

Chemical Analysis Report

NE-DIST-2017-03-22-02

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

Event Description: **Ocklawaha lakes**
Request ID: **RQ-2017-03-20-09**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 17-APR-2017 15:05



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: Hewitt Lake Center

Collection Date/Time: 03/21/2017 11:50

Field ID: G1NE0865 03212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881946	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P322007	
	EPA 300.0 Rev. 2.1	Chloride	9.8		mg Cl/L	P322657	
		Sulfate	9.7		mg SO4/L	P322661	
	SM 2120 B	Color (true)	3.7	I	PCU	P321975	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P322415	RPD
	SM 2540 C-97	TDS	34		mg/L	P322643	
	SM 2540 D-97	TSS	3	I	mg/L	P322622	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P322418	
1881948	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P321985	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.094	I	mg N/L	P322016	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P322117	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P322025	
	SM 5310 B-00	Organic Carbon	1.3		mg C/L	P322059	
1881950	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P322001	

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: Pegram Lake Center

Collection Date/Time: 03/21/2017 10:30

Field ID: G1NE0866 03212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881947	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P322007	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P322657	
		Sulfate	4.3		mg SO4/L	P322661	
	SM 2120 B	Color (true)	12	A	PCU	P321975	
	SM 2320 B-97	Total Alkalinity	1.1	I	mg CaCO3/L	P322415	RPD
	SM 2540 C-97	TDS	41		mg/L	P322643	
	SM 2540 D-97	TSS	3	I	mg/L	P322622	
	SM 4500 F-C-97	Fluoride	0.045	I	mg F/L	P322418	
1881949	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P321985	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P322016	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P322117	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P322025	
	SM 5310 B-00	Organic Carbon	7.3		mg C/L	P322059	
1881951	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P322001	

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: Orange Crk @ SR 315 near Orange Spring

Collection Date/Time: 03/21/2017 09:45

Field ID: G1NE0029 03212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881952	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P322007	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P322657	
		Sulfate	11		mg SO4/L	P322661	

Field ID: G1NE0029 03212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881952	SM 2120 B	Color (true)	71		PCU	P321975	
	SM 2320 B-97	Total Alkalinity	57		mg CaCO3/L	P322415	RPD
	SM 2540 C-97	TDS	117		mg/L	P322643	
	SM 2540 D-97	TSS	2	I	mg/L	P322622	
	SM 4500 F-C-97	Fluoride	0.096	I	mg F/L	P322418	
1881955	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P321985	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P322016	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.51		mg N/L	P322117	
	EPA 365.1 Rev. 2.0	Total-P	0.067		mg P/L	P322025	
	SM 5310 B-00	Organic Carbon	9.3		mg C/L	P322059	
1881958	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P322001	
1881970	EPA 200.7 Rev. 4.4	Calcium	21.5		mg/L	P322047	
		Iron	120		ug/L	P322047	
		Magnesium	6.13		mg/L	P322047	
		Potassium	1.6		mg/L	P322047	
		Sodium	5.7		mg/L	P322047	
		Zinc	5.0	U	ug/L	P322047	
	EPA 200.8 Rev. 5.4	Arsenic	0.24		ug/L	P322047	
		Cadmium	0.020	U	ug/L	P322047	
		Chromium	0.40	U	ug/L	P322047	
		Copper	0.28	I	ug/L	P322047	
		Lead	0.050	U	ug/L	P322047	
		Nickel	0.20	U	ug/L	P322047	
		Silver	0.010	U	ug/L	P322047	

Ref. Method and Comment:

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

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

Sample Location: Penner Pond Center

Collection Date/Time: 03/21/2017 13:00

Field ID: G1NE0864 03212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881953	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P322007	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P322657	
		Sulfate	0.20	U	mg SO4/L	P322661	
	SM 2120 B	Color (true)	41	A	PCU	P321976	
	SM 2320 B-97	Total Alkalinity	0.90	I	mg CaCO3/L	P322415	RPD
	SM 2540 C-97	TDS	40		mg/L	P322643	
	SM 2540 D-97	TSS	3	I	mg/L	P322622	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P322418	
1881956	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P321985	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.86		mg N/L	P322016	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P322118	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P322025	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P322059	

Field ID: G1NE0864 03212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881959	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P322001	
1881971	EPA 200.7 Rev. 4.4	Calcium	1.31		mg/L	P322047	
		Iron	100	I	ug/L	P322047	
		Magnesium	0.77		mg/L	P322047	
		Potassium	0.30	U	mg/L	P322047	
		Sodium	3.0		mg/L	P322047	
		Zinc	5.0	U	ug/L	P322047	
	EPA 200.8 Rev. 5.4	Arsenic	0.066	I	ug/L	P322047	
		Cadmium	0.020	U	ug/L	P322047	
		Chromium	0.40	U	ug/L	P322047	
		Copper	0.20	U	ug/L	P322047	
		Lead	0.086	I	ug/L	P322047	
		Nickel	0.20	U	ug/L	P322047	
		Silver	0.010	U	ug/L	P322047	

Ref. Method and Comment:

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

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

Sample Location: FIELD BLANK 03212017

Collection Date/Time: 03/21/2017 10:00

Field ID: FIELD BLANK 03212017

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881954	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P322008	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P322657	
		Sulfate	0.20	U	mg SO4/L	P322661	
	SM 2120 B	Color (true)	2.5	U	PCU	P321976	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P322415	RPD
	SM 2540 C-97	TDS	15	U	mg/L	P322641	
	SM 2540 D-97	TSS	2	U	mg/L	P322620	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P322418	
1881957	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P321985	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P322016	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P322117	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P322025	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P322059	
1881960	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P322001	
1881972	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P322047	
		Iron	30	U	ug/L	P322047	
		Magnesium	0.040	U	mg/L	P322047	
		Potassium	0.30	U	mg/L	P322047	
		Sodium	0.50	U	mg/L	P322047	
		Zinc	5.0	U	ug/L	P322047	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P322047	
		Cadmium	0.020	U	ug/L	P322047	
		Chromium	0.40	U	ug/L	P322047	

Field ID: FIELD BLANK 03212017

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881972	EPA 200.8 Rev. 5.4	Copper	0.20	U	ug/L	P322047	
		Lead	0.050	U	ug/L	P322047	
		Nickel	0.20	U	ug/L	P322047	
		Silver	0.010	U	ug/L	P322047	

Ref. Method and Comment:

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

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

Sample Location: FIELD BLANK 03212017

Collection Date/Time: 03/21/2017 10:00

Field ID: FIELD BLANK 03212017

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881966	EPA 8321B	Glyphosate**	10	UJ	ug/L	P322013	MS, SUR
		Sucralose**	0.010	U	ug/L	P321878	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P321946	
		Diuron	0.0040	U	ug/L	P321946	MS
		Fenuron	0.0080	U	ug/L	P321946	MS
		Imidacloprid	0.0040	U	ug/L	P321946	
		Bentazon	0.0040	U	ug/L	P321946	MS
		Linuron	0.0040	U	ug/L	P321946	
		Acetaminophen**	0.010	U	ug/L	P321946	
		MCPD	0.0040	U	ug/L	P321946	
		Carbamazepine**	4.0E-04	U	ug/L	P321946	
		Triclopyr**	0.010	U	ug/L	P321946	MS
		Primidone**	0.0080	U	ug/L	P321946	
		Fluridone**	4.0E-04	U	ug/L	P321946	MS
1881968	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P322049	
1881973	EPA 8270D	Aldrin	4.1	U	ng/L	P321996	
		Alpha-BHC	2.1	U	ng/L	P321996	
		Beta-BHC	4.1	U	ng/L	P321996	RPD
		Delta-BHC	4.1	U	ng/L	P321996	
		Gamma-BHC	4.1	U	ng/L	P321996	RPD
		Carbophenothion	4.1	UJ	ng/L	P321996	CCV
		Chlorothalonil	2.1	UJ	ng/L	P321996	CCV, MS
		Cypermethrin	21	U	ng/L	P321996	
		DDD-p,p'	2.1	U	ng/L	P321996	MS
		DDE-p,p'	3.1	U	ng/L	P321996	
		DDT-p,p'	3.1	U	ng/L	P321996	MS, RPD
		Dieldrin	4.1	U	ng/L	P321996	MS
		Endosulfan I	4.1	U	ng/L	P321996	MS
		Endosulfan II	4.1	U	ng/L	P321996	
		Endosulfan Sulfate	2.1	U	ng/L	P321996	
		Endrin	2.1	U	ng/L	P321996	
		Endrin Aldehyde	2.1	U	ng/L	P321996	
		Heptachlor	1.5	U	ng/L	P321996	
		Heptachlor Epoxide	2.1	U	ng/L	P321996	MS

Field ID: FIELD BLANK 03212017

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881973	EPA 8270D	Methoxychlor	4.1	U	ng/L	P321996	MS
		Mirex	2.1	U	ng/L	P321996	RPD
		Permethrin	10	U	ng/L	P321996	
		Trifluralin	1.0	U	ng/L	P321996	
		Alpha-Chlordane	1.0	U	ng/L	P321996	MS
		Gamma-Chlordane	1.0	U	ng/L	P321996	MS
		Endrin Ketone	2.1	U	ng/L	P321996	
		Dicofol	31	U	ng/L	P321996	
1881975		Ametryn	0.31	U	ng/L	P322085	
		Atrazine	0.24	U	ng/L	P322085	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P322085	
		Chlorpyrifos Methyl	0.095	U	ng/L	P322085	
		Disulfoton	0.31	U	ng/L	P322085	
		Ethion	0.14	U	ng/L	P322085	
		Ethoprop	0.095	U	ng/L	P322085	
		Hexazinone	0.48	U	ng/L	P322085	
		Malathion	0.33	U	ng/L	P322085	
		Metribuzin	0.19	UJ	ng/L	P322085	CCV
		Mevinphos	0.48	U	ng/L	P322085	
		Norflurazon	0.48	U	ng/L	P322085	
		Phorate	0.24	U	ng/L	P322085	
		Prometryn	0.19	U	ng/L	P322085	
		Simazine	0.48	U	ng/L	P322085	
		Atrazine Desethyl	1.4	U	ng/L	P322085	
		Prometon	0.86	U	ng/L	P322085	
		Fipronil	0.24	U	ng/L	P322085	
		Molinate	0.29	U	ng/L	P322085	
		Pendimethalin	1.4	U	ng/L	P322085	
		Terbufos	0.095	U	ng/L	P322085	
		EPTC	1.2	U	ng/L	P322085	RPD
		Terbuthylazine	0.41	U	ng/L	P322085	
		Bromacil	0.48	U	ng/L	P322085	
		Fipronil Sulfide	0.14	U	ng/L	P322085	
		Fipronil Sulfone	0.14	U	ng/L	P322085	
		Alachlor	0.24	U	ng/L	P322085	
		Azinphos Methyl	2.1	UJ	ng/L	P322085	LCS
		Butylate	0.38	U	ng/L	P322085	RPD
		Demeton	0.95	UJ	ng/L	P322085	CCV
		Diazinon	0.12	U	ng/L	P322085	
		Fenamiphos	0.24	U	ng/L	P322085	
		Fonofos	0.19	U	ng/L	P322085	
		Metalaxyl	0.19	U	ng/L	P322085	
		Metolachlor	0.24	U	ng/L	P322085	
		Acetochlor	0.24	U	ng/L	P322085	
		Cyanazine	0.48	U	ng/L	P322085	

Field ID: FIELD BLANK 03212017

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881975	EPA 8270D	Parathion Ethyl	0.24	U	ng/L	P322085	
		Parathion Methyl	0.24	U	ng/L	P322085	

Ref. Method and Comment:

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

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

EPA 8270D: Refer to the narrative for an explanation of QC Codes.

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

Sample Location: Orange Crk @ SR 315 near Orange Spring

Collection Date/Time: 03/21/2017 09:45

Field ID: G1NE0029 03212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881967	EPA 8321B	Glyphosate**	10	U	ug/L	P322013	MS
		Sucralose**	0.010	I	ug/L	P321878	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P321946	
		Diuron	0.0040	U	ug/L	P321946	MS
		Fenuron	0.0080	U	ug/L	P321946	MS
		Imidacloprid	0.0040	U	ug/L	P321946	
		Bentazon	0.081		ug/L	P321946	MS
		Linuron	0.0040	U	ug/L	P321946	
		Acetaminophen**	0.010	U	ug/L	P321946	
		MCPD	0.0040	U	ug/L	P321946	
		Carbamazepine**	4.0E-04	U	ug/L	P321946	
		Triclopyr**	0.010	U	ug/L	P321946	MS
		Primidone**	0.0080	U	ug/L	P321946	
		Fluridone**	4.0E-04	U	ug/L	P321946	MS
1881969	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P322049	
1881974	EPA 8270D	Aldrin	4.1	U	ng/L	P321996	
		Alpha-BHC	2.1	U	ng/L	P321996	
		Beta-BHC	4.1	U	ng/L	P321996	RPD
		Delta-BHC	4.1	U	ng/L	P321996	
		Gamma-BHC	4.1	U	ng/L	P321996	RPD
		Carbophenothion	4.1	UJ	ng/L	P321996	CCV
		Chlorothalonil	2.1	UJ	ng/L	P321996	CCV, MS
		Cypermethrin	21	U	ng/L	P321996	
		DDD-p,p'	2.1	U	ng/L	P321996	MS
		DDE-p,p'	3.1	U	ng/L	P321996	
		DDT-p,p'	3.1	U	ng/L	P321996	MS, RPD
		Dieldrin	4.1	U	ng/L	P321996	MS
		Endosulfan I	4.1	U	ng/L	P321996	MS
		Endosulfan II	4.1	U	ng/L	P321996	
		Endosulfan Sulfate	2.1	U	ng/L	P321996	
		Endrin	2.1	U	ng/L	P321996	
		Endrin Aldehyde	2.1	U	ng/L	P321996	
		Heptachlor	1.5	U	ng/L	P321996	
		Heptachlor Epoxide	2.1	U	ng/L	P321996	MS

Field ID: G1NE0029 03212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881974	EPA 8270D	Methoxychlor	4.1	U	ng/L	P321996	MS
		Mirex	2.1	U	ng/L	P321996	RPD
		Permethrin	10	U	ng/L	P321996	
		Trifluralin	1.0	U	ng/L	P321996	
		Alpha-Chlordane	1.0	U	ng/L	P321996	MS
		Gamma-Chlordane	1.0	U	ng/L	P321996	MS
		Endrin Ketone	2.1	U	ng/L	P321996	
		Dicofol	31	U	ng/L	P321996	
1881976		Ametryn	0.33	U	ng/L	P322085	
		Atrazine	0.25	U	ng/L	P322085	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P322085	
		Chlorpyrifos Methyl	0.10	U	ng/L	P322085	
		Disulfoton	0.33	U	ng/L	P322085	
		Ethion	0.15	U	ng/L	P322085	
		Ethoprop	0.10	U	ng/L	P322085	
		Hexazinone	5.6		ng/L	P322085	
		Malathion	0.35	U	ng/L	P322085	
		Metribuzin	0.20	U	ng/L	P322085	
		Mevinphos	0.50	U	ng/L	P322085	
		Norflurazon	0.50	U	ng/L	P322085	
		Phorate	0.25	U	ng/L	P322085	
		Prometryn	0.20	U	ng/L	P322085	
		Simazine	0.50	U	ng/L	P322085	
		Atrazine Desethyl	1.5	U	ng/L	P322085	
		Prometon	0.90	U	ng/L	P322085	
		Fipronil	0.25	U	ng/L	P322085	
		Molinate	0.30	U	ng/L	P322085	
		Pendimethalin	1.5	U	ng/L	P322085	
		Terbufos	0.10	U	ng/L	P322085	
		EPTC	1.3	U	ng/L	P322085	RPD
		Terbuthylazine	0.43	U	ng/L	P322085	
		Bromacil	0.50	U	ng/L	P322085	
		Fipronil Sulfide	0.15	U	ng/L	P322085	
		Fipronil Sulfone	0.15	U	ng/L	P322085	
		Alachlor	0.25	U	ng/L	P322085	
		Azinphos Methyl	2.3	UJ	ng/L	P322085	LCS
		Butylate	0.40	U	ng/L	P322085	RPD
		Demeton	1.0	U	ng/L	P322085	
		Diazinon	0.13	U	ng/L	P322085	
		Fenamiphos	0.25	U	ng/L	P322085	
		Fonofos	0.20	U	ng/L	P322085	
		Metalaxyl	0.20	U	ng/L	P322085	
		Metolachlor	4.3		ng/L	P322085	
		Acetochlor	0.25	U	ng/L	P322085	
		Cyanazine	0.50	U	ng/L	P322085	

Field ID: G1NE0029 03212017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1881976	EPA 8270D	Parathion Ethyl	0.25	U	ng/L	P322085	
		Parathion Methyl	0.25	U	ng/L	P322085	

Ref. Method and Comment:
 EPA 8321B: MS accuracy for sucralose could not be assessed due to high concentration of parameter in the spiked sample.
 EPA 8270D: Refer to the narrative for an explanation of QC Codes.
 EPA 8270D: Refer to the narrative for an explanation of QC Codes. MS accuracy for Atrazine and Fipronil Sulfone not assessed due to high content of these parameters in the sample spiked.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P322007

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P322008

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P322047

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: P322047

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: P322657

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P322661

Component	Result	Code	Units
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Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322661

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321985

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322016

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322117

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322118

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322025

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322001

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

Reference Method: EPA 8270D
Batch ID: P321996

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'	2.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P321996

Component	Result	Code	Units
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: P322085

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P322085

Component	Result	Code	Units
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P321878

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P322013

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P322049

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: SM 2120 B
Batch ID: P321975

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P321976

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P322415

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

Reference Method: SM 2540 C-97
Batch ID: P322641

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P322643

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P322620

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P322622

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P322418

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P322059

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

Reference Method: USGS O-2060-01
Batch ID: P321946

Component	Result	Code	Units
2,4-D	0.0040	U	ug/L
Acetaminophen	0.010	U	ug/L
Bentazon	0.0040	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCP	0.0040	U	ug/L
Primidone	0.0080	U	ug/L
Triclopyr	0.010	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322047

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322047

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	105		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	104		P	85 - 115
Sodium	103		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322047

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	100		P	85 - 115
Cadmium	99.0		P	85 - 115
Chromium	98.9		P	85 - 115
Copper	98.5		P	85 - 115
Lead	99.6		P	85 - 115
Nickel	100		P	85 - 115
Silver	90.6		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322657

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322661

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321985

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322016

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322117

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322118

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322118

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322025

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P322001

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.0		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P321996

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	68.4	61.3	P/P	30 - 83.0
Alpha-BHC	81.2	81.3	P/P	62 - 119
Alpha-Chlordane	77.2	77.1	P/P	56 - 119
Beta-BHC	93.4	90.3	P/P	54 - 141
Carbophenothion	94.6	113	P/P	33 - 147
Chlorothalonil	86.0	66.3	P/P	25 - 175
Cypermethrin	116	134	P/P	50 - 155
DDD-p,p'	90.6	91.7	P/P	56 - 135
DDE-p,p'	79.7	79.8	P/P	48 - 120
DDT-p,p'	78.2	76.8	P/P	51 - 121
Delta-BHC	122	122	P/P	65 - 163
Dicofol	93.6	89.6	P/P	15 - 112
Dieldrin	91.0	92.1	P/P	59 - 134
Endosulfan I	85.3	85.2	P/P	65 - 142
Endosulfan II	109	114	P/P	65 - 154
Endosulfan Sulfate	118	122	P/P	65 - 136
Endrin	88.4	90.2	P/P	53 - 156
Endrin Aldehyde	91.1	95.5	P/P	47 - 156
Endrin Ketone	104	107	P/P	70 - 124
Gamma-BHC	84.8	88.1	P/P	64 - 142
Gamma-Chlordane	77.2	77.1	P/P	55 - 114
Heptachlor	87.8	83.4	P/P	42 - 105
Heptachlor Epoxide	80.9	79.3	P/P	67 - 120
Methoxychlor	91.5	90.1	P/P	63 - 134
Mirex	67.2	66.8	P/P	40 - 90.0
Permethrin	99.5	99.6	P/P	36 - 144
Trifluralin	88.1	90.0	P/P	40 - 170

Reference Method: EPA 8270D
Batch ID: P322085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	96.2	97.8	P/P	78 - 118
Alachlor	94.2	97.1	P/P	77 - 119

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P322085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ametryn	120	121	P/P	61 - 136
Atrazine	103	104	P/P	73 - 120
Atrazine Desethyl	82.9	80.4	P/P	16 - 122
Azinphos Methyl	196	181	F/P	69 - 186
Bromacil	81.0	97.3	P/P	40 - 125
Butylate	49.3	58.6	P/P	32 - 87.0
Chlorpyrifos Ethyl	89.5	93.5	P/P	53 - 110
Chlorpyrifos Methyl	89.6	94.4	P/P	31 - 119
Cyanazine	123	121	P/P	36 - 224
Demeton	106	111	P/P	39 - 122
Diazinon	96.1	97.5	P/P	75 - 119
Disulfoton	90.5	105	P/P	42 - 139
EPTC	47.7	57.9	P/P	33 - 96.0
Ethion	94.3	95.6	P/P	63 - 127
Ethoprop	94.2	100	P/P	65 - 107
Fenamiphos	110	113	P/P	64 - 137
Fipronil	104	103	P/P	60 - 126
Fipronil Sulfide	99.3	103	P/P	58 - 124
Fipronil Sulfone	86.5	90.7	P/P	57 - 126
Fonofos	91.5	95.5	P/P	65 - 111
Hexazinone	93.6	94.2	P/P	46 - 151
Malathion	99.1	104	P/P	68 - 132
Metalaxyl	98.3	97.6	P/P	51 - 132
Metolachlor	98.4	101	P/P	78 - 119
Metribuzin	116	123	P/P	64 - 138
Mevinphos	106	117	P/P	34 - 128
Molinate	59.8	69.8	P/P	44 - 101
Norflurazon	95.1	93.9	P/P	63 - 129
Parathion Ethyl	97.9	97.7	P/P	80 - 109
Parathion Methyl	98.7	100	P/P	74 - 125
Pendimethalin	98.7	99.9	P/P	48 - 134
Phorate	104	109	P/P	52 - 119
Prometon	110	118	P/P	69 - 124
Prometryn	117	117	P/P	66 - 124
Simazine	109	112	P/P	61 - 134
Terbufos	82.4	87.3	P/P	58 - 115
Terbuthylazine	95.4	97.4	P/P	77 - 113

Reference Method: EPA 8321B
Batch ID: P321878

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

Reference Method: EPA 8321B
Batch ID: P322013

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P322049

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

Reference Method: SM 2320 B-97
Batch ID: P322415

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

Reference Method: SM 4500 F-C-97
Batch ID: P322418

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P322059

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P321946

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	80.4		P	40 - 140
Acetaminophen	52.8		P	40 - 140
Bentazon	101		P	40 - 140
Carbamazepine	122		P	40 - 140
Diuron	111		P	40 - 140
Fenuron	114		P	40 - 140
Fluridone	99.2		P	40 - 140
Imidacloprid	88.4		P	40 - 160
Linuron	102		P	40 - 140
MCPP	85.2		P	40 - 140
Primidone	86.8		P	40 - 140
Triclopyr	122		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322047

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881418	Iron	107	107	P/P	80 - 120
1881418	Magnesium	109		P	80 - 120
1881418	Potassium	105		P	80 - 120
1881418	Sodium	106		P	80 - 120
1881418	Zinc	102	102	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322047

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881418	Arsenic	105	107	P/P	80 - 120
1881418	Cadmium	104	107	P/P	80 - 120
1881418	Chromium	102	102	P/P	80 - 120
1881418	Copper	99.3	102	P/P	80 - 120
1881418	Lead	102	108	P/P	80 - 120
1881418	Nickel	100	102	P/P	80 - 120
1881418	Silver	92.5	92.4	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881940	Chloride	99.0		P	90 - 110
1881946	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322661

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881940	Sulfate	99.8		P	90 - 110
1881946	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881948	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881949	Kjeldahl Nitrogen	106	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881931	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881985	NO2NO3-N	100	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322025

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881932	Total-P	102	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P322001

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881942	O-Phosphate-P	96.0	97.7	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P321996

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1880320	Aldrin	51.0	41.4	P/P	30 - 83.0
1880320	Alpha-BHC	83.6	67.6	P/P	62 - 119
1880320	Alpha-Chlordane	61.3	48.9	P/F	56 - 119
1880320	Beta-BHC	95.0	67.2	P/P	54 - 141
1880320	Carbophenothion	115	88.1	P/P	33 - 147
1880320	Chlorothalonil	180	156	F/P	25 - 175
1880320	Cypermethrin	72.1	71.9	P/P	50 - 155
1880320	DDD-p,p'	70.4	53.9	P/F	56 - 135
1880320	DDE-p,p'	56.9	49.6	P/P	48 - 120
1880320	DDT-p,p'	60.0	44.1	P/F	51 - 121
1880320	Delta-BHC	158	118	P/P	65 - 163
1880320	Dicofol	44.4	34.4	P/P	15 - 112
1880320	Dieldrin	72.9	57.8	P/F	59 - 134
1880320	Endosulfan I	66.8	61.1	P/F	65 - 142
1880320	Endosulfan II	102	79.6	P/P	65 - 154
1880320	Endosulfan Sulfate	73.4	88.5	P/P	65 - 136
1880320	Endrin	75.7	58.0	P/P	53 - 156
1880320	Endrin Aldehyde	81.2	60.8	P/P	47 - 156
1880320	Endrin Ketone	122	90.1	P/P	70 - 124
1880320	Gamma-BHC	106	73.5	P/P	64 - 142
1880320	Gamma-Chlordane	61.3	48.9	P/F	55 - 114
1880320	Heptachlor	68.1	53.3	P/P	42 - 105
1880320	Heptachlor Epoxide	69.0	53.5	P/F	67 - 120
1880320	Methoxychlor	62.5	46.8	F/F	63 - 134
1880320	Mirex	64.9	44.9	P/P	40 - 90.0
1880320	Permethrin	94.1	70.2	P/P	36 - 144
1880320	Trifluralin	104	78.0	P/P	40 - 170

Reference Method: EPA 8270D
 Batch ID: P322085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882621	Acetochlor	91.6	91.8	P/P	74 - 123
1882621	Alachlor	92.2	92.4	P/P	73 - 124
1882621	Ametryn	115	113	P/P	56 - 149
1882621	Atrazine Desethyl	75.0	72.6	P/P	12 - 103
1882621	Azinphos Methyl	141	146	P/P	60 - 202
1882621	Bromacil	84.6	83.3	P/P	42 - 133
1882621	Butylate	61.0	41.1	P/P	10 - 85.0
1882621	Chlorpyrifos Ethyl	83.3	90.9	P/P	53 - 113
1882621	Chlorpyrifos Methyl	68.8	79.5	P/P	40 - 115
1882621	Cyanazine	116	113	P/P	22 - 210
1882621	Demeton	93.5	91.7	P/P	17 - 149
1882621	Diazinon	86.8	83.9	P/P	72 - 124
1882621	Disulfoton	79.6	83.2	P/P	43 - 139
1882621	EPTC	63.0	42.4	P/P	10 - 86.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P322085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1882621	Ethion	91.4	101	P/P	65 - 131
1882621	Ethoprop	87.4	85.0	P/P	59 - 110
1882621	Fenamiphos	87.1	99.3	P/P	57 - 138
1882621	Fipronil	109	107	P/P	40 - 130
1882621	Fipronil Sulfide	95.7	98.5	P/P	36 - 128
1882621	Fonofos	74.2	82.5	P/P	60 - 112
1882621	Hexazinone	94.3	95.7	P/P	69 - 142
1882621	Malathion	84.7	98.4	P/P	68 - 132
1882621	Metalaxyl	86.7	100	P/P	66 - 118
1882621	Metolachlor	102	99.9	P/P	71 - 124
1882621	Metribuzin	116	114	P/P	61 - 140
1882621	Mevinphos	95.7	86.8	P/P	38 - 130
1882621	Molinate	70.8	53.8	P/P	23 - 99.0
1882621	Norflurazon	101	99.9	P/P	39 - 139
1882621	Parathion Ethyl	91.4	93.0	P/P	75 - 111
1882621	Parathion Methyl	83.0	83.6	P/P	64 - 130
1882621	Pendimethalin	101	103	P/P	26 - 173
1882621	Phorate	85.5	77.5	P/P	43 - 127
1882621	Prometon	125	125	P/P	50 - 144
1882621	Prometryn	119	117	P/P	69 - 126
1882621	Simazine	93.4	85.2	P/P	51 - 152
1882621	Terbufos	69.8	72.5	P/P	54 - 125
1882621	Terbutylazine	97.4	95.8	P/P	76 - 113

Reference Method: EPA 8321B
Batch ID: P322013

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

Reference Method: EPA 8321B
Batch ID: P322049

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

Reference Method: SM 4500 F-C-97
Batch ID: P322418

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881834	Fluoride	98.3	97.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P322059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881931	Organic Carbon	98.2	98.8	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P321946

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

Reference Method: USGS O-2060-01
Batch ID: P321946

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1881998	2,4-D	101	109	P/P	40 - 140
1881998	Acetaminophen	42.8	46.8	P/P	40 - 140
1881998	Bentazon	143	146	F/F	40 - 140
1881998	Carbamazepine	43.6	44.8	P/P	40 - 140
1881998	Diuron	36.5	35.8	F/F	40 - 140
1881998	Fenuron	28.7	31.6	F/F	40 - 140
1881998	Fluridone	28.4	34.2	F/F	40 - 140
1881998	Imidacloprid	62.0	69.6	P/P	40 - 160
1881998	Linuron	56.8	61.6	P/P	40 - 140
1881998	MCP	109	110	P/P	40 - 140
1881998	Primidone	53.6	47.2	P/P	40 - 140
1881998	Triclopyr	120	141	P/F	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P322007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881832	Turbidity	10.8	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P322008

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881984	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P322047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881418	Calcium	0.544	Spike	P	0 - 20
1881418	Iron	0.565	Spike	P	0 - 20
1881418	Magnesium	1.08	Spike	P	0 - 20
1881418	Potassium	0.499	Spike	P	0 - 20
1881418	Sodium	0.344	Spike	P	0 - 20
1881418	Zinc	0.398	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881418	Arsenic	2.35	Spike	P	0 - 20
1881418	Cadmium	3.33	Spike	P	0 - 20
1881418	Chromium	0.254	Spike	P	0 - 20
1881418	Copper	2.54	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P322047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881418	Lead	5.60	Spike	P	0 - 20
1881418	Nickel	1.87	Spike	P	0 - 20
1881418	Silver	0.132	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881940	Chloride	0.254	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P322661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881940	Sulfate	0.0921	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881948	Ammonia-N	0.833	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P322016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881949	Kjeldahl Nitrogen	4.06	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881931	NO2NO3-N	1.98	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P322118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881985	NO2NO3-N	2.94	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P322025

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P322025

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881932	Total-P	0.446	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P322001

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881942	O-Phosphate-P	0.872	Spike	P	0 - 20

Reference Method: EPA 8270D

Batch ID: P321996

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1880320	Aldrin	20.7	Spike	P	0 - 30
1880320	Alpha-BHC	21.1	Spike	P	0 - 30
1880320	Alpha-Chlordane	22.4	Spike	P	0 - 30
1880320	Beta-BHC	34.2	Spike	F	0 - 30
1880320	Carbophenothion	26.6	Spike	P	0 - 30
1880320	Chlorothalonil	14.4	Spike	P	0 - 30
1880320	Cypermethrin	0.280	Spike	P	0 - 30
1880320	DDD-p,p'	26.5	Spike	P	0 - 30
1880320	DDE-p,p'	13.7	Spike	P	0 - 30
1880320	DDT-p,p'	30.5	Spike	F	0 - 30
1880320	Delta-BHC	29.2	Spike	P	0 - 30
1880320	Dicofol	25.3	Spike	P	0 - 30
1880320	Dieldrin	23.1	Spike	P	0 - 30
1880320	Endosulfan I	8.91	Spike	P	0 - 30
1880320	Endosulfan II	24.8	Spike	P	0 - 30
1880320	Endosulfan Sulfate	18.7	Spike	P	0 - 30
1880320	Endrin	26.5	Spike	P	0 - 30
1880320	Endrin Aldehyde	28.7	Spike	P	0 - 30
1880320	Endrin Ketone	29.9	Spike	P	0 - 30
1880320	Gamma-BHC	36.5	Spike	F	0 - 30
1880320	Gamma-Chlordane	22.4	Spike	P	0 - 30
1880320	Heptachlor	24.3	Spike	P	0 - 30
1880320	Heptachlor Epoxide	25.3	Spike	P	0 - 30
1880320	Methoxychlor	28.8	Spike	P	0 - 30
1880320	Mirex	36.6	Spike	F	0 - 30
1880320	Permethrin	29.1	Spike	P	0 - 30
1880320	Trifluralin	29.1	Spike	P	0 - 30
LFB	Aldrin	10.9	LCS	P	0 - 30
LFB	Alpha-BHC	0.114	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.152	LCS	P	0 - 30
LFB	Beta-BHC	3.44	LCS	P	0 - 30
LFB	Carbophenothion	17.5	LCS	P	0 - 30
LFB	Chlorothalonil	25.9	LCS	P	0 - 30
LFB	Cypermethrin	14.5	LCS	P	0 - 30
LFB	DDD-p,p'	1.24	LCS	P	0 - 30
LFB	DDE-p,p'	0.109	LCS	P	0 - 30
LFB	DDT-p,p'	1.74	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P321996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Delta-BHC	0.0269	LCS	P	0 - 30
LFB	Dicofol	4.38	LCS	P	0 - 30
LFB	Dieldrin	1.27	LCS	P	0 - 30
LFB	Endosulfan I	0.0443	LCS	P	0 - 30
LFB	Endosulfan II	4.50	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.94	LCS	P	0 - 30
LFB	Endrin	2.08	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.73	LCS	P	0 - 30
LFB	Endrin Ketone	3.76	LCS	P	0 - 30
LFB	Gamma-BHC	3.81	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.152	LCS	P	0 - 30
LFB	Heptachlor	5.09	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.90	LCS	P	0 - 30
LFB	Methoxychlor	1.58	LCS	P	0 - 30
LFB	Mirex	0.565	LCS	P	0 - 30
LFB	Permethrin	0.0408	LCS	P	0 - 30
LFB	Trifluralin	2.09	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P322085

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

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P322085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1882621	Molinate	27.3	Spike	P	0 - 30
1882621	Norflurazon	0.694	Spike	P	0 - 30
1882621	Parathion Ethyl	1.74	Spike	P	0 - 30
1882621	Parathion Methyl	0.729	Spike	P	0 - 30
1882621	Pendimethalin	1.95	Spike	P	0 - 30
1882621	Phorate	9.81	Spike	P	0 - 30
1882621	Prometon	0.150	Spike	P	0 - 30
1882621	Prometryn	2.02	Spike	P	0 - 30
1882621	Simazine	6.20	Spike	P	0 - 30
1882621	Terbufos	3.77	Spike	P	0 - 30
1882621	Terbuthylazine	1.58	Spike	P	0 - 30
LFB	Acetochlor	1.70	LCS	P	0 - 30
LFB	Alachlor	2.99	LCS	P	0 - 30
LFB	Ametryn	1.39	LCS	P	0 - 30
LFB	Atrazine	0.441	LCS	P	0 - 30
LFB	Atrazine Desethyl	3.12	LCS	P	0 - 30
LFB	Azinphos Methyl	7.78	LCS	P	0 - 30
LFB	Bromacil	18.4	LCS	P	0 - 30
LFB	Butylate	17.1	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.45	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.24	LCS	P	0 - 30
LFB	Cyanazine	1.16	LCS	P	0 - 30
LFB	Demeton	4.90	LCS	P	0 - 30
LFB	Diazinon	1.53	LCS	P	0 - 30
LFB	Disulfoton	14.8	LCS	P	0 - 30
LFB	EPTC	19.2	LCS	P	0 - 30
LFB	Ethion	1.34	LCS	P	0 - 30
LFB	Ethoprop	6.18	LCS	P	0 - 30
LFB	Fenamiphos	3.00	LCS	P	0 - 30
LFB	Fipronil	0.913	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.38	LCS	P	0 - 30
LFB	Fipronil Sulfone	4.71	LCS	P	0 - 30
LFB	Fonofos	4.34	LCS	P	0 - 30
LFB	Hexazinone	0.609	LCS	P	0 - 30
LFB	Malathion	4.39	LCS	P	0 - 30
LFB	Metalaxyl	0.780	LCS	P	0 - 30
LFB	Metolachlor	2.19	LCS	P	0 - 30
LFB	Metribuzin	5.47	LCS	P	0 - 30
LFB	Mevinphos	9.70	LCS	P	0 - 30
LFB	Molinate	15.4	LCS	P	0 - 30
LFB	Norflurazon	1.24	LCS	P	0 - 30
LFB	Parathion Ethyl	0.253	LCS	P	0 - 30
LFB	Parathion Methyl	1.61	LCS	P	0 - 30
LFB	Pendimethalin	1.14	LCS	P	0 - 30
LFB	Phorate	4.82	LCS	P	0 - 30
LFB	Prometon	6.29	LCS	P	0 - 30
LFB	Prometryn	0.577	LCS	P	0 - 30
LFB	Simazine	2.31	LCS	P	0 - 30
LFB	Terbufos	5.77	LCS	P	0 - 30
LFB	Terbuthylazine	2.09	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P321878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881474	Sucralose	13.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P322013

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

Reference Method: EPA 8321B
Batch ID: P322049

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

Reference Method: SM 2120 B
Batch ID: P321975

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881947	Color (true)	5.78	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P321976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881953	Color (true)	0.0834	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P322415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881834	Total Alkalinity	5.51	Sample	F	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P322641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881405	TDS	5.18	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P322643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881834	TDS	3.54	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P322418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881834	Fluoride	0.548	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P322059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881931	Organic Carbon	0.334	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P321946

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1881998	2,4-D	5.73	Spike	P	0 - 30
1881998	Acetaminophen	8.93	Spike	P	0 - 30
1881998	Bentazon	1.83	Spike	P	0 - 30
1881998	Carbamazepine	2.71	Spike	P	0 - 30
1881998	Diuron	1.88	Spike	P	0 - 30
1881998	Fenuron	9.56	Spike	P	0 - 30
1881998	Fluridone	18.5	Spike	P	0 - 30
1881998	Imidacloprid	11.6	Spike	P	0 - 30
1881998	Linuron	8.11	Spike	P	0 - 30
1881998	MCPP	1.10	Spike	P	0 - 30
1881998	Primidone	12.7	Spike	P	0 - 30
1881998	Triclopyr	15.9	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: 1881966
Field Sample ID: FIELD BLANK 03212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	184	F	50 - 150
EPA 8321B	Sucralose-d6	123	P	40 - 150
USGS O-2060-01	2,4-D-d3	109	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	110	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	118	P	40 - 160
USGS O-2060-01	Diuron-d6	110	P	40 - 150
USGS O-2060-01	Primidone-d5	85.8	P	40 - 150

Lab Sample ID: 1881967
Field Sample ID: G1NE0029 03212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	65.6	P	50 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1881967
Field Sample ID: G1NE0029 03212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	112	P	40 - 150
USGS O-2060-01	2,4-D-d3	103	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	63.6	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	75.0	P	40 - 160
USGS O-2060-01	Diuron-d6	69.6	P	40 - 150
USGS O-2060-01	Primidone-d5	68.6	P	40 - 150

Lab Sample ID: 1881968
Field Sample ID: FIELD BLANK 03212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	79.6	P	40 - 150

Lab Sample ID: 1881969
Field Sample ID: G1NE0029 03212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	64.6	P	40 - 150

Lab Sample ID: 1881973
Field Sample ID: FIELD BLANK 03212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	67.3	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	60.8	P	31 - 111

Lab Sample ID: 1881974
Field Sample ID: G1NE0029 03212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	53.1	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	45.4	P	31 - 111

Lab Sample ID: 1881975
Field Sample ID: FIELD BLANK 03212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	121	P	62 - 132
EPA 8270D	Simazine-d10	74.6	P	72 - 127

Lab Sample ID: 1881976
Field Sample ID: G1NE0029 03212017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	94.5	P	62 - 132
EPA 8270D	Simazine-d10	90.8	P	72 - 127

Quality Assurance Report Calibration Verification

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A75274

Included Lab Sample IDs: 1881946, 1881947, 1881952, 1881953, 1881954

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.5	P/P	85 - 115
Color (true)	99.5	99.8	P/P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A75279

Included Lab Sample IDs: 1881948, 1881949, 1881955, 1881956, 1881957

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A75284

Included Lab Sample IDs: 1881950, 1881951, 1881958, 1881959, 1881960

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.3	P/P	90 - 110
O-Phosphate-P	99.3	99.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A75286

Included Lab Sample IDs: 1881946, 1881947, 1881952, 1881953, 1881954

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

Reference Method: SM 5310 B-00

Run ID: A75305

Included Lab Sample IDs: 1881948, 1881949, 1881955, 1881956, 1881957

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75316

Included Lab Sample IDs: 1881955

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

Reference Method: EPA 8321B

Run ID: A75318

Included Lab Sample IDs: 1881967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	99.5	102	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A75324

Included Lab Sample IDs: 1881948, 1881949, 1881955, 1881956, 1881957

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	99.7	P/P	90 - 110
Kjeldahl Nitrogen	98.5	95.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75325

Included Lab Sample IDs: 1881948, 1881949, 1881955, 1881956, 1881957

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.5	P/P	90 - 110
NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A75331

Included Lab Sample IDs: 1881948, 1881949, 1881956, 1881957

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

Reference Method: EPA 8321B

Run ID: A75369

Included Lab Sample IDs: 1881966, 1881967

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

Reference Method: EPA 8321B

Run ID: A75373

Included Lab Sample IDs: 1881966

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	105	119	P/P	60 - 150

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A75391

Included Lab Sample IDs: 1881970, 1881971, 1881972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	103	P/P	90 - 110
Calcium	104	104	P/P	95 - 105
Iron	101	104	P/P	95 - 105
Iron	104	104	P/P	90 - 110
Magnesium	103	104	P/P	95 - 105
Magnesium	104	105	P/P	90 - 110
Potassium	103	104	P/P	90 - 110
Potassium	104	103	P/P	95 - 105
Sodium	102	101	P/P	90 - 110
Sodium	103	102	P/P	95 - 105
Zinc	104	104	P/P	95 - 105
Zinc	104	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A75398

Included Lab Sample IDs: 1881966, 1881967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	121	122	P/P	60 - 150
Carbamazepine	143	148	P/P	60 - 150
Diuron	136	136	P/P	60 - 150
Fenuron	132	134	P/P	60 - 150
Fluridone	124	109	P/P	60 - 150
Imidacloprid	103	106	P/P	60 - 150
Linuron	137	146	P/P	60 - 150
Primidone	115	115	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A75408

Included Lab Sample IDs: 1881966, 1881967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.6	100	P/P	50 - 150
Bentazon	84.8	79.4	P/P	50 - 150
MCP	90.2	100	P/P	50 - 150
Triclopyr	104	90.2	P/P	50 - 150

Reference Method: SM 2320 B-97

Run ID: A75433

Included Lab Sample IDs: 1881946, 1881947, 1881952, 1881953, 1881954

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	105	P/P	90 - 110
Total Alkalinity	105	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A75433

Included Lab Sample IDs: 1881946, 1881947, 1881952, 1881953, 1881954

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	99.0	P/P	90 - 110
Fluoride	99.0	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75436

Included Lab Sample IDs: 1881970, 1881971, 1881972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	104	105	P/P	90 - 110
Arsenic	105	104	P/P	90 - 110
Cadmium	103	101	P/P	90 - 110
Cadmium	104	103	P/P	90 - 110
Chromium	103	104	P/P	90 - 110
Chromium	104	102	P/P	90 - 110
Copper	104	105	P/P	90 - 110
Copper	105	104	P/P	90 - 110
Nickel	105	106	P/P	90 - 110
Nickel	106	106	P/P	90 - 110
Silver	93.5	93.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75436

Included Lab Sample IDs: 1881970, 1881971, 1881972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	93.7	93.5	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A75453

Included Lab Sample IDs: 1881973, 1881974

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	94.7		P	80 - 120
Alpha-BHC	102		P	80 - 120
Alpha-Chlordane	93.7		P	80 - 120
Beta-BHC	104		P	80 - 120
Carbophenothion	79.3*		F	80 - 120
Chlorothalonil	122*		F	80 - 120
Cypermethrin	92.8		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	92.0		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	115		P	80 - 120
Dicofol	92.8		P	80 - 120
Dieldrin	98.9		P	80 - 120
Endosulfan I	95.2		P	80 - 120
Endosulfan II	96.9		P	80 - 120
Endosulfan Sulfate	117		P	80 - 120
Endrin	94.1		P	80 - 120
Endrin Aldehyde	87.4		P	80 - 120
Endrin Ketone	101		P	80 - 120
Gamma-BHC	94.5		P	80 - 120
Gamma-Chlordane	93.7		P	80 - 120
Heptachlor	107		P	80 - 120
Heptachlor Epoxide	95.1		P	80 - 120
Methoxychlor	101		P	80 - 120
Mirex	101		P	80 - 120
Permethrin	91.2		P	80 - 120
Trifluralin	92.3		P	80 - 120

Reference Method: EPA 8321B

Run ID: A75455

Included Lab Sample IDs: 1881968, 1881969

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	112	96.4	P/P	60 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75478

Included Lab Sample IDs: 1881970, 1881971, 1881972

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75488

Included Lab Sample IDs: 1881946, 1881947, 1881952, 1881953, 1881954

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Chloride	102	102	P/P	90 - 110
Sulfate	100	97.4	P/P	90 - 110
Sulfate	96.7	100	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A75648

Included Lab Sample IDs: 1881975

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine	99.7		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	86.1		P	80 - 120
Bromacil	107		P	80 - 120
Butylate	108		P	80 - 120
Chlorpyrifos Ethyl	114		P	80 - 120
Chlorpyrifos Methyl	110		P	80 - 120
Cyanazine	101		P	80 - 120
Demeton	124*		F	80 - 120
Diazinon	100		P	80 - 120
Disulfoton	105		P	80 - 120
EPTC	109		P	80 - 120
Ethion	109		P	80 - 120
Ethoprop	107		P	80 - 120
Fenamiphos	116		P	80 - 120
Fipronil	99.1		P	80 - 120
Fipronil Sulfide	112		P	80 - 120
Fipronil Sulfone	117		P	80 - 120
Fonofos	108		P	80 - 120
Hexazinone	102		P	80 - 120
Malathion	106		P	80 - 120
Metaxyl	103		P	80 - 120
Metolachlor	106		P	80 - 120
Metribuzin	123*		F	80 - 120
Mevinphos	114		P	80 - 120
Molinate	104		P	80 - 120
Norflurazon	99.7		P	80 - 120
Parathion Ethyl	92.8		P	80 - 120
Parathion Methyl	86.2		P	80 - 120
Pendimethalin	94.9		P	80 - 120
Phorate	103		P	80 - 120
Prometon	109		P	80 - 120
Prometryn	101		P	80 - 120
Simazine	106		P	80 - 120
Terbufos	99.0		P	80 - 120
Terbuthylazine	102		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A75649
Included Lab Sample IDs: 1881976

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	103		P	80 - 120
Ametryn	114		P	80 - 120
Atrazine	99.0		P	80 - 120
Atrazine Desethyl	108		P	80 - 120
Azinphos Methyl	113		P	80 - 120
Bromacil	110		P	80 - 120
Butylate	107		P	80 - 120
Chlorpyrifos Ethyl	93.7		P	80 - 120
Chlorpyrifos Methyl	94.0		P	80 - 120
Cyanazine	113		P	80 - 120
Demeton	102		P	80 - 120
Diazinon	103		P	80 - 120
Disulfoton	106		P	80 - 120
EPTC	109		P	80 - 120
Ethion	92.4		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	95.6		P	80 - 120
Fipronil	103		P	80 - 120
Fipronil Sulfide	95.4		P	80 - 120
Fipronil Sulfone	98.0		P	80 - 120
Fonofos	98.5		P	80 - 120
Hexazinone	99.3		P	80 - 120
Malathion	93.6		P	80 - 120
Metaxyl	103		P	80 - 120
Metolachlor	107		P	80 - 120
Metribuzin	111		P	80 - 120
Mevinphos	80.5		P	80 - 120
Molinate	112		P	80 - 120
Norflurazon	100		P	80 - 120
Parathion Ethyl	90.2		P	80 - 120
Parathion Methyl	88.6		P	80 - 120
Pendimethalin	104		P	80 - 120
Phorate	102		P	80 - 120
Prometon	112		P	80 - 120
Prometryn	117		P	80 - 120
Simazine	109		P	80 - 120
Terbufos	94.0		P	80 - 120
Terbuthylazine	101		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				10.8	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.0	
EPA 200.7 Rev. 4.4	Calcium	105						0.544
	Iron	105		107	107			0.565
	Magnesium	106		109				1.08
	Potassium	104		105				0.499
	Sodium	103		106				0.344
	Zinc	102		102	102			0.398
EPA 200.8 Rev. 5.4	Arsenic	100		105	107			2.35
	Cadmium	99.0		104	107			3.33
	Chromium	98.9		102	102			0.254
	Copper	98.5		99.3	102			2.54
	Lead	99.6		102	108			5.60
	Nickel	100		100	102			1.87
	Silver	90.6		92.5	92.4			0.132
EPA 300.0 Rev. 2.1	Chloride	100		99.0	101		0.254	
	Sulfate	100		99.8	101		0.0921	
EPA 350.1 Rev. 2.0	Ammonia-N	101		103	104			0.833
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102		106	100			4.06
EPA 353.2 Rev. 2.0	NO2NO3-N	104		100	102			1.98
	NO2NO3-N	102		100	104			2.94
EPA 365.1 Rev. 2.0	Total-P	101		102	102			0.446
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.0		96.0	97.7			0.872
EPA 8270D	Acetochlor	96.2	97.8	91.8	91.6	1.70		0.209
	Alachlor	94.2	97.1	92.4	92.2	2.99		0.150
	Aldrin	68.4	61.3	51.0	41.4	10.9		20.7
	Alpha-BHC	81.2	81.3	83.6	67.6	0.114		21.1
	Alpha-Chlordane	77.2	77.1	61.3	48.9	0.152		22.4
	Ametryn	120	121	113	115	1.39		1.66
	Atrazine	103	104			0.441		2.49
	Atrazine Desethyl	82.9	80.4	72.6	75.0	3.12		2.52
	Azinphos Methyl	196	181	146	141	7.78		3.97
	Beta-BHC	93.4	90.3	95.0	67.2	3.44		34.2
	Bromacil	81.0	97.3	83.3	84.6	18.4		0.976
	Butylate	49.3	58.6	41.1	61.0	17.1		39.0
	Carbophenothion	94.6	113	115	88.1	17.5		26.6
	Chlorothalonil	86.0	66.3	180	156	25.9		14.4
	Chlorpyrifos Ethyl	89.5	93.5	90.9	83.3	4.45		8.75
	Chlorpyrifos Methyl	89.6	94.4	79.5	68.8	5.24		14.5
	Cyanazine	123	121	113	116	1.16		2.72
	Cypermethrin	116	134	72.1	71.9	14.5		0.280
	DDD-p,p'	90.6	91.7	70.4	53.9	1.24		26.5
	DDE-p,p'	79.7	79.8	56.9	49.6	0.109		13.7
	DDT-p,p'	78.2	76.8	60.0	44.1	1.74		30.5
	Delta-BHC	122	122	158	118	0.0269		29.2
	Demeton	106	111	91.7	93.5	4.90		1.87
	Diazinon	96.1	97.5	83.9	86.8	1.53		3.48
	Dicofol	93.6	89.6	44.4	34.4	4.38		25.3
	Dieldrin	91.0	92.1	72.9	57.8	1.27		23.1
	Disulfoton	90.5	105	83.2	79.6	14.8		4.37
	Endosulfan I	85.3	85.2	66.8	61.1	0.0443		8.91
	Endosulfan II	109	114	102	79.6	4.50		24.8
	Endosulfan Sulfate	118	122	73.4	88.5	2.94		18.7
	Endrin	88.4	90.2	75.7	58.0	2.08		26.5
	Endrin Aldehyde	91.1	95.5	81.2	60.8	4.73		28.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Endrin Ketone	104	107	122	90.1	3.76	29.9
	EPTC	47.7	57.9	42.4	63.0	19.2	39.2
	Ethion	94.3	95.6	101	91.4	1.34	9.59
	Ethoprop	94.2	100	85.0	87.4	6.18	2.79
	Fenamiphos	110	113	99.3	87.1	3.00	13.1
	Fipronil	104	103	107	109	0.913	1.70
	Fipronil Sulfide	99.3	103	98.5	95.7	3.38	2.37
	Fipronil Sulfone	86.5	90.7			4.71	6.28
	Fonofos	91.5	95.5	82.5	74.2	4.34	10.6
	Gamma-BHC	84.8	88.1	106	73.5	3.81	36.5
	Gamma-Chlordane	77.2	77.1	61.3	48.9	0.152	22.4
	Heptachlor	87.8	83.4	68.1	53.3	5.09	24.3
	Heptachlor Epoxide	80.9	79.3	69.0	53.5	1.90	25.3
	Hexazinone	93.6	94.2	95.7	94.3	0.609	1.43
	Malathion	99.1	104	98.4	84.7	4.39	15.1
	Metalaxyl	98.3	97.6	100	86.7	0.780	14.2
	Methoxychlor	91.5	90.1	62.5	46.8	1.58	28.8
	Metolachlor	98.4	101	102	99.9	2.19	1.83
	Metribuzin	116	123	116	114	5.47	1.43
	Mevinphos	106	117	95.7	86.8	9.70	9.74
	Mirex	67.2	66.8	64.9	44.9	0.565	36.6
	Molinate	59.8	69.8	70.8	53.8	15.4	27.3
	Norflurazon	95.1	93.9	101	99.9	1.24	0.694
	Parathion Ethyl	97.9	97.7	91.4	93.0	0.253	1.74
	Parathion Methyl	98.7	100	83.0	83.6	1.61	0.729
	Pendimethalin	98.7	99.9	101	103	1.14	1.95
	Permethrin	99.5	99.6	94.1	70.2	0.0408	29.1
	Phorate	104	109	85.5	77.5	4.82	9.81
	Prometon	110	118	125	125	6.29	0.150
	Prometryn	117	117	119	117	0.577	2.02
	Simazine	109	112	93.4	85.2	2.31	6.20
	Terbufos	82.4	87.3	69.8	72.5	5.77	3.77
	Terbuthylazine	95.4	97.4	97.4	95.8	2.09	1.58
	Trifluralin	88.1	90.0	104	78.0	2.09	29.1
EPA 8321B	Glyphosate	90.6		31.4	31.6		0.635
	Pyraclostrobin	74.8		89.6	82.4		8.37
	Sucralose	109					13.9
SM 2120 B	Color (true)					5.78	
	Color (true)					0.0834	
SM 2320 B-97	Total Alkalinity	105				5.51	
SM 2540 C-97	TDS					5.18	
	TDS					3.54	
SM 4500 F-C-97	Fluoride	97.1		98.3	97.6		0.548
SM 5310 B-00	Organic Carbon	98.6		98.2	98.8		0.334
USGS O-2060-01	2,4-D	80.4		101	109		5.73
	Acetaminophen	52.8		42.8	46.8		8.93
	Bentazon	101		143	146		1.83
	Carbamazepine	122		43.6	44.8		2.71
	Diuron	111		36.5	35.8		1.88
	Fenuron	114		28.7	31.6		9.56
	Fluridone	99.2		28.4	34.2		18.5
	Imidacloprid	88.4		62.0	69.6		11.6
	Linuron	102		56.8	61.6		8.11
	MCPP	85.2		109	110		1.10

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
USGS O-2060-01	Primidone	86.8	53.6	47.2		12.7
	Triclopyr	122	120	141		15.9

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1881946, 1881947, 1881952, 1881953, 1881954
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1881970, 1881971, 1881972
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1881970, 1881971, 1881972
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1881946, 1881947, 1881952, 1881953, 1881954
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1881946, 1881947, 1881952, 1881953, 1881954
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1881948, 1881949, 1881955, 1881956, 1881957
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1881948, 1881949, 1881955, 1881956, 1881957
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1881948, 1881949, 1881955, 1881956, 1881957
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1881948, 1881949, 1881955, 1881956, 1881957
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1881950, 1881951, 1881958, 1881959, 1881960
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1881973, 1881974
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1881975, 1881976
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1881966, 1881967
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1881968, 1881969
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1881966, 1881967
SM 2120 B / E31780	True Color measured at 450 nm	1881946, 1881947, 1881952, 1881953, 1881954
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1881946, 1881947, 1881952, 1881953, 1881954
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1881946, 1881947, 1881952, 1881953, 1881954
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1881946, 1881947, 1881952, 1881953, 1881954
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1881946, 1881947, 1881952, 1881953, 1881954
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1881948, 1881949, 1881955, 1881956, 1881957
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1881966, 1881967
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1881966, 1881967

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	03/22/2017			03/22/2017 16:01	Blanca Fach	1881946, 1881947, 1881952, 1881953, 1881954
EPA 200.7 Rev. 4.4	03/22/2017	03/23/2017	Elliott D. Healy	03/27/2017	Martin Acosta	1881970, 1881971, 1881972
EPA 200.8 Rev. 5.4	03/22/2017	03/23/2017	Elliott D. Healy	03/27/2017	Betina Topolski	1881970, 1881971, 1881972
	03/22/2017	03/23/2017	Elliott D. Healy	03/30/2017	Betina Topolski	1881970, 1881971, 1881972
EPA 300.0 Rev. 2.1	03/22/2017			03/31/2017	Ping Hua	1881946
	03/22/2017			04/01/2017	Ping Hua	1881947, 1881952, 1881953, 1881954
EPA 350.1 Rev. 2.0	03/22/2017			03/22/2017	Julie Michelle Frank	1881948, 1881949, 1881955, 1881956, 1881957
EPA 351.2 Rev. 2.0	03/22/2017	03/23/2017	Adrian Shelby	03/24/2017	Joseph Suarez	1881948, 1881949, 1881955, 1881956, 1881957
EPA 353.2 Rev. 2.0	03/22/2017			03/24/2017	Beverly Y. Sanders	1881948, 1881949, 1881955, 1881956, 1881957
EPA 365.1 Rev. 2.0	03/22/2017	03/23/2017	Adrian Shelby	03/23/2017	Lipi Saha	1881955
	03/22/2017	03/23/2017	Adrian Shelby	03/24/2017	Lipi Saha	1881948, 1881949, 1881956, 1881957
EPA 365.1 Rev. 2.0 dissolved	03/22/2017			03/22/2017 14:45	Anthony C. Onicha	1881950
	03/22/2017			03/22/2017 14:46	Anthony C. Onicha	1881951, 1881958
	03/22/2017			03/22/2017 14:52	Anthony C. Onicha	1881959, 1881960
EPA 8270D	03/22/2017	03/22/2017	Rasheda Ghaffari	03/24/2017	Vandana T. Nagar	1881973, 1881974
	03/22/2017	03/24/2017	John Kaba	03/30/2017	Irina Carbone	1881975
	03/22/2017	03/24/2017	John Kaba	04/05/2017	Irina Carbone	1881976
EPA 8321B	03/22/2017	03/23/2017	Mohammad Ghaffari	03/23/2017	Mohammad Ghaffari	1881967
	03/22/2017	03/23/2017	Mohammad Ghaffari	03/26/2017	Mohammad Ghaffari	1881966
	03/22/2017	03/27/2017	Mohammad Ghaffari	03/27/2017	Mohammad Ghaffari	1881966, 1881967
	03/22/2017	03/28/2017	Hoor Shaik	03/30/2017	Juyoung Kim	1881968
	03/22/2017	03/28/2017	Hoor Shaik	03/31/2017	Juyoung Kim	1881969
SM 2120 B	03/22/2017			03/22/2017 14:13	Julia Storbeck	1881946
	03/22/2017			03/22/2017 14:14	Julia Storbeck	1881947
	03/22/2017			03/22/2017 14:15	Julia Storbeck	1881952
	03/22/2017			03/22/2017 14:20	Julia Storbeck	1881953, 1881954
SM 2320 B-97	03/22/2017			03/29/2017	Dale L. Simmons	1881946, 1881947, 1881952, 1881953, 1881954
SM 2540 C-97	03/22/2017			03/24/2017	Yijie Li	1881946, 1881947, 1881952, 1881953, 1881954
SM 2540 D-97	03/22/2017			03/24/2017	Yijie Li	1881946, 1881947, 1881952, 1881953, 1881954
SM 4500 F-C-97	03/22/2017			03/29/2017	Dale L. Simmons	1881946, 1881947, 1881952, 1881953, 1881954
SM 5310 B-00	03/22/2017			03/23/2017	Julie Michelle Frank	1881948, 1881949, 1881955, 1881956, 1881957
USGS O-2060-01	03/22/2017	03/24/2017	Hoor Shaik	03/25/2017	Juyoung Kim	1881966, 1881967
	03/22/2017	03/24/2017	Hoor Shaik	03/26/2017	Juyoung Kim	1881966, 1881967