

Chemical Analysis Report

SE-DIST-2016-03-09-01

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

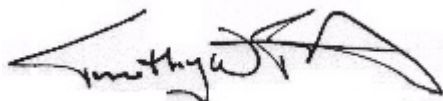
Event Description: **SMP_Blue_3/7**
Request ID: **RQ-2016-03-07-14**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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2199 South Rock Road
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Certified by: Timothy Fitzpatrick, Program Administrator

Date Certified: 31-MAR-2016 09:17

A handwritten signature in black ink, appearing to read "Timothy W. 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: North New River Canal

Collection Date/Time: 03/08/2016 11:30

Field ID: G4SENNR3_03082016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778456	EPA 180.1 Rev. 2.0	Turbidity	4.4	A	NTU	P300083	
	EPA 300.0 Rev. 2.1	Chloride	89		mg Cl/L	P300215	
		Sulfate	30		mg SO4/L	P300219	
	SM 2120 B	Color (true)	72	A	PCU	P300623	
	SM 2320 B-97	Total Alkalinity	195		mg CaCO3/L	P300454	
	SM 2540 C-97	TDS	389		mg/L	P300530	RPD
	SM 2540 D-97	TSS	8	I	mg/L	P300286	
	SM 4500 F-C-97	Fluoride	0.34		mg F/L	P300458	
1778459	EPA 350.1 Rev. 2.0	Ammonia-N	0.24		mg N/L	P300569	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P300546	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.076		mg N/L	P300381	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P300592	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P300358	
1778462	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P300063	
1778509	EPA 200.7 Rev. 4.4	Calcium	61.2		mg/L	P300163	
		Iron	220		ug/L	P300163	
		Magnesium	15.2		mg/L	P300163	
		Potassium	5.1		mg/L	P300163	
		Sodium	53.3		mg/L	P300163	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P300163	
		Arsenic	0.86		ug/L	P300163	
		Cadmium	0.020	U	ug/L	P300163	
		Chromium	0.30		ug/L	P300163	
		Copper	0.55		ug/L	P300163	
		Lead	0.25		ug/L	P300163	
		Nickel	0.16	I	ug/L	P300163	
		Silver	0.0050	U	ug/L	P300163	

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 826

Collection Date/Time: 03/08/2016 12:35

Field ID: G4SE0063_03082016

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778465	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P300083	
	EPA 300.0 Rev. 2.1	Sulfate	1.5E+03		mg SO4/L	P300219	
	SM 2320 B-97	Total Alkalinity	171		mg CaCO3/L	P300588	
	SM 2540 C-97	TDS	1.81E+04		mg/L	P300531	
	SM 2540 D-97	TSS	3	U	mg/L	P300291	
	SM 4500 F-C-97	Fluoride	0.84		mg F/L	P300591	
1778468	EPA 350.1 Rev. 2.0	Ammonia-N	0.054		mg N/L	P300566	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P300721	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P300616	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P300614	

Field ID: G4SE0063_03082016

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778468	SM 5310 B-00	Organic Carbon	7.0		mg C/L	P300360	
1778471	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P300064	
1778512	EPA 200.7 Rev. 4.4	Iron	38	I	ug/L	P300077	
	EPA 200.8 Rev. 5.4	Arsenic	1.55		ug/L	P300077	
		Cadmium	0.060	U	ug/L	P300077	
		Chromium	0.25	I	ug/L	P300077	
		Copper	1.8		ug/L	P300077	
		Lead	0.15	U	ug/L	P300077	
		Nickel	0.24	I	ug/L	P300077	
		Silver	0.015	U	ug/L	P300077	
		Zinc	5.4	I	ug/L	P300077	

Ref. Method and Comment:

SM 2540 C-97: The reported result is consistent with the laboratory conductivity, 29500 umhos/cm.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: C-10 Canal @ String Rd

Collection Date/Time: 03/08/2016 13:50

Field ID: G4SE0036_03082016

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778466	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P300083	
	EPA 300.0 Rev. 2.1	Sulfate	730		mg SO4/L	P300296	
	SM 2320 B-97	Total Alkalinity	200	A	mg CaCO3/L	P300588	
	SM 2540 C-97	TDS	9.09E+03		mg/L	P300531	
	SM 2540 D-97	TSS	3	U	mg/L	P300291	
	SM 4500 F-C-97	Fluoride	0.50		mg F/L	P300591	
1778469	EPA 350.1 Rev. 2.0	Ammonia-N	0.080		mg N/L	P300566	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P300721	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P300616	
	EPA 365.1 Rev. 2.0	Total-P	0.047		mg P/L	P300614	
	SM 5310 B-00	Organic Carbon	7.3		mg C/L	P300360	
1778472	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.031		mg P/L	P300064	
1778513	EPA 200.7 Rev. 4.4	Iron	59	I	ug/L	P300077	
		Zinc	5.0	U	ug/L	P300077	
	EPA 200.8 Rev. 5.4	Arsenic	1.67		ug/L	P300077	
		Cadmium	0.060	U	ug/L	P300077	
		Chromium	0.16	I	ug/L	P300077	
		Copper	2.1		ug/L	P300077	
		Lead	0.18	I	ug/L	P300077	
		Nickel	0.49	I	ug/L	P300077	
		Silver	0.015	U	ug/L	P300077	

Ref. Method and Comment:

SM 2540 C-97: The reported result is consistent with the laboratory conductivity, 16050 umhos/cm.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: New River (North Fork)

Collection Date/Time: 03/08/2016 14:20

Field ID: G4SEB064_03082016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778467	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P300083	
	EPA 300.0 Rev. 2.1	Sulfate	12		mg SO4/L	P300296	
	SM 2320 B-97	Total Alkalinity	217		mg CaCO3/L	P300454	
	SM 2540 C-97	TDS	315		mg/L	P300530	RPD
	SM 2540 D-97	TSS	9	I	mg/L	P300286	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P300458	
1778470	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P300569	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P300631	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.016		mg N/L	P300381	
	EPA 365.1 Rev. 2.0	Total-P	0.050		mg P/L	P300592	
	SM 5310 B-00	Organic Carbon	7.9		mg C/L	P300358	
1778473	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P300063	
1778514	EPA 200.7 Rev. 4.4	Iron	210		ug/L	P300163	
		Zinc	9.7	I	ug/L	P300163	
	EPA 200.8 Rev. 5.4	Arsenic	2.02		ug/L	P300163	
		Cadmium	0.022	I	ug/L	P300163	
		Chromium	0.56		ug/L	P300163	
		Copper	2.31		ug/L	P300163	
		Lead	1.26		ug/L	P300163	
		Nickel	0.59		ug/L	P300163	
		Silver	0.021		ug/L	P300163	

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-12 @ Hwy 441

Collection Date/Time: 03/08/2016 15:00

Field ID: G4SEB121_03082016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778457	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P300083	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P300215	
		Sulfate	7.3		mg SO4/L	P300219	
	SM 2120 B	Color (true)	20		PCU	P300623	
	SM 2320 B-97	Total Alkalinity	93		mg CaCO3/L	P300454	
	SM 2540 C-97	TDS	146		mg/L	P300530	RPD
	SM 2540 D-97	TSS	2	U	mg/L	P300286	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P300458	
1778460	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P300569	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P300546	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P300381	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P300592	
	SM 5310 B-00	Organic Carbon	6.2		mg C/L	P300358	
1778463	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P300063	
1778510	EPA 200.7 Rev. 4.4	Calcium	36.4		mg/L	P300163	
		Iron	30	U	ug/L	P300163	
		Magnesium	1.89		mg/L	P300163	

Field ID: G4SEB121_03082016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778510	EPA 200.7 Rev. 4.4	Potassium	0.66	I	mg/L	P300163	
		Sodium	12.8		mg/L	P300163	
		Zinc	5.0	U	ug/L	P300163	
	EPA 200.8 Rev. 5.4	Arsenic	0.76		ug/L	P300163	
		Cadmium	0.020	U	ug/L	P300163	
		Chromium	0.19	I	ug/L	P300163	
		Copper	2.03		ug/L	P300163	
		Lead	0.11	I	ug/L	P300163	
		Nickel	0.33		ug/L	P300163	
		Silver	0.0050	U	ug/L	P300163	

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-12 @ 47th Ave.

Collection Date/Time: 03/08/2016 15:30

Field ID: G4SEB128_03082016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778458	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P300083	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P300215	
		Sulfate	8.3		mg SO4/L	P300219	
		Color (true)	22		PCU	P300623	
	SM 2320 B-97	Total Alkalinity	103		mg CaCO3/L	P300454	
	SM 2540 C-97	TDS	151		mg/L	P300530	RPD
	SM 2540 D-97	TSS	2	U	mg/L	P300286	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P300458	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P300569	
		Kjeldahl Nitrogen	0.54		mg N/L	P300713	
1778461	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P300381	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P300592	
	SM 5310 B-00	Organic Carbon	6.3		mg C/L	P300358	
1778464	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P300063	
1778511	EPA 200.7 Rev. 4.4	Calcium	40.9		mg/L	P300163	
		Iron	30	U	ug/L	P300163	
		Magnesium	1.66		mg/L	P300163	
		Potassium	0.69	I	mg/L	P300163	
		Sodium	12.5		mg/L	P300163	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P300163	
		Arsenic	0.80		ug/L	P300163	
		Cadmium	0.020	U	ug/L	P300163	
		Chromium	0.17	I	ug/L	P300163	
		Copper	1.93		ug/L	P300163	
		Lead	0.058	I	ug/L	P300163	
		Nickel	0.33		ug/L	P300163	
		Silver	0.0050	U	ug/L	P300163	

Field ID: G4SEB128_03082016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment:							
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.							
EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.							

Sample Location: North New River Canal

Collection Date/Time: 03/08/2016 11:30

Field ID: G4SENNR3_03082016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778508	EPA 8321B	Glyphosate**	10	U	ug/L	P300193	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P300242	
		Diuron	0.0020	U	ug/L	P300242	
		2,4-DB	0.0020	U	ug/L	P300242	
		Fenuron	0.0080	U	ug/L	P300242	
		2,4,5-T	0.0020	U	ug/L	P300242	
		Acifluorfen	0.0020	U	ug/L	P300242	
		Imidacloprid	0.0053	I	ug/L	P300242	
		Bentazon	0.096		ug/L	P300242	
		Linuron	0.0040	U	ug/L	P300242	
		Dichlorprop	0.0020	U	ug/L	P300242	
		Dinoseb	0.020	U	ug/L	P300242	
		MCPA	0.0040	U	ug/L	P300242	
		MCPP	0.0040	U	ug/L	P300242	
1778515	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Silvex	0.0020	U	ug/L	P300242	
		Aldrin	0.0019	U	ug/L	P299991	
		Alpha-BHC	0.0019	U	ug/L	P299991	
		Beta-BHC	0.0019	U	ug/L	P299991	
		Delta-BHC	0.0019	U	ug/L	P299991	
		Gamma-BHC	0.0019	U	ug/L	P299991	
		Carbophenothion	0.0058	U	ug/L	P299991	
		Chlorothalonil	0.0078	U	ug/L	P299991	
		Cypermethrin	0.012	U	ug/L	P299991	
		DDD-p,p'	0.0039	U	ug/L	P299991	
		DDE-p,p'	0.0039	U	ug/L	P299991	
		DDT-p,p'	0.0039	U	ug/L	P299991	
		Dicofol	0.023	UJ	ug/L	P299991	CCV
		Dieldrin	0.0019	U	ug/L	P299991	
		Endosulfan I	0.0019	U	ug/L	P299991	
		Endosulfan II	0.0019	U	ug/L	P299991	
		Endosulfan Sulfate	0.0039	U	ug/L	P299991	
		Endrin	0.0039	U	ug/L	P299991	
		Endrin Aldehyde	0.0039	U	ug/L	P299991	
		Heptachlor	0.0019	U	ug/L	P299991	
		Heptachlor Epoxide	0.0019	U	ug/L	P299991	
		Methoxychlor	0.0097	U	ug/L	P299991	
		Mirex	0.0039	U	ug/L	P299991	

Field ID: G4SENNR3_03082016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1778515	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Permethrin	0.0097	U	ug/L	P299991	
		Trifluralin	0.0078	U	ug/L	P299991	
1778516	EPA 8270D	Ametryn**	22		ng/L	P300212	
		Atrazine**	630		ng/L	P300212	
		Chlorpyrifos Ethyl**	0.095	U	ng/L	P300212	
		Chlorpyrifos Methyl**	0.095	U	ng/L	P300212	
		Disulfoton**	0.31	U	ng/L	P300212	
		Ethion**	0.14	U	ng/L	P300212	
		Ethoprop**	0.095	U	ng/L	P300212	
		Hexazinone**	3.0		ng/L	P300212	
		Malathion**	0.33	U	ng/L	P300212	
		Metribuzin**	120		ng/L	P300212	
		Mevinphos**	0.48	U	ng/L	P300212	
		Norflurazon**	0.48	U	ng/L	P300212	
		Phorate**	0.24	U	ng/L	P300212	
		Prometryn**	0.86		ng/L	P300212	
		Simazine**	0.48	U	ng/L	P300212	
		Atrazine Desethyl**	26		ng/L	P300212	
		Prometon**	0.86	U	ng/L	P300212	
		Fipronil**	0.24	U	ng/L	P300212	
		Molinate**	0.29	U	ng/L	P300212	
		Pendimethalin**	1.9	U	ng/L	P300212	
		Terbufos**	0.095	U	ng/L	P300212	
		EPTC**	1.2	U	ng/L	P300212	
		Terbuthylazine**	0.40	U	ng/L	P300212	
		Bromacil**	0.76	I	ng/L	P300212	
		Fipronil Sulfide**	0.14	UJ	ng/L	P300212	CCV
		Fipronil Sulfone**	0.14	U	ng/L	P300212	
		Alachlor**	0.24	U	ng/L	P300212	
		Azinphos Methyl**	2.1	UJ	ng/L	P300212	CCV
		Butylate**	0.38	U	ng/L	P300212	
		Demeton**	0.95	U	ng/L	P300212	
		Diazinon**	0.12	U	ng/L	P300212	
		Fenamiphos**	0.24	U	ng/L	P300212	
		Fonofos**	0.19	U	ng/L	P300212	
		Metalaxyl**	2.3		ng/L	P300212	
		Metolachlor**	15		ng/L	P300212	
		Acetochlor**	0.24	U	ng/L	P300212	
		Cyanazine**	0.48	U	ng/L	P300212	
		Parathion Ethyl**	0.24	U	ng/L	P300212	
		Parathion Methyl**	0.24	UJ	ng/L	P300212	LCS

Field ID: G4SENNR3_03082016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:

USGS O-2060-01: Triclopyr = 0.016 ug/L.

USGS O-2060-01: Fluridone = 0.0026 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, Metalaxyl, Bromacil and Norflurazon not assessed due to high content of these parameters 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: P299991

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
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
Trifluralin	0.0080	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P300083

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P300077

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

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P300163

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300163

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: P300077

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
Zinc	1.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300163

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: P300215

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300219

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300296

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300566

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300569

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300546

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300631

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300713

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300721

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300381

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300616

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300592

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: P300614

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300063

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300064

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

Reference Method: EPA 8270D
Batch ID: P300212

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
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	2.0	U	ng/L
Phorate	0.25	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P300212

Component	Result	Code	Units
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P300193

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: SM 2120 B
Batch ID: P300623

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P300454

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

Reference Method: SM 2320 B-97
Batch ID: P300588

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

Reference Method: SM 2540 C-97
Batch ID: P300530

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P300531

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P300286

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P300291

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
 Batch ID: P300291

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
 Batch ID: P300458

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
 Batch ID: P300591

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
 Batch ID: P300358

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

Reference Method: SM 5310 B-00
 Batch ID: P300360

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

Reference Method: USGS O-2060-01
 Batch ID: P300242

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	0.0020	U	ug/L
2,4-DB	0.0020	U	ug/L
Acifluorfen	0.0020	U	ug/L
Bentazon	0.0020	U	ug/L
Dichlorprop	0.0020	U	ug/L
Dinoseb	0.020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.0080	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
Silvex	0.0020	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Quality Assurance Report Laboratory Control Sample Accuracy

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

Batch ID: P299991

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	77.5	91.9	P/P	70 - 130
Alpha-BHC	75.6	92.4	P/P	70 - 130
Beta-BHC	106	127	P/P	70 - 130
DDD-p,p'	88.4	106	P/P	70 - 130
DDE-p,p'	84.1	100	P/P	70 - 130
DDT-p,p'	85.8	108	P/P	70 - 130
Delta-BHC	74.3	89.7	P/P	70 - 130
Dieldrin	87.0	104	P/P	70 - 130
Endosulfan I	84.6	101	P/P	70 - 130
Endosulfan II	107	111	P/P	70 - 130
Endosulfan Sulfate	94.7	115	P/P	70 - 130
Endrin	91.7	110	P/P	81 - 147
Endrin Aldehyde	82.7	95.8	P/P	70 - 130
Gamma-BHC	70.8	85.2	P/P	70 - 130
Heptachlor	71.8	85.5	P/P	70 - 130
Heptachlor Epoxide	87.1	105	P/P	70 - 130
Methoxychlor	99.3	118	P/P	86 - 145

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P300077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	95.8		P	85 - 115
Zinc	99.9		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P300163

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	97.6		P	85 - 115
Iron	97.7		P	85 - 115
Magnesium	97.7		P	85 - 115
Potassium	101		P	85 - 115
Sodium	96.4		P	85 - 115
Zinc	98.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P300077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	96.3		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	97.7		P	85 - 115
Copper	91.3		P	85 - 115
Lead	91.1		P	85 - 115
Nickel	92.9		P	85 - 115
Silver	98.6		P	85 - 115
Zinc	95.0		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300163

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	96.8		P	85 - 115
Cadmium	95.6		P	85 - 115
Chromium	94.0		P	85 - 115
Copper	94.1		P	85 - 115
Lead	89.0		P	85 - 115
Nickel	95.2		P	85 - 115
Silver	93.1		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	109		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300219

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300296

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300566

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300569

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300546

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300631

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: P300713

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: P300721

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300381

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300616

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300592

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300614

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300063

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300064

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.1		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P300212

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	92.9	99.9	P/P	84 - 119
Alachlor	93.9	98.5	P/P	84 - 121
Ametryn	101	103	P/P	66 - 127
Atrazine	96.6	101	P/P	72 - 119

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P300212

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Atrazine Desethyl	61.3	75.8	P/P	21 - 111
Azinphos Methyl	133	108	P/P	79 - 185
Bromacil	88.8	87.3	P/P	39 - 122
Butylate	59.0	65.8	P/P	36 - 94.0
Chlorpyrifos Ethyl	98.1	93.1	P/P	54 - 101
Chlorpyrifos Methyl	93.0	85.6	P/P	28 - 114
Cyanazine	117	114	P/P	58 - 201
Demeton	79.3	77.9	P/P	57 - 130
Diazinon	92.7	92.5	P/P	79 - 124
Disulfoton	97.6	85.1	P/P	45 - 140
EPTC	53.5	61.5	P/P	43 - 95.0
Ethion	107	106	P/P	65 - 125
Ethoprop	86.6	73.7	P/P	69 - 107
Fenamiphos	113	97.7	P/P	78 - 129
Fipronil	80.7	102	P/P	62 - 125
Fipronil Sulfide	78.8	99.1	P/P	65 - 119
Fipronil Sulfone	80.4	97.5	P/P	64 - 122
Fonofos	89.5	78.2	P/P	70 - 112
Hexazinone	105	101	P/P	44 - 147
Malathion	109	111	P/P	72 - 125
Metalaxyl	90.3	89.8	P/P	83 - 113
Metolachlor	95.1	102	P/P	85 - 120
Metribuzin	93.2	102	P/P	68 - 129
Mevinphos	93.7	73.7	P/P	35 - 125
Molinate	66.8	61.8	P/P	51 - 100
Norflurazon	96.6	96.0	P/P	66 - 127
Parathion Ethyl	91.1	87.2	P/P	86 - 108
Parathion Methyl	97.3	86.6	P/F	87 - 125
Pendimethalin	76.0	76.2	P/P	53 - 136
Phorate	86.7	73.4	P/P	52 - 113
Prometon	97.4	107	P/P	67 - 125
Prometryn	99.7	106	P/P	73 - 114
Simazine	96.6	93.5	P/P	66 - 123
Terbufos	90.8	81.3	P/P	58 - 116
Terbuthylazine	95.6	105	P/P	77 - 113

Reference Method: EPA 8321B
Batch ID: P300193

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	95.4		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P300454

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 105

Reference Method: SM 2320 B-97
Batch ID: P300588

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

Reference Method: SM 2320 B-97
Batch ID: P300588

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P300458

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	94 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P300591

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P300358

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.4		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P300360

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	105		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P300242

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	99.2		P	40 - 140
2,4-D	106		P	40 - 140
2,4-DB	94.4		P	40 - 140
Acifluorfen	93.2		P	40 - 140
Bentazon	86.0		P	40 - 140
Dichlorprop	96.4		P	40 - 140
Dinoseb	70.8		P	40 - 140
Diuron	128		P	40 - 140
Fenuron	116		P	40 - 140
Imidacloprid	110		P	40 - 160
Linuron	124		P	40 - 140
MCPA	111		P	40 - 140
MCPP	104		P	40 - 140
Silvex	114		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Quality Assurance Report Matrix Spike Accuracy

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

Batch ID: P299991

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778652	Aldrin	90.2	86.0	P/P	70 - 130
1778652	Alpha-BHC	90.7	81.7	P/P	70 - 130
1778652	Beta-BHC	101	105	P/P	70 - 130
1778652	DDD-p,p'	99.1	95.8	P/P	70 - 130
1778652	DDE-p,p'	95.6	94.6	P/P	70 - 130
1778652	DDT-p,p'	106	103	P/P	70 - 130
1778652	Delta-BHC	89.2	86.8	P/P	70 - 130
1778652	Dieldrin	91.3	89.8	P/P	70 - 130
1778652	Endosulfan I	89.5	86.9	P/P	70 - 130
1778652	Endosulfan II	104	104	P/P	70 - 130
1778652	Endosulfan Sulfate	112	102	P/P	70 - 130
1778652	Endrin	103	100	P/P	81 - 147
1778652	Endrin Aldehyde	92.0	91.1	P/P	70 - 130
1778652	Gamma-BHC	83.1	83.1	P/P	70 - 130
1778652	Heptachlor	99.4	86.5	P/P	70 - 130
1778652	Heptachlor Epoxide	87.5	85.8	P/P	70 - 130
1778652	Methoxychlor	119	117	P/P	86 - 145

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P300077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1776742	Iron	98.2	96.4	P/P	70 - 130
1776742	Zinc	104	103	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P300163

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778121	Calcium	93.6		P	80 - 120
1778121	Iron	96.2	95.8	P/P	80 - 120
1778121	Magnesium	93.2		P	80 - 120
1778121	Potassium	97.6	97.3	P/P	80 - 120
1778121	Sodium	94.8		P	80 - 120
1778121	Zinc	96.3	96.0	P/P	80 - 120
1778511	Calcium	96.5		P	80 - 120
1778511	Iron	97.6		P	80 - 120
1778511	Magnesium	102		P	80 - 120
1778511	Potassium	99.4		P	80 - 120
1778511	Sodium	94.7		P	80 - 120
1778511	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P300077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1776742	Arsenic	106	103	P/P	70 - 130
1776742	Cadmium	103	102	P/P	70 - 130
1776742	Chromium	90.4	88.4	P/P	70 - 130
1776742	Copper	93.2	91.1	P/P	70 - 130
1776742	Lead	95.6	94.1	P/P	70 - 130
1776742	Nickel	94.9	92.6	P/P	70 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1776742	Silver	95.2	93.1	P/P	70 - 130
1776742	Zinc	100	98.1	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300163

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778121	Arsenic	96.6	96.2	P/P	80 - 120
1778121	Cadmium	96.4	96.1	P/P	80 - 120
1778121	Chromium	92.5	92.5	P/P	80 - 120
1778121	Copper	87.7	88.6	P/P	80 - 120
1778121	Lead	88.7	88.3	P/P	80 - 120
1778121	Nickel	90.9	90.0	P/P	80 - 120
1778121	Silver	91.2	92.2	P/P	80 - 120
1778511	Arsenic	98.7		P	80 - 120
1778511	Cadmium	97.5		P	80 - 120
1778511	Chromium	94.8		P	80 - 120
1778511	Copper	91.1		P	80 - 120
1778511	Lead	90.0		P	80 - 120
1778511	Nickel	93.7		P	80 - 120
1778511	Silver	92.7		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778259	Chloride	107		P	90 - 110
1778458	Chloride	107		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778259	Sulfate	105		P	90 - 110
1778458	Sulfate	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778633	Sulfate	103	104	P/P	90 - 110
1778634	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300569

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778470	Ammonia-N	99.8	99.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300546

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778303	Kjeldahl Nitrogen	97.5	93.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300631

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778470	Kjeldahl Nitrogen	105	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300721

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778438	Kjeldahl Nitrogen	95.3	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300381

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778308	NO2NO3-N	97.5	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300616

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778469	NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300592

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778307	Total-P	101	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300614

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778468	Total-P	91.7	94.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300063

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778462	O-Phosphate-P	96.2	97.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P300064

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778471	O-Phosphate-P	95.7	98.7	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P300212

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1777716	Acetochlor	100	96.7	P/P	84 - 119
1777716	Alachlor	98.1	95.4	P/P	84 - 121
1777716	Ametryn	126	123	P/P	66 - 127
1777716	Atrazine Desethyl	52.9	41.4	P/P	21 - 111
1777716	Azinphos Methyl	158	146	P/P	79 - 185
1777716	Butylate	67.7	55.3	P/P	36 - 94.0
1777716	Chlorpyrifos Ethyl	98.1	85.7	P/P	54 - 101
1777716	Chlorpyrifos Methyl	93.1	91.1	P/P	28 - 114
1777716	Cyanazine	153	153	P/P	58 - 201
1777716	Demeton	86.5	81.5	P/P	57 - 130
1777716	Diazinon	100	96.4	P/P	79 - 124
1777716	Disulfoton	92.4	83.0	P/P	45 - 140
1777716	EPTC	57.4	52.4	P/P	43 - 95.0
1777716	Ethion	98.1	99.3	P/P	65 - 125
1777716	Ethoprop	93.2	95.6	P/P	69 - 107
1777716	Fenamiphos	126	127	P/P	78 - 129
1777716	Fipronil	111	108	P/P	62 - 125
1777716	Fipronil Sulfide	104	99.7	P/P	65 - 119
1777716	Fipronil Sulfone	107	102	P/P	64 - 122
1777716	Fonofos	95.1	93.3	P/P	70 - 112
1777716	Hexazinone	97.4	94.9	P/P	44 - 147
1777716	Malathion	113	109	P/P	72 - 125
1777716	Metolachlor	101	96.2	P/P	85 - 120
1777716	Metribuzin	103	106	P/P	68 - 129
1777716	Mevinphos	106	99.1	P/P	35 - 125
1777716	Molinate	75.5	70.6	P/P	51 - 100
1777716	Parathion Ethyl	90.7	91.2	P/P	86 - 108
1777716	Parathion Methyl	110	110	P/P	87 - 125
1777716	Pendimethalin	70.3	72.2	P/P	53 - 136
1777716	Phorate	90.7	87.9	P/P	52 - 113
1777716	Prometon	121	117	P/P	67 - 125
1777716	Prometryn	110	105	P/P	73 - 114
1777716	Simazine	94.0	87.5	P/P	66 - 123
1777716	Terbufos	97.0	94.2	P/P	58 - 116
1777716	Terbuthylazine	97.0	95.8	P/P	77 - 113

Reference Method: EPA 8321B
Batch ID: P300193

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1777713	Glyphosate	50.2	51.6	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P300458

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778252	Fluoride	95.3	96.5	P/P	94 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P300591

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

Reference Method: SM 4500 F-C-97
Batch ID: P300591

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778466	Fluoride	99.6	100	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P300358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778264	Organic Carbon	96.9	97.9	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P300360

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778143	Organic Carbon	95.8	94.8	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P300242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1778508	2,4,5-T	96.4	88.8	P/P	40 - 140
1778508	2,4-D	132	129	P/P	40 - 140
1778508	2,4-DB	76.8	86.0	P/P	40 - 140
1778508	Acifluorfen	89.6	78.0	P/P	40 - 140
1778508	Bentazon	131	133	P/P	40 - 140
1778508	Dichlorprop	103	109	P/P	40 - 140
1778508	Dinoseb	74.4	71.6	P/P	40 - 140
1778508	Diuron	50.0	56.8	P/P	40 - 140
1778508	Fenuron	52.4	54.8	P/P	40 - 140
1778508	Imidacloprid	112	104	P/P	40 - 160
1778508	Linuron	77.6	90.8	P/P	40 - 140
1778508	MCPA	106	105	P/P	40 - 140
1778508	MCPP	118	113	P/P	40 - 140
1778508	Silvex	130	130	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P299991

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778652	Aldrin	4.74	Spike	P	0 - 30
1778652	Alpha-BHC	10.4	Spike	P	0 - 30
1778652	Beta-BHC	4.52	Spike	P	0 - 30
1778652	DDD-p,p'	3.43	Spike	P	0 - 30
1778652	DDE-p,p'	1.07	Spike	P	0 - 30
1778652	DDT-p,p'	2.92	Spike	P	0 - 30
1778652	Delta-BHC	2.69	Spike	P	0 - 30
1778652	Dieldrin	1.24	Spike	P	0 - 30
1778652	Endosulfan I	2.92	Spike	P	0 - 30
1778652	Endosulfan II	0.520	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P299991

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778652	Endosulfan Sulfate	9.55	Spike	P	0 - 30
1778652	Endrin	2.58	Spike	P	0 - 30
1778652	Endrin Aldehyde	0.957	Spike	P	0 - 30
1778652	Gamma-BHC	0.0746	Spike	P	0 - 30
1778652	Heptachlor	13.9	Spike	P	0 - 30
1778652	Heptachlor Epoxide	0.836	Spike	P	0 - 30
1778652	Methoxychlor	2.42	Spike	P	0 - 30
LFB	Aldrin	16.9	LCS	P	0 - 30
LFB	Alpha-BHC	20.1	LCS	P	0 - 30
LFB	Beta-BHC	17.9	LCS	P	0 - 30
LFB	DDD-p,p'	18.4	LCS	P	0 - 30
LFB	DDE-p,p'	17.3	LCS	P	0 - 30
LFB	DDT-p,p'	22.6	LCS	P	0 - 30
LFB	Delta-BHC	18.8	LCS	P	0 - 30
LFB	Dieldrin	17.8	LCS	P	0 - 30
LFB	Endosulfan I	17.7	LCS	P	0 - 30
LFB	Endosulfan II	3.37	LCS	P	0 - 30
LFB	Endosulfan Sulfate	19.0	LCS	P	0 - 30
LFB	Endrin	18.1	LCS	P	0 - 30
LFB	Endrin Aldehyde	14.8	LCS	P	0 - 30
LFB	Gamma-BHC	18.5	LCS	P	0 - 30
LFB	Heptachlor	17.4	LCS	P	0 - 30
LFB	Heptachlor Epoxide	18.9	LCS	P	0 - 30
LFB	Methoxychlor	17.5	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P300083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778456	Turbidity	2.04	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1776742	Iron	1.76	Spike	P	0 - 20
1776742	Zinc	0.315	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P300163

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778121	Calcium	0.936	Spike	P	0 - 20
1778121	Iron	0.345	Spike	P	0 - 20
1778121	Magnesium	0.812	Spike	P	0 - 20
1778121	Potassium	0.231	Spike	P	0 - 20
1778121	Sodium	0.115	Spike	P	0 - 20
1778121	Zinc	0.311	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1776742	Arsenic	2.93	Spike	P	0 - 20
1776742	Cadmium	0.897	Spike	P	0 - 20
1776742	Chromium	2.11	Spike	P	0 - 20
1776742	Copper	2.15	Spike	P	0 - 20
1776742	Lead	1.60	Spike	P	0 - 20
1776742	Nickel	2.47	Spike	P	0 - 20
1776742	Silver	2.21	Spike	P	0 - 20
1776742	Zinc	1.95	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P300163

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778121	Arsenic	0.410	Spike	P	0 - 20
1778121	Cadmium	0.262	Spike	P	0 - 20
1778121	Chromium	0.00159	Spike	P	0 - 20
1778121	Copper	0.995	Spike	P	0 - 20
1778121	Lead	0.411	Spike	P	0 - 20
1778121	Nickel	1.03	Spike	P	0 - 20
1778121	Silver	1.06	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778259	Chloride	0.189	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778259	Sulfate	0.359	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P300296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778633	Sulfate	0.473	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300566

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778468	Ammonia-N	0.125	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778470	Ammonia-N	0.261	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300546

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778303	Kjeldahl Nitrogen	3.12	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300631

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778470	Kjeldahl Nitrogen	3.98	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778556	Kjeldahl Nitrogen	2.87	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P300721

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778438	Kjeldahl Nitrogen	3.73	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778308	NO2NO3-N	0.309	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P300616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778469	NO2NO3-N	0.643	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300592

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778307	Total-P	2.15	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P300614

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778468	Total-P	3.19	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P300063

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778462	O-Phosphate-P	1.55	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P300064

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778471	O-Phosphate-P	3.09	Spike	P	0 - 20

Reference Method: EPA 8270D

Batch ID: P300212

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1777716	Acetochlor	3.50	Spike	P	0 - 30
1777716	Alachlor	2.79	Spike	P	0 - 30
1777716	Ametryn	2.77	Spike	P	0 - 30
1777716	Atrazine	0.865	Spike	P	0 - 30
1777716	Atrazine Desethyl	19.1	Spike	P	0 - 30
1777716	Azinphos Methyl	8.07	Spike	P	0 - 30
1777716	Bromacil	5.31	Spike	P	0 - 30
1777716	Butylate	20.1	Spike	P	0 - 30
1777716	Chlorpyrifos Ethyl	12.9	Spike	P	0 - 30
1777716	Chlorpyrifos Methyl	2.14	Spike	P	0 - 30
1777716	Cyanazine	0.200	Spike	P	0 - 30
1777716	Demeton	5.91	Spike	P	0 - 30
1777716	Diazinon	3.93	Spike	P	0 - 30
1777716	Disulfoton	10.8	Spike	P	0 - 30
1777716	EPTC	9.17	Spike	P	0 - 30
1777716	Ethion	1.21	Spike	P	0 - 30
1777716	Ethoprop	2.45	Spike	P	0 - 30
1777716	Fenamiphos	0.393	Spike	P	0 - 30
1777716	Fipronil	2.75	Spike	P	0 - 30
1777716	Fipronil Sulfide	3.94	Spike	P	0 - 30
1777716	Fipronil Sulfone	4.61	Spike	P	0 - 30
1777716	Fonofos	1.92	Spike	P	0 - 30
1777716	Hexazinone	1.54	Spike	P	0 - 30
1777716	Malathion	3.14	Spike	P	0 - 30
1777716	Metalaxyl	4.13	Spike	P	0 - 30
1777716	Metolachlor	4.05	Spike	P	0 - 30
1777716	Metribuzin	2.93	Spike	P	0 - 30
1777716	Mevinphos	7.14	Spike	P	0 - 30
1777716	Molinate	6.62	Spike	P	0 - 30
1777716	Norflurazon	0.377	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P300212

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1777716	Parathion Ethyl	0.605	Spike	P	0 - 30
1777716	Parathion Methyl	0.253	Spike	P	0 - 30
1777716	Pendimethalin	2.74	Spike	P	0 - 30
1777716	Phorate	3.06	Spike	P	0 - 30
1777716	Prometon	3.54	Spike	P	0 - 30
1777716	Prometryn	4.07	Spike	P	0 - 30
1777716	Simazine	3.64	Spike	P	0 - 30
1777716	Terbufos	2.97	Spike	P	0 - 30
1777716	Terbuthylazine	1.21	Spike	P	0 - 30
LFB	Acetochlor	7.21	LCS	P	0 - 30
LFB	Alachlor	4.79	LCS	P	0 - 30
LFB	Ametryn	1.93	LCS	P	0 - 30
LFB	Atrazine	4.27	LCS	P	0 - 30
LFB	Atrazine Desethyl	21.1	LCS	P	0 - 30
LFB	Azinphos Methyl	21.3	LCS	P	0 - 30
LFB	Bromacil	1.66	LCS	P	0 - 30
LFB	Butylate	10.9	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.26	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	8.31	LCS	P	0 - 30
LFB	Cyanazine	2.59	LCS	P	0 - 30
LFB	Demeton	1.88	LCS	P	0 - 30
LFB	Diazinon	0.221	LCS	P	0 - 30
LFB	Disulfoton	13.7	LCS	P	0 - 30
LFB	EPTC	14.0	LCS	P	0 - 30
LFB	Ethion	0.0418	LCS	P	0 - 30
LFB	Ethoprop	16.1	LCS	P	0 - 30
LFB	Fenamiphos	14.3	LCS	P	0 - 30
LFB	Fipronil	22.9	LCS	P	0 - 30
LFB	Fipronil Sulfide	22.8	LCS	P	0 - 30
LFB	Fipronil Sulfone	19.2	LCS	P	0 - 30
LFB	Fonofos	13.5	LCS	P	0 - 30
LFB	Hexazinone	3.73	LCS	P	0 - 30
LFB	Malathion	2.18	LCS	P	0 - 30
LFB	Metaxyl	0.473	LCS	P	0 - 30
LFB	Metolachlor	6.76	LCS	P	0 - 30
LFB	Metribuzin	9.49	LCS	P	0 - 30
LFB	Mevinphos	24.0	LCS	P	0 - 30
LFB	Molinate	7.76	LCS	P	0 - 30
LFB	Norflurazon	0.579	LCS	P	0 - 30
LFB	Parathion Ethyl	4.41	LCS	P	0 - 30
LFB	Parathion Methyl	11.6	LCS	P	0 - 30
LFB	Pendimethalin	0.180	LCS	P	0 - 30
LFB	Phorate	16.5	LCS	P	0 - 30
LFB	Prometon	9.41	LCS	P	0 - 30
LFB	Prometryn	6.49	LCS	P	0 - 30
LFB	Simazine	3.25	LCS	P	0 - 30
LFB	Terbufos	11.0	LCS	P	0 - 30
LFB	Terbuthylazine	9.34	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P300193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1777713	Glyphosate	2.75	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P300623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778456	Color (true)	0.385	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P300454

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778252	Total Alkalinity	3.95	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P300588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778466	Total Alkalinity	0.134	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P300530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778260	TDS	16.1	Sample	F	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P300531

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778624	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P300291

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778451	TSS	7.41	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P300458

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778252	Fluoride	1.01	Spike	P	0 - 3.7

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P300591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778466	Fluoride	0.470	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P300358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778264	Organic Carbon	0.752	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P300360

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778143	Organic Carbon	0.945	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P300242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1778508	2,4,5-T	8.21	Spike	P	0 - 30
1778508	2,4-D	2.45	Spike	P	0 - 30
1778508	2,4-DB	11.3	Spike	P	0 - 30
1778508	Acifluorfen	13.8	Spike	P	0 - 30
1778508	Bentazon	1.05	Spike	P	0 - 30
1778508	Dichlorprop	5.65	Spike	P	0 - 30
1778508	Dinoseb	3.84	Spike	P	0 - 30
1778508	Diuron	12.7	Spike	P	0 - 30
1778508	Fenuron	4.48	Spike	P	0 - 30
1778508	Imidacloprid	7.43	Spike	P	0 - 30
1778508	Linuron	15.7	Spike	P	0 - 30
1778508	MCPA	0.758	Spike	P	0 - 30
1778508	MCPP	4.84	Spike	P	0 - 30
1778508	Silvex	0.0	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: 1778508
Field Sample ID: G4SENNR3_03082016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	73.4	P	50 - 150
USGS O-2060-01	2,4-D-d3	79.8	P	40 - 150
USGS O-2060-01	Diuron-d6	44.4	P	40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1778515

Field Sample ID: G4SENNR3_03082016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	75.5	P	44 - 128

Lab Sample ID: 1778516

Field Sample ID: G4SENNR3_03082016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	92.5	P	67 - 131
EPA 8270D	Simazine-d10	90.1	P	75 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A68089

Included Lab Sample IDs: 1778456, 1778457, 1778458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	103	P/P	90 - 110
Chloride	106	104	P/P	90 - 110
Sulfate	101	98.9	P/P	90 - 110
Sulfate	102	101	P/P	90 - 110
Sulfate	102	101	P/P	90 - 110
Sulfate	104	101	P/P	90 - 110
Sulfate	98.9	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A68113

Included Lab Sample IDs: 1778462, 1778463, 1778464, 1778471, 1778472, 1778473

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.2	96.2	P/P	90 - 110
O-Phosphate-P	98.3	98.6	P/P	90 - 110
O-Phosphate-P	98.6	98.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A68115

Included Lab Sample IDs: 1778456, 1778457, 1778458, 1778465, 1778466, 1778467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A68130

Included Lab Sample IDs: 1778456, 1778457, 1778458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.5	96.6	P/P	90 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A68163
Included Lab Sample IDs: 1778508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	94.0	91.0	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A68181
Included Lab Sample IDs: 1778509, 1778510, 1778511, 1778512, 1778513, 1778514

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	92.0	93.8	P/P	90 - 110
Iron	91.7	93.6	P/P	90 - 110
Iron	93.6	93.4	P/P	90 - 110
Magnesium	92.1	94.7	P/P	90 - 110
Potassium	95.7	95.4	P/P	90 - 110
Sodium	91.1	91.1	P/P	90 - 110
Zinc	100	101	P/P	90 - 110
Zinc	99.5	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A68189
Included Lab Sample IDs: 1778512, 1778513

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	98.3	97.6	P/P	90 - 110
Cadmium	104	99.5	P/P	90 - 110
Chromium	99.0	93.9	P/P	90 - 110
Copper	95.1	94.9	P/P	90 - 110
Lead	97.4	95.3	P/P	90 - 110
Nickel	94.2	95.2	P/P	90 - 110
Silver	98.6	95.3	P/P	90 - 110
Zinc	96.6	95.1	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A68221
Included Lab Sample IDs: 1778459, 1778460, 1778461, 1778468, 1778469, 1778470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	98.6	P/P	90 - 110
Organic Carbon	97.2	97.0	P/P	90 - 110
Organic Carbon	98.2	96.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A68232
Included Lab Sample IDs: 1778459, 1778460, 1778461, 1778470

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

Reference Method: SM 2320 B-97
Run ID: A68254
Included Lab Sample IDs: 1778456, 1778457, 1778458, 1778467

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

Reference Method: SM 2320 B-97

Run ID: A68254

Included Lab Sample IDs: 1778456, 1778457, 1778458, 1778467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A68254

Included Lab Sample IDs: 1778456, 1778457, 1778458, 1778467

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.6	98.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A68281

Included Lab Sample IDs: 1778468, 1778469

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A68284

Included Lab Sample IDs: 1778459, 1778460, 1778461, 1778468, 1778469, 1778470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.4	P/P	90 - 110
Ammonia-N	100	101	P/P	90 - 110
Ammonia-N	101	100	P/P	90 - 110
Ammonia-N	101	100	P/P	90 - 110
Ammonia-N	101	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A68295

Included Lab Sample IDs: 1778465, 1778466

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

Reference Method: SM 4500 F-C-97

Run ID: A68295

Included Lab Sample IDs: 1778465, 1778466

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

Reference Method: USGS O-2060-01

Run ID: A68299

Included Lab Sample IDs: 1778508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	81.6	91.2	P/P	60 - 150
Fenuron	96.0	96.0	P/P	60 - 150
Imidacloprid	95.6	94.0	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A68299

Included Lab Sample IDs: 1778508

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

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

Run ID: A68305

Included Lab Sample IDs: 1778515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.4	99.8	P/P	85 - 115
Alpha-BHC	97.5	99.0	P/P	85 - 115
Beta-BHC	104	101	P/P	85 - 115
Carbophenothion	104	96.2	P/P	90 - 110
Chlorothalonil	106	95.0	P/P	90 - 110
Cypermethrin	101	97.3	P/P	85 - 115
DDD-p,p'	101	100	P/P	85 - 115
DDE-p,p'	98.0	99.4	P/P	85 - 115
DDT-p,p'	96.7	97.3	P/P	85 - 115
Delta-BHC	95.5	97.8	P/P	85 - 115
Dicofol	105	112*	P/F	90 - 110
Dieldrin	99.4	101	P/P	85 - 115
Endosulfan I	101	102	P/P	85 - 115
Endosulfan II	100	101	P/P	85 - 115
Endosulfan Sulfate	99.3	101	P/P	85 - 115
Endrin	96.2	97.8	P/P	85 - 115
Endrin Aldehyde	102	102	P/P	85 - 115
Gamma-BHC	97.7	98.9	P/P	85 - 115
Heptachlor	99.9	99.7	P/P	85 - 115
Heptachlor Epoxide	100	102	P/P	85 - 115
Methoxychlor	98.6	99.0	P/P	90 - 110
Mirex	106	102	P/P	90 - 110
Permethrin	108	102	P/P	90 - 110
Trifluralin	106	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A68306

Included Lab Sample IDs: 1778509, 1778510, 1778511, 1778514

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	99.4	P/P	90 - 110
Arsenic	99.4	98.9	P/P	90 - 110
Cadmium	98.9	98.8	P/P	90 - 110
Cadmium	99.1	98.9	P/P	90 - 110
Chromium	97.9	97.2	P/P	90 - 110
Chromium	98.0	97.9	P/P	90 - 110
Copper	96.3	95.0	P/P	90 - 110
Copper	98.1	96.3	P/P	90 - 110
Lead	96.5	97.3	P/P	90 - 110
Lead	97.6	96.5	P/P	90 - 110
Nickel	97.7	96.1	P/P	90 - 110
Nickel	98.4	97.7	P/P	90 - 110
Silver	93.2	92.8	P/P	90 - 110
Silver	93.6	93.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A68327
Included Lab Sample IDs: 1778459, 1778460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.7	96.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A68328
Included Lab Sample IDs: 1778470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.4	96.6	P/P	90 - 110

Reference Method: USGS O-2060-01
Run ID: A68329
Included Lab Sample IDs: 1778508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	116	98.8	P/P	50 - 150
2,4-D	101	106	P/P	50 - 150
2,4-DB	126	117	P/P	50 - 150
Acifluorfen	124	115	P/P	50 - 150
Bentazon	135	102	P/P	50 - 150
Dichlorprop	120	109	P/P	50 - 150
Dinoseb	128	99.8	P/P	50 - 150
MCPA	127	112	P/P	50 - 150
MCPP	128	108	P/P	50 - 150
Silvex	141	122	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A68367
Included Lab Sample IDs: 1778459, 1778460, 1778461, 1778468, 1778469, 1778470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	99.5	P/P	90 - 110
Total-P	99.5	99.8	P/P	90 - 110
Total-P	99.8	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A68380
Included Lab Sample IDs: 1778461, 1778468, 1778469

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.5	96.2	P/P	90 - 110
Kjeldahl Nitrogen	96.2	96.6	P/P	90 - 110
Kjeldahl Nitrogen	96.6	99.4	P/P	90 - 110

Reference Method: EPA 8270D
Run ID: A68493
Included Lab Sample IDs: 1778516

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	99.4		P	80 - 120
Metribuzin	96.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A68495
Included Lab Sample IDs: 1778516

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	92.9		P	80 - 120
Alachlor	96.5		P	80 - 120
Ametryn	101		P	80 - 120
Atrazine Desethyl	112		P	80 - 120
Azinphos Methyl	70.4*		F	80 - 120
Bromacil	95.9		P	80 - 120
Butylate	98.0		P	80 - 120
Chlorpyrifos Ethyl	94.5		P	80 - 120
Chlorpyrifos Methyl	92.8		P	80 - 120
Cyanazine	99.0		P	80 - 120
Demeton	103		P	80 - 120
Diazinon	102		P	80 - 120
Disulfoton	92.1		P	80 - 120
EPTC	103		P	80 - 120
Ethion	91.2		P	80 - 120
Ethoprop	96.3		P	80 - 120
Fenamiphos	90.9		P	80 - 120
Fipronil	85.2		P	80 - 120
Fipronil Sulfide	122*		F	80 - 120
Fipronil Sulfone	96.6		P	80 - 120
Fonofos	99.8		P	80 - 120
Hexazinone	101		P	80 - 120
Malathion	90.1		P	80 - 120
Metalaxyl	104		P	80 - 120
Metolachlor	95.7		P	80 - 120
Mevinphos	87.7		P	80 - 120
Molinate	106		P	80 - 120
Norflurazon	101		P	80 - 120
Parathion Ethyl	98.4		P	80 - 120
Parathion Methyl	93.9		P	80 - 120
Pendimethalin	86.2		P	80 - 120
Phorate	93.7		P	80 - 120
Prometon	95.5		P	80 - 120
Prometryn	98.2		P	80 - 120
Simazine	111		P	80 - 120
Terbufos	94.8		P	80 - 120
Terbuthylazine	99.7		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	77.5	91.9	90.2	86.0	16.9		4.74
	Alpha-BHC	75.6	92.4	90.7	81.7	20.1		10.4

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)	Beta-BHC	106	127	101	105	17.9		4.52
	DDD-p,p'	88.4	106	99.1	95.8	18.4		3.43
	DDE-p,p'	84.1	100	95.6	94.6	17.3		1.07
	DDT-p,p'	85.8	108	106	103	22.6		2.92
	Delta-BHC	74.3	89.7	89.2	86.8	18.8		2.69
	Dieldrin	87.0	104	91.3	89.8	17.8		1.24
	Endosulfan I	84.6	101	89.5	86.9	17.7		2.92
	Endosulfan II	107	111	104	104	3.37		0.520
	Endosulfan Sulfate	94.7	115	112	102	19.0		9.55
	Endrin	91.7	110	103	100	18.1		2.58
	Endrin Aldehyde	82.7	95.8	92.0	91.1	14.8		0.957
	Gamma-BHC	70.8	85.2	83.1	83.1	18.5		0.0746
	Heptachlor	71.8	85.5	99.4	86.5	17.4		13.9
	Heptachlor Epoxide	87.1	105	87.5	85.8	18.9		0.836
	Methoxychlor	99.3	118	119	117	17.5		2.42
EPA 180.1 Rev. 2.0	Turbidity						2.04	
EPA 200.7 Rev. 4.4	Calcium	97.6		93.6	96.5			0.936
	Iron	95.8		98.2	96.4			1.76
	Iron	97.7		96.2	95.8	97.6		0.345
	Magnesium	97.7		93.2	102			0.812
	Potassium	101		97.6	97.3	99.4		0.231
	Sodium	96.4		94.8	94.7			0.115
	Zinc	99.9		104	103			0.315
	Zinc	98.4		96.3	96.0	102		0.311
EPA 200.8 Rev. 5.4	Arsenic	96.3		106	103			2.93
	Arsenic	96.8		96.6	96.2	98.7		0.410
	Cadmium	101		103	102			0.897
	Cadmium	95.6		96.4	96.1	97.5		0.262
	Chromium	97.7		90.4	88.4			2.11
	Chromium	94.0		92.5	92.5	94.8		0.0015
	Copper	91.3		93.2	91.1			2.15
	Copper	94.1		87.7	88.6	91.1		0.995
	Lead	91.1		95.6	94.1			1.60
	Lead	89.0		88.7	88.3	90.0		0.411
	Nickel	92.9		94.9	92.6			2.47
	Nickel	95.2		90.9	90.0	93.7		1.03
	Silver	98.6		95.2	93.1			2.21
	Silver	93.1		91.2	92.2	92.7		1.06
EPA 300.0 Rev. 2.1	Zinc	95.0		100	98.1			1.95
	Chloride	109		107	107		0.189	
	Sulfate	106		105	104		0.359	
	Sulfate	103		103	104	103		0.473
EPA 350.1 Rev. 2.0	Ammonia-N	101						0.125
	Ammonia-N	101		99.8	99.5			0.261
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.1		97.5	93.8			3.12
	Kjeldahl Nitrogen	103		105	98.8			3.98
	Kjeldahl Nitrogen	102						2.87
	Kjeldahl Nitrogen	102		95.3	99.8			3.73
EPA 353.2 Rev. 2.0	NO2NO3-N	101		97.5	97.0			0.309
	NO2NO3-N	99.0		98.5				0.643
EPA 365.1 Rev. 2.0	Total-P	99.4		101	98.2			2.15
	Total-P	98.4		91.7	94.7			3.19
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		96.2	97.7			1.55

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.1		95.7	98.7			3.09
EPA 8270D	Acetochlor	92.9	99.9	100	96.7	7.21		3.50
	Alachlor	93.9	98.5	98.1	95.4	4.79		2.79
	Ametryn	101	103	126	123	1.93		2.77
	Atrazine	96.6	101			4.27		0.865
	Atrazine Desethyl	61.3	75.8	52.9	41.4	21.1		19.1
	Azinphos Methyl	133	108	158	146	21.3		8.07
	Bromacil	88.8	87.3			1.66		5.31
	Butylate	59.0	65.8	67.7	55.3	10.9		20.1
	Chlorpyrifos Ethyl	98.1	93.1	98.1	85.7	5.26		12.9
	Chlorpyrifos Methyl	93.0	85.6	93.1	91.1	8.31		2.14
	Cyanazine	117	114	153	153	2.59		0.200
	Demeton	79.3	77.9	86.5	81.5	1.88		5.91
	Diazinon	92.7	92.5	100	96.4	0.221		3.93
	Disulfoton	97.6	85.1	92.4	83.0	13.7		10.8
	EPTC	53.5	61.5	57.4	52.4	14.0		9.17
	Ethion	107	106	98.1	99.3	0.0418		1.21
	Ethoprop	86.6	73.7	93.2	95.6	16.1		2.45
	Fenamiphos	113	97.7	126	127	14.3		0.393
	Fipronil	80.7	102	111	108	22.9		2.75
	Fipronil Sulfide	78.8	99.1	104	99.7	22.8		3.94
	Fipronil Sulfone	80.4	97.5	107	102	19.2		4.61
	Fonofos	89.5	78.2	95.1	93.3	13.5		1.92
	Hexazinone	105	101	97.4	94.9	3.73		1.54
	Malathion	109	111	113	109	2.18		3.14
	Metalaxyl	90.3	89.8			0.473		4.13
	Metolachlor	95.1	102	101	96.2	6.76		4.05
	Metribuzin	93.2	102	103	106	9.49		2.93
	Mevinphos	93.7	73.7	106	99.1	24.0		7.14
	Molinate	66.8	61.8	75.5	70.6	7.76		6.62
	Norflurazon	96.6	96.0			0.579		0.377
	Parathion Ethyl	91.1	87.2	90.7	91.2	4.41		0.605
	Parathion Methyl	97.3	86.6	110	110	11.6		0.253
	Pendimethalin	76.0	76.2	70.3	72.2	0.180		2.74
	Phorate	86.7	73.4	90.7	87.9	16.5		3.06
	Prometon	97.4	107	121	117	9.41		3.54
	Prometryn	99.7	106	110	105	6.49		4.07
	Simazine	96.6	93.5	94.0	87.5	3.25		3.64
	Terbufos	90.8	81.3	97.0	94.2	11.0		2.97
	Terbutylazine	95.6	105	97.0	95.8	9.34		1.21
EPA 8321B	Glyphosate	95.4		50.2	51.6			2.75
SM 2120 B	Color (true)						0.385	
SM 2320 B-97	Total Alkalinity	103					3.95	
	Total Alkalinity	103					0.134	
SM 2540 C-97	TDS						16.1	
	TDS						0.0	
SM 2540 D-97	TSS						7.41	
SM 4500 F-C-97	Fluoride	97.1		95.3	96.5			1.01
	Fluoride	102		99.6	100			0.470
SM 5310 B-00	Organic Carbon	99.4		96.9	97.9			0.752
	Organic Carbon	105		95.8	94.8			0.945
USGS O-2060-01	2,4,5-T	99.2		96.4	88.8			8.21
	2,4-D	106		132	129			2.45
	2,4-DB	94.4		76.8	86.0			11.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
USGS O-2060-01	Acifluorfen	93.2	89.6	78.0		13.8
	Bentazon	86.0	131	133		1.05
	Dichlorprop	96.4	103	109		5.65
	Dinoseb	70.8	74.4	71.6		3.84
	Diuron	128	50.0	56.8		12.7
	Fenuron	116	52.4	54.8		4.48
	Imidacloprid	110	112	104		7.43
	Linuron	124	77.6	90.8		15.7
	MCPA	111	106	105		0.758
	MCPP	104	118	113		4.84
	Silvex	114	130	130		0.0

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.	1778515
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1778456, 1778457, 1778458, 1778465, 1778466, 1778467
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1778509, 1778510, 1778511, 1778512, 1778513, 1778514
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1778509, 1778510, 1778511, 1778512, 1778513, 1778514
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1778456, 1778457, 1778458
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1778456, 1778457, 1778458, 1778465, 1778466, 1778467
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1778459, 1778460, 1778461, 1778468, 1778469, 1778470
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1778459, 1778460, 1778461, 1778468, 1778469, 1778470
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1778459, 1778460, 1778461, 1778468, 1778469, 1778470
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1778459, 1778460, 1778461, 1778468, 1778469, 1778470
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1778462, 1778463, 1778464, 1778471, 1778472, 1778473
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1778516
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1778508
SM 2120 B / E31780	True Color measured at 450 nm	1778456, 1778457, 1778458
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1778456, 1778457, 1778458, 1778465, 1778466, 1778467
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1778456, 1778457, 1778458, 1778465, 1778466, 1778467
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1778456, 1778457, 1778458, 1778465, 1778466, 1778467
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1778456, 1778457, 1778458, 1778465, 1778466, 1778467
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1778459, 1778460, 1778461, 1778468, 1778469, 1778470
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1778508
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1778508

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)	03/09/2016	03/10/2016	Fe-Val Siddell	03/17/2016	Vandana T. Nagar	1778515
EPA 180.1 Rev. 2.0	03/09/2016			03/09/2016 14:47	Sima Feizi	1778456, 1778457, 1778458, 1778465, 1778466, 1778467
EPA 200.7 Rev. 4.4	03/09/2016	03/09/2016	Elliott D. Healy	03/11/2016	Joshua Ayres	1778512, 1778513
	03/09/2016	03/10/2016	Elliott D. Healy	03/11/2016	Joshua Ayres	1778509, 1778510, 1778511, 1778514
EPA 200.8 Rev. 5.4	03/09/2016	03/09/2016	Elliott D. Healy	03/11/2016	Charles J. Peterson	1778512, 1778513
	03/09/2016	03/10/2016	Elliott D. Healy	03/17/2016	Charles J. Peterson	1778509, 1778510, 1778511, 1778514
EPA 300.0 Rev. 2.1	03/09/2016			03/11/2016	Julia Storbeck	1778456, 1778457, 1778458
EPA 350.1 Rev. 2.0	03/09/2016			03/17/2016	Diana M. Turner	1778459, 1778460, 1778461, 1778468, 1778469, 1778470
EPA 351.2 Rev. 2.0	03/09/2016	03/17/2016	Sofia Elnemr	03/20/2016	Rochelle Y Jackson	1778459, 1778460
	03/09/2016	03/18/2016	Sofia Elnemr	03/20/2016	Rochelle Y Jackson	1778470
	03/09/2016	03/21/2016	Sofia Elnemr	03/22/2016	Christopher Armour	1778461, 1778468, 1778469
EPA 353.2 Rev. 2.0	03/09/2016			03/15/2016	Peter D. Kaus	1778459, 1778460, 1778461, 1778470
	03/09/2016			03/17/2016	Peter D. Kaus	1778468, 1778469
EPA 365.1 Rev. 2.0	03/09/2016	03/18/2016	Christopher Armour	03/21/2016	Lipi Saha	1778459, 1778460, 1778461, 1778468, 1778469, 1778470
EPA 365.1 Rev. 2.0 dissolved	03/09/2016			03/09/2016 12:52	Ping Hua	1778462
	03/09/2016			03/09/2016 13:01	Ping Hua	1778471
	03/09/2016			03/09/2016 13:39	Ping Hua	1778463
	03/09/2016			03/09/2016 13:40	Ping Hua	1778464
	03/09/2016			03/09/2016 13:42	Ping Hua	1778472, 1778473
EPA 8270D	03/09/2016	03/11/2016	Fe-Val Siddell	03/25/2016	Irina Carbone	1778516
	03/09/2016	03/11/2016	Fe-Val Siddell	03/28/2016	Irina Carbone	1778516
EPA 8321B	03/09/2016	03/11/2016	Mohammad Ghaffari	03/11/2016	Mohammad Ghaffari	1778508
SM 2120 B	03/09/2016			03/10/2016 09:23	Rochelle Y Jackson	1778456, 1778457
	03/09/2016			03/10/2016 09:24	Rochelle Y Jackson	1778458
SM 2320 B-97	03/09/2016			03/15/2016	Dale L. Simmons	1778456, 1778457, 1778458, 1778467
	03/09/2016			03/17/2016	Dale L. Simmons	1778465, 1778466
SM 2540 C-97	03/09/2016			03/09/2016	Yijie Li	1778456, 1778457, 1778458, 1778465, 1778466, 1778467
SM 2540 D-97	03/09/2016			03/09/2016	Yijie Li	1778456, 1778457, 1778458, 1778465, 1778466, 1778467
SM 4500 F-C-97	03/09/2016			03/15/2016	Dale L. Simmons	1778456, 1778457, 1778458, 1778467
	03/09/2016			03/17/2016	Dale L. Simmons	1778465, 1778466
SM 5310 B-00	03/09/2016			03/14/2016	Sofia Elnemr	1778459, 1778460, 1778461, 1778470
	03/09/2016			03/15/2016	Sofia Elnemr	1778468, 1778469
USGS O-2060-01	03/09/2016	03/15/2016	Hoor Shaik	03/18/2016	Juyoung Kim	1778508
	03/09/2016	03/15/2016	Hoor Shaik	03/19/2016	Juyoung Kim	1778508