

Chemical Analysis Report

WAS-SECT-2018-01-04-01

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

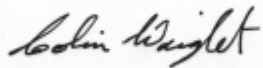
Event Description: **Burnt Mill, Chicken, Black, Central Ditch**
Request ID: **RQ-2018-01-01-22**
Customer: **WAS-SECT**
Project ID: **SMP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 26-JAN-2018 16:17



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: Central Drainage Ditch Downstream of Orange Ave. **Collection Date/Time: 01/04/2018 07:55**

Field ID: G1WA0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957421	EPA 180.1 Rev. 2.0	Turbidity	60		NTU	P337837	
	EPA 300.0 Rev. 2.1	Chloride	6.6	A	mg Cl/L	P338061	
		Sulfate	4.8	A	mg SO4/L	P338063	
	SM 2120 B	Color (true)	84		PCU	P337833	
	SM 2320 B-97	Total Alkalinity	91		mg CaCO3/L	P338204	
	SM 2540 C-97	TDS	143		mg/L	P337963	
	SM 2540 D-97	TSS	22		mg/L	P337934	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P338207	
1957425	EPA 350.1 Rev. 2.0	Ammonia-N	0.16		mg N/L	P337926	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P337889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.093		mg N/L	P337897	
	EPA 365.1 Rev. 2.0	Total-P	0.26		mg P/L	P337873	
	SM 5310 B-00	Organic Carbon	4.1		mg C/L	P337948	
1957429	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.045		mg P/L	P337835	

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: Central Drainage Ditch Downstream of Orange Ave. **Collection Date/Time: 01/04/2018 07:55**

Field ID: G1WA0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957458	EPA 200.7 Rev. 4.4	Calcium	27.6		mg/L	P337972	
		Iron	1.90E+03		ug/L	P337972	
		Magnesium	5.98		mg/L	P337972	
		Potassium	2.3		mg/L	P337972	
		Sodium	4.6		mg/L	P337972	
		Zinc	12	I	ug/L	P337972	
	EPA 200.8 Rev. 5.4	Arsenic	1.16		ug/L	P337972	
		Cadmium	0.026	I	ug/L	P337972	
		Chromium	5.5		ug/L	P337972	
		Copper	4.88		ug/L	P337972	
		Lead	5.71		ug/L	P337972	
		Nickel	1.23		ug/L	P337972	
		Silver	0.014	I	ug/L	P337972	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: The lead result was confirmed on 01/22/2018.

Sample Location: Central Drainage Ditch Downstream of Orange Ave. **Collection Date/Time: 01/04/2018 07:55**

Field ID: G1WA0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957457	EPA 8321B	Glyphosate**	0.10	U	ug/L	P337984	
		AMPA**	0.17	I	ug/L	P337984	

Field ID: G1WA0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957457	EPA 8321B	Pyraclostrobin**	0.002	UJ	ug/L	P338133	RPD
		Sucralose**	0.21		ug/L	P337738	
	USGS O-2060-01	2,4-D	0.017		ug/L	P337928	
		Diuron	0.052		ug/L	P337928	
		Fenuron	0.0080	U	ug/L	P337928	
		Imidacloprid	0.053		ug/L	P337928	MS
		Bentazon	0.0012	I	ug/L	P337928	
		Linuron	0.0040	U	ug/L	P337928	
		Acetaminophen**	0.018	I	ug/L	P337928	
		MCP	0.0020	U	ug/L	P337928	
		Carbamazepine**	4.0E-04	U	ug/L	P337928	
		Triclopyr**	0.0040	U	ug/L	P337928	
		Primidone**	0.0040	U	ug/L	P337928	
		Fluridone**	7.1E-04	I	ug/L	P337928	
1957459	EPA 8270D	Aldrin	4.2	UQ	ng/L	P338295	
		Alpha-BHC	2.1	UQ	ng/L	P338295	
		Beta-BHC	4.2	UQ	ng/L	P338295	
		Delta-BHC	4.2	UQ	ng/L	P338295	
		Gamma-BHC	4.2	UQ	ng/L	P338295	
		Carbophenothion	4.2	UQJ	ng/L	P338295	CCV
		Chlorothalonil	2.1	UQ	ng/L	P338295	
		Cypermethrin	21	UQJ	ng/L	P338295	LCS
		DDD-p,p'	3.2	UQ	ng/L	P338295	
		DDE-p,p'	3.2	UQ	ng/L	P338295	
		DDT-p,p'	3.2	UQJ	ng/L	P338295	LCS, RPD
		Dieldrin	4.2	UQ	ng/L	P338295	
		Endosulfan I	4.2	UQ	ng/L	P338295	
		Endosulfan II	4.2	UQ	ng/L	P338295	
		Endosulfan Sulfate	2.1	UQ	ng/L	P338295	
		Endrin	2.1	UQ	ng/L	P338295	
		Endrin Aldehyde	2.1	UQ	ng/L	P338295	
		Heptachlor	1.6	UQ	ng/L	P338295	
		Heptachlor Epoxide	2.1	UQ	ng/L	P338295	
		Methoxychlor	4.2	UQ	ng/L	P338295	
		Mirex	2.1	UQ	ng/L	P338295	
		Permethrin	11	UQ	ng/L	P338295	
		Trifluralin	1.1	UQ	ng/L	P338295	
		Alpha-Chlordane	1.1	UQ	ng/L	P338295	
		Gamma-Chlordane	1.1	UQ	ng/L	P338295	
		Endrin Ketone	2.1	UQ	ng/L	P338295	
		Dicofol	32	UQ	ng/L	P338295	
1957460		Alachlor	0.24	U	ng/L	P338296	
		Ametryn	0.31	U	ng/L	P338296	
		Atrazine	31		ng/L	P338296	
		Atrazine Desethyl	3.7	I	ng/L	P338296	

Field ID: G1WA0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957460	EPA 8270D	Azinphos Methyl	2.2	U	ng/L	P338296	
		Bromacil	0.96	I	ng/L	P338296	
		Butylate	0.38	U	ng/L	P338296	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P338296	
		Chlorpyrifos Methyl	0.096	U	ng/L	P338296	
		Demeton	1.9	U	ng/L	P338296	
		Diazinon	0.12	U	ng/L	P338296	
		Disulfoton	0.48	U	ng/L	P338296	
		EPTC	1.2	U	ng/L	P338296	
		Ethion	0.14	U	ng/L	P338296	
		Ethoprop	0.096	U	ng/L	P338296	
		Fenamiphos	0.24	UJ	ng/L	P338296	RPD
		Fipronil	1.1		ng/L	P338296	
		Fipronil Sulfide	0.66		ng/L	P338296	
		Fipronil Sulfone	1.5		ng/L	P338296	
		Hexazinone	0.48	U	ng/L	P338296	
		Malathion	0.34	U	ng/L	P338296	
		Metribuzin	0.19	U	ng/L	P338296	
		Mevinphos	0.48	U	ng/L	P338296	
		Molinate	0.29	U	ng/L	P338296	
		Norflurazon	0.48	U	ng/L	P338296	
		Pendimethalin	0.96	U	ng/L	P338296	
		Phorate	0.24	U	ng/L	P338296	
		Prometon	0.86	U	ng/L	P338296	
		Prometryn	0.19	U	ng/L	P338296	
		Simazine	7.4		ng/L	P338296	
		Terbufos	0.096	U	ng/L	P338296	
		Terbuthylazine	0.41	U	ng/L	P338296	
		Fonofos	0.19	U	ng/L	P338296	
		Metalaxyl	0.24	U	ng/L	P338296	
		Metolachlor	0.50	I	ng/L	P338296	
		Acetochlor	0.24	U	ng/L	P338296	
		Cyanazine	0.48	U	ng/L	P338296	
		Parathion Ethyl	0.24	U	ng/L	P338296	
		Parathion Methyl	0.24	U	ng/L	P338296	

Ref. Method and Comment:

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

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

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

Sample Location: Black Creek upstream of Bloxham Cutoff

Collection Date/Time: 01/04/2018 08:50

Field ID: G1WA0023

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957422	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P337837	

Field ID: G1WA0023

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957422	EPA 300.0 Rev. 2.1	Chloride	4.4		mg Cl/L	P338061	
		Sulfate	0.20	U	mg SO4/L	P338063	
	SM 2120 B	Color (true)	350		PCU	P337831	
	SM 2320 B-97	Total Alkalinity	8.1		mg CaCO3/L	P338229	
	SM 2540 C-97	TDS	92		mg/L	P337963	
	SM 2540 D-97	TSS	2	U	mg/L	P337934	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P338207	
1957426	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P337926	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P337889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P337897	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P337873	
	SM 5310 B-00	Organic Carbon	31		mg C/L	P337948	
1957430	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P337835	

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: Chicken Branch at Old Plank Rd

Collection Date/Time: 01/04/2018 09:45

Field ID: G1WA0031

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957423	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P337837	
	EPA 300.0 Rev. 2.1	Chloride	6.1		mg Cl/L	P338061	
		Sulfate	13		mg SO4/L	P338063	
	SM 2120 B	Color (true)	16		PCU	P337831	
	SM 2320 B-97	Total Alkalinity	148		mg CaCO3/L	P338204	
	SM 2540 C-97	TDS	190		mg/L	P337964	
	SM 2540 D-97	TSS	2	U	mg/L	P337934	
1957427	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P338207	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.047		mg N/L	P337926	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25		mg N/L	P337889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.089		mg N/L	P337897	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P337873	
1957431	SM 5310 B-00	Organic Carbon	2.7		mg C/L	P337948	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.026		mg P/L	P337835	

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: Chicken Branch at Old Plank Rd

Collection Date/Time: 01/04/2018 09:45

Field ID: G1WA0031

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957456	EPA 8321B	Sucralose**	0.010	U	ug/L	P337738	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337928	
		Diuron	0.0020	U	ug/L	P337928	
		Fenuron	0.0080	U	ug/L	P337928	
		Imidacloprid	0.0020	U	ug/L	P337928	
							MS

Field ID: G1WA0031

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957456	USGS O-2060-01	Bentazon	8.0E-04	U	ug/L	P337928	
		Linuron	0.0040	U	ug/L	P337928	
		Acetaminophen**	0.0080	U	ug/L	P337928	
		MCPD	0.0020	U	ug/L	P337928	
		Carbamazepine**	4.0E-04	U	ug/L	P337928	
		Triclopyr**	0.0040	U	ug/L	P337928	
		Primidone**	0.0040	U	ug/L	P337928	
		Fluridone**	4.0E-04	U	ug/L	P337928	

Sample Location: Burnt Mill Creek Upstream of US 27

Collection Date/Time: 01/04/2018 10:25

Field ID: G1WA0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1957424	EPA 180.1 Rev. 2.0	Turbidity	1.8	A	NTU	P337838	
	EPA 300.0 Rev. 2.1	Chloride	6.1		mg Cl/L	P338061	
		Sulfate	0.54		mg SO4/L	P338063	
	SM 2120 B	Color (true)	45	A	PCU	P337832	
	SM 2320 B-97	Total Alkalinity	21		mg CaCO3/L	P338229	
	SM 2540 C-97	TDS	52		mg/L	P337964	
	SM 2540 D-97	TSS	2	U	mg/L	P337934	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P338207	
1957428	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P337926	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P337889	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P337897	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P337873	
	SM 5310 B-00	Organic Carbon	4.6		mg C/L	P337948	
1957432	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.045		mg P/L	P337835	
	dissolved						

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: EPA 180.1 Rev. 2.0

Batch ID: P337837

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P337838

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P337972

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P337972

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: P337972

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P338061

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P338063

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337926

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337889

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337897

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337873

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337835

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

Reference Method: EPA 8270D
Batch ID: P338295

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 8270D
Batch ID: P338296

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D**Batch ID: P338296**

Component	Result	Code	Units
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
Metalaxyl	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

Reference Method: EPA 8321B**Batch ID: P337738**

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B**Batch ID: P337984**

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

Reference Method: EPA 8321B**Batch ID: P338133**

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P337831

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P337832

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P337833

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P338204

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

Reference Method: SM 2320 B-97
Batch ID: P338229

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

Reference Method: SM 2540 C-97
Batch ID: P337963

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P337964

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P337934

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P338207

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P337948

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

Reference Method: USGS O-2060-01
Batch ID: P337928

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P337972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	108		P	85 - 115
Iron	108		P	85 - 115
Magnesium	111		P	85 - 115
Potassium	104		P	85 - 115
Sodium	101		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337972

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	102		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	103		P	85 - 115
Copper	104		P	85 - 115
Lead	101		P	85 - 115
Nickel	107		P	85 - 115
Silver	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P338061

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P338063

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337926

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337889

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337897

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337873

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: P337835

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

Reference Method: EPA 8270D
Batch ID: P338295

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	64.9	63.5	P/P	24 - 89.0
Alpha-BHC	101	94.1	P/P	58 - 117
Alpha-Chlordane	72.8	67.8	P/P	56 - 115
Beta-BHC	69.1	59.5	P/P	55 - 137
Carbophenothion	44.8	46.0	P/P	37 - 145
Chlorothalonil	144	135	P/P	26 - 163
Cypermethrin	32.3	28.9	F/F	42 - 156
DDD-p,p'	70.5	66.7	P/P	59 - 129
DDE-p,p'	87.0	85.5	P/P	52 - 117
DDT-p,p'	106	167	P/F	48 - 128
Delta-BHC	102	95.4	P/P	59 - 158
Dicofol	96.2	89.4	P/P	19 - 124
Dieldrin	79.7	78.0	P/P	57 - 126
Endosulfan I	94.6	91.2	P/P	59 - 133
Endosulfan II	91.1	84.0	P/P	58 - 148
Endosulfan Sulfate	89.6	80.0	P/P	56 - 135

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D

Batch ID: P338295

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	81.3	73.7	P/P	50 - 140
Endrin Aldehyde	77.4	71.1	P/P	47 - 141
Endrin Ketone	95.3	85.8	P/P	63 - 123
Gamma-BHC	85.1	85.5	P/P	59 - 132
Gamma-Chlordane	69.3	67.9	P/P	55 - 112
Heptachlor	69.1	67.4	P/P	45 - 102
Heptachlor Epoxide	76.7	72.6	P/P	61 - 116
Methoxychlor	108	99.2	P/P	60 - 133
Mirex	93.3	94.3	P/P	40 - 98.0
Permethrin	73.5	68.5	P/P	45 - 131
Trifluralin	103	95.5	P/P	38 - 179

Reference Method: EPA 8270D

Batch ID: P338296

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	92.7	100	P/P	74 - 119
Alachlor	91.5	99.2	P/P	75 - 118
Ametryn	85.9	80.4	P/P	59 - 137
Atrazine	93.9	99.6	P/P	73 - 120
Atrazine Desethyl	80.7	104	P/P	19 - 129
Azinphos Methyl	98.6	105	P/P	65 - 181
Bromacil	44.5	51.4	P/P	43 - 123
Butylate	64.2	56.5	P/P	28 - 85.0
Chlorpyrifos Ethyl	86.7	93.7	P/P	55 - 112
Chlorpyrifos Methyl	88.9	95.6	P/P	35 - 124
Cyanazine	160	166	P/P	26 - 262
Demeton	56.8	65.3	P/P	43 - 122
Diazinon	88.6	92.3	P/P	72 - 120
Disulfoton	72.7	76.9	P/P	45 - 137
EPTC	66.6	55.3	P/P	28 - 95.0
Ethion	87.0	94.1	P/P	63 - 127
Ethoprop	88.8	88.1	P/P	63 - 109
Fenamiphos	80.5	92.4	P/P	66 - 136
Fipronil	87.5	98.8	P/P	63 - 126
Fipronil Sulfide	80.3	92.8	P/P	59 - 123
Fipronil Sulfone	74.3	86.5	P/P	56 - 122
Fonofos	83.4	89.2	P/P	64 - 114
Hexazinone	92.5	92.3	P/P	49 - 144
Malathion	86.2	93.0	P/P	68 - 131
Metaxyl	92.4	101	P/P	57 - 126
Metolachlor	91.4	101	P/P	75 - 118
Metribuzin	116	151	P/P	46 - 169
Mevinphos	76.5	74.3	P/P	34 - 126
Molinate	67.7	62.6	P/P	37 - 101
Norflurazon	78.3	91.7	P/P	63 - 127
Parathion Ethyl	86.5	91.5	P/P	78 - 109
Parathion Methyl	89.0	93.2	P/P	74 - 123
Pendimethalin	94.0	105	P/P	51 - 130
Phorate	72.7	78.9	P/P	53 - 116
Prometon	83.3	86.8	P/P	66 - 124
Prometryn	88.7	91.8	P/P	66 - 124

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P338296

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Simazine	88.0	95.3	P/P	62 - 134
Terbufos	81.4	84.7	P/P	59 - 115
Terbutylazine	87.2	95.1	P/P	76 - 113

Reference Method: EPA 8321B
Batch ID: P337738

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	80.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P337984

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	121		P	40 - 150
Glyphosate	136		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P338133

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	128		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P338204

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

Reference Method: SM 2320 B-97
Batch ID: P338229

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P338207

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.6		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P337948

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

Reference Method: USGS O-2060-01
Batch ID: P337928

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	103		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01

Batch ID: P337928

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	85.8		P	30 - 150
Bentazon	96.7		P	30 - 150
Carbamazepine	102		P	40 - 150
Diuron	82.9		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	115		P	40 - 150
Imidacloprid	102		P	40 - 160
Linuron	93.5		P	40 - 150
MCPP	95.9		P	40 - 150
Primidone	95.0		P	40 - 150
Triclopyr	95.2		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P337972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957815	Calcium	105	103	P/P	80 - 120
1957815	Iron	104	104	P/P	80 - 120
1957815	Magnesium	106	106	P/P	80 - 120
1957815	Potassium	99.6	99.0	P/P	80 - 120
1957815	Sodium	98.2		P	80 - 120
1957815	Zinc	101	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P337972

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957815	Arsenic	101	103	P/P	80 - 120
1957815	Cadmium	103	106	P/P	80 - 120
1957815	Chromium	102	106	P/P	80 - 120
1957815	Copper	98.1	99.9	P/P	80 - 120
1957815	Lead	100	100	P/P	80 - 120
1957815	Nickel	98.9	101	P/P	80 - 120
1957815	Silver	102	104	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P338061

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957421	Chloride	97.3		P	90 - 110
1957422	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P338063

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957421	Sulfate	98.5		P	90 - 110
1957422	Sulfate	97.6		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337926

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957426	Ammonia-N	97.9	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337889

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957425	Kjeldahl Nitrogen	100	98.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337897

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957425	NO2NO3-N	101	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957427	Total-P	100	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337835

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957508	O-Phosphate-P	95.6	97.7	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P338296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957460	Acetochlor	93.7	101	P/P	67 - 125
1957460	Alachlor	97.8	103	P/P	69 - 123
1957460	Ametryn	102	95.7	P/P	52 - 151
1957460	Atrazine Desethyl	83.5	56.0	P/P	10 - 129
1957460	Azinphos Methyl	88.5	88.5	P/P	48 - 200
1957460	Bromacil	72.7	68.0	P/P	46 - 130
1957460	Butylate	53.9	55.3	P/P	10 - 85.0
1957460	Chlorpyrifos Ethyl	80.9	92.7	P/P	54 - 115
1957460	Chlorpyrifos Methyl	88.6	101	P/P	44 - 117
1957460	Cyanazine	133	119	P/P	10 - 262
1957460	Demeton	69.3	79.8	P/P	24 - 145
1957460	Diazinon	85.8	91.5	P/P	66 - 129
1957460	Disulfoton	88.5	100	P/P	45 - 139
1957460	EPTC	56.4	59.6	P/P	10 - 86.0
1957460	Ethion	83.1	94.1	P/P	59 - 133
1957460	Ethoprop	100	109	P/P	54 - 116
1957460	Fenamiphos	70.8	98.2	P/P	55 - 140
1957460	Fipronil	75.4	69.3	P/P	37 - 142
1957460	Fipronil Sulfide	62.5	63.0	P/P	37 - 130
1957460	Fipronil Sulfone	37.0	32.9	P/P	18 - 143
1957460	Fonofos	92.2	104	P/P	55 - 118
1957460	Hexazinone	87.1	91.5	P/P	62 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P338296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957460	Malathion	94.2	106	P/P	64 - 132
1957460	Metalaxyl	93.4	96.2	P/P	55 - 129
1957460	Metolachlor	90.4	97.1	P/P	56 - 137
1957460	Metribuzin	183	173	P/P	16 - 218
1957460	Mevinphos	74.6	80.0	P/P	34 - 129
1957460	Molinate	54.7	63.5	P/P	16 - 99.0
1957460	Norflurazon	64.0	56.8	P/P	43 - 135
1957460	Parathion Ethyl	87.8	98.8	P/P	71 - 112
1957460	Parathion Methyl	99.2	108	P/P	65 - 127
1957460	Pendimethalin	94.9	112	P/P	35 - 159
1957460	Phorate	82.2	92.5	P/P	41 - 129
1957460	Prometon	97.9	93.5	P/P	56 - 140
1957460	Prometryn	89.3	93.7	P/P	65 - 130
1957460	Terbufos	95.0	108	P/P	53 - 126
1957460	Terbutylazine	91.4	95.6	P/P	73 - 114

Reference Method: EPA 8321B
Batch ID: P337738

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1956504	Sucralose	62.8	75.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P337984

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957457	AMPA	127	128	P/P	40 - 150
1957457	Glyphosate	142	137	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P338133

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957457	Pyraclostrobin	102	149	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P338207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957739	Fluoride	95.5	96.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P337948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957425	Organic Carbon	96.4	96.0	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P337928

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957757	2,4-D	96.1	98.9	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
 Batch ID: P337928

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1957757	Acetaminophen	125	141	P/P	30 - 150
1957757	Bentazon	92.7	99.2	P/P	30 - 150
1957757	Carbamazepine	97.9	115	P/P	40 - 150
1957757	Diuron	84.2	98.0	P/P	40 - 150
1957757	Fenuron	73.5	85.2	P/P	40 - 150
1957757	Fluridone	80.9	95.1	P/P	40 - 150
1957757	Imidacloprid	164	194	F/F	40 - 160
1957757	Linuron	89.8	100	P/P	40 - 150
1957757	MCP	78.5	85.6	P/P	40 - 150
1957757	Primidone	79.2	90.5	P/P	40 - 150
1957757	Triclopyr	76.9	79.8	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P337837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957376	Turbidity	2.84	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P337838

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957424	Turbidity	3.35	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P337972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957815	Calcium	0.802	Spike	P	0 - 20
1957815	Iron	0.234	Spike	P	0 - 20
1957815	Magnesium	0.00312	Spike	P	0 - 20
1957815	Potassium	0.433	Spike	P	0 - 20
1957815	Sodium	0.234	Spike	P	0 - 20
1957815	Zinc	0.614	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P337972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957815	Arsenic	1.70	Spike	P	0 - 20
1957815	Cadmium	2.21	Spike	P	0 - 20
1957815	Chromium	3.22	Spike	P	0 - 20
1957815	Copper	1.75	Spike	P	0 - 20
1957815	Lead	0.235	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337972

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957815	Nickel	2.04	Spike	P	0 - 20
1957815	Silver	1.63	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P338061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957421	Chloride	0.186	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P338063

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957421	Sulfate	1.15	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337926

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957426	Ammonia-N	2.55	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337889

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957425	Kjeldahl Nitrogen	0.988	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337897

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957425	NO2NO3-N	1.37	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957427	Total-P	0.648	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337835

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957508	O-Phosphate-P	1.95	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P338295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Aldrin	2.10	LCS	P	0 - 30
LFB	Alpha-BHC	7.18	LCS	P	0 - 30
LFB	Alpha-Chlordane	7.08	LCS	P	0 - 30
LFB	Beta-BHC	15.0	LCS	P	0 - 30
LFB	Carbophenothion	2.58	LCS	P	0 - 30
LFB	Chlorothalonil	6.21	LCS	P	0 - 30
LFB	Cypermethrin	11.0	LCS	P	0 - 30
LFB	DDD-p,p'	5.56	LCS	P	0 - 30
LFB	DDE-p,p'	1.80	LCS	P	0 - 30
LFB	DDT-p,p'	44.9	LCS	F	0 - 30
LFB	Delta-BHC	6.65	LCS	P	0 - 30
LFB	Dicofol	7.39	LCS	P	0 - 30
LFB	Dieldrin	2.18	LCS	P	0 - 30
LFB	Endosulfan I	3.66	LCS	P	0 - 30
LFB	Endosulfan II	8.16	LCS	P	0 - 30
LFB	Endosulfan Sulfate	11.2	LCS	P	0 - 30
LFB	Endrin	9.75	LCS	P	0 - 30
LFB	Endrin Aldehyde	8.59	LCS	P	0 - 30
LFB	Endrin Ketone	10.4	LCS	P	0 - 30
LFB	Gamma-BHC	0.464	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.06	LCS	P	0 - 30
LFB	Heptachlor	2.41	LCS	P	0 - 30
LFB	Heptachlor Epoxide	5.49	LCS	P	0 - 30
LFB	Methoxychlor	8.74	LCS	P	0 - 30
LFB	Mirex	1.08	LCS	P	0 - 30
LFB	Permethrin	7.08	LCS	P	0 - 30
LFB	Trifluralin	7.19	LCS	P	0 - 30

Reference Method: EPA 8270D

Batch ID: P338296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957460	Acetochlor	7.03	Spike	P	0 - 30
1957460	Alachlor	5.26	Spike	P	0 - 30
1957460	Ametryn	6.33	Spike	P	0 - 30
1957460	Atrazine	0.442	Spike	P	0 - 30
1957460	Atrazine Desethyl	29.3	Spike	P	0 - 30
1957460	Azinphos Methyl	0.0313	Spike	P	0 - 30
1957460	Bromacil	5.75	Spike	P	0 - 30
1957460	Butylate	2.56	Spike	P	0 - 30
1957460	Chlorpyrifos Ethyl	13.7	Spike	P	0 - 30
1957460	Chlorpyrifos Methyl	13.5	Spike	P	0 - 30
1957460	Cyanazine	11.2	Spike	P	0 - 30
1957460	Demeton	14.1	Spike	P	0 - 30
1957460	Diazinon	6.43	Spike	P	0 - 30
1957460	Disulfoton	12.2	Spike	P	0 - 30
1957460	EPTC	5.58	Spike	P	0 - 30
1957460	Ethion	12.4	Spike	P	0 - 30
1957460	Ethoprop	8.42	Spike	P	0 - 30
1957460	Fenamiphos	32.4	Spike	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D

Batch ID: P338296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957460	Fipronil	6.08	Spike	P	0 - 30
1957460	Fipronil Sulfide	0.543	Spike	P	0 - 30
1957460	Fipronil Sulfone	3.67	Spike	P	0 - 30
1957460	Fonofos	11.7	Spike	P	0 - 30
1957460	Hexazinone	4.94	Spike	P	0 - 30
1957460	Malathion	11.7	Spike	P	0 - 30
1957460	Metalaxyl	2.91	Spike	P	0 - 30
1957460	Metolachlor	6.87	Spike	P	0 - 30
1957460	Metribuzin	5.98	Spike	P	0 - 30
1957460	Mevinphos	6.96	Spike	P	0 - 30
1957460	Molinate	14.9	Spike	P	0 - 30
1957460	Norflurazon	11.9	Spike	P	0 - 30
1957460	Parathion Ethyl	11.9	Spike	P	0 - 30
1957460	Parathion Methyl	8.78	Spike	P	0 - 30
1957460	Pendimethalin	16.2	Spike	P	0 - 30
1957460	Phorate	11.7	Spike	P	0 - 30
1957460	Prometon	4.56	Spike	P	0 - 30
1957460	Prometryn	4.78	Spike	P	0 - 30
1957460	Simazine	3.60	Spike	P	0 - 30
1957460	Terbufos	12.5	Spike	P	0 - 30
1957460	Terbutylazine	4.41	Spike	P	0 - 30
LFB	Acetochlor	7.95	LCS	P	0 - 30
LFB	Alachlor	8.05	LCS	P	0 - 30
LFB	Ametryn	6.70	LCS	P	0 - 30
LFB	Atrazine	5.92	LCS	P	0 - 30
LFB	Atrazine Desethyl	25.3	LCS	P	0 - 30
LFB	Azinphos Methyl	6.30	LCS	P	0 - 30
LFB	Bromacil	14.4	LCS	P	0 - 30
LFB	Butylate	12.6	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	7.82	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	7.29	LCS	P	0 - 30
LFB	Cyanazine	3.44	LCS	P	0 - 30
LFB	Demeton	13.9	LCS	P	0 - 30
LFB	Diazinon	4.16	LCS	P	0 - 30
LFB	Disulfoton	5.67	LCS	P	0 - 30
LFB	EPTC	18.5	LCS	P	0 - 30
LFB	Ethion	7.79	LCS	P	0 - 30
LFB	Ethoprop	0.769	LCS	P	0 - 30
LFB	Fenamiphos	13.7	LCS	P	0 - 30
LFB	Fipronil	12.0	LCS	P	0 - 30
LFB	Fipronil Sulfide	14.5	LCS	P	0 - 30
LFB	Fipronil Sulfone	15.1	LCS	P	0 - 30
LFB	Fonofos	6.67	LCS	P	0 - 30
LFB	Hexazinone	0.177	LCS	P	0 - 30
LFB	Malathion	7.60	LCS	P	0 - 30
LFB	Metalaxyl	8.89	LCS	P	0 - 30
LFB	Metolachlor	10.3	LCS	P	0 - 30
LFB	Metribuzin	25.9	LCS	P	0 - 30
LFB	Mevinphos	2.97	LCS	P	0 - 30
LFB	Molinate	7.96	LCS	P	0 - 30
LFB	Norflurazon	15.8	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P338296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Parathion Ethyl	5.65	LCS	P	0 - 30
LFB	Parathion Methyl	4.63	LCS	P	0 - 30
LFB	Pendimethalin	10.9	LCS	P	0 - 30
LFB	Phorate	8.12	LCS	P	0 - 30
LFB	Prometon	4.15	LCS	P	0 - 30
LFB	Prometryn	3.43	LCS	P	0 - 30
LFB	Simazine	7.94	LCS	P	0 - 30
LFB	Terbufos	3.96	LCS	P	0 - 30
LFB	Terbuthylazine	8.65	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P337738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1956504	Sucralose	17.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P337984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957457	AMPA	0.702	Spike	P	0 - 30
1957457	Glyphosate	3.56	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P338133

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957457	Pyraclostrobin	37.6	Spike	F	0 - 30

Reference Method: SM 2120 B
Batch ID: P337831

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957377	Color (true)	2.30	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P337832

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957424	Color (true)	2.14	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P337833

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

Reference Method: SM 2120 B
Batch ID: P337833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957379	Color (true)	9.26	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P338204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957739	Total Alkalinity	0.401	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P338229

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1958023	Total Alkalinity	0.150	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P337963

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957376	TDS	0.331	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P337964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957476	TDS	0.837	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P338207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957739	Fluoride	0.513	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P337948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957425	Organic Carbon	0.385	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P337928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957757	2,4-D	2.87	Spike	P	0 - 30
1957757	Acetaminophen	12.4	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P337928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1957757	Bentazon	6.73	Spike	P	0 - 30
1957757	Carbamazepine	15.8	Spike	P	0 - 30
1957757	Diuron	15.1	Spike	P	0 - 30
1957757	Fenuron	14.7	Spike	P	0 - 30
1957757	Fluridone	16.1	Spike	P	0 - 30
1957757	Imidacloprid	16.6	Spike	P	0 - 30
1957757	Linuron	11.1	Spike	P	0 - 30
1957757	MCP	8.71	Spike	P	0 - 30
1957757	Primidone	13.3	Spike	P	0 - 30
1957757	Triclopyr	3.69	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: 1957456
Field Sample ID: G1WA0031

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	96.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.5	P	30 - 160
EPA 8321B	Diuron-d6	80.5	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	74.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	92.6	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	96.2	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	98.5	P	30 - 160
USGS O-2060-01	Diuron-d6	80.5	P	30 - 160
USGS O-2060-01	Primidone-d5	108	P	30 - 160
USGS O-2060-01	Sucralose-d6	74.2	P	40 - 160

Lab Sample ID: 1957457
Field Sample ID: G1WA0026

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.3	P	30 - 160
EPA 8321B	Diuron-d6	75.2	P	30 - 160
EPA 8321B	Diuron-d6	142	P	30 - 160
EPA 8321B	Diuron-d6	75.2	P	30 - 160
EPA 8321B	Diuron-d6	142	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	111	P	40 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	73.5	P	40 - 160
EPA 8321B	Sucralose-d6	73.5	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1957457
Field Sample ID: G1WA0026

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	2,4-D-d3	46.5	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	118	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	86.3	P	30 - 160
USGS O-2060-01	Diuron-d6	75.2	P	30 - 160
USGS O-2060-01	Diuron-d6	142	P	30 - 160
USGS O-2060-01	Primidone-d5	103	P	30 - 160
USGS O-2060-01	Sucralose-d6	73.5	P	40 - 160

Lab Sample ID: 1957459
Field Sample ID: G1WA0026

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	66.9	P	37 - 117
EPA 8270D	Decachlorobiphenyl	88.3	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	47.0	P	34 - 101
EPA 8270D	Tetrachloro-m-xylene	56.8	P	34 - 101

Lab Sample ID: 1957460
Field Sample ID: G1WA0026

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	97.7	P	71 - 126
EPA 8270D	Terbufos-d10	121	P	50 - 130

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A81291
Included Lab Sample IDs: 1957421, 1957422, 1957423, 1957424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	98.3	P/P	85 - 115
Color (true)	98.3	99.8	P/P	85 - 115
Color (true)	99.8	102	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A81292
Included Lab Sample IDs: 1957429, 1957430, 1957431, 1957432

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.2	99.5	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A81293
Included Lab Sample IDs: 1957421, 1957422, 1957423, 1957424

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A81296

Included Lab Sample IDs: 1957456, 1957457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	76.7	77.6	P/P	60 - 150
Sucralose	84.8	93.5	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A81321

Included Lab Sample IDs: 1957425, 1957426, 1957427, 1957428

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A81324

Included Lab Sample IDs: 1957425, 1957428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A81332

Included Lab Sample IDs: 1957425, 1957426, 1957427, 1957428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	99.6	P/P	90 - 110
Ammonia-N	103	103	P/P	90 - 110
Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A81335

Included Lab Sample IDs: 1957425, 1957426, 1957427, 1957428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.9	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A81340

Included Lab Sample IDs: 1957426, 1957427

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	99.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A81348

Included Lab Sample IDs: 1957425, 1957426, 1957427, 1957428

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.1	96.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A81392

Included Lab Sample IDs: 1957458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	95 - 105
Iron	102	102	P/P	95 - 105
Magnesium	102	102	P/P	95 - 105
Potassium	99.9	100	P/P	95 - 105
Sodium	102	102	P/P	95 - 105
Zinc	99.5	102	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A81397

Included Lab Sample IDs: 1957421, 1957422, 1957423, 1957424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	101	P/P	90 - 110
Chloride	98.9	103	P/P	90 - 110
Sulfate	102	99.3	P/P	90 - 110
Sulfate	99.2	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A81399

Included Lab Sample IDs: 1957458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	97.3	P/P	90 - 110
Cadmium	99.4	99.6	P/P	90 - 110
Chromium	101	102	P/P	90 - 110
Silver	99.6	99.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A81426

Included Lab Sample IDs: 1957458

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	104	99.0	P/P	90 - 110
Lead	98.9	97.1	P/P	90 - 110
Nickel	105	99.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A81435

Included Lab Sample IDs: 1957457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.2	86.6	P/P	60 - 150
Glyphosate	95.4	87.0	P/P	60 - 150
Pyraclostrobin	78.0	61.0	P/P	60 - 150

Reference Method: SM 2320 B-97

Run ID: A81446

Included Lab Sample IDs: 1957421, 1957423

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.6	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-97

Run ID: A81446

Included Lab Sample IDs: 1957421, 1957422, 1957423, 1957424

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A81452

Included Lab Sample IDs: 1957422, 1957424

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

Reference Method: USGS O-2060-01

Run ID: A81530

Included Lab Sample IDs: 1957456, 1957457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	103	101	P/P	60 - 150
Carbamazepine	101	111	P/P	60 - 150
Diuron	97.6	103	P/P	60 - 150
Fenuron	101	105	P/P	60 - 150
Imidacloprid	95.2	99.7	P/P	60 - 150
Linuron	101	108	P/P	60 - 150
Primidone	107	85.9	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A81531

Included Lab Sample IDs: 1957456, 1957457

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.9	99.2	P/P	50 - 150
Bentazon	96.3	95.5	P/P	50 - 150
Fluridone	92.8	106	P/P	60 - 160
MCPP	91.2	86.6	P/P	50 - 150
Triclopyr	95.9	100	P/P	50 - 150

Reference Method: EPA 8270D

Run ID: A81568

Included Lab Sample IDs: 1957460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	94.6		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	91.8		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Bromacil	98.3		P	80 - 120
Butylate	99.0		P	80 - 120
Chlorpyrifos Ethyl	99.5		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Cyanazine	97.2		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	100		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270D

Run ID: A81568

Included Lab Sample IDs: 1957460

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Disulfoton	97.7		P	80 - 120
EPTC	99.5		P	80 - 120
Ethion	98.9		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	93.8		P	80 - 120
Fipronil	98.3		P	80 - 120
Fipronil Sulfide	98.3		P	80 - 120
Fipronil Sulfone	94.0		P	80 - 120
Fonofos	96.8		P	80 - 120
Hexazinone	92.8		P	80 - 120
Malathion	98.3		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	109		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	98.1		P	80 - 120
Molinate	104		P	80 - 120
Norflurazon	101		P	80 - 120
Parathion Ethyl	90.8		P	80 - 120
Parathion Methyl	94.2		P	80 - 120
Pendimethalin	98.3		P	80 - 120
Phorate	96.2		P	80 - 120
Prometon	97.7		P	80 - 120
Prometryn	102		P	80 - 120
Simazine	93.7		P	80 - 120
Terbufos	98.0		P	80 - 120
Terbutylazine	99.8		P	80 - 120

Reference Method: EPA 8270D

Run ID: A81592

Included Lab Sample IDs: 1957459

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.4		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	97.5		P	80 - 120
Beta-BHC	102		P	80 - 120
Carbophenothion	75.2*		F	80 - 120
Chlorothalonil	118		P	80 - 120
Cypermethrin	87.2		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	99.0		P	80 - 120
DDT-p,p'	106		P	80 - 120
Delta-BHC	96.5		P	80 - 120
Dicofol	104		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	97.4		P	80 - 120
Endosulfan II	92.9		P	80 - 120
Endosulfan Sulfate	99.6		P	80 - 120
Endrin	97.0		P	80 - 120
Endrin Aldehyde	100		P	80 - 120
Endrin Ketone	99.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A81592
Included Lab Sample IDs: 1957459

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-BHC	96.8		P	80 - 120
Gamma-Chlordane	95.7		P	80 - 120
Heptachlor	96.3		P	80 - 120
Heptachlor Epoxide	98.2		P	80 - 120
Methoxychlor	106		P	80 - 120
Mirex	98.7		P	80 - 120
Permethrin	95.4		P	80 - 120
Trifluralin	100		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						2.84	
	Turbidity						3.35	
EPA 200.7 Rev. 4.4	Calcium	108		105	103			0.802
	Iron	108		104	104			0.234
	Magnesium	111		106	106			0.0031
	Potassium	104		99.6	99.0			0.433
	Sodium	101		98.2				0.234
	Zinc	102		101	102			0.614
EPA 200.8 Rev. 5.4	Arsenic	102		101	103			1.70
	Cadmium	102		103	106			2.21
	Chromium	103		102	106			3.22
	Copper	104		98.1	99.9			1.75
	Lead	101		100	100			0.235
	Nickel	107		98.9	101			2.04
	Silver	103		102	104			1.63
EPA 300.0 Rev. 2.1	Chloride	102		97.3	97.6		0.186	
	Sulfate	101		98.5	97.6		1.15	
EPA 350.1 Rev. 2.0	Ammonia-N	104		97.9	101			2.55
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.1		100	98.4			0.988
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	103		101	98.8			1.37
EPA 365.1 Rev. 2.0	Total-P	103		100	99.4			0.648
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4		95.6	97.7			1.95
EPA 8270D	Acetochlor	92.7	100	93.7	101	7.95		7.03
	Alachlor	91.5	99.2	97.8	103	8.05		5.26
	Aldrin	64.9	63.5			2.10		
	Alpha-BHC	101	94.1			7.18		
	Alpha-Chlordane	72.8	67.8			7.08		
	Ametryn	85.9	80.4	102	95.7	6.70		6.33
	Atrazine	93.9	99.6			5.92		0.442
	Atrazine Desethyl	80.7	104	83.5	56.0	25.3		29.3
	Azinphos Methyl	98.6	105	88.5	88.5	6.30		0.0313
	Beta-BHC	69.1	59.5			15.0		

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						SMP	MS
EPA 8270D	Bromacil	44.5	51.4	72.7	68.0	14.4	5.75
	Butylate	64.2	56.5	53.9	55.3	12.6	2.56
	Carbophenothion	44.8	46.0			2.58	
	Chlorothalonil	144	135			6.21	
	Chlorpyrifos Ethyl	86.7	93.7	80.9	92.7	7.82	13.7
	Chlorpyrifos Methyl	88.9	95.6	88.6	101	7.29	13.5
	Cyanazine	160	166	133	119	3.44	11.2
	Cypermethrin	32.3	28.9			11.0	
	DDD-p,p'	70.5	66.7			5.56	
	DDE-p,p'	87.0	85.5			1.80	
	DDT-p,p'	106	167			44.9	
	Delta-BHC	102	95.4			6.65	
	Demeton	56.8	65.3	69.3	79.8	13.9	14.1
	Diazinon	88.6	92.3	85.8	91.5	4.16	6.43
	Dicofol	96.2	89.4			7.39	
	Dieldrin	79.7	78.0			2.18	
	Disulfoton	72.7	76.9	88.5	100	5.67	12.2
	Endosulfan I	94.6	91.2			3.66	
	Endosulfan II	91.1	84.0			8.16	
	Endosulfan Sulfate	89.6	80.0			11.2	
	Endrin	81.3	73.7			9.75	
	Endrin Aldehyde	77.4	71.1			8.59	
	Endrin Ketone	95.3	85.8			10.4	
	EPTC	66.6	55.3	56.4	59.6	18.5	5.58
	Ethion	87.0	94.1	83.1	94.1	7.79	12.4
	Ethoprop	88.8	88.1	100	109	0.769	8.42
	Fenamiphos	80.5	92.4	70.8	98.2	13.7	32.4
	Fipronil	87.5	98.8	75.4	69.3	12.0	6.08
	Fipronil Sulfide	80.3	92.8	62.5	63.0	14.5	0.543
	Fipronil Sulfone	74.3	86.5	37.0	32.9	15.1	3.67
	Fonofos	83.4	89.2	92.2	104	6.67	11.7
	Gamma-BHC	85.1	85.5			0.464	
	Gamma-Chlordane	69.3	67.9			2.06	
	Heptachlor	69.1	67.4			2.41	
	Heptachlor Epoxide	76.7	72.6			5.49	
	Hexazinone	92.5	92.3	87.1	91.5	0.177	4.94
	Malathion	86.2	93.0	94.2	106	7.60	11.7
	Metalaxyl	92.4	101	93.4	96.2	8.89	2.91
	Methoxychlor	108	99.2			8.74	
	Metolachlor	91.4	101	90.4	97.1	10.3	6.87
	Metribuzin	116	151	183	173	25.9	5.98
	Mevinphos	76.5	74.3	74.6	80.0	2.97	6.96
	Mirex	93.3	94.3			1.08	
	Molinate	67.7	62.6	54.7	63.5	7.96	14.9
	Norflurazon	78.3	91.7	64.0	56.8	15.8	11.9
	Parathion Ethyl	86.5	91.5	87.8	98.8	5.65	11.9
	Parathion Methyl	89.0	93.2	99.2	108	4.63	8.78
	Pendimethalin	94.0	105	94.9	112	10.9	16.2
	Permethrin	73.5	68.5			7.08	
	Phorate	72.7	78.9	82.2	92.5	8.12	11.7
	Prometon	83.3	86.8	97.9	93.5	4.15	4.56
	Prometryn	88.7	91.8	89.3	93.7	3.43	4.78
	Simazine	88.0	95.3			7.94	3.60
	Terbufos	81.4	84.7	95.0	108	3.96	12.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8270D	Terbutylazine	87.2	95.1	91.4	95.6	8.65	4.41
	Trifluralin	103	95.5			7.19	
EPA 8321B	AMPA	121		127	128		0.702
	Glyphosate	136		142	137		3.56
	Pyraclostrobin	128		102	149		37.6
	Sucralose	80.1		62.8	75.5		17.9
SM 2120 B	Color (true)					2.30	
	Color (true)					2.14	
	Color (true)					9.26	
SM 2320 B-97	Total Alkalinity	103				0.401	
	Total Alkalinity	102				0.150	
SM 2540 C-97	TDS					0.331	
	TDS					0.837	
SM 4500 F-C-97	Fluoride	96.6		95.5	96.1		0.513
SM 5310 B-00	Organic Carbon	95.5		96.4	96.0		0.385
USGS O-2060-01	2,4-D	103		96.1	98.9		2.87
	Acetaminophen	85.8		125	141		12.4
	Bentazon	96.7		92.7	99.2		6.73
	Carbamazepine	102		97.9	115		15.8
	Diuron	82.9		84.2	98.0		15.1
	Fenuron	112		73.5	85.2		14.7
	Fluridone	115		80.9	95.1		16.1
	Imidacloprid	102		164	194		16.6
	Linuron	93.5		89.8	100		11.1
	MCPP	95.9		78.5	85.6		8.71
	Primidone	95.0		79.2	90.5		13.3
	Triclopyr	95.2		76.9	79.8		3.69

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1957421, 1957422, 1957423, 1957424
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1957458
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1957458
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1957421, 1957422, 1957423, 1957424
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1957421, 1957422, 1957423, 1957424
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1957425, 1957426, 1957427, 1957428
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1957425, 1957426, 1957427, 1957428
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1957425, 1957426, 1957427, 1957428
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1957425, 1957426, 1957427, 1957428
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1957429, 1957430, 1957431, 1957432
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1957459
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1957460
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1957456, 1957457

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1957457
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1957457
SM 2120 B / E31780	True Color measured at 450 nm	1957421, 1957422, 1957423, 1957424
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1957421, 1957422, 1957423, 1957424
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1957421, 1957422, 1957423, 1957424
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1957421, 1957422, 1957423, 1957424
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1957421, 1957422, 1957423, 1957424
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1957425, 1957426, 1957427, 1957428
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1957456, 1957457
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1957456, 1957457

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	01/04/2018			01/04/2018 15:25	DeAsia Armster	1957421, 1957422, 1957423, 1957424
EPA 200.7 Rev. 4.4	01/04/2018	01/09/2018	Elliott D. Healy	01/10/2018	Betina Topolski	1957458
EPA 200.8 Rev. 5.4	01/04/2018	01/09/2018	Elliott D. Healy	01/10/2018	Nadine Brooks	1957458
	01/04/2018	01/09/2018	Elliott D. Healy	01/11/2018	Nadine Brooks	1957458
EPA 300.0 Rev. 2.1	01/04/2018			01/10/2018	Julia Storbeck	1957421, 1957422, 1957423, 1957424
EPA 350.1 Rev. 2.0	01/04/2018			01/08/2018	Sofia Elnemr	1957425, 1957426, 1957427, 1957428
EPA 351.2 Rev. 2.0	01/04/2018	01/08/2018	Adrian Shelby	01/09/2018	Joseph Suarez	1957425, 1957426, 1957427, 1957428
EPA 353.2 Rev. 2.0	01/04/2018			01/08/2018	Beverly Y. Sanders	1957425, 1957426, 1957427, 1957428
EPA 365.1 Rev. 2.0	01/04/2018	01/05/2018	Sima Feizi	01/08/2018	Lipi Saha	1957425, 1957428
	01/04/2018	01/05/2018	Sima Feizi	01/09/2018	Lipi Saha	1957426, 1957427
EPA 365.1 Rev. 2.0 dissolved	01/04/2018			01/04/2018 15:44	Megan Treadwell	1957429
	01/04/2018			01/04/2018 15:45	Megan Treadwell	1957430
	01/04/2018			01/04/2018 15:46	Megan Treadwell	1957431
	01/04/2018			01/04/2018 15:47	Megan Treadwell	1957432
EPA 8270D	01/04/2018	01/10/2018	Rasheda Ghaffari	01/16/2018	Vandana T. Nagar	1957460
	01/04/2018	01/17/2018	Fe-Val Siddell	01/20/2018	Vandana T. Nagar	1957459
EPA 8321B	01/04/2018	01/04/2018	Mohammad Ghaffari	01/04/2018	Mohammad Ghaffari	1957457
	01/04/2018	01/04/2018	Mohammad Ghaffari	01/05/2018	Mohammad Ghaffari	1957456
	01/04/2018	01/10/2018	Juyoung Kim	01/10/2018	Juyoung Kim	1957457
SM 2120 B	01/04/2018			01/04/2018 15:12	Tanya Welborn	1957423
	01/04/2018			01/04/2018 15:15	Tanya Welborn	1957424
	01/04/2018			01/04/2018 15:25	Tanya Welborn	1957421
	01/04/2018			01/04/2018 15:27	Tanya Welborn	1957422
SM 2320 B-97	01/04/2018			01/12/2018	Dale L. Simmons	1957421, 1957423
	01/04/2018			01/13/2018	Dale L. Simmons	1957422, 1957424
SM 2540 C-97	01/04/2018			01/05/2018	DeAsia Armster	1957421, 1957422, 1957423, 1957424
SM 2540 D-97	01/04/2018			01/05/2018	DeAsia Armster	1957421, 1957422, 1957423, 1957424
SM 4500 F-C-97	01/04/2018			01/12/2018	Dale L. Simmons	1957421, 1957422, 1957423, 1957424
SM 5310 B-00	01/04/2018			01/08/2018	Megan Treadwell	1957425, 1957426, 1957427
	01/04/2018			01/09/2018	Megan Treadwell	1957428
USGS O-2060-01	01/04/2018	01/10/2018	Hoor Shaik	01/11/2018	Julie Michelle Frank	1957456, 1957457
	01/04/2018	01/10/2018	Hoor Shaik	01/16/2018	Julie Michelle Frank	1957456, 1957457