

Chemical Analysis Report

WQAP-2017-11-08-09

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

Event Description: **Horsehole Cr - WBID 3703**

Request ID: **RQ-2017-11-06-11**

Customer: **WQAP**

Project ID: **SMP**

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Date Certified: 05-DEC-2017 11:59



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: HORSEHOLE CRK

Collection Date/Time: 11/07/2017 11:15

Field ID: G5SW0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1944391	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P335009	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P335190	
		Sulfate	2.1		mg SO4/L	P335192	
	SM 2120 B	Color (true)	130		PCU	P334983	
	SM 2320 B-97	Total Alkalinity	146		mg CaCO3/L	P335377	
	SM 2540 C-97	TDS	213		mg/L	P335604	
	SM 2540 D-97	TSS	16		mg/L	P335584	
	SM 4500 F-C-97	Fluoride	0.059	I	mg F/L	P335381	
1944392	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P335762	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P335758	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P335539	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P335240	
	SM 5310 B-00	Organic Carbon	20		mg C/L	P335512	
1944393	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.065		mg P/L	P335001	
1944398	EPA 200.7 Rev. 4.4	Calcium	54.2		mg/L	P335217	
		Iron	2.51E+03		ug/L	P335217	
		Magnesium	5.16		mg/L	P335217	
		Potassium	0.30	U	mg/L	P335217	
		Sodium	9.3		mg/L	P335217	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P335217	
		Arsenic	0.98		ug/L	P335217	
		Cadmium	0.020	U	ug/L	P335217	
		Chromium	0.63	I	ug/L	P335217	
		Copper	0.20	U	ug/L	P335217	
		Lead	0.079	I	ug/L	P335217	
		Nickel	0.32	I	ug/L	P335217	
		Silver	0.010	U	ug/L	P335217	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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.

Sample Location: HORSEHOLE CRK

Collection Date/Time: 11/07/2017 11:15

Field ID: G5SW0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1944395	EPA 8321B	Glyphosate**	0.10	U	ug/L	P334928	
		Pyraclostrobin**	0.0020	U	ug/L	P334929	
		Sucralose**	0.48		ug/L	P334973	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P334865	
		Diuron	8.0E-04	U	ug/L	P334865	
		Fenuron	0.0080	U	ug/L	P334865	
		Imidacloprid	8.0E-04	U	ug/L	P334865	
		Bentazon	8.0E-04	U	ug/L	P334865	

Field ID: G5SW0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1944395	USGS O-2060-01	Linuron	0.0040	U	ug/L	P334865	
		Acetaminophen**	0.0080	U	ug/L	P334865	
		MCP	0.0020	U	ug/L	P334865	
		Carbamazepine**	4.0E-04	U	ug/L	P334865	
		Triclopyr**	0.0040	U	ug/L	P334865	
		Primidone**	0.0040	U	ug/L	P334865	
		Fluridone**	4.0E-04	U	ug/L	P334865	
1944396	EPA 8270D	Aldrin	4.1	U	ng/L	P335069	
		Alpha-BHC	2.1	U	ng/L	P335069	
		Beta-BHC	4.1	U	ng/L	P335069	
		Delta-BHC	4.1	U	ng/L	P335069	
		Gamma-BHC	4.1	U	ng/L	P335069	RPD
		Carbophenothion	4.1	U	ng/L	P335069	
		Chlorothalonil	2.1	U	ng/L	P335069	
		Cypermethrin	21	U	ng/L	P335069	
		DDD-p,p'	3.1	U	ng/L	P335069	
		DDE-p,p'	3.1	U	ng/L	P335069	
		DDT-p,p'	3.1	U	ng/L	P335069	
		Dieldrin	4.1	U	ng/L	P335069	
		Endosulfan I	4.1	U	ng/L	P335069	
		Endosulfan II	4.1	U	ng/L	P335069	
		Endosulfan Sulfate	2.1	U	ng/L	P335069	
		Endrin	2.1	U	ng/L	P335069	
		Endrin Aldehyde	2.1	U	ng/L	P335069	
		Heptachlor	1.5	U	ng/L	P335069	
		Heptachlor Epoxide	2.1	U	ng/L	P335069	
		Methoxychlor	4.1	U	ng/L	P335069	
		Mirex	2.1	U	ng/L	P335069	
		Permethrin	10	U	ng/L	P335069	RPD
		Trifluralin	1.0	U	ng/L	P335069	
		Alpha-Chlordane	1.0	U	ng/L	P335069	
		Gamma-Chlordane	1.0	U	ng/L	P335069	
		Endrin Ketone	2.1	U	ng/L	P335069	
		Dicofol	31	U	ng/L	P335069	
	EPA 8276	Chlordane**	2.6	U	ng/L	P335069	
		Toxaphene**	13	U	ng/L	P335069	
1944397	EPA 8270D	Alachlor	0.24	U	ng/L	P335074	
		Ametryn	0.31	U	ng/L	P335074	
		Atrazine	0.24	U	ng/L	P335074	
		Atrazine Desethyl	1.4	U	ng/L	P335074	MS, RPD
		Azinphos Methyl	2.1	U	ng/L	P335074	
		Bromacil	0.48	U	ng/L	P335074	
		Butylate	0.38	U	ng/L	P335074	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P335074	
		Chlorpyrifos Methyl	0.095	U	ng/L	P335074	

Field ID: G5SW0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1944397	EPA 8270D	Demeton	1.9	U	ng/L	P335074	
		Diazinon	0.12	UJ	ng/L	P335074	LCS, MS
		Disulfoton	0.48	U	ng/L	P335074	
		EPTC	1.2	U	ng/L	P335074	
		Ethion	0.14	U	ng/L	P335074	MS, RPD
		Ethoprop	0.095	U	ng/L	P335074	
		Fenamiphos	0.24	U	ng/L	P335074	
		Fipronil	0.24	U	ng/L	P335074	
		Fipronil Sulfide	0.14	U	ng/L	P335074	
		Fipronil Sulfone	0.14	U	ng/L	P335074	
		Hexazinone	0.86	I	ng/L	P335074	
		Malathion	0.33	U	ng/L	P335074	
		Metribuzin	0.19	UJ	ng/L	P335074	LCS, MS
		Mevinphos	0.48	U	ng/L	P335074	
		Molinate	0.29	U	ng/L	P335074	
		Norflurazon	0.48	U	ng/L	P335074	
		Pendimethalin	0.95	U	ng/L	P335074	
		Phorate	0.24	U	ng/L	P335074	
		Prometon	0.86	U	ng/L	P335074	
		Prometryn	0.19	U	ng/L	P335074	MS
		Simazine	0.48	U	ng/L	P335074	
		Terbufos	0.095	U	ng/L	P335074	
		Terbuthylazine	0.41	U	ng/L	P335074	
		Fonofos	0.19	U	ng/L	P335074	
		Metalaxyl	0.24	U	ng/L	P335074	
		Metolachlor	0.24	U	ng/L	P335074	
		Acetochlor	0.24	U	ng/L	P335074	
		Cyanazine	0.48	U	ng/L	P335074	
		Parathion Ethyl	0.24	U	ng/L	P335074	MS
		Parathion Methyl	0.24	U	ng/L	P335074	

Ref. Method and Comment:
EPA 8270D: 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: P335009

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335217

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335217

Component	Result	Code	Units
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: P335217

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: P335190

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335192

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335762

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335758

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335539

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P335240

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 dissolved
Batch ID: P335001

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

Reference Method: EPA 8270D
Batch ID: P335069

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: P335074

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D

Batch ID: P335074

Component	Result	Code	Units
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

Reference Method: EPA 8276

Batch ID: P335069

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	12	U	ng/L

Reference Method: EPA 8321B

Batch ID: P334928

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L

Reference Method: EPA 8321B

Batch ID: P334929

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B

Batch ID: P334973

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P334983

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P335377

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

Reference Method: SM 2540 C-97
Batch ID: P335604

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P335584

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P335381

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P335512

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

Reference Method: USGS O-2060-01
Batch ID: P334865

Component	Result	Code	Units
2,4-D	0.00200	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.00E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.00200	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.00400	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	106		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	100		P	85 - 115
Sodium	106		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	100		P	85 - 115
Cadmium	96.4		P	85 - 115
Chromium	97.7		P	85 - 115
Copper	98.8		P	85 - 115
Lead	101		P	85 - 115
Nickel	101		P	85 - 115
Silver	94.7		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335190

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335192

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335762

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335758

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335539

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P335240

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P335001

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

Reference Method: EPA 8270D
 Batch ID: P335069

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	75.3	68.7	P/P	26 - 88.0
Alpha-BHC	95.1	87.7	P/P	63 - 114
Alpha-Chlordane	89.9	85.9	P/P	56 - 117
Beta-BHC	87.7	87.2	P/P	57 - 138
Carbophenothion	41.2	42.1	P/P	36 - 148
Chlorothalonil	81.5	84.4	P/P	26 - 173
Cypermethrin	114	113	P/P	42 - 159
DDD-p,p'	94.9	91.1	P/P	62 - 126
DDE-p,p'	92.7	88.3	P/P	53 - 115
DDT-p,p'	101	86.1	P/P	54 - 117
Delta-BHC	112	98.6	P/P	68 - 158
Dicofol	64.9	50.3	P/P	25 - 114
Dieldrin	93.5	89.0	P/P	59 - 126
Endosulfan I	97.9	90.5	P/P	62 - 138
Endosulfan II	107	94.3	P/P	61 - 150
Endosulfan Sulfate	102	96.6	P/P	63 - 132
Endrin	95.6	86.8	P/P	49 - 148
Endrin Aldehyde	94.8	88.1	P/P	50 - 144
Endrin Ketone	98.1	92.3	P/P	66 - 122
Gamma-BHC	108	106	P/P	60 - 137
Gamma-Chlordane	88.2	84.5	P/P	54 - 113
Heptachlor	83.0	75.8	P/P	43 - 104
Heptachlor Epoxide	90.0	83.5	P/P	64 - 118
Methoxychlor	106	105	P/P	63 - 129
Mirex	86.8	82.8	P/P	40 - 96.0
Permethrin	92.2	92.0	P/P	51 - 123
Trifluralin	84.2	76.7	P/P	35 - 187

Reference Method: EPA 8270D
 Batch ID: P335074

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	89.4	88.8	P/P	78 - 118
Alachlor	90.4	89.7	P/P	77 - 119
Ametryn	81.7	86.1	P/P	61 - 136
Atrazine	93.2	93.2	P/P	73 - 120
Atrazine Desethyl	92.7	101	P/P	16 - 122
Azinphos Methyl	97.8	97.5	P/P	69 - 186
Bromacil	92.5	87.5	P/P	40 - 125
Butylate	51.5	50.8	P/P	32 - 87.0

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P335074

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Ethyl	86.0	84.9	P/P	53 - 110
Chlorpyrifos Methyl	93.0	91.4	P/P	31 - 119
Cyanazine	175	184	P/P	36 - 224
Demeton	59.2	67.0	P/P	39 - 122
Diazinon	79.2	74.5	P/F	75 - 119
Disulfoton	85.7	84.7	P/P	42 - 139
EPTC	45.2	43.6	P/P	33 - 96.0
Ethion	87.8	83.4	P/P	63 - 127
Ethoprop	92.5	91.3	P/P	65 - 107
Fenamiphos	96.1	86.4	P/P	64 - 137
Fipronil	87.4	85.7	P/P	60 - 126
Fipronil Sulfide	84.3	84.5	P/P	58 - 124
Fipronil Sulfone	81.2	78.8	P/P	57 - 126
Fonofos	88.0	85.7	P/P	65 - 111
Hexazinone	84.7	83.1	P/P	46 - 151
Malathion	94.9	94.3	P/P	68 - 132
Metaxyl	89.1	87.9	P/P	51 - 132
Metolachlor	90.0	88.9	P/P	78 - 119
Metribuzin	166	176	F/F	58 - 148
Mevinphos	76.8	69.6	P/P	34 - 128
Molinate	46.5	48.1	P/P	44 - 101
Norflurazon	85.3	79.9	P/P	63 - 129
Parathion Ethyl	85.4	86.6	P/P	80 - 109
Parathion Methyl	94.0	95.8	P/P	74 - 125
Pendimethalin	79.3	81.3	P/P	48 - 134
Phorate	78.4	74.3	P/P	52 - 119
Prometon	87.9	87.7	P/P	69 - 124
Prometryn	78.0	80.7	P/P	66 - 124
Simazine	94.2	92.0	P/P	61 - 134
Terbufos	87.4	86.0	P/P	58 - 115
Terbutylazine	89.8	89.2	P/P	77 - 113

Reference Method: EPA 8276
Batch ID: P335069

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	73.6	78.9	P/P	48 - 121
Toxaphene	106	109	P/P	43 - 135

Reference Method: EPA 8321B
Batch ID: P334928

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	70.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P334929

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	99.0		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
 Batch ID: P334973

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	108		P	40 - 150

Reference Method: SM 2320 B-97
 Batch ID: P335377

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

Reference Method: SM 4500 F-C-97
 Batch ID: P335381

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.0		P	92 - 103

Reference Method: SM 5310 B-00
 Batch ID: P335512

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

Reference Method: USGS O-2060-01
 Batch ID: P334865

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.1		P	40 - 150
Acetaminophen	97.4		P	30 - 150
Bentazon	78.0		P	30 - 150
Carbamazepine	80.6		P	40 - 150
Diuron	84.9		P	40 - 150
Fenuron	84.4		P	40 - 150
Fluridone	77.9		P	40 - 150
Imidacloprid	78.9		P	40 - 160
Linuron	85.2		P	40 - 150
MCPP	86.6		P	40 - 150
Primidone	82.6		P	40 - 150
Triclopyr	83.9		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P335217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1943904	Calcium	104		P	80 - 120
1943904	Iron	107		P	80 - 120
1943904	Magnesium	103		P	80 - 120
1943904	Potassium	99.6		P	80 - 120
1943904	Sodium	105		P	80 - 120
1943904	Zinc	100		P	80 - 120
1944296	Calcium	103		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944296	Iron	108	103	P/P	80 - 120
1944296	Magnesium	104		P	80 - 120
1944296	Potassium	103	98.1	P/P	80 - 120
1944296	Sodium	106	101	P/P	80 - 120
1944296	Zinc	96.7	96.2	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1943904	Arsenic	100		P	80 - 120
1943904	Cadmium	99.4		P	80 - 120
1943904	Chromium	97.5		P	80 - 120
1943904	Copper	96.6		P	80 - 120
1943904	Lead	101		P	80 - 120
1943904	Nickel	98.9		P	80 - 120
1943904	Silver	96.3		P	80 - 120
1944296	Arsenic	102	102	P/P	80 - 120
1944296	Cadmium	101	102	P/P	80 - 120
1944296	Chromium	99.2	99.5	P/P	80 - 120
1944296	Copper	97.4	98.5	P/P	80 - 120
1944296	Lead	94.5	95.2	P/P	80 - 120
1944296	Nickel	99.7	99.8	P/P	80 - 120
1944296	Silver	98.4	97.4	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944924	Chloride	97.7		P	90 - 110
1944925	Chloride	97.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335192

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944925	Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335762

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944860	Ammonia-N	99.9	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335758

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944980	Kjeldahl Nitrogen	98.7	99.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P335539

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944222	NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P335001

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944233	O-Phosphate-P	96.5	99.5	P/P	90 - 110

Reference Method: EPA 8270D

Batch ID: P335069

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945310	Aldrin	72.4	67.8	P/P	22 - 97.0
1945310	Alpha-BHC	92.8	92.3	P/P	43 - 132
1945310	Alpha-Chlordane	83.3	83.9	P/P	36 - 126
1945310	Beta-BHC	71.6	77.3	P/P	41 - 150
1945310	Carbophenothion	92.3	86.2	P/P	13 - 196
1945310	Chlorothalonil	17.2	16.9	P/P	10 - 266
1945310	Cypermethrin	136	102	P/P	37 - 161
1945310	DDD-p,p'	81.9	86.5	P/P	44 - 131
1945310	DDE-p,p'	86.6	85.8	P/P	32 - 127
1945310	DDT-p,p'	90.0	89.2	P/P	45 - 116
1945310	Delta-BHC	111	107	P/P	50 - 201
1945310	Dicofol	47.6	49.0	P/P	10 - 100
1945310	Dieldrin	83.3	84.3	P/P	39 - 142
1945310	Endosulfan I	92.0	90.1	P/P	51 - 139
1945310	Endosulfan II	89.5	85.1	P/P	49 - 155
1945310	Endosulfan Sulfate	83.1	86.3	P/P	54 - 136
1945310	Endrin	86.0	91.2	P/P	38 - 141
1945310	Endrin Aldehyde	86.2	87.2	P/P	14 - 152
1945310	Endrin Ketone	83.2	85.1	P/P	60 - 128
1945310	Gamma-BHC	73.3	102	P/P	48 - 157
1945310	Gamma-Chlordane	82.2	80.4	P/P	35 - 123
1945310	Heptachlor	82.2	73.6	P/P	25 - 112
1945310	Heptachlor Epoxide	84.7	83.2	P/P	48 - 125
1945310	Methoxychlor	100	99.5	P/P	52 - 127
1945310	Mirex	77.4	79.5	P/P	25 - 108
1945310	Permethrin	114	83.6	P/P	46 - 133
1945310	Trifluralin	76.3	74.5	P/P	29 - 254

Reference Method: EPA 8270D

Batch ID: P335074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1943519	Acetochlor	77.4	82.9	P/P	74 - 123
1943519	Alachlor	80.2	94.6	P/P	73 - 124
1943519	Ametryn	59.4	57.6	P/P	56 - 149
1943519	Atrazine	80.5	93.9	P/P	73 - 124
1943519	Atrazine Desethyl	113	79.6	F/P	12 - 103
1943519	Azinphos Methyl	109	112	P/P	60 - 202
1943519	Bromacil	72.7	74.1	P/P	42 - 133
1943519	Butylate	31.1	28.9	P/P	10 - 85.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P335074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1943519	Chlorpyrifos Ethyl	71.4	72.0	P/P	53 - 113
1943519	Chlorpyrifos Methyl	72.9	73.9	P/P	40 - 115
1943519	Cyanazine	161	129	P/P	22 - 210
1943519	Demeton	78.3	62.7	P/P	17 - 149
1943519	Diazinon	68.0	73.6	F/P	72 - 124
1943519	Disulfoton	75.5	76.8	P/P	43 - 139
1943519	EPTC	24.7	22.9	P/P	10 - 86.0
1943519	Ethion	33.3	61.8	F/F	65 - 131
1943519	Ethoprop	91.7	85.4	P/P	59 - 110
1943519	Fenamiphos	102	104	P/P	57 - 138
1943519	Fipronil	72.9	71.9	P/P	40 - 130
1943519	Fipronil Sulfide	54.1	58.3	P/P	36 - 128
1943519	Fipronil Sulfone	60.7	45.7	P/P	16 - 145
1943519	Fonofos	83.7	78.0	P/P	60 - 112
1943519	Hexazinone	82.1	96.8	P/P	69 - 142
1943519	Malathion	85.4	84.1	P/P	68 - 132
1943519	Metalaxyl	71.2	72.5	P/P	66 - 118
1943519	Metolachlor	90.2	87.9	P/P	71 - 124
1943519	Metribuzin	224	213	F/F	61 - 140
1943519	Mevinphos	75.8	67.9	P/P	38 - 130
1943519	Molinate	43.6	38.1	P/P	23 - 99.0
1943519	Norflurazon	59.7	51.6	P/P	39 - 139
1943519	Parathion Ethyl	72.6	73.5	F/F	75 - 111
1943519	Parathion Methyl	81.0	82.0	P/P	64 - 130
1943519	Pendimethalin	74.0	75.8	P/P	26 - 173
1943519	Phorate	73.8	68.6	P/P	43 - 127
1943519	Prometon	91.5	89.3	P/P	50 - 144
1943519	Prometryn	61.6	62.5	F/F	69 - 126
1943519	Simazine	90.7	96.8	P/P	51 - 152
1943519	Terbufos	88.7	83.4	P/P	54 - 125
1943519	Terbutylazine	83.2	87.0	P/P	76 - 113

Reference Method: EPA 8276
Batch ID: P335069

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1943518	Chlordane	73.2	82.5	P/P	44 - 134
1943518	Toxaphene	124	116	P/P	36 - 147

Reference Method: EPA 8321B
Batch ID: P334928

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1943517	Glyphosate	69.6	73.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P334929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1943517	Pyraclostrobin	93.4	90.5	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
 Batch ID: P334973

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1943952	Sucralose	71.9	77.2	P/P	40 - 150

Reference Method: SM 4500 F-C-97
 Batch ID: P335381

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944887	Fluoride	100	100	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P335512

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1944219	Organic Carbon	95.6	96.6	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P334865

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1945213	2,4-D	75.2	77.4	P/P	40 - 150
1945213	Acetaminophen	129	120	P/P	30 - 150
1945213	Bentazon	50.0	53.0	P/P	30 - 150
1945213	Carbamazepine	116	110	P/P	40 - 150
1945213	Diuron	130	122	P/P	40 - 150
1945213	Fenuron	113	112	P/P	40 - 150
1945213	Fluridone	98.0	104	P/P	40 - 150
1945213	Imidacloprid	133	129	P/P	40 - 160
1945213	Linuron	110	106	P/P	40 - 150
1945213	MCP	76.6	81.1	P/P	40 - 150
1945213	Primidone	128	125	P/P	40 - 150
1945213	Triclopyr	71.0	73.7	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P335009

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944316	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P335217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944296	Calcium	2.51	Spike	P	0 - 20
1944296	Iron	4.22	Spike	P	0 - 20
1944296	Magnesium	3.35	Spike	P	0 - 20
1944296	Potassium	4.14	Spike	P	0 - 20
1944296	Sodium	2.54	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P335217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944296	Zinc	0.479	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P335217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944296	Arsenic	0.181	Spike	P	0 - 20
1944296	Cadmium	1.05	Spike	P	0 - 20
1944296	Chromium	0.286	Spike	P	0 - 20
1944296	Copper	1.19	Spike	P	0 - 20
1944296	Lead	0.772	Spike	P	0 - 20
1944296	Nickel	0.138	Spike	P	0 - 20
1944296	Silver	1.05	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944924	Chloride	0.682	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P335192

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944924	Sulfate	0.148	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P335762

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944860	Ammonia-N	2.06	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P335758

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944980	Kjeldahl Nitrogen	0.418	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P335539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944222	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P335240

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944172	Total-P	1.08	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P335001

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944233	O-Phosphate-P	1.76	Spike	P	0 - 20

Reference Method: EPA 8270D

Batch ID: P335069

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945310	Aldrin	6.52	Spike	P	0 - 30
1945310	Alpha-BHC	0.499	Spike	P	0 - 30
1945310	Alpha-Chlordane	0.726	Spike	P	0 - 30
1945310	Beta-BHC	7.68	Spike	P	0 - 30
1945310	Carbophenothion	6.78	Spike	P	0 - 30
1945310	Chlorothalonil	1.87	Spike	P	0 - 30
1945310	Cypermethrin	28.1	Spike	P	0 - 30
1945310	DDD-p,p'	5.38	Spike	P	0 - 30
1945310	DDE-p,p'	0.872	Spike	P	0 - 30
1945310	DDT-p,p'	0.885	Spike	P	0 - 30
1945310	Delta-BHC	3.66	Spike	P	0 - 30
1945310	Dicofol	3.00	Spike	P	0 - 30
1945310	Dieldrin	1.26	Spike	P	0 - 30
1945310	Endosulfan I	2.15	Spike	P	0 - 30
1945310	Endosulfan II	5.08	Spike	P	0 - 30
1945310	Endosulfan Sulfate	3.75	Spike	P	0 - 30
1945310	Endrin	5.85	Spike	P	0 - 30
1945310	Endrin Aldehyde	1.09	Spike	P	0 - 30
1945310	Endrin Ketone	2.26	Spike	P	0 - 30
1945310	Gamma-BHC	32.3	Spike	F	0 - 30
1945310	Gamma-Chlordane	2.25	Spike	P	0 - 30
1945310	Heptachlor	11.0	Spike	P	0 - 30
1945310	Heptachlor Epoxide	1.85	Spike	P	0 - 30
1945310	Methoxychlor	0.697	Spike	P	0 - 30
1945310	Mirex	2.73	Spike	P	0 - 30
1945310	Permethrin	30.5	Spike	F	0 - 30
1945310	Trifluralin	2.41	Spike	P	0 - 30
LFB	Aldrin	9.15	LCS	P	0 - 30
LFB	Alpha-BHC	8.13	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.54	LCS	P	0 - 30
LFB	Beta-BHC	0.651	LCS	P	0 - 30
LFB	Carbophenothion	2.29	LCS	P	0 - 30
LFB	Chlorothalonil	3.55	LCS	P	0 - 30
LFB	Cypermethrin	1.12	LCS	P	0 - 30
LFB	DDD-p,p'	4.18	LCS	P	0 - 30
LFB	DDE-p,p'	4.77	LCS	P	0 - 30
LFB	DDT-p,p'	16.0	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P335069

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Delta-BHC	12.8	LCS	P	0 - 30
LFB	Dicofol	25.3	LCS	P	0 - 30
LFB	Dieldrin	4.93	LCS	P	0 - 30
LFB	Endosulfan I	7.78	LCS	P	0 - 30
LFB	Endosulfan II	12.8	LCS	P	0 - 30
LFB	Endosulfan Sulfate	5.33	LCS	P	0 - 30
LFB	Endrin	9.72	LCS	P	0 - 30
LFB	Endrin Aldehyde	7.36	LCS	P	0 - 30
LFB	Endrin Ketone	6.14	LCS	P	0 - 30
LFB	Gamma-BHC	1.89	LCS	P	0 - 30
LFB	Gamma-Chlordane	4.25	LCS	P	0 - 30
LFB	Heptachlor	9.02	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.53	LCS	P	0 - 30
LFB	Methoxychlor	1.23	LCS	P	0 - 30
LFB	Mirex	4.74	LCS	P	0 - 30
LFB	Permethrin	0.256	LCS	P	0 - 30
LFB	Trifluralin	9.30	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P335074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1943519	Acetochlor	6.80	Spike	P	0 - 30
1943519	Alachlor	16.6	Spike	P	0 - 30
1943519	Ametryn	3.05	Spike	P	0 - 30
1943519	Atrazine	5.91	Spike	P	0 - 30
1943519	Atrazine Desethyl	34.9	Spike	F	0 - 30
1943519	Azinphos Methyl	2.70	Spike	P	0 - 30
1943519	Bromacil	1.82	Spike	P	0 - 30
1943519	Butylate	7.09	Spike	P	0 - 30
1943519	Chlorpyrifos Ethyl	0.812	Spike	P	0 - 30
1943519	Chlorpyrifos Methyl	1.43	Spike	P	0 - 30
1943519	Cyanazine	22.4	Spike	P	0 - 30
1943519	Demeton	22.1	Spike	P	0 - 30
1943519	Diazinon	7.97	Spike	P	0 - 30
1943519	Disulfoton	1.70	Spike	P	0 - 30
1943519	EPTC	7.47	Spike	P	0 - 30
1943519	Ethion	60.0	Spike	F	0 - 30
1943519	Ethoprop	7.09	Spike	P	0 - 30
1943519	Fenamiphos	1.13	Spike	P	0 - 30
1943519	Fipronil	1.38	Spike	P	0 - 30
1943519	Fipronil Sulfide	5.74	Spike	P	0 - 30
1943519	Fipronil Sulfone	19.2	Spike	P	0 - 30
1943519	Fonofos	7.09	Spike	P	0 - 30
1943519	Hexazinone	16.4	Spike	P	0 - 30
1943519	Malathion	1.59	Spike	P	0 - 30
1943519	Metalaxyl	1.94	Spike	P	0 - 30
1943519	Metolachlor	2.53	Spike	P	0 - 30
1943519	Metribuzin	5.08	Spike	P	0 - 30
1943519	Mevinphos	11.0	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P335074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1943519	Molinate	13.6	Spike	P	0 - 30
1943519	Norflurazon	14.5	Spike	P	0 - 30
1943519	Parathion Ethyl	1.26	Spike	P	0 - 30
1943519	Parathion Methyl	1.21	Spike	P	0 - 30
1943519	Pendimethalin	2.40	Spike	P	0 - 30
1943519	Phorate	7.33	Spike	P	0 - 30
1943519	Prometon	2.40	Spike	P	0 - 30
1943519	Prometryn	1.52	Spike	P	0 - 30
1943519	Simazine	6.42	Spike	P	0 - 30
1943519	Terbufos	6.14	Spike	P	0 - 30
1943519	Terbutylazine	4.48	Spike	P	0 - 30
LFB	Acetochlor	0.696	LCS	P	0 - 30
LFB	Alachlor	0.706	LCS	P	0 - 30
LFB	Ametryn	5.22	LCS	P	0 - 30
LFB	Atrazine	0.0503	LCS	P	0 - 30
LFB	Atrazine Desethyl	8.57	LCS	P	0 - 30
LFB	Azinphos Methyl	0.311	LCS	P	0 - 30
LFB	Bromacil	5.47	LCS	P	0 - 30
LFB	Butylate	1.34	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.26	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.72	LCS	P	0 - 30
LFB	Cyanazine	4.81	LCS	P	0 - 30
LFB	Demeton	12.3	LCS	P	0 - 30
LFB	Diazinon	6.09	LCS	P	0 - 30
LFB	Disulfoton	1.10	LCS	P	0 - 30
LFB	EPTC	3.60	LCS	P	0 - 30
LFB	Ethion	5.15	LCS	P	0 - 30
LFB	Ethoprop	1.33	LCS	P	0 - 30
LFB	Fenamiphos	10.6	LCS	P	0 - 30
LFB	Fipronil	2.02	LCS	P	0 - 30
LFB	Fipronil Sulfide	0.184	LCS	P	0 - 30
LFB	Fipronil Sulfone	3.01	LCS	P	0 - 30
LFB	Fonofos	2.69	LCS	P	0 - 30
LFB	Hexazinone	1.86	LCS	P	0 - 30
LFB	Malathion	0.642	LCS	P	0 - 30
LFB	Metalaxyl	1.27	LCS	P	0 - 30
LFB	Metolachlor	1.24	LCS	P	0 - 30
LFB	Metribuzin	5.74	LCS	P	0 - 30
LFB	Mevinphos	9.79	LCS	P	0 - 30
LFB	Molinate	3.37	LCS	P	0 - 30
LFB	Norflurazon	6.48	LCS	P	0 - 30
LFB	Parathion Ethyl	1.47	LCS	P	0 - 30
LFB	Parathion Methyl	1.91	LCS	P	0 - 30
LFB	Pendimethalin	2.52	LCS	P	0 - 30
LFB	Phorate	5.37	LCS	P	0 - 30
LFB	Prometon	0.160	LCS	P	0 - 30
LFB	Prometryn	3.44	LCS	P	0 - 30
LFB	Simazine	2.34	LCS	P	0 - 30
LFB	Terbufos	1.60	LCS	P	0 - 30
LFB	Terbutylazine	0.695	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P335069

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1943518	Chlordane	11.9	Spike	P	0 - 30
1943518	Toxaphene	6.54	Spike	P	0 - 30
LFB	Chlordane	6.94	LCS	P	0 - 30
LFB	Toxaphene	2.99	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P334928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1943517	Glyphosate	5.03	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P334929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1943517	Pyraclostrobin	3.21	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P334973

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1943952	Sucralose	6.76	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P334983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944313	Color (true)	2.37	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P335377

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944887	Total Alkalinity	0.331	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P335604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944273	TDS	7.36	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P335381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944887	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P335512

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1944219	Organic Carbon	0.549	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P334865

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1945213	2,4-D	2.84	Spike	P	0 - 30
1945213	Acetaminophen	7.41	Spike	P	0 - 30
1945213	Bentazon	5.81	Spike	P	0 - 30
1945213	Carbamazepine	5.48	Spike	P	0 - 30
1945213	Diuron	6.11	Spike	P	0 - 30
1945213	Fenuron	1.16	Spike	P	0 - 30
1945213	Fluridone	6.21	Spike	P	0 - 30
1945213	Imidacloprid	2.87	Spike	P	0 - 30
1945213	Linuron	3.53	Spike	P	0 - 30
1945213	MCP	5.76	Spike	P	0 - 30
1945213	Primidone	2.14	Spike	P	0 - 30
1945213	Triclopyr	3.68	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: 1944395
Field Sample ID: G5SW0141

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	75.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	105	P	30 - 160
EPA 8321B	Diuron-d6	87.4	P	30 - 160
EPA 8321B	Diuron-d6	118	P	30 - 160
EPA 8321B	Diuron-d6	87.4	P	30 - 160
EPA 8321B	Diuron-d6	118	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	56.8	P	40 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	64.3	P	40 - 160
EPA 8321B	Sucralose-d6	64.3	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1944395
Field Sample ID: G5SW0141

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	2,4-D-d3	81.2	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	75.8	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	105	P	30 - 160
USGS O-2060-01	Diuron-d6	87.4	P	30 - 160
USGS O-2060-01	Diuron-d6	118	P	30 - 160
USGS O-2060-01	Primidone-d5	113	P	30 - 160
USGS O-2060-01	Sucralose-d6	64.3	P	40 - 160

Lab Sample ID: 1944396
Field Sample ID: G5SW0141

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	66.0	P	39 - 118
EPA 8270D	Tetrachloro-m-xylene	55.7	P	32 - 103
EPA 8276	Decachlorobiphenyl	60.9	P	31 - 100

Lab Sample ID: 1944397
Field Sample ID: G5SW0141

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	98.7	P	53 - 135
EPA 8270D	Simazine-d10	79.7	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A80138
Included Lab Sample IDs: 1944391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	106	107	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A80149
Included Lab Sample IDs: 1944393

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.4	97.3	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A80151
Included Lab Sample IDs: 1944391

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A80166
Included Lab Sample IDs: 1944395

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	114	111	P/P	70 - 160

Reference Method: EPA 8321B
Run ID: A80190
Included Lab Sample IDs: 1944395

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	107	104	P/P	60 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A80230
Included Lab Sample IDs: 1944391

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	99.6	P/P	90 - 110
Sulfate	99.3	101	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A80274
Included Lab Sample IDs: 1944395

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	115	105	P/P	60 - 150

Reference Method: USGS O-2060-01
Run ID: A80279
Included Lab Sample IDs: 1944395

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.8	92.0	P/P	50 - 150
Acetaminophen	128	137	P/P	60 - 150
Bentazon	89.4	86.3	P/P	50 - 150
Carbamazepine	111	116	P/P	60 - 150
Diuron	132	144	P/P	60 - 150
Fenuron	111	113	P/P	60 - 150
Fluridone	112	114	P/P	60 - 160
Imidacloprid	105	111	P/P	60 - 150
Linuron	129	126	P/P	60 - 150
MCPP	95.5	97.6	P/P	50 - 150
Primidone	98.0	112	P/P	60 - 150
Triclopyr	93.2	90.0	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A80280
Included Lab Sample IDs: 1944392

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A80293

Included Lab Sample IDs: 1944398

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	103	P/P	90 - 110
Iron	101	101	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	98.5	98.1	P/P	90 - 110
Sodium	101	101	P/P	90 - 110
Zinc	98.9	102	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A80294

Included Lab Sample IDs: 1944391

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

Reference Method: SM 4500 F-C-97

Run ID: A80294

Included Lab Sample IDs: 1944391

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

Reference Method: SM 5310 B-00

Run ID: A80341

Included Lab Sample IDs: 1944392

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A80358

Included Lab Sample IDs: 1944392

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A80446

Included Lab Sample IDs: 1944398

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	96.6	96.5	P/P	90 - 110
Cadmium	94.2	93.3	P/P	90 - 110
Chromium	96.1	95.5	P/P	90 - 110
Copper	96.7	96.7	P/P	90 - 110
Lead	90.6	92.1	P/P	90 - 110
Nickel	97.5	98.0	P/P	90 - 110
Silver	100	99.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A80450

Included Lab Sample IDs: 1944392

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

Reference Method: EPA 8270D

Run ID: A80465

Included Lab Sample IDs: 1944396

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.0		P	80 - 120
Alpha-BHC	99.2		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	98.4		P	80 - 120
Carbophenothion	95.4		P	80 - 120
Chlorothalonil	92.8		P	80 - 120
Cypermethrin	101		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	109		P	80 - 120
Delta-BHC	101		P	80 - 120
Dicofol	91.2		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	96.2		P	80 - 120
Endosulfan II	106		P	80 - 120
Endosulfan Sulfate	101		P	80 - 120
Endrin	101		P	80 - 120
Endrin Aldehyde	99.4		P	80 - 120
Endrin Ketone	99.0		P	80 - 120
Gamma-BHC	110		P	80 - 120
Gamma-Chlordane	100		P	80 - 120
Heptachlor	96.0		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120
Methoxychlor	107		P	80 - 120
Mirex	100		P	80 - 120
Permethrin	92.7		P	80 - 120
Trifluralin	99.5		P	80 - 120

Reference Method: EPA 8276

Run ID: A80508

Included Lab Sample IDs: 1944396

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	119		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A80551

Included Lab Sample IDs: 1944392

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A80622
Included Lab Sample IDs: 1944397

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.2		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	99.0		P	80 - 120
Atrazine	97.5		P	80 - 120
Atrazine Desethyl	86.9		P	80 - 120
Azinphos Methyl	96.0		P	80 - 120
Bromacil	97.7		P	80 - 120
Butylate	97.6		P	80 - 120
Chlorpyrifos Ethyl	97.7		P	80 - 120
Chlorpyrifos Methyl	98.2		P	80 - 120
Cyanazine	87.5		P	80 - 120
Demeton	98.5		P	80 - 120
Diazinon	96.2		P	80 - 120
Disulfoton	97.2		P	80 - 120
EPTC	101		P	80 - 120
Ethion	97.5		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	95.1		P	80 - 120
Fipronil	98.5		P	80 - 120
Fipronil Sulfide	94.5		P	80 - 120
Fipronil Sulfone	96.4		P	80 - 120
Fonofos	97.0		P	80 - 120
Hexazinone	94.0		P	80 - 120
Malathion	94.5		P	80 - 120
Metaxyl	105		P	80 - 120
Metolachlor	105		P	80 - 120
Metribuzin	86.4		P	80 - 120
Mevinphos	98.7		P	80 - 120
Molinate	103		P	80 - 120
Norflurazon	98.4		P	80 - 120
Parathion Ethyl	93.0		P	80 - 120
Parathion Methyl	94.0		P	80 - 120
Pendimethalin	89.0		P	80 - 120
Phorate	95.7		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	99.4		P	80 - 120
Simazine	98.4		P	80 - 120
Terbufos	95.3		P	80 - 120
Terbuthylazine	98.7		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				0.0	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision SMP	MS
EPA 200.7 Rev. 4.4	Calcium	106		104	103			2.51
	Iron	106		107	108	103		4.22
	Magnesium	105		103	104			3.35
	Potassium	100		99.6	103	98.1		4.14
	Sodium	106		105	106	101		2.54
	Zinc	101		100	96.7	96.2		0.479
EPA 200.8 Rev. 5.4	Arsenic	100		100	102	102		0.181
	Cadmium	96.4		99.4	101	102		1.05
	Chromium	97.7		97.5	99.2	99.5		0.286
	Copper	98.8		96.6	97.4	98.5		1.19
	Lead	101		94.5	95.2	101		0.772
	Nickel	101		98.9	99.7	99.8		0.138
	Silver	94.7		96.3	98.4	97.4		1.05
EPA 300.0 Rev. 2.1	Chloride	98.4		97.7	97.1		0.682	
	Sulfate	98.8		99.2			0.148	
EPA 350.1 Rev. 2.0	Ammonia-N	103		99.9	103			2.06
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.6		98.7	99.3			0.418
EPA 353.2 Rev. 2.0	NO2NO3-N	105		102				0.0
EPA 365.1 Rev. 2.0	Total-P	95.5						1.08
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103		96.5	99.5			1.76
EPA 8270D	Acetochlor	89.4	88.8	77.4	82.9	0.696		6.80
	Alachlor	90.4	89.7	80.2	94.6	0.706		16.6
	Aldrin	75.3	68.7	72.4	67.8	9.15		6.52
	Alpha-BHC	95.1	87.7	92.8	92.3	8.13		0.499
	Alpha-Chlordane	89.9	85.9	83.3	83.9	4.54		0.726
	Ametryn	81.7	86.1	59.4	57.6	5.22		3.05
	Atrazine	93.2	93.2	80.5	93.9	0.0503		5.91
	Atrazine Desethyl	92.7	101	113	79.6	8.57		34.9
	Azinphos Methyl	97.8	97.5	109	112	0.311		2.70
	Beta-BHC	87.7	87.2	71.6	77.3	0.651		7.68
	Bromacil	92.5	87.5	72.7	74.1	5.47		1.82
	Butylate	51.5	50.8	31.1	28.9	1.34		7.09
	Carbophenothion	41.2	42.1	92.3	86.2	2.29		6.78
	Chlorothalonil	81.5	84.4	17.2	16.9	3.55		1.87
	Chlorpyrifos Ethyl	86.0	84.9	71.4	72.0	1.26		0.812
	Chlorpyrifos Methyl	93.0	91.4	72.9	73.9	1.72		1.43
	Cyanazine	175	184	161	129	4.81		22.4
	Cypermethrin	114	113	136	102	1.12		28.1
	DDD-p,p'	94.9	91.1	81.9	86.5	4.18		5.38
	DDE-p,p'	92.7	88.3	86.6	85.8	4.77		0.872
	DDT-p,p'	101	86.1	90.0	89.2	16.0		0.885
	Delta-BHC	112	98.6	111	107	12.8		3.66
	Demeton	59.2	67.0	78.3	62.7	12.3		22.1
	Diazinon	79.2	74.5	68.0	73.6	6.09		7.97
	Dicofol	64.9	50.3	47.6	49.0	25.3		3.00
	Dieldrin	93.5	89.0	83.3	84.3	4.93		1.26
	Disulfoton	85.7	84.7	75.5	76.8	1.10		1.70
	Endosulfan I	97.9	90.5	92.0	90.1	7.78		2.15
	Endosulfan II	107	94.3	89.5	85.1	12.8		5.08
	Endosulfan Sulfate	102	96.6	83.1	86.3	5.33		3.75
	Endrin	95.6	86.8	86.0	91.2	9.72		5.85
	Endrin Aldehyde	94.8	88.1	86.2	87.2	7.36		1.09
	Endrin Ketone	98.1	92.3	83.2	85.1	6.14		2.26
	EPTC	45.2	43.6	24.7	22.9	3.60		7.47

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Ethion	87.8	83.4	33.3	61.8	5.15	60.0
	Ethoprop	92.5	91.3	91.7	85.4	1.33	7.09
	Fenamiphos	96.1	86.4	102	104	10.6	1.13
	Fipronil	87.4	85.7	72.9	71.9	2.02	1.38
	Fipronil Sulfide	84.3	84.5	54.1	58.3	0.184	5.74
	Fipronil Sulfone	81.2	78.8	60.7	45.7	3.01	19.2
	Fonofos	88.0	85.7	83.7	78.0	2.69	7.09
	Gamma-BHC	108	106	73.3	102	1.89	32.3
	Gamma-Chlordane	88.2	84.5	82.2	80.4	4.25	2.25
	Heptachlor	83.0	75.8	82.2	73.6	9.02	11.0
	Heptachlor Epoxide	90.0	83.5	84.7	83.2	7.53	1.85
	Hexazinone	84.7	83.1	82.1	96.8	1.86	16.4
	Malathion	94.9	94.3	85.4	84.1	0.642	1.59
	Metalaxyl	89.1	87.9	71.2	72.5	1.27	1.94
	Methoxychlor	106	105	100	99.5	1.23	0.697
	Metolachlor	90.0	88.9	90.2	87.9	1.24	2.53
	Metribuzin	166	176	224	213	5.74	5.08
	Mevinphos	76.8	69.6	75.8	67.9	9.79	11.0
	Mirex	86.8	82.8	77.4	79.5	4.74	2.73
	Molinate	46.5	48.1	43.6	38.1	3.37	13.6
	Norflurazon	85.3	79.9	59.7	51.6	6.48	14.5
	Parathion Ethyl	85.4	86.6	72.6	73.5	1.47	1.26
	Parathion Methyl	94.0	95.8	81.0	82.0	1.91	1.21
	Pendimethalin	79.3	81.3	74.0	75.8	2.52	2.40
	Permethrin	92.2	92.0	114	83.6	0.256	30.5
	Phorate	78.4	74.3	73.8	68.6	5.37	7.33
	Prometon	87.9	87.7	91.5	89.3	0.160	2.40
	Prometryn	78.0	80.7	61.6	62.5	3.44	1.52
	Simazine	94.2	92.0	90.7	96.8	2.34	6.42
	Terbufos	87.4	86.0	88.7	83.4	1.60	6.14
	Terbutylazine	89.8	89.2	83.2	87.0	0.695	4.48
	Trifluralin	84.2	76.7	76.3	74.5	9.30	2.41
EPA 8276	Chlordane	73.6	78.9	73.2	82.5	6.94	11.9
	Toxaphene	106	109	124	116	2.99	6.54
EPA 8321B	Glyphosate	70.5		69.6	73.3		5.03
	Pyraclostrobin	99.0		90.5	93.4		3.21
	Sucralose	108		71.9	77.2		6.76
SM 2120 B	Color (true)					2.37	
SM 2320 B-97	Total Alkalinity	103				0.331	
SM 2540 C-97	TDS					7.36	
SM 4500 F-C-97	Fluoride	99.0		100	100		0.0
SM 5310 B-00	Organic Carbon	98.8		95.6	96.6		0.549
USGS O-2060-01	2,4-D	83.1		75.2	77.4		2.84
	Acetaminophen	97.4		129	120		7.41
	Bentazon	78.0		50.0	53.0		5.81
	Carbamazepine	80.6		116	110		5.48
	Diuron	84.9		130	122		6.11
	Fenuron	84.4		113	112		1.16
	Fluridone	77.9		98.0	104		6.21
	Imidacloprid	78.9		133	129		2.87
	Linuron	85.2		110	106		3.53
	MCPD	86.6		76.6	81.1		5.76
	Primidone	82.6		128	125		2.14
	Triclopyr	83.9		71.0	73.7		3.68

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1944391
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1944398
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1944398
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1944391
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1944391
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1944392
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1944392
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1944392
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1944392
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1944393
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1944396
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1944397
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1944396
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1944395
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1944395
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1944395
SM 2120 B / E31780	True Color measured at 450 nm	1944391
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1944391
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1944391
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1944391
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1944391
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1944392
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1944395
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1944395

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	11/08/2017			11/08/2017 17:35	DeAsia Armster	1944391
EPA 200.7 Rev. 4.4	11/08/2017	11/14/2017	Elliott D. Healy	11/15/2017	Betina Topolski	1944398
EPA 200.8 Rev. 5.4	11/08/2017	11/14/2017	Elliott D. Healy	11/22/2017	Robert K Palmer	1944398
EPA 300.0 Rev. 2.1	11/08/2017			11/13/2017	Julia Storbeck	1944391
EPA 350.1 Rev. 2.0	11/08/2017			11/21/2017	Sofia Elnemr	1944392
EPA 351.2 Rev. 2.0	11/08/2017	11/22/2017	Adrian Shelby	11/27/2017	Joseph Suarez	1944392
EPA 353.2 Rev. 2.0	11/08/2017			11/17/2017	Beverly Y. Sanders	1944392
EPA 365.1 Rev. 2.0	11/08/2017	11/14/2017	Sima Feizi	11/15/2017	Lipi Saha	1944392
EPA 365.1 Rev. 2.0 dissolved	11/08/2017			11/08/2017 15:34	Megan Treadwell	1944393
EPA 8270D	11/08/2017	11/13/2017	John Kaba	11/21/2017	Marek Topolski	1944397
	11/08/2017	11/13/2017	Rasheda Ghaffari	11/17/2017	Goutam Palui	1944396
EPA 8276	11/08/2017	11/13/2017	Rasheda Ghaffari	11/23/2017	John P. Burgos	1944396
EPA 8321B	11/08/2017	11/09/2017	Juyoung Kim	11/09/2017	Juyoung Kim	1944395
	11/08/2017	11/13/2017	Juyoung Kim	11/14/2017	Juyoung Kim	1944395
SM 2120 B	11/08/2017			11/08/2017 15:51	Tanya Welborn	1944391
SM 2320 B-97	11/08/2017			11/15/2017	Dale L. Simmons	1944391
SM 2540 C-97	11/08/2017			11/09/2017	Yijie Li	1944391
SM 2540 D-97	11/08/2017			11/09/2017	Yijie Li	1944391
SM 4500 F-C-97	11/08/2017			11/15/2017	Dale L. Simmons	1944391
SM 5310 B-00	11/08/2017			11/17/2017	Ping Hua	1944392
USGS O-2060-01	11/08/2017	11/14/2017	Hoor Shaik	11/15/2017	Julie Michelle Frank	1944395