

Chemical Analysis Report

SE-DIST-2017-04-26-01

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

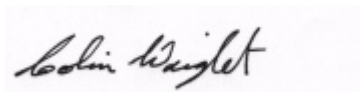
Event Description: **SMP-G2 Jupiter Run**
Request ID: **RQ-2017-04-03-25**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 24-MAY-2017 13:28

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

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: C-24 CANAL @ PSL BLVD

Collection Date/Time: 04/25/2017 12:00

Field ID: G2SE0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892515	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P324092	
	EPA 300.0 Rev. 2.1	Chloride	260		mg Cl/L	P324661	
		Sulfate	69		mg SO4/L	P324666	
	SM 2120 B	Color (true)	67	A	PCU	P324067	
	SM 2320 B-97	Total Alkalinity	198		mg CaCO3/L	P324822	
	SM 2540 C-97	TDS	725		mg/L	P324737	
	SM 2540 D-97	TSS	6	I	mg/L	P324781	
	SM 4500 F-C-97	Fluoride	0.32		mg F/L	P325522	
1892516	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P324250	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P324152	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P324205	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P324198	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P324173	
1892517	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P324088	
1892542	EPA 8321B	Sucralose**	0.099		ug/L	P323999	
	USGS O-2060-01	2,4-D	0.014		ug/L	P324040	
		Diuron	0.040		ug/L	P324040	
		Fenuron	0.0040	U	ug/L	P324040	
		Imidacloprid	0.0074	J	ug/L	P324040	MS
		Bentazon	0.0023	I	ug/L	P324040	
		Linuron	0.0040	U	ug/L	P324040	
		Acetaminophen**	0.0080	U	ug/L	P324040	
		MCP	8.0E-04	U	ug/L	P324040	
		Carbamazepine**	4.0E-04	U	ug/L	P324040	
		Triclopyr**	0.0040	U	ug/L	P324040	
		Primidone**	0.0040	U	ug/L	P324040	
		Fluridone**	0.022		ug/L	P324040	

Ref. Method and Comment:

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

USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.

Sample Location: TIDAL CREEK TO LOX

Collection Date/Time: 04/25/2017 13:40

Field ID: G2SE0027

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892509	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P324092	
	SM 2320 B-97	Total Alkalinity	90		mg CaCO3/L	P324857	
	SM 2540 D-97	TSS	4	IA	mg/L	P324787	
	SM 4500 F-C-97	Fluoride	0.38		mg F/L	P324859	
1892511	EPA 350.1 Rev. 2.0	Ammonia-N	0.045		mg N/L	P324244	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P324423	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P324317	
	EPA 365.1 Rev. 2.0	Total-P	0.059		mg P/L	P324202	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P324235	

Field ID: G2SE0027

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892513	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P324089	
1892540	EPA 8321B	Sucralose**	0.16		ug/L	P323999	
	USGS O-2060-01	2,4-D	0.77		ug/L	P323974	
		Diuron	0.0015	I	ug/L	P323974	
		Fenuron	0.0040	U	ug/L	P323974	
		Imidacloprid	0.032		ug/L	P323974	MS
		Bentazon	0.051		ug/L	P323974	
		Linuron	0.0040	U	ug/L	P323974	
		Acetaminophen**	0.0080	U	ug/L	P323974	
		MCP	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**	0.0074		ug/L	P323974	

Ref. Method and Comment:

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

Sample Location: SW FORK LOX @ LOX RIVER RD.

Collection Date/Time: 04/25/2017 13:10

Field ID: G2SE0023

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892510	EPA 180.1 Rev. 2.0	Turbidity	4.6		NTU	P324092	
	SM 2320 B-97	Total Alkalinity	127		mg CaCO3/L	P324857	
	SM 2540 D-97	TSS	7	IA	mg/L	P324865	
	SM 4500 F-C-97	Fluoride	1.1		mg F/L	P324859	
1892512	EPA 350.1 Rev. 2.0	Ammonia-N	0.090		mg N/L	P324244	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P324423	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.022		mg N/L	P324317	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P324202	
	SM 5310 B-00	Organic Carbon	5.9		mg C/L	P324235	
1892514	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324089	
1892541	EPA 8321B	Sucralose**	0.22		ug/L	P323999	
	USGS O-2060-01	2,4-D	0.0042		ug/L	P324040	
		Diuron	0.0046		ug/L	P324040	
		Fenuron	0.0040	U	ug/L	P324040	
		Imidacloprid	0.016		ug/L	P324040	MS
		Bentazon	0.038		ug/L	P324040	
		Linuron	0.0040	U	ug/L	P324040	
		Acetaminophen**	0.0080	U	ug/L	P324040	
		MCP	8.0E-04	U	ug/L	P324040	
		Carbamazepine**	5.6E-04	I	ug/L	P324040	
		Triclopyr**	0.0040	U	ug/L	P324040	
		Primidone**	0.0040	U	ug/L	P324040	
		Fluridone**	0.025		ug/L	P324040	

Field ID: G2SE0023

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment: SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. USGS O-2060-01: Results confirmed in re-extraction.							

Sample Location: N FORK LOX @ COUNTY LINE

Collection Date/Time: 04/25/2017 14:00

Field ID: G2SE0021

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892506	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P324092	
	SM 2320 B-97	Total Alkalinity	97		mg CaCO3/L	P324857	
	SM 2540 D-97	TSS	8	IA	mg/L	P324786	
	SM 4500 F-C-97	Fluoride	0.51		mg F/L	P324859	
1892507	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P324244	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P324150	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P324316	
	EPA 365.1 Rev. 2.0	Total-P	0.037		mg P/L	P324202	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P324235	
1892508	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.011		mg P/L	P324089	
1892539	EPA 8321B	Sucralose**	0.094		ug/L	P323999	
	USGS O-2060-01	2,4-D	0.0014	I	ug/L	P323974	
		Diuron	0.0018	I	ug/L	P323974	
		Fenuron	0.0040	U	ug/L	P323974	
		Imidacloprid	0.0038		ug/L	P323974	MS
		Bentazon	0.0068		ug/L	P323974	
		Linuron	0.0040	U	ug/L	P323974	
		Acetaminophen**	0.0080	U	ug/L	P323974	
		MCP	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**	5.6E-04	I	ug/L	P323974	

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

Sample Location: NORTH FORK UPPER LOX

Collection Date/Time: 04/25/2017 14:30

Field ID: G2SE0020

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892500	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P324092	
	EPA 300.0 Rev. 2.1	Chloride	50		mg Cl/L	P324661	
		Sulfate	78		mg SO4/L	P324666	
	SM 2120 B	Color (true)	230		PCU	P324066	
	SM 2320 B-97	Total Alkalinity	29		mg CaCO3/L	P324656	
	SM 2540 C-97	TDS	293		mg/L	P324737	
	SM 2540 D-97	TSS	10	I	mg/L	P324781	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P325523	
1892502	EPA 350.1 Rev. 2.0	Ammonia-N	0.24		mg N/L	P324252	

Field ID: G2SE0020

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892502	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.9		mg N/L	P324151	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.030		mg N/L	P324205	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P324198	
	SM 5310 B-00	Organic Carbon	38		mg C/L	P324173	
1892504	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P324088	

Ref. Method and Comment:

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

Sample Location: HENDERSON POND

Collection Date/Time: 04/25/2017 15:40

Field ID: G2SE0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892501	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P324092	
	EPA 300.0 Rev. 2.1	Chloride	42		mg Cl/L	P324661	
		Sulfate	3.0		mg SO4/L	P324666	
	SM 2120 B	Color (true)	170		PCU	P324067	
	SM 2320 B-97	Total Alkalinity	3.6		mg CaCO3/L	P324656	
	SM 2540 C-97	TDS	135	A	mg/L	P324737	
	SM 2540 D-97	TSS	3	IA	mg/L	P324781	
	SM 4500 F-C-97	Fluoride	0.062	I	mg F/L	P325523	
1892503	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P324252	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P324152	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P324205	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P324198	
	SM 5310 B-00	Organic Carbon	26		mg C/L	P324173	
1892505	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P324088	

Ref. Method and Comment:

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

Sample Location: HENDERSON POND

Collection Date/Time: 04/25/2017 15:40

Field ID: G2SE0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892597	EPA 200.7 Rev. 4.4	Calcium	4.49		mg/L	P325545	
		Iron	71	I	ug/L	P325545	
		Magnesium	2.84		mg/L	P325545	
		Potassium	0.66	I	mg/L	P325545	
		Sodium	26.2		mg/L	P325545	
		Zinc	5.0	U	ug/L	P325545	
	EPA 200.8 Rev. 5.4	Arsenic	0.62		ug/L	P325545	
		Cadmium	0.020	U	ug/L	P325545	
		Chromium	0.40	U	ug/L	P325545	
		Copper	0.61	I	ug/L	P325545	
		Lead	0.87		ug/L	P325545	
		Nickel	0.20	U	ug/L	P325545	
		Silver	0.010	U	ug/L	P325545	

Field ID: G2SE0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment: EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 05/20/2017.							

Sample Location: HENDERSON POND

Collection Date/Time: 04/25/2017 15:40

Field ID: G2SE0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892613	EPA 8321B	Glyphosate**	10	U	ug/L	P324039	
		Sucralose**	0.017	I	ug/L	P323999	
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P324040	
		Diuron	8.0E-04	U	ug/L	P324040	
		Fenuron	0.0040	U	ug/L	P324040	
		Imidacloprid	8.0E-04	U	ug/L	P324040	MS
		Bentazon	0.0021	I	ug/L	P324040	
		Linuron	0.0040	U	ug/L	P324040	
		Acetaminophen**	0.0080	U	ug/L	P324040	
		MCP	8.0E-04	U	ug/L	P324040	
		Carbamazepine**	4.0E-04	U	ug/L	P324040	
		Triclopyr**	0.0040	U	ug/L	P324040	
		Primidone**	0.0040	U	ug/L	P324040	
		Fluridone**	4.0E-04	U	ug/L	P324040	
1892614	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P324033	
1892624	EPA 8270D	Aldrin	4.3	U	ng/L	P324073	
		Alpha-BHC	2.2	U	ng/L	P324073	
		Beta-BHC	4.3	U	ng/L	P324073	
		Delta-BHC	4.3	U	ng/L	P324073	
		Gamma-BHC	4.3	U	ng/L	P324073	
		Carbophenothion	4.3	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'	3.2	U	ng/L	P324073	
		DDT-p,p'	3.2	U	ng/L	P324073	
		Dieldrin	4.3	U	ng/L	P324073	
		Endosulfan I	4.3	U	ng/L	P324073	
		Endosulfan II	4.3	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	4.3	U	ng/L	P324073	
		Mirex	2.2	U	ng/L	P324073	
		Permethrin	11	U	ng/L	P324073	
		Trifluralin	1.1	UJ	ng/L	P324073	MS
		Alpha-Chlordane	1.1	U	ng/L	P324073	

Field ID: G2SE0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1892624	EPA 8270D	Gamma-Chlordane	1.1	U	ng/L	P324073	MS, RPD
		Endrin Ketone	2.2	U	ng/L	P324073	
		Dicofol	32	UJ	ng/L	P324073	
		Chlordane**	2.7	U	ng/L	P324073	
		Toxaphene**	13	U	ng/L	P324073	
1892625	EPA 8270D	Ametryn	0.31	U	ng/L	P324314	LCS, MS
		Atrazine	43		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	0.31	I	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	2.6	I	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	0.40	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	U	ng/L	P324314	
		Diazinon	0.12	U	ng/L	P324314	
		Fenamiphos	0.24	UJ	ng/L	P324314	
		Fonofos	0.19	U	ng/L	P324314	
		Metalaxyl	0.19	U	ng/L	P324314	
		Metolachlor	0.43	I	ng/L	P324314	
		Acetochlor	0.24	U	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	

Field ID: G2SE0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment: EPA 8270D: Refer to the narrative for an explanation of QC Codes.							

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P324092

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325545

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: P325545

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: P324661

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324666

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324244

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324250

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324252

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324150

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324151

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324152

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324423

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324205

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324316

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324317

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: P324198

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324202

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324088

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324089

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
Metaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	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 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: P323999

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report Method Blank Results

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

Reference Method: SM 2120 B
Batch ID: P324066

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P324067

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 2320 B-97
Batch ID: P324822

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

Reference Method: SM 2320 B-97
Batch ID: P324857

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

Reference Method: SM 2540 C-97
Batch ID: P324737

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P324781

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P324786

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P324787

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P324865

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P324859

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 4500 F-C-97
Batch ID: P325523

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P324173

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

Reference Method: SM 5310 B-00
Batch ID: P324235

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

Quality Assurance Report Method Blank Results

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

Component	Result	Code	Units
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
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: USGS O-2060-01
Batch ID: P324040

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
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: P325545

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	102		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	97.7		P	85 - 115
Sodium	102		P	85 - 115
Zinc	97.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325545

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.9		P	85 - 115
Cadmium	96.6		P	85 - 115
Chromium	96.0		P	85 - 115
Copper	98.6		P	85 - 115
Lead	97.4		P	85 - 115
Nickel	101		P	85 - 115
Silver	94.9		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324661

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324666

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324244

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324250

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324252

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324150

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324151

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324152

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324423

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324205

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324316

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324317

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324198

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324202

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324088

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324089

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.1		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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P324073

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P324314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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
Terbutylazine	99.0	86.0	P/P	77 - 113

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: 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

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 2320 B-97
Batch ID: P324822

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

Reference Method: SM 2320 B-97
Batch ID: P324857

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P324859

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.9		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 4500 F-C-97
Batch ID: P325523

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

Reference Method: SM 5310 B-00
Batch ID: P324173

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	102		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P324235

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	101		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
MCP	78.5		P	40 - 140
Primidone	93.4		P	40 - 140
Triclopyr	75.2		P	40 - 140

Reference Method: USGS O-2060-01
Batch ID: P324040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	73.9		P	40 - 140
Acetaminophen	83.4		P	40 - 140
Bentazon	48.0		P	40 - 140
Carbamazepine	109		P	40 - 140
Diuron	106		P	40 - 140

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
Batch ID: P324040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	105		P	40 - 140
Fluridone	102		P	40 - 140
Imidacloprid	106		P	40 - 160
Linuron	98.6		P	40 - 140
MCPP	79.2		P	40 - 140
Primidone	105		P	40 - 140
Triclopyr	77.4		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892815	Calcium	110		P	80 - 120
1892815	Iron	104		P	80 - 120
1892815	Magnesium	111		P	80 - 120
1892815	Potassium	102		P	80 - 120
1892815	Sodium	98.4		P	80 - 120
1892815	Zinc	99.3		P	80 - 120
1892909	Calcium	107	110	P/P	80 - 120
1892909	Iron	104	106	P/P	80 - 120
1892909	Magnesium	109	111	P/P	80 - 120
1892909	Potassium	99.8	100	P/P	80 - 120
1892909	Sodium	105		P	80 - 120
1892909	Zinc	100	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325545

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892815	Arsenic	98.2		P	80 - 120
1892815	Cadmium	98.2		P	80 - 120
1892815	Chromium	94.9		P	80 - 120
1892815	Copper	99.0		P	80 - 120
1892815	Lead	97.2		P	80 - 120
1892815	Nickel	99.8		P	80 - 120
1892815	Silver	95.4		P	80 - 120
1892909	Arsenic	99.7	98.4	P/P	80 - 120
1892909	Cadmium	98.4	95.6	P/P	80 - 120
1892909	Chromium	96.6	94.9	P/P	80 - 120
1892909	Copper	98.5	97.8	P/P	80 - 120
1892909	Lead	98.5	96.8	P/P	80 - 120
1892909	Nickel	100	99.4	P/P	80 - 120
1892909	Silver	94.6	93.7	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324661

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324661

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892501	Chloride	98.1		P	90 - 110
1892553	Chloride	99.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324666

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892501	Sulfate	99.9		P	90 - 110
1892553	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324244

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892395	Ammonia-N	92.6	90.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324250

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1891862	Ammonia-N	96.1	94.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324252

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892441	Ammonia-N	96.9	95.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324150

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892507	Kjeldahl Nitrogen	105	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324151

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892441	Kjeldahl Nitrogen	100	95.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324152

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892516	Kjeldahl Nitrogen	104	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324423

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892511	Kjeldahl Nitrogen	97.1	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892495	NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892391	NO2NO3-N	104	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324317

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892511	NO2NO3-N	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324198

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892555	Total-P	98.3	97.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892722	Total-P	91.8	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324088

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892444	O-Phosphate-P	97.3	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324089

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892508	O-Phosphate-P	96.4	98.0	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

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	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
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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P324314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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	Terbutylazine	92.3	90.5	P/P	76 - 113

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: 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

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: P324859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1893587	Fluoride	97.2	97.8	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 4500 F-C-97
Batch ID: P325523

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892759	Fluoride	101	102	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P324173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892474	Organic Carbon	99.1	100	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P324235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892395	Organic Carbon	96.8	96.6	P/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	MCP	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

Reference Method: USGS O-2060-01
Batch ID: P324040

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1892542	2,4-D	62.4	66.3	P/P	40 - 140
1892542	Acetaminophen	81.8	101	P/P	40 - 140
1892542	Bentazon	47.2	49.4	P/P	40 - 140
1892542	Carbamazepine	89.2	90.7	P/P	40 - 140
1892542	Diuron	76.3	80.6	P/P	40 - 140
1892542	Fenuron	49.5	49.3	P/P	40 - 140
1892542	Fluridone	71.1	74.9	P/P	40 - 140
1892542	Imidacloprid	154	163	P/F	40 - 160
1892542	Linuron	91.2	94.6	P/P	40 - 140
1892542	MCP	56.8	61.2	P/P	40 - 140
1892542	Primidone	81.5	84.5	P/P	40 - 140
1892542	Triclopyr	60.1	63.0	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P324092

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892492	Turbidity	2.63	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P325545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892909	Calcium	1.21	Spike	P	0 - 20
1892909	Iron	1.54	Spike	P	0 - 20
1892909	Magnesium	1.50	Spike	P	0 - 20
1892909	Potassium	0.402	Spike	P	0 - 20
1892909	Sodium	1.57	Spike	P	0 - 20
1892909	Zinc	0.568	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P325545

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892909	Arsenic	1.26	Spike	P	0 - 20
1892909	Cadmium	2.90	Spike	P	0 - 20
1892909	Chromium	1.83	Spike	P	0 - 20
1892909	Copper	0.677	Spike	P	0 - 20
1892909	Lead	1.67	Spike	P	0 - 20
1892909	Nickel	0.591	Spike	P	0 - 20
1892909	Silver	0.953	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892553	Chloride	0.167	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P324666

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892553	Sulfate	0.196	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892395	Ammonia-N	1.46	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324250

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1891862	Ammonia-N	1.67	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P324252

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892441	Ammonia-N	1.29	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324150

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892507	Kjeldahl Nitrogen	4.71	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324151

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892441	Kjeldahl Nitrogen	3.98	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324152

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892516	Kjeldahl Nitrogen	0.330	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P324423

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892511	Kjeldahl Nitrogen	2.91	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892495	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324316

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892391	NO2NO3-N	0.484	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P324317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892511	NO2NO3-N	0.894	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324198

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892555	Total-P	0.905	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P324202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892722	Total-P	4.73	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892444	O-Phosphate-P	1.12	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P324089

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892508	O-Phosphate-P	1.48	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	Terbutylazine	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	Terbutylazine	14.1	LCS	P	0 - 30

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: 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: P324066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892493	Color (true)	4.69	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P324067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892515	Color (true)	1.68	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

Reference Method: SM 2320 B-97
Batch ID: P324822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893634	Total Alkalinity	0.297	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P324857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893587	Total Alkalinity	0.618	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P324737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892501	TDS	4.44	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P324859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1893587	Fluoride	0.483	Spike	P	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 4500 F-C-97
Batch ID: P325523

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892759	Fluoride	0.947	Spike	P	0 - 3.0

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P324173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892474	Organic Carbon	1.19	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P324235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892395	Organic Carbon	0.127	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

Reference Method: USGS O-2060-01
Batch ID: P324040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1892542	2,4-D	5.43	Spike	P	0 - 30
1892542	Acetaminophen	20.6	Spike	P	0 - 30
1892542	Bentazon	4.29	Spike	P	0 - 30
1892542	Carbamazepine	1.73	Spike	P	0 - 30
1892542	Diuron	4.34	Spike	P	0 - 30
1892542	Fenuron	0.324	Spike	P	0 - 30
1892542	Fluridone	4.39	Spike	P	0 - 30
1892542	Imidacloprid	5.87	Spike	P	0 - 30
1892542	Linuron	3.66	Spike	P	0 - 30
1892542	MCPP	7.46	Spike	P	0 - 30
1892542	Primidone	3.61	Spike	P	0 - 30
1892542	Triclopyr	4.68	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: 1892539
Field Sample ID: G2SE0021

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	99.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	63.6	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	81.9	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	76.7	P	30 - 160
USGS O-2060-01	Diuron-d6	71.1	P	30 - 150
USGS O-2060-01	Primidone-d5	76.4	P	30 - 150

Lab Sample ID: 1892540
Field Sample ID: G2SE0027

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	103	P	40 - 150
USGS O-2060-01	2,4-D-d3	67.3	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	91.1	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	81.9	P	30 - 160
USGS O-2060-01	Diuron-d6	69.8	P	30 - 150
USGS O-2060-01	Primidone-d5	86.6	P	30 - 150

Lab Sample ID: 1892541
Field Sample ID: G2SE0023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	93.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	70.0	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	100	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	112	P	30 - 160
USGS O-2060-01	Diuron-d6	115	P	30 - 150
USGS O-2060-01	Primidone-d5	111	P	30 - 150

Lab Sample ID: 1892542
Field Sample ID: G2SE0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	110	P	40 - 150
USGS O-2060-01	2,4-D-d3	61.8	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	95.3	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	76.2	P	30 - 160
USGS O-2060-01	Diuron-d6	69.4	P	30 - 150
USGS O-2060-01	Primidone-d5	83.5	P	30 - 150

Lab Sample ID: 1892613
Field Sample ID: G2SE0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	99.4	P	40 - 150
EPA 8321B	Sucralose-d6	78.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	61.7	P	30 - 150
USGS O-2060-01	Acetaminophen-d4	68.7	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	67.4	P	30 - 160
USGS O-2060-01	Diuron-d6	60.2	P	30 - 150
USGS O-2060-01	Primidone-d5	70.2	P	30 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1892614
Field Sample ID: G2SE0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	87.5	P	30 - 150

Lab Sample ID: 1892624
Field Sample ID: G2SE0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	58.3	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	48.6	P	31 - 111
EPA 8276	Decachlorobiphenyl	53.7	P	41 - 106

Lab Sample ID: 1892625
Field Sample ID: G2SE0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	107	P	62 - 132
EPA 8270D	Simazine-d10	103	P	72 - 127

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A76015
Included Lab Sample IDs: 1892500, 1892501, 1892515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.4	98.0	P/P	85 - 115
Color (true)	99.1	98.9	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A76020
Included Lab Sample IDs: 1892504, 1892505, 1892508, 1892513, 1892514, 1892517

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.3	97.6	P/P	90 - 110
O-Phosphate-P	96.4	96.7	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A76022
Included Lab Sample IDs: 1892539, 1892540, 1892541, 1892542, 1892613

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	119	125	P/P	60 - 150
Sucralose	76.6	88.6	P/P	60 - 150
Sucralose	79.8	119	P/P	60 - 150

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A76023
Included Lab Sample IDs: 1892500, 1892501, 1892506, 1892509, 1892510, 1892515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	100	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A76046

Included Lab Sample IDs: 1892502, 1892503, 1892516

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A76056

Included Lab Sample IDs: 1892502, 1892503, 1892516

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

Reference Method: SM 5310 B-00

Run ID: A76068

Included Lab Sample IDs: 1892507, 1892511, 1892512

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.8	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A76070

Included Lab Sample IDs: 1892502, 1892503, 1892507, 1892511, 1892512, 1892516

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	100	P/P	90 - 110
Ammonia-N	91.0	90.7	P/P	90 - 110
Ammonia-N	94.7	94.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A76073

Included Lab Sample IDs: 1892613

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A76091

Included Lab Sample IDs: 1892502, 1892516

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	102	P/P	90 - 110
Total-P	102	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A76094

Included Lab Sample IDs: 1892507, 1892511, 1892512

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A76098

Included Lab Sample IDs: 1892502, 1892503, 1892507, 1892516

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	96.3	P/P	90 - 110
Kjeldahl Nitrogen	96.3	101	P/P	90 - 110
Kjeldahl Nitrogen	97.3	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A76120

Included Lab Sample IDs: 1892503, 1892507, 1892511, 1892512

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	95.2	98.5	P/P	90 - 110
Total-P	96.8	97.2	P/P	90 - 110
Total-P	97.2	96.8	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A76140

Included Lab Sample IDs: 1892624

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.4		P	80 - 120
Toxaphene	107		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A76148

Included Lab Sample IDs: 1892500, 1892501, 1892515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	104	P/P	90 - 110
Chloride	104	101	P/P	90 - 110
Sulfate	97.0	100	P/P	90 - 110
Sulfate	99.1	97.0	P/P	90 - 110
Sulfate	99.3	104	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A76196

Included Lab Sample IDs: 1892500, 1892501

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A76198

Included Lab Sample IDs: 1892597

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	102	101	P/P	90 - 110
Cadmium	98.6	98.2	P/P	90 - 110
Chromium	99.6	98.2	P/P	90 - 110
Copper	104	102	P/P	90 - 110
Lead	100	99.5	P/P	90 - 110
Nickel	104	103	P/P	90 - 110
Silver	99.1	97.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97
Run ID: A76242
Included Lab Sample IDs: 1892515

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A76244
Included Lab Sample IDs: 1892511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.0	95.6	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A76248
Included Lab Sample IDs: 1892614

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

Reference Method: SM 2320 B-97
Run ID: A76258
Included Lab Sample IDs: 1892506, 1892509, 1892510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A76258
Included Lab Sample IDs: 1892506, 1892509, 1892510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.0	99.0	P/P	90 - 110
Fluoride	98.5	97.0	P/P	90 - 110

Reference Method: EPA 8270D
Run ID: A76297
Included Lab Sample IDs: 1892624

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A76297

Included Lab Sample IDs: 1892624

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

Reference Method: EPA 8270D

Run ID: A76306

Included Lab Sample IDs: 1892625

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A76306

Included Lab Sample IDs: 1892625

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prometon	96.5		P	80 - 120
Prometryn	91.2		P	80 - 120
Simazine	94.4		P	80 - 120
Terbufos	94.2		P	80 - 120
Terbutylazine	96.4		P	80 - 120

Reference Method: EPA 8270D

Run ID: A76326

Included Lab Sample IDs: 1892624

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A76346

Included Lab Sample IDs: 1892597

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Iron	100	99.3	P/P	90 - 110
Magnesium	101	100	P/P	90 - 110
Potassium	99.0	99.5	P/P	90 - 110
Sodium	99.0	101	P/P	90 - 110
Zinc	98.9	99.5	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A76477

Included Lab Sample IDs: 1892539, 1892540, 1892541, 1892542, 1892613

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.6	94.4	P/P	50 - 150
2,4-D	90.0	87.6	P/P	50 - 150
2,4-D	94.4	91.2	P/P	50 - 150
Acetaminophen	102	110	P/P	60 - 150
Acetaminophen	102	102	P/P	60 - 150
Acetaminophen	103	102	P/P	60 - 150
Bentazon	80.0	84.4	P/P	50 - 150
Bentazon	81.2	80.0	P/P	50 - 150
Bentazon	85.2	81.2	P/P	50 - 150
Carbamazepine	90.0	108	P/P	60 - 150
Carbamazepine	94.0	90.0	P/P	60 - 150
Carbamazepine	97.2	94.0	P/P	60 - 150
Diuron	104	108	P/P	60 - 150
Diuron	106	116	P/P	60 - 150
Diuron	108	106	P/P	60 - 150
Fenuron	105	102	P/P	60 - 150
Fenuron	98.4	105	P/P	60 - 150
Fenuron	99.2	98.4	P/P	60 - 150
Fluridone	100	103	P/P	60 - 150
Fluridone	103	118	P/P	60 - 150
Fluridone	98.8	100	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A76477

Included Lab Sample IDs: 1892539, 1892540, 1892541, 1892542, 1892613

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	106	97.6	P/P	60 - 150
Imidacloprid	97.6	99.6	P/P	60 - 150
Imidacloprid	99.6	109	P/P	60 - 150
Linuron	86.4	95.6	P/P	60 - 150
Linuron	92.4	86.4	P/P	60 - 150
Linuron	95.6	104	P/P	60 - 150
MCP	90.8	94.4	P/P	50 - 150
MCP	93.6	94.0	P/P	50 - 150
MCP	94.0	90.8	P/P	50 - 150
Primidone	102	95.6	P/P	60 - 150
Primidone	102	106	P/P	60 - 150
Primidone	95.6	102	P/P	60 - 150
Triclopyr	88.0	95.6	P/P	50 - 150
Triclopyr	90.8	97.2	P/P	50 - 150
Triclopyr	95.6	90.8	P/P	50 - 150

Reference Method: SM 4500 F-C-97

Run ID: A76528

Included Lab Sample IDs: 1892500, 1892501, 1892515

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

Reference Method: USGS O-2060-01

Run ID: A76569

Included Lab Sample IDs: 1892540

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	96.4	P/P	50 - 150

* 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				2.63	
EPA 200.7 Rev. 4.4	Calcium	106	110 107 110			1.21
	Iron	102	104 104 106			1.54
	Magnesium	107	111 109 111			1.50
	Potassium	97.7	102 99.8 100			0.402
	Sodium	102	98.4 105			1.57
	Zinc	97.7	99.3 100 101			0.568
EPA 200.8 Rev. 5.4	Arsenic	99.9	98.2 99.7 98.4			1.26
	Cadmium	96.6	98.2 98.4 95.6			2.90
	Chromium	96.0	94.9 96.6 94.9			1.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision	
							LCS	SMP
EPA 200.8 Rev. 5.4	Copper	98.6		99.0	98.5	97.8		
	Lead	97.4		97.2	98.5	96.8		0.677
	Nickel	101		99.8	100	99.4		1.67
	Silver	94.9		95.4	94.6	93.7		0.591
EPA 300.0 Rev. 2.1	Chloride	101		99.0	98.1			0.953
	Sulfate	102		100	99.9			
EPA 350.1 Rev. 2.0	Ammonia-N	95.6		92.6	90.9			0.167
	Ammonia-N	96.8		96.1	94.5			0.196
	Ammonia-N	95.7		96.9	95.7			
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.8		105	99.3			1.46
	Kjeldahl Nitrogen	97.8		100	95.2			1.67
	Kjeldahl Nitrogen	99.5		104	104			1.29
	Kjeldahl Nitrogen	103		97.1	101			4.71
EPA 353.2 Rev. 2.0	NO2NO3-N	105		105	105			3.98
	NO2NO3-N	105		104	103			0.330
	NO2NO3-N	106		104	105			2.91
EPA 365.1 Rev. 2.0	Total-P	103		98.3	97.4			0.0
	Total-P	98.8		91.8	96.5			0.484
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.3		97.3	98.4			0.894
	O-Phosphate-P	98.1		96.4	98.0			0.905
EPA 8270D	Acetochlor	105	89.2	99.0	98.8	15.9		4.73
	Alachlor	102	84.5	92.5	92.4	18.5		1.12
	Aldrin	49.7	46.3	59.2	70.7	7.13		1.48
	Alpha-BHC	93.1	92.6	86.6	110	0.503		1.48
	Alpha-Chlordane	94.0	86.3	75.0	88.4	8.54		20.0
	Ametryn	126	109	122	125	14.4		0.607
	Atrazine	108	92.0	99.3	97.3	15.9		5.36
	Atrazine Desethyl	76.0	67.8	65.9	61.9	11.5		16.1
	Azinphos Methyl	144	131	147	127	9.43		3.21
	Beta-BHC	107	107	89.2	109	0.0541		0.0469
	Bromacil	88.1	77.3	92.7	92.1	13.0		4.12
	Butylate	52.5	48.4	41.4	39.2	8.11		5.56
	Carbophenothion	109	110	125	147	1.12		24.6
	Chlorothalonil	23.8	61.7	148	153	88.5		19.0
	Chlorpyrifos Ethyl	99.8	87.2	93.3	93.3	13.4		22.2
	Chlorpyrifos Methyl	97.7	86.1	89.3	85.7	12.6		13.9
	Cyanazine	122	105	115	109	14.9		14.4
	Cypermethrin	101	83.2	109	140	18.9		2.64
	DDD-p,p'	100	91.7	78.7	95.2	9.11		0.233
	DDE-p,p'	92.0	89.0	68.5	85.6	3.27		51.9
	DDT-p,p'	98.8	95.4	68.7	79.0	3.56		16.7
	Delta-BHC	124	127	116	135	2.40		9.59
	Demeton	102	94.6	96.9	94.3	7.25		13.8
	Diazinon	101	84.5	97.6	97.4	17.3		17.2
	Dicofol	44.1	33.8	11.8	20.1	26.5		10.7
	Dieldrin	92.6	85.6	72.3	85.5	7.84		3.50
	Disulfoton	99.3	92.0	98.6	89.5	7.71		17.4
	Endosulfan I	100	95.3	84.3	96.8	5.08		19.3
	Endosulfan II	102	98.3	88.6	105	3.73		6.18
	Endosulfan Sulfate	95.2	93.0	86.4	96.2	2.32		
	Endrin	102	91.2	84.6	87.7	11.7		
	Endrin Aldehyde	89.3	82.8	81.3	96.8	7.60		
	Endrin Ketone	93.6	91.1	90.6	110	2.71		
	EPTC	51.4	47.9	39.7	37.3	7.10		

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	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
	Gamma-BHC	103	102	84.0	103	0.727	20.4
	Gamma-Chlordane	91.1	82.9	74.9	87.6	9.39	15.6
	Heptachlor	76.6	73.7	66.6	73.5	3.87	9.76
	Heptachlor Epoxide	94.2	87.8	75.6	88.9	7.04	16.2
	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
	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
	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
	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
	Terbutylazine	99.0	86.0	92.3	90.5	14.1	1.94
	Trifluralin	147	126	139	176	15.4	23.7
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	92.6		84.6	87.2		3.03
SM 2120 B	Color (true)					4.69	
	Color (true)					1.68	
SM 2320 B-97	Total Alkalinity	102				0.0449	
	Total Alkalinity	103				0.297	
	Total Alkalinity	103				0.618	
SM 2540 C-97	TDS					4.44	
SM 4500 F-C-97	Fluoride	94.9		97.2	97.8		0.483
	Fluoride	101		101	102		0.473
	Fluoride	102		101	102		0.947
SM 5310 B-00	Organic Carbon	102		99.1	100		1.19
	Organic Carbon	101		96.8	96.6		0.127
USGS O-2060-01	2,4-D	69.8		68.5	70.2		2.31
	2,4-D	73.9		62.4	66.3		5.43
	Acetaminophen	48.4		90.9	97.5		7.00
	Acetaminophen	83.4		101	81.8		20.6
	Bentazon	51.9		47.3	47.4		0.251
	Bentazon	48.0		47.2	49.4		4.29

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
USGS O-2060-01	Carbamazepine	98.5	82.0	90.4			8.60
	Carbamazepine	109	89.2	90.7			1.73
	Diuron	94.8	74.8	76.8			2.59
	Diuron	106	76.3	80.6			4.34
	Fenuron	93.6	69.9	66.1			5.65
	Fenuron	105	49.5	49.3			0.324
	Fluridone	89.0	76.0	81.2			6.66
	Fluridone	102	71.1	74.9			4.39
	Imidacloprid	93.5	166	164			1.28
	Imidacloprid	106	154	163			5.87
	Linuron	83.4	93.5	95.9			2.49
	Linuron	98.6	91.2	94.6			3.66
	MCPP	78.5	60.9	62.0			1.67
	MCPP	79.2	56.8	61.2			7.46
	Primidone	93.4	101	94.9			6.25
	Primidone	105	81.5	84.5			3.61
	Triclopyr	75.2	63.5	65.6			3.22
	Triclopyr	77.4	60.1	63.0			4.68

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1892500, 1892501, 1892506, 1892509, 1892510, 1892515
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1892597
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1892597
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1892500, 1892501, 1892515
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1892500, 1892501, 1892515
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1892502, 1892503, 1892507, 1892511, 1892512, 1892516
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1892502, 1892503, 1892507, 1892511, 1892512, 1892516
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1892502, 1892503, 1892507, 1892511, 1892512, 1892516
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1892502, 1892503, 1892507, 1892511, 1892512, 1892516
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1892504, 1892505, 1892508, 1892513, 1892514, 1892517
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1892624
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1892625
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1892624
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1892613
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1892614
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1892539, 1892540, 1892541, 1892542, 1892613
SM 2120 B / E31780	True Color measured at 450 nm	1892500, 1892501, 1892515
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1892500, 1892501, 1892506, 1892509, 1892510, 1892515
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1892500, 1892501, 1892515

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1892500, 1892501, 1892506, 1892509, 1892510, 1892515
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1892500, 1892501, 1892506, 1892509, 1892510, 1892515
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1892502, 1892503, 1892507, 1892511, 1892512, 1892516
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1892539, 1892540, 1892541, 1892542, 1892613
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1892539, 1892540, 1892541, 1892542, 1892613

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	1892500, 1892501, 1892506, 1892509, 1892510, 1892515
EPA 200.7 Rev. 4.4	04/26/2017	05/03/2017	Elliott D. Healy	05/10/2017	Martin Acosta	1892597
EPA 200.8 Rev. 5.4	04/26/2017	05/03/2017	Elliott D. Healy	05/04/2017	Betina Topolski	1892597
EPA 300.0 Rev. 2.1	04/26/2017			05/03/2017	Ping Hua	1892501, 1892515
	04/26/2017			05/04/2017	Ping Hua	1892500
EPA 350.1 Rev. 2.0	04/26/2017			04/27/2017	Julie Michelle Frank	1892502, 1892503, 1892507, 1892511, 1892512, 1892516
EPA 351.2 Rev. 2.0	04/26/2017	04/28/2017	Adrian Shelby	05/01/2017	Joseph Suarez	1892502, 1892503, 1892507, 1892516
	04/26/2017	05/03/2017	Adrian Shelby	05/08/2017	Joseph Suarez	1892511, 1892512
EPA 353.2 Rev. 2.0	04/26/2017			04/28/2017	Beverly Y. Sanders	1892502, 1892503, 1892516
	04/26/2017			05/01/2017	Beverly Y. Sanders	1892507, 1892511, 1892512
EPA 365.1 Rev. 2.0	04/26/2017	04/28/2017	Vijayalakshmi Reddy	05/01/2017	Lipi Saha	1892502, 1892516
	04/26/2017	04/28/2017	Vijayalakshmi Reddy	05/02/2017	Lipi Saha	1892503, 1892507, 1892511, 1892512
EPA 365.1 Rev. 2.0 dissolved	04/26/2017			04/26/2017 13:36	Anthony C. Onicha	1892508
	04/26/2017			04/26/2017 13:58	Anthony C. Onicha	1892504
	04/26/2017			04/26/2017 13:59	Anthony C. Onicha	1892505
	04/26/2017			04/26/2017 14:00	Anthony C. Onicha	1892513
	04/26/2017			04/26/2017 14:01	Anthony C. Onicha	1892514, 1892517
EPA 8270D	04/26/2017	04/28/2017	Fe-Val Siddell	05/01/2017	Marek Topolski	1892624
	04/26/2017	04/28/2017	Fe-Val Siddell	05/10/2017	Marek Topolski	1892624
	04/26/2017	05/01/2017	Rasheda Ghaffari	05/03/2017	Irina Carbone	1892625
EPA 8276	04/26/2017	04/28/2017	Fe-Val Siddell	05/02/2017	Vandana T. Nagar	1892624
EPA 8321B	04/26/2017	04/26/2017	Mohammad Ghaffari	04/26/2017	Mohammad Ghaffari	1892539, 1892540, 1892541, 1892542
	04/26/2017	04/26/2017	Mohammad Ghaffari	04/27/2017	Mohammad Ghaffari	1892613
	04/26/2017	04/28/2017	Mohammad Ghaffari	04/28/2017	Mohammad Ghaffari	1892613
	04/26/2017	04/29/2017	Fe-Val Siddell	05/05/2017	Juyoung Kim	1892614
SM 2120 B	04/26/2017			04/26/2017 15:17	Julia Storbeck	1892515
	04/26/2017			04/26/2017 15:49	Julia Storbeck	1892500
	04/26/2017			04/26/2017 15:50	Julia Storbeck	1892501
SM 2320 B-97	04/26/2017			05/04/2017	Dale L. Simmons	1892500, 1892501
	04/26/2017			05/06/2017	Dale L. Simmons	1892515
	04/26/2017			05/08/2017	Dale L. Simmons	1892506, 1892509, 1892510
SM 2540 C-97	04/26/2017			05/01/2017	Yijie Li	1892500, 1892501, 1892515
SM 2540 D-97	04/26/2017			05/01/2017	Yijie Li	1892500, 1892501, 1892506, 1892509, 1892515
	04/26/2017			05/02/2017	Sima Feizi	1892510
SM 4500 F-C-97	04/26/2017			05/08/2017	Dale L. Simmons	1892506, 1892509, 1892510
	04/26/2017			05/19/2017	Dale L. Simmons	1892500, 1892501, 1892515
SM 5310 B-00	04/26/2017			04/27/2017	Julie Michelle Frank	1892502, 1892503, 1892516
	04/26/2017			04/28/2017	Julie Michelle Frank	1892507, 1892511, 1892512

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
USGS O-2060-01	04/26/2017	04/29/2017	Hoor Shaik	05/13/2017	Juyoung Kim	1892539, 1892540, 1892541, 1892542
	04/26/2017	04/29/2017	Hoor Shaik	05/14/2017	Juyoung Kim	1892613
	04/26/2017	04/29/2017	Hoor Shaik	05/22/2017	Juyoung Kim	1892540