

Chemical Analysis Report

SE-DIST-2017-02-28-01

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

Event Description: **SMP-G3 E-canals (1/5)**

Request ID: **RQ-2017-02-27-12**

Customer: **SE-DIST**

Project ID: **SMP**

Send Reports to:

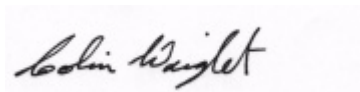
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

For additional information please contact

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Certified by: Colin Wright, Program Administrator

Date Certified: 27-MAR-2017 12:35

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: OKEEHREE PARK

Collection Date/Time: 02/27/2017 11:45

Field ID: G3SE0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875780	EPA 180.1 Rev. 2.0	Turbidity	0.45		NTU	P320674	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P321443	
		Sulfate	0.20	U	mg SO4/L	P321446	
	SM 2120 B	Color (true)	6.3		PCU	P320665	
	SM 2320 B-97	Total Alkalinity	74		mg CaCO3/L	P321037	
	SM 2540 C-97	TDS	89		mg/L	P321093	
	SM 2540 D-97	TSS	2	I	mg/L	P321057	
	SM 4500 F-C-97	Fluoride	0.097	I	mg F/L	P321041	
1875783	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P320795	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P320717	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P320826	
	EPA 365.1 Rev. 2.0	Total-P	0.01		mg P/L	P320722	
	SM 5310 B-00	Organic Carbon	6.9		mg C/L	P320852	
1875786	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P320679	
1875820	EPA 200.7 Rev. 4.4	Calcium	26.7		mg/L	P320995	
		Iron	30	U	ug/L	P320995	
		Magnesium	1.75		mg/L	P320995	
		Potassium	0.45	I	mg/L	P320995	
		Sodium	9.6		mg/L	P320995	
		Zinc	5.0	U	ug/L	P320995	
	EPA 200.8 Rev. 5.4	Arsenic	0.81		ug/L	P320995	
		Cadmium	0.020	U	ug/L	P320995	
		Chromium	0.40	U	ug/L	P320995	
		Copper	0.20	U	ug/L	P320995	
		Lead	0.050	U	ug/L	P320995	
		Nickel	0.20	U	ug/L	P320995	
		Silver	0.010	U	ug/L	P320995	

Sample Location: E-2 CANAL WEST @ ATLANTIC AVE

Collection Date/Time: 02/27/2017 12:32

Field ID: 32012014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875789	EPA 180.1 Rev. 2.0	Turbidity	4.5	A	NTU	P320675	
	EPA 300.0 Rev. 2.1	Chloride	83		mg Cl/L	P321443	
		Sulfate	50		mg SO4/L	P321446	
	SM 2120 B	Color (true)	56		PCU	P320665	
	SM 2320 B-97	Total Alkalinity	171		mg CaCO3/L	P321038	
	SM 2540 C-97	TDS	393		mg/L	P321094	
	SM 2540 D-97	TSS	7	I	mg/L	P321058	
	SM 4500 F-C-97	Fluoride	0.22		mg F/L	P321042	
1875790	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P320795	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P320717	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P320826	
	EPA 365.1 Rev. 2.0	Total-P	0.27		mg P/L	P320722	

Field ID: 32012014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875790	SM 5310 B-00	Organic Carbon	15		mg C/L	P320852	
1875791	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.16		mg P/L	P320679	
1875816	EPA 8321B	Glyphosate**	12	I	ug/L	P320640	
		Sucralose**	0.52		ug/L	P320643	
	USGS O-2060-01	2,4-D	0.064		ug/L	P320727	
		Diuron	0.0080	U	ug/L	P320727	
		2,4-DB	0.0020	U	ug/L	P320727	
		Fenuron	0.016	U	ug/L	P320727	
		2,4,5-T	0.0020	U	ug/L	P320727	
		Acifluorfen	0.0020	U	ug/L	P320727	
		Imidacloprid	0.20		ug/L	P320727	
		Bentazon	0.14		ug/L	P320727	MS
		Linuron	0.0080	U	ug/L	P320727	
		Dichlorprop	0.0020	U	ug/L	P320727	
		Dinoseb	0.020	U	ug/L	P320727	RPD
		MCPA	0.0040	U	ug/L	P320727	
		Acetaminophen**	0.0040	U	ug/L	P320727	
		MCPP	0.0040	U	ug/L	P320727	
		Picloram	0.050	U	ug/L	P320727	
		Carbamazepine**	5.2E-04	I	ug/L	P320727	
		Silvex	0.0020	U	ug/L	P320727	
		Triclopyr**	0.11		ug/L	P320727	
		Primidone**	0.0080	U	ug/L	P320727	
		Fluridone**	0.0084		ug/L	P320727	
1875817	EPA 8321B	Pyraclostrobin**	0.036		ug/L	P320728	
1875818	EPA 8270D	Aldrin	4.1	UQJ	ng/L	P321074	RPD
		Alpha-BHC	2.1	UQ	ng/L	P321074	
		Beta-BHC	4.1	UQ	ng/L	P321074	
		Delta-BHC	4.1	UQ	ng/L	P321074	MS
		Gamma-BHC	4.1	UQ	ng/L	P321074	
		Carbophenothion	4.1	UQ	ng/L	P321074	
		Chlorothalonil	2.1	UQJ	ng/L	P321074	LCS, RPD
		Cypermethrin	21	UQ	ng/L	P321074	
		DDD-p,p'	2.1	UQ	ng/L	P321074	
		DDE-p,p'	3.1	UQ	ng/L	P321074	
		DDT-p,p'	3.1	UQ	ng/L	P321074	
		Dieldrin	4.1	UQ	ng/L	P321074	
		Endosulfan I	4.1	UQJ	ng/L	P321074	LCS
		Endosulfan II	4.1	UQ	ng/L	P321074	
		Endosulfan Sulfate	2.1	UQ	ng/L	P321074	
		Endrin	2.1	UQJ	ng/L	P321074	LCS
		Endrin Aldehyde	2.1	UQ	ng/L	P321074	
		Heptachlor	1.5	UQ	ng/L	P321074	
		Heptachlor Epoxide	2.1	UQJ	ng/L	P321074	LCS

Field ID: 32012014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875818	EPA 8270D	Methoxychlor	4.1	UQ	ng/L	P321074	
		Mirex	2.1	UQ	ng/L	P321074	
		Permethrin	10	UQ	ng/L	P321074	
		Trifluralin	1.0	UQ	ng/L	P321074	
		Alpha-Chlordane	1.0	UQ	ng/L	P321074	
		Gamma-Chlordane	1.0	UQ	ng/L	P321074	
		Endrin Ketone	2.1	UQJ	ng/L	P321074	LCS, RPD
		Dicofol	31	UQ	ng/L	P321074	
		Toxaphene**	13	U	ng/L	P320802	
1875819	EPA 8276						
	EPA 8270D	Ametryn	6.7		ng/L	P320776	
		Atrazine	54		ng/L	P320776	
		Chlorpyrifos Ethyl	0.91	I	ng/L	P320776	
		Chlorpyrifos Methyl	0.098	U	ng/L	P320776	
		Disulfoton	0.32	U	ng/L	P320776	
		Ethion	0.15	U	ng/L	P320776	
		Ethoprop	0.098	U	ng/L	P320776	
		Hexazinone	6.8		ng/L	P320776	
		Malathion	0.34	U	ng/L	P320776	
		Metribuzin	3.1	J	ng/L	P320776	LCS, RPD
		Mevinphos	0.49	U	ng/L	P320776	
		Norflurazon	0.69	I	ng/L	P320776	
		Phorate	0.25	UJ	ng/L	P320776	MS
		Prometryn	0.20	U	ng/L	P320776	
		Simazine	0.64	I	ng/L	P320776	
		Atrazine Desethyl	8.8	J	ng/L	P320776	RPD
		Prometon	0.89	U	ng/L	P320776	
		Fipronil	0.25	U	ng/L	P320776	
		Molinate	0.30	U	ng/L	P320776	
		Pendimethalin	2.5	I	ng/L	P320776	
		Terbufos	0.098	U	ng/L	P320776	
		EPTC	1.2	U	ng/L	P320776	
		Terbutylazine	0.42	U	ng/L	P320776	
		Bromacil	0.80	I	ng/L	P320776	
		Fipronil Sulfide	0.15	U	ng/L	P320776	
		Fipronil Sulfone	0.30	I	ng/L	P320776	
		Alachlor	0.25	U	ng/L	P320776	
		Azinphos Methyl	2.2	U	ng/L	P320776	
		Butylate	0.67	I	ng/L	P320776	
		Demeton	0.98	U	ng/L	P320776	
		Diazinon	0.12	U	ng/L	P320776	
		Fenamiphos	0.25	UJ	ng/L	P320776	MS
		Fonofos	0.20	U	ng/L	P320776	
		Metalaxyl	92		ng/L	P320776	
		Metolachlor	3.2E+03		ng/L	P320776	
		Acetochlor	0.25	U	ng/L	P320776	

Field ID: 32012014

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875819	EPA 8270D	Cyanazine	0.49	UJ	ng/L	P320776	RPD
		Parathion Ethyl	0.25	U	ng/L	P320776	
		Parathion Methyl	0.25	U	ng/L	P320776	
1875823	EPA 200.7 Rev. 4.4	Calcium	71.4		mg/L	P320995	
		Iron	68	I	ug/L	P320995	
		Magnesium	9.20		mg/L	P320995	
		Potassium	10.2		mg/L	P320995	
		Sodium	52.8		mg/L	P320995	
		Zinc	7.9	I	ug/L	P320995	
	EPA 200.8 Rev. 5.4	Arsenic	1.70		ug/L	P320995	
		Cadmium	0.020	U	ug/L	P320995	
		Chromium	0.79	I	ug/L	P320995	
		Copper	6.51		ug/L	P320995	
		Lead	0.32		ug/L	P320995	
		Nickel	0.64	I	ug/L	P320995	
		Silver	0.010	U	ug/L	P320995	

Ref. Method and Comment:

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

EPA 8321B: Results confirmed in re-extraction.

USGS O-2060-01: MDL's for some parameters elevated due to matrix interference.

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

EPA 8270D: Refer to the narrative for an explanation of QC Codes. Matrix spikes recoveries for Atrazine, Ametryn, Metalaxyl and Metolachlor not assessed due to high content of these analytes in the spiked sample.

Sample Location: E-3 CANAL @ ATLANTIC AVE

Collection Date/Time: 02/27/2017 13:03

Field ID: 28010164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875781	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P320674	
	EPA 300.0 Rev. 2.1	Chloride	85		mg Cl/L	P321443	
		Sulfate	51		mg SO4/L	P321446	
	SM 2120 B	Color (true)	37	A	PCU	P320665	
	SM 2320 B-97	Total Alkalinity	125		mg CaCO3/L	P321038	
	SM 2540 C-97	TDS	347		mg/L	P321093	
	SM 2540 D-97	TSS	3	I	mg/L	P321057	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P321042	
1875784	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P320795	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P320717	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P320826	
	EPA 365.1 Rev. 2.0	Total-P	0.030		mg P/L	P320722	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P320852	
1875787	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P320679	
1875821	EPA 200.7 Rev. 4.4	Calcium	57.4		mg/L	P320995	
		Iron	30	U	ug/L	P320995	
		Magnesium	8.03		mg/L	P320995	
		Potassium	5.3		mg/L	P320995	

Field ID: 28010164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875821	EPA 200.7 Rev. 4.4	Sodium	57.3		mg/L	P320995	
		Zinc	5.0	U	ug/L	P320995	
	EPA 200.8 Rev. 5.4	Arsenic	2.07		ug/L	P320995	
		Cadmium	0.020	U	ug/L	P320995	
		Chromium	0.40	U	ug/L	P320995	
		Copper	4.23		ug/L	P320995	
		Lead	0.059	I	ug/L	P320995	
		Nickel	0.38	I	ug/L	P320995	
		Silver	0.010	U	ug/L	P320995	

Sample Location: E-3 CNL AT CLINT MOORE RD. BOCA

Collection Date/Time: 02/27/2017 13:55

Field ID: 28010165

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875782	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P320674	
	EPA 300.0 Rev. 2.1	Chloride	73		mg Cl/L	P321443	
		Sulfate	39		mg SO4/L	P321446	
	SM 2120 B	Color (true)	47		PCU	P320665	
	SM 2320 B-97	Total Alkalinity	151		mg CaCO3/L	P321038	
	SM 2540 C-97	TDS	354	A	mg/L	P321094	
	SM 2540 D-97	TSS	4	I	mg/L	P321058	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P321042	
1875785	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P320795	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P320717	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P320826	
	EPA 365.1 Rev. 2.0	Total-P	0.072		mg P/L	P320722	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P320852	
1875788	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.032		mg P/L	P320679	
1875822	EPA 200.7 Rev. 4.4	Calcium	65.9		mg/L	P320995	
		Iron	30	U	ug/L	P320995	
		Magnesium	6.61		mg/L	P320995	
		Potassium	5.7		mg/L	P320995	
		Sodium	46.1		mg/L	P320995	
		Zinc	5.0	U	ug/L	P320995	
	EPA 200.8 Rev. 5.4	Arsenic	2.16		ug/L	P320995	
		Cadmium	0.020	U	ug/L	P320995	
		Chromium	0.59	I	ug/L	P320995	
		Copper	3.77		ug/L	P320995	
		Lead	0.084	I	ug/L	P320995	
		Nickel	0.39	I	ug/L	P320995	
		Silver	0.010	U	ug/L	P320995	

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: E-4 CANAL AT CLINTMORE ROAD

Collection Date/Time: 02/27/2017 14:20

Field ID: 28042459

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875792	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P320675	
	EPA 300.0 Rev. 2.1	Chloride	42		mg Cl/L	P321443	
		Sulfate	12		mg SO4/L	P321446	
	SM 2120 B	Color (true)	81		PCU	P320665	
	SM 2320 B-97	Total Alkalinity	180	A	mg CaCO3/L	P321038	
	SM 2540 C-97	TDS	277		mg/L	P321094	
	SM 2540 D-97	TSS	7	I	mg/L	P321058	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P321042	
1875793	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P320795	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P320717	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.040		mg N/L	P320987	
	EPA 365.1 Rev. 2.0	Total-P	0.096		mg P/L	P320722	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P320852	
1875794	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.035		mg P/L	P320679	
1875824	EPA 200.7 Rev. 4.4	Calcium	75.8		mg/L	P320995	
		Iron	260		ug/L	P320995	
		Magnesium	2.68		mg/L	P320995	
		Potassium	2.7		mg/L	P320995	
		Sodium	24.1		mg/L	P320995	
		Zinc	5.0	U	ug/L	P320995	
	EPA 200.8 Rev. 5.4	Arsenic	1.85		ug/L	P320995	
		Cadmium	0.020	U	ug/L	P320995	
		Chromium	1.1	I	ug/L	P320995	
		Copper	1.50		ug/L	P320995	
		Lead	0.13	I	ug/L	P320995	
		Nickel	0.26	I	ug/L	P320995	
		Silver	0.010	U	ug/L	P320995	

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: ICW AT PALMETTO PARK

Collection Date/Time: 02/27/2017 15:00

Field ID: 28010770

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1875795	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P320675	
	SM 2320 B-97	Total Alkalinity	131		mg CaCO3/L	P321322	
	SM 2540 D-97	TSS	4	I	mg/L	P321061	
	SM 4500 F-C-97	Fluoride	1.2		mg F/L	P321325	
1875796	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P320794	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35	I	mg N/L	P320715	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P320909	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P320708	
	SM 5310 B-00	Organic Carbon	1.9	I	mg C/L	P320854	
1875797	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P320682	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320674

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320675

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P320995

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: P320995

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: P321443

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321446

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320794

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: P320795

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320715

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320717

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320826

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320909

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320987

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320708

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320722

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320679

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320682

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

Reference Method: EPA 8270D
Batch ID: P320776

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	1.0	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
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270D
Batch ID: P321074

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P321074

Component	Result	Code	Units
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

Reference Method: EPA 8276
Batch ID: P320802

Component	Result	Code	Units
Toxaphene	12	U	ng/L

Reference Method: EPA 8321B
Batch ID: P320640

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P320643

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P320728

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P320665

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P321037

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

Reference Method: SM 2320 B-97
Batch ID: P321038

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

Reference Method: SM 2320 B-97
Batch ID: P321322

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

Reference Method: SM 2540 C-97
Batch ID: P321093

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P321094

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321057

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321058

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321061

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P321041

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P321042

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P321325

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P320852

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

Reference Method: SM 5310 B-00
Batch ID: P320854

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

Reference Method: USGS O-2060-01
Batch ID: P320727

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	0.0040	U	ug/L
2,4-DB	0.0020	U	ug/L
Acetaminophen	0.0040	U	ug/L
Acifluorfen	0.0020	U	ug/L
Bentazon	0.0020	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Dichlorprop	0.0020	U	ug/L
Dinoseb	0.020	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCPA	0.0040	U	ug/L
MCPP	0.0040	U	ug/L
Picloram	0.050	U	ug/L
Primidone	0.0080	U	ug/L
Silvex	0.0020	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: P320995

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	99.9		P	85 - 115
Magnesium	101		P	85 - 115
Potassium	103		P	85 - 115
Sodium	101		P	85 - 115
Zinc	95.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P320995

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	104		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	103		P	85 - 115
Copper	102		P	85 - 115
Lead	94.6		P	85 - 115
Nickel	102		P	85 - 115
Silver	96.5		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321443

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321446

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320794

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320795

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320715

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 351.2 Rev. 2.0
Batch ID: P320717

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320826

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320909

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320987

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: P320708

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320722

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320679

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320682

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

Reference Method: EPA 8270D
Batch ID: P320776

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	92.4	93.6	P/P	78 - 118
Alachlor	88.6	92.1	P/P	77 - 119
Ametryn	126	107	P/P	61 - 136
Atrazine	98.2	92.2	P/P	73 - 120

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P320776

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine Desethyl	94.6	68.6	P/P	16 - 122
Azinphos Methyl	90.1	89.4	P/P	69 - 186
Bromacil	96.6	77.9	P/P	40 - 125
Butylate	54.3	63.8	P/P	32 - 87.0
Chlorpyrifos Ethyl	99.7	94.5	P/P	53 - 110
Chlorpyrifos Methyl	85.4	89.8	P/P	31 - 119
Cyanazine	164	120	P/P	36 - 224
Demeton	94.4	93.8	P/P	39 - 122
Diazinon	100	97.3	P/P	75 - 119
Disulfoton	86.8	85.5	P/P	42 - 139
EPTC	56.4	65.2	P/P	33 - 96.0
Ethion	107	99.6	P/P	63 - 127
Ethoprop	91.9	85.9	P/P	65 - 107
Fenamiphos	126	111	P/P	64 - 137
Fipronil	105	97.5	P/P	60 - 126
Fipronil Sulfide	91.3	99.0	P/P	58 - 124
Fipronil Sulfone	88.9	90.7	P/P	57 - 126
Fonofos	82.1	86.5	P/P	65 - 111
Hexazinone	104	101	P/P	46 - 151
Malathion	96.2	98.7	P/P	68 - 132
Metalaxyl	101	93.6	P/P	51 - 132
Metolachlor	95.4	98.3	P/P	78 - 119
Metribuzin	140	98.2	F/P	64 - 138
Mevinphos	93.9	76.8	P/P	34 - 128
Molinate	69.6	71.2	P/P	44 - 101
Norflurazon	95.2	83.8	P/P	63 - 129
Parathion Ethyl	83.4	91.2	P/P	80 - 109
Parathion Methyl	79.6	84.2	P/P	74 - 125
Pendimethalin	90.7	96.5	P/P	48 - 134
Phorate	91.4	91.8	P/P	52 - 119
Prometon	104	90.3	P/P	69 - 124
Prometryn	108	96.1	P/P	66 - 124
Simazine	118	105	P/P	61 - 134
Terbufos	97.2	88.0	P/P	58 - 115
Terbuthylazine	99.9	98.2	P/P	77 - 113

Reference Method: EPA 8270D
Batch ID: P321074

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	60.2	43.3	P/P	28 - 90.0
Alpha-BHC	90.6	95.2	P/P	65 - 123
Alpha-Chlordane	87.8	67.0	P/P	63 - 124
Beta-BHC	78.1	94.3	P/P	58 - 153
Carbophenothion	96.0	77.3	P/P	39 - 144
Chlorothalonil	39.2	24.6	F/F	44 - 174
Cypermethrin	86.8	74.5	P/P	63 - 150
DDD-p,p'	89.1	68.1	P/P	68 - 136
DDE-p,p'	89.3	70.6	P/P	53 - 122
DDT-p,p'	89.6	75.1	P/P	64 - 122
Delta-BHC	109	109	P/P	75 - 170
Dicofol	66.2	64.4	P/P	16 - 143

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P321074

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dieldrin	87.8	67.6	P/P	64 - 143
Endosulfan I	93.3	72.1	P/F	73 - 147
Endosulfan II	96.3	77.0	P/P	71 - 161
Endosulfan Sulfate	97.4	74.4	P/P	70 - 143
Endrin	161	175	F/F	65 - 154
Endrin Aldehyde	79.0	71.0	P/P	52 - 168
Endrin Ketone	99.3	71.9	P/F	77 - 126
Gamma-BHC	98.0	106	P/P	73 - 149
Gamma-Chlordane	85.2	65.4	P/P	59 - 119
Heptachlor	71.3	56.9	P/P	47 - 107
Heptachlor Epoxide	85.9	65.4	P/F	74 - 123
Methoxychlor	89.6	74.9	P/P	73 - 142
Mirex	73.1	64.9	P/P	42 - 94.0
Permethrin	84.4	72.6	P/P	59 - 132
Trifluralin	87.9	72.0	P/P	51 - 161

Reference Method: EPA 8276

Batch ID: P320802

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	63.3	59.2	P/P	50 - 130

Reference Method: EPA 8321B

Batch ID: P320640

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	88.2		P	40 - 140

Reference Method: EPA 8321B

Batch ID: P320643

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	86.8		P	40 - 140

Reference Method: EPA 8321B

Batch ID: P320728

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	86.0		P	40 - 140

Reference Method: SM 2320 B-97

Batch ID: P321037

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

Reference Method: SM 2320 B-97

Batch ID: P321038

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	95 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P321322

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P321041

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.3		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P321042

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.3		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P321325

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.4		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P320852

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

Reference Method: SM 5310 B-00
Batch ID: P320854

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.1		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P320727

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	89.2		P	40 - 140
2,4-D	98.0		P	40 - 140
2,4-DB	70.4		P	40 - 140
Acetaminophen	122		P	40 - 140
Acifluorfen	102		P	40 - 140
Bentazon	103		P	40 - 140
Carbamazepine	99.2		P	40 - 140
Dichlorprop	104		P	40 - 140
Dinoseb	96.8		P	40 - 140
Diuron	89.6		P	40 - 140
Fenuron	96.0		P	40 - 140
Fluridone	90.8		P	40 - 140
Imidacloprid	80.4		P	40 - 160
Linuron	94.4		P	40 - 140
MCPA	94.8		P	40 - 140
MCPP	98.4		P	40 - 140

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
Batch ID: P320727

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Picloram	111		P	40 - 140
Primidone	77.6		P	40 - 140
Silvex	86.0		P	40 - 140
Triclopyr	98.4		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P320995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1874126	Calcium	101		P	80 - 120
1874126	Iron	98.7		P	80 - 120
1874126	Magnesium	98.6		P	80 - 120
1874126	Potassium	103		P	80 - 120
1874126	Sodium	98.3		P	80 - 120
1874126	Zinc	95.8		P	80 - 120
1875820	Calcium	103		P	80 - 120
1875820	Iron	102	100	P/P	80 - 120
1875820	Magnesium	102	100	P/P	80 - 120
1875820	Potassium	102	101	P/P	80 - 120
1875820	Sodium	101		P	80 - 120
1875820	Zinc	98.5	97.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P320995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1874126	Arsenic	104		P	80 - 120
1874126	Cadmium	102		P	80 - 120
1874126	Chromium	104		P	80 - 120
1874126	Copper	101		P	80 - 120
1874126	Lead	94.4		P	80 - 120
1874126	Nickel	102		P	80 - 120
1874126	Silver	97.5		P	80 - 120
1875820	Arsenic	105	105	P/P	80 - 120
1875820	Cadmium	102	102	P/P	80 - 120
1875820	Chromium	102	103	P/P	80 - 120
1875820	Copper	102	103	P/P	80 - 120
1875820	Lead	97.2	97.7	P/P	80 - 120
1875820	Nickel	102	102	P/P	80 - 120
1875820	Silver	97.9	98.5	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321443

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875902	Chloride	101		P	90 - 110
1875919	Chloride	103		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321446

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875902	Sulfate	99.9		P	90 - 110
1875919	Sulfate	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875768	Ammonia-N	102	98.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320795

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875783	Ammonia-N	95.2	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875884	Kjeldahl Nitrogen	103	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875783	Kjeldahl Nitrogen	101	96.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320826

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875784	NO2NO3-N	106	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320909

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876506	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875793	NO2NO3-N	99.2	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320708

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875771	Total-P	90.8	91.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P320722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875758	Total-P	98.3	95.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P320679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875786	O-Phosphate-P	95.5	97.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P320682

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875797	O-Phosphate-P	98.1	99.5	P/P	90 - 110

Reference Method: EPA 8270D

Batch ID: P320776

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875819	Acetochlor	106	98.3	P/P	74 - 123
1875819	Alachlor	105	100	P/P	73 - 124
1875819	Atrazine Desethyl	55.8	55.3	P/P	12 - 103
1875819	Azinphos Methyl	95.8	95.9	P/P	60 - 202
1875819	Bromacil	65.4	62.8	P/P	42 - 133
1875819	Butylate	64.9	54.1	P/P	10 - 85.0
1875819	Chlorpyrifos Ethyl	70.4	66.2	P/P	53 - 113
1875819	Chlorpyrifos Methyl	101	95.5	P/P	40 - 115
1875819	Cyanazine	133	152	P/P	22 - 210
1875819	Demeton	115	128	P/P	17 - 149
1875819	Diazinon	114	108	P/P	72 - 124
1875819	Disulfoton	104	94.5	P/P	43 - 139
1875819	EPTC	73.5	66.6	P/P	10 - 86.0
1875819	Ethion	108	106	P/P	65 - 131
1875819	Ethoprop	108	105	P/P	59 - 110
1875819	Fenamiphos	113	144	P/F	57 - 138
1875819	Fipronil	96.8	104	P/P	40 - 130
1875819	Fipronil Sulfide	88.2	100	P/P	36 - 128
1875819	Fipronil Sulfone	61.9	76.3	P/P	16 - 145
1875819	Fonofos	102	103	P/P	60 - 112
1875819	Hexazinone	102	99.4	P/P	69 - 142
1875819	Malathion	110	108	P/P	68 - 132
1875819	Metribuzin	130	118	P/P	61 - 140
1875819	Mevinphos	99.1	99.4	P/P	38 - 130
1875819	Molinate	77.0	71.0	P/P	23 - 99.0
1875819	Norflurazon	65.5	71.9	P/P	39 - 139
1875819	Parathion Ethyl	77.4	81.1	P/P	75 - 111
1875819	Parathion Methyl	72.2	75.0	P/P	64 - 130
1875819	Pendimethalin	92.2	97.7	P/P	26 - 173
1875819	Phorate	131	111	F/P	43 - 127
1875819	Prometon	107	104	P/P	50 - 144
1875819	Prometryn	108	101	P/P	69 - 126
1875819	Simazine	95.1	90.6	P/P	51 - 152
1875819	Terbufos	109	106	P/P	54 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P320776

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875819	Terbutylazine	99.8	94.0	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P321074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877411	Aldrin	56.0		P	28 - 90.0
1877411	Alpha-BHC	91.4		P	65 - 123
1877411	Alpha-Chlordane	91.3		P	63 - 124
1877411	Beta-BHC	86.8		P	58 - 153
1877411	Carbophenothion	103		P	39 - 144
1877411	Chlorothalonil	124		P	44 - 174
1877411	Cypermethrin	91.1		P	63 - 150
1877411	DDD-p,p'	84.3		P	68 - 136
1877411	DDE-p,p'	89.6		P	53 - 122
1877411	DDT-p,p'	87.6		P	64 - 122
1877411	Delta-BHC	179		F	75 - 170
1877411	Dicofol	67.8		P	16 - 143
1877411	Dieldrin	87.1		P	64 - 143
1877411	Endosulfan I	96.9		P	73 - 147
1877411	Endosulfan II	99.1		P	71 - 161
1877411	Endosulfan Sulfate	103		P	70 - 143
1877411	Endrin	130		P	65 - 154
1877411	Endrin Aldehyde	72.8		P	52 - 168
1877411	Endrin Ketone	92.0		P	77 - 126
1877411	Gamma-BHC	129		P	73 - 149
1877411	Gamma-Chlordane	88.0		P	59 - 119
1877411	Heptachlor	69.0		P	47 - 107
1877411	Heptachlor Epoxide	90.3		P	74 - 123
1877411	Methoxychlor	86.1		P	73 - 142
1877411	Mirex	76.5		P	42 - 94.0
1877411	Permethrin	85.7		P	59 - 132
1877411	Trifluralin	107		P	51 - 161

Reference Method: EPA 8276
Batch ID: P320802

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876823	Toxaphene	62.8	59.1	P/P	50 - 130

Reference Method: EPA 8321B
Batch ID: P320640

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875816	Glyphosate	49.4	46.0	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P320643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875965	Sucralose	129	133	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P320728

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875817	Pyraclostrobin	70.9	60.9	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P321041

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876170	Fluoride	101	102	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P321042

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875792	Fluoride	102	101	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P321325

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877747	Fluoride	96.2	97.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P320852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875758	Organic Carbon	101	97.2	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P320854

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875768	Organic Carbon	94.8	94.4	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P320727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876081	2,4,5-T	98.8	106	P/P	40 - 140
1876081	2,4-D	113	134	P/P	40 - 140
1876081	2,4-DB	66.4	78.4	P/P	40 - 140
1876081	Acetaminophen	49.6	53.6	P/P	40 - 140
1876081	Acifluorfen	99.2	123	P/P	40 - 140
1876081	Bentazon	203	222	F/F	40 - 140
1876081	Carbamazepine	44.4	54.4	P/P	40 - 140
1876081	Dichlorprop	98.8	117	P/P	40 - 140
1876081	Dinoseb	71.6	119	P/P	40 - 140
1876081	Diuron	42.4	45.2	P/P	40 - 140
1876081	Fenuron	40.4	47.6	P/P	40 - 140
1876081	Fluridone	52.1	55.3	P/P	40 - 140
1876081	Imidacloprid	75.6	82.4	P/P	40 - 160
1876081	Linuron	74.0	68.0	P/P	40 - 140
1876081	MCPA	107	116	P/P	40 - 140
1876081	MCPP	116	124	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P320727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876081	Picloram	64.0	63.2	P/P	40 - 140
1876081	Primidone	42.4	41.6	P/P	40 - 140
1876081	Silvex	115	138	P/P	40 - 140
1876081	Triclopyr	101	111	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875762	Turbidity	0.755	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875789	Turbidity	1.35	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P320995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875820	Calcium	0.652	Spike	P	0 - 20
1875820	Iron	1.41	Spike	P	0 - 20
1875820	Magnesium	1.14	Spike	P	0 - 20
1875820	Potassium	1.26	Spike	P	0 - 20
1875820	Sodium	0.882	Spike	P	0 - 20
1875820	Zinc	1.30	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P320995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875820	Arsenic	0.328	Spike	P	0 - 20
1875820	Cadmium	0.365	Spike	P	0 - 20
1875820	Chromium	0.297	Spike	P	0 - 20
1875820	Copper	0.204	Spike	P	0 - 20
1875820	Lead	0.534	Spike	P	0 - 20
1875820	Nickel	0.00481	Spike	P	0 - 20
1875820	Silver	0.526	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875919	Chloride	0.0634	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321446

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875919	Sulfate	0.154	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875768	Ammonia-N	2.80	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P320795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875783	Ammonia-N	3.06	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875884	Kjeldahl Nitrogen	0.541	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875783	Kjeldahl Nitrogen	2.73	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320826

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875784	NO2NO3-N	1.41	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876506	NO2NO3-N	1.46	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P320987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875793	NO2NO3-N	2.49	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320708

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875771	Total-P	0.207	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P320722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875758	Total-P	2.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875786	O-Phosphate-P	1.87	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320682

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875797	O-Phosphate-P	1.42	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P320776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875819	Acetochlor	7.35	Spike	P	0 - 30
1875819	Alachlor	4.17	Spike	P	0 - 30
1875819	Ametryn	1.55	Spike	P	0 - 30
1875819	Atrazine	6.45	Spike	P	0 - 30
1875819	Atrazine Desethyl	0.486	Spike	P	0 - 30
1875819	Azinphos Methyl	0.0873	Spike	P	0 - 30
1875819	Bromacil	3.43	Spike	P	0 - 30
1875819	Butylate	14.1	Spike	P	0 - 30
1875819	Chlorpyrifos Ethyl	4.68	Spike	P	0 - 30
1875819	Chlorpyrifos Methyl	5.90	Spike	P	0 - 30
1875819	Cyanazine	13.7	Spike	P	0 - 30
1875819	Demeton	11.0	Spike	P	0 - 30
1875819	Diazinon	6.08	Spike	P	0 - 30
1875819	Disulfoton	9.91	Spike	P	0 - 30
1875819	EPTC	9.91	Spike	P	0 - 30
1875819	Ethion	1.41	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P320776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875819	Ethoprop	2.83	Spike	P	0 - 30
1875819	Fenamiphos	23.5	Spike	P	0 - 30
1875819	Fipronil	7.06	Spike	P	0 - 30
1875819	Fipronil Sulfide	12.8	Spike	P	0 - 30
1875819	Fipronil Sulfone	17.2	Spike	P	0 - 30
1875819	Fonofos	0.456	Spike	P	0 - 30
1875819	Hexazinone	1.89	Spike	P	0 - 30
1875819	Malathion	1.58	Spike	P	0 - 30
1875819	Metalaxyl	0.574	Spike	P	0 - 30
1875819	Metolachlor	14.0	Spike	P	0 - 30
1875819	Metribuzin	7.08	Spike	P	0 - 30
1875819	Mevinphos	0.283	Spike	P	0 - 30
1875819	Molinate	8.07	Spike	P	0 - 30
1875819	Norflurazon	8.59	Spike	P	0 - 30
1875819	Parathion Ethyl	4.61	Spike	P	0 - 30
1875819	Parathion Methyl	3.76	Spike	P	0 - 30
1875819	Pendimethalin	5.82	Spike	P	0 - 30
1875819	Phorate	16.0	Spike	P	0 - 30
1875819	Prometon	2.80	Spike	P	0 - 30
1875819	Prometryn	6.38	Spike	P	0 - 30
1875819	Simazine	4.13	Spike	P	0 - 30
1875819	Terbufos	3.57	Spike	P	0 - 30
1875819	Terbuthylazine	5.95	Spike	P	0 - 30
LFB	Acetochlor	1.21	LCS	P	0 - 30
LFB	Alachlor	3.96	LCS	P	0 - 30
LFB	Ametryn	16.2	LCS	P	0 - 30
LFB	Atrazine	6.32	LCS	P	0 - 30
LFB	Atrazine Desethyl	31.8	LCS	F	0 - 30
LFB	Azinphos Methyl	0.804	LCS	P	0 - 30
LFB	Bromacil	21.5	LCS	P	0 - 30
LFB	Butylate	16.1	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.34	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.08	LCS	P	0 - 30
LFB	Cyanazine	30.7	LCS	F	0 - 30
LFB	Demeton	0.690	LCS	P	0 - 30
LFB	Diazinon	3.03	LCS	P	0 - 30
LFB	Disulfoton	1.55	LCS	P	0 - 30
LFB	EPTC	14.4	LCS	P	0 - 30
LFB	Ethion	6.94	LCS	P	0 - 30
LFB	Ethoprop	6.82	LCS	P	0 - 30
LFB	Fenamiphos	12.8	LCS	P	0 - 30
LFB	Fipronil	6.99	LCS	P	0 - 30
LFB	Fipronil Sulfide	8.15	LCS	P	0 - 30
LFB	Fipronil Sulfone	1.97	LCS	P	0 - 30
LFB	Fonofos	5.18	LCS	P	0 - 30
LFB	Hexazinone	3.09	LCS	P	0 - 30
LFB	Malathion	2.52	LCS	P	0 - 30
LFB	Metalaxyl	7.53	LCS	P	0 - 30
LFB	Metolachlor	3.01	LCS	P	0 - 30
LFB	Metribuzin	35.3	LCS	F	0 - 30
LFB	Mevinphos	20.0	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P320776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Molinate	2.22	LCS	P	0 - 30
LFB	Norflurazon	12.7	LCS	P	0 - 30
LFB	Parathion Ethyl	8.90	LCS	P	0 - 30
LFB	Parathion Methyl	5.68	LCS	P	0 - 30
LFB	Pendimethalin	6.25	LCS	P	0 - 30
LFB	Phorate	0.374	LCS	P	0 - 30
LFB	Prometon	14.6	LCS	P	0 - 30
LFB	Prometryn	11.5	LCS	P	0 - 30
LFB	Simazine	11.5	LCS	P	0 - 30
LFB	Terbufos	9.95	LCS	P	0 - 30
LFB	Terbuthylazine	1.76	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P321074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Aldrin	32.7	LCS	F	0 - 30
LFB	Alpha-BHC	5.00	LCS	P	0 - 30
LFB	Alpha-Chlordane	26.8	LCS	P	0 - 30
LFB	Beta-BHC	18.7	LCS	P	0 - 30
LFB	Carbophenothion	21.6	LCS	P	0 - 30
LFB	Chlorothalonil	45.9	LCS	F	0 - 30
LFB	Cypermethrin	15.3	LCS	P	0 - 30
LFB	DDD-p,p'	26.7	LCS	P	0 - 30
LFB	DDE-p,p'	23.4	LCS	P	0 - 30
LFB	DDT-p,p'	17.5	LCS	P	0 - 30
LFB	Delta-BHC	0.581	LCS	P	0 - 30
LFB	Dicofol	2.69	LCS	P	0 - 30
LFB	Dieldrin	25.9	LCS	P	0 - 30
LFB	Endosulfan I	25.7	LCS	P	0 - 30
LFB	Endosulfan II	22.3	LCS	P	0 - 30
LFB	Endosulfan Sulfate	26.7	LCS	P	0 - 30
LFB	Endrin	8.22	LCS	P	0 - 30
LFB	Endrin Aldehyde	10.6	LCS	P	0 - 30
LFB	Endrin Ketone	32.1	LCS	F	0 - 30
LFB	Gamma-BHC	8.20	LCS	P	0 - 30
LFB	Gamma-Chlordane	26.3	LCS	P	0 - 30
LFB	Heptachlor	22.5	LCS	P	0 - 30
LFB	Heptachlor Epoxide	27.1	LCS	P	0 - 30
LFB	Methoxychlor	17.9	LCS	P	0 - 30
LFB	Mirex	11.8	LCS	P	0 - 30
LFB	Permethrin	15.0	LCS	P	0 - 30
LFB	Trifluralin	20.0	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P320802

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876823	Toxaphene	6.14	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P320802

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Toxaphene	6.67	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P320640

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875816	Glyphosate	4.80	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P320643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875965	Sucralose	2.92	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P320728

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875817	Pyraclostrobin	9.86	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P320665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875781	Color (true)	1.67	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P321037

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876170	Total Alkalinity	0.221	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P321038

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875792	Total Alkalinity	0.378	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P321322

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877747	Total Alkalinity	0.498	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P321093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875430	TDS	5.97	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P321094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875782	TDS	3.10	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P321057

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875430	TSS	9.52	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P321061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875767	TSS	5.97	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P321041

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876170	Fluoride	0.520	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P321042

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875792	Fluoride	0.480	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P321325

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877747	Fluoride	0.953	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P320852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875758	Organic Carbon	3.49	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P320854

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875768	Organic Carbon	0.385	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P320727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876081	2,4,5-T	7.03	Spike	P	0 - 30
1876081	2,4-D	8.93	Spike	P	0 - 30
1876081	2,4-DB	16.6	Spike	P	0 - 30
1876081	Acetaminophen	7.75	Spike	P	0 - 30
1876081	Acifluorfen	21.3	Spike	P	0 - 30
1876081	Bentazon	6.44	Spike	P	0 - 30
1876081	Carbamazepine	20.2	Spike	P	0 - 30
1876081	Dichlorprop	16.7	Spike	P	0 - 30
1876081	Dinoseb	49.6	Spike	F	0 - 30
1876081	Diuron	6.39	Spike	P	0 - 30
1876081	Fenuron	16.4	Spike	P	0 - 30
1876081	Fluridone	5.67	Spike	P	0 - 30
1876081	Imidacloprid	8.61	Spike	P	0 - 30
1876081	Linuron	8.45	Spike	P	0 - 30
1876081	MCPA	7.91	Spike	P	0 - 30
1876081	MCPP	6.32	Spike	P	0 - 30
1876081	Picloram	1.26	Spike	P	0 - 30
1876081	Primidone	1.90	Spike	P	0 - 30
1876081	Silvex	18.1	Spike	P	0 - 30
1876081	Triclopyr	9.42	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 1875816
Field Sample ID: 32012014

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	61.4	P	50 - 150
EPA 8321B	Sucralose-d6	96.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	112	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	65.4	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	47.0	P	40 - 160
USGS O-2060-01	Diuron-d6	59.2	P	40 - 150
USGS O-2060-01	Primidone-d5	46.2	P	40 - 150

Lab Sample ID: 1875817
Field Sample ID: 32012014

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
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Quality Assurance Report Surrogates

Lab Sample ID: 1875817
Field Sample ID: 32012014

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	70.2	P	40 - 150

Lab Sample ID: 1875818
Field Sample ID: 32012014

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	78.7	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	49.5	P	31 - 111
EPA 8276	Decachlorobiphenyl	47.7	P	41 - 106

Lab Sample ID: 1875819
Field Sample ID: 32012014

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	75.5	P	62 - 132
EPA 8270D	Simazine-d10	115	P	72 - 127

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A74777
Included Lab Sample IDs: 1875780, 1875781, 1875782, 1875789, 1875792

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.2	95.9	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A74781
Included Lab Sample IDs: 1875780, 1875781, 1875782, 1875789, 1875792, 1875795

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A74782
Included Lab Sample IDs: 1875786, 1875787, 1875788, 1875791, 1875794, 1875797

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	101	P/P	90 - 110
O-Phosphate-P	99.2	100	P/P	90 - 110
O-Phosphate-P	99.7	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A74822
Included Lab Sample IDs: 1875783, 1875784, 1875785, 1875790, 1875793, 1875796

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74823

Included Lab Sample IDs: 1875796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74824

Included Lab Sample IDs: 1875785, 1875790, 1875793

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A74836

Included Lab Sample IDs: 1875783, 1875784, 1875785, 1875790

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74838

Included Lab Sample IDs: 1875783, 1875784

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.2	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A74852

Included Lab Sample IDs: 1875783, 1875784, 1875785, 1875790, 1875793, 1875796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.5	95.7	P/P	90 - 110
Organic Carbon	98.0	96.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74858

Included Lab Sample IDs: 1875783, 1875784, 1875785, 1875790, 1875793

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	99.0	P/P	90 - 110
Kjeldahl Nitrogen	99.6	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74867

Included Lab Sample IDs: 1875796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.7	99.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A74872

Included Lab Sample IDs: 1875796

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

Reference Method: EPA 8321B

Run ID: A74896

Included Lab Sample IDs: 1875816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	95.6	97.4	P/P	70 - 130

Reference Method: EPA 8321B

Run ID: A74898

Included Lab Sample IDs: 1875816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	87.1	93.7	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A74901

Included Lab Sample IDs: 1875793

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

Reference Method: SM 2320 B-97

Run ID: A74917

Included Lab Sample IDs: 1875780, 1875781, 1875782, 1875789, 1875792

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A74917

Included Lab Sample IDs: 1875780, 1875781, 1875782, 1875789, 1875792

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A74928

Included Lab Sample IDs: 1875817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	119	104	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A74928

Included Lab Sample IDs: 1875816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	106	114	P/P	60 - 150
Fenuron	105	107	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A74928

Included Lab Sample IDs: 1875816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	101	104	P/P	60 - 150
Imidacloprid	85.2	86.8	P/P	60 - 150
Linuron	115	96.4	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A74966

Included Lab Sample IDs: 1875816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	87.0	97.0	P/P	50 - 150
2,4-D	116	126	P/P	50 - 150
2,4-DB	92.0	107	P/P	50 - 150
Acifluorfen	75.6	87.8	P/P	50 - 150
Bentazon	95.6	112	P/P	50 - 150
Dichlorprop	116	120	P/P	50 - 150
Dinoseb	115	128	P/P	50 - 150
MCPA	113	116	P/P	50 - 150
MCPP	114	119	P/P	50 - 150
Picloram	108	126	P/P	50 - 150
Silvex	82.2	89.2	P/P	50 - 150
Triclopyr	102	119	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A74975

Included Lab Sample IDs: 1875820, 1875821, 1875822, 1875823, 1875824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	102	103	P/P	90 - 110
Arsenic	103	103	P/P	90 - 110
Cadmium	100	99.5	P/P	90 - 110
Cadmium	99.3	100	P/P	90 - 110
Chromium	100	101	P/P	90 - 110
Chromium	101	100	P/P	90 - 110
Copper	101	102	P/P	90 - 110
Copper	102	102	P/P	90 - 110
Lead	92.2	92.9	P/P	90 - 110
Lead	92.9	92.5	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Silver	95.5	96.8	P/P	90 - 110
Silver	96.8	95.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A74977

Included Lab Sample IDs: 1875780, 1875781, 1875782, 1875789, 1875792

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Chloride	101	101	P/P	90 - 110
Sulfate	93.1	98.3	P/P	90 - 110
Sulfate	97.4	93.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A74995

Included Lab Sample IDs: 1875816

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	130	141	P/P	60 - 150
Carbamazepine	119	122	P/P	60 - 150
Primidone	88.4	92.4	P/P	60 - 150

Reference Method: SM 2320 B-97

Run ID: A75009

Included Lab Sample IDs: 1875795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A75009

Included Lab Sample IDs: 1875795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.5	97.5	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A75043

Included Lab Sample IDs: 1875819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	99.8		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine Desethyl	95.9		P	80 - 120
Azinphos Methyl	91.7		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	97.1		P	80 - 120
Chlorpyrifos Ethyl	98.1		P	80 - 120
Chlorpyrifos Methyl	97.1		P	80 - 120
Cyanazine	94.6		P	80 - 120
Demeton	93.2		P	80 - 120
Diazinon	100		P	80 - 120
Disulfoton	93.1		P	80 - 120
EPTC	101		P	80 - 120
Ethion	95.4		P	80 - 120
Ethoprop	98.9		P	80 - 120
Fenamiphos	98.1		P	80 - 120
Fipronil	97.2		P	80 - 120
Fipronil Sulfide	98.3		P	80 - 120
Fipronil Sulfone	99.9		P	80 - 120
Fonofos	96.2		P	80 - 120
Hexazinone	101		P	80 - 120
Malathion	94.9		P	80 - 120
Metaxyl	98.7		P	80 - 120
Metribuzin	87.4		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	100		P	80 - 120
Norflurazon	98.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A75043

Included Lab Sample IDs: 1875819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Ethyl	94.0		P	80 - 120
Parathion Methyl	95.7		P	80 - 120
Pendimethalin	89.8		P	80 - 120
Phorate	97.3		P	80 - 120
Prometon	98.1		P	80 - 120
Prometryn	99.4		P	80 - 120
Simazine	98.9		P	80 - 120
Terbufos	94.3		P	80 - 120
Terbuthylazine	100		P	80 - 120

Reference Method: EPA 8270D

Run ID: A75049

Included Lab Sample IDs: 1875819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	100		P	80 - 120

Reference Method: EPA 8270D

Run ID: A75051

Included Lab Sample IDs: 1875819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metolachlor	103		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A75052

Included Lab Sample IDs: 1875820, 1875821, 1875822, 1875823, 1875824

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	99.1	P/P	90 - 110
Iron	97.0	95.8	P/P	90 - 110
Magnesium	98.4	96.6	P/P	90 - 110
Potassium	101	99.9	P/P	90 - 110
Sodium	98.9	97.6	P/P	90 - 110
Zinc	99.3	94.7	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A75085

Included Lab Sample IDs: 1875818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Toxaphene	94.1		P	80 - 120

Reference Method: EPA 8270D

Run ID: A75089

Included Lab Sample IDs: 1875818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	89.2		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	96.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A75089
Included Lab Sample IDs: 1875818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-BHC	95.5		P	80 - 120
Carbophenothion	96.2		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cypermethrin	102		P	80 - 120
DDD-p,p'	97.1		P	80 - 120
DDE-p,p'	96.7		P	80 - 120
DDT-p,p'	102		P	80 - 120
Delta-BHC	104		P	80 - 120
Dicofol	94.2		P	80 - 120
Dieldrin	93.2		P	80 - 120
Endosulfan I	89.4		P	80 - 120
Endosulfan II	88.5		P	80 - 120
Endosulfan Sulfate	114		P	80 - 120
Endrin	115		P	80 - 120
Endrin Aldehyde	92.6		P	80 - 120
Endrin Ketone	103		P	80 - 120
Gamma-BHC	104		P	80 - 120
Gamma-Chlordane	91.8		P	80 - 120
Heptachlor	103		P	80 - 120
Heptachlor Epoxide	94.9		P	80 - 120
Methoxychlor	102		P	80 - 120
Mirex	96.7		P	80 - 120
Permethrin	99.0		P	80 - 120
Trifluralin	84.2		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
EPA 180.1 Rev. 2.0	Turbidity					0.755	
	Turbidity					1.35	
EPA 200.7 Rev. 4.4	Calcium	102	101	103			0.652
	Iron	99.9	98.7	102	100		1.41
	Magnesium	101	98.6	102	100		1.14
	Potassium	103	103	102	101		1.26
	Sodium	101	98.3	101			0.882
	Zinc	95.9	95.8	98.5	97.3		1.30
EPA 200.8 Rev. 5.4	Arsenic	104	104	105	105		0.328
	Cadmium	102	102	102	102		0.365
	Chromium	103	104	102	103		0.297
	Copper	102	101	102	103		0.204
	Lead	94.6	94.4	97.2	97.7		0.534
	Nickel	102	102	102	102		0.0048
	Silver	96.5	97.5	97.9	98.5		0.526
EPA 300.0 Rev. 2.1	Chloride	102	103	101		0.0634	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 300.0 Rev. 2.1	Sulfate	97.9		99.3	99.9		0.154	
EPA 350.1 Rev. 2.0	Ammonia-N	104		102	98.5			2.80
	Ammonia-N	106		95.2	98.6			3.06
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		103	103			0.541
	Kjeldahl Nitrogen	105		101	96.5			2.73
EPA 353.2 Rev. 2.0	NO2NO3-N	104		106	107			1.41
	NO2NO3-N	102		102	104			1.46
	NO2NO3-N	106		99.2	102			2.49
EPA 365.1 Rev. 2.0	Total-P	91.8		90.8	91.0			0.207
	Total-P	93.6		98.3	95.8			2.45
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4		95.5	97.3			1.87
	O-Phosphate-P	100		98.1	99.5			1.42
EPA 8270D	Acetochlor	92.4	93.6	106	98.3	1.21		7.35
	Alachlor	88.6	92.1	105	100	3.96		4.17
	Aldrin	60.2	43.3	56.0		32.7		
	Alpha-BHC	90.6	95.2	91.4		5.00		
	Alpha-Chlordane	87.8	67.0	91.3		26.8		
	Ametryn	126	107			16.2		1.55
	Atrazine	98.2	92.2			6.32		6.45
	Atrazine Desethyl	94.6	68.6	55.8	55.3	31.8		0.486
	Azinphos Methyl	90.1	89.4	95.8	95.9	0.804		0.0873
	Beta-BHC	78.1	94.3	86.8		18.7		
	Bromacil	96.6	77.9	65.4	62.8	21.5		3.43
	Butylate	54.3	63.8	64.9	54.1	16.1		14.1
	Carbophenothion	96.0	77.3	103		21.6		
	Chlorothalonil	39.2	24.6	124		45.9		
	Chlorpyrifos Ethyl	99.7	94.5	70.4	66.2	5.34		4.68
	Chlorpyrifos Methyl	85.4	89.8	101	95.5	5.08		5.90
	Cyanazine	164	120	133	152	30.7		13.7
	Cypermethrin	86.8	74.5	91.1		15.3		
	DDD-p,p'	89.1	68.1	84.3		26.7		
	DDE-p,p'	89.3	70.6	89.6		23.4		
	DDT-p,p'	89.6	75.1	87.6		17.5		
	Delta-BHC	109	109	179		0.581		
	Demeton	94.4	93.8	115	128	0.690		11.0
	Diazinon	100	97.3	114	108	3.03		6.08
	Dicofol	66.2	64.4	67.8		2.69		
	Dieldrin	87.8	67.6	87.1		25.9		
	Disulfoton	86.8	85.5	104	94.5	1.55		9.91
	Endosulfan I	93.3	72.1	96.9		25.7		
	Endosulfan II	96.3	77.0	99.1		22.3		
	Endosulfan Sulfate	97.4	74.4	103		26.7		
	Endrin	161	175	130		8.22		
	Endrin Aldehyde	79.0	71.0	72.8		10.6		
	Endrin Ketone	99.3	71.9	92.0		32.1		
	EPTC	56.4	65.2	73.5	66.6	14.4		9.91
	Ethion	107	99.6	108	106	6.94		1.41
	Ethoprop	91.9	85.9	108	105	6.82		2.83
	Fenamiphos	126	111	113	144	12.8		23.5
	Fipronil	105	97.5	96.8	104	6.99		7.06
	Fipronil Sulfide	91.3	99.0	88.2	100	8.15		12.8
	Fipronil Sulfone	88.9	90.7	61.9	76.3	1.97		17.2
	Fonofos	82.1	86.5	102	103	5.18		0.456
	Gamma-BHC	98.0	106	129		8.20		

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						SMP	MS
EPA 8270D	Gamma-Chlordane	85.2	65.4	88.0		26.3	
	Heptachlor	71.3	56.9	69.0		22.5	
	Heptachlor Epoxide	85.9	65.4	90.3		27.1	
	Hexazinone	104	101	102	99.4	3.09	1.89
	Malathion	96.2	98.7	110	108	2.52	1.58
	Metalaxyl	101	93.6			7.53	0.574
	Methoxychlor	89.6	74.9	86.1		17.9	
	Metolachlor	95.4	98.3			3.01	14.0
	Metribuzin	140	98.2	130	118	35.3	7.08
	Mevinphos	93.9	76.8	99.1	99.4	20.0	0.283
	Mirex	73.1	64.9	76.5		11.8	
	Molinate	69.6	71.2	77.0	71.0	2.22	8.07
	Norflurazon	95.2	83.8	65.5	71.9	12.7	8.59
	Parathion Ethyl	83.4	91.2	77.4	81.1	8.90	4.61
	Parathion Methyl	79.6	84.2	72.2	75.0	5.68	3.76
	Pendimethalin	90.7	96.5	92.2	97.7	6.25	5.82
	Permethrin	84.4	72.6	85.7		15.0	
	Phorate	91.4	91.8	131	111	0.374	16.0
	Prometon	104	90.3	107	104	14.6	2.80
	Prometryn	108	96.1	108	101	11.5	6.38
	Simazine	118	105	95.1	90.6	11.5	4.13
	Terbufos	97.2	88.0	109	106	9.95	3.57
	Terbutylazine	99.9	98.2	99.8	94.0	1.76	5.95
	Trifluralin	87.9	72.0	107		20.0	
EPA 8276	Toxaphene	63.3	59.2	62.8	59.1	6.67	6.14
EPA 8321B	Glyphosate	88.2		49.4	46.0		4.80
	Pyraclostrobin	86.0		70.9	60.9		9.86
	Sucralose	86.8		129	133		2.92
SM 2120 B	Color (true)					1.67	
SM 2320 B-97	Total Alkalinity	103				0.221	
	Total Alkalinity	105				0.378	
	Total Alkalinity	104				0.498	
SM 2540 C-97	TDS					5.97	
	TDS					3.10	
SM 2540 D-97	TSS					9.52	
	TSS					5.97	
SM 4500 F-C-97	Fluoride	97.3		101	102		0.520
	Fluoride	97.3		102	101		0.480
	Fluoride	96.4		96.2	97.6		0.953
SM 5310 B-00	Organic Carbon	97.5		101	97.2		3.49
	Organic Carbon	98.1		94.8	94.4		0.385
USGS O-2060-01	2,4,5-T	89.2		98.8	106		7.03
	2,4-D	98.0		113	134		8.93
	2,4-DB	70.4		66.4	78.4		16.6
	Acetaminophen	122		49.6	53.6		7.75
	Acifluorfen	102		99.2	123		21.3
	Bentazon	103		203	222		6.44
	Carbamazepine	99.2		44.4	54.4		20.2
	Dichlorprop	104		98.8	117		16.7
	Dinoseb	96.8		71.6	119		49.6
	Diuron	89.6		42.4	45.2		6.39
	Fenuron	96.0		40.4	47.6		16.4
	Fluridone	90.8		52.1	55.3		5.67
	Imidacloprid	80.4		75.6	82.4		8.61

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
			LCS	SMP	MS	
USGS O-2060-01	Linuron	94.4	74.0	68.0		8.45
	MCPA	94.8	107	116		7.91
	MCPP	98.4	116	124		6.32
	Picloram	111	64.0	63.2		1.26
	Primidone	77.6	42.4	41.6		1.90
	Silvex	86.0	115	138		18.1
	Triclopyr	98.4	101	111		9.42

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1875780, 1875781, 1875782, 1875789, 1875792, 1875795
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1875820, 1875821, 1875822, 1875823, 1875824
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1875820, 1875821, 1875822, 1875823, 1875824
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1875780, 1875781, 1875782, 1875789, 1875792
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1875780, 1875781, 1875782, 1875789, 1875792
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1875783, 1875784, 1875785, 1875790, 1875793, 1875796
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1875783, 1875784, 1875785, 1875790, 1875793, 1875796
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1875783, 1875784, 1875785, 1875790, 1875793, 1875796
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1875783, 1875784, 1875785, 1875790, 1875793, 1875796
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1875786, 1875787, 1875788, 1875791, 1875794, 1875797
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1875818
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1875819
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1875818
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1875816
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1875817
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1875816
SM 2120 B / E31780	True Color measured at 450 nm	1875780, 1875781, 1875782, 1875789, 1875792
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1875780, 1875781, 1875782, 1875789, 1875792, 1875795
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1875780, 1875781, 1875782, 1875789, 1875792
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1875780, 1875781, 1875782, 1875789, 1875792, 1875795
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1875780, 1875781, 1875782, 1875789, 1875792, 1875795
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1875783, 1875784, 1875785, 1875790, 1875793, 1875796
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1875816
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1875816

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	02/28/2017			02/28/2017 14:48	Sima Feizi	1875780, 1875781, 1875782, 1875789, 1875792, 1875795
EPA 200.7 Rev. 4.4	02/28/2017	03/06/2017	Elliott D. Healy	03/08/2017	Joshua Ayres	1875820, 1875821, 1875822, 1875823, 1875824
EPA 200.8 Rev. 5.4	02/28/2017	03/06/2017	Elliott D. Healy	03/09/2017	Betina Topolski	1875820, 1875821, 1875822, 1875823, 1875824
EPA 300.0 Rev. 2.1	02/28/2017			03/10/2017	Elisa J Lutz	1875780, 1875781, 1875782, 1875789, 1875792
EPA 350.1 Rev. 2.0	02/28/2017			03/01/2017	Sofia Elnemr	1875783, 1875784, 1875785, 1875790, 1875793, 1875796
EPA 351.2 Rev. 2.0	02/28/2017	03/01/2017	Adrian Shelby	03/02/2017	Joseph Suarez	1875783, 1875784, 1875785, 1875790, 1875793
	02/28/2017	03/01/2017	Adrian Shelby	03/03/2017	Joseph Suarez	1875796
EPA 353.2 Rev. 2.0	02/28/2017			03/02/2017	Beverly Y. Sanders	1875783, 1875784, 1875785, 1875790
	02/28/2017			03/03/2017	Beverly Y. Sanders	1875796
	02/28/2017			03/06/2017	Beverly Y. Sanders	1875793
EPA 365.1 Rev. 2.0	02/28/2017	03/01/2017	Vijayalakshmi Reddy	03/01/2017	Lipi Saha	1875785, 1875790, 1875793, 1875796
	02/28/2017	03/01/2017	Vijayalakshmi Reddy	03/02/2017	Lipi Saha	1875783, 1875784
EPA 365.1 Rev. 2.0 dissolved	02/28/2017			02/28/2017 15:17	Julia Storbeck	1875786
	02/28/2017			02/28/2017 15:34	Julia Storbeck	1875797
	02/28/2017			02/28/2017 15:56	Julia Storbeck	1875791
	02/28/2017			02/28/2017 15:57	Julia Storbeck	1875787, 1875788
	02/28/2017			02/28/2017 15:58	Julia Storbeck	1875794
EPA 8270D	02/28/2017	03/02/2017	Fe-Val Siddell	03/07/2017	Marek Topolski	1875819
	02/28/2017	03/02/2017	Fe-Val Siddell	03/09/2017	Marek Topolski	1875819
	02/28/2017	03/02/2017	Fe-Val Siddell	03/10/2017	Marek Topolski	1875819
	02/28/2017	03/08/2017	Fe-Val Siddell	03/09/2017	Vandana T. Nagar	1875818
EPA 8276	02/28/2017	03/03/2017	Fe-Val Siddell	03/09/2017	Vandana T. Nagar	1875818
EPA 8321B	02/28/2017	03/03/2017	Mohammad Ghaffari	03/03/2017	Mohammad Ghaffari	1875816
	02/28/2017	03/06/2017	Hoor Shaik	03/06/2017	Juyoung Kim	1875817
SM 2120 B	02/28/2017			02/28/2017 14:59	Julie Michelle Frank	1875780
	02/28/2017			02/28/2017 15:01	Julie Michelle Frank	1875781, 1875782
	02/28/2017			02/28/2017 15:02	Julie Michelle Frank	1875789
	02/28/2017			02/28/2017 15:03	Julie Michelle Frank	1875792
SM 2320 B-97	02/28/2017			03/04/2017	Dale L. Simmons	1875780, 1875781, 1875782, 1875789, 1875792
	02/28/2017			03/10/2017	Dale L. Simmons	1875795
SM 2540 C-97	02/28/2017			03/01/2017	Yijie Li	1875780, 1875781, 1875782, 1875789, 1875792
SM 2540 D-97	02/28/2017			03/01/2017	Yijie Li	1875780, 1875781, 1875782, 1875789, 1875792, 1875795

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	02/28/2017			03/04/2017	Dale L. Simmons	1875780, 1875781, 1875782, 1875789, 1875792
	02/28/2017			03/10/2017	Dale L. Simmons	1875795
SM 5310 B-00	02/28/2017			03/01/2017	Julie Michelle Frank	1875783, 1875784, 1875785, 1875790, 1875793
	02/28/2017			03/02/2017	Julie Michelle Frank	1875796
USGS O-2060-01	02/28/2017	03/03/2017	Hoor Shaik	03/04/2017	Juyoung Kim	1875816
	02/28/2017	03/03/2017	Hoor Shaik	03/06/2017	Juyoung Kim	1875816