

Chemical Analysis Report

SO-DIST-2017-03-23-01

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

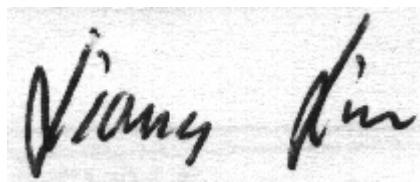
Event Description: **Sarasota Streams**
Request ID: **RQ-2017-03-20-46**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Ben Paswater

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 17-APR-2017 15:34

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Walker Creek at 32nd Street

Collection Date/Time: 03/22/2017 11:20

Field ID: G3SD032217-1

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882565	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P322103	
	EPA 300.0 Rev. 2.1	Chloride	3.9E+03		mg Cl/L	P322559	
		Sulfate	630		mg SO4/L	P322561	
	SM 2120 B	Color (true)	43		PCU	P322063	
	SM 2320 B-97	Total Alkalinity	192		mg CaCO3/L	P322801	
	SM 2540 C-97	TDS	6.95E+03		mg/L	P322731	
	SM 2540 D-97	TSS	3	U	mg/L	P322742	
	SM 4500 F-C-97	Fluoride	0.79		mg F/L	P323078	
1882570	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P322189	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P322082	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P322374	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P322129	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P322167	
1882575	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.23		mg P/L	P322092	
1882634	EPA 200.7 Rev. 4.4	Calcium	151		mg/L	P322332	
		Iron	120	U	ug/L	P322332	
		Magnesium	249		mg/L	P322332	
		Potassium	71		mg/L	P322332	
		Sodium	1.86E+03		mg/L	P322332	
	EPA 200.8 Rev. 5.4	Arsenic	3.00		ug/L	P322332	
		Cadmium	0.080	U	ug/L	P322332	
		Chromium	1.6	U	ug/L	P322332	
		Copper	1.1	I	ug/L	P322332	
		Lead	0.20	U	ug/L	P322332	
		Nickel	1.2	I	ug/L	P322332	
		Silver	0.040	U	ug/L	P322332	
		Zinc	8.9	I	ug/L	P322332	

Ref. Method and Comment:

SM 2540 C-97: The reported result is consistent with the conductivity measured in the laboratory, 12,500 umhos/cm.

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium, potassium, and sodium are unavailable because of high analyte concentration in the QC sample.

Sample Location: Indian Creek @ Fruitville Rd.

Collection Date/Time: 03/22/2017 10:20

Field ID: G3SD032217-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882566	EPA 180.1 Rev. 2.0	Turbidity	7.8	A	NTU	P322104	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P322559	
		Sulfate	170		mg SO4/L	P322561	
	SM 2120 B	Color (true)	28		PCU	P322063	
	SM 2320 B-97	Total Alkalinity	47		mg CaCO3/L	P322479	
	SM 2540 C-97	TDS	368	A	mg/L	P322731	
	SM 2540 D-97	TSS	6	I	mg/L	P322715	
	SM 4500 F-C-97	Fluoride	0.54		mg F/L	P322482	

Field ID: G3SD032217-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882571	EPA 350.1 Rev. 2.0	Ammonia-N	0.15		mg N/L	P322187	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P322083	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P322236	
	EPA 365.1 Rev. 2.0	Total-P	0.77		mg P/L	P322133	
	SM 5310 B-00	Organic Carbon	9.1		mg C/L	P322166	
1882576	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.44		mg P/L	P322093	
1882635	EPA 200.7 Rev. 4.4	Calcium	58.7		mg/L	P322260	
		Iron	2.65E+03		ug/L	P322260	
		Magnesium	22.3		mg/L	P322260	
		Potassium	5.6		mg/L	P322260	
		Sodium	14.9		mg/L	P322260	
		Zinc	5.7	I	ug/L	P322260	
	EPA 200.8 Rev. 5.4	Arsenic	0.87		ug/L	P322260	
		Cadmium	0.020	U	ug/L	P322260	
		Chromium	0.96	I	ug/L	P322260	
		Copper	1.71		ug/L	P322260	
		Lead	0.050	U	ug/L	P322260	
		Nickel	0.41	I	ug/L	P322260	
		Silver	0.010	U	ug/L	P322260	

Ref. Method and Comment:

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

Sample Location: Walker Creek at 32nd Street

Collection Date/Time: 03/22/2017 11:20

Field ID: G3SD032217-1

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882624	EPA 8321B	Glyphosate**	10	UJ	ug/L	P322013	MS, SUR
		Sucralose**	0.40		ug/L	P322051	
	USGS O-2060-01	2,4-D	0.017		ug/L	P322050	
		Diuron	0.0040	U	ug/L	P322050	
		Fenuron	0.0080	U	ug/L	P322050	
		Imidacloprid	0.0060	I	ug/L	P322050	
		Bentazon	0.074		ug/L	P322050	
		Linuron	0.0040	U	ug/L	P322050	
		Acetaminophen**	0.010	U	ug/L	P322050	
		MCP	0.0082	I	ug/L	P322050	
		Carbamazepine**	0.0018		ug/L	P322050	
		Triclopyr**	0.010	U	ug/L	P322050	
		Primidone**	0.0080	U	ug/L	P322050	
		Fluridone**	0.0016	I	ug/L	P322050	
1882628	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P322049	
1882657	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0019	U	ug/L	P322441	
		Alpha-BHC	0.0019	U	ug/L	P322441	MS
		Beta-BHC	0.0019	U	ug/L	P322441	

Field ID: G3SD032217-1

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882657	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Delta-BHC	0.0019	U	ug/L	P322441	
		Gamma-BHC	0.0019	U	ug/L	P322441	
		Carbophenothion	0.0057	UJ	ug/L	P322441	CCV
		Chlordane	0.019	U	ug/L	P322441	
		Chlorothalonil	0.0076	U	ug/L	P322441	
		Cypermethrin	0.011	U	ug/L	P322441	
		DDD-p,p'	0.0038	U	ug/L	P322441	
		DDE-p,p'	0.0038	U	ug/L	P322441	
		DDT-p,p'	0.0038	U	ug/L	P322441	
		Dicofol	0.023	UJ	ug/L	P322441	CCV
		Dieldrin	0.0019	U	ug/L	P322441	
		Endosulfan I	0.0019	U	ug/L	P322441	
		Endosulfan II	0.0019	U	ug/L	P322441	
		Endosulfan Sulfate	0.0038	U	ug/L	P322441	
		Endrin	0.0038	U	ug/L	P322441	
		Endrin Aldehyde	0.0038	U	ug/L	P322441	
		Heptachlor	0.0019	U	ug/L	P322441	
		Heptachlor Epoxide	0.0019	U	ug/L	P322441	
		Methoxychlor	0.0096	UJ	ug/L	P322441	CCV
		Mirex	0.0038	U	ug/L	P322441	
		Permethrin	0.0096	U	ug/L	P322441	
		Toxaphene	0.096	U	ug/L	P322441	
		PCB-1016	0.019	U	ug/L	P322441	
		PCB-1221	0.019	U	ug/L	P322441	
		PCB-1232	0.019	U	ug/L	P322441	
		PCB-1242	0.019	U	ug/L	P322441	
		PCB-1248	0.019	U	ug/L	P322441	
		PCB-1254	0.019	U	ug/L	P322441	
		PCB-1260	0.019	U	ug/L	P322441	
		Trifluralin	0.0076	U	ug/L	P322441	
1882661	EPA 8270D	Ametryn	0.32	I	ng/L	P322085	
		Atrazine	6.4		ng/L	P322085	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P322085	
		Chlorpyrifos Methyl	0.096	U	ng/L	P322085	
		Disulfoton	0.31	U	ng/L	P322085	
		Ethion	0.14	U	ng/L	P322085	
		Ethoprop	0.096	U	ng/L	P322085	
		Hexazinone	1.4	I	ng/L	P322085	
		Malathion	0.33	U	ng/L	P322085	
		Metribuzin	0.19	UJ	ng/L	P322085	CCV
		Mevinphos	0.48	U	ng/L	P322085	
		Norflurazon	0.52	I	ng/L	P322085	
		Phorate	0.24	U	ng/L	P322085	
		Prometryn	0.19	U	ng/L	P322085	

Field ID: G3SD032217-1

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882661	EPA 8270D	Simazine	0.48	U	ng/L	P322085	
		Atrazine Desethyl	1.4	U	ng/L	P322085	
		Prometon	1.8	I	ng/L	P322085	
		Fipronil	0.75	I	ng/L	P322085	
		Molinate	0.29	U	ng/L	P322085	
		Pendimethalin	1.4	U	ng/L	P322085	
		Terbufos	0.096	U	ng/L	P322085	
		EPTC	1.2	U	ng/L	P322085	RPD
		Terbuthylazine	0.41	U	ng/L	P322085	
		Bromacil	1.0	I	ng/L	P322085	
		Fipronil Sulfide	1.1		ng/L	P322085	
		Fipronil Sulfone	3.1		ng/L	P322085	
		Alachlor	0.24	U	ng/L	P322085	
		Azinphos Methyl	2.2	UJ	ng/L	P322085	LCS
		Butylate	0.38	U	ng/L	P322085	RPD
		Demeton	0.96	UJ	ng/L	P322085	CCV
		Diazinon	0.12	U	ng/L	P322085	
		Fenamiphos	0.24	U	ng/L	P322085	
		Fonofos	0.19	U	ng/L	P322085	
		Metalaxyl	0.56	I	ng/L	P322085	
		Metolachlor	2.1		ng/L	P322085	
		Acetochlor	0.24	U	ng/L	P322085	
		Cyanazine	0.48	U	ng/L	P322085	
		Parathion Ethyl	0.24	U	ng/L	P322085	
		Parathion Methyl	0.24	U	ng/L	P322085	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes. Results confirmed in re-extraction.

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

EPA 8270D: Refer to the narrative for an explanation of QC Codes. MS accuracy for Atrazine and Fipronil Sulfone not assessed due to high content of these parameters in the sample spiked.

Sample Location: Indian Creek @ Fruitville Rd.

Collection Date/Time: 03/22/2017 10:20

Field ID: G3SD032217-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882625	EPA 8321B	Glyphosate**	10	UJ	ug/L	P322013	MS, SUR
		Sucralose**	0.019	I	ug/L	P322051	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P322050	
		Diuron	0.0040	U	ug/L	P322050	
		Fenuron	0.0080	U	ug/L	P322050	
		Imidacloprid	0.028		ug/L	P322050	
		Bentazon	0.0040	U	ug/L	P322050	
		Linuron	0.0040	U	ug/L	P322050	
		Acetaminophen**	0.010	U	ug/L	P322050	
		MCP	0.0040	U	ug/L	P322050	
		Carbamazepine**	4.0E-04	U	ug/L	P322050	
		Triclopyr**	0.010	U	ug/L	P322050	

Field ID: G3SD032217-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882625	USGS O-2060-01	Primidone**	0.0080	U	ug/L	P322050	
		Fluridone**	4.0E-04	U	ug/L	P322050	
1882629	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P322049	
1882658	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0019	U	ug/L	P322441	
		Alpha-BHC	0.0019	U	ug/L	P322441	MS
		Beta-BHC	0.0019	U	ug/L	P322441	
		Delta-BHC	0.0019	U	ug/L	P322441	
		Gamma-BHC	0.0019	U	ug/L	P322441	
		Carbophenothion	0.0057	UJ	ug/L	P322441	CCV
		Chlordane	0.019	U	ug/L	P322441	
		Chlorothalonil	0.0076	U	ug/L	P322441	
		Cypermethrin	0.011	U	ug/L	P322441	
		DDD-p,p'	0.0038	U	ug/L	P322441	
		DDE-p,p'	0.0038	U	ug/L	P322441	
		DDT-p,p'	0.0038	U	ug/L	P322441	
		Dicofol	0.023	UJ	ug/L	P322441	CCV
		Dieldrin	0.0019	U	ug/L	P322441	
		Endosulfan I	0.0019	U	ug/L	P322441	
		Endosulfan II	0.0019	U	ug/L	P322441	
		Endosulfan Sulfate	0.0038	U	ug/L	P322441	
		Endrin	0.0038	U	ug/L	P322441	
		Endrin Aldehyde	0.0038	U	ug/L	P322441	
		Heptachlor	0.0019	U	ug/L	P322441	
		Heptachlor Epoxide	0.0019	U	ug/L	P322441	
		Methoxychlor	0.0095	UJ	ug/L	P322441	CCV
		Mirex	0.0038	U	ug/L	P322441	
		Permethrin	0.0095	U	ug/L	P322441	
		Toxaphene	0.095	U	ug/L	P322441	
		PCB-1016	0.019	U	ug/L	P322441	
		PCB-1221	0.019	U	ug/L	P322441	
		PCB-1232	0.019	U	ug/L	P322441	
		PCB-1242	0.019	U	ug/L	P322441	
		PCB-1248	0.019	U	ug/L	P322441	
		PCB-1254	0.019	U	ug/L	P322441	
		PCB-1260	0.019	U	ug/L	P322441	
		Trifluralin	0.0076	U	ug/L	P322441	
1882662	EPA 8270D	Ametryn	0.32	U	ng/L	P322085	
		Atrazine	0.86	I	ng/L	P322085	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P322085	
		Chlorpyrifos Methyl	0.098	U	ng/L	P322085	
		Disulfoton	0.32	U	ng/L	P322085	
		Ethion	0.15	U	ng/L	P322085	
		Ethoprop	0.098	U	ng/L	P322085	
		Hexazinone	0.49	U	ng/L	P322085	

Field ID: G3SD032217-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882662	EPA 8270D	Malathion	0.34	U	ng/L	P322085	
		Metribuzin	0.20	UJ	ng/L	P322085	CCV
		Mevinphos	0.49	U	ng/L	P322085	
		Norflurazon	0.72	I	ng/L	P322085	
		Phorate	0.24	U	ng/L	P322085	
		Prometryn	0.20	U	ng/L	P322085	
		Simazine	0.49	U	ng/L	P322085	
		Atrazine Desethyl	1.5	U	ng/L	P322085	
		Prometon	0.88	U	ng/L	P322085	
		Fipronil	0.24	U	ng/L	P322085	
		Molinate	0.29	U	ng/L	P322085	
		Pendimethalin	1.5	U	ng/L	P322085	
		Terbufos	0.098	U	ng/L	P322085	
		EPTC	1.2	U	ng/L	P322085	RPD
		Terbutylazine	0.42	U	ng/L	P322085	
		Bromacil	0.49	U	ng/L	P322085	
		Fipronil Sulfide	0.15	U	ng/L	P322085	
		Fipronil Sulfone	0.15	U	ng/L	P322085	
		Alachlor	0.24	U	ng/L	P322085	
		Azinphos Methyl	2.2	UJ	ng/L	P322085	LCS
		Butylate	0.39	U	ng/L	P322085	RPD
		Demeton	0.98	UJ	ng/L	P322085	CCV
		Diazinon	0.12	U	ng/L	P322085	
		Fenamiphos	0.24	U	ng/L	P322085	
		Fonofos	0.20	U	ng/L	P322085	
		Metalaxyl	0.20	U	ng/L	P322085	
		Metolachlor	9.1		ng/L	P322085	
		Acetochlor	0.24	U	ng/L	P322085	
		Cyanazine	0.49	U	ng/L	P322085	
		Parathion Ethyl	0.24	U	ng/L	P322085	
		Parathion Methyl	0.24	U	ng/L	P322085	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes. Glyphosate 13C 15N surrogate spike recovery exceeding the control limits in sample and sample duplicate matrix spikes.

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

EPA 8270D: Refer to the narrative for an explanation of QC Codes. MS accuracy for Atrazine and Fipronil Sulfone not assessed due to high content of these parameters in the sample spiked.

Sample Location: Howard Creek N.E. Branch Lot 185

Collection Date/Time: 03/22/2017 09:20

Field ID: G3SD032217-3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882567	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P322104	
	EPA 300.0 Rev. 2.1	Chloride	46		mg Cl/L	P322559	
		Sulfate	15		mg SO4/L	P322561	
	SM 2120 B	Color (true)	26		PCU	P322063	
	SM 2320 B-97	Total Alkalinity	45		mg CaCO3/L	P322479	

Field ID: G3SD032217-3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882567	SM 2540 C-97	TDS	200		mg/L	P322730	
	SM 2540 D-97	TSS	3	I	mg/L	P322714	
	SM 4500 F-C-97	Fluoride	0.56		mg F/L	P322482	
1882572	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P322187	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P322200	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P322236	
	EPA 365.1 Rev. 2.0	Total-P	0.70		mg P/L	P322214	
	SM 5310 B-00	Organic Carbon	8.2		mg C/L	P322166	
1882577	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.51		mg P/L	P322093	
1882636	EPA 200.7 Rev. 4.4	Calcium	25.6		mg/L	P322260	
		Iron	800		ug/L	P322260	
		Magnesium	7.73		mg/L	P322260	
		Potassium	1.5		mg/L	P322260	
		Sodium	16.0		mg/L	P322260	
		Zinc	7.8	I	ug/L	P322260	
	EPA 200.8 Rev. 5.4	Arsenic	1.37		ug/L	P322260	
		Cadmium	0.020	U	ug/L	P322260	
		Chromium	0.80	I	ug/L	P322260	
		Copper	0.20	U	ug/L	P322260	
		Lead	0.050	U	ug/L	P322260	
		Nickel	0.84		ug/L	P322260	
		Silver	0.010	U	ug/L	P322260	

Ref. Method and Comment:

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

Sample Location: Howard Creek N.E. Branch Lot 185

Collection Date/Time: 03/22/2017 09:20

Field ID: G3SD032217-3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882626	EPA 8321B	Glyphosate**	10	U	ug/L	P322013	MS
		Sucralose**	0.54		ug/L	P322051	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P322050	
		Diuron	0.0040	U	ug/L	P322050	
		Fenuron	0.0080	U	ug/L	P322050	
		Imidacloprid	0.0040	U	ug/L	P322050	
		Bentazon	0.063		ug/L	P322050	
		Linuron	0.0040	U	ug/L	P322050	
		Acetaminophen**	0.010	U	ug/L	P322050	
		MCP	0.0040	U	ug/L	P322050	
		Carbamazepine**	4.0E-04	U	ug/L	P322050	
		Triclopyr**	0.010	U	ug/L	P322050	
		Primidone**	0.0080	U	ug/L	P322050	
		Fluridone**	4.0E-04	U	ug/L	P322050	
	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P322049	

Field ID: G3SD032217-3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882659	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0019	U	ug/L	P322441	
		Alpha-BHC	0.0019	UJ	ug/L	P322441	MS
		Beta-BHC	0.0019	U	ug/L	P322441	
		Delta-BHC	0.0019	U	ug/L	P322441	
		Gamma-BHC	0.0019	U	ug/L	P322441	
		Carbophenothion	0.0057	UJ	ug/L	P322441	CCV
		Chlordane	0.019	U	ug/L	P322441	
		Chlorothalonil	0.0076	U	ug/L	P322441	
		Cypermethrin	0.011	U	ug/L	P322441	
		DDD-p,p'	0.0038	U	ug/L	P322441	
		DDE-p,p'	0.0038	U	ug/L	P322441	
		DDT-p,p'	0.0038	U	ug/L	P322441	
		Dicofol	0.023	UJ	ug/L	P322441	CCV
		Dieldrin	0.0019	U	ug/L	P322441	
		Endosulfan I	0.0019	U	ug/L	P322441	
		Endosulfan II	0.0019	U	ug/L	P322441	
		Endosulfan Sulfate	0.0038	U	ug/L	P322441	
		Endrin	0.0038	U	ug/L	P322441	
		Endrin Aldehyde	0.0038	U	ug/L	P322441	
		Heptachlor	0.0019	U	ug/L	P322441	
		Heptachlor Epoxide	0.0019	U	ug/L	P322441	
		Methoxychlor	0.0095	UJ	ug/L	P322441	CCV
		Mirex	0.0038	U	ug/L	P322441	
		Permethrin	0.0095	U	ug/L	P322441	
		Toxaphene	0.095	U	ug/L	P322441	
		PCB-1016	0.019	U	ug/L	P322441	
		PCB-1221	0.019	U	ug/L	P322441	
		PCB-1232	0.019	U	ug/L	P322441	
		PCB-1242	0.019	U	ug/L	P322441	
		PCB-1248	0.019	U	ug/L	P322441	
		PCB-1254	0.019	U	ug/L	P322441	
		PCB-1260	0.019	U	ug/L	P322441	
		Trifluralin	0.0076	U	ug/L	P322441	
1882663	EPA 8270D	Ametryn	0.31	U	ng/L	P322085	
		Atrazine	63		ng/L	P322085	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P322085	
		Chlorpyrifos Methyl	0.094	U	ng/L	P322085	
		Disulfoton	0.31	U	ng/L	P322085	
		Ethion	0.14	U	ng/L	P322085	
		Ethoprop	0.094	U	ng/L	P322085	
		Hexazinone	0.47	U	ng/L	P322085	
		Malathion	0.33	U	ng/L	P322085	
		Metribuzin	0.19	UJ	ng/L	P322085	CCV
		Mevinphos	0.47	U	ng/L	P322085	

Field ID: G3SD032217-3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882663	EPA 8270D	Norflurazon	0.47	U	ng/L	P322085	
		Phorate	0.24	U	ng/L	P322085	
		Prometryn	0.19	U	ng/L	P322085	
		Simazine	0.47	U	ng/L	P322085	
		Atrazine Desethyl	1.4	U	ng/L	P322085	
		Prometon	0.85	U	ng/L	P322085	
		Fipronil	0.24	U	ng/L	P322085	
		Molinate	0.28	U	ng/L	P322085	
		Pendimethalin	1.4	U	ng/L	P322085	
		Terbufos	0.094	U	ng/L	P322085	
		EPTC	1.2	U	ng/L	P322085	RPD
		Terbutylazine	0.40	U	ng/L	P322085	
		Bromacil	0.47	U	ng/L	P322085	
		Fipronil Sulfide	0.14	U	ng/L	P322085	
		Fipronil Sulfone	0.14	U	ng/L	P322085	
		Alachlor	0.24	U	ng/L	P322085	
		Azinphos Methyl	2.1	UJ	ng/L	P322085	LCS
		Butylate	0.38	U	ng/L	P322085	RPD
		Demeton	0.94	UJ	ng/L	P322085	CCV
		Diazinon	0.12	U	ng/L	P322085	
		Fenamiphos	0.24	U	ng/L	P322085	
		Fonofos	0.19	U	ng/L	P322085	
		Metalaxyl	0.19	U	ng/L	P322085	
		Metolachlor	1.0		ng/L	P322085	
		Acetochlor	0.24	U	ng/L	P322085	
		Cyanazine	0.47	U	ng/L	P322085	
		Parathion Ethyl	0.24	U	ng/L	P322085	
		Parathion Methyl	0.24	U	ng/L	P322085	

Ref. Method and Comment:

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

EPA 8270D: Refer to the narrative for an explanation of QC Codes. MS accuracy for Atrazine and Fipronil Sulfone not assessed due to high content of these parameters in the sample spiked.

Sample Location: North Creek by Oaks Creek Ct.

Collection Date/Time: 03/22/2017 12:20

Field ID: G3SD032217-4

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882568	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P322104	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P322488	
		Sulfate	430		mg SO4/L	P322491	
	SM 2120 B	Color (true)	65		PCU	P322064	
	SM 2320 B-97	Total Alkalinity	363		mg CaCO3/L	P322479	
	SM 2540 C-97	TDS	1.14E+03		mg/L	P322730	
	SM 2540 D-97	TSS	3	I	mg/L	P322714	
	SM 4500 F-C-97	Fluoride	0.45		mg F/L	P322482	
1882573	EPA 350.1 Rev. 2.0	Ammonia-N	0.076		mg N/L	P322187	

Field ID: G3SD032217-4

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882573	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P322200	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P322236	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P322214	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P322166	
1882578	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.045		mg P/L	P322094	
1882637	EPA 200.7 Rev. 4.4	Calcium	250		mg/L	P322260	
		Iron	560		ug/L	P322260	
		Magnesium	48.1		mg/L	P322260	
		Potassium	7.2		mg/L	P322260	
		Sodium	70.4		mg/L	P322260	
		Zinc	5.0	U	ug/L	P322260	
	EPA 200.8 Rev. 5.4	Arsenic	3.88		ug/L	P322260	
		Cadmium	0.020	U	ug/L	P322260	
		Chromium	0.40	U	ug/L	P322260	
		Copper	2.10		ug/L	P322260	
		Lead	0.081	I	ug/L	P322260	
		Nickel	1.02		ug/L	P322260	
		Silver	0.010	U	ug/L	P322260	

Ref. Method and Comment:

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

Sample Location: North Creek by Oaks Creek Ct.

Collection Date/Time: 03/22/2017 12:20

Field ID: G3SD032217-4

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882627	EPA 8321B	Glyphosate**	10	UJ	ug/L	P322013	MS, SUR
		Sucralose**	0.60		ug/L	P322051	
	USGS O-2060-01	2,4-D	0.11		ug/L	P322050	
		Diuron	0.0080	U	ug/L	P322050	
		Fenuron	0.016	U	ug/L	P322050	
		Imidacloprid	0.053		ug/L	P322050	
		Bentazon	0.12		ug/L	P322050	
		Linuron	0.0080	U	ug/L	P322050	
		Acetaminophen**	0.010	U	ug/L	P322050	
		MCP	0.021		ug/L	P322050	
		Carbamazepine**	4.0E-04	U	ug/L	P322050	
		Triclopyr**	0.015	I	ug/L	P322050	
		Primidone**	0.0080	U	ug/L	P322050	
		Fluridone**	0.11		ug/L	P322050	
1882631	EPA 8321B	Pyraclostrobin**	0.0021	I	ug/L	P322049	
1882660	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0020	U	ug/L	P322441	
		Alpha-BHC	0.0020	U	ug/L	P322441	MS
		Beta-BHC	0.0020	U	ug/L	P322441	
		Delta-BHC	0.0020	U	ug/L	P322441	

Field ID: G3SD032217-4

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882660	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Gamma-BHC	0.0020	U	ug/L	P322441	
		Carbophenothion	0.0059	UJ	ug/L	P322441	CCV
		Chlordane	0.020	U	ug/L	P322441	
		Chlorothalonil	0.0078	U	ug/L	P322441	
		Cypermethrin	0.012	U	ug/L	P322441	
		DDD-p,p'	0.0039	U	ug/L	P322441	
		DDE-p,p'	0.0039	U	ug/L	P322441	
		DDT-p,p'	0.0039	U	ug/L	P322441	
		Dicofol	0.024	UJ	ug/L	P322441	CCV
		Dieldrin	0.0020	U	ug/L	P322441	
		Endosulfan I	0.0020	U	ug/L	P322441	
		Endosulfan II	0.0020	U	ug/L	P322441	
		Endosulfan Sulfate	0.0039	U	ug/L	P322441	
		Endrin	0.0039	U	ug/L	P322441	
		Endrin Aldehyde	0.0039	U	ug/L	P322441	
		Heptachlor	0.0020	U	ug/L	P322441	
		Heptachlor Epoxide	0.0020	U	ug/L	P322441	
		Methoxychlor	0.0098	UJ	ug/L	P322441	CCV
		Mirex	0.0039	U	ug/L	P322441	
		Permethrin	0.0098	U	ug/L	P322441	
		Toxaphene	0.098	U	ug/L	P322441	
		PCB-1016	0.020	U	ug/L	P322441	
		PCB-1221	0.020	U	ug/L	P322441	
		PCB-1232	0.020	U	ug/L	P322441	
		PCB-1242	0.020	U	ug/L	P322441	
		PCB-1248	0.020	U	ug/L	P322441	
		PCB-1254	0.020	U	ug/L	P322441	
		PCB-1260	0.020	U	ug/L	P322441	
		Trifluralin	0.0078	U	ug/L	P322441	
1882664	EPA 8270D	Ametryn	2.2		ng/L	P322085	
		Atrazine	120		ng/L	P322085	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P322085	
		Chlorpyrifos Methyl	0.097	U	ng/L	P322085	
		Disulfoton	0.32	U	ng/L	P322085	
		Ethion	0.15	U	ng/L	P322085	
		Ethoprop	0.097	U	ng/L	P322085	
		Hexazinone	0.62	I	ng/L	P322085	
		Malathion	0.34	U	ng/L	P322085	
		Metribuzin	0.19	UJ	ng/L	P322085	CCV
		Mevinphos	0.49	U	ng/L	P322085	
		Norflurazon	0.49	U	ng/L	P322085	
		Phorate	0.24	U	ng/L	P322085	
		Prometryn	0.19	U	ng/L	P322085	
		Simazine	0.49	U	ng/L	P322085	

Field ID: G3SD032217-4

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882664	EPA 8270D	Atrazine Desethyl	8.3		ng/L	P322085	
		Prometon	0.88	U	ng/L	P322085	
		Fipronil	0.24	U	ng/L	P322085	
		Molinate	0.29	U	ng/L	P322085	
		Pendimethalin	1.5	U	ng/L	P322085	
		Terbufos	0.097	U	ng/L	P322085	
		EPTC	1.2	U	ng/L	P322085	RPD
		Terbutylazine	0.41	U	ng/L	P322085	
		Bromacil	0.49	U	ng/L	P322085	
		Fipronil Sulfide	0.50	I	ng/L	P322085	
		Fipronil Sulfone	1.8		ng/L	P322085	
		Alachlor	0.24	U	ng/L	P322085	
		Azinphos Methyl	2.2	UJ	ng/L	P322085	LCS
		Butylate	0.39	U	ng/L	P322085	RPD
		Demeton	0.97	UJ	ng/L	P322085	CCV
		Diazinon	0.12	U	ng/L	P322085	
		Fenamiphos	0.24	U	ng/L	P322085	
		Fonofos	0.19	U	ng/L	P322085	
		Metalaxyl	4.0		ng/L	P322085	
		Metolachlor	0.25	I	ng/L	P322085	
		Acetochlor	0.24	U	ng/L	P322085	
		Cyanazine	0.49	U	ng/L	P322085	
		Parathion Ethyl	0.24	U	ng/L	P322085	
		Parathion Methyl	0.24	U	ng/L	P322085	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes. Results confirmed in re-extraction.

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

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

EPA 8270D: Refer to the narrative for an explanation of QC Codes. MS accuracy for Atrazine and Fipronil Sulfone not assessed due to high content of these parameters in the sample spiked.

Sample Location: Field Blank

Collection Date/Time: 03/22/2017 12:30

Field ID: G3SD032217-5

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882569	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P322104	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P322488	
		Sulfate	0.20	U	mg SO4/L	P322491	
	SM 2120 B	Color (true)	2.5	U	PCU	P322064	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P322479	
	SM 2540 C-97	TDS	15	U	mg/L	P322728	
	SM 2540 D-97	TSS	2	U	mg/L	P322712	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P322482	
1882574	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P322187	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P322200	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P322236	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P322214	

Field ID: G3SD032217-5

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1882574	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P322166	
1882579	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P322094	
1882638	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P322260	
		Iron	30	U	ug/L	P322260	
		Magnesium	0.040	U	mg/L	P322260	
		Potassium	0.30	U	mg/L	P322260	
		Sodium	0.50	U	mg/L	P322260	
		Zinc	5.0	U	ug/L	P322260	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P322260	
		Cadmium	0.020	U	ug/L	P322260	
		Chromium	0.40	U	ug/L	P322260	
		Copper	0.20	U	ug/L	P322260	
		Lead	0.050	U	ug/L	P322260	
		Nickel	0.20	U	ug/L	P322260	
		Silver	0.010	U	ug/L	P322260	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

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

Batch ID: P322441

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
Chlordane	0.020	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
PCB-1016	0.020	U	ug/L
PCB-1221	0.020	U	ug/L
PCB-1232	0.020	U	ug/L
PCB-1242	0.020	U	ug/L

Quality Assurance Report Method Blank Results

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

Batch ID: P322441

Component	Result	Code	Units
PCB-1248	0.020	U	ug/L
PCB-1254	0.020	U	ug/L
PCB-1260	0.020	U	ug/L
Permethrin	0.010	U	ug/L
Toxaphene	0.10	U	ug/L
Trifluralin	0.0080	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P322103

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P322104

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P322260

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 200.7 Rev. 4.4

Batch ID: P322332

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

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P322260

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322332

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L
Zinc	1.0	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322488

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322491

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322559

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322561

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322187

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322189

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322082

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322083

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322200

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322236

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322374

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322129

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322133

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322214

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322092

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322093

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322094

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

Reference Method: EPA 8270D
Batch ID: P322085

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	1.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.32	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P322013

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P322049

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P322051

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P322063

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P322064

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P322479

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

Reference Method: SM 2320 B-97
Batch ID: P322801

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

Reference Method: SM 2540 C-97
Batch ID: P322728

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P322730

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P322731

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P322712

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P322714

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P322715

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P322742

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P322482

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P323078

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P322166

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

Reference Method: SM 5310 B-00
Batch ID: P322167

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

Reference Method: USGS O-2060-01
Batch ID: P322050

Component	Result	Code	Units
2,4-D	0.0040	U	ug/L
Acetaminophen	0.010	U	ug/L
Bentazon	0.0040	U	ug/L
Carbamazepine	4.0E-04	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P322050

Component	Result	Code	Units
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0040	U	ug/L
Primidone	0.0080	U	ug/L
Triclopyr	0.010	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: P322441

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	84.9	81.8	P/P	70 - 130
Alpha-BHC	71.5	70.2	P/P	70 - 130
Beta-BHC	97.6	99.6	P/P	70 - 130
DDD-p,p'	88.7	97.0	P/P	70 - 130
DDE-p,p'	82.0	91.3	P/P	70 - 130
DDT-p,p'	90.4	101	P/P	70 - 130
Delta-BHC	89.7	95.5	P/P	70 - 130
Dieldrin	88.5	95.1	P/P	70 - 130
Endosulfan I	90.1	95.2	P/P	70 - 130
Endosulfan II	99.8	105	P/P	70 - 130
Endosulfan Sulfate	91.1	99.7	P/P	70 - 130
Endrin	95.0	103	P/P	80 - 146
Endrin Aldehyde	85.0	91.2	P/P	70 - 130
Gamma-BHC	76.7	79.3	P/P	70 - 130
Heptachlor	86.2	87.3	P/P	70 - 130
Heptachlor Epoxide	87.5	92.6	P/P	70 - 130
Methoxychlor	94.0	105	P/P	83 - 149

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322260

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	105		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	99.4		P	85 - 115
Sodium	101		P	85 - 115
Zinc	99.3		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322332

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322332

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Magnesium	104		P	85 - 115
Potassium	99.8		P	85 - 115
Sodium	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322260

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	96.5		P	85 - 115
Cadmium	96.6		P	85 - 115
Chromium	102		P	85 - 115
Copper	96.0		P	85 - 115
Lead	98.4		P	85 - 115
Nickel	96.0		P	85 - 115
Silver	98.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322332

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	97.0		P	85 - 115
Cadmium	94.3		P	85 - 115
Chromium	94.0		P	85 - 115
Copper	95.7		P	85 - 115
Lead	98.1		P	85 - 115
Nickel	97.8		P	85 - 115
Silver	101		P	85 - 115
Zinc	94.7		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322488

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322491

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322559

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322561

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322187

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322189

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322082

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322083

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322200

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322236

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: P322374

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322129

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322133

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P322214

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322092

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	95.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322093

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322094

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

Reference Method: EPA 8270D
 Batch ID: P322085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	96.2	97.8	P/P	78 - 118
Alachlor	94.2	97.1	P/P	77 - 119
Ametryn	120	121	P/P	61 - 136
Atrazine	103	104	P/P	73 - 120
Atrazine Desethyl	82.9	80.4	P/P	16 - 122
Azinphos Methyl	196	181	F/P	69 - 186
Bromacil	81.0	97.3	P/P	40 - 125
Butylate	49.3	58.6	P/P	32 - 87.0
Chlorpyrifos Ethyl	89.5	93.5	P/P	53 - 110
Chlorpyrifos Methyl	89.6	94.4	P/P	31 - 119
Cyanazine	123	121	P/P	36 - 224
Demeton	106	111	P/P	39 - 122
Diazinon	96.1	97.5	P/P	75 - 119
Disulfoton	90.5	105	P/P	42 - 139
EPTC	47.7	57.9	P/P	33 - 96.0
Ethion	94.3	95.6	P/P	63 - 127
Ethoprop	94.2	100	P/P	65 - 107
Fenamiphos	110	113	P/P	64 - 137
Fipronil	104	103	P/P	60 - 126
Fipronil Sulfide	99.3	103	P/P	58 - 124
Fipronil Sulfone	86.5	90.7	P/P	57 - 126
Fonofos	91.5	95.5	P/P	65 - 111
Hexazinone	93.6	94.2	P/P	46 - 151
Malathion	99.1	104	P/P	68 - 132
Metaxyl	98.3	97.6	P/P	51 - 132
Metolachlor	98.4	101	P/P	78 - 119
Metribuzin	116	123	P/P	64 - 138
Mevinphos	106	117	P/P	34 - 128

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P322085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Molinate	59.8	69.8	P/P	44 - 101
Norflurazon	95.1	93.9	P/P	63 - 129
Parathion Ethyl	97.9	97.7	P/P	80 - 109
Parathion Methyl	98.7	100	P/P	74 - 125
Pendimethalin	98.7	99.9	P/P	48 - 134
Phorate	104	109	P/P	52 - 119
Prometon	110	118	P/P	69 - 124
Prometryn	117	117	P/P	66 - 124
Simazine	109	112	P/P	61 - 134
Terbufos	82.4	87.3	P/P	58 - 115
Terbuthylazine	95.4	97.4	P/P	77 - 113

Reference Method: EPA 8321B
Batch ID: P322013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	90.6		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P322049

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	74.8		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P322051

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	104		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P322479

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

Reference Method: SM 2320 B-97
Batch ID: P322801

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

Reference Method: SM 4500 F-C-97
Batch ID: P322482

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P323078

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

Reference Method: SM 4500 F-C-97
Batch ID: P323078

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P322166

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.4		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P322167

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.3		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P322050

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	82.8		P	40 - 140
Acetaminophen	62.0		P	40 - 140
Bentazon	108		P	40 - 140
Carbamazepine	99.2		P	40 - 140
Diuron	70.8		P	40 - 140
Fenuron	90.4		P	40 - 140
Fluridone	81.2		P	40 - 140
Imidacloprid	77.2		P	40 - 160
Linuron	81.2		P	40 - 140
MCP	81.2		P	40 - 140
Primidone	103		P	40 - 140
Triclopyr	108		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P322441

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882659	Aldrin	74.8	70.4	P/P	70 - 130
1882659	Alpha-BHC	71.2	67.4	P/F	70 - 130
1882659	Beta-BHC	102	90.2	P/P	70 - 130
1882659	DDD-p,p'	96.5	82.7	P/P	70 - 130
1882659	DDE-p,p'	90.3	77.0	P/P	70 - 130
1882659	DDT-p,p'	103	87.6	P/P	70 - 130
1882659	Delta-BHC	103	84.9	P/P	70 - 130
1882659	Dieldrin	95.1	80.7	P/P	70 - 130
1882659	Endosulfan I	93.9	83.6	P/P	70 - 130
1882659	Endosulfan II	106	91.7	P/P	70 - 130
1882659	Endosulfan Sulfate	102	88.1	P/P	70 - 130
1882659	Endrin	102	87.8	P/P	80 - 146
1882659	Endrin Aldehyde	89.2	79.4	P/P	70 - 130

Quality Assurance Report Matrix Spike Accuracy

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

Batch ID: P322441

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882659	Gamma-BHC	79.6	70.1	P/P	70 - 130
1882659	Heptachlor	81.7	76.3	P/P	70 - 130
1882659	Heptachlor Epoxide	94.9	81.7	P/P	70 - 130
1882659	Methoxychlor	109	92.3	P/P	83 - 149

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P322260

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882636	Calcium	103		P	80 - 120
1882636	Iron	105		P	80 - 120
1882636	Magnesium	105		P	80 - 120
1882636	Potassium	95.6		P	80 - 120
1882636	Sodium	101		P	80 - 120
1882636	Zinc	97.2		P	80 - 120
1882931	Calcium	99.0		P	80 - 120
1882931	Iron	106	107	P/P	80 - 120
1882931	Magnesium	101		P	80 - 120
1882931	Potassium	98.6	101	P/P	80 - 120
1882931	Sodium	98.2		P	80 - 120
1882931	Zinc	96.8	98.9	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P322332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881698	Iron	95.0	93.2	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P322260

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882636	Arsenic	98.3		P	80 - 120
1882636	Cadmium	100		P	80 - 120
1882636	Chromium	98.8		P	80 - 120
1882636	Copper	96.1		P	80 - 120
1882636	Lead	98.7		P	80 - 120
1882636	Nickel	91.6		P	80 - 120
1882636	Silver	99.4		P	80 - 120
1882931	Arsenic	98.6	99.1	P/P	80 - 120
1882931	Cadmium	98.9	99.6	P/P	80 - 120
1882931	Chromium	101	102	P/P	80 - 120
1882931	Copper	96.1	94.3	P/P	80 - 120
1882931	Lead	100	100	P/P	80 - 120
1882931	Nickel	95.2	94.1	P/P	80 - 120
1882931	Silver	99.8	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P322332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881698	Arsenic	107	111	P/P	70 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881698	Cadmium	90.8	97.2	P/P	70 - 130
1881698	Chromium	93.1	94.0	P/P	70 - 130
1881698	Copper	95.4	96.5	P/P	70 - 130
1881698	Lead	107	106	P/P	70 - 130
1881698	Nickel	97.6	98.1	P/P	70 - 130
1881698	Silver	97.0	97.3	P/P	70 - 130
1881698	Zinc	94.9	86.5	P/P	70 - 130

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322488

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882521	Chloride	105		P	90 - 110
1882522	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322491

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882521	Sulfate	105		P	90 - 110
1882522	Sulfate	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322559

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882697	Chloride	102		P	90 - 110
1882908	Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882697	Sulfate	99.3		P	90 - 110
1882908	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322187

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882304	Ammonia-N	101	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882446	Ammonia-N	105	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322082

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322082

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882447	Kjeldahl Nitrogen	96.6	96.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322083

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882526	Kjeldahl Nitrogen	99.9	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322200

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882689	Kjeldahl Nitrogen	97.6	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322236

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882572	NO2NO3-N	105	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322374

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882448	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322129

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882446	Total-P	104	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882524	Total-P	108	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882701	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322092

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882793	O-Phosphate-P	96.8	95.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322093

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882576	O-Phosphate-P	93.9	95.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322094

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882578	O-Phosphate-P	94.2	94.5	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P322085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882621	Acetochlor	91.6	91.8	P/P	74 - 123
1882621	Alachlor	92.2	92.4	P/P	73 - 124
1882621	Ametryn	115	113	P/P	56 - 149
1882621	Atrazine Desethyl	75.0	72.6	P/P	12 - 103
1882621	Azinphos Methyl	141	146	P/P	60 - 202
1882621	Bromacil	84.6	83.3	P/P	42 - 133
1882621	Butylate	61.0	41.1	P/P	10 - 85.0
1882621	Chlorpyrifos Ethyl	83.3	90.9	P/P	53 - 113
1882621	Chlorpyrifos Methyl	68.8	79.5	P/P	40 - 115
1882621	Cyanazine	116	113	P/P	22 - 210
1882621	Demeton	93.5	91.7	P/P	17 - 149
1882621	Diazinon	86.8	83.9	P/P	72 - 124
1882621	Disulfoton	79.6	83.2	P/P	43 - 139
1882621	EPTC	63.0	42.4	P/P	10 - 86.0
1882621	Ethion	91.4	101	P/P	65 - 131
1882621	Ethoprop	87.4	85.0	P/P	59 - 110
1882621	Fenamiphos	87.1	99.3	P/P	57 - 138
1882621	Fipronil	109	107	P/P	40 - 130
1882621	Fipronil Sulfide	95.7	98.5	P/P	36 - 128
1882621	Fonofos	74.2	82.5	P/P	60 - 112
1882621	Hexazinone	94.3	95.7	P/P	69 - 142
1882621	Malathion	84.7	98.4	P/P	68 - 132
1882621	Metalaxyl	86.7	100	P/P	66 - 118
1882621	Metolachlor	102	99.9	P/P	71 - 124
1882621	Metribuzin	116	114	P/P	61 - 140
1882621	Mevinphos	95.7	86.8	P/P	38 - 130
1882621	Molinate	70.8	53.8	P/P	23 - 99.0
1882621	Norflurazon	101	99.9	P/P	39 - 139
1882621	Parathion Ethyl	91.4	93.0	P/P	75 - 111
1882621	Parathion Methyl	83.0	83.6	P/P	64 - 130
1882621	Pendimethalin	101	103	P/P	26 - 173
1882621	Phorate	85.5	77.5	P/P	43 - 127
1882621	Prometon	125	125	P/P	50 - 144
1882621	Prometryn	119	117	P/P	69 - 126
1882621	Simazine	93.4	85.2	P/P	51 - 152
1882621	Terbufos	69.8	72.5	P/P	54 - 125
1882621	Terbutylazine	97.4	95.8	P/P	76 - 113

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P322013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882625	Glyphosate	31.4	31.6	F/F	40 - 140

Reference Method: EPA 8321B
 Batch ID: P322049

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882583	Pyraclostrobin	89.6	82.4	P/P	40 - 140

Reference Method: EPA 8321B
 Batch ID: P322051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882586	Sucralose	109	112	P/P	40 - 140

Reference Method: SM 4500 F-C-97
 Batch ID: P322482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882688	Fluoride	103	102	P/P	91 - 105

Reference Method: SM 4500 F-C-97
 Batch ID: P323078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882565	Fluoride	97.0	98.9	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P322166

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882446	Organic Carbon	93.5	94.5	P/P	85 - 115

Reference Method: SM 5310 B-00
 Batch ID: P322167

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882428	Organic Carbon	95.5	97.2	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P322050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882581	2,4-D	102	94.0	P/P	40 - 140
1882581	Acetaminophen	68.0	86.0	P/P	40 - 140
1882581	Bentazon	111	100	P/P	40 - 140
1882581	Carbamazepine	99.1	91.5	P/P	40 - 140
1882581	Diuron	84.0	75.2	P/P	40 - 140
1882581	Fenuron	89.2	81.6	P/P	40 - 140
1882581	Fluridone	83.6	76.0	P/P	40 - 140
1882581	Imidacloprid	111	89.9	P/P	40 - 160
1882581	Linuron	72.4	68.0	P/P	40 - 140
1882581	MCP	92.4	85.2	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P322050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882581	Primidone	112	97.2	P/P	40 - 140
1882581	Triclopyr	122	102	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P322441

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882659	Aldrin	6.16	Spike	P	0 - 30
1882659	Alpha-BHC	5.61	Spike	P	0 - 30
1882659	Beta-BHC	12.1	Spike	P	0 - 30
1882659	DDD-p,p'	15.5	Spike	P	0 - 30
1882659	DDE-p,p'	16.0	Spike	P	0 - 30
1882659	DDT-p,p'	15.9	Spike	P	0 - 30
1882659	Delta-BHC	19.0	Spike	P	0 - 30
1882659	Dieldrin	16.4	Spike	P	0 - 30
1882659	Endosulfan I	11.7	Spike	P	0 - 30
1882659	Endosulfan II	15.0	Spike	P	0 - 30
1882659	Endosulfan Sulfate	14.6	Spike	P	0 - 30
1882659	Endrin	14.9	Spike	P	0 - 30
1882659	Endrin Aldehyde	11.8	Spike	P	0 - 30
1882659	Gamma-BHC	12.8	Spike	P	0 - 30
1882659	Heptachlor	6.91	Spike	P	0 - 30
1882659	Heptachlor Epoxide	15.1	Spike	P	0 - 30
1882659	Methoxychlor	16.5	Spike	P	0 - 30
LFB	Aldrin	3.74	LCS	P	0 - 30
LFB	Alpha-BHC	1.94	LCS	P	0 - 30
LFB	Beta-BHC	2.03	LCS	P	0 - 30
LFB	DDD-p,p'	8.92	LCS	P	0 - 30
LFB	DDE-p,p'	10.8	LCS	P	0 - 30
LFB	DDT-p,p'	11.3	LCS	P	0 - 30
LFB	Delta-BHC	6.25	LCS	P	0 - 30
LFB	Dieldrin	7.14	LCS	P	0 - 30
LFB	Endosulfan I	5.49	LCS	P	0 - 30
LFB	Endosulfan II	4.83	LCS	P	0 - 30
LFB	Endosulfan Sulfate	9.00	LCS	P	0 - 30
LFB	Endrin	7.90	LCS	P	0 - 30
LFB	Endrin Aldehyde	7.14	LCS	P	0 - 30
LFB	Gamma-BHC	3.36	LCS	P	0 - 30
LFB	Heptachlor	1.27	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.63	LCS	P	0 - 30
LFB	Methoxychlor	11.2	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P322103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P322103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882495	Turbidity	13.0	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P322104

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882566	Turbidity	2.45	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882931	Calcium	3.32	Spike	P	0 - 20
1882931	Iron	0.787	Spike	P	0 - 20
1882931	Magnesium	1.63	Spike	P	0 - 20
1882931	Potassium	1.83	Spike	P	0 - 20
1882931	Sodium	2.61	Spike	P	0 - 20
1882931	Zinc	2.16	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881698	Calcium	0.294	Spike	P	0 - 20
1881698	Iron	1.88	Spike	P	0 - 20
1881698	Magnesium	0.593	Spike	P	0 - 20
1881698	Potassium	0.536	Spike	P	0 - 20
1881698	Sodium	0.700	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882931	Arsenic	0.538	Spike	P	0 - 20
1882931	Cadmium	0.694	Spike	P	0 - 20
1882931	Chromium	1.07	Spike	P	0 - 20
1882931	Copper	1.84	Spike	P	0 - 20
1882931	Lead	0.296	Spike	P	0 - 20
1882931	Nickel	1.16	Spike	P	0 - 20
1882931	Silver	0.783	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881698	Arsenic	3.29	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881698	Cadmium	6.83	Spike	P	0 - 20
1881698	Chromium	0.886	Spike	P	0 - 20
1881698	Copper	1.19	Spike	P	0 - 20
1881698	Lead	1.01	Spike	P	0 - 20
1881698	Nickel	0.517	Spike	P	0 - 20
1881698	Silver	0.301	Spike	P	0 - 20
1881698	Zinc	8.22	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882521	Chloride	0.309	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882521	Sulfate	0.311	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322559

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882908	Chloride	0.205	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882908	Sulfate	7.07	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322187

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882304	Ammonia-N	0.714	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P322189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882446	Ammonia-N	1.71	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882447	Kjeldahl Nitrogen	0.333	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322083

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882526	Kjeldahl Nitrogen	0.243	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322200

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882689	Kjeldahl Nitrogen	1.27	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322236

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882572	NO2NO3-N	0.466	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322374

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882448	NO2NO3-N	0.601	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322129

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882446	Total-P	2.31	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882524	Total-P	2.19	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882701	Total-P	0.0714	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322092

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882793	O-Phosphate-P	1.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882576	O-Phosphate-P	1.04	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882578	O-Phosphate-P	0.215	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P322085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882621	Acetochlor	0.209	Spike	P	0 - 30
1882621	Alachlor	0.150	Spike	P	0 - 30
1882621	Ametryn	1.66	Spike	P	0 - 30
1882621	Atrazine	2.49	Spike	P	0 - 30
1882621	Atrazine Desethyl	2.52	Spike	P	0 - 30
1882621	Azinphos Methyl	3.97	Spike	P	0 - 30
1882621	Bromacil	0.976	Spike	P	0 - 30
1882621	Butylate	39.0	Spike	F	0 - 30
1882621	Chlorpyrifos Ethyl	8.75	Spike	P	0 - 30
1882621	Chlorpyrifos Methyl	14.5	Spike	P	0 - 30
1882621	Cyanazine	2.72	Spike	P	0 - 30
1882621	Demeton	1.87	Spike	P	0 - 30
1882621	Diazinon	3.48	Spike	P	0 - 30
1882621	Disulfoton	4.37	Spike	P	0 - 30
1882621	EPTC	39.2	Spike	F	0 - 30
1882621	Ethion	9.59	Spike	P	0 - 30
1882621	Ethoprop	2.79	Spike	P	0 - 30
1882621	Fenamiphos	13.1	Spike	P	0 - 30
1882621	Fipronil	1.70	Spike	P	0 - 30
1882621	Fipronil Sulfide	2.37	Spike	P	0 - 30
1882621	Fipronil Sulfone	6.28	Spike	P	0 - 30
1882621	Fonofos	10.6	Spike	P	0 - 30
1882621	Hexazinone	1.43	Spike	P	0 - 30
1882621	Malathion	15.1	Spike	P	0 - 30
1882621	Metalaxyl	14.2	Spike	P	0 - 30
1882621	Metolachlor	1.83	Spike	P	0 - 30
1882621	Metribuzin	1.43	Spike	P	0 - 30
1882621	Mevinphos	9.74	Spike	P	0 - 30
1882621	Molinate	27.3	Spike	P	0 - 30
1882621	Norflurazon	0.694	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P322085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882621	Parathion Ethyl	1.74	Spike	P	0 - 30
1882621	Parathion Methyl	0.729	Spike	P	0 - 30
1882621	Pendimethalin	1.95	Spike	P	0 - 30
1882621	Phorate	9.81	Spike	P	0 - 30
1882621	Prometon	0.150	Spike	P	0 - 30
1882621	Prometryn	2.02	Spike	P	0 - 30
1882621	Simazine	6.20	Spike	P	0 - 30
1882621	Terbufos	3.77	Spike	P	0 - 30
1882621	Terbuthylazine	1.58	Spike	P	0 - 30
LFB	Acetochlor	1.70	LCS	P	0 - 30
LFB	Alachlor	2.99	LCS	P	0 - 30
LFB	Ametryn	1.39	LCS	P	0 - 30
LFB	Atrazine	0.441	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.12	LCS	P	0 - 30
LFB	Azinphos Methyl	7.78	LCS	P	0 - 30
LFB	Bromacil	18.4	LCS	P	0 - 30
LFB	Butylate	17.1	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.45	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.24	LCS	P	0 - 30
LFB	Cyanazine	1.16	LCS	P	0 - 30
LFB	Demeton	4.90	LCS	P	0 - 30
LFB	Diazinon	1.53	LCS	P	0 - 30
LFB	Disulfoton	14.8	LCS	P	0 - 30
LFB	EPTC	19.2	LCS	P	0 - 30
LFB	Ethion	1.34	LCS	P	0 - 30
LFB	Ethoprop	6.18	LCS	P	0 - 30
LFB	Fenamiphos	3.00	LCS	P	0 - 30
LFB	Fipronil	0.913	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.38	LCS	P	0 - 30
LFB	Fipronil Sulfone	4.71	LCS	P	0 - 30
LFB	Fonofos	4.34	LCS	P	0 - 30
LFB	Hexazinone	0.609	LCS	P	0 - 30
LFB	Malathion	4.39	LCS	P	0 - 30
LFB	Metalaxyl	0.780	LCS	P	0 - 30
LFB	Metolachlor	2.19	LCS	P	0 - 30
LFB	Metribuzin	5.47	LCS	P	0 - 30
LFB	Mevinphos	9.70	LCS	P	0 - 30
LFB	Molinate	15.4	LCS	P	0 - 30
LFB	Norflurazon	1.24	LCS	P	0 - 30
LFB	Parathion Ethyl	0.253	LCS	P	0 - 30
LFB	Parathion Methyl	1.61	LCS	P	0 - 30
LFB	Pendimethalin	1.14	LCS	P	0 - 30
LFB	Phorate	4.82	LCS	P	0 - 30
LFB	Prometon	6.29	LCS	P	0 - 30
LFB	Prometryn	0.577	LCS	P	0 - 30
LFB	Simazine	2.31	LCS	P	0 - 30
LFB	Terbufos	5.77	LCS	P	0 - 30
LFB	Terbuthylazine	2.09	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P322013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882625	Glyphosate	0.635	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P322049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882583	Pyraclostrobin	8.37	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P322051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882586	Sucralose	2.25	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P322063

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882512	Color (true)	0.243	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P322064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882696	Color (true)	4.73	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P322479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882688	Total Alkalinity	0.467	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P322801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882920	Total Alkalinity	0.0256	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P322728

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1883326	TDS	6.50	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P322730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882341	TDS	8.42	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P322731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882566	TDS	5.16	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P322482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882688	Fluoride	0.509	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P323078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882565	Fluoride	0.960	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P322166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882446	Organic Carbon	0.914	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P322167

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882428	Organic Carbon	1.60	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P322050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882581	2,4-D	8.55	Spike	P	0 - 30
1882581	Acetaminophen	23.4	Spike	P	0 - 30
1882581	Bentazon	6.95	Spike	P	0 - 30
1882581	Carbamazepine	7.87	Spike	P	0 - 30
1882581	Diuron	11.1	Spike	P	0 - 30
1882581	Fenuron	8.90	Spike	P	0 - 30
1882581	Fluridone	9.52	Spike	P	0 - 30
1882581	Imidacloprid	17.1	Spike	P	0 - 30
1882581	Linuron	6.27	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P322050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882581	MCP	8.11	Spike	P	0 - 30
1882581	Primidone	13.8	Spike	P	0 - 30
1882581	Triclopyr	18.2	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: 1882624
Field Sample ID: G3SD032217-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	3.94	F	50 - 150
EPA 8321B	Sucralose-d6	83.0	P	40 - 150
USGS O-2060-01	2,4-D-d3	111	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	77.8	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	58.6	P	40 - 160
USGS O-2060-01	Diuron-d6	40.4	P	40 - 150
USGS O-2060-01	Primidone-d5	48.6	P	40 - 150

Lab Sample ID: 1882625
Field Sample ID: G3SD032217-2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	28.8	F	50 - 150
EPA 8321B	Sucralose-d6	90.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	110	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	69.2	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	55.8	P	40 - 160
USGS O-2060-01	Diuron-d6	43.4	P	40 - 150
USGS O-2060-01	Primidone-d5	59.4	P	40 - 150

Lab Sample ID: 1882626
Field Sample ID: G3SD032217-3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	73.8	P	50 - 150
EPA 8321B	Sucralose-d6	96.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	114	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	94.4	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	59.4	P	40 - 160
USGS O-2060-01	Diuron-d6	49.8	P	40 - 150
USGS O-2060-01	Primidone-d5	73.6	P	40 - 150

Lab Sample ID: 1882627
Field Sample ID: G3SD032217-4

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

Lab Sample ID: 1882627

Field Sample ID: G3SD032217-4

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	32.6	F	50 - 150
EPA 8321B	Sucralose-d6	115	P	40 - 150
USGS O-2060-01	2,4-D-d3	115	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	74.6	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	61.8	P	40 - 160
USGS O-2060-01	Diuron-d6	57.2	P	40 - 150
USGS O-2060-01	Primidone-d5	64.2	P	40 - 150

Lab Sample ID: 1882628

Field Sample ID: G3SD032217-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	73.4	P	40 - 150

Lab Sample ID: 1882629

Field Sample ID: G3SD032217-2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	75.6	P	40 - 150

Lab Sample ID: 1882630

Field Sample ID: G3SD032217-3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	65.8	P	40 - 150

Lab Sample ID: 1882631

Field Sample ID: G3SD032217-4

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	63.4	P	40 - 150

Lab Sample ID: 1882657

Field Sample ID: G3SD032217-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	81.1	P	41 - 134

Lab Sample ID: 1882658

Field Sample ID: G3SD032217-2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	46.8	P	41 - 134

Lab Sample ID: 1882659

Field Sample ID: G3SD032217-3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	71.5	P	41 - 134

Quality Assurance Report Surrogates

Lab Sample ID: 1882660

Field Sample ID: G3SD032217-4

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	101	P	41 - 134

Lab Sample ID: 1882661

Field Sample ID: G3SD032217-1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	105	P	62 - 132
EPA 8270D	Simazine-d10	80.8	P	72 - 127

Lab Sample ID: 1882662

Field Sample ID: G3SD032217-2

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	110	P	62 - 132
EPA 8270D	Simazine-d10	75.1	P	72 - 127

Lab Sample ID: 1882663

Field Sample ID: G3SD032217-3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	113	P	62 - 132
EPA 8270D	Simazine-d10	77.4	P	72 - 127

Lab Sample ID: 1882664

Field Sample ID: G3SD032217-4

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	106	P	62 - 132
EPA 8270D	Simazine-d10	76.3	P	72 - 127

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A75307

Included Lab Sample IDs: 1882565, 1882566, 1882567, 1882568, 1882569

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	100	P/P	85 - 115
Color (true)	100	100	P/P	85 - 115
Color (true)	99.4	100	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A75315

Included Lab Sample IDs: 1882575, 1882576, 1882577, 1882578, 1882579

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.9	98.4	P/P	90 - 110
O-Phosphate-P	97.8	97.8	P/P	90 - 110
O-Phosphate-P	98.3	98.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A75322

Included Lab Sample IDs: 1882565, 1882566, 1882567, 1882568, 1882569

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105
Turbidity	100	100	P/P	95 - 105

Reference Method: SM 5310 B-00

Run ID: A75347

Included Lab Sample IDs: 1882570, 1882571, 1882572, 1882573, 1882574

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.0	95.4	P/P	90 - 110
Organic Carbon	95.4	95.6	P/P	90 - 110
Organic Carbon	95.6	93.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A75351

Included Lab Sample IDs: 1882570, 1882571, 1882572, 1882573, 1882574

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.8	P/P	90 - 110
Ammonia-N	103	104	P/P	90 - 110
Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A75369

Included Lab Sample IDs: 1882624, 1882625, 1882626, 1882627

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	89.0	99.4	P/P	70 - 130
Glyphosate	99.4	89.0	P/P	70 - 130

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75372

Included Lab Sample IDs: 1882570, 1882571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	107	P/P	90 - 110
Total-P	106	107	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A75373

Included Lab Sample IDs: 1882624, 1882625, 1882626, 1882627

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	104	92.9	P/P	60 - 150
Sucralose	119	99.0	P/P	60 - 150
Sucralose	94.9	82.5	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75375

Included Lab Sample IDs: 1882571, 1882572, 1882573, 1882574

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75375

Included Lab Sample IDs: 1882571, 1882572, 1882573, 1882574

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: A75386

Included Lab Sample IDs: 1882570, 1882571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	93.6	P/P	90 - 110
Kjeldahl Nitrogen	93.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75389

Included Lab Sample IDs: 1882572, 1882573

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75395

Included Lab Sample IDs: 1882572, 1882573, 1882574

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.6	96.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75429

Included Lab Sample IDs: 1882570

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75446

Included Lab Sample IDs: 1882635, 1882636, 1882637, 1882638

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	93.1	91.6	P/P	90 - 110
Arsenic	94.7	93.1	P/P	90 - 110
Arsenic	95.7	94.7	P/P	90 - 110
Cadmium	92.4	92.5	P/P	90 - 110
Cadmium	92.9	92.4	P/P	90 - 110
Cadmium	93.7	92.9	P/P	90 - 110
Chromium	97.3	97.2	P/P	90 - 110
Chromium	97.9	97.3	P/P	90 - 110
Chromium	98.2	97.9	P/P	90 - 110
Copper	94.5	93.6	P/P	90 - 110
Copper	95.3	94.5	P/P	90 - 110
Copper	96.7	95.3	P/P	90 - 110
Lead	93.4	92.8	P/P	90 - 110
Lead	94.3	93.4	P/P	90 - 110
Lead	95.7	94.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75446

Included Lab Sample IDs: 1882635, 1882636, 1882637, 1882638

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	94.6	94.3	P/P	90 - 110
Silver	94.9	94.6	P/P	90 - 110
Silver	95.8	94.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A75455

Included Lab Sample IDs: 1882628, 1882629, 1882630, 1882631

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	96.4	104	P/P	60 - 150

Reference Method: SM 2320 B-97

Run ID: A75466

Included Lab Sample IDs: 1882566, 1882567, 1882568, 1882569

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	102	P/P	90 - 110
Total Alkalinity	106	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A75466

Included Lab Sample IDs: 1882566, 1882567, 1882568, 1882569

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	103	P/P	90 - 110
Fluoride	106	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75467

Included Lab Sample IDs: 1882568, 1882569

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	105	P/P	90 - 110
Sulfate	98.8	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75468

Included Lab Sample IDs: 1882574

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75478

Included Lab Sample IDs: 1882635, 1882636, 1882637, 1882638

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	97.1	97.3	P/P	90 - 110
Nickel	97.3	97.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75488

Included Lab Sample IDs: 1882565, 1882566, 1882567

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Sulfate	96.7	100	P/P	90 - 110
Sulfate	99.8	97.0	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A75529

Included Lab Sample IDs: 1882624, 1882625, 1882626, 1882627

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	115	P/P	50 - 150
2,4-D	115	118	P/P	50 - 150
Bentazon	82.0	83.4	P/P	50 - 150
Bentazon	83.4	90.8	P/P	50 - 150
MCP	106	111	P/P	50 - 150
MCP	86.0	106	P/P	50 - 150
Triclopyr	102	106	P/P	50 - 150
Triclopyr	106	106	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75535

Included Lab Sample IDs: 1882634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	98.2	P/P	90 - 110
Cadmium	94.9	95.0	P/P	90 - 110
Chromium	95.6	96.1	P/P	90 - 110
Copper	97.7	99.5	P/P	90 - 110
Lead	99.2	98.7	P/P	90 - 110
Nickel	98.4	99.8	P/P	90 - 110
Silver	101	99.5	P/P	90 - 110
Zinc	96.9	97.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A75546

Included Lab Sample IDs: 1882634, 1882635, 1882636, 1882637, 1882638

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	99.8	P/P	90 - 110
Calcium	101	98.2	P/P	90 - 110
Calcium	98.7	100	P/P	95 - 105
Iron	101	103	P/P	95 - 105
Iron	103	102	P/P	90 - 110
Iron	103	101	P/P	90 - 110
Magnesium	101	102	P/P	95 - 105
Magnesium	102	101	P/P	90 - 110
Magnesium	103	103	P/P	90 - 110
Potassium	98.4	99.7	P/P	95 - 105
Potassium	98.5	102	P/P	90 - 110
Potassium	99.7	98.9	P/P	90 - 110
Sodium	100	99.7	P/P	90 - 110
Sodium	96.8	99.3	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A75546

Included Lab Sample IDs: 1882634, 1882635, 1882636, 1882637, 1882638

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	99.3	97.6	P/P	90 - 110
Zinc	97.4	98.1	P/P	90 - 110
Zinc	99.6	97.4	P/P	95 - 105

Reference Method: USGS O-2060-01

Run ID: A75564

Included Lab Sample IDs: 1882624, 1882625, 1882626, 1882627

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	124	122	P/P	60 - 150
Carbamazepine	129	132	P/P	60 - 150
Diuron	104	101	P/P	60 - 150
Diuron	120	114	P/P	60 - 150
Fenuron	117	122	P/P	60 - 150
Fenuron	130	129	P/P	60 - 150
Fluridone	104	108	P/P	60 - 150
Fluridone	98.8	104	P/P	60 - 150
Imidacloprid	102	107	P/P	60 - 150
Imidacloprid	112	122	P/P	60 - 150
Linuron	79.6	102	P/P	60 - 150
Linuron	97.6	106	P/P	60 - 150
Primidone	126	123	P/P	60 - 150

Reference Method: SM 2320 B-97

Run ID: A75578

Included Lab Sample IDs: 1882565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	105	101	P/P	90 - 110

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

Run ID: A75644

Included Lab Sample IDs: 1882657, 1882658, 1882659, 1882660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.5	99.8	P/P	85 - 115
Alpha-BHC	99.9	104	P/P	85 - 115
Beta-BHC	103	105	P/P	85 - 115
Carbophenothion	107	119*	P/F	90 - 110
Chlordane	105	105	P/P	85 - 115
Chlorothalonil	105	108	P/P	90 - 110
Cypermethrin	99.4	97.1	P/P	85 - 115
DDD-p,p'	100	105	P/P	85 - 115
DDE-p,p'	97.5	100	P/P	85 - 115
DDT-p,p'	99.0	106	P/P	85 - 115
Delta-BHC	103	108	P/P	85 - 115
Dicofol	116*	80.2*	F/F	90 - 110
Dieldrin	98.1	100	P/P	85 - 115
Endosulfan I	99.2	102	P/P	85 - 115
Endosulfan II	101	105	P/P	85 - 115
Endosulfan Sulfate	98.7	106	P/P	85 - 115

Quality Assurance Report Calibration Verification

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

Run ID: A75644

Included Lab Sample IDs: 1882657, 1882658, 1882659, 1882660

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin	99.9	104	P/P	85 - 115
Endrin Aldehyde	102	106	P/P	85 - 115
Gamma-BHC	101	105	P/P	85 - 115
Heptachlor	102	107	P/P	85 - 115
Heptachlor Epoxide	99.0	101	P/P	85 - 115
Methoxychlor	101	111*	P/F	90 - 110
Mirex	102	102	P/P	90 - 110
Permethrin	100	102	P/P	90 - 110
Toxaphene	107	102	P/P	85 - 115
Trifluralin	107	106	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A75648

Included Lab Sample IDs: 1882661, 1882662, 1882663, 1882664

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine	99.7		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	86.1		P	80 - 120
Bromacil	107		P	80 - 120
Butylate	108		P	80 - 120
Chlorpyrifos Ethyl	114		P	80 - 120
Chlorpyrifos Methyl	110		P	80 - 120
Cyanazine	101		P	80 - 120
Demeton	124*		F	80 - 120
Diazinon	100		P	80 - 120
Disulfoton	105		P	80 - 120
EPTC	109		P	80 - 120
Ethion	109		P	80 - 120
Ethoprop	107		P	80 - 120
Fenamiphos	116		P	80 - 120
Fipronil	99.1		P	80 - 120
Fipronil Sulfide	112		P	80 - 120
Fipronil Sulfone	117		P	80 - 120
Fonofos	108		P	80 - 120
Hexazinone	102		P	80 - 120
Malathion	106		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	106		P	80 - 120
Metribuzin	123*		F	80 - 120
Mevinphos	114		P	80 - 120
Molinate	104		P	80 - 120
Norflurazon	99.7		P	80 - 120
Parathion Ethyl	92.8		P	80 - 120
Parathion Methyl	86.2		P	80 - 120
Pendimethalin	94.9		P	80 - 120
Phorate	103		P	80 - 120
Prometon	109		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A75648

Included Lab Sample IDs: 1882661, 1882662, 1882663, 1882664

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prometryn	101		P	80 - 120
Simazine	106		P	80 - 120
Terbufos	99.0		P	80 - 120
Terbutylazine	102		P	80 - 120

Reference Method: EPA 8270D

Run ID: A75649

Included Lab Sample IDs: 1882663, 1882664

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	99.0		P	80 - 120

Reference Method: SM 4500 F-C-97

Run ID: A75710

Included Lab Sample IDs: 1882565

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

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	81.8	84.9	74.8	70.4	3.74		6.16
	Alpha-BHC	70.2	71.5	71.2	67.4	1.94		5.61
	Beta-BHC	99.6	97.6	102	90.2	2.03		12.1
	DDD-p,p'	88.7	97.0	96.5	82.7	8.92		15.5
	DDE-p,p'	91.3	82.0	90.3	77.0	10.8		16.0
	DDT-p,p'	90.4	101	103	87.6	11.3		15.9
	Delta-BHC	95.5	89.7	103	84.9	6.25		19.0
	Dieldrin	88.5	95.1	95.1	80.7	7.14		16.4
	Endosulfan I	90.1	95.2	93.9	83.6	5.49		11.7
	Endosulfan II	99.8	105	106	91.7	4.83		15.0
	Endosulfan Sulfate	99.7	91.1	102	88.1	9.00		14.6
	Endrin	95.0	103	102	87.8	7.90		14.9
	Endrin Aldehyde	91.2	85.0	89.2	79.4	7.14		11.8
	Gamma-BHC	79.3	76.7	79.6	70.1	3.36		12.8
	Heptachlor	87.3	86.2	81.7	76.3	1.27		6.91
EPA 180.1 Rev. 2.0	Heptachlor Epoxide	87.5	92.6	94.9	81.7	5.63		15.1
	Methoxychlor	105	94.0	109	92.3	11.2		16.5
	Turbidity						13.0	
EPA 200.7 Rev. 4.4	Turbidity						2.45	
	Calcium	102		103	99.0			3.32
	Calcium	103						0.294

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 200.7 Rev. 4.4	Iron	105		105	106	107			0.787
	Iron	104		95.0	93.2				1.88
	Magnesium	103		101	105				1.63
	Magnesium	104							0.593
	Potassium	99.4		95.6	98.6	101			1.83
	Potassium	99.8							0.536
	Sodium	101		101	98.2				2.61
	Sodium	101							0.700
	Zinc	99.3		97.2	96.8	98.9			2.16
	Zinc	99.3		97.2	96.8	98.9			2.16
EPA 200.8 Rev. 5.4	Arsenic	96.5		98.3	98.6	99.1			0.538
	Arsenic	97.0		107	111				3.29
	Cadmium	96.6		100	98.9	99.6			0.694
	Cadmium	94.3		90.8	97.2				6.83
	Chromium	102		98.8	101	102			1.07
	Chromium	94.0		93.1	94.0				0.886
	Copper	96.0		96.1	96.1	94.3			1.84
	Copper	95.7		95.4	96.5				1.19
	Lead	98.4		98.7	100	100			0.296
	Lead	98.1		107	106				1.01
	Nickel	96.0		91.6	95.2	94.1			1.16
	Nickel	97.8		97.6	98.1				0.517
	Silver	98.8		99.4	99.8	101			0.783
	Silver	101		97.0	97.3				0.301
	Zinc	94.7		94.9	86.5				8.22
EPA 300.0 Rev. 2.1	Chloride	105		105	103			0.309	
	Chloride	102		99.4	102			0.205	
	Sulfate	104		105	103			0.311	
	Sulfate	100		100	99.3			7.07	
EPA 350.1 Rev. 2.0	Ammonia-N	105		101	102				0.714
	Ammonia-N	105		105	102				1.71
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.1		96.6	96.2				0.333
	Kjeldahl Nitrogen	95.3		99.9	99.6				0.243
	Kjeldahl Nitrogen	93.0		97.6	100				1.27
EPA 353.2 Rev. 2.0	NO2NO3-N	102		105	104				0.466
	NO2NO3-N	102		104	104				0.601
EPA 365.1 Rev. 2.0	Total-P	104		104	106				2.31
	Total-P	106		108	106				2.19
	Total-P	103		104	104				0.0714
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	95.8		96.8	95.3				1.45
	O-Phosphate-P	97.0		93.9	95.8				1.04
	O-Phosphate-P	97.6		94.2	94.5				0.215
EPA 8270D	Acetochlor	96.2	97.8	91.8	91.6		1.70		0.209
	Alachlor	94.2	97.1	92.4	92.2		2.99		0.150
	Ametryn	120	121	113	115		1.39		1.66
	Atrazine	103	104				0.441		2.49
	Atrazine Desethyl	82.9	80.4	72.6	75.0		3.12		2.52
	Azinphos Methyl	196	181	146	141		7.78		3.97
	Bromacil	81.0	97.3	83.3	84.6		18.4		0.976
	Butylate	49.3	58.6	41.1	61.0		17.1		39.0
	Chlorpyrifos Ethyl	89.5	93.5	90.9	83.3		4.45		8.75
	Chlorpyrifos Methyl	89.6	94.4	79.5	68.8		5.24		14.5
	Cyanazine	123	121	113	116		1.16		2.72
	Demeton	106	111	91.7	93.5		4.90		1.87
	Diazinon	96.1	97.5	83.9	86.8		1.53		3.48

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270D	Disulfoton	90.5	105	83.2	79.6	14.8		4.37
	EPTC	47.7	57.9	42.4	63.0	19.2		39.2
	Ethion	94.3	95.6	101	91.4	1.34		9.59
	Ethoprop	94.2	100	85.0	87.4	6.18		2.79
	Fenamiphos	110	113	99.3	87.1	3.00		13.1
	Fipronil	104	103	107	109	0.913		1.70
	Fipronil Sulfide	99.3	103	98.5	95.7	3.38		2.37
	Fipronil Sulfone	86.5	90.7			4.71		6.28
	Fonofos	91.5	95.5	82.5	74.2	4.34		10.6
	Hexazinone	93.6	94.2	95.7	94.3	0.609		1.43
	Malathion	99.1	104	98.4	84.7	4.39		15.1
	Metalaxyl	98.3	97.6	100	86.7	0.780		14.2
	Metolachlor	98.4	101	102	99.9	2.19		1.83
	Metribuzin	116	123	116	114	5.47		1.43
	Mevinphos	106	117	95.7	86.8	9.70		9.74
	Molinate	59.8	69.8	70.8	53.8	15.4		27.3
	Norflurazon	95.1	93.9	101	99.9	1.24		0.694
	Parathion Ethyl	97.9	97.7	91.4	93.0	0.253		1.74
	Parathion Methyl	98.7	100	83.0	83.6	1.61		0.729
	Pendimethalin	98.7	99.9	101	103	1.14		1.95
	Phorate	104	109	85.5	77.5	4.82		9.81
	Prometon	110	118	125	125	6.29		0.150
	Prometryn	117	117	119	117	0.577		2.02
	Simazine	109	112	93.4	85.2	2.31		6.20
	Terbufos	82.4	87.3	69.8	72.5	5.77		3.77
	Terbuthylazine	95.4	97.4	97.4	95.8	2.09		1.58
EPA 8321B	Glyphosate	90.6		31.4	31.6			0.635
	Pyraclostrobin	74.8		89.6	82.4			8.37
	Sucralose	104		109	112			2.25
SM 2120 B	Color (true)						0.243	
	Color (true)						4.73	
SM 2320 B-97	Total Alkalinity	105					0.467	
	Total Alkalinity	105					0.0256	
SM 2540 C-97	TDS						6.50	
	TDS						8.42	
	TDS						5.16	
SM 4500 F-C-97	Fluoride	98.2		103	102			0.509
	Fluoride	94.5		97.0	98.9			0.960
SM 5310 B-00	Organic Carbon	98.4		93.5	94.5			0.914
	Organic Carbon	99.3		95.5	97.2			1.60
USGS O-2060-01	2,4-D	82.8		102	94.0			8.55
	Acetaminophen	62.0		68.0	86.0			23.4
	Bentazon	108		111	100			6.95
	Carbamazepine	99.2		99.1	91.5			7.87
	Diuron	70.8		84.0	75.2			11.1
	Fenuron	90.4		89.2	81.6			8.90
	Fluridone	81.2		83.6	76.0			9.52
	Imidacloprid	77.2		111	89.9			17.1
	Linuron	81.2		72.4	68.0			6.27
	MCPP	81.2		92.4	85.2			8.11
	Primidone	103		112	97.2			13.8
	Triclopyr	108		122	102			18.2

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.	1882657, 1882658, 1882659, 1882660
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1882565, 1882566, 1882567, 1882568, 1882569
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1882634, 1882635, 1882636, 1882637, 1882638
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1882634, 1882635, 1882636, 1882637, 1882638
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1882565, 1882566, 1882567, 1882568, 1882569
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1882565, 1882566, 1882567, 1882568, 1882569
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1882570, 1882571, 1882572, 1882573, 1882574
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1882570, 1882571, 1882572, 1882573, 1882574
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1882570, 1882571, 1882572, 1882573, 1882574
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1882570, 1882571, 1882572, 1882573, 1882574
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1882575, 1882576, 1882577, 1882578, 1882579
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1882661, 1882662, 1882663, 1882664
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1882624, 1882625, 1882626, 1882627
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1882628, 1882629, 1882630, 1882631
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1882624, 1882625, 1882626, 1882627
SM 2120 B / E31780	True Color measured at 450 nm	1882565, 1882566, 1882567, 1882568, 1882569
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1882565, 1882566, 1882567, 1882568, 1882569
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1882565, 1882566, 1882567, 1882568, 1882569
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1882565, 1882566, 1882567, 1882568, 1882569
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1882565, 1882566, 1882567, 1882568, 1882569
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1882570, 1882571, 1882572, 1882573, 1882574
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1882624, 1882625, 1882626, 1882627
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1882624, 1882625, 1882626, 1882627

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)	03/23/2017	03/28/2017	Rasheda Ghaffari	03/30/2017	Vandana T. Nagar	1882657, 1882658, 1882659, 1882660
EPA 180.1 Rev. 2.0	03/23/2017	03/28/2017	Rasheda Ghaffari	04/06/2017	Vandana T. Nagar	1882657, 1882658, 1882659, 1882660
	03/23/2017			03/23/2017 17:09	Sima Feizi	1882565, 1882566, 1882567, 1882568, 1882569
EPA 200.7 Rev. 4.4	03/23/2017	03/27/2017	Elliott D. Healy	04/03/2017	Joshua Ayres	1882635, 1882636, 1882637, 1882638
	03/23/2017	03/28/2017	Elliott D. Healy	04/03/2017	Joshua Ayres	1882634
EPA 200.8 Rev. 5.4	03/23/2017	03/27/2017	Elliott D. Healy	03/29/2017	Robert K Palmer	1882636, 1882638
	03/23/2017	03/27/2017	Elliott D. Healy	03/30/2017	Betina Topolski	1882635, 1882636, 1882637, 1882638
	03/23/2017	03/27/2017	Elliott D. Healy	03/30/2017	Robert K Palmer	1882635, 1882637
	03/23/2017	03/28/2017	Elliott D. Healy	04/03/2017	Betina Topolski	1882634
	03/23/2017			03/30/2017	Ping Hua	1882565, 1882566, 1882567, 1882568, 1882569
EPA 350.1 Rev. 2.0	03/23/2017			03/31/2017	Ping Hua	1882566
	03/23/2017			03/24/2017	Julie Michelle Frank	1882570, 1882571, 1882572, 1882573, 1882574
EPA 351.2 Rev. 2.0	03/23/2017	03/24/2017	Adrian Shelby	03/27/2017	Joseph Suarez	1882570, 1882571
	03/23/2017	03/27/2017	Adrian Shelby	03/28/2017	Joseph Suarez	1882572, 1882573, 1882574
EPA 353.2 Rev. 2.0	03/23/2017			03/27/2017	Beverly Y. Sanders	1882571, 1882572, 1882573, 1882574
	03/23/2017			03/29/2017	Beverly Y. Sanders	1882570
EPA 365.1 Rev. 2.0	03/23/2017	03/24/2017	Vijayalakshmi Reddy	03/27/2017	Lipi Saha	1882570, 1882571
	03/23/2017	03/27/2017	Vijayalakshmi Reddy	03/28/2017	Christopher Armour	1882572, 1882573
	03/23/2017	03/27/2017	Vijayalakshmi Reddy	03/30/2017	Virginia P. Brown	1882574
EPA 365.1 Rev. 2.0 dissolved	03/23/2017			03/23/2017 17:16	Anthony C. Onicha	1882575
	03/23/2017			03/23/2017 18:04	Anthony C. Onicha	1882576
	03/23/2017			03/23/2017 18:08	Anthony C. Onicha	1882577
	03/23/2017			03/23/2017 18:31	Anthony C. Onicha	1882578
	03/23/2017			03/23/2017 18:34	Anthony C. Onicha	1882579
EPA 8270D	03/23/2017	03/24/2017	John Kaba	03/30/2017	Irina Carbone	1882661, 1882662
	03/23/2017	03/24/2017	John Kaba	03/31/2017	Irina Carbone	1882663, 1882664
	03/23/2017	03/24/2017	John Kaba	04/05/2017	Irina Carbone	1882663, 1882664
EPA 8321B	03/23/2017	03/24/2017	Mohammad Ghaffari	03/24/2017	Mohammad Ghaffari	1882627
	03/23/2017	03/24/2017	Mohammad Ghaffari	03/25/2017	Mohammad Ghaffari	1882624, 1882626
	03/23/2017	03/24/2017	Mohammad Ghaffari	03/26/2017	Mohammad Ghaffari	1882625
	03/23/2017	03/27/2017	Mohammad Ghaffari	03/27/2017	Mohammad Ghaffari	1882624, 1882625, 1882626, 1882627
	03/23/2017	03/28/2017	Hoor Shaik	03/31/2017	Juyoung Kim	1882628, 1882629, 1882630, 1882631
SM 2120 B	03/23/2017			03/23/2017 16:32	Julia Storbeck	1882565, 1882566
	03/23/2017			03/23/2017 16:33	Julia Storbeck	1882567
	03/23/2017			03/23/2017 16:36	Julia Storbeck	1882568
	03/23/2017			03/23/2017 16:57	Julia Storbeck	1882569
SM 2320 B-97	03/23/2017			03/29/2017	Dale L. Simmons	1882566

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	03/23/2017			03/30/2017	Dale L. Simmons	1882567, 1882568, 1882569
	03/23/2017			04/04/2017	Dale L. Simmons	1882565
SM 2540 C-97	03/23/2017			03/28/2017	Yijie Li	1882565, 1882566, 1882567, 1882568, 1882569
SM 2540 D-97	03/23/2017			03/28/2017	Yijie Li	1882565, 1882566, 1882567, 1882568, 1882569
SM 4500 F-C-97	03/23/2017			03/29/2017	Dale L. Simmons	1882566
	03/23/2017			03/30/2017	Dale L. Simmons	1882567, 1882568, 1882569
	03/23/2017			04/10/2017	Dale L. Simmons	1882565
SM 5310 B-00	03/23/2017			03/24/2017	Julie Michelle Frank	1882570, 1882571, 1882572, 1882573, 1882574
USGS O-2060-01	03/23/2017	03/27/2017	Hoor Shaik	03/28/2017	Juyoung Kim	1882624, 1882625, 1882626, 1882627
	03/23/2017	03/27/2017	Hoor Shaik	03/29/2017	Juyoung Kim	1882627
	03/23/2017	03/27/2017	Hoor Shaik	04/01/2017	Juyoung Kim	1882624, 1882625, 1882626, 1882627