeldahl Nitrogen	1.48	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892276	Kjeldahl Nitrogen	1.68	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324203

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892220	NO2NO3-N	1.50	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892277	Total-P	2.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892224	O-Phosphate-P	0.262	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P324073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892624	Aldrin	17.6	Spike	P	0 - 30
1892624	Alpha-BHC	24.0	Spike	P	0 - 30
1892624	Alpha-Chlordane	16.5	Spike	P	0 - 30
1892624	Beta-BHC	20.0	Spike	P	0 - 30
1892624	Carbophenothion	16.1	Spike	P	0 - 30
1892624	Chlorothalonil	3.21	Spike	P	0 - 30
1892624	Cypermethrin	24.6	Spike	P	0 - 30
1892624	DDD-p,p'	19.0	Spike	P	0 - 30
1892624	DDE-p,p'	22.2	Spike	P	0 - 30
1892624	DDT-p,p'	13.9	Spike	P	0 - 30
1892624	Delta-BHC	14.4	Spike	P	0 - 30
1892624	Dicofol	51.9	Spike	F	0 - 30
1892624	Dieldrin	16.7	Spike	P	0 - 30
1892624	Endosulfan I	13.8	Spike	P	0 - 30
1892624	Endosulfan II	17.2	Spike	P	0 - 30
1892624	Endosulfan Sulfate	10.7	Spike	P	0 - 30
1892624	Endrin	3.50	Spike	P	0 - 30
1892624	Endrin Aldehyde	17.4	Spike	P	0 - 30
1892624	Endrin Ketone	19.3	Spike	P	0 - 30
1892624	Gamma-BHC	20.4	Spike	P	0 - 30
1892624	Gamma-Chlordane	15.6	Spike	P	0 - 30
1892624	Heptachlor	9.76	Spike	P	0 - 30
1892624	Heptachlor Epoxide	16.2	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P324073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892624	Methoxychlor	15.1	Spike	P	0 - 30
1892624	Mirex	19.8	Spike	P	0 - 30
1892624	Permethrin	22.2	Spike	P	0 - 30
1892624	Trifluralin	23.7	Spike	P	0 - 30
LFB	Aldrin	7.13	LCS	P	0 - 30
LFB	Alpha-BHC	0.503	LCS	P	0 - 30
LFB	Alpha-Chlordane	8.54	LCS	P	0 - 30
LFB	Beta-BHC	0.0541	LCS	P	0 - 30
LFB	Carbophenothion	1.12	LCS	P	0 - 30
LFB	Chlorothalonil	88.5	LCS	F	0 - 30
LFB	Cypermethrin	18.9	LCS	P	0 - 30
LFB	DDD-p,p'	9.11	LCS	P	0 - 30
LFB	DDE-p,p'	3.27	LCS	P	0 - 30
LFB	DDT-p,p'	3.56	LCS	P	0 - 30
LFB	Delta-BHC	2.40	LCS	P	0 - 30
LFB	Dicofol	26.5	LCS	P	0 - 30
LFB	Dieldrin	7.84	LCS	P	0 - 30
LFB	Endosulfan I	5.08	LCS	P	0 - 30
LFB	Endosulfan II	3.73	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.32	LCS	P	0 - 30
LFB	Endrin	11.7	LCS	P	0 - 30
LFB	Endrin Aldehyde	7.60	LCS	P	0 - 30
LFB	Endrin Ketone	2.71	LCS	P	0 - 30
LFB	Gamma-BHC	0.727	LCS	P	0 - 30
LFB	Gamma-Chlordane	9.39	LCS	P	0 - 30
LFB	Heptachlor	3.87	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.04	LCS	P	0 - 30
LFB	Methoxychlor	7.65	LCS	P	0 - 30
LFB	Mirex	6.35	LCS	P	0 - 30
LFB	Permethrin	17.8	LCS	P	0 - 30
LFB	Trifluralin	15.4	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P324314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893765	Acetochlor	0.220	Spike	P	0 - 30
1893765	Alachlor	0.128	Spike	P	0 - 30
1893765	Ametryn	2.89	Spike	P	0 - 30
1893765	Atrazine	1.67	Spike	P	0 - 30
1893765	Atrazine Desethyl	6.24	Spike	P	0 - 30
1893765	Azinphos Methyl	14.3	Spike	P	0 - 30
1893765	Bromacil	0.607	Spike	P	0 - 30
1893765	Butylate	5.36	Spike	P	0 - 30
1893765	Chlorpyrifos Ethyl	0.0469	Spike	P	0 - 30
1893765	Chlorpyrifos Methyl	4.12	Spike	P	0 - 30
1893765	Cyanazine	5.56	Spike	P	0 - 30
1893765	Demeton	2.64	Spike	P	0 - 30
1893765	Diazinon	0.233	Spike	P	0 - 30
1893765	Disulfoton	9.59	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P324314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893765	EPTC	6.18	Spike	P	0 - 30
1893765	Ethion	2.84	Spike	P	0 - 30
1893765	Ethoprop	3.40	Spike	P	0 - 30
1893765	Fenamiphos	1.13	Spike	P	0 - 30
1893765	Fipronil	3.59	Spike	P	0 - 30
1893765	Fipronil Sulfide	8.01	Spike	P	0 - 30
1893765	Fipronil Sulfone	9.15	Spike	P	0 - 30
1893765	Fonofos	6.72	Spike	P	0 - 30
1893765	Hexazinone	6.02	Spike	P	0 - 30
1893765	Malathion	10.8	Spike	P	0 - 30
1893765	Metalaxyl	1.37	Spike	P	0 - 30
1893765	Metolachlor	2.56	Spike	P	0 - 30
1893765	Metribuzin	5.54	Spike	P	0 - 30
1893765	Mevinphos	12.4	Spike	P	0 - 30
1893765	Molinate	4.39	Spike	P	0 - 30
1893765	Norflurazon	7.92	Spike	P	0 - 30
1893765	Parathion Ethyl	7.92	Spike	P	0 - 30
1893765	Parathion Methyl	6.78	Spike	P	0 - 30
1893765	Pendimethalin	5.61	Spike	P	0 - 30
1893765	Phorate	1.87	Spike	P	0 - 30
1893765	Prometon	2.69	Spike	P	0 - 30
1893765	Prometryn	0.528	Spike	P	0 - 30
1893765	Simazine	5.17	Spike	P	0 - 30
1893765	Terbufos	3.08	Spike	P	0 - 30
1893765	Terbuthylazine	1.94	Spike	P	0 - 30
LFB	Acetochlor	15.9	LCS	P	0 - 30
LFB	Alachlor	18.5	LCS	P	0 - 30
LFB	Ametryn	14.4	LCS	P	0 - 30
LFB	Atrazine	15.9	LCS	P	0 - 30
LFB	Atrazine Desethyl	11.5	LCS	P	0 - 30
LFB	Azinphos Methyl	9.43	LCS	P	0 - 30
LFB	Bromacil	13.0	LCS	P	0 - 30
LFB	Butylate	8.11	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	13.4	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	12.6	LCS	P	0 - 30
LFB	Cyanazine	14.9	LCS	P	0 - 30
LFB	Demeton	7.25	LCS	P	0 - 30
LFB	Diazinon	17.3	LCS	P	0 - 30
LFB	Disulfoton	7.71	LCS	P	0 - 30
LFB	EPTC	7.10	LCS	P	0 - 30
LFB	Ethion	12.3	LCS	P	0 - 30
LFB	Ethoprop	18.6	LCS	P	0 - 30
LFB	Fenamiphos	13.2	LCS	P	0 - 30
LFB	Fipronil	13.2	LCS	P	0 - 30
LFB	Fipronil Sulfide	18.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	10.9	LCS	P	0 - 30
LFB	Fonofos	16.5	LCS	P	0 - 30
LFB	Hexazinone	2.31	LCS	P	0 - 30
LFB	Malathion	3.75	LCS	P	0 - 30
LFB	Metalaxyl	14.9	LCS	P	0 - 30
LFB	Metolachlor	18.8	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P324314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Metribuzin	15.9	LCS	P	0 - 30
LFB	Mevinphos	15.3	LCS	P	0 - 30
LFB	Molinate	12.9	LCS	P	0 - 30
LFB	Norflurazon	14.2	LCS	P	0 - 30
LFB	Parathion Ethyl	11.6	LCS	P	0 - 30
LFB	Parathion Methyl	6.81	LCS	P	0 - 30
LFB	Pendimethalin	12.3	LCS	P	0 - 30
LFB	Phorate	22.8	LCS	P	0 - 30
LFB	Prometon	19.5	LCS	P	0 - 30
LFB	Prometryn	13.8	LCS	P	0 - 30
LFB	Simazine	16.8	LCS	P	0 - 30
LFB	Terbufos	15.4	LCS	P	0 - 30
LFB	Terbuthylazine	14.1	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P325094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Aldrin	8.98	LCS	P	0 - 30
LFB	Alpha-BHC	1.06	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.366	LCS	P	0 - 30
LFB	Beta-BHC	3.13	LCS	P	0 - 30
LFB	Carbophenothion	16.3	LCS	P	0 - 30
LFB	Chlorothalonil	13.6	LCS	P	0 - 30
LFB	Cypermethrin	0.178	LCS	P	0 - 30
LFB	DDD-p,p'	0.756	LCS	P	0 - 30
LFB	DDE-p,p'	1.20	LCS	P	0 - 30
LFB	DDT-p,p'	0.0441	LCS	P	0 - 30
LFB	Delta-BHC	8.99	LCS	P	0 - 30
LFB	Dicofol	6.72	LCS	P	0 - 30
LFB	Dieldrin	3.14	LCS	P	0 - 30
LFB	Endosulfan I	4.20	LCS	P	0 - 30
LFB	Endosulfan II	2.45	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.94	LCS	P	0 - 30
LFB	Endrin	11.9	LCS	P	0 - 30
LFB	Endrin Aldehyde	2.41	LCS	P	0 - 30
LFB	Endrin Ketone	0.558	LCS	P	0 - 30
LFB	Gamma-BHC	1.41	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.25	LCS	P	0 - 30
LFB	Heptachlor	2.50	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.638	LCS	P	0 - 30
LFB	Methoxychlor	3.92	LCS	P	0 - 30
LFB	Mirex	1.85	LCS	P	0 - 30
LFB	Permethrin	4.30	LCS	P	0 - 30
LFB	Trifluralin	1.51	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8276
Batch ID: P324073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893803	Chlordane	8.10	Spike	P	0 - 30
1893803	Toxaphene	3.05	Spike	P	0 - 30
LFB	Chlordane	9.10	LCS	P	0 - 30
LFB	Toxaphene	1.96	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P323816

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1891019	Sucralose	0.722	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P323999

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892232	Sucralose	3.03	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P324033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892645	Pyraclostrobin	8.87	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P324039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892980	Glyphosate	2.86	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P324065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892271	Color (true)	5.82	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P324656

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892272	Total Alkalinity	0.0449	Sample	P	0 - 4.8

Quality Assurance Report
Precision

Reference Method: SM 2540 C-97
Batch ID: P324735

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892267	TDS	2.94	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P325469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892554	Fluoride	3.65	Spike	F	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P325522

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892682	Fluoride	0.473	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P324172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892220	Organic Carbon	1.57	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P323974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892054	2,4-D	2.31	Spike	P	0 - 30
1892054	Acetaminophen	7.00	Spike	P	0 - 30
1892054	Bentazon	0.251	Spike	P	0 - 30
1892054	Carbamazepine	8.60	Spike	P	0 - 30
1892054	Diuron	2.59	Spike	P	0 - 30
1892054	Fenuron	5.65	Spike	P	0 - 30
1892054	Fluridone	6.66	Spike	P	0 - 30
1892054	Imidacloprid	1.28	Spike	P	0 - 30
1892054	Linuron	2.49	Spike	P	0 - 30
1892054	MCPP	1.67	Spike	P	0 - 30
1892054	Primidone	6.25	Spike	P	0 - 30
1892054	Triclopyr	3.22	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

Quality Assurance Report
Surrogates

Lab Sample ID: 1892232
Field Sample ID: G1TLHR0037-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	129	P	40 - 150
EPA 8321B	Sucralose-d6	67.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	61.2	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	67.1	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	65.3	P	30 - 160
USGS O-2060-01	Diuron-d6	56.4	P	30 - 150
USGS O-2060-01	Primidone-d5	68.4	P	30 - 150

Lab Sample ID: 1892233
Field Sample ID: G1TLHR0035-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	117	P	40 - 150
EPA 8321B	Sucralose-d6	96.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	64.4	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	64.4	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	74.7	P	30 - 160
USGS O-2060-01	Diuron-d6	68.0	P	30 - 150
USGS O-2060-01	Primidone-d5	79.0	P	30 - 150

Lab Sample ID: 1892234
Field Sample ID: G1TLHR0035-2017-01-DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	116	P	40 - 150
EPA 8321B	Sucralose-d6	97.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	67.0	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	73.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	74.9	P	30 - 160
USGS O-2060-01	Diuron-d6	68.6	P	30 - 150
USGS O-2060-01	Primidone-d5	70.7	P	30 - 150

Lab Sample ID: 1892235
Field Sample ID: Field Blank #1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	112	P	40 - 150
EPA 8321B	Sucralose-d6	84.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	67.9	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	35.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	100	P	30 - 160
USGS O-2060-01	Diuron-d6	110	P	30 - 150
USGS O-2060-01	Primidone-d5	105	P	30 - 150

Lab Sample ID: 1892236
Field Sample ID: G1TLHR0037-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	106	P	30 - 150

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Lab Sample ID: 1892237
Field Sample ID: G1TLHR0035-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	115	P	30 - 150

Lab Sample ID: 1892238
Field Sample ID: G1TLHR0035-2017-01-DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	91.1	P	30 - 150

Lab Sample ID: 1892239
Field Sample ID: Field Blank #1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	102	P	30 - 150

Lab Sample ID: 1892240
Field Sample ID: G1TLHR0037-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	62.5	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	47.3	P	31 - 111
EPA 8276	Decachlorobiphenyl	54.7	P	41 - 106

Lab Sample ID: 1892241
Field Sample ID: G1TLHR0035-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	56.2	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	37.3	P	31 - 111
EPA 8276	Decachlorobiphenyl	52.5	P	41 - 106

Lab Sample ID: 1892242
Field Sample ID: G1TLHR0035-2017-01-DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	54.1	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	31.4	P	31 - 111
EPA 8276	Decachlorobiphenyl	50.5	P	41 - 106

Lab Sample ID: 1892243
Field Sample ID: Field Blank #1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	56.0	P	51 - 123
EPA 8270D	Decachlorobiphenyl	53.2	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	44.4	P	31 - 111
EPA 8270D	Tetrachloro-m-xylene	50.5	P	31 - 111
EPA 8276	Decachlorobiphenyl	46.4	P	41 - 106

Lab Sample ID: 1892244
Field Sample ID: G1TLHR0037-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits

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Surrogates

Lab Sample ID: 1892244
Field Sample ID: G1TLHR0037-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	73.0	P	62 - 132
EPA 8270D	Simazine-d10	106	P	72 - 127

Lab Sample ID: 1892245
Field Sample ID: G1TLHR0035-2017-01

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	106	P	62 - 132
EPA 8270D	Simazine-d10	86.7	P	72 - 127

Lab Sample ID: 1892246
Field Sample ID: G1TLHR0035-2017-01-DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	101	P	62 - 132
EPA 8270D	Simazine-d10	89.7	P	72 - 127

Lab Sample ID: 1892247
Field Sample ID: Field Blank #1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	104	P	62 - 132
EPA 8270D	Simazine-d10	93.2	P	72 - 127

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Reference Method: SM 2120 B
Run ID: A76015
Included Lab Sample IDs: 1892216, 1892217, 1892218, 1892219

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.4	98.0	P/P	85 - 115
Color (true)	98.9	100	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A76020
Included Lab Sample IDs: 1892224, 1892225, 1892226, 1892227

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.1	98.3	P/P	90 - 110
O-Phosphate-P	98.3	97.7	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A76022
Included Lab Sample IDs: 1892232, 1892233, 1892234, 1892235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	109	93.8	P/P	60 - 150
Sucralose	93.8	79.8	P/P	60 - 150

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Reference Method: EPA 180.1 Rev. 2.0
Run ID: A76023
Included Lab Sample IDs: 1892216, 1892217, 1892218, 1892219

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

Reference Method: SM 5310 B-00
Run ID: A76046
Included Lab Sample IDs: 1892220, 1892221, 1892222, 1892223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A76056
Included Lab Sample IDs: 1892220, 1892221, 1892222, 1892223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A76059
Included Lab Sample IDs: 1892220, 1892221, 1892222

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	105	P/P	90 - 110
Total-P	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A76062
Included Lab Sample IDs: 1892223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	97.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A76070
Included Lab Sample IDs: 1892220, 1892221, 1892222, 1892223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	90.5	94.4	P/P	90 - 110
Ammonia-N	94.4	92.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A76073
Included Lab Sample IDs: 1892232, 1892233, 1892234, 1892235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	109	117	P/P	70 - 160
Glyphosate	117	114	P/P	70 - 160

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Reference Method: EPA 351.2 Rev. 2.0
Run ID: A76075
Included Lab Sample IDs: 1892220, 1892221, 1892222, 1892223

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	99.8	P/P	90 - 110
Kjeldahl Nitrogen	99.6	97.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A76134
Included Lab Sample IDs: 1892248, 1892249, 1892250, 1892251

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	94.9	95.4	P/P	90 - 110
Arsenic	95.4	94.4	P/P	90 - 110
Cadmium	92.7	93.5	P/P	90 - 110
Cadmium	93.1	92.7	P/P	90 - 110
Chromium	96.1	96.6	P/P	90 - 110
Chromium	96.6	97.5	P/P	90 - 110
Copper	96.5	96.9	P/P	90 - 110
Copper	96.9	96.0	P/P	90 - 110
Lead	98.1	98.4	P/P	90 - 110
Lead	98.2	98.1	P/P	90 - 110
Nickel	94.9	95.5	P/P	90 - 110
Nickel	95.5	94.8	P/P	90 - 110
Silver	94.6	95.5	P/P	90 - 110
Silver	95.5	94.7	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A76140
Included Lab Sample IDs: 1892240, 1892241, 1892242, 1892243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.9		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A76148
Included Lab Sample IDs: 1892216, 1892217, 1892218, 1892219

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	104	P/P	90 - 110
Chloride	103	103	P/P	90 - 110
Sulfate	101	93.6	P/P	90 - 110
Sulfate	93.6	100	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A76196
Included Lab Sample IDs: 1892216, 1892217, 1892218, 1892219

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

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Reference Method: EPA 200.7 Rev. 4.4
Run ID: A76199
Included Lab Sample IDs: 1892248, 1892249, 1892250, 1892251

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	102	P/P	90 - 110
Calcium	105	102	P/P	95 - 105
Iron	104	104	P/P	90 - 110
Iron	104	102	P/P	95 - 105
Magnesium	104	104	P/P	90 - 110
Magnesium	104	103	P/P	95 - 105
Potassium	102	103	P/P	90 - 110
Potassium	103	102	P/P	95 - 105
Sodium	102	101	P/P	90 - 110
Sodium	104	99.8	P/P	95 - 105
Zinc	102	104	P/P	90 - 110
Zinc	104	105	P/P	95 - 105

Reference Method: EPA 8321B
Run ID: A76248
Included Lab Sample IDs: 1892236, 1892237, 1892238, 1892239

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	103	114	P/P	60 - 150
Pyraclostrobin	111	103	P/P	60 - 150

Reference Method: EPA 8270D
Run ID: A76297
Included Lab Sample IDs: 1892240, 1892241, 1892242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.2		P	80 - 120
Alpha-BHC	97.4		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	98.0		P	80 - 120
Carbophenothion	95.7		P	80 - 120
Chlorothalonil	97.3		P	80 - 120
Cypermethrin	88.0		P	80 - 120
DDD-p,p'	95.7		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	108		P	80 - 120
Delta-BHC	102		P	80 - 120
Dicofol	98.2		P	80 - 120
Dieldrin	98.9		P	80 - 120
Endosulfan I	98.1		P	80 - 120
Endosulfan II	87.1		P	80 - 120
Endosulfan Sulfate	92.8		P	80 - 120
Endrin	97.2		P	80 - 120
Endrin Ketone	93.1		P	80 - 120
Gamma-BHC	99.2		P	80 - 120
Gamma-Chlordane	100		P	80 - 120
Heptachlor	97.4		P	80 - 120
Heptachlor Epoxide	99.1		P	80 - 120
Methoxychlor	108		P	80 - 120
Mirex	101		P	80 - 120
Permethrin	91.7		P	80 - 120

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Reference Method: EPA 8270D
Run ID: A76297
Included Lab Sample IDs: 1892240, 1892241, 1892242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Trifluralin	98.1		P	80 - 120

Reference Method: EPA 8270D
Run ID: A76306
Included Lab Sample IDs: 1892244

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	98.6		P	80 - 120
Ametryn	97.5		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	99.8		P	80 - 120
Azinphos Methyl	92.4		P	80 - 120
Bromacil	97.5		P	80 - 120
Butylate	99.7		P	80 - 120
Chlorpyrifos Ethyl	97.4		P	80 - 120
Chlorpyrifos Methyl	97.9		P	80 - 120
Cyanazine	93.5		P	80 - 120
Demeton	95.7		P	80 - 120
Diazinon	95.8		P	80 - 120
Disulfoton	93.2		P	80 - 120
EPTC	101		P	80 - 120
Ethion	90.8		P	80 - 120
Ethoprop	95.3		P	80 - 120
Fenamiphos	90.2		P	80 - 120
Fipronil	96.4		P	80 - 120
Fipronil Sulfide	95.9		P	80 - 120
Fipronil Sulfone	95.1		P	80 - 120
Fonofos	92.5		P	80 - 120
Hexazinone	99.7		P	80 - 120
Malathion	98.9		P	80 - 120
Metalaxyl	97.7		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	91.7		P	80 - 120
Mevinphos	97.3		P	80 - 120
Molinate	100		P	80 - 120
Norflurazon	95.3		P	80 - 120
Parathion Ethyl	96.4		P	80 - 120
Parathion Methyl	96.8		P	80 - 120
Pendimethalin	92.3		P	80 - 120
Phorate	91.5		P	80 - 120
Prometon	96.5		P	80 - 120
Prometryn	91.2		P	80 - 120
Simazine	94.4		P	80 - 120
Terbufos	94.2		P	80 - 120
Terbuthylazine	96.4		P	80 - 120

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Reference Method: EPA 8270D
Run ID: A76310
Included Lab Sample IDs: 1892245, 1892246, 1892247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.5		P	80 - 120
Alachlor	95.0		P	80 - 120
Ametryn	93.6		P	80 - 120
Atrazine	96.4		P	80 - 120
Atrazine Desethyl	93.6		P	80 - 120
Azinphos Methyl	89.5		P	80 - 120
Bromacil	106		P	80 - 120
Butylate	82.2		P	80 - 120
Chlorpyrifos Ethyl	92.6		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Cyanazine	77.9*		F	80 - 120
Demeton	77.5*		F	80 - 120
Diazinon	81.1		P	80 - 120
Disulfoton	93.1		P	80 - 120
EPTC	90.3		P	80 - 120
Ethion	92.7		P	80 - 120
Ethoprop	94.0		P	80 - 120
Fenamiphos	91.7		P	80 - 120
Fipronil	94.0		P	80 - 120
Fipronil Sulfide	96.1		P	80 - 120
Fipronil Sulfone	98.0		P	80 - 120
Fonofos	94.2		P	80 - 120
Hexazinone	100		P	80 - 120
Malathion	88.8		P	80 - 120
Metalaxyl	90.8		P	80 - 120
Metolachlor	96.3		P	80 - 120
Metribuzin	91.8		P	80 - 120
Mevinphos	96.9		P	80 - 120
Molinate	88.1		P	80 - 120
Norflurazon	92.4		P	80 - 120
Parathion Ethyl	113		P	80 - 120
Parathion Methyl	96.1		P	80 - 120
Pendimethalin	92.7		P	80 - 120
Phorate	99.5		P	80 - 120
Prometon	90.8		P	80 - 120
Prometryn	95.3		P	80 - 120
Simazine	94.3		P	80 - 120
Terbufos	94.9		P	80 - 120
Terbuthylazine	118		P	80 - 120

Reference Method: EPA 8270D
Run ID: A76326
Included Lab Sample IDs: 1892240, 1892241, 1892242

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin Aldehyde	95.3		P	80 - 120

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Reference Method: USGS O-2060-01
Run ID: A76477
Included Lab Sample IDs: 1892232, 1892233, 1892234, 1892235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.6	90.0	P/P	50 - 150
Acetaminophen	90.0	103	P/P	60 - 150
Bentazon	84.4	85.2	P/P	50 - 150
Carbamazepine	116	130	P/P	60 - 150
Carbamazepine	87.2	97.2	P/P	60 - 150
Diuron	96.0	104	P/P	60 - 150
Fenuron	87.6	99.2	P/P	60 - 150
Fenuron	94.0	106	P/P	60 - 150
Fluridone	112	120	P/P	60 - 150
Fluridone	92.4	98.8	P/P	60 - 150
Imidacloprid	88.4	106	P/P	60 - 150
Linuron	80.4	92.4	P/P	60 - 150
MCPP	86.0	93.6	P/P	50 - 150
Primidone	79.2	102	P/P	60 - 150
Primidone	86.4	111	P/P	60 - 150
Triclopyr	82.8	88.0	P/P	50 - 150

Reference Method: SM 4500 F-C-97
Run ID: A76498
Included Lab Sample IDs: 1892216

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.0	104	P/P	90 - 110

Reference Method: EPA 8270D
Run ID: A76505
Included Lab Sample IDs: 1892243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.7		P	80 - 120
Alpha-BHC	94.1		P	80 - 120
Alpha-Chlordane	105		P	80 - 120
Beta-BHC	97.8		P	80 - 120
Carbophenothion	99.4		P	80 - 120
Chlorothalonil	99.0		P	80 - 120
Cypermethrin	97.0		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	100		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	105		P	80 - 120
Dicofol	92.7		P	80 - 120
Dieldrin	94.3		P	80 - 120
Endosulfan I	95.2		P	80 - 120
Endosulfan II	92.3		P	80 - 120
Endosulfan Sulfate	99.9		P	80 - 120
Endrin	110		P	80 - 120
Endrin Aldehyde	95.8		P	80 - 120
Endrin Ketone	95.6		P	80 - 120
Gamma-BHC	99.4		P	80 - 120
Gamma-Chlordane	99.8		P	80 - 120
Heptachlor	93.7		P	80 - 120

Quality Assurance Report
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Reference Method: EPA 8270D
Run ID: A76505
Included Lab Sample IDs: 1892243

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Heptachlor Epoxide	98.3		P	80 - 120
Methoxychlor	108		P	80 - 120
Mirex	101		P	80 - 120
Permethrin	95.3		P	80 - 120
Trifluralin	86.0		P	80 - 120

Reference Method: SM 4500 F-C-97
Run ID: A76528
Included Lab Sample IDs: 1892217, 1892218, 1892219

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	96.2	103	P/P	90 - 110

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							3.61	
EPA 200.7 Rev. 4.4	Calcium	104		105	102				2.82
	Iron	104		104	104	101			2.80
	Magnesium	105		105	104	99.6			2.58
	Potassium	100		99.5	99.7				1.29
	Sodium	102							3.01
	Zinc	97.6		104	104	103			1.09
EPA 200.8 Rev. 5.4	Arsenic	101		102	103	104			0.659
	Cadmium	101		101	101	101			0.0931
	Chromium	100		96.7	95.6	97.4			1.85
	Copper	98.7		97.2	96.8	96.6			0.212
	Lead	102		101	102	103			1.46
	Nickel	100		97.2	96.2	97.2			1.06
	Silver	99.0		93.6	94.2	94.8			0.632
EPA 300.0 Rev. 2.1	Chloride	99.6		95.1	97.9			0.203	
	Sulfate	99.8		101	101			0.370	
EPA 350.1 Rev. 2.0	Ammonia-N	94.0		92.4	93.3				0.888
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106		115	113				1.48
	Kjeldahl Nitrogen	104		106	103				1.68
EPA 353.2 Rev. 2.0	NO2NO3-N	104		100	99.0				1.50
EPA 365.1 Rev. 2.0	Total-P	101		99.2	95.6				2.23
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.6		96.7	96.3				0.262
EPA 8270D	Acetochlor	105	89.2	99.0	98.8		15.9		0.220
	Alachlor	102	84.5	92.5	92.4		18.5		0.128
	Aldrin	49.7	46.3	59.2	70.7		7.13		17.6
	Aldrin	23.8	21.8	34.0			8.98		
	Alpha-BHC	93.1	92.6	86.6	110		0.503		24.0
	Alpha-BHC	86.2	85.3	90.4			1.06		

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Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Alpha-Chlordane	94.0	86.3	75.0	88.4	8.54		16.5
	Alpha-Chlordane	89.1	89.4	66.1		0.366		
	Ametryn	126	109	122	125	14.4		2.89
	Atrazine	108	92.0	99.3	97.3	15.9		1.67
	Atrazine Desethyl	76.0	67.8	65.9	61.9	11.5		6.24
	Azinphos Methyl	144	131	147	127	9.43		14.3
	Beta-BHC	107	107	89.2	109	0.0541		20.0
	Beta-BHC	102	105	123		3.13		
	Bromacil	88.1	77.3	92.7	92.1	13.0		0.607
	Butylate	52.5	48.4	41.4	39.2	8.11		5.36
	Carbophenothion	109	110	125	147	1.12		16.1
	Carbophenothion	71.6	84.3	110		16.3		
	Chlorothalonil	23.8	61.7	148	153	88.5		3.21
	Chlorothalonil	118	103	151		13.6		
	Chlorpyrifos Ethyl	99.8	87.2	93.3	93.3	13.4		0.0469
	Chlorpyrifos Methyl	97.7	86.1	89.3	85.7	12.6		4.12
	Cyanazine	122	105	115	109	14.9		5.56
	Cypermethrin	101	83.2	109	140	18.9		24.6
	Cypermethrin	82.5	82.3	74.8		0.178		
	DDD-p,p'	100	91.7	78.7	95.2	9.11		19.0
	DDD-p,p'	94.8	95.5	77.3		0.756		
	DDE-p,p'	92.0	89.0	68.5	85.6	3.27		22.2
	DDE-p,p'	90.3	91.4	64.9		1.20		
	DDT-p,p'	98.8	95.4	68.7	79.0	3.56		13.9
	DDT-p,p'	88.5	88.5	65.8		0.0441		
	Delta-BHC	124	127	116	135	2.40		14.4
	Delta-BHC	120	131	181		8.99		
	Demeton	102	94.6	96.9	94.3	7.25		2.64
	Diazinon	101	84.5	97.6	97.4	17.3		0.233
	Dicofol	44.1	33.8	11.8	20.1	26.5		51.9
	Dicofol	65.5	70.0	36.5		6.72		
	Dieldrin	92.6	85.6	72.3	85.5	7.84		16.7
	Dieldrin	92.4	95.3	73.6		3.14		
	Disulfoton	99.3	92.0	98.6	89.5	7.71		9.59
	Endosulfan I	100	95.3	84.3	96.8	5.08		13.8
	Endosulfan I	93.5	97.5	81.9		4.20		
	Endosulfan II	102	98.3	88.6	105	3.73		17.2
	Endosulfan II	97.8	100	95.9		2.45		
	Endosulfan Sulfate	95.2	93.0	86.4	96.2	2.32		10.7
	Endosulfan Sulfate	96.7	99.6	103		2.94		
	Endrin	102	91.2	84.6	87.7	11.7		3.50
	Endrin	113	101	76.0		11.9		
	Endrin Aldehyde	89.3	82.8	81.3	96.8	7.60		17.4
	Endrin Aldehyde	98.7	96.4	79.4		2.41		
	Endrin Ketone	93.6	91.1	90.6	110	2.71		19.3
	Endrin Ketone	91.0	90.5	102		0.558		
	EPTC	51.4	47.9	39.7	37.3	7.10		6.18
	Ethion	126	112	120	117	12.3		2.84
	Ethoprop	103	85.1	96.8	93.6	18.6		3.40
	Fenamiphos	150	131	143	141	13.2		1.13
	Fipronil	113	99.2	113	108	13.2		3.59
	Fipronil Sulfide	106	88.1	99.5	91.9	18.0		8.01
	Fipronil Sulfone	102	91.1	100	90.2	10.9		9.15
	Fonofos	97.9	82.9	95.5	89.3	16.5		6.72

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Gamma-BHC	103	102	84.0	103	0.727		20.4
	Gamma-BHC	101	100	116		1.41		
	Gamma-Chlordane	91.1	82.9	74.9	87.6	9.39		15.6
	Gamma-Chlordane	85.2	88.0	60.9		3.25		
	Heptachlor	76.6	73.7	66.6	73.5	3.87		9.76
	Heptachlor	70.9	72.7	46.0		2.50		
	Heptachlor Epoxide	94.2	87.8	75.6	88.9	7.04		16.2
	Heptachlor Epoxide	91.0	90.4	76.5		0.638		
	Hexazinone	93.3	95.5	94.1	87.9	2.31		6.02
	Malathion	102	98.5	103	92.9	3.75		10.8
	Metalaxyl	98.8	85.1	96.7	95.4	14.9		1.37
	Methoxychlor	108	100	80.3	93.5	7.65		15.1
	Methoxychlor	93.7	90.1	78.1		3.92		
	Metolachlor	110	91.1	97.9	101	18.8		2.56
	Metribuzin	111	94.2	104	98.0	15.9		5.54
	Mevinphos	95.4	81.9	95.6	84.4	15.3		12.4
	Mirex	77.1	72.4	64.5	78.7	6.35		19.8
	Mirex	68.6	69.9	48.2		1.85		
	Molinate	63.3	55.7	54.5	52.2	12.9		4.39
	Norflurazon	112	97.5	114	105	14.2		7.92
	Parathion Ethyl	98.7	87.9	98.1	90.6	11.6		7.92
	Parathion Methyl	91.9	85.8	91.6	85.6	6.81		6.78
	Pendimethalin	97.4	86.1	99.3	93.9	12.3		5.61
	Permethrin	99.6	83.3	98.9	124	17.8		22.2
	Permethrin	80.0	83.6	69.1		4.30		
	Phorate	109	87.1	97.3	95.5	22.8		1.87
	Prometon	115	94.8	115	112	19.5		2.69
	Prometryn	118	102	116	115	13.8		0.528
	Simazine	105	88.9	94.0	89.3	16.8		5.17
	Terbufos	100	85.9	96.1	93.2	15.4		3.08
	Terbuthylazine	99.0	86.0	92.3	90.5	14.1		1.94
	Trifluralin	147	126	139	176	15.4		23.7
	Trifluralin	91.9	93.3	112		1.51		
EPA 8276	Chlordane	77.2	84.6	83.4	76.9	9.10		8.10
	Toxaphene	92.7	90.9	115	112	1.96		3.05
EPA 8321B	Glyphosate	129		124	128			2.86
	Pyraclostrobin	94.4		94.2	86.2			8.87
	Sucralose	88.4		111	112			0.722
	Sucralose	92.6		84.6	87.2			3.03
SM 2120 B	Color (true)						5.82	
SM 2320 B-97	Total Alkalinity	102					0.0449	
SM 2540 C-97	TDS						2.94	
SM 4500 F-C-97	Fluoride	102		102	97.9			3.65
	Fluoride	101		101	102			0.473
SM 5310 B-00	Organic Carbon	97.5		106				1.57
USGS O-2060-01	2,4-D	69.8		68.5	70.2			2.31
	Acetaminophen	48.4		90.9	97.5			7.00
	Bentazon	51.9		47.3	47.4			0.251
	Carbamazepine	98.5		82.0	90.4			8.60
	Diuron	94.8		74.8	76.8			2.59
	Fenuron	93.6		69.9	66.1			5.65
	Fluridone	89.0		76.0	81.2			6.66
	Imidacloprid	93.5		166	164			1.28
	Linuron	83.4		93.5	95.9			2.49

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
USGS O-2060-01	MCPP	78.5	60.9	62.0			1.67
	Primidone	93.4	101	94.9			6.25
	Triclopyr	75.2	63.5	65.6			3.22

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1892216, 1892217, 1892218, 1892219
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1892248, 1892249, 1892250, 1892251
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1892248, 1892249, 1892250, 1892251
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1892216, 1892217, 1892218, 1892219
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1892216, 1892217, 1892218, 1892219
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1892220, 1892221, 1892222, 1892223
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1892220, 1892221, 1892222, 1892223
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1892220, 1892221, 1892222, 1892223
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1892220, 1892221, 1892222, 1892223
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1892224, 1892225, 1892226, 1892227
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1892240, 1892241, 1892242, 1892243
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1892244, 1892245, 1892246, 1892247
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1892240, 1892241, 1892242, 1892243
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1892232, 1892233, 1892234, 1892235
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1892236, 1892237, 1892238, 1892239
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1892232, 1892233, 1892234, 1892235
SM 2120 B / E31780	True Color measured at 450 nm	1892216, 1892217, 1892218, 1892219
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1892216, 1892217, 1892218, 1892219
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1892216, 1892217, 1892218, 1892219
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1892216, 1892217, 1892218, 1892219
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1892216, 1892217, 1892218, 1892219
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1892220, 1892221, 1892222, 1892223
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1892232, 1892233, 1892234, 1892235
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1892232, 1892233, 1892234, 1892235

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	04/26/2017			04/26/2017 16:32	Sima Feizi	1892216, 1892217, 1892218, 1892219
EPA 200.7 Rev. 4.4	04/26/2017	05/01/2017	Elliott D. Healy	05/04/2017	Martin Acosta	1892248, 1892249, 1892250, 1892251
EPA 200.8 Rev. 5.4	04/26/2017	05/01/2017	Elliott D. Healy	05/02/2017	Betina Topolski	1892248, 1892249, 1892250, 1892251
EPA 300.0 Rev. 2.1	04/26/2017			05/03/2017	Ping Hua	1892216, 1892217, 1892218, 1892219
EPA 350.1 Rev. 2.0	04/26/2017			04/27/2017	Julie Michelle Frank	1892220, 1892221, 1892222, 1892223
EPA 351.2 Rev. 2.0	04/26/2017	04/27/2017	Adrian Shelby	04/28/2017	Joseph Suarez	1892220, 1892221, 1892222, 1892223
EPA 353.2 Rev. 2.0	04/26/2017			04/28/2017	Beverly Y. Sanders	1892220, 1892221, 1892222, 1892223
EPA 365.1 Rev. 2.0	04/26/2017	04/27/2017	Adrian Shelby	04/28/2017	Lipi Saha	1892220, 1892221, 1892222, 1892223
EPA 365.1 Rev. 2.0 dissolved	04/26/2017			04/26/2017 12:26	Anthony C. Onicha	1892224
	04/26/2017			04/26/2017 12:37	Anthony C. Onicha	1892225
	04/26/2017			04/26/2017 12:38	Anthony C. Onicha	1892226
	04/26/2017			04/26/2017 12:39	Anthony C. Onicha	1892227
EPA 8270D	04/26/2017	04/28/2017	Fe-Val Siddell	05/01/2017	Marek Topolski	1892240, 1892241, 1892242
	04/26/2017	04/28/2017	Fe-Val Siddell	05/10/2017	Marek Topolski	1892240, 1892241, 1892242
	04/26/2017	05/01/2017	Rasheda Ghaffari	05/03/2017	Irina Carbone	1892244
	04/26/2017	05/01/2017	Rasheda Ghaffari	05/05/2017	Irina Carbone	1892245, 1892246, 1892247
	04/26/2017	05/12/2017	Fe-Val Siddell	05/16/2017	Vandana T. Nagar	1892243
EPA 8276	04/26/2017	04/28/2017	Fe-Val Siddell	05/02/2017	Vandana T. Nagar	1892240, 1892241, 1892242, 1892243
EPA 8321B	04/26/2017	04/26/2017	Mohammad Ghaffari	04/26/2017	Mohammad Ghaffari	1892232, 1892233, 1892234, 1892235
	04/26/2017	04/28/2017	Mohammad Ghaffari	04/28/2017	Mohammad Ghaffari	1892232, 1892233, 1892234, 1892235
	04/26/2017	04/29/2017	Fe-Val Siddell	05/05/2017	Juyoung Kim	1892236, 1892237, 1892238, 1892239
SM 2120 B	04/26/2017			04/26/2017 14:57	Julia Storbeck	1892217
	04/26/2017			04/26/2017 14:58	Julia Storbeck	1892218, 1892219
	04/26/2017			04/26/2017 15:47	Julia Storbeck	1892216
SM 2320 B-97	04/26/2017			05/04/2017	Dale L. Simmons	1892216, 1892217, 1892218, 1892219
SM 2540 C-97	04/26/2017			05/01/2017	Yijie Li	1892216, 1892217, 1892218, 1892219
SM 2540 D-97	04/26/2017			05/01/2017	Yijie Li	1892216, 1892217, 1892218, 1892219
SM 4500 F-C-97	04/26/2017			05/18/2017	Dale L. Simmons	1892216
	04/26/2017			05/19/2017	Dale L. Simmons	1892217, 1892218, 1892219
SM 5310 B-00	04/26/2017			04/26/2017	Julie Michelle Frank	1892220, 1892221, 1892222, 1892223
USGS O-2060-01	04/26/2017	04/29/2017	Hoor Shaik	05/13/2017	Juyoung Kim	1892232, 1892233, 1892234, 1892235