

Chemical Analysis Report

SO-DIST-2018-02-16-01

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

Event Description: **Peace River Streams**
Request ID: **RQ-2018-02-12-30**
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
Attn: Maryann Dugan

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Certified by: Colin Wright, Program Administrator

Date Certified: 16-MAR-2018 13:51

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

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: PrairieCreek@WshngtnLp

Collection Date/Time: 02/15/2018 09:25

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968393	EPA 180.1 Rev. 2.0	Turbidity	8.5		NTU	P340110	
	EPA 300.0 Rev. 2.1	Chloride	69		mg Cl/L	P340401	
		Sulfate	99		mg SO4/L	P340402	
	SM 2120 B	Color (true)	120	A	PCU	P340108	
	SM 2320 B-97	Total Alkalinity	94		mg CaCO3/L	P340616	
	SM 2540 C-97	TDS	449		mg/L	P340777	
	SM 2540 D-97	TSS	6	I	mg/L	P340761	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P340618	
1968395	EPA 350.1 Rev. 2.0	Ammonia-N	0.098		mg N/L	P340677	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P340400	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.42		mg N/L	P340495	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P340414	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P340501	
1968397	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P340154	
1968413	EPA 200.7 Rev. 4.4	Calcium	59.5		mg/L	P340293	
		Iron	910		ug/L	P340293	
		Magnesium	18.8		mg/L	P340293	
		Potassium	11.1		mg/L	P340293	
		Sodium	32.8		mg/L	P340293	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P340293	
		Arsenic	1.44		ug/L	P340293	
		Cadmium	0.020	U	ug/L	P340293	
		Chromium	1.0	I	ug/L	P340293	
		Copper	1.79		ug/L	P340293	
		Lead	0.33		ug/L	P340293	
		Nickel	1.16		ug/L	P340293	
		Silver	0.010	U	ug/L	P340293	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: PrairieCreek@WshngtnLp

Collection Date/Time: 02/15/2018 09:25

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968405	EPA 8321B	2,4-D	0.0074	I	ug/L	P340164	
		Sucralose**	0.039	I	ug/L	P340023	
		Bentazon	0.0074		ug/L	P340164	MS
		MCP	0.0020	U	ug/L	P340164	MS
		Triclopyr**	0.0040	U	ug/L	P340164	
		Imidacloprid	0.71		ug/L	P340164	
		Diuron	0.13		ug/L	P340164	
		Pyraclostrobin**	0.0020	U	ug/L	P340164	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968405	EPA 8321B	Primidone**	0.0040	U	ug/L	P340164	
		Linuron	0.0040	U	ug/L	P340164	
		Acetaminophen**	0.0080	U	ug/L	P340164	
		Fenuron	0.0094	I	ug/L	P340164	
		Carbamazepine**	4.0E-04	U	ug/L	P340164	
		Fluridone**	0.0015	I	ug/L	P340164	
		Glyphosate**	0.77		ug/L	P340147	
		AMPA**	0.94		ug/L	P340147	
		Aldicarb	0.020	U	ug/L	P340164	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P340164	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P340164	
		Carbaryl	0.0020	U	ug/L	P340164	
		Carbofuran	0.0020	U	ug/L	P340164	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P340164	
		Methiocarb	0.0020	U	ug/L	P340164	
		Methomyl	0.0020	U	ug/L	P340164	
		Oxamyl	0.0020	U	ug/L	P340164	
		Propoxur	0.0020	U	ug/L	P340164	
1968409	EPA 8270D	Aldrin	4.3	U	ng/L	P340346	
		Alpha-BHC	2.1	U	ng/L	P340346	
		Beta-BHC	4.3	U	ng/L	P340346	
		Delta-BHC	4.3	U	ng/L	P340346	
		Gamma-BHC	4.3	U	ng/L	P340346	
		Carbophenothion	4.3	U	ng/L	P340346	
		Chlorothalonil	2.1	U	ng/L	P340346	
		Cypermethrin	21	U	ng/L	P340346	
		DDD-p,p'	3.2	U	ng/L	P340346	
		DDE-p,p'	3.2	U	ng/L	P340346	
		DDT-p,p'	3.2	U	ng/L	P340346	
		Dieldrin	4.3	U	ng/L	P340346	
		Endosulfan I	4.3	U	ng/L	P340346	
		Endosulfan II	4.3	U	ng/L	P340346	
		Endosulfan Sulfate	2.1	U	ng/L	P340346	
		Endrin	2.1	U	ng/L	P340346	
		Endrin Aldehyde	2.1	U	ng/L	P340346	
		Heptachlor	1.6	U	ng/L	P340346	
		Heptachlor Epoxide	2.1	U	ng/L	P340346	
		Methoxychlor	4.3	U	ng/L	P340346	
		Mirex	2.1	U	ng/L	P340346	
		Permethrin	11	U	ng/L	P340346	
		Trifluralin	1.1	U	ng/L	P340346	
		Alpha-Chlordane	1.1	U	ng/L	P340346	
		Gamma-Chlordane	1.1	U	ng/L	P340346	
		Endrin Ketone	2.1	U	ng/L	P340346	
		Dicofol	32	U	ng/L	P340346	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968409	EPA 8276	Chlordane**	2.7	U	ng/L	P340346	
		Toxaphene**	32	U	ng/L	P340346	
1968411	EPA 8270D	Alachlor	0.25	U	ng/L	P340051	
		Ametryn	0.32	U	ng/L	P340051	MS
		Atrazine	22		ng/L	P340051	
		Atrazine Desethyl	1.5	U	ng/L	P340051	
		Azinphos Methyl	2.2	U	ng/L	P340051	
		Bromacil	1.3E+03	J	ng/L	P340051	LCS
		Butylate	0.40	U	ng/L	P340051	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P340051	
		Chlorpyrifos Methyl	0.099	U	ng/L	P340051	MS
		Demeton	2.0	U	ng/L	P340051	MS
		Diazinon	0.12	U	ng/L	P340051	
		Disulfoton	0.50	U	ng/L	P340051	
		EPTC	1.2	U	ng/L	P340051	
		Ethion	0.15	U	ng/L	P340051	
		Ethoprop	0.099	U	ng/L	P340051	
		Fenamiphos	0.25	U	ng/L	P340051	RPD
		Fipronil	0.25	U	ng/L	P340051	
		Fipronil Sulfide	0.15	U	ng/L	P340051	
		Fipronil Sulfone	0.15	UJ	ng/L	P340051	CCV
		Hexazinone	510		ng/L	P340051	
		Malathion	190		ng/L	P340051	MS
		Metribuzin	1.0		ng/L	P340051	
		Mevinphos	0.50	UJ	ng/L	P340051	CCV, MS
		Molinate	0.30	U	ng/L	P340051	
		Norflurazon	610		ng/L	P340051	
		Pendimethalin	0.99	U	ng/L	P340051	
		Phorate	0.25	U	ng/L	P340051	
		Prometon	0.89	U	ng/L	P340051	
		Prometryn	0.20	U	ng/L	P340051	
		Simazine	3.4		ng/L	P340051	
		Terbufos	0.099	U	ng/L	P340051	
		Terbuthylazine	0.42	U	ng/L	P340051	
		Fonofos	0.20	U	ng/L	P340051	MS
		Metalaxyl	260		ng/L	P340051	
		Metolachlor	34		ng/L	P340051	
		Acetochlor	0.25	U	ng/L	P340051	
		Cyanazine	0.50	U	ng/L	P340051	
		Parathion Ethyl	0.25	U	ng/L	P340051	
		Parathion Methyl	0.25	U	ng/L	P340051	MS

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for fluridone could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270D: MS accuracy for Atrazine , Simazine, and Fipronil Sulfone not assessed due to high content of this parameter in the sample spiked.

Refer to the narrative for an explanation of QC Codes.

Sample Location: BobcatCreek in Preserve

Collection Date/Time: 02/15/2018 10:40

Field ID: G3SD0131

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968387	EPA 180.1 Rev. 2.0	Turbidity	14	A	NTU	P340110	
	EPA 300.0 Rev. 2.1	Chloride	39		mg Cl/L	P340321	
		Sulfate	21		mg SO4/L	P340323	
	SM 2120 B	Color (true)	87	A	PCU	P340077	
	SM 2320 B-97	Total Alkalinity	114		mg CaCO3/L	P340616	
	SM 2540 C-97	TDS	272		mg/L	P340777	
	SM 2540 D-97	TSS	3	I	mg/L	P340761	
	SM 4500 F-C-97	Fluoride	0.58		mg F/L	P340618	
1968389	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P340677	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P340400	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.081		mg N/L	P340495	
	EPA 365.1 Rev. 2.0	Total-P	1.1		mg P/L	P340414	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P340501	
1968391	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.69		mg P/L	P340154	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: HawthorneCrk@ReynoldsSt

Collection Date/Time: 02/15/2018 11:40

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968404	EPA 8321B	2,4-D	0.018		ug/L	P340164	
		Sucralose**	0.099		ug/L	P340023	
		Bentazon	8.0E-04	U	ug/L	P340164	MS
		MCP	0.0020	U	ug/L	P340164	MS
		Triclopyr**	0.0040	U	ug/L	P340164	
		Imidacloprid	0.77		ug/L	P340164	
		Diuron	0.071		ug/L	P340164	
		Primidone**	0.0040	U	ug/L	P340164	
		Linuron	0.0040	U	ug/L	P340164	
		Acetaminophen**	0.0080	U	ug/L	P340164	
		Fenuron	0.077		ug/L	P340164	
		Carbamazepine**	0.0012	I	ug/L	P340164	
		Fluridone**	8.0E-04	U	ug/L	P340164	

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for fluridone could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Hog Bay @ CR 763

Collection Date/Time: 02/15/2018 12:10

Field ID: G3SD0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968388	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P340110	
	EPA 300.0 Rev. 2.1	Chloride	85		mg Cl/L	P340401	
		Sulfate	95		mg SO4/L	P340402	

Field ID: G3SD0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968388	SM 2120 B	Color (true)	140		PCU	P340108	
	SM 2320 B-97	Total Alkalinity	114		mg CaCO3/L	P340616	
	SM 2540 C-97	TDS	514	A	mg/L	P340777	
	SM 2540 D-97	TSS	4	IA	mg/L	P340761	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P340618	
1968390	EPA 350.1 Rev. 2.0	Ammonia-N	0.075		mg N/L	P340677	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P340400	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.95		mg N/L	P340495	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P340414	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P340501	
1968392	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.10		mg P/L	P340154	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Myrtle Slough @ SR 31

Collection Date/Time: 02/15/2018 13:30

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968394	EPA 180.1 Rev. 2.0	Turbidity	5.9		NTU	P340110	
	EPA 300.0 Rev. 2.1	Chloride	130		mg Cl/L	P340401	
		Sulfate	65		mg SO4/L	P340402	
	SM 2120 B	Color (true)	69		PCU	P340108	
	SM 2320 B-97	Total Alkalinity	187		mg CaCO3/L	P340616	
	SM 2540 C-97	TDS	615		mg/L	P340777	
	SM 2540 D-97	TSS	4	I	mg/L	P340761	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P340618	
1968396	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P340678	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.98		mg N/L	P340400	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P340495	
	EPA 365.1 Rev. 2.0	Total-P	0.068		mg P/L	P340415	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P340501	
1968398	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.040		mg P/L	P340154	
1968414	EPA 200.7 Rev. 4.4	Calcium	104		mg/L	P340293	
		Iron	450		ug/L	P340293	
		Magnesium	13.1		mg/L	P340293	
		Potassium	10.7		mg/L	P340293	
		Sodium	63.4		mg/L	P340293	
		Zinc	5.0	U	ug/L	P340293	
	EPA 200.8 Rev. 5.4	Arsenic	1.13		ug/L	P340293	
		Cadmium	0.020	U	ug/L	P340293	
		Chromium	0.68	I	ug/L	P340293	
		Copper	1.23		ug/L	P340293	
		Lead	0.15	I	ug/L	P340293	

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968414	EPA 200.8 Rev. 5.4	Nickel	1.80		ug/L	P340293	
		Silver	0.010	U	ug/L	P340293	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Myrtle Slough @ SR 31

Collection Date/Time: 02/15/2018 13:30

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968406	EPA 8321B	2,4-D	0.0020	U	ug/L	P340164	
		Sucralose**	0.039	I	ug/L	P340023	
		Bentazon	0.0014	I	ug/L	P340164	MS
		MCP	0.0020	U	ug/L	P340164	MS
		Triclopyr**	0.0040	U	ug/L	P340164	
		Imidacloprid	0.75		ug/L	P340164	
		Diuron	0.029		ug/L	P340164	
		Pyraclostrobin**	0.0020	U	ug/L	P340164	
		Primidone**	0.0040	U	ug/L	P340164	
		Linuron	0.0040	U	ug/L	P340164	
		Acetaminophen**	0.0080	U	ug/L	P340164	
		Fenuron	0.0080	U	ug/L	P340164	
		Carbamazepine**	4.0E-04	U	ug/L	P340164	
		Fluridone**	0.012		ug/L	P340164	
		Glyphosate**	0.53		ug/L	P340147	
		AMPA**	0.46		ug/L	P340147	
1968408		Aldicarb	0.020	U	ug/L	P340164	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P340164	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P340164	
		Carbaryl	0.0020	U	ug/L	P340164	
		Carbofuran	0.0020	U	ug/L	P340164	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P340164	
		Methiocarb	0.0020	U	ug/L	P340164	
		Methomyl	0.0020	U	ug/L	P340164	
		Oxamyl	0.0020	U	ug/L	P340164	
		Propoxur	0.0020	U	ug/L	P340164	
1968410	EPA 8270D	Aldrin	4.2	U	ng/L	P340346	
		Alpha-BHC	2.1	U	ng/L	P340346	
		Beta-BHC	4.2	U	ng/L	P340346	
		Delta-BHC	4.2	U	ng/L	P340346	
		Gamma-BHC	4.2	U	ng/L	P340346	
		Carbophenothion	4.2	U	ng/L	P340346	
		Chlorothalonil	2.1	U	ng/L	P340346	
		Cypermethrin	21	U	ng/L	P340346	
		DDD-p,p'	3.2	U	ng/L	P340346	

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968410	EPA 8270D	DDE-p,p'	3.2	U	ng/L	P340346	
		DDT-p,p'	3.2	U	ng/L	P340346	
		Dieldrin	4.2	U	ng/L	P340346	
		Endosulfan I	4.2	U	ng/L	P340346	
		Endosulfan II	4.2	U	ng/L	P340346	
		Endosulfan Sulfate	2.1	U	ng/L	P340346	
		Endrin	2.1	U	ng/L	P340346	
		Endrin Aldehyde	2.1	U	ng/L	P340346	
		Heptachlor	1.6	U	ng/L	P340346	
		Heptachlor Epoxide	2.1	U	ng/L	P340346	
		Methoxychlor	4.2	U	ng/L	P340346	
		Mirex	2.1	U	ng/L	P340346	
		Permethrin	11	U	ng/L	P340346	
		Trifluralin	1.1	U	ng/L	P340346	
		Alpha-Chlordane	1.1	U	ng/L	P340346	
		Gamma-Chlordane	1.1	U	ng/L	P340346	
		Endrin Ketone	2.1	U	ng/L	P340346	
		Dicofol	32	U	ng/L	P340346	
	EPA 8276	Chlordane**	2.6	UJ	ng/L	P340346	SUR
		Toxaphene**	32	UJ	ng/L	P340346	SUR
1968412	EPA 8270D	Alachlor	0.25	U	ng/L	P340051	
		Ametryn	0.32	U	ng/L	P340051	MS
		Atrazine	19		ng/L	P340051	
		Atrazine Desethyl	1.5	U	ng/L	P340051	
		Azinphos Methyl	2.2	U	ng/L	P340051	
		Bromacil	90	J	ng/L	P340051	LCS
		Butylate	0.40	U	ng/L	P340051	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P340051	
		Chlorpyrifos Methyl	0.10	U	ng/L	P340051	MS
		Demeton	2.0	U	ng/L	P340051	MS
		Diazinon	0.12	U	ng/L	P340051	
		Disulfoton	0.50	U	ng/L	P340051	
		EPTC	1.2	U	ng/L	P340051	
		Ethion	0.94		ng/L	P340051	
		Ethoprop	0.10	U	ng/L	P340051	
		Fenamiphos	0.25	U	ng/L	P340051	RPD
		Fipronil	0.25	U	ng/L	P340051	
		Fipronil Sulfide	0.15	U	ng/L	P340051	
		Fipronil Sulfone	0.15	UJ	ng/L	P340051	CCV
		Hexazinone	2.7		ng/L	P340051	
		Malathion	0.35	U	ng/L	P340051	MS
		Metribuzin	0.58	I	ng/L	P340051	
		Mevinphos	0.50	UJ	ng/L	P340051	CCV, MS
		Molinate	0.30	U	ng/L	P340051	
		Norflurazon	550		ng/L	P340051	

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1968412	EPA 8270D	Pendimethalin	1.0	U	ng/L	P340051	
		Phorate	0.25	U	ng/L	P340051	
		Prometon	0.90	U	ng/L	P340051	
		Prometryn	0.20	U	ng/L	P340051	
		Simazine	4.8		ng/L	P340051	
		Terbufos	0.10	U	ng/L	P340051	
		Terbuthylazine	0.42	U	ng/L	P340051	
		Fonofos	0.20	U	ng/L	P340051	MS
		Metalaxyl	47		ng/L	P340051	
		Metolachlor	11		ng/L	P340051	
		Acetochlor	0.25	U	ng/L	P340051	
		Cyanazine	0.50	U	ng/L	P340051	
		Parathion Ethyl	0.25	U	ng/L	P340051	
		Parathion Methyl	0.25	U	ng/L	P340051	MS

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for fluridone could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8276: Refer to the narrative for an explanation of QC Codes.

EPA 8270D: MS accuracy for Atrazine , Simazine, and Fipronil Sulfone not assessed due to high content of this parameter in the sample spiked.

Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P340110

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P340293

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P340293

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 300.0 Rev. 2.1
Batch ID: P340321

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340323

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340401

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340402

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340677

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340678

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340400

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340495

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340414

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P340415

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P340154

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

Reference Method: EPA 8270D
 Batch ID: P340051

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	2.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.50	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.25	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	1.0	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P340346

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	3.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8276
Batch ID: P340346

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P340023

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P340147

Component	Result	Code	Units
AMPA	0.10	U	ug/L
Glyphosate	0.10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P340164

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P340164

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	8.0E-04	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B
Batch ID: P340077

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P340108

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P340616

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

Reference Method: SM 2540 C-97
Batch ID: P340777

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P340761

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P340761

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P340618

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P340501

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340293

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Iron	105		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	104		P	85 - 115
Sodium	112		P	85 - 115
Zinc	97.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340293

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	103		P	85 - 115
Cadmium	105		P	85 - 115
Chromium	100		P	85 - 115
Copper	104		P	85 - 115
Lead	106		P	85 - 115
Nickel	103		P	85 - 115
Silver	113		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	91.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	90.1		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340401

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340402

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	94.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340677

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340678

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340400

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340495

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340414

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340415

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340154

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P340051

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	81.4	94.8	P/P	74 - 119
Alachlor	87.6	99.2	P/P	75 - 118
Ametryn	78.0	95.6	P/P	59 - 137
Atrazine	107	112	P/P	73 - 120
Atrazine Desethyl	97.6	95.2	P/P	19 - 129
Azinphos Methyl	147	164	P/P	65 - 181
Bromacil	32.8	32.3	F/F	43 - 123
Butylate	67.6	56.4	P/P	28 - 85.0
Chlorpyrifos Ethyl	91.6	95.2	P/P	55 - 112
Chlorpyrifos Methyl	106	118	P/P	35 - 124
Cyanazine	108	111	P/P	26 - 262
Demeton	84.6	80.9	P/P	43 - 122
Diazinon	96.5	96.6	P/P	72 - 120
Disulfoton	112	110	P/P	45 - 137
EPTC	67.7	54.8	P/P	28 - 95.0
Ethion	120	115	P/P	63 - 127
Ethoprop	104	100	P/P	63 - 109
Fenamiphos	106	97.2	P/P	66 - 136
Fipronil	95.3	94.6	P/P	63 - 126
Fipronil Sulfide	92.3	94.1	P/P	59 - 123
Fipronil Sulfone	88.6	89.6	P/P	56 - 122
Fonofos	111	111	P/P	64 - 114
Hexazinone	113	120	P/P	49 - 144
Malathion	121	115	P/P	68 - 131
Metaxyl	84.3	90.3	P/P	57 - 126
Metolachlor	95.2	91.8	P/P	75 - 118
Metribuzin	126	141	P/P	46 - 169
Mevinphos	93.4	89.0	P/P	34 - 126
Molinate	88.3	80.9	P/P	37 - 101
Norflurazon	80.9	84.7	P/P	63 - 127
Parathion Ethyl	92.5	95.6	P/P	78 - 109
Parathion Methyl	98.7	103	P/P	74 - 123
Pendimethalin	102	115	P/P	51 - 130
Phorate	110	109	P/P	53 - 116
Prometon	88.0	88.9	P/P	66 - 124
Prometryn	83.2	81.5	P/P	66 - 124
Simazine	124	113	P/P	62 - 134
Terbufos	108	108	P/P	59 - 115
Terbutylazine	96.9	105	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P340346

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	64.2	61.3	P/P	24 - 89.0
Alpha-BHC	69.2	72.2	P/P	58 - 117
Alpha-Chlordane	81.1	78.3	P/P	56 - 115
Beta-BHC	94.6	102	P/P	55 - 137
Carbophenothion	71.7	77.1	P/P	37 - 145
Chlorothalonil	97.5	80.5	P/P	26 - 163
Cypermethrin	85.5	88.8	P/P	42 - 156
DDD-p,p'	88.2	90.2	P/P	59 - 129

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P340346

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDE-p,p'	79.4	80.9	P/P	52 - 117
DDT-p,p'	91.2	91.2	P/P	48 - 128
Delta-BHC	108	103	P/P	59 - 158
Dicofol	110	103	P/P	19 - 124
Dieldrin	82.4	78.8	P/P	57 - 126
Endosulfan I	85.8	78.6	P/P	59 - 133
Endosulfan II	106	97.1	P/P	58 - 148
Endosulfan Sulfate	106	105	P/P	56 - 135
Endrin	83.9	82.7	P/P	50 - 140
Endrin Aldehyde	103	97.9	P/P	47 - 141
Endrin Ketone	96.6	99.2	P/P	63 - 123
Gamma-BHC	93.3	93.7	P/P	59 - 132
Gamma-Chlordane	80.4	77.2	P/P	55 - 112
Heptachlor	70.4	64.2	P/P	45 - 102
Heptachlor Epoxide	83.3	79.8	P/P	61 - 116
Methoxychlor	101	94.7	P/P	60 - 133
Mirex	70.0	72.4	P/P	40 - 98.0
Permethrin	74.8	80.6	P/P	45 - 131
Trifluralin	72.7	67.3	P/P	38 - 179

Reference Method: EPA 8276
Batch ID: P340346

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	81.7	72.9	P/P	47 - 125
Toxaphene	87.7	96.8	P/P	46 - 147

Reference Method: EPA 8321B
Batch ID: P340023

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	97.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340147

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	99.4		P	40 - 150
Glyphosate	98.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340164

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	89.1		P	40 - 150
3-Hydroxycarbofuran	98.9		P	40 - 150
Acetaminophen	113		P	30 - 150
Aldicarb	85.6		P	30 - 150
Aldicarb Sulfone	114		P	40 - 150
Aldicarb Sulfoxide	116		P	40 - 150
Bentazon	128		P	30 - 150
Carbamazepine	104		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P340164

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbaryl	85.1		P	40 - 150
Carbofuran	87.6		P	40 - 150
Diuron	93.0		P	40 - 150
Fenuron	120		P	40 - 150
Fluridone	89.6		P	40 - 150
Imidacloprid	105		P	40 - 160
Linuron	100		P	40 - 150
MCPP	75.6		P	40 - 150
Methiocarb	78.0		P	40 - 150
Methomyl	121		P	40 - 150
Oxamyl	106		P	40 - 150
Primidone	120		P	40 - 150
Propoxur	89.1		P	40 - 150
Pyraclostrobin	101		P	40 - 150
Triclopyr	77.8		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P340616

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.8		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P340618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P340501

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968287	Calcium	99.2		P	80 - 120
1968287	Iron	105	104	P/P	80 - 120
1968287	Magnesium	99.8		P	80 - 120
1968287	Potassium	106	105	P/P	80 - 120
1968287	Sodium	98.3	101	P/P	80 - 120
1968287	Zinc	94.3	93.9	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968287	Arsenic	103	103	P/P	80 - 120
1968287	Cadmium	106	106	P/P	80 - 120
1968287	Chromium	99.5	98.8	P/P	80 - 120
1968287	Copper	101	99.6	P/P	80 - 120
1968287	Lead	107	107	P/P	80 - 120
1968287	Nickel	101	101	P/P	80 - 120
1968287	Silver	113	114	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967813	Chloride	95.5		P	90 - 110
1968067	Chloride	93.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967813	Sulfate	91.3		P	90 - 110
1968067	Sulfate	93.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340401

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968604	Chloride	92.9		P	90 - 110
1968711	Chloride	94.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340402

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968604	Sulfate	92.3		P	90 - 110
1968711	Sulfate	93.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968136	Ammonia-N	98.2	94.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340678

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968547	Ammonia-N	96.9	95.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340400

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: P340400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968389	Kjeldahl Nitrogen	99.8	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340495

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967814	NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340415

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968396	Total-P	108	100	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P340051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967723	Acetochlor	90.3	93.3	P/P	67 - 125
1967723	Alachlor	81.4	96.0	P/P	69 - 123
1967723	Ametryn	51.9	66.5	F/P	52 - 151
1967723	Atrazine Desethyl	60.1	65.2	P/P	10 - 129
1967723	Azinphos Methyl	174	198	P/P	48 - 200
1967723	Bromacil	62.8	82.7	P/P	46 - 130
1967723	Butylate	62.6	59.0	P/P	10 - 85.0
1967723	Chlorpyrifos Ethyl	83.3	111	P/P	54 - 115
1967723	Chlorpyrifos Methyl	113	127	P/F	44 - 117
1967723	Cyanazine	103	124	P/P	10 - 262
1967723	Demeton	143	154	P/F	24 - 145
1967723	Diazinon	96.1	97.1	P/P	66 - 129
1967723	Disulfoton	101	98.4	P/P	45 - 139
1967723	EPTC	58.8	53.5	P/P	10 - 86.0
1967723	Ethion	99.6	123	P/P	59 - 133
1967723	Ethoprop	101	114	P/P	54 - 116
1967723	Fenamiphos	77.7	111	P/P	55 - 140
1967723	Fipronil	93.0	72.6	P/P	37 - 142
1967723	Fipronil Sulfide	87.4	76.8	P/P	37 - 130
1967723	Fonofos	107	124	P/F	55 - 118
1967723	Hexazinone	108	127	P/P	62 - 140
1967723	Malathion	118	135	P/F	64 - 132
1967723	Metalaxyl	87.7	86.9	P/P	55 - 129
1967723	Metolachlor	92.3	104	P/P	56 - 137
1967723	Metribuzin	145	146	P/P	16 - 218
1967723	Mevinphos	139	160	F/F	34 - 129
1967723	Molinate	87.3	86.7	P/P	16 - 99.0
1967723	Norflurazon	88.7	106	P/P	43 - 135
1967723	Parathion Ethyl	102	112	P/P	71 - 112
1967723	Parathion Methyl	143	143	F/F	65 - 127
1967723	Pendimethalin	114	106	P/P	35 - 159
1967723	Phorate	99.7	109	P/P	41 - 129
1967723	Prometon	87.0	95.5	P/P	56 - 140
1967723	Prometryn	71.2	77.7	P/P	65 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
 Batch ID: P340051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967723	Terbufos	103	104	P/P	53 - 126
1967723	Terbutylazine	93.0	89.3	P/P	73 - 114

Reference Method: EPA 8270D
 Batch ID: P340346

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969344	Aldrin	66.5	64.3	P/P	26 - 96.0
1969344	Alpha-BHC	80.6	85.5	P/P	51 - 123
1969344	Alpha-Chlordane	83.3	82.7	P/P	45 - 120
1969344	Beta-BHC	105	108	P/P	43 - 146
1969344	Carbophenothion	83.3	86.2	P/P	26 - 179
1969344	Chlorothalonil	111	84.7	P/P	10 - 215
1969344	Cypermethrin	92.3	96.9	P/P	35 - 169
1969344	DDD-p,p'	88.7	93.6	P/P	49 - 131
1969344	DDE-p,p'	82.5	83.6	P/P	39 - 127
1969344	DDT-p,p'	99.6	94.8	P/P	49 - 120
1969344	Delta-BHC	129	118	P/P	49 - 187
1969344	Dicofol	102	120	P/P	10 - 129
1969344	Dieldrin	92.5	94.3	P/P	46 - 132
1969344	Endosulfan I	96.1	86.8	P/P	57 - 130
1969344	Endosulfan II	111	103	P/P	52 - 148
1969344	Endosulfan Sulfate	116	105	P/P	55 - 129
1969344	Endrin	84.0	87.8	P/P	45 - 133
1969344	Endrin Aldehyde	89.9	91.1	P/P	26 - 140
1969344	Endrin Ketone	112	119	P/P	60 - 125
1969344	Gamma-BHC	94.9	102	P/P	50 - 145
1969344	Gamma-Chlordane	83.6	82.3	P/P	44 - 118
1969344	Heptachlor	71.8	68.4	P/P	35 - 106
1969344	Heptachlor Epoxide	85.0	84.2	P/P	52 - 123
1969344	Methoxychlor	96.2	96.9	P/P	54 - 132
1969344	Mirex	76.9	76.5	P/P	36 - 107
1969344	Permethrin	86.4	83.2	P/P	47 - 135
1969344	Trifluralin	73.9	74.0	P/P	32 - 228

Reference Method: EPA 8276
 Batch ID: P340346

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1969406	Chlordane	62.9	54.2	P/P	41 - 134
1969406	Toxaphene	95.3	97.3	P/P	39 - 158

Reference Method: EPA 8321B
 Batch ID: P340023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967901	Sucralose	100	96.9	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P340147

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

Reference Method: EPA 8321B
 Batch ID: P340147

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1967720	AMPA	95.4	93.0	P/P	40 - 150
1967720	Glyphosate	103	92.6	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P340164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968092	2,4-D	58.9	69.4	P/P	40 - 150
1968092	3-Hydroxycarbofuran	96.8	86.8	P/P	40 - 150
1968092	Acetaminophen	119	114	P/P	30 - 150
1968092	Aldicarb	77.8	55.2	P/P	30 - 150
1968092	Aldicarb Sulfone	110	110	P/P	40 - 150
1968092	Aldicarb Sulfoxide	99.7	105	P/P	40 - 150
1968092	Bentazon	22.8	25.4	F/F	30 - 150
1968092	Carbamazepine	90.3	88.6	P/P	40 - 150
1968092	Carbaryl	60.4	58.4	P/P	40 - 150
1968092	Carbofuran	64.0	65.4	P/P	40 - 150
1968092	Diuron	72.4	66.6	P/P	40 - 150
1968092	Fenuron	95.9	92.7	P/P	40 - 150
1968092	Imidacloprid	106	102	P/P	40 - 160
1968092	Linuron	81.2	76.1	P/P	40 - 150
1968092	MCPP	31.4	29.8	F/F	40 - 150
1968092	Methiocarb	67.7	65.5	P/P	40 - 150
1968092	Methomyl	106	102	P/P	40 - 150
1968092	Oxamyl	96.6	91.6	P/P	40 - 150
1968092	Primidone	110	103	P/P	40 - 150
1968092	Propoxur	63.0	66.1	P/P	40 - 150
1968092	Pyraclostrobin	77.0	75.7	P/P	40 - 150
1968092	Triclopyr	51.1	54.0	P/P	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P340618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968284	Fluoride	92.3	94.5	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P340501

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1968136	Organic Carbon	101	98.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P340110

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968387	Turbidity	1.47	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P340293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968287	Calcium	1.12	Spike	P	0 - 20
1968287	Iron	0.537	Spike	P	0 - 20
1968287	Magnesium	0.0347	Spike	P	0 - 20
1968287	Potassium	0.792	Spike	P	0 - 20
1968287	Sodium	1.71	Spike	P	0 - 20
1968287	Zinc	0.393	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P340293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968287	Arsenic	0.219	Spike	P	0 - 20
1968287	Cadmium	0.205	Spike	P	0 - 20
1968287	Chromium	0.696	Spike	P	0 - 20
1968287	Copper	1.14	Spike	P	0 - 20
1968287	Lead	0.228	Spike	P	0 - 20
1968287	Nickel	0.173	Spike	P	0 - 20
1968287	Silver	0.755	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340321

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968067	Chloride	2.37	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968067	Sulfate	5.68	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340401

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968711	Chloride	1.05	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P340402

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968711	Sulfate	0.691	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968136	Ammonia-N	3.15	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340678

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968547	Ammonia-N	1.42	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P340400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968389	Kjeldahl Nitrogen	3.33	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340495

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967814	NO2NO3-N	0.351	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968389	Total-P	1.76	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968396	Total-P	6.03	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P340154

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968392	O-Phosphate-P	0.501	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P340051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967723	Acetochlor	3.29	Spike	P	0 - 30
1967723	Alachlor	16.4	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P340051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967723	Ametryn	24.7	Spike	P	0 - 30
1967723	Atrazine	6.48	Spike	P	0 - 30
1967723	Atrazine Desethyl	6.00	Spike	P	0 - 30
1967723	Azinphos Methyl	13.1	Spike	P	0 - 30
1967723	Bromacil	20.5	Spike	P	0 - 30
1967723	Butylate	5.92	Spike	P	0 - 30
1967723	Chlorpyrifos Ethyl	28.7	Spike	P	0 - 30
1967723	Chlorpyrifos Methyl	11.9	Spike	P	0 - 30
1967723	Cyanazine	18.5	Spike	P	0 - 30
1967723	Demeton	7.03	Spike	P	0 - 30
1967723	Diazinon	1.05	Spike	P	0 - 30
1967723	Disulfoton	2.10	Spike	P	0 - 30
1967723	EPTC	9.53	Spike	P	0 - 30
1967723	Ethion	21.3	Spike	P	0 - 30
1967723	Ethoprop	11.6	Spike	P	0 - 30
1967723	Fenamiphos	35.4	Spike	F	0 - 30
1967723	Fipronil	14.7	Spike	P	0 - 30
1967723	Fipronil Sulfide	8.78	Spike	P	0 - 30
1967723	Fipronil Sulfone	15.9	Spike	P	0 - 30
1967723	Fonofos	15.2	Spike	P	0 - 30
1967723	Hexazinone	16.0	Spike	P	0 - 30
1967723	Malathion	13.7	Spike	P	0 - 30
1967723	Metalaxyl	0.975	Spike	P	0 - 30
1967723	Metolachlor	11.9	Spike	P	0 - 30
1967723	Metribuzin	0.613	Spike	P	0 - 30
1967723	Mevinphos	14.1	Spike	P	0 - 30
1967723	Molinate	0.691	Spike	P	0 - 30
1967723	Norflurazon	17.4	Spike	P	0 - 30
1967723	Parathion Ethyl	8.89	Spike	P	0 - 30
1967723	Parathion Methyl	0.121	Spike	P	0 - 30
1967723	Pendimethalin	7.70	Spike	P	0 - 30
1967723	Phorate	9.16	Spike	P	0 - 30
1967723	Prometon	9.31	Spike	P	0 - 30
1967723	Prometryn	8.80	Spike	P	0 - 30
1967723	Simazine	17.6	Spike	P	0 - 30
1967723	Terbufos	1.15	Spike	P	0 - 30
1967723	Terbuthylazine	4.10	Spike	P	0 - 30
LFB	Acetochlor	15.2	LCS	P	0 - 30
LFB	Alachlor	12.4	LCS	P	0 - 30
LFB	Ametryn	20.3	LCS	P	0 - 30
LFB	Atrazine	4.11	LCS	P	0 - 30
LFB	Atrazine Desethyl	2.58	LCS	P	0 - 30
LFB	Azinphos Methyl	11.4	LCS	P	0 - 30
LFB	Bromacil	1.35	LCS	P	0 - 30
LFB	Butylate	18.0	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.87	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	10.7	LCS	P	0 - 30
LFB	Cyanazine	3.31	LCS	P	0 - 30
LFB	Demeton	4.53	LCS	P	0 - 30
LFB	Diazinon	0.0362	LCS	P	0 - 30
LFB	Disulfoton	1.15	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P340051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	EPTC	21.1	LCS	P	0 - 30
LFB	Ethion	3.95	LCS	P	0 - 30
LFB	Ethoprop	3.42	LCS	P	0 - 30
LFB	Fenamiphos	8.47	LCS	P	0 - 30
LFB	Fipronil	0.773	LCS	P	0 - 30
LFB	Fipronil Sulfide	1.98	LCS	P	0 - 30
LFB	Fipronil Sulfone	1.06	LCS	P	0 - 30
LFB	Fonofos	0.757	LCS	P	0 - 30
LFB	Hexazinone	5.96	LCS	P	0 - 30
LFB	Malathion	5.21	LCS	P	0 - 30
LFB	Metalaxyl	6.81	LCS	P	0 - 30
LFB	Metolachlor	3.56	LCS	P	0 - 30
LFB	Metribuzin	11.1	LCS	P	0 - 30
LFB	Mevinphos	4.79	LCS	P	0 - 30
LFB	Molinate	8.68	LCS	P	0 - 30
LFB	Norflurazon	4.70	LCS	P	0 - 30
LFB	Parathion Ethyl	3.33	LCS	P	0 - 30
LFB	Parathion Methyl	3.92	LCS	P	0 - 30
LFB	Pendimethalin	12.4	LCS	P	0 - 30
LFB	Phorate	1.22	LCS	P	0 - 30
LFB	Prometon	1.08	LCS	P	0 - 30
LFB	Prometryn	2.14	LCS	P	0 - 30
LFB	Simazine	8.94	LCS	P	0 - 30
LFB	Terbufos	0.233	LCS	P	0 - 30
LFB	Terbuthylazine	8.48	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P340346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969344	Aldrin	3.31	Spike	P	0 - 30
1969344	Alpha-BHC	5.85	Spike	P	0 - 30
1969344	Alpha-Chlordane	0.839	Spike	P	0 - 30
1969344	Beta-BHC	3.02	Spike	P	0 - 30
1969344	Carbophenothion	3.45	Spike	P	0 - 30
1969344	Chlorothalonil	27.3	Spike	P	0 - 30
1969344	Cypermethrin	4.81	Spike	P	0 - 30
1969344	DDD-p,p'	5.41	Spike	P	0 - 30
1969344	DDE-p,p'	1.27	Spike	P	0 - 30
1969344	DDT-p,p'	4.90	Spike	P	0 - 30
1969344	Delta-BHC	8.58	Spike	P	0 - 30
1969344	Dicofol	16.1	Spike	P	0 - 30
1969344	Dieldrin	1.89	Spike	P	0 - 30
1969344	Endosulfan I	10.3	Spike	P	0 - 30
1969344	Endosulfan II	6.87	Spike	P	0 - 30
1969344	Endosulfan Sulfate	9.75	Spike	P	0 - 30
1969344	Endrin	4.39	Spike	P	0 - 30
1969344	Endrin Aldehyde	1.28	Spike	P	0 - 30
1969344	Endrin Ketone	5.78	Spike	P	0 - 30
1969344	Gamma-BHC	7.71	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P340346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969344	Gamma-Chlordane	1.55	Spike	P	0 - 30
1969344	Heptachlor	4.79	Spike	P	0 - 30
1969344	Heptachlor Epoxide	0.882	Spike	P	0 - 30
1969344	Methoxychlor	0.710	Spike	P	0 - 30
1969344	Mirex	0.488	Spike	P	0 - 30
1969344	Permethrin	3.84	Spike	P	0 - 30
1969344	Trifluralin	0.109	Spike	P	0 - 30
LFB	Aldrin	4.66	LCS	P	0 - 30
LFB	Alpha-BHC	4.19	LCS	P	0 - 30
LFB	Alpha-Chlordane	3.51	LCS	P	0 - 30
LFB	Beta-BHC	7.30	LCS	P	0 - 30
LFB	Carbophenothion	7.25	LCS	P	0 - 30
LFB	Chlorothalonil	19.1	LCS	P	0 - 30
LFB	Cypermethrin	3.81	LCS	P	0 - 30
LFB	DDD-p,p'	2.33	LCS	P	0 - 30
LFB	DDE-p,p'	1.93	LCS	P	0 - 30
LFB	DDT-p,p'	0.00439	LCS	P	0 - 30
LFB	Delta-BHC	4.50	LCS	P	0 - 30
LFB	Dicofol	6.84	LCS	P	0 - 30
LFB	Dieldrin	4.47	LCS	P	0 - 30
LFB	Endosulfan I	8.83	LCS	P	0 - 30
LFB	Endosulfan II	8.92	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.863	LCS	P	0 - 30
LFB	Endrin	1.43	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.71	LCS	P	0 - 30
LFB	Endrin Ketone	2.66	LCS	P	0 - 30
LFB	Gamma-BHC	0.478	LCS	P	0 - 30
LFB	Gamma-Chlordane	4.06	LCS	P	0 - 30
LFB	Heptachlor	9.24	LCS	P	0 - 30
LFB	Heptachlor Epoxide	4.26	LCS	P	0 - 30
LFB	Methoxychlor	6.20	LCS	P	0 - 30
LFB	Mirex	3.36	LCS	P	0 - 30
LFB	Permethrin	7.41	LCS	P	0 - 30
LFB	Trifluralin	7.70	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P340346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1969406	Chlordane	12.6	Spike	P	0 - 30
1969406	Toxaphene	2.03	Spike	P	0 - 30
LFB	Chlordane	11.5	LCS	P	0 - 30
LFB	Toxaphene	9.81	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967901	Sucralose	2.06	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P340147

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1967720	AMPA	2.07	Spike	P	0 - 30
1967720	Glyphosate	8.47	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P340164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968092	2,4-D	6.77	Spike	P	0 - 30
1968092	3-Hydroxycarbofuran	10.8	Spike	P	0 - 30
1968092	Acetaminophen	4.36	Spike	P	0 - 30
1968092	Aldicarb	34.1	Spike	F	0 - 30
1968092	Aldicarb Sulfone	0.364	Spike	P	0 - 30
1968092	Aldicarb Sulfoxide	4.89	Spike	P	0 - 30
1968092	Bentazon	4.77	Spike	P	0 - 30
1968092	Carbamazepine	1.87	Spike	P	0 - 30
1968092	Carbaryl	3.37	Spike	P	0 - 30
1968092	Carbofuran	2.16	Spike	P	0 - 30
1968092	Diuron	8.36	Spike	P	0 - 30
1968092	Fenuron	3.33	Spike	P	0 - 30
1968092	Imidacloprid	1.30	Spike	P	0 - 30
1968092	Linuron	6.55	Spike	P	0 - 30
1968092	MCPP	2.56	Spike	P	0 - 30
1968092	Methiocarb	3.39	Spike	P	0 - 30
1968092	Methomyl	4.32	Spike	P	0 - 30
1968092	Oxamyl	5.27	Spike	P	0 - 30
1968092	Primidone	6.48	Spike	P	0 - 30
1968092	Propoxur	4.73	Spike	P	0 - 30
1968092	Pyraclostrobin	1.68	Spike	P	0 - 30
1968092	Triclopyr	5.52	Spike	P	0 - 30

Reference Method: SM 2120 B
 Batch ID: P340077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968387	Color (true)	14.1	Sample	P	0 - 20

Reference Method: SM 2120 B
 Batch ID: P340108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968393	Color (true)	0.885	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P340616

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968284	Total Alkalinity	0.00798	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P340777

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968388	TDS	5.65	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P340618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968284	Fluoride	1.47	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P340501

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1968136	Organic Carbon	1.67	Spike	P	0 - 20

* 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: 1968404
Field Sample ID: G3SD0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	45.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	127	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.1	P	30 - 160
EPA 8321B	Diuron-d6	75.0	P	30 - 160
EPA 8321B	Primidone-d5	98.4	P	30 - 160
EPA 8321B	Sucralose-d6	131	P	40 - 160

Lab Sample ID: 1968405
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	51.6	P	30 - 160
EPA 8321B	2,4-D-d3	51.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	129	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.9	P	30 - 160
EPA 8321B	Diuron-d6	71.0	P	30 - 160
EPA 8321B	Diuron-d6	71.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.0	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	92.0	P	40 - 160
EPA 8321B	Primidone-d5	95.8	P	30 - 160
EPA 8321B	Primidone-d5	95.8	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1968406
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	53.5	P	30 - 160
EPA 8321B	2,4-D-d3	53.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	122	P	30 - 160
EPA 8321B	Acetaminophen-d4	122	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.1	P	30 - 160
EPA 8321B	Diuron-d6	70.6	P	30 - 160
EPA 8321B	Diuron-d6	70.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	85.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	85.6	P	40 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	40 - 160

Lab Sample ID: 1968407
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	47.4	P	30 - 160

Lab Sample ID: 1968408
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	47.7	P	30 - 160

Lab Sample ID: 1968409
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	68.8	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	54.2	P	34 - 101
EPA 8276	Decachlorobiphenyl	67.5	P	31 - 108
EPA 8276	PCNB	138	P	62 - 142

Lab Sample ID: 1968410
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	82.8	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	70.6	P	34 - 101
EPA 8276	Decachlorobiphenyl	71.4	P	31 - 108
EPA 8276	PCNB	191	F	62 - 142

Lab Sample ID: 1968411
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	106	P	71 - 126
EPA 8270D	Terbufos-d10	109	P	50 - 130

Quality Assurance Report Surrogates

Lab Sample ID: 1968412
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	116	P	71 - 126
EPA 8270D	Terbufos-d10	127	P	50 - 130

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A82110
Included Lab Sample IDs: 1968387

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	105	P/P	85 - 115

Reference Method: SM 2120 B
Run ID: A82119
Included Lab Sample IDs: 1968388, 1968393, 1968394

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	104	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82120
Included Lab Sample IDs: 1968387, 1968388, 1968393, 1968394

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82129
Included Lab Sample IDs: 1968391, 1968392, 1968397, 1968398

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	100	P/P	90 - 110
O-Phosphate-P	101	101	P/P	90 - 110
O-Phosphate-P	98.5	99.1	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A82142
Included Lab Sample IDs: 1968405, 1968406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	105	115	P/P	70 - 130
Glyphosate	104	104	P/P	70 - 160

Reference Method: EPA 8321B
Run ID: A82169
Included Lab Sample IDs: 1968404, 1968405, 1968406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	94.9	94.8	P/P	60 - 150
Sucralose	96.9	94.9	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A82190

Included Lab Sample IDs: 1968387, 1968388, 1968393, 1968394

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	103	P/P	90 - 110
Chloride	104	103	P/P	90 - 110
Sulfate	104	102	P/P	90 - 110
Sulfate	99.0	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A82218

Included Lab Sample IDs: 1968413, 1968414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	101	P/P	90 - 110
Cadmium	98.5	98.9	P/P	90 - 110
Chromium	92.7	92.9	P/P	90 - 110
Copper	101	100	P/P	90 - 110
Lead	100	98.4	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Silver	96.9	97.1	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A82219

Included Lab Sample IDs: 1968413, 1968414

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	96.1	95.9	P/P	90 - 110
Iron	97.8	97.4	P/P	90 - 110
Magnesium	98.0	97.6	P/P	90 - 110
Potassium	97.0	96.0	P/P	90 - 110
Sodium	94.7	93.9	P/P	90 - 110
Zinc	96.9	97.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82249

Included Lab Sample IDs: 1968389, 1968390, 1968395, 1968396

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.5	101	P/P	90 - 110
Kjeldahl Nitrogen	99.3	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82255

Included Lab Sample IDs: 1968389, 1968390, 1968395, 1968396

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.1	99.5	P/P	90 - 110
Total-P	99.4	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82256

Included Lab Sample IDs: 1968389, 1968390, 1968395, 1968396

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: A82256

Included Lab Sample IDs: 1968389, 1968390, 1968395, 1968396

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

Reference Method: SM 5310 B-00

Run ID: A82257

Included Lab Sample IDs: 1968389, 1968390, 1968395, 1968396

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

Reference Method: EPA 8321B

Run ID: A82285

Included Lab Sample IDs: 1968404, 1968405, 1968406

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.3	99.2	P/P	50 - 150
3-Hydroxycarbofuran	121	124	P/P	60 - 150
Acetaminophen	109	105	P/P	60 - 150
Aldicarb	108	112	P/P	60 - 150
Aldicarb Sulfone	106	106	P/P	50 - 150
Aldicarb Sulfoxide	111	108	P/P	50 - 150
Bentazon	98.9	117	P/P	50 - 150
Carbamazepine	105	101	P/P	60 - 150
Carbaryl	118	123	P/P	60 - 150
Carbofuran	119	129	P/P	50 - 150
Diuron	128	129	P/P	60 - 150
Fenuron	119	119	P/P	60 - 150
Fluridone	111	108	P/P	60 - 160
Imidacloprid	104	103	P/P	60 - 150
Imidacloprid	109	104	P/P	60 - 150
Imidacloprid	114	109	P/P	60 - 150
Linuron	121	133	P/P	60 - 150
MCPP	94.0	94.5	P/P	50 - 150
Methiocarb	115	115	P/P	50 - 150
Methomyl	119	111	P/P	50 - 150
Oxamyl	115	107	P/P	50 - 150
Primidone	118	111	P/P	60 - 150
Propoxur	124	124	P/P	50 - 150
Pyraclostrobin	120	120	P/P	60 - 150
Triclopyr	117	112	P/P	50 - 150

Reference Method: SM 2320 B-97

Run ID: A82295

Included Lab Sample IDs: 1968387, 1968388, 1968393, 1968394

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	96.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A82295

Included Lab Sample IDs: 1968387, 1968388, 1968393, 1968394

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82317

Included Lab Sample IDs: 1968389, 1968390, 1968395, 1968396

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

Reference Method: EPA 8276

Run ID: A82418

Included Lab Sample IDs: 1968409, 1968410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	102		P	80 - 120
Toxaphene	109		P	80 - 120

Reference Method: EPA 8270D

Run ID: A82432

Included Lab Sample IDs: 1968411, 1968412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	103		P	80 - 120
Alachlor	109		P	80 - 120
Ametryn	109		P	80 - 120
Atrazine	112		P	80 - 120
Atrazine Desethyl	110		P	80 - 120
Azinphos Methyl	116		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	107		P	80 - 120
Chlorpyrifos Ethyl	99.5		P	80 - 120
Chlorpyrifos Methyl	111		P	80 - 120
Cyanazine	99.9		P	80 - 120
Demeton	112		P	80 - 120
Diazinon	97.6		P	80 - 120
Disulfoton	110		P	80 - 120
EPTC	111		P	80 - 120
Ethion	116		P	80 - 120
Ethoprop	108		P	80 - 120
Fenamiphos	99.7		P	80 - 120
Fipronil	115		P	80 - 120
Fipronil Sulfide	106		P	80 - 120
Fipronil Sulfone	135*		F	80 - 120
Fonofos	114		P	80 - 120
Hexazinone	111		P	80 - 120
Malathion	113		P	80 - 120
Metalaxyl	107		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	107		P	80 - 120
Mevinphos	126*		F	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A82432

Included Lab Sample IDs: 1968411, 1968412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molinate	107		P	80 - 120
Parathion Ethyl	112		P	80 - 120
Parathion Methyl	119		P	80 - 120
Pendimethalin	114		P	80 - 120
Phorate	118		P	80 - 120
Prometon	106		P	80 - 120
Prometryn	108		P	80 - 120
Simazine	117		P	80 - 120
Terbufos	108		P	80 - 120
Terbuthylazine	107		P	80 - 120

Reference Method: EPA 8270D

Run ID: A82443

Included Lab Sample IDs: 1968411, 1968412

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	98.4		P	80 - 120
Hexazinone	96.4		P	80 - 120
Malathion	114		P	80 - 120
Metalaxyl	92.0		P	80 - 120
Norflurazon	93.7		P	80 - 120

Reference Method: EPA 8270D

Run ID: A82475

Included Lab Sample IDs: 1968409, 1968410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.6		P	80 - 120
Alpha-BHC	96.7		P	80 - 120
Alpha-Chlordane	98.0		P	80 - 120
Beta-BHC	98.9		P	80 - 120
Carbophenothion	84.8		P	80 - 120
Chlorothalonil	94.0		P	80 - 120
Cypermethrin	87.2		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDE-p,p'	98.9		P	80 - 120
DDT-p,p'	108		P	80 - 120
Delta-BHC	95.2		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	95.5		P	80 - 120
Endosulfan II	96.1		P	80 - 120
Endosulfan Sulfate	96.7		P	80 - 120
Endrin	94.3		P	80 - 120
Endrin Aldehyde	89.1		P	80 - 120
Endrin Ketone	96.2		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	98.3		P	80 - 120
Heptachlor	94.4		P	80 - 120
Heptachlor Epoxide	99.4		P	80 - 120
Methoxychlor	108		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A82475

Included Lab Sample IDs: 1968409, 1968410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mirex	98.8		P	80 - 120
Permethrin	91.9		P	80 - 120
Trifluralin	98.1		P	80 - 120

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						1.47	
EPA 200.7 Rev. 4.4	Calcium	100		99.2				1.12
	Iron	105		105	104			0.537
	Magnesium	102		99.8				0.0347
	Potassium	104		106	105			0.792
	Sodium	112		98.3	101			1.71
	Zinc	97.4		94.3	93.9			0.393
EPA 200.8 Rev. 5.4	Arsenic	103		103	103			0.219
	Cadmium	105		106	106			0.205
	Chromium	100		99.5	98.8			0.696
	Copper	104		101	99.6			1.14
	Lead	106		107	107			0.228
	Nickel	103		101	101			0.173
	Silver	113		113	114			0.755
EPA 300.0 Rev. 2.1	Chloride	91.2		93.2	95.5		2.37	
	Chloride	96.5		94.6	92.9		1.05	
	Sulfate	90.1		93.5	91.3		5.68	
	Sulfate	94.2		93.5	92.3		0.691	
EPA 350.1 Rev. 2.0	Ammonia-N	99.7		98.2	94.8			3.15
	Ammonia-N	102		96.9	95.4			1.42
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5		99.8	105			3.33
EPA 353.2 Rev. 2.0	NO2NO3-N	104		105	105			0.351
EPA 365.1 Rev. 2.0	Total-P	107						1.76
	Total-P	99.6		108	100			6.03
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.3						0.501
EPA 8270D	Acetochlor	81.4	94.8	90.3	93.3	15.2		3.29
	Alachlor	87.6	99.2	81.4	96.0	12.4		16.4
	Aldrin	64.2	61.3	66.5	64.3	4.66		3.31
	Alpha-BHC	69.2	72.2	80.6	85.5	4.19		5.85
	Alpha-Chlordane	81.1	78.3	83.3	82.7	3.51		0.839
	Ametryn	78.0	95.6	51.9	66.5	20.3		24.7
	Atrazine	107	112			4.11		6.48
	Atrazine Desethyl	97.6	95.2	60.1	65.2	2.58		6.00
	Azinphos Methyl	147	164	174	198	11.4		13.1
	Beta-BHC	94.6	102	105	108	7.30		3.02
	Bromacil	32.8	32.3	62.8	82.7	1.35		20.5
	Butylate	67.6	56.4	62.6	59.0	18.0		5.92

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Carbophenothion	71.7	77.1	83.3	86.2	7.25	3.45
	Chlorothalonil	97.5	80.5	111	84.7	19.1	27.3
	Chlorpyrifos Ethyl	91.6	95.2	83.3	111	3.87	28.7
	Chlorpyrifos Methyl	106	118	113	127	10.7	11.9
	Cyanazine	108	111	103	124	3.31	18.5
	Cypermethrin	85.5	88.8	92.3	96.9	3.81	4.81
	DDD-p,p'	88.2	90.2	88.7	93.6	2.33	5.41
	DDE-p,p'	79.4	80.9	82.5	83.6	1.93	1.27
	DDT-p,p'	91.2	91.2	99.6	94.8	0.0043	4.90
	Delta-BHC	108	103	129	118	4.50	8.58
	Demeton	84.6	80.9	143	154	4.53	7.03
	Diazinon	96.5	96.6	96.1	97.1	0.0362	1.05
	Dicofol	110	103	102	120	6.84	16.1
	Dieldrin	82.4	78.8	92.5	94.3	4.47	1.89
	Disulfoton	112	110	101	98.4	1.15	2.10
	Endosulfan I	85.8	78.6	96.1	86.8	8.83	10.3
	Endosulfan II	106	97.1	111	103	8.92	6.87
	Endosulfan Sulfate	106	105	116	105	0.863	9.75
	Endrin	83.9	82.7	84.0	87.8	1.43	4.39
	Endrin Aldehyde	103	97.9	89.9	91.1	4.71	1.28
	Endrin Ketone	96.6	99.2	112	119	2.66	5.78
	EPTC	67.7	54.8	58.8	53.5	21.1	9.53
	Ethion	120	115	99.6	123	3.95	21.3
	Ethoprop	104	100	101	114	3.42	11.6
	Fenamiphos	106	97.2	77.7	111	8.47	35.4
	Fipronil	95.3	94.6	93.0	72.6	0.773	14.7
	Fipronil Sulfide	92.3	94.1	87.4	76.8	1.98	8.78
	Fipronil Sulfone	88.6	89.6			1.06	15.9
	Fonofos	111	111	107	124	0.757	15.2
	Gamma-BHC	93.3	93.7	94.9	102	0.478	7.71
	Gamma-Chlordane	80.4	77.2	83.6	82.3	4.06	1.55
	Heptachlor	70.4	64.2	71.8	68.4	9.24	4.79
	Heptachlor Epoxide	83.3	79.8	85.0	84.2	4.26	0.882
	Hexazinone	113	120	108	127	5.96	16.0
	Malathion	121	115	118	135	5.21	13.7
	Metalaxyl	84.3	90.3	87.7	86.9	6.81	0.975
	Methoxychlor	101	94.7	96.2	96.9	6.20	0.710
	Metolachlor	95.2	91.8	92.3	104	3.56	11.9
	Metribuzin	126	141	145	146	11.1	0.613
	Mevinphos	93.4	89.0	139	160	4.79	14.1
	Mirex	70.0	72.4	76.9	76.5	3.36	0.488
	Molinate	88.3	80.9	87.3	86.7	8.68	0.691
	Norflurazon	80.9	84.7	88.7	106	4.70	17.4
	Parathion Ethyl	92.5	95.6	102	112	3.33	8.89
	Parathion Methyl	98.7	103	143	143	3.92	0.121
	Pendimethalin	102	115	114	106	12.4	7.70
	Permethrin	74.8	80.6	86.4	83.2	7.41	3.84
	Phorate	110	109	99.7	109	1.22	9.16
	Prometon	88.0	88.9	87.0	95.5	1.08	9.31
	Prometryn	83.2	81.5	71.2	77.7	2.14	8.80
	Simazine	124	113			8.94	17.6
	Terbufos	108	108	103	104	0.233	1.15
	Terbuthylazine	96.9	105	93.0	89.3	8.48	4.10
	Trifluralin	72.7	67.3	73.9	74.0	7.70	0.109

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8276	Chlordane	81.7	72.9	62.9	54.2	11.5	12.6
	Toxaphene	87.7	96.8	95.3	97.3	9.81	2.03
EPA 8321B	2,4-D	89.1		58.9	69.4		6.77
	3-Hydroxycarbofuran	98.9		96.8	86.8		10.8
	Acetaminophen	113		119	114		4.36
	Aldicarb	85.6		77.8	55.2		34.1
	Aldicarb Sulfone	114		110	110		0.364
	Aldicarb Sulfoxide	116		99.7	105		4.89
	AMPA	99.4		95.4	93.0		2.07
	Bentazon	128		22.8	25.4		4.77
	Carbamazepine	104		90.3	88.6		1.87
	Carbaryl	85.1		60.4	58.4		3.37
	Carbofuran	87.6		64.0	65.4		2.16
	Diuron	93.0		72.4	66.6		8.36
	Fenuron	120		95.9	92.7		3.33
	Fluridone	89.6					
	Glyphosate	98.3		103	92.6		8.47
	Imidacloprid	105		106	102		1.30
	Linuron	100		81.2	76.1		6.55
	MCPP	75.6		31.4	29.8		2.56
	Methiocarb	78.0		67.7	65.5		3.39
	Methomyl	121		106	102		4.32
	Oxamyl	106		96.6	91.6		5.27
	Primidone	120		110	103		6.48
	Propoxur	89.1		63.0	66.1		4.73
	Pyraclostrobin	101		77.0	75.7		1.68
	Sucralose	97.4		100	96.9		2.06
	Triclopyr	77.8		51.1	54.0		5.52
SM 2120 B	Color (true)						14.1
	Color (true)						0.885
SM 2320 B-97	Total Alkalinity	98.8					0.0079
SM 2540 C-97	TDS						5.65
SM 4500 F-C-97	Fluoride	94.7		92.3	94.5		1.47
SM 5310 B-00	Organic Carbon	100		101	98.0		1.67

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1968387, 1968388, 1968393, 1968394
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1968413, 1968414
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1968413, 1968414
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1968387, 1968388, 1968393, 1968394
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1968387, 1968388, 1968393, 1968394
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1968389, 1968390, 1968395, 1968396
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1968389, 1968390, 1968395, 1968396
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1968389, 1968390, 1968395, 1968396

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1968389, 1968390, 1968395, 1968396
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1968391, 1968392, 1968397, 1968398
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1968409, 1968410
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1968411, 1968412
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1968409, 1968410
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	1968407, 1968408
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1968404, 1968405, 1968406
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1968405, 1968406
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1968404, 1968405, 1968406
SM 2120 B / E31780	True Color measured at 450 nm	1968387, 1968388, 1968393, 1968394
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1968387, 1968388, 1968393, 1968394
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1968387, 1968388, 1968393, 1968394
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1968387, 1968388, 1968393, 1968394
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1968387, 1968388, 1968393, 1968394
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1968389, 1968390, 1968395, 1968396

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	02/16/2018			02/16/2018 15:13	Tanya Welborn	1968387, 1968388, 1968393, 1968394
EPA 200.7 Rev. 4.4	02/16/2018	02/20/2018	Elliott D. Healy	02/21/2018	Betina Topolski	1968413, 1968414
EPA 200.8 Rev. 5.4	02/16/2018	02/20/2018	Elliott D. Healy	02/21/2018	Nadine Brooks	1968413, 1968414
EPA 300.0 Rev. 2.1	02/16/2018			02/21/2018	Julia Storbeck	1968387, 1968388, 1968393, 1968394
EPA 350.1 Rev. 2.0	02/16/2018			02/27/2018	Ping Hua	1968389, 1968390, 1968395, 1968396
EPA 351.2 Rev. 2.0	02/16/2018	02/22/2018	Adrian Shelby	02/23/2018	Joseph Suarez	1968389, 1968390, 1968395, 1968396
EPA 353.2 Rev. 2.0	02/16/2018			02/23/2018	Lauren Bottorf	1968389, 1968390, 1968395, 1968396
EPA 365.1 Rev. 2.0	02/16/2018	02/22/2018	Sima Feizi	02/23/2018	Lipi Saha	1968389, 1968390, 1968395, 1968396
EPA 365.1 Rev. 2.0 dissolved	02/16/2018			02/16/2018 15:36	Megan Treadwell	1968392
	02/16/2018			02/16/2018 16:08	Megan Treadwell	1968398
	02/16/2018			02/16/2018 16:28	Megan Treadwell	1968391
	02/16/2018			02/16/2018 16:29	Megan Treadwell	1968397
EPA 8270D	02/16/2018	02/16/2018	Rasheda Ghaffari	02/20/2018	Vandana T. Nagar	1968411, 1968412
	02/16/2018	02/16/2018	Rasheda Ghaffari	02/27/2018	Vandana T. Nagar	1968411, 1968412
	02/16/2018	02/22/2018	Rasheda Ghaffari	02/26/2018	Marek Topolski	1968409, 1968410
EPA 8276	02/16/2018	02/22/2018	Rasheda Ghaffari	03/02/2018	John P. Burgos	1968409, 1968410
EPA 8321B	02/16/2018	02/16/2018	Julie Michelle Frank	02/17/2018	Juyoung Kim	1968404, 1968405, 1968406
	02/16/2018	02/19/2018	Julie Michelle Frank	02/19/2018	Julie Michelle Frank	1968405, 1968406
	02/16/2018	02/20/2018	Hoor Shaik	02/21/2018	Julie Michelle Frank	1968404, 1968405, 1968406
	02/16/2018	02/20/2018	Hoor Shaik	02/22/2018	Julie Michelle Frank	1968404, 1968405, 1968406
SM 2120 B	02/16/2018			02/16/2018 12:02	Tanya Welborn	1968387
	02/16/2018			02/16/2018 15:51	Tanya Welborn	1968388
	02/16/2018			02/16/2018 15:52	Tanya Welborn	1968393
	02/16/2018			02/16/2018 15:53	Tanya Welborn	1968394
SM 2320 B-97	02/16/2018			02/26/2018	Dale L. Simmons	1968387, 1968388, 1968393, 1968394
SM 2540 C-97	02/16/2018			02/19/2018	Ping Hua	1968387, 1968388, 1968393, 1968394
SM 2540 D-97	02/16/2018			02/19/2018	Yijie Li	1968387, 1968388, 1968393, 1968394
SM 4500 F-C-97	02/16/2018			02/26/2018	Dale L. Simmons	1968387, 1968388, 1968393, 1968394
SM 5310 B-00	02/16/2018			02/23/2018	Megan Treadwell	1968389, 1968390, 1968395, 1968396