

Chemical Analysis Report

SE-DIST-2016-05-04-01

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

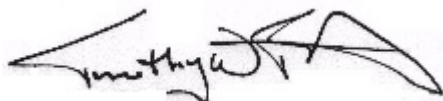
Event Description: **SMP-Blue**
Request ID: **RQ-2016-05-02-25**
Customer: **SE-DIST**
Project ID: **SMP**

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

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Certified by: Timothy Fitzpatrick, Program Administrator

Date Certified: 31-MAY-2016 15:02

A handwritten signature in black ink, appearing to read "Timothy Fitzpatrick", with a stylized flourish at the end.

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: New River @ NW 6th St

Collection Date/Time: 05/03/2016 16:00

Field ID: G4SEB064

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795825	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P303542	
	SM 2320 B-97	Total Alkalinity	210		mg CaCO3/L	P304240	
	SM 2540 D-97	TSS	9	I	mg/L	P304174	
	SM 4500 F-C-97	Fluoride	0.32		mg F/L	P304241	
1795830	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P304082	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P304500	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P304163	
	EPA 365.1 Rev. 2.0	Total-P	0.096		mg P/L	P304701	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P304749	
1795835	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.023		mg P/L	P303555	
1795862	EPA 200.7 Rev. 4.4	Calcium	123		mg/L	P303973	
		Iron	150		ug/L	P303973	
		Zinc	5.7	I	ug/L	P303973	
	EPA 200.8 Rev. 5.4	Arsenic	2.36		ug/L	P303973	
		Cadmium	0.022	I	ug/L	P303973	
		Chromium	0.41		ug/L	P303973	
		Copper	3.25		ug/L	P303973	
		Lead	1.37		ug/L	P303973	
		Silver	0.016	I	ug/L	P303973	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: New River @ NW 27th Ave

Collection Date/Time: 05/03/2016 16:15

Field ID: G4SE0085

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795826	EPA 180.1 Rev. 2.0	Turbidity	2.2		NTU	P303542	
	SM 2320 B-97	Total Alkalinity	211		mg CaCO3/L	P304240	
	SM 2540 D-97	TSS	6	I	mg/L	P304175	
	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P304241	
1795831	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P304090	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.68		mg N/L	P304504	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P304261	
	EPA 365.1 Rev. 2.0	Total-P	0.081		mg P/L	P304701	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P304749	
1795836	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.010		mg P/L	P303554	
1795863	EPA 200.7 Rev. 4.4	Calcium	103		mg/L	P303973	
		Iron	150		ug/L	P303973	
		Zinc	5.0	U	ug/L	P303973	
	EPA 200.8 Rev. 5.4	Arsenic	2.41		ug/L	P303973	
		Cadmium	0.020	U	ug/L	P303973	
		Chromium	0.32		ug/L	P303973	
		Copper	1.66		ug/L	P303973	
		Lead	0.98		ug/L	P303973	

Field ID: G4SE0085

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795863	EPA 200.8 Rev. 5.4	Silver	0.0050	U	ug/L	P303973	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: New River @ NW 27th Ave

Collection Date/Time: 05/03/2016 16:17

Field ID: G4SE0085-dup

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795827	EPA 180.1 Rev. 2.0	Turbidity	2.2	A	NTU	P303543	
	SM 2320 B-97	Total Alkalinity	212		mg CaCO3/L	P304240	
	SM 2540 D-97	TSS	6	I	mg/L	P304175	
	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P304241	
1795832	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P304090	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P304500	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P304261	
	EPA 365.1 Rev. 2.0	Total-P	0.071		mg P/L	P304701	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P304749	
1795837	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.010		mg P/L	P303554	
1795864	EPA 200.7 Rev. 4.4	Calcium	103		mg/L	P303973	
		Iron	150		ug/L	P303973	
		Zinc	5.0	U	ug/L	P303973	
	EPA 200.8 Rev. 5.4	Arsenic	2.43		ug/L	P303973	
		Cadmium	0.020	U	ug/L	P303973	
		Chromium	0.30		ug/L	P303973	
		Copper	1.75		ug/L	P303973	
		Lead	0.96		ug/L	P303973	
		Silver	0.0050	U	ug/L	P303973	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: ICWW @ Hwy 26

Collection Date/Time: 05/03/2016 13:00

Field ID: G4SE0063

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795828	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P303543	
	SM 2320 B-97	Total Alkalinity	168		mg CaCO3/L	P304243	
	SM 2540 D-97	TSS	7	I	mg/L	P304177	
	SM 4500 F-C-97	Fluoride	0.84		mg F/L	P304245	
1795833	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P304083	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P304500	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.031		mg N/L	P304426	
	EPA 365.1 Rev. 2.0	Total-P	0.066		mg P/L	P304536	
	SM 5310 B-00	Organic Carbon	8.2		mg C/L	P304876	
1795838	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P303555	
1795865	EPA 200.7 Rev. 4.4	Calcium	241		mg/L	P303973	
		Iron	200	I	ug/L	P303973	

Field ID: G4SE0063

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795865	EPA 200.7 Rev. 4.4	Zinc	15	U	ug/L	P303973	
	EPA 200.8 Rev. 5.4	Arsenic	1.42		ug/L	P303973	
		Cadmium	0.060	U	ug/L	P303973	
		Chromium	0.18	I	ug/L	P303973	
		Copper	1.4		ug/L	P303973	
		Lead	0.51	I	ug/L	P303973	
		Silver	0.015	U	ug/L	P303973	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: C-10 Canal @ Sheridan Rd

Collection Date/Time: 05/03/2016 15:30

Field ID: G4SE0035

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795829	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P303543	
	SM 2320 B-97	Total Alkalinity	149		mg CaCO3/L	P304243	
	SM 2540 D-97	TSS	4	I	mg/L	P304178	
	SM 4500 F-C-97	Fluoride	0.92		mg F/L	P304245	
1795834	EPA 350.1 Rev. 2.0	Ammonia-N	0.039		mg N/L	P304083	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P304503	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.034		mg N/L	P304426	
	EPA 365.1 Rev. 2.0	Total-P	0.049		mg P/L	P304765	
	SM 5310 B-00	Organic Carbon	5.0		mg C/L	P304876	
1795839	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.023		mg P/L	P303555	
1795866	EPA 200.7 Rev. 4.4	Calcium	287		mg/L	P303973	
		Iron	90	U	ug/L	P303973	
		Zinc	15	U	ug/L	P303973	
	EPA 200.8 Rev. 5.4	Arsenic	1.62		ug/L	P303973	
		Cadmium	0.060	U	ug/L	P303973	
		Chromium	0.15	U	ug/L	P303973	
		Copper	3.3		ug/L	P303973	
		Lead	0.23	I	ug/L	P303973	
		Silver	0.015	U	ug/L	P303973	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: New River Canal @ University Dr

Collection Date/Time: 05/03/2016 11:20

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795840	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P303543	
	EPA 300.0 Rev. 2.1	Chloride	91		mg Cl/L	P304287	
		Sulfate	18		mg SO4/L	P304290	
	SM 2120 B	Color (true)	78		PCU	P303561	
	SM 2320 B-97	Total Alkalinity	207		mg CaCO3/L	P304240	
	SM 2540 C-97	TDS	448	A	mg/L	P304342	

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795840	SM 2540 D-97	TSS	2	I	mg/L	P304173	
	SM 4500 F-C-97	Fluoride	0.39		mg F/L	P304241	
1795841	EPA 350.1 Rev. 2.0	Ammonia-N	0.087		mg N/L	P304090	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P304504	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P304165	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P304605	
	SM 5310 B-00	Organic Carbon	24		mg C/L	P304749	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P303554	
1795853	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P303478	
		Diuron	0.0020	U	ug/L	P303478	
		Fenuron	0.0080	U	ug/L	P303478	
		2,4,5-T	0.0020	U	ug/L	P303478	
		Acifluorfen	0.0020	U	ug/L	P303478	
		Imidacloprid	0.0040	U	ug/L	P303478	MS
		Bentazon	0.16		ug/L	P303478	
		Linuron	0.0040	U	ug/L	P303478	
		Acetaminophen**	0.0040	U	ug/L	P303478	RPD
		Carbamazepine**	4.0E-04	U	ug/L	P303478	MS
		Silvex	0.0020	U	ug/L	P303478	MS
		Primidone**	0.0080	U	ug/L	P303478	
		Fluridone**	0.0010	I	ug/L	P303478	
	EPA 200.7 Rev. 4.4	Calcium	67.9		mg/L	P303974	
		Iron	42	I	ug/L	P303974	
		Magnesium	17.1		mg/L	P303974	
		Potassium	5.1		mg/L	P303974	
		Sodium	60.3		mg/L	P303974	
		Zinc	6.1	I	ug/L	P303974	
	EPA 200.8 Rev. 5.4	Arsenic	1.14		ug/L	P303974	
		Cadmium	0.020	U	ug/L	P303974	
		Chromium	0.097	I	ug/L	P303974	
		Copper	0.49		ug/L	P303974	
		Lead	0.052	I	ug/L	P303974	
		Nickel	0.21		ug/L	P303974	
		Silver	0.0050	U	ug/L	P303974	
		Aldrin	0.0019	U	ug/L	P303450	
1795870	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Alpha-BHC	0.0019	U	ug/L	P303450	
		Beta-BHC	0.0019	U	ug/L	P303450	
		Delta-BHC	0.0019	U	ug/L	P303450	
		Gamma-BHC	0.0019	U	ug/L	P303450	
		Carbophenothion	0.0058	UJ	ug/L	P303450	CCV
		Chlorothalonil	0.0078	UJ	ug/L	P303450	CCV
		Cypermethrin	0.012	UJ	ug/L	P303450	CCV
		DDD-p,p'	0.0039	U	ug/L	P303450	

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795870	DEP SOP: GC-011-5 (based on EPA 608 and 617)	DDE-p,p'	0.0039	U	ug/L	P303450	
		DDT-p,p'	0.0039	U	ug/L	P303450	
		Dicofol	0.023	UJ	ug/L	P303450	CCV
		Dieldrin	0.0019	U	ug/L	P303450	
		Endosulfan I	0.0019	U	ug/L	P303450	
		Endosulfan II	0.0019	U	ug/L	P303450	
		Endosulfan Sulfate	0.0039	U	ug/L	P303450	
		Endrin	0.0039	U	ug/L	P303450	
		Endrin Aldehyde	0.0039	U	ug/L	P303450	
		Heptachlor	0.0019	U	ug/L	P303450	
		Heptachlor Epoxide	0.0019	U	ug/L	P303450	
		Methoxychlor	0.0097	U	ug/L	P303450	
		Mirex	0.0039	UJ	ug/L	P303450	CCV
		Permethrin	0.0097	UJ	ug/L	P303450	CCV
1795871	EPA 8270D	Ametryn	14		ng/L	P303669	
		Atrazine	82		ng/L	P303669	
		Chlorpyrifos Ethyl	0.10	U	ng/L	P303669	
		Chlorpyrifos Methyl	0.10	U	ng/L	P303669	
		Disulfoton	0.32	U	ng/L	P303669	
		Ethion	0.15	U	ng/L	P303669	
		Ethoprop	0.10	U	ng/L	P303669	
		Hexazinone	2.6		ng/L	P303669	
		Malathion	0.35	U	ng/L	P303669	
		Metribuzin	6.9		ng/L	P303669	
		Mevinphos	0.50	U	ng/L	P303669	
		Norflurazon	0.50	U	ng/L	P303669	
		Phorate	0.25	U	ng/L	P303669	
		Prometryn	0.73	IJ	ng/L	P303669	LCS
		Simazine	0.50	U	ng/L	P303669	MS
		Atrazine Desethyl	11		ng/L	P303669	
		Prometon	0.90	U	ng/L	P303669	MS, RPD
		Fipronil	0.25	U	ng/L	P303669	
		Molinate	0.30	U	ng/L	P303669	
		Pendimethalin	1.5	U	ng/L	P303669	
		Terbufos	0.10	U	ng/L	P303669	
		EPTC	1.2	U	ng/L	P303669	MS
		Terbuthylazine	0.42	U	ng/L	P303669	
		Bromacil	0.50	U	ng/L	P303669	
		Fipronil Sulfide	0.15	U	ng/L	P303669	
		Fipronil Sulfone	0.15	U	ng/L	P303669	
		Alachlor	0.25	U	ng/L	P303669	
		Azinphos Methyl	2.2	U	ng/L	P303669	
		Butylate	0.40	U	ng/L	P303669	
		Demeton	1.0	U	ng/L	P303669	MS

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795871	EPA 8270D	Diazinon	0.12	U	ng/L	P303669	
		Fenamiphos	0.25	U	ng/L	P303669	
		Fonofos	0.20	U	ng/L	P303669	
		Metalaxyl	0.35	I	ng/L	P303669	
		Metolachlor	0.29	I	ng/L	P303669	
		Acetochlor	0.25	U	ng/L	P303669	
		Cyanazine	0.50	U	ng/L	P303669	
		Parathion Ethyl	0.25	U	ng/L	P303669	
		Parathion Methyl	0.25	U	ng/L	P303669	MS

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

USGS O-2060-01: Triclopyr = 0.013 I ug/L.

DEP SOP: GC-011-5 (based on EPA 608 and 617): Refer to the narrative for an explanation of QC Codes.

EPA 8270D: MS accuracy for Atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: New River Canal @ University Dr

Collection Date/Time: 05/03/2016 11:50

Field ID: G4SENNR2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795843	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P303543	
	EPA 300.0 Rev. 2.1	Chloride	83		mg Cl/L	P304287	
		Sulfate	6.4		mg SO4/L	P304290	
	SM 2120 B	Color (true)	66		PCU	P303561	
	SM 2320 B-97	Total Alkalinity	232		mg CaCO3/L	P304240	
	SM 2540 C-97	TDS	437		mg/L	P304342	
	SM 2540 D-97	TSS	4	I	mg/L	P304173	
	SM 4500 F-C-97	Fluoride	0.35		mg F/L	P304241	
1795844	EPA 350.1 Rev. 2.0	Ammonia-N	0.30		mg N/L	P304090	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P304504	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P304165	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P304605	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P304749	
1795845	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P303554	
1795854	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P303478	
		Diuron	0.0020	U	ug/L	P303478	
		Fenuron	0.0080	U	ug/L	P303478	
		2,4,5-T	0.0020	U	ug/L	P303478	
		Acifluorfen	0.0020	U	ug/L	P303478	
		Imidacloprid	0.0040	U	ug/L	P303478	MS
		Bentazon	0.10		ug/L	P303478	
		Linuron	0.0040	U	ug/L	P303478	
		Acetaminophen**	0.0040	U	ug/L	P303478	RPD
		Carbamazepine**	4.0E-04	U	ug/L	P303478	MS
		Silvex	0.0020	U	ug/L	P303478	MS
		Primidone**	0.0080	U	ug/L	P303478	
		Fluridone**	7.0E-04	I	ug/L	P303478	

Field ID: G4SENNR2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795868	EPA 200.7 Rev. 4.4	Calcium	72.9		mg/L	P303974	
		Iron	130		ug/L	P303974	
		Magnesium	15.8		mg/L	P303974	
		Potassium	4.4		mg/L	P303974	
		Sodium	56.8		mg/L	P303974	
		Zinc	6.1	I	ug/L	P303974	
	EPA 200.8 Rev. 5.4	Arsenic	0.64		ug/L	P303974	
		Cadmium	0.020	U	ug/L	P303974	
		Chromium	0.17	I	ug/L	P303974	
		Copper	0.61		ug/L	P303974	
		Lead	0.15	I	ug/L	P303974	
		Nickel	0.10	I	ug/L	P303974	
		Silver	0.0050	U	ug/L	P303974	
		Aldrin	0.0020	U	ug/L	P303450	
		Alpha-BHC	0.0020	U	ug/L	P303450	
		Beta-BHC	0.0020	U	ug/L	P303450	
1795872	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Delta-BHC	0.0020	U	ug/L	P303450	
		Gamma-BHC	0.0020	U	ug/L	P303450	
		Carbophenothion	0.0059	UJ	ug/L	P303450	CCV
		Chlorothalonil	0.0079	UJ	ug/L	P303450	CCV
		Cypermethrin	0.012	UJ	ug/L	P303450	CCV
		DDD-p,p'	0.0039	U	ug/L	P303450	
		DDE-p,p'	0.0039	U	ug/L	P303450	
		DDT-p,p'	0.0039	U	ug/L	P303450	
		Dicofol	0.024	UJ	ug/L	P303450	CCV
		Dieldrin	0.0020	U	ug/L	P303450	
		Endosulfan I	0.0020	U	ug/L	P303450	
		Endosulfan II	0.0020	U	ug/L	P303450	
		Endosulfan Sulfate	0.0039	U	ug/L	P303450	
		Endrin	0.0039	U	ug/L	P303450	
		Endrin Aldehyde	0.0039	U	ug/L	P303450	
		Heptachlor	0.0020	U	ug/L	P303450	
		Heptachlor Epoxide	0.0020	U	ug/L	P303450	
		Methoxychlor	0.0099	U	ug/L	P303450	
		Mirex	0.0039	UJ	ug/L	P303450	CCV
		Permethrin	0.0099	UJ	ug/L	P303450	CCV
1795873	EPA 8270D	Ametryn	4.2		ng/L	P303669	
		Atrazine	21		ng/L	P303669	
		Chlorpyrifos Ethyl	0.098	U	ng/L	P303669	
		Chlorpyrifos Methyl	0.098	U	ng/L	P303669	
		Disulfoton	0.32	U	ng/L	P303669	
		Ethion	0.15	U	ng/L	P303669	
		Ethoprop	0.098	U	ng/L	P303669	
		Hexazinone	2.4		ng/L	P303669	

Field ID: G4SENNR2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1795873	EPA 8270D	Malathion	0.34	U	ng/L	P303669	
		Metribuzin	1.7		ng/L	P303669	
		Mevinphos	0.49	U	ng/L	P303669	
		Norflurazon	0.49	U	ng/L	P303669	
		Phorate	0.24	U	ng/L	P303669	
		Prometryn	0.20	UJ	ng/L	P303669	LCS
		Simazine	0.49	U	ng/L	P303669	MS
		Atrazine Desethyl	1.5	U	ng/L	P303669	
		Prometon	0.88	U	ng/L	P303669	MS, RPD
		Fipronil	0.24	U	ng/L	P303669	
		Molinate	0.29	U	ng/L	P303669	
		Pendimethalin	1.5	I	ng/L	P303669	
		Terbufos	0.098	U	ng/L	P303669	
		EPTC	1.2	U	ng/L	P303669	MS
		Terbutylazine	0.42	U	ng/L	P303669	
		Bromacil	0.49	U	ng/L	P303669	
		Fipronil Sulfide	0.15	U	ng/L	P303669	
		Fipronil Sulfone	0.15	U	ng/L	P303669	
		Alachlor	0.24	U	ng/L	P303669	
		Azinphos Methyl	2.2	U	ng/L	P303669	
		Butylate	0.39	U	ng/L	P303669	
		Demeton	0.98	U	ng/L	P303669	MS
		Diazinon	0.12	U	ng/L	P303669	
		Fenamiphos	0.24	U	ng/L	P303669	
		Fonofos	0.20	U	ng/L	P303669	
		Metalaxyl	0.20	U	ng/L	P303669	
		Metolachlor	0.24	U	ng/L	P303669	
		Acetochlor	0.24	U	ng/L	P303669	
		Cyanazine	0.49	U	ng/L	P303669	
		Parathion Ethyl	0.24	U	ng/L	P303669	
		Parathion Methyl	0.24	U	ng/L	P303669	MS

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

DEP SOP: GC-011-5 (based on EPA 608 and 617): Refer to the narrative for an explanation of QC Codes.

EPA 8270D: MS accuracy for Atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Batch ID: P303450

Component	Result	Code	Units
Aldrin	0.0020	U	ug/L
Alpha-BHC	0.0020	U	ug/L
Beta-BHC	0.0020	U	ug/L
Carbophenothion	0.0060	U	ug/L
Chlorothalonil	0.0080	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Batch ID: P303450

Component	Result	Code	Units
Cypermethrin	0.012	U	ug/L
DDD-p,p'	0.0040	U	ug/L
DDE-p,p'	0.0040	U	ug/L
DDT-p,p'	0.0040	U	ug/L
Delta-BHC	0.0020	U	ug/L
Dicofol	0.024	U	ug/L
Dieldrin	0.0020	U	ug/L
Endosulfan I	0.0020	U	ug/L
Endosulfan II	0.0020	U	ug/L
Endosulfan Sulfate	0.0040	U	ug/L
Endrin	0.0040	U	ug/L
Endrin Aldehyde	0.0040	U	ug/L
Gamma-BHC	0.0020	U	ug/L
Heptachlor	0.0020	U	ug/L
Heptachlor Epoxide	0.0020	U	ug/L
Methoxychlor	0.010	U	ug/L
Mirex	0.0040	U	ug/L
Permethrin	0.010	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P303542

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P303543

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P303973

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P303974

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303973

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.10	U	ug/L
Lead	0.050	U	ug/L
Silver	0.0050	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303974

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.10	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.050	U	ug/L
Silver	0.0050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304287

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304290

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304082

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304083

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304090

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304500

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304503

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304504

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304163

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304165

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304261

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304426

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304536

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304605

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304701

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304765

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303554

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303555

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

Reference Method: EPA 8270D
Batch ID: P303669

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	0.10	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
Metaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P303669

Component	Result	Code	Units
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: SM 2120 B
Batch ID: P303561

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P304240

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

Reference Method: SM 2320 B-97
Batch ID: P304243

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

Reference Method: SM 2540 C-97
Batch ID: P304342

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P304173

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P304174

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P304175

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P304175

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P304177

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P304178

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P304241

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P304245

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P304749

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

Reference Method: SM 5310 B-00
Batch ID: P304876

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

Reference Method: USGS O-2060-01
Batch ID: P303478

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	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
Diuron	0.0020	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P303478

Component	Result	Code	Units
Linuron	0.0040	U	ug/L
Primidone	0.0080	U	ug/L
Silvex	0.0020	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P303450

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	87.2	94.5	P/P	70 - 130
Alpha-BHC	97.5	109	P/P	70 - 130
Beta-BHC	113	123	P/P	70 - 130
DDD-p,p'	89.8	105	P/P	70 - 130
DDE-p,p'	88.9	101	P/P	70 - 130
DDT-p,p'	94.9	109	P/P	70 - 130
Delta-BHC	93.7	105	P/P	70 - 130
Dieldrin	86.3	97.0	P/P	70 - 130
Endosulfan I	90.6	102	P/P	70 - 130
Endosulfan II	92.9	106	P/P	70 - 130
Endosulfan Sulfate	97.2	107	P/P	70 - 130
Endrin	101	119	P/P	81 - 147
Endrin Aldehyde	85.5	95.9	P/P	70 - 130
Gamma-BHC	93.0	101	P/P	70 - 130
Heptachlor	107	116	P/P	70 - 130
Heptachlor Epoxide	91.8	103	P/P	70 - 130
Methoxychlor	105	122	P/P	86 - 145

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	104		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	105		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	102		P	85 - 115
Sodium	101		P	85 - 115
Zinc	102		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	94.4		P	85 - 115
Cadmium	95.8		P	85 - 115
Chromium	95.1		P	85 - 115
Copper	92.7		P	85 - 115
Lead	94.7		P	85 - 115
Silver	90.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	98.4		P	85 - 115
Cadmium	99.3		P	85 - 115
Chromium	99.6		P	85 - 115
Copper	97.4		P	85 - 115
Lead	97.9		P	85 - 115
Nickel	101		P	85 - 115
Silver	94.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304287

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304290

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304082

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304083

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304090

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.9		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304500

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304503

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304504

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304163

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: P304165

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304261

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: P304426

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304536

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304605

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304701

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304765

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303554

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303555

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

Reference Method: EPA 8270D
Batch ID: P303669

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	110	114	P/P	84 - 119
Alachlor	109	111	P/P	84 - 121
Ametryn	116	112	P/P	66 - 127
Atrazine	101	96.6	P/P	72 - 119
Atrazine Desethyl	80.8	82.2	P/P	21 - 111
Azinphos Methyl	126	149	P/P	79 - 185
Bromacil	85.5	91.4	P/P	39 - 122
Butylate	62.6	72.6	P/P	36 - 94.0
Chlorpyrifos Ethyl	101	97.1	P/P	54 - 101
Chlorpyrifos Methyl	93.9	88.3	P/P	28 - 114
Cyanazine	88.8	100	P/P	58 - 201
Demeton	74.5	61.9	P/P	57 - 130
Diazinon	107	111	P/P	79 - 124
Disulfoton	103	80.4	P/P	45 - 140
EPTC	58.9	71.0	P/P	43 - 95.0
Ethion	110	105	P/P	65 - 125
Ethoprop	89.7	85.3	P/P	69 - 107
Fenamiphos	128	123	P/P	78 - 129
Fipronil	99.7	115	P/P	62 - 125
Fipronil Sulfide	91.2	95.2	P/P	65 - 119
Fipronil Sulfone	91.0	102	P/P	64 - 122
Fonofos	94.0	89.7	P/P	70 - 112
Hexazinone	104	103	P/P	44 - 147
Malathion	107	100	P/P	72 - 125
Metaxyl	105	108	P/P	83 - 113
Metolachlor	108	113	P/P	85 - 120
Metribuzin	101	102	P/P	68 - 129
Mevinphos	81.8	77.6	P/P	35 - 125

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P303669

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	73.8	81.9	P/P	51 - 100
Norflurazon	104	113	P/P	66 - 127
Parathion Ethyl	91.8	92.3	P/P	86 - 108
Parathion Methyl	97.0	100	P/P	87 - 125
Pendimethalin	91.6	96.4	P/P	53 - 136
Phorate	95.6	99.8	P/P	52 - 113
Prometon	116	111	P/P	67 - 125
Prometryn	139	139	F/F	73 - 114
Simazine	101	85.0	P/P	66 - 123
Terbufos	98.1	89.2	P/P	58 - 116
Terbuthylazine	102	97.6	P/P	77 - 113

Reference Method: SM 2320 B-97

Batch ID: P304240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 105

Reference Method: SM 2320 B-97

Batch ID: P304243

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 105

Reference Method: SM 4500 F-C-97

Batch ID: P304241

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	92 - 103

Reference Method: SM 4500 F-C-97

Batch ID: P304245

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.0		P	92 - 103

Reference Method: SM 5310 B-00

Batch ID: P304749

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.6		P	85 - 115

Reference Method: SM 5310 B-00

Batch ID: P304876

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

Reference Method: USGS O-2060-01

Batch ID: P303478

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

Reference Method: USGS O-2060-01
Batch ID: P303478

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	102		P	40 - 140
2,4-D	111		P	40 - 140
Acetaminophen	84.4		P	40 - 140
Acifluorfen	121		P	40 - 140
Bentazon	108		P	40 - 140
Carbamazepine	120		P	40 - 140
Diuron	119		P	40 - 140
Fenuron	97.6		P	40 - 140
Fluridone	98.0		P	40 - 140
Imidacloprid	99.2		P	40 - 160
Linuron	103		P	40 - 140
Primidone	79.6		P	40 - 140
Silvex	132		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P303450

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1794476	Aldrin	89.2	95.2	P/P	70 - 130
1794476	Alpha-BHC	103	96.7	P/P	70 - 130
1794476	Beta-BHC	108	104	P/P	70 - 130
1794476	DDD-p,p'	96.5	97.4	P/P	70 - 130
1794476	DDE-p,p'	94.9	95.2	P/P	70 - 130
1794476	DDT-p,p'	102	104	P/P	70 - 130
1794476	Delta-BHC	98.7	98.5	P/P	70 - 130
1794476	Dieldrin	91.9	92.0	P/P	70 - 130
1794476	Endosulfan I	95.7	95.7	P/P	70 - 130
1794476	Endosulfan II	99.2	101	P/P	70 - 130
1794476	Endosulfan Sulfate	101	103	P/P	70 - 130
1794476	Endrin	110	111	P/P	81 - 147
1794476	Endrin Aldehyde	87.7	94.1	P/P	70 - 130
1794476	Gamma-BHC	96.1	89.4	P/P	70 - 130
1794476	Heptachlor	110	119	P/P	70 - 130
1794476	Heptachlor Epoxide	97.4	97.2	P/P	70 - 130
1794476	Methoxychlor	114	117	P/P	86 - 145

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1796770	Calcium	99.3		P	70 - 130
1796770	Iron	105	104	P/P	70 - 130
1796770	Zinc	109	110	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303974

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795867	Calcium	105		P	80 - 120
1795867	Iron	105	105	P/P	80 - 120
1795867	Magnesium	107		P	80 - 120
1795867	Potassium	108		P	80 - 120
1795867	Sodium	101		P	80 - 120
1795867	Zinc	106	108	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1796770	Arsenic	97.5	96.9	P/P	70 - 130
1796770	Cadmium	97.3	96.5	P/P	70 - 130
1796770	Chromium	95.3	95.5	P/P	70 - 130
1796770	Copper	92.7	93.0	P/P	70 - 130
1796770	Lead	97.1	97.6	P/P	70 - 130
1796770	Silver	90.0	90.5	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795867	Arsenic	100	100	P/P	80 - 120
1795867	Cadmium	97.9	99.6	P/P	80 - 120
1795867	Chromium	96.3	97.0	P/P	80 - 120
1795867	Copper	95.5	95.4	P/P	80 - 120
1795867	Lead	99.8	99.4	P/P	80 - 120
1795867	Nickel	97.3	97.6	P/P	80 - 120
1795867	Silver	93.8	93.5	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304287

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795772	Chloride	95.1		P	90 - 110
1795779	Chloride	96.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304290

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795772	Sulfate	93.5		P	90 - 110
1795779	Sulfate	94.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304082

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795542	Ammonia-N	99.8	99.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795833	Ammonia-N	95.0	96.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304090

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795785	Ammonia-N	93.9	96.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304500

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795761	Kjeldahl Nitrogen	96.1	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304503

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795834	Kjeldahl Nitrogen	103	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304504

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795788	Kjeldahl Nitrogen	96.9	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304163

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795782	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304165

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795841	NO2NO3-N	102	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304261

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1796015	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304426

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795833	NO2NO3-N	99.0	99.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304536

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795833	Total-P	92.5	94.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795787	Total-P	99.3	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795830	Total-P	106	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1796684	Total-P	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795798	O-Phosphate-P	99.4	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303555

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795835	O-Phosphate-P	99.2	100	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P303669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1794761	Acetochlor	102	99.3	P/P	84 - 119
1794761	Alachlor	103	98.0	P/P	84 - 121
1794761	Ametryn	119	112	P/P	66 - 127
1794761	Atrazine Desethyl	36.2	40.5	P/P	21 - 111
1794761	Azinphos Methyl	105	122	P/P	79 - 185
1794761	Bromacil	73.8	59.3	P/P	39 - 122
1794761	Butylate	44.1	39.7	P/P	36 - 94.0
1794761	Chlorpyrifos Ethyl	99.2	94.8	P/P	54 - 101
1794761	Chlorpyrifos Methyl	81.1	78.0	P/P	28 - 114
1794761	Cyanazine	107	113	P/P	58 - 201
1794761	Demeton	48.9	48.9	F/F	57 - 130
1794761	Diazinon	99.1	94.1	P/P	79 - 124
1794761	Disulfoton	77.3	73.8	P/P	45 - 140
1794761	EPTC	43.1	36.1	P/F	43 - 95.0
1794761	Ethion	106	100	P/P	65 - 125
1794761	Ethoprop	71.8	80.8	P/P	69 - 107

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P303669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1794761	Fenamiphos	96.5	110	P/P	78 - 129
1794761	Fipronil	74.9	95.3	P/P	62 - 125
1794761	Fipronil Sulfide	70.5	82.8	P/P	65 - 119
1794761	Fipronil Sulfone	74.3	97.9	P/P	64 - 122
1794761	Fonofos	75.7	79.0	P/P	70 - 112
1794761	Hexazinone	102	102	P/P	44 - 147
1794761	Malathion	102	101	P/P	72 - 125
1794761	Metalaxyl	102	94.2	P/P	83 - 113
1794761	Metolachlor	109	99.6	P/P	85 - 120
1794761	Metribuzin	109	87.0	P/P	68 - 129
1794761	Mevinphos	48.2	56.6	P/P	35 - 125
1794761	Molinate	54.0	52.8	P/P	51 - 100
1794761	Norflurazon	83.1	101	P/P	66 - 127
1794761	Parathion Ethyl	88.1	91.4	P/P	86 - 108
1794761	Parathion Methyl	78.4	88.5	F/P	87 - 125
1794761	Pendimethalin	96.2	97.6	P/P	53 - 136
1794761	Phorate	72.4	81.0	P/P	52 - 113
1794761	Prometon	128	86.3	F/P	67 - 125
1794761	Prometryn	107	104	P/P	73 - 114
1794761	Simazine	143	155	F/F	66 - 123
1794761	Terbufos	78.0	77.7	P/P	58 - 116
1794761	Terbutylazine	99.9	97.5	P/P	77 - 113

Reference Method: SM 4500 F-C-97
Batch ID: P304241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1796172	Fluoride	96.6	97.9	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P304245

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1797093	Fluoride	92.3	92.3	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P304749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795787	Organic Carbon	95.4	98.8	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P304876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1795834	Organic Carbon	88.3	92.8	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P303478

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1794759	2,4,5-T	110	96.4	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P303478

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1794759	2,4-D	132	117	P/P	40 - 140
1794759	Acetaminophen	82.8	46.8	P/P	40 - 140
1794759	Acifluorfen	125	102	P/P	40 - 140
1794759	Bentazon	131	110	P/P	40 - 140
1794759	Carbamazepine	156	133	F/P	40 - 140
1794759	Diuron	114	108	P/P	40 - 140
1794759	Fenuron	96.4	88.4	P/P	40 - 140
1794759	Fluridone	109	94.8	P/P	40 - 140
1794759	Imidacloprid	244	227	F/F	40 - 160
1794759	Linuron	101	78.4	P/P	40 - 140
1794759	Primidone	114	106	P/P	40 - 140
1794759	Silvex	150	133	F/P	40 - 140

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P303450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1794476	Aldrin	6.51	Spike	P	0 - 30
1794476	Alpha-BHC	6.75	Spike	P	0 - 30
1794476	Beta-BHC	4.38	Spike	P	0 - 30
1794476	DDD-p,p'	0.895	Spike	P	0 - 30
1794476	DDE-p,p'	0.342	Spike	P	0 - 30
1794476	DDT-p,p'	2.78	Spike	P	0 - 30
1794476	Delta-BHC	0.170	Spike	P	0 - 30
1794476	Dieldrin	0.104	Spike	P	0 - 30
1794476	Endosulfan I	0.0345	Spike	P	0 - 30
1794476	Endosulfan II	1.66	Spike	P	0 - 30
1794476	Endosulfan Sulfate	2.61	Spike	P	0 - 30
1794476	Endrin	1.03	Spike	P	0 - 30
1794476	Endrin Aldehyde	7.09	Spike	P	0 - 30
1794476	Gamma-BHC	7.22	Spike	P	0 - 30
1794476	Heptachlor	8.11	Spike	P	0 - 30
1794476	Heptachlor Epoxide	0.223	Spike	P	0 - 30
1794476	Methoxychlor	2.91	Spike	P	0 - 30
LFB	Aldrin	8.00	LCS	P	0 - 30
LFB	Alpha-BHC	10.9	LCS	P	0 - 30
LFB	Beta-BHC	8.84	LCS	P	0 - 30
LFB	DDD-p,p'	15.3	LCS	P	0 - 30
LFB	DDE-p,p'	13.0	LCS	P	0 - 30
LFB	DDT-p,p'	13.6	LCS	P	0 - 30
LFB	Delta-BHC	11.5	LCS	P	0 - 30
LFB	Dieldrin	11.7	LCS	P	0 - 30
LFB	Endosulfan I	11.9	LCS	P	0 - 30
LFB	Endosulfan II	13.0	LCS	P	0 - 30
LFB	Endosulfan Sulfate	9.82	LCS	P	0 - 30
LFB	Endrin	17.2	LCS	P	0 - 30
LFB	Endrin Aldehyde	11.5	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P303450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Gamma-BHC	8.63	LCS	P	0 - 30
LFB	Heptachlor	7.92	LCS	P	0 - 30
LFB	Heptachlor Epoxide	11.9	LCS	P	0 - 30
LFB	Methoxychlor	14.6	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P303542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795773	Turbidity	1.40	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P303543

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795827	Turbidity	11.3	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1796770	Calcium	0.966	Spike	P	0 - 20
1796770	Iron	0.633	Spike	P	0 - 20
1796770	Zinc	0.487	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P303974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795867	Calcium	1.89	Spike	P	0 - 20
1795867	Iron	0.617	Spike	P	0 - 20
1795867	Magnesium	1.04	Spike	P	0 - 20
1795867	Potassium	0.906	Spike	P	0 - 20
1795867	Sodium	2.01	Spike	P	0 - 20
1795867	Zinc	1.20	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1796770	Arsenic	0.555	Spike	P	0 - 20
1796770	Cadmium	0.831	Spike	P	0 - 20
1796770	Chromium	0.223	Spike	P	0 - 20
1796770	Copper	0.282	Spike	P	0 - 20
1796770	Lead	0.560	Spike	P	0 - 20
1796770	Silver	0.593	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P303974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795867	Arsenic	0.141	Spike	P	0 - 20
1795867	Cadmium	1.77	Spike	P	0 - 20
1795867	Chromium	0.721	Spike	P	0 - 20
1795867	Copper	0.0798	Spike	P	0 - 20
1795867	Lead	0.392	Spike	P	0 - 20
1795867	Nickel	0.316	Spike	P	0 - 20
1795867	Silver	0.352	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304287

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795772	Chloride	0.0368	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P304290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795772	Sulfate	2.96	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795542	Ammonia-N	0.156	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795833	Ammonia-N	1.11	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P304090

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795785	Ammonia-N	1.99	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304500

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795761	Kjeldahl Nitrogen	2.84	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304503

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795834	Kjeldahl Nitrogen	2.20	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P304504

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795788	Kjeldahl Nitrogen	2.95	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304163

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795782	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304165

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795841	NO2NO3-N	1.94	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1796015	NO2NO3-N	0.421	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P304426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795833	NO2NO3-N	0.435	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795833	Total-P	1.50	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795787	Total-P	1.65	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795830	Total-P	2.27	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P304765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1796684	Total-P	1.72	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795798	O-Phosphate-P	0.520	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P303555

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795835	O-Phosphate-P	0.654	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P303669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1794761	Acetochlor	2.59	Spike	P	0 - 30
1794761	Alachlor	5.10	Spike	P	0 - 30
1794761	Ametryn	5.60	Spike	P	0 - 30
1794761	Atrazine	0.808	Spike	P	0 - 30
1794761	Atrazine Desethyl	5.88	Spike	P	0 - 30
1794761	Azinphos Methyl	14.4	Spike	P	0 - 30
1794761	Bromacil	15.4	Spike	P	0 - 30
1794761	Butylate	10.5	Spike	P	0 - 30
1794761	Chlorpyrifos Ethyl	4.55	Spike	P	0 - 30
1794761	Chlorpyrifos Methyl	3.80	Spike	P	0 - 30
1794761	Cyanazine	5.05	Spike	P	0 - 30
1794761	Demeton	0.0558	Spike	P	0 - 30
1794761	Diazinon	5.10	Spike	P	0 - 30
1794761	Disulfoton	4.57	Spike	P	0 - 30
1794761	EPTC	17.6	Spike	P	0 - 30
1794761	Ethion	5.61	Spike	P	0 - 30
1794761	Ethoprop	11.8	Spike	P	0 - 30
1794761	Fenamiphos	13.3	Spike	P	0 - 30
1794761	Fipronil	21.2	Spike	P	0 - 30
1794761	Fipronil Sulfide	14.1	Spike	P	0 - 30
1794761	Fipronil Sulfone	15.2	Spike	P	0 - 30
1794761	Fonofos	4.18	Spike	P	0 - 30
1794761	Hexazinone	0.493	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P303669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1794761	Malathion	0.499	Spike	P	0 - 30
1794761	Metalaxyl	8.22	Spike	P	0 - 30
1794761	Metolachlor	8.95	Spike	P	0 - 30
1794761	Metribuzin	22.3	Spike	P	0 - 30
1794761	Mevinphos	16.1	Spike	P	0 - 30
1794761	Molinate	2.32	Spike	P	0 - 30
1794761	Norflurazon	19.1	Spike	P	0 - 30
1794761	Parathion Ethyl	3.63	Spike	P	0 - 30
1794761	Parathion Methyl	12.1	Spike	P	0 - 30
1794761	Pendimethalin	1.44	Spike	P	0 - 30
1794761	Phorate	11.2	Spike	P	0 - 30
1794761	Prometon	33.3	Spike	F	0 - 30
1794761	Prometryn	2.43	Spike	P	0 - 30
1794761	Simazine	7.75	Spike	P	0 - 30
1794761	Terbufos	0.401	Spike	P	0 - 30
1794761	Terbutylazine	2.42	Spike	P	0 - 30
LFB	Acetochlor	3.42	LCS	P	0 - 30
LFB	Alachlor	1.67	LCS	P	0 - 30
LFB	Ametryn	3.02	LCS	P	0 - 30
LFB	Atrazine	4.11	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.62	LCS	P	0 - 30
LFB	Azinphos Methyl	16.1	LCS	P	0 - 30
LFB	Bromacil	6.72	LCS	P	0 - 30
LFB	Butylate	14.8	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.73	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	6.17	LCS	P	0 - 30
LFB	Cyanazine	12.2	LCS	P	0 - 30
LFB	Demeton	18.5	LCS	P	0 - 30
LFB	Diazinon	4.01	LCS	P	0 - 30
LFB	Disulfoton	24.4	LCS	P	0 - 30
LFB	EPTC	18.6	LCS	P	0 - 30
LFB	Ethion	4.54	LCS	P	0 - 30
LFB	Ethoprop	4.98	LCS	P	0 - 30
LFB	Fenamiphos	4.37	LCS	P	0 - 30
LFB	Fipronil	14.2	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.32	LCS	P	0 - 30
LFB	Fipronil Sulfone	11.3	LCS	P	0 - 30
LFB	Fonofos	4.67	LCS	P	0 - 30
LFB	Hexazinone	0.919	LCS	P	0 - 30
LFB	Malathion	6.63	LCS	P	0 - 30
LFB	Metalaxyl	2.53	LCS	P	0 - 30
LFB	Metolachlor	4.00	LCS	P	0 - 30
LFB	Metribuzin	0.542	LCS	P	0 - 30
LFB	Mevinphos	5.30	LCS	P	0 - 30
LFB	Molinate	10.4	LCS	P	0 - 30
LFB	Norflurazon	8.17	LCS	P	0 - 30
LFB	Parathion Ethyl	0.609	LCS	P	0 - 30
LFB	Parathion Methyl	3.48	LCS	P	0 - 30
LFB	Pendimethalin	5.10	LCS	P	0 - 30
LFB	Phorate	4.32	LCS	P	0 - 30
LFB	Prometon	4.30	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P303669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Prometryn	0.382	LCS	P	0 - 30
LFB	Simazine	17.2	LCS	P	0 - 30
LFB	Terbufos	9.52	LCS	P	0 - 30
LFB	Terbuthylazine	4.03	LCS	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P303561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795777	Color (true)	0.908	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P304240

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1796172	Total Alkalinity	0.109	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P304243

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1797093	Total Alkalinity	0.467	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P304342

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795840	TDS	2.23	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P304241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1796172	Fluoride	0.959	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P304245

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1797093	Fluoride	0.0	Spike	P	0 - 3.0

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P304749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795787	Organic Carbon	2.20	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P304876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1795834	Organic Carbon	4.41	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P303478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1794759	2,4,5-T	12.8	Spike	P	0 - 30
1794759	2,4-D	11.9	Spike	P	0 - 30
1794759	Acetaminophen	55.6	Spike	F	0 - 30
1794759	Acifluorfen	20.8	Spike	P	0 - 30
1794759	Bentazon	13.1	Spike	P	0 - 30
1794759	Carbamazepine	15.8	Spike	P	0 - 30
1794759	Diuron	5.04	Spike	P	0 - 30
1794759	Fenuron	8.66	Spike	P	0 - 30
1794759	Fluridone	14.1	Spike	P	0 - 30
1794759	Imidacloprid	5.86	Spike	P	0 - 30
1794759	Linuron	25.0	Spike	P	0 - 30
1794759	Primidone	8.00	Spike	P	0 - 30
1794759	Silvex	12.1	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: 1795853
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	2,4-D-d3	122	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	59.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	91.8	P	40 - 160
USGS O-2060-01	Diuron-d6	59.8	P	40 - 150
USGS O-2060-01	Primidone-d5	88.4	P	40 - 150

Lab Sample ID: 1795854
Field Sample ID: G4SENNR2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	2,4-D-d3	116	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	62.2	P	30 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1795854

Field Sample ID: G4SENNR2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Carbamazepine-d10	90.8	P	40 - 160
USGS O-2060-01	Diuron-d6	54.4	P	40 - 150
USGS O-2060-01	Primidone-d5	84.8	P	40 - 150

Lab Sample ID: 1795870

Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	86.6	P	44 - 128

Lab Sample ID: 1795871

Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	99.8	P	67 - 131
EPA 8270D	Simazine-d10	103	P	75 - 130

Lab Sample ID: 1795872

Field Sample ID: G4SENNR2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	67.5	P	44 - 128

Lab Sample ID: 1795873

Field Sample ID: G4SENNR2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	83.3	P	67 - 131
EPA 8270D	Simazine-d10	82.3	P	75 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A69278

Included Lab Sample IDs: 1795825, 1795826, 1795827, 1795828, 1795829, 1795840, 1795843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105
Turbidity	99.5	99.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A69280

Included Lab Sample IDs: 1795835, 1795836, 1795837, 1795838, 1795839, 1795842, 1795845

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A69282

Included Lab Sample IDs: 1795840, 1795843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.9	99.8	P/P	90 - 115

Reference Method: USGS O-2060-01

Run ID: A69296

Included Lab Sample IDs: 1795853, 1795854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	88.4	89.6	P/P	60 - 150
Carbamazepine	110	121	P/P	60 - 150
Diuron	112	116	P/P	60 - 150
Fenuron	95.6	104	P/P	60 - 150
Fluridone	83.6	92.0	P/P	60 - 150
Imidacloprid	102	104	P/P	60 - 150
Linuron	105	106	P/P	60 - 150
Primidone	91.2	84.4	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A69313

Included Lab Sample IDs: 1795853, 1795854

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	97.6	97.2	P/P	50 - 150
2,4-D	97.2	103	P/P	50 - 150
Acifluorfen	117	123	P/P	50 - 150
Bentazon	107	95.0	P/P	50 - 150
Silvex	113	127	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A69423

Included Lab Sample IDs: 1795840, 1795843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.0	100	P/P	90 - 110
Sulfate	98.2	98.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A69427

Included Lab Sample IDs: 1795830, 1795831, 1795832, 1795833, 1795834, 1795841, 1795844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	95.0	95.7	P/P	90 - 110
Ammonia-N	95.1	94.0	P/P	90 - 110
Ammonia-N	95.7	94.1	P/P	90 - 110
Ammonia-N	96.5	95.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A69443

Included Lab Sample IDs: 1795830, 1795841, 1795844

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A69443

Included Lab Sample IDs: 1795830, 1795841, 1795844

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A69453

Included Lab Sample IDs: 1795862, 1795863, 1795864, 1795865, 1795866, 1795867, 1795868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	100	P/P	90 - 110
Calcium	98.8	99.6	P/P	90 - 110
Calcium	99.6	96.1	P/P	90 - 110
Iron	97.3	94.5	P/P	90 - 110
Iron	98.4	97.3	P/P	90 - 110
Iron	99.7	99.3	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	99.4	99.8	P/P	90 - 110
Sodium	100	101	P/P	90 - 110
Zinc	102	103	P/P	90 - 110
Zinc	103	106	P/P	90 - 110
Zinc	106	106	P/P	90 - 110

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Run ID: A69458

Included Lab Sample IDs: 1795870, 1795872

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101	102	P/P	85 - 115
Alpha-BHC	112	112	P/P	85 - 115
Beta-BHC	102	102	P/P	85 - 115
Carbophenothion	94.4	115*	P/F	90 - 110
Chlorothalonil	87.4*	107	F/P	90 - 110
Cypermethrin	95.5	116*	P/F	85 - 115
DDD-p,p'	102	102	P/P	85 - 115
DDE-p,p'	101	102	P/P	85 - 115
DDT-p,p'	103	101	P/P	85 - 115
Delta-BHC	94.4	94.2	P/P	85 - 115
Dicofol	117*	105	F/P	90 - 110
Dieldrin	102	102	P/P	85 - 115
Endosulfan I	102	102	P/P	85 - 115
Endosulfan II	103	103	P/P	85 - 115
Endosulfan Sulfate	101	100	P/P	85 - 115
Endrin	101	94.2	P/P	85 - 115
Endrin Aldehyde	103	106	P/P	85 - 115
Gamma-BHC	103	103	P/P	85 - 115
Heptachlor	102	104	P/P	85 - 115
Heptachlor Epoxide	102	103	P/P	85 - 115
Methoxychlor	107	106	P/P	90 - 110
Mirex	95.3	112*	P/F	90 - 110
Permethrin	95.4	113*	P/F	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A69460

Included Lab Sample IDs: 1795867, 1795868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	96.9	95.9	P/P	90 - 110
Arsenic	98.5	96.9	P/P	90 - 110
Cadmium	96.2	96.4	P/P	90 - 110
Cadmium	96.3	96.2	P/P	90 - 110
Chromium	97.1	96.3	P/P	90 - 110
Chromium	97.8	97.1	P/P	90 - 110
Copper	100	97.7	P/P	90 - 110
Copper	97.7	96.3	P/P	90 - 110
Lead	94.1	93.8	P/P	90 - 110
Lead	95.6	94.1	P/P	90 - 110
Nickel	100	97.4	P/P	90 - 110
Nickel	97.4	97.1	P/P	90 - 110
Silver	94.4	93.2	P/P	90 - 110
Silver	95.8	94.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A69463

Included Lab Sample IDs: 1795825, 1795826, 1795827, 1795828, 1795829, 1795840, 1795843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.4	P/P	90 - 110
Total Alkalinity	102	99.5	P/P	90 - 110
Total Alkalinity	98.9	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A69463

Included Lab Sample IDs: 1795825, 1795826, 1795827, 1795828, 1795829, 1795840, 1795843

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.5	100	P/P	90 - 110
Fluoride	98.5	98.5	P/P	90 - 110
Fluoride	98.5	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A69466

Included Lab Sample IDs: 1795831, 1795832

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A69510

Included Lab Sample IDs: 1795862, 1795863, 1795864, 1795865, 1795866

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	95.7	96.9	P/P	90 - 110
Cadmium	94.5	93.3	P/P	90 - 110
Chromium	96.2	95.7	P/P	90 - 110
Copper	95.8	97.2	P/P	90 - 110
Lead	93.8	93.3	P/P	90 - 110
Silver	93.2	92.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A69515

Included Lab Sample IDs: 1795833, 1795834

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A69571

Included Lab Sample IDs: 1795830, 1795832, 1795833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.8	93.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A69581

Included Lab Sample IDs: 1795833

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A69582

Included Lab Sample IDs: 1795831, 1795834, 1795841, 1795844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.5	100	P/P	90 - 110
Kjeldahl Nitrogen	97.4	95.6	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A69610

Included Lab Sample IDs: 1795830, 1795831, 1795832, 1795841, 1795844

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A69622

Included Lab Sample IDs: 1795841, 1795844

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A69630

Included Lab Sample IDs: 1795830, 1795831, 1795832

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

Reference Method: SM 5310 B-00

Run ID: A69651

Included Lab Sample IDs: 1795833, 1795834

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.6	92.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A69663

Included Lab Sample IDs: 1795834

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

Reference Method: EPA 8270D

Run ID: A69686

Included Lab Sample IDs: 1795871, 1795873

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.2		P	80 - 120
Alachlor	97.2		P	80 - 120
Ametryn	84.8		P	80 - 120
Atrazine	98.7		P	80 - 120
Atrazine Desethyl	97.0		P	80 - 120
Azinphos Methyl	93.0		P	80 - 120
Bromacil	98.6		P	80 - 120
Butylate	92.9		P	80 - 120
Chlorpyrifos Ethyl	96.1		P	80 - 120
Chlorpyrifos Methyl	94.7		P	80 - 120
Cyanazine	118		P	80 - 120
Demeton	97.3		P	80 - 120
Diazinon	91.7		P	80 - 120
Disulfoton	92.1		P	80 - 120
EPTC	88.7		P	80 - 120
Ethion	96.0		P	80 - 120
Ethoprop	98.7		P	80 - 120
Fenamiphos	96.6		P	80 - 120
Fipronil	96.4		P	80 - 120
Fipronil Sulfide	100		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	98.0		P	80 - 120
Malathion	99.3		P	80 - 120
Metalaxyl	96.6		P	80 - 120
Metolachlor	99.3		P	80 - 120
Metribuzin	92.4		P	80 - 120
Mevinphos	95.4		P	80 - 120
Molinate	92.2		P	80 - 120
Norflurazon	97.7		P	80 - 120
Parathion Ethyl	95.5		P	80 - 120
Parathion Methyl	96.0		P	80 - 120
Pendimethalin	88.5		P	80 - 120
Phorate	102		P	80 - 120
Prometon	94.7		P	80 - 120
Prometryn	87.8		P	80 - 120
Simazine	96.5		P	80 - 120
Terbufos	96.1		P	80 - 120
Terbuthylazine	96.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A69687

Included Lab Sample IDs: 1795871, 1795873

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ametryn	104		P	80 - 120
Atrazine	98.8		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	87.2	94.5	89.2	95.2	8.00		6.51
	Alpha-BHC	97.5	109	103	96.7	10.9		6.75
	Beta-BHC	113	123	108	104	8.84		4.38
	DDD-p,p'	89.8	105	96.5	97.4	15.3		0.895
	DDE-p,p'	88.9	101	94.9	95.2	13.0		0.342
	DDT-p,p'	94.9	109	102	104	13.6		2.78
	Delta-BHC	93.7	105	98.7	98.5	11.5		0.170
	Dieldrin	86.3	97.0	91.9	92.0	11.7		0.104
	Endosulfan I	90.6	102	95.7	95.7	11.9		0.0345
	Endosulfan II	92.9	106	99.2	101	13.0		1.66
	Endosulfan Sulfate	97.2	107	101	103	9.82		2.61
	Endrin	101	119	110	111	17.2		1.03
	Endrin Aldehyde	85.5	95.9	87.7	94.1	11.5		7.09
	Gamma-BHC	93.0	101	96.1	89.4	8.63		7.22
	Heptachlor	107	116	110	119	7.92		8.11
	Heptachlor Epoxide	91.8	103	97.4	97.2	11.9		0.223
	Methoxychlor	105	122	114	117	14.6		2.91
EPA 180.1 Rev. 2.0	Turbidity						1.40	
	Turbidity						11.3	
EPA 200.7 Rev. 4.4	Calcium	103		99.3				0.966
	Calcium	104		105				1.89
	Iron	104		105	104			0.633
	Iron	105		105	105			0.617
	Magnesium	106		107				1.04
	Potassium	102		108				0.906
	Sodium	101		101				2.01
	Zinc	105		109	110			0.487
	Zinc	102		106	108			1.20
EPA 200.8 Rev. 5.4	Arsenic	94.4		97.5	96.9			0.555
	Arsenic	98.4		100	100			0.141
	Cadmium	95.8		97.3	96.5			0.831
	Cadmium	99.3		97.9	99.6			1.77
	Chromium	95.1		95.3	95.5			0.223
	Chromium	99.6		96.3	97.0			0.721
	Copper	92.7		92.7	93.0			0.282
	Copper	97.4		95.5	95.4			0.0798
	Lead	94.7		97.1	97.6			0.560

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 200.8 Rev. 5.4	Lead	97.9		99.8	99.4			0.392
	Nickel	101		97.3	97.6			0.316
	Silver	90.4		90.0	90.5			0.593
	Silver	94.8		93.8	93.5			0.352
EPA 300.0 Rev. 2.1	Chloride	96.5		95.1	96.1		0.0368	
	Sulfate	94.0		93.5	94.3		2.96	
EPA 350.1 Rev. 2.0	Ammonia-N	97.7		99.8	99.6			0.156
	Ammonia-N	95.2		95.0	96.8			1.11
	Ammonia-N	94.9		93.9	96.1			1.99
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102		96.1	99.4			2.84
	Kjeldahl Nitrogen	110		103	99.8			2.20
	Kjeldahl Nitrogen	104		96.9	102			2.95
EPA 353.2 Rev. 2.0	NO2NO3-N	104		104	104			0.0
	NO2NO3-N	106		102	106			1.94
	NO2NO3-N	102		100	101			0.421
	NO2NO3-N	99.5		99.0	99.5			0.435
EPA 365.1 Rev. 2.0	Total-P	106		92.5	94.0			1.50
	Total-P	97.4		99.3	101			1.65
	Total-P	110		106	109			2.27
	Total-P	100		104	102			1.72
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	105		99.4	100			0.520
	O-Phosphate-P	102		99.2	100			0.654
EPA 8270D	Acetochlor	110	114	102	99.3	3.42		2.59
	Alachlor	109	111	103	98.0	1.67		5.10
	Ametryn	116	112	119	112	3.02		5.60
	Atrazine	101	96.6			4.11		0.808
	Atrazine Desethyl	80.8	82.2	36.2	40.5	1.62		5.88
	Azinphos Methyl	126	149	105	122	16.1		14.4
	Bromacil	91.4	85.5	73.8	59.3	6.72		15.4
	Butylate	72.6	62.6	44.1	39.7	14.8		10.5
	Chlorpyrifos Ethyl	97.1	101	99.2	94.8	3.73		4.55
	Chlorpyrifos Methyl	88.3	93.9	81.1	78.0	6.17		3.80
	Cyanazine	88.8	100	107	113	12.2		5.05
	Demeton	61.9	74.5	48.9	48.9	18.5		0.0558
	Diazinon	111	107	99.1	94.1	4.01		5.10
	Disulfoton	80.4	103	77.3	73.8	24.4		4.57
	EPTC	71.0	58.9	43.1	36.1	18.6		17.6
	Ethion	105	110	106	100	4.54		5.61
	Ethoprop	85.3	89.7	71.8	80.8	4.98		11.8
	Fenamiphos	123	128	96.5	110	4.37		13.3
	Fipronil	115	99.7	74.9	95.3	14.2		21.2
	Fipronil Sulfide	95.2	91.2	70.5	82.8	4.32		14.1
	Fipronil Sulfone	102	91.0	74.3	97.9	11.3		15.2
	Fonofos	89.7	94.0	75.7	79.0	4.67		4.18
	Hexazinone	103	104	102	102	0.919		0.493
	Malathion	100	107	102	101	6.63		0.499
	Metalaxyl	108	105	102	94.2	2.53		8.22
	Metolachlor	113	108	109	99.6	4.00		8.95
	Metribuzin	101	102	109	87.0	0.542		22.3
	Mevinphos	77.6	81.8	48.2	56.6	5.30		16.1
	Molinate	81.9	73.8	54.0	52.8	10.4		2.32
	Norflurazon	113	104	83.1	101	8.17		19.1
	Parathion Ethyl	92.3	91.8	88.1	91.4	0.609		3.63
	Parathion Methyl	100	97.0	78.4	88.5	3.48		12.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8270D	Pendimethalin	96.4	91.6	96.2	97.6	5.10	1.44
	Phorate	99.8	95.6	72.4	81.0	4.32	11.2
	Prometon	111	116	128	86.3	4.30	33.3
	Prometryn	139	139	107	104	0.382	2.43
	Simazine	101	85.0	143	155	17.2	7.75
	Terbufos	89.2	98.1	78.0	77.7	9.52	0.401
	Terbutylazine	97.6	102	99.9	97.5	4.03	2.42
SM 2120 B	Color (true)						0.908
SM 2320 B-97	Total Alkalinity	101					0.109
	Total Alkalinity	101					0.467
SM 2540 C-97	TDS						2.23
SM 4500 F-C-97	Fluoride	96.5		96.6	97.9		0.959
	Fluoride	97.0		92.3	92.3		0.0
SM 5310 B-00	Organic Carbon	99.6		95.4	98.8		2.20
	Organic Carbon	99.2		88.3	92.8		4.41
USGS O-2060-01	2,4,5-T	102		110	96.4		12.8
	2,4-D	111		132	117		11.9
	Acetaminophen	84.4		82.8	46.8		55.6
	Acifluorfen	121		125	102		20.8
	Bentazon	108		131	110		13.1
	Carbamazepine	120		156	133		15.8
	Diuron	119		114	108		5.04
	Fenuron	97.6		96.4	88.4		8.66
	Fluridone	98.0		109	94.8		14.1
	Imidacloprid	99.2		244	227		5.86
	Linuron	103		101	78.4		25.0
	Primidone	79.6		114	106		8.00
	Silvex	132		150	133		12.1

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
DEP SOP: GC-011-5 (based on EPA 608 and 617) / E31780	Organochlorine pesticides (low levels) in water matrices by GC/ECD.	1795870, 1795872
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1795825, 1795826, 1795827, 1795828, 1795829, 1795840, 1795843
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1795862, 1795863, 1795864, 1795865, 1795866, 1795867, 1795868
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1795862, 1795863, 1795864, 1795865, 1795866, 1795867, 1795868
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1795840, 1795843
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1795840, 1795843
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1795830, 1795831, 1795832, 1795833, 1795834, 1795841, 1795844
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1795830, 1795831, 1795832, 1795833, 1795834, 1795841, 1795844
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1795830, 1795831, 1795832, 1795833, 1795834, 1795841, 1795844
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1795830, 1795831, 1795832, 1795833, 1795834, 1795841, 1795844
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1795835, 1795836, 1795837, 1795838, 1795839, 1795842, 1795845

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1795871, 1795873
SM 2120 B / E31780	True Color measured at 450 nm	1795840, 1795843
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1795825, 1795826, 1795827, 1795828, 1795829, 1795840, 1795843
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1795840, 1795843
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1795825, 1795826, 1795827, 1795828, 1795829, 1795840, 1795843
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1795825, 1795826, 1795827, 1795828, 1795829, 1795840, 1795843
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1795830, 1795831, 1795832, 1795833, 1795834, 1795841, 1795844
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1795853, 1795854
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1795853, 1795854

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: GC-011-5 (based on EPA 608 and 617)	05/04/2016	05/04/2016	Fe-Val Siddell	05/11/2016	John P. Burgos	1795870, 1795872
EPA 180.1 Rev. 2.0	05/04/2016			05/04/2016 15:16	Sima Feizi	1795825, 1795826, 1795827, 1795828, 1795829, 1795840, 1795843
EPA 200.7 Rev. 4.4	05/04/2016	05/10/2016	Elliott D. Healy	05/12/2016	Joshua Ayres	1795862, 1795863, 1795864, 1795865, 1795866, 1795867, 1795868
EPA 200.8 Rev. 5.4	05/04/2016	05/10/2016	Elliott D. Healy	05/12/2016	Charles J. Peterson	1795867, 1795868
	05/04/2016	05/10/2016	Elliott D. Healy	05/16/2016	Charles J. Peterson	1795862, 1795863, 1795864, 1795865, 1795866
EPA 300.0 Rev. 2.1	05/04/2016			05/12/2016	Elisa J Lutz	1795840, 1795843
EPA 350.1 Rev. 2.0	05/04/2016			05/11/2016	Diana M. Turner	1795830, 1795831, 1795832, 1795833, 1795834, 1795841, 1795844
EPA 351.2 Rev. 2.0	05/04/2016	05/18/2016	Sofia Elnemr	05/19/2016	Christopher Armour	1795830, 1795832, 1795833
	05/04/2016	05/18/2016	Sofia Elnemr	05/19/2016	Vijayalakshmi Reddy	1795831, 1795834, 1795841, 1795844
EPA 353.2 Rev. 2.0	05/04/2016			05/12/2016	Peter D. Kaus	1795830, 1795841, 1795844
	05/04/2016			05/13/2016	Peter D. Kaus	1795831, 1795832
	05/04/2016			05/17/2016	Peter D. Kaus	1795833, 1795834
EPA 365.1 Rev. 2.0	05/04/2016	05/18/2016	Vijayalakshmi Reddy	05/19/2016	Lipi Saha	1795833
	05/04/2016	05/19/2016	Vijayalakshmi Reddy	05/23/2016	Lipi Saha	1795841, 1795844
	05/04/2016	05/20/2016	Lipi Saha	05/23/2016	Lipi Saha	1795830, 1795831, 1795832
	05/04/2016	05/23/2016	Vijayalakshmi Reddy	05/24/2016	Lipi Saha	1795834
EPA 365.1 Rev. 2.0 dissolved	05/04/2016			05/04/2016 15:17	Julia Storbeck	1795835
	05/04/2016			05/04/2016 15:30	Julia Storbeck	1795836, 1795837
	05/04/2016			05/04/2016 15:58	Julia Storbeck	1795842
	05/04/2016			05/04/2016 15:59	Julia Storbeck	1795845
	05/04/2016			05/04/2016 16:00	Julia Storbeck	1795838
	05/04/2016			05/04/2016 16:01	Julia Storbeck	1795839
EPA 8270D	05/04/2016	05/06/2016	John Kaba	05/20/2016	Irina Carbone	1795871, 1795873
	05/04/2016	05/06/2016	John Kaba	05/24/2016	Irina Carbone	1795871, 1795873
SM 2120 B	05/04/2016			05/05/2016 08:51	Rochelle Y Jackson	1795840, 1795843
SM 2320 B-97	05/04/2016			05/12/2016	Dale L. Simmons	1795825, 1795826, 1795827, 1795840, 1795843
	05/04/2016			05/13/2016	Dale L. Simmons	1795828, 1795829
SM 2540 C-97	05/04/2016			05/06/2016	Yijie Li	1795840, 1795843
SM 2540 D-97	05/04/2016			05/06/2016	Yijie Li	1795825, 1795826, 1795827, 1795828, 1795829, 1795840, 1795843
SM 4500 F-C-97	05/04/2016			05/12/2016	Dale L. Simmons	1795825, 1795826, 1795827, 1795840, 1795843
	05/04/2016			05/13/2016	Dale L. Simmons	1795828, 1795829
SM 5310 B-00	05/04/2016			05/21/2016	Rochelle Y Jackson	1795830, 1795831, 1795832, 1795841, 1795844
	05/04/2016			05/24/2016	Diana M. Turner	1795833, 1795834

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
USGS O-2060-01	05/04/2016	05/04/2016	Hoor Shaik	05/04/2016	Juyoung Kim	1795853, 1795854
	05/04/2016	05/04/2016	Hoor Shaik	05/05/2016	Juyoung Kim	1795853, 1795854