

Chemical Analysis Report

NE-DIST-2017-12-19-03

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

Event Description: **Gville Make up**
Request ID: **RQ-2017-12-04-38**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way W
Suite 100
Jacksonville, FL 32256-7577
Attn: Nicole Frederick

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

Certified by: Colin Wright, Program Administrator

Date Certified: 12-JAN-2018 09:34

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

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: LITTLE HATCHET CR @ SR 24

Collection Date/Time: 12/18/2017 10:00

Field ID: G1NE008312182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954979	EPA 180.1 Rev. 2.0	Turbidity	4.5	A	NTU	P337220	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P337390	
		Sulfate	38		mg SO4/L	P337394	
	SM 2120 B	Color (true)	83		PCU	P337225	
	SM 2320 B-97	Total Alkalinity	64		mg CaCO3/L	P337380	
	SM 2540 C-97	TDS	189		mg/L	P337496	
	SM 2540 D-97	TSS	3	I	mg/L	P337663	
	SM 4500 F-C-97	Fluoride	0.28		mg F/L	P337383	
1954982	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P337697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P337330	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P337351	
	EPA 365.1 Rev. 2.0	Total-P	0.043		mg P/L	P337365	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P337385	
1954985	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P337263	

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: LITTLE HATCHET CR @ SR 24

Collection Date/Time: 12/18/2017 10:00

Field ID: G1NE008312182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1955003	EPA 8321B	Sucralose**	0.18		ug/L	P336877	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	0.0018	I	ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	0.0072		ug/L	P337156	
		Bentazon	0.022		ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCPD	0.0024	I	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0098	I	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Sample Location: TURKEY CR @ NW 59TH

Collection Date/Time: 12/18/2017 12:05

Field ID: G1NE001812182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954980	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P337220	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P337390	
		Sulfate	27		mg SO4/L	P337394	
	SM 2120 B	Color (true)	190		PCU	P337225	
	SM 2320 B-97	Total Alkalinity	71		mg CaCO3/L	P337380	

Field ID: G1NE001812182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954980	SM 2540 C-97	TDS	180		mg/L	P337496	
	SM 2540 D-97	TSS	2	I	mg/L	P337663	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P337383	
1954983	EPA 350.1 Rev. 2.0	Ammonia-N	0.011		mg N/L	P337697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P337330	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.058		mg N/L	P337351	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P337365	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P337385	
1954986	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.20		mg P/L	P337263	

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: TURKEY CR @ NW 59TH

Collection Date/Time: 12/18/2017 12:05

Field ID: G1NE001812182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1955004	EPA 8321B	Sucralose**	0.092		ug/L	P337235	
	USGS O-2060-01	2,4-D	0.25	U	ug/L	P337156	
		Diuron	0.0070		ug/L	P337156	
		Fenuron	0.0094	I	ug/L	P337156	
		Imidacloprid	0.0042		ug/L	P337156	
		Bentazon	0.10	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCP	0.25	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.50	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Sample Location: TUMBLIN CR @ SW SW 9TH

Collection Date/Time: 12/18/2017 12:05

Field ID: G1NE089412182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954981	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P337220	
	EPA 300.0 Rev. 2.1	Chloride	23		mg Cl/L	P337390	
		Sulfate	44		mg SO4/L	P337394	
	SM 2120 B	Color (true)	14	A	PCU	P337226	
	SM 2320 B-97	Total Alkalinity	124	A	mg CaCO3/L	P337380	
	SM 2540 C-97	TDS	238	A	mg/L	P337496	
	SM 2540 D-97	TSS	2	IA	mg/L	P337663	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P337383	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P337697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P337331	
1954984	EPA 353.2 Rev. 2.0	NO2NO3-N	0.66		mg N/L	P337351	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P337365	

Field ID: G1NE089412182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954984	SM 5310 B-00	Organic Carbon	4.7		mg C/L	P337385	
1954987	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P337263	

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: TUMBLIN CR @ SW SW 9TH

Collection Date/Time: 12/18/2017 12:05

Field ID: G1NE089412182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1955005	EPA 8321B	Sucralose**	0.26		ug/L	P337235	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	0.043		ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	0.096		ug/L	P337156	
		Bentazon	0.0016	I	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCP	0.0020	U	ug/L	P337156	
		Carbamazepine**	5.8E-04	I	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Sample Location: HAGUE BR TRIB @ US 441 80M W OF 77
TERRACE

Collection Date/Time: 12/18/2017 12:35

Field ID: G1NE006312182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954988	EPA 180.1 Rev. 2.0	Turbidity	140		NTU	P337220	
	EPA 300.0 Rev. 2.1	Chloride	56		mg Cl/L	P337391	
		Sulfate	39		mg SO4/L	P337395	
	SM 2120 B	Color (true)	470		PCU	P337227	
	SM 2320 B-97	Total Alkalinity	740		mg CaCO3/L	P337380	
	SM 2540 C-97	TDS	1.00E+03		mg/L	P337497	
	SM 2540 D-97	TSS	131		mg/L	P337664	
	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P337383	
1954989	EPA 350.1 Rev. 2.0	Ammonia-N	52		mg N/L	P337697	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96		mg N/L	P337453	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P337351	
	EPA 365.1 Rev. 2.0	Total-P	18		mg P/L	P337479	
	SM 5310 B-00	Organic Carbon	110		mg C/L	P337547	
1954990	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P337263	
1955007	EPA 200.7 Rev. 4.4	Calcium	86.3		mg/L	P337307	
		Iron	790		ug/L	P337307	
		Magnesium	51.9		mg/L	P337307	
		Manganese	364		ug/L	P337307	

Field ID: G1NE006312182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1955007	EPA 200.7 Rev. 4.4	Potassium	164		mg/L	P337307	
		Sodium	68.8		mg/L	P337307	
		Strontium	492		ug/L	P337307	
		Tin	3.0	U	ug/L	P337307	
		Titanium	21.2		ug/L	P337307	
	EPA 200.8 Rev. 5.4	Vanadium	7.0	I	ug/L	P337307	
		Zinc	207		ug/L	P337307	
		Aluminum	626		ug/L	P337307	
		Antimony	0.20		ug/L	P337307	
		Arsenic	2.15		ug/L	P337307	
		Barium	25.3		ug/L	P337307	
		Beryllium	0.059		ug/L	P337307	
		Boron**	110		ug/L	P337307	
		Cadmium	1.06		ug/L	P337307	
		Chromium	2.1		ug/L	P337307	
		Cobalt	7.31		ug/L	P337307	
		Copper	28.5		ug/L	P337307	
		Lead	1.78		ug/L	P337307	
		Molybdenum	2.59		ug/L	P337307	
		Nickel	12.8		ug/L	P337307	
		Selenium	1.17		ug/L	P337307	
		Silver	0.010	U	ug/L	P337307	
		Thallium	0.14	I	ug/L	P337307	

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 and sodium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Elevated levels of cadmium are consistent with analysis of the undigested sample.

Sample Location: HAGUE BR. TRIB @ US 441 80M W OF 77
TERRACE

Collection Date/Time: 12/18/2017 12:35

Field ID: G1NE006312182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1955024	EPA 8321B	Glyphosate**	12		ug/L	P337210	
		AMPA**	2.6		ug/L	P337210	
		Pyraclostrobin**	0.0020	U	ug/L	P337204	
		Sucralose**	0.010	U	ug/L	P337235	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	8.0E-04	U	ug/L	P337156	
		Fenuron	17		ug/L	P337156	
		Imidacloprid	8.0E-04	U	ug/L	P337156	
		Bentazon	8.0E-04	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCPD	0.0020	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	

Field ID: G1NE006312182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1955024	USGS O-2060-01	Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	
1955026	EPA 8270D	Aldrin	4.3	UJ	ng/L	P337315	SUR
		Alpha-BHC	2.2	UJ	ng/L	P337315	SUR
		Beta-BHC	4.3	UJ	ng/L	P337315	SUR
		Delta-BHC	4.3	UJ	ng/L	P337315	SUR
		Gamma-BHC	4.3	UJ	ng/L	P337315	SUR
		Carbophenothion	4.3	UJ	ng/L	P337315	SUR
		Chlorothalonil	2.2	UJ	ng/L	P337315	SUR
		Cypermethrin	22	UJ	ng/L	P337315	SUR
		DDD-p,p'	3.2	UJ	ng/L	P337315	SUR
		DDE-p,p'	3.2	UJ	ng/L	P337315	SUR
		DDT-p,p'	3.2	UJ	ng/L	P337315	SUR
		Dieldrin	4.3	UJ	ng/L	P337315	SUR
		Endosulfan I	4.3	UJ	ng/L	P337315	SUR
		Endosulfan II	4.3	UJ	ng/L	P337315	SUR
		Endosulfan Sulfate	2.2	UJ	ng/L	P337315	SUR
		Endrin	2.2	UJ	ng/L	P337315	SUR
		Endrin Aldehyde	2.2	UJ	ng/L	P337315	SUR
		Heptachlor	1.6	UJ	ng/L	P337315	SUR
		Heptachlor Epoxide	2.2	UJ	ng/L	P337315	SUR
		Methoxychlor	4.3	UJ	ng/L	P337315	SUR
		Mirex	2.2	UJ	ng/L	P337315	SUR
		Permethrin	11	UJ	ng/L	P337315	SUR
		Trifluralin	1.1	UJ	ng/L	P337315	SUR
		Alpha-Chlordane	1.1	UJ	ng/L	P337315	SUR
		Gamma-Chlordane	1.1	UJ	ng/L	P337315	SUR
		Endrin Ketone	2.2	UJ	ng/L	P337315	SUR
		Dicofol	32	UJ	ng/L	P337315	SUR
	EPA 8276	Chlordane**	2.7	UJ	ng/L	P337315	SUR
		Toxaphene**	13	UJ	ng/L	P337315	SUR
1955027	EPA 8270D	Alachlor	2.5	U	ng/L	P337230	
		Ametryn	280	J	ng/L	P337230	LCS, RPD
		Atrazine	2.5	U	ng/L	P337230	
		Atrazine Desethyl	15	U	ng/L	P337230	MS, RPD
		Azinphos Methyl	22	U	ng/L	P337230	
		Bromacil	4.9	U	ng/L	P337230	
		Butylate	4.0	U	ng/L	P337230	
		Chlorpyrifos Ethyl	0.25	UJ	ng/L	P337230	LCS
		Chlorpyrifos Methyl	0.099	U	ng/L	P337230	
		Demeton	2.0	UJ	ng/L	P337230	CCV
		Diazinon	1.2	U	ng/L	P337230	
		Disulfoton	0.49	UJ	ng/L	P337230	RPD
		EPTC	12	U	ng/L	P337230	
		Ethion	0.15	U	ng/L	P337230	

Field ID: G1NE006312182017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1955027	EPA 8270D	Ethoprop	0.099	UJ	ng/L	P337230	LCS
		Fenamiphos	0.25	UJ	ng/L	P337230	RPD
		Fipronil	2.5	U	ng/L	P337230	
		Fipronil Sulfide	0.15	UJ	ng/L	P337230	RPD
		Fipronil Sulfone	0.15	U	ng/L	P337230	
		Hexazinone	4.9	U	ng/L	P337230	
		Malathion	0.35	U	ng/L	P337230	
		Metribuzin	2.0	UJ	ng/L	P337230	LCS, MS, RPD
		Mevinphos	0.49	U	ng/L	P337230	
		Molinate	3.0	UJ	ng/L	P337230	RPD
		Norflurazon	4.9	UJ	ng/L	P337230	LCS
		Pendimethalin	9.9	U	ng/L	P337230	
		Phorate	0.25	UJ	ng/L	P337230	RPD
		Prometon	8.9	U	ng/L	P337230	
		Prometryn	3.7	I	ng/L	P337230	
		Simazine	11	I	ng/L	P337230	
		Terbufos	0.099	U	ng/L	P337230	
		Terbuthylazine	4.2	U	ng/L	P337230	
		Fonofos	0.20	UJ	ng/L	P337230	LCS, RPD
		Metalaxyl	2.5	U	ng/L	P337230	
		Metolachlor	2.5	U	ng/L	P337230	
		Acetochlor	2.5	U	ng/L	P337230	
		Cyanazine	4.9	UJ	ng/L	P337230	LCS, MS, RPD
		Parathion Ethyl	2.5	UJ	ng/L	P337230	LCS
		Parathion Methyl	2.5	U	ng/L	P337230	

Ref. Method and Comment:

EPA 8270D: Refer to the narrative for an explanation of QC Codes. Surrogate failures were observed in both original extraction and re-extraction. Analytical results were confirmed.

EPA 8276: Refer to the narrative for an explanation of QC Codes. Surrogate failure was observed in both original extraction and re-extraction. Analytical results were confirmed.

EPA 8270D: Some MDL(s) elevated due to necessary sample dilution. 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: P337220

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P337307

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P337307

Component	Result	Code	Units
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337307

Component	Result	Code	Units
Aluminum	3.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.20	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337390

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337391

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337394

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337395

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337697

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337330

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337331

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337453

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337351

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337365

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337479

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337263

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

Reference Method: EPA 8270D
Batch ID: P337230

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D

Batch ID: P337230

Component	Result	Code	Units
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	2.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.50	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.25	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270D

Batch ID: P337315

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P337315

Component	Result	Code	Units
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8276
Batch ID: P337315

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

Reference Method: EPA 8321B
Batch ID: P336877

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P337204

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P337210

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

Reference Method: EPA 8321B
Batch ID: P337235

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P337225

Component	Result	Code	Units
-----------	--------	------	-------

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P337225

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P337226

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P337227

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P337380

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

Reference Method: SM 2540 C-97
Batch ID: P337496

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P337497

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P337663

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P337664

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P337383

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P337385

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

Reference Method: SM 5310 B-00
Batch ID: P337547

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

Reference Method: USGS O-2060-01
Batch ID: P337156

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P337307

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	104		P	85 - 115
Magnesium	109		P	85 - 115
Manganese	105		P	85 - 115
Potassium	102		P	85 - 115
Sodium	99.9		P	85 - 115
Strontium	99.0		P	85 - 115
Tin	103		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	105		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337307

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.9		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	104		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337307

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	99.1		P	85 - 115
Beryllium	101		P	85 - 115
Boron	101		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	98.8		P	85 - 115
Cobalt	100		P	85 - 115
Copper	101		P	85 - 115
Lead	98.5		P	85 - 115
Molybdenum	95.5		P	85 - 115
Nickel	101		P	85 - 115
Selenium	101		P	85 - 115
Silver	103		P	85 - 115
Thallium	94.5		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337390

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337391

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337394

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337395

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337697

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: P337330

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.3		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337331

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337453

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337351

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337365

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337479

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337263

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

Reference Method: EPA 8270D
Batch ID: P337230

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	110	90.8	P/P	78 - 118
Alachlor	109	93.8	P/P	77 - 119
Ametryn	79.3	142	P/F	61 - 136
Atrazine	109	111	P/P	73 - 120
Atrazine Desethyl	106	79.2	P/P	16 - 122
Azinphos Methyl	153	127	P/P	69 - 186
Bromacil	112	115	P/P	40 - 125
Butylate	56.7	67.7	P/P	32 - 87.0
Chlorpyrifos Ethyl	125	109	F/P	53 - 110
Chlorpyrifos Methyl	107	100	P/P	31 - 119
Cyanazine	287	127	F/P	36 - 224
Demeton	106	88.6	P/P	39 - 122
Diazinon	104	102	P/P	75 - 119
Disulfoton	121	76.0	P/P	42 - 139
EPTC	54.7	69.1	P/P	33 - 96.0
Ethion	105	114	P/P	63 - 127

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P337230

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ethoprop	122	97.4	F/P	65 - 107
Fenamiphos	130	79.3	P/P	64 - 137
Fipronil	114	106	P/P	60 - 126
Fipronil Sulfide	121	76.0	P/P	58 - 124
Fipronil Sulfone	114	85.6	P/P	57 - 126
Fonofos	133	89.8	F/P	65 - 111
Hexazinone	109	119	P/P	46 - 151
Malathion	120	116	P/P	68 - 132
Metalaxyl	114	96.6	P/P	51 - 132
Metolachlor	110	99.1	P/P	78 - 119
Metribuzin	234	122	F/P	58 - 148
Mevinphos	86.2	104	P/P	34 - 128
Molinate	99.6	61.6	P/P	44 - 101
Norflurazon	113	130	P/F	63 - 129
Parathion Ethyl	112	105	F/P	80 - 109
Parathion Methyl	122	105	P/P	74 - 125
Pendimethalin	120	124	P/P	48 - 134
Phorate	103	67.6	P/P	52 - 119
Prometon	98.9	95.2	P/P	69 - 124
Prometryn	107	100	P/P	66 - 124
Simazine	127	131	P/P	61 - 134
Terbufos	113	86.0	P/P	58 - 115
Terbutylazine	111	91.3	P/P	77 - 113

Reference Method: EPA 8270D
Batch ID: P337315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	61.9	62.9	P/P	26 - 88.0
Alpha-BHC	77.3	85.6	P/P	63 - 114
Alpha-Chlordane	89.9	83.9	P/P	56 - 117
Beta-BHC	109	102	P/P	57 - 138
Carbophenothion	67.4	68.0	P/P	36 - 148
Chlorothalonil	124	92.0	P/P	26 - 173
Cypermethrin	96.3	83.8	P/P	42 - 159
DDD-p,p'	104	97.4	P/P	62 - 126
DDE-p,p'	93.6	84.6	P/P	53 - 115
DDT-p,p'	90.8	90.1	P/P	54 - 117
Delta-BHC	120	109	P/P	68 - 158
Dicofol	89.2	93.1	P/P	25 - 114
Dieldrin	98.3	86.4	P/P	59 - 126
Endosulfan I	103	96.6	P/P	62 - 138
Endosulfan II	127	96.9	P/P	61 - 150
Endosulfan Sulfate	103	92.7	P/P	63 - 132
Endrin	96.1	87.7	P/P	49 - 148
Endrin Aldehyde	103	98.5	P/P	50 - 144
Endrin Ketone	99.2	93.2	P/P	66 - 122
Gamma-BHC	78.0	78.2	P/P	60 - 137
Gamma-Chlordane	85.7	81.4	P/P	54 - 113
Heptachlor	60.1	67.3	P/P	43 - 104
Heptachlor Epoxide	89.4	86.2	P/P	64 - 118
Methoxychlor	104	95.6	P/P	63 - 129

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P337315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mirex	78.0	72.0	P/P	40 - 96.0
Permethrin	85.9	77.4	P/P	51 - 123
Trifluralin	73.6	77.3	P/P	35 - 187

Reference Method: EPA 8276
Batch ID: P337315

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	91.0	90.0	P/P	48 - 121
Toxaphene	96.3	100	P/P	43 - 135

Reference Method: EPA 8321B
Batch ID: P336877

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	87.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P337204

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	142		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P337210

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	126		P	40 - 150
Glyphosate	120		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P337235

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	89.5		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P337380

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P337383

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P337385

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
-----------	---------	---------	-----------	----------------

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P337385

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

Reference Method: SM 5310 B-00
Batch ID: P337547

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.2		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P337156

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	103		P	40 - 150
Acetaminophen	95.0		P	30 - 150
Bentazon	94.6		P	30 - 150
Carbamazepine	98.5		P	40 - 150
Diuron	83.7		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	100		P	40 - 150
Imidacloprid	99.8		P	40 - 160
Linuron	90.5		P	40 - 150
MCPP	93.3		P	40 - 150
Primidone	107		P	40 - 150
Triclopyr	90.8		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P337307

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955163	Iron	107	109	P/P	80 - 120
1955163	Magnesium	109	110	P/P	80 - 120
1955163	Manganese	104	105	P/P	80 - 120
1955163	Potassium	101	103	P/P	80 - 120
1955163	Strontium	99.9	100	P/P	80 - 120
1955163	Tin	105	107	P/P	80 - 120
1955163	Titanium	105	103	P/P	80 - 120
1955163	Vanadium	107	108	P/P	80 - 120
1955163	Zinc	102	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337307

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955163	Aluminum	95.2	97.5	P/P	80 - 120
1955163	Antimony	99.5	102	P/P	80 - 120
1955163	Arsenic	100	102	P/P	80 - 120
1955163	Barium	95.1	97.5	P/P	80 - 120
1955163	Beryllium	98.8	98.5	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337307

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955163	Boron	99.2	100	P/P	80 - 120
1955163	Cadmium	99.1	100	P/P	80 - 120
1955163	Chromium	95.2	97.2	P/P	80 - 120
1955163	Cobalt	95.3	96.8	P/P	80 - 120
1955163	Copper	95.9	97.0	P/P	80 - 120
1955163	Lead	96.4	98.3	P/P	80 - 120
1955163	Molybdenum	93.2	94.6	P/P	80 - 120
1955163	Nickel	96.6	97.6	P/P	80 - 120
1955163	Selenium	98.4	99.4	P/P	80 - 120
1955163	Silver	99.6	99.9	P/P	80 - 120
1955163	Thallium	93.0	95.6	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337390

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954884	Chloride	101		P	90 - 110
1954902	Chloride	98.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337391

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955064	Chloride	100		P	90 - 110
1955065	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954884	Sulfate	100		P	90 - 110
1954902	Sulfate	95.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337395

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955064	Sulfate	94.6		P	90 - 110
1955065	Sulfate	96.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337697

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954965	Ammonia-N	100	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337330

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954983	Kjeldahl Nitrogen	94.4	90.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337331

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955070	Kjeldahl Nitrogen	97.2	94.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337453

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955586	Kjeldahl Nitrogen	99.2	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954908	NO2NO3-N	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337365

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954965	Total-P	97.4	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337479

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955926	Total-P	98.2	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954886	O-Phosphate-P	93.8	94.6	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P337230

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955049	Acetochlor	94.3	90.4	P/P	74 - 123
1955049	Alachlor	95.4	92.1	P/P	73 - 124
1955049	Ametryn	88.0	65.0	P/P	56 - 149
1955049	Atrazine	105	108	P/P	73 - 124
1955049	Atrazine Desethyl	66.0	107	P/F	12 - 103
1955049	Azinphos Methyl	105	126	P/P	60 - 202
1955049	Bromacil	93.1	86.4	P/P	42 - 133
1955049	Butylate	59.1	50.4	P/P	10 - 85.0
1955049	Chlorpyrifos Ethyl	99.8	97.8	P/P	53 - 113
1955049	Chlorpyrifos Methyl	92.3	105	P/P	40 - 115
1955049	Cyanazine	113	267	P/F	22 - 210
1955049	Demeton	81.2	90.6	P/P	17 - 149
1955049	Diazinon	79.5	85.6	P/P	72 - 124
1955049	Disulfoton	84.4	99.9	P/P	43 - 139
1955049	EPTC	59.7	49.0	P/P	10 - 86.0
1955049	Ethion	104	87.0	P/P	65 - 131

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P337230

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955049	Ethoprop	86.7	102	P/P	59 - 110
1955049	Fenamiphos	109	108	P/P	57 - 138
1955049	Fipronil	103	89.8	P/P	40 - 130
1955049	Fipronil Sulfide	107	96.8	P/P	36 - 128
1955049	Fipronil Sulfone	107	92.3	P/P	16 - 145
1955049	Fonofos	80.4	96.7	P/P	60 - 112
1955049	Hexazinone	116	94.6	P/P	69 - 142
1955049	Malathion	98.6	90.2	P/P	68 - 132
1955049	Metalaxyl	94.9	91.2	P/P	66 - 118
1955049	Metolachlor	103	91.5	P/P	71 - 124
1955049	Metribuzin	111	175	P/F	61 - 140
1955049	Mevinphos	53.1	62.9	P/P	38 - 130
1955049	Molinate	61.1	61.8	P/P	23 - 99.0
1955049	Norflurazon	107	84.8	P/P	39 - 139
1955049	Parathion Ethyl	91.7	92.2	P/P	75 - 111
1955049	Parathion Methyl	93.1	100	P/P	64 - 130
1955049	Pendimethalin	98.9	102	P/P	26 - 173
1955049	Phorate	75.6	87.7	P/P	43 - 127
1955049	Prometon	97.1	86.6	P/P	50 - 144
1955049	Prometryn	102	87.9	P/P	69 - 126
1955049	Simazine	102	108	P/P	51 - 152
1955049	Terbufos	83.0	97.8	P/P	54 - 125
1955049	Terbutylazine	99.6	96.7	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P337315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955044	Aldrin	63.4	65.3	P/P	22 - 97.0
1955044	Alpha-BHC	97.6	94.3	P/P	43 - 132
1955044	Alpha-Chlordane	92.6	91.3	P/P	36 - 126
1955044	Beta-BHC	112	101	P/P	41 - 150
1955044	Carbophenothion	84.7	83.7	P/P	13 - 196
1955044	Chlorothalonil	116	116	P/P	10 - 266
1955044	Cypermethrin	101	88.3	P/P	37 - 161
1955044	DDD-p,p'	103	100	P/P	44 - 131
1955044	DDE-p,p'	96.5	94.3	P/P	32 - 127
1955044	DDT-p,p'	95.1	89.1	P/P	45 - 116
1955044	Delta-BHC	126	126	P/P	50 - 201
1955044	Dicofol	93.5	81.0	P/P	10 - 100
1955044	Dieldrin	97.3	104	P/P	39 - 142
1955044	Endosulfan I	103	107	P/P	51 - 139
1955044	Endosulfan II	119	114	P/P	49 - 155
1955044	Endosulfan Sulfate	101	90.7	P/P	54 - 136
1955044	Endrin	92.1	92.7	P/P	38 - 141
1955044	Endrin Aldehyde	104	87.7	P/P	14 - 152
1955044	Endrin Ketone	97.5	90.4	P/P	60 - 128
1955044	Gamma-BHC	92.5	88.5	P/P	48 - 157
1955044	Gamma-Chlordane	88.4	89.5	P/P	35 - 123
1955044	Heptachlor	71.3	74.4	P/P	25 - 112
1955044	Heptachlor Epoxide	92.7	90.6	P/P	48 - 125
1955044	Methoxychlor	114	97.0	P/P	52 - 127

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P337315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955044	Mirex	85.6	77.4	P/P	25 - 108
1955044	Permethrin	89.5	80.7	P/P	46 - 133
1955044	Trifluralin	82.1	82.9	P/P	29 - 254

Reference Method: EPA 8276
Batch ID: P337315

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955510	Chlordane	107	101	P/P	44 - 134
1955510	Toxaphene	103	108	P/P	36 - 147

Reference Method: EPA 8321B
Batch ID: P336877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953431	Sucralose	64.2	64.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P337204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955156	Pyraclostrobin	148	140	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P337210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955156	AMPA	126	122	P/P	40 - 150
1955156	Glyphosate	128	128	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P337235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955251	Sucralose	105	108	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P337383

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954981	Fluoride	96.6	95.2	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P337385

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954905	Organic Carbon	97.6	98.1	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P337547

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
---------------	-----------	---------	---------	-----------	----------------

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P337547

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1955183	Organic Carbon	95.3	96.9	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P337156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954940	2,4-D	82.6	99.4	P/P	40 - 150
1954940	Acetaminophen	111	114	P/P	30 - 150
1954940	Bentazon	53.1	59.6	P/P	30 - 150
1954940	Carbamazepine	96.3	95.0	P/P	40 - 150
1954940	Diuron	80.0	76.1	P/P	40 - 150
1954940	Fenuron	88.8	90.0	P/P	40 - 150
1954940	Fluridone	79.9	77.0	P/P	40 - 150
1954940	Imidacloprid	157	155	P/P	40 - 160
1954940	Linuron	85.5	76.0	P/P	40 - 150
1954940	MCCP	65.6	72.0	P/P	40 - 150
1954940	Primidone	101	110	P/P	40 - 150
1954940	Triclopyr	62.5	71.9	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P337220

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954979	Turbidity	1.77	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P337307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955163	Calcium	0.919	Spike	P	0 - 20
1955163	Iron	2.19	Spike	P	0 - 20
1955163	Magnesium	0.895	Spike	P	0 - 20
1955163	Manganese	0.309	Spike	P	0 - 20
1955163	Potassium	0.998	Spike	P	0 - 20
1955163	Sodium	0.362	Spike	P	0 - 20
1955163	Strontium	0.450	Spike	P	0 - 20
1955163	Tin	1.39	Spike	P	0 - 20
1955163	Titanium	1.80	Spike	P	0 - 20
1955163	Vanadium	0.632	Spike	P	0 - 20
1955163	Zinc	0.0903	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P337307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
--------------------------	-----------	-----------	-------------------	-----------	----------------

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P337307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955163	Aluminum	2.27	Spike	P	0 - 20
1955163	Antimony	2.04	Spike	P	0 - 20
1955163	Arsenic	1.27	Spike	P	0 - 20
1955163	Barium	1.96	Spike	P	0 - 20
1955163	Beryllium	0.374	Spike	P	0 - 20
1955163	Boron	0.760	Spike	P	0 - 20
1955163	Cadmium	1.37	Spike	P	0 - 20
1955163	Chromium	1.98	Spike	P	0 - 20
1955163	Cobalt	1.55	Spike	P	0 - 20
1955163	Copper	1.08	Spike	P	0 - 20
1955163	Lead	1.97	Spike	P	0 - 20
1955163	Molybdenum	1.38	Spike	P	0 - 20
1955163	Nickel	1.03	Spike	P	0 - 20
1955163	Selenium	1.04	Spike	P	0 - 20
1955163	Silver	0.274	Spike	P	0 - 20
1955163	Thallium	2.75	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954884	Chloride	1.93	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337391

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955064	Chloride	3.77	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954884	Sulfate	2.92	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P337395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955064	Sulfate	4.14	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P337697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954965	Ammonia-N	0.455	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337330

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954983	Kjeldahl Nitrogen	2.17	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337331

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955070	Kjeldahl Nitrogen	1.99	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P337453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955586	Kjeldahl Nitrogen	1.55	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P337351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954908	NO2NO3-N	0.697	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337365

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954965	Total-P	1.95	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P337479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955926	Total-P	0.148	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P337263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954886	O-Phosphate-P	0.495	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P337230

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955049	Acetochlor	4.24	Spike	P	0 - 30
1955049	Alachlor	3.60	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P337230

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955049	Ametryn	30.0	Spike	F	0 - 30
1955049	Atrazine	2.03	Spike	P	0 - 30
1955049	Atrazine Desethyl	47.0	Spike	F	0 - 30
1955049	Azinphos Methyl	18.4	Spike	P	0 - 30
1955049	Bromacil	7.53	Spike	P	0 - 30
1955049	Butylate	15.9	Spike	P	0 - 30
1955049	Chlorpyrifos Ethyl	2.00	Spike	P	0 - 30
1955049	Chlorpyrifos Methyl	12.5	Spike	P	0 - 30
1955049	Cyanazine	80.8	Spike	F	0 - 30
1955049	Demeton	10.9	Spike	P	0 - 30
1955049	Diazinon	7.33	Spike	P	0 - 30
1955049	Disulfoton	16.8	Spike	P	0 - 30
1955049	EPTC	19.8	Spike	P	0 - 30
1955049	Ethion	17.4	Spike	P	0 - 30
1955049	Ethoprop	16.2	Spike	P	0 - 30
1955049	Fenamiphos	0.945	Spike	P	0 - 30
1955049	Fipronil	14.0	Spike	P	0 - 30
1955049	Fipronil Sulfide	9.96	Spike	P	0 - 30
1955049	Fipronil Sulfone	14.4	Spike	P	0 - 30
1955049	Fonofos	18.4	Spike	P	0 - 30
1955049	Hexazinone	17.7	Spike	P	0 - 30
1955049	Malathion	8.11	Spike	P	0 - 30
1955049	Metalaxyl	3.93	Spike	P	0 - 30
1955049	Metolachlor	11.0	Spike	P	0 - 30
1955049	Metribuzin	43.9	Spike	F	0 - 30
1955049	Mevinphos	16.9	Spike	P	0 - 30
1955049	Molinate	1.12	Spike	P	0 - 30
1955049	Norflurazon	21.2	Spike	P	0 - 30
1955049	Parathion Ethyl	0.529	Spike	P	0 - 30
1955049	Parathion Methyl	7.60	Spike	P	0 - 30
1955049	Pendimethalin	3.04	Spike	P	0 - 30
1955049	Phorate	14.8	Spike	P	0 - 30
1955049	Prometon	11.4	Spike	P	0 - 30
1955049	Prometryn	14.4	Spike	P	0 - 30
1955049	Simazine	6.10	Spike	P	0 - 30
1955049	Terbufos	16.4	Spike	P	0 - 30
1955049	Terbuthylazine	2.92	Spike	P	0 - 30
LFB	Acetochlor	19.4	LCS	P	0 - 30
LFB	Alachlor	14.8	LCS	P	0 - 30
LFB	Ametryn	56.5	LCS	F	0 - 30
LFB	Atrazine	1.58	LCS	P	0 - 30
LFB	Atrazine Desethyl	29.0	LCS	P	0 - 30
LFB	Azinphos Methyl	18.2	LCS	P	0 - 30
LFB	Bromacil	2.87	LCS	P	0 - 30
LFB	Butylate	17.7	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	13.7	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	6.63	LCS	P	0 - 30
LFB	Cyanazine	77.5	LCS	F	0 - 30
LFB	Demeton	18.2	LCS	P	0 - 30
LFB	Diazinon	2.07	LCS	P	0 - 30
LFB	Disulfoton	45.5	LCS	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P337230

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	EPTC	23.2	LCS	P	0 - 30
LFB	Ethion	7.72	LCS	P	0 - 30
LFB	Ethoprop	22.8	LCS	P	0 - 30
LFB	Fenamiphos	48.2	LCS	F	0 - 30
LFB	Fipronil	7.23	LCS	P	0 - 30
LFB	Fipronil Sulfide	45.4	LCS	F	0 - 30
LFB	Fipronil Sulfone	28.9	LCS	P	0 - 30
LFB	Fonofos	38.9	LCS	F	0 - 30
LFB	Hexazinone	8.95	LCS	P	0 - 30
LFB	Malathion	3.93	LCS	P	0 - 30
LFB	Metalaxyl	16.6	LCS	P	0 - 30
LFB	Metolachlor	10.3	LCS	P	0 - 30
LFB	Metribuzin	63.1	LCS	F	0 - 30
LFB	Mevinphos	19.0	LCS	P	0 - 30
LFB	Molinate	47.2	LCS	F	0 - 30
LFB	Norflurazon	14.1	LCS	P	0 - 30
LFB	Parathion Ethyl	6.99	LCS	P	0 - 30
LFB	Parathion Methyl	15.2	LCS	P	0 - 30
LFB	Pendimethalin	2.54	LCS	P	0 - 30
LFB	Phorate	41.1	LCS	F	0 - 30
LFB	Prometon	3.82	LCS	P	0 - 30
LFB	Prometryn	5.96	LCS	P	0 - 30
LFB	Simazine	3.00	LCS	P	0 - 30
LFB	Terbufos	27.5	LCS	P	0 - 30
LFB	Terbuthylazine	19.2	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P337315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955044	Aldrin	2.95	Spike	P	0 - 30
1955044	Alpha-BHC	3.47	Spike	P	0 - 30
1955044	Alpha-Chlordane	1.40	Spike	P	0 - 30
1955044	Beta-BHC	10.2	Spike	P	0 - 30
1955044	Carbophenothion	1.24	Spike	P	0 - 30
1955044	Chlorothalonil	0.154	Spike	P	0 - 30
1955044	Cypermethrin	13.4	Spike	P	0 - 30
1955044	DDD-p,p'	3.33	Spike	P	0 - 30
1955044	DDE-p,p'	2.27	Spike	P	0 - 30
1955044	DDT-p,p'	6.49	Spike	P	0 - 30
1955044	Delta-BHC	0.0231	Spike	P	0 - 30
1955044	Dicofol	14.3	Spike	P	0 - 30
1955044	Dieldrin	6.57	Spike	P	0 - 30
1955044	Endosulfan I	3.06	Spike	P	0 - 30
1955044	Endosulfan II	4.11	Spike	P	0 - 30
1955044	Endosulfan Sulfate	10.5	Spike	P	0 - 30
1955044	Endrin	0.601	Spike	P	0 - 30
1955044	Endrin Aldehyde	16.9	Spike	P	0 - 30
1955044	Endrin Ketone	7.56	Spike	P	0 - 30
1955044	Gamma-BHC	4.39	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P337315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955044	Gamma-Chlordane	1.22	Spike	P	0 - 30
1955044	Heptachlor	4.17	Spike	P	0 - 30
1955044	Heptachlor Epoxide	2.30	Spike	P	0 - 30
1955044	Methoxychlor	16.2	Spike	P	0 - 30
1955044	Mirex	10.2	Spike	P	0 - 30
1955044	Permethrin	10.3	Spike	P	0 - 30
1955044	Trifluralin	1.04	Spike	P	0 - 30
LFB	Aldrin	1.50	LCS	P	0 - 30
LFB	Alpha-BHC	10.3	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.93	LCS	P	0 - 30
LFB	Beta-BHC	6.98	LCS	P	0 - 30
LFB	Carbophenothion	0.843	LCS	P	0 - 30
LFB	Chlorothalonil	29.2	LCS	P	0 - 30
LFB	Cypermethrin	13.9	LCS	P	0 - 30
LFB	DDD-p,p'	6.65	LCS	P	0 - 30
LFB	DDE-p,p'	10.1	LCS	P	0 - 30
LFB	DDT-p,p'	0.858	LCS	P	0 - 30
LFB	Delta-BHC	9.61	LCS	P	0 - 30
LFB	Dicofol	4.26	LCS	P	0 - 30
LFB	Dieldrin	12.9	LCS	P	0 - 30
LFB	Endosulfan I	6.86	LCS	P	0 - 30
LFB	Endosulfan II	26.8	LCS	P	0 - 30
LFB	Endosulfan Sulfate	10.7	LCS	P	0 - 30
LFB	Endrin	9.17	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.76	LCS	P	0 - 30
LFB	Endrin Ketone	6.18	LCS	P	0 - 30
LFB	Gamma-BHC	0.326	LCS	P	0 - 30
LFB	Gamma-Chlordane	5.07	LCS	P	0 - 30
LFB	Heptachlor	11.4	LCS	P	0 - 30
LFB	Heptachlor Epoxide	3.63	LCS	P	0 - 30
LFB	Methoxychlor	8.49	LCS	P	0 - 30
LFB	Mirex	7.99	LCS	P	0 - 30
LFB	Permethrin	10.4	LCS	P	0 - 30
LFB	Trifluralin	4.92	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P337315

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955510	Chlordane	4.99	Spike	P	0 - 30
1955510	Toxaphene	5.26	Spike	P	0 - 30
LFB	Chlordane	1.15	LCS	P	0 - 30
LFB	Toxaphene	4.16	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P336877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953431	Sucralose	0.230	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P337204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955156	Pyraclostrobin	6.04	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P337210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955156	AMPA	3.95	Spike	P	0 - 30
1955156	Glyphosate	0.156	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P337235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955251	Sucralose	1.64	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P337225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954901	Color (true)	0.696	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P337226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954981	Color (true)	2.76	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P337227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954836	Color (true)	11.0	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P337380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954981	Total Alkalinity	0.591	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P337496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954981	TDS	3.36	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
 Batch ID: P337497

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955066	TDS	2.90	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P337383

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954981	Fluoride	0.986	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
 Batch ID: P337385

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954905	Organic Carbon	0.402	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P337547

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1955183	Organic Carbon	1.56	Spike	P	0 - 20

Reference Method: USGS O-2060-01
 Batch ID: P337156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954940	2,4-D	12.8	Spike	P	0 - 30
1954940	Acetaminophen	2.56	Spike	P	0 - 30
1954940	Bentazon	7.08	Spike	P	0 - 30
1954940	Carbamazepine	1.30	Spike	P	0 - 30
1954940	Diuron	4.61	Spike	P	0 - 30
1954940	Fenuron	1.32	Spike	P	0 - 30
1954940	Fluridone	3.18	Spike	P	0 - 30
1954940	Imidacloprid	1.02	Spike	P	0 - 30
1954940	Linuron	11.7	Spike	P	0 - 30
1954940	MCPP	9.42	Spike	P	0 - 30
1954940	Primidone	8.67	Spike	P	0 - 30
1954940	Triclopyr	14.0	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

Quality Assurance Report Surrogates

Lab Sample ID: 1955003
Field Sample ID: G1NE008312182017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	116	P	30 - 160
EPA 8321B	Carbamazepine-d10	111	P	30 - 160
EPA 8321B	Diuron-d6	91.5	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	60.5	P	40 - 160
USGS O-2060-01	2,4-D-d3	97.6	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	116	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	111	P	30 - 160
USGS O-2060-01	Diuron-d6	91.5	P	30 - 160
USGS O-2060-01	Primidone-d5	113	P	30 - 160
USGS O-2060-01	Sucralose-d6	60.5	P	40 - 160

Lab Sample ID: 1955004
Field Sample ID: G1NE001812182017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	124	P	30 - 160
EPA 8321B	Carbamazepine-d10	106	P	30 - 160
EPA 8321B	Diuron-d6	96.4	P	30 - 160
EPA 8321B	Primidone-d5	83.2	P	30 - 160
EPA 8321B	Sucralose-d6	80.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	98.6	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	124	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	106	P	30 - 160
USGS O-2060-01	Diuron-d6	96.4	P	30 - 160
USGS O-2060-01	Primidone-d5	83.2	P	30 - 160
USGS O-2060-01	Sucralose-d6	80.0	P	40 - 160

Lab Sample ID: 1955005
Field Sample ID: G1NE089412182017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	115	P	30 - 160
EPA 8321B	Carbamazepine-d10	113	P	30 - 160
EPA 8321B	Diuron-d6	99.2	P	30 - 160
EPA 8321B	Primidone-d5	123	P	30 - 160
EPA 8321B	Sucralose-d6	74.4	P	40 - 160
USGS O-2060-01	2,4-D-d3	86.0	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	115	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	113	P	30 - 160
USGS O-2060-01	Diuron-d6	99.2	P	30 - 160
USGS O-2060-01	Primidone-d5	123	P	30 - 160
USGS O-2060-01	Sucralose-d6	74.4	P	40 - 160

Lab Sample ID: 1955024
Field Sample ID: G1NE006312182017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	83.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	64.9	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1955024
Field Sample ID: G1NE006312182017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	61.6	P	30 - 160
EPA 8321B	Diuron-d6	109	P	30 - 160
EPA 8321B	Diuron-d6	61.6	P	30 - 160
EPA 8321B	Diuron-d6	109	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	40 - 160
EPA 8321B	Primidone-d5	52.9	P	30 - 160
EPA 8321B	Primidone-d5	52.9	P	30 - 160
EPA 8321B	Sucralose-d6	99.0	P	40 - 160
EPA 8321B	Sucralose-d6	99.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	56.7	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	83.5	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	64.9	P	30 - 160
USGS O-2060-01	Diuron-d6	61.6	P	30 - 160
USGS O-2060-01	Diuron-d6	109	P	30 - 160
USGS O-2060-01	Primidone-d5	52.9	P	30 - 160
USGS O-2060-01	Sucralose-d6	99.0	P	40 - 160

Lab Sample ID: 1955026
Field Sample ID: G1NE006312182017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	17.4	F	39 - 118
EPA 8270D	Tetrachloro-m-xylene	25.9	F	32 - 103
EPA 8276	Decachlorobiphenyl	16.7	F	31 - 100

Lab Sample ID: 1955027
Field Sample ID: G1NE006312182017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	96.2	P	71 - 126

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A81014
Included Lab Sample IDs: 1954979, 1954980, 1954981, 1954988

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

Reference Method: SM 2120 B
Run ID: A81015
Included Lab Sample IDs: 1954979, 1954980, 1954981, 1954988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	85 - 115
Color (true)	98.1	98.6	P/P	85 - 115
Color (true)	98.6	99.8	P/P	85 - 115
Color (true)	99.8	99.8	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A81037

Included Lab Sample IDs: 1954985, 1954986, 1954987, 1954990

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	97.6	P/P	90 - 110
O-Phosphate-P	99.5	98.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A81055

Included Lab Sample IDs: 1955003, 1955004, 1955005, 1955024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	81.5	84.4	P/P	60 - 150
Sucralose	84.4	92.1	P/P	60 - 150
Sucralose	85.4	81.5	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A81066

Included Lab Sample IDs: 1954982, 1954983, 1954984, 1954989

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A81083

Included Lab Sample IDs: 1954979, 1954980, 1954981, 1954988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.6	P/P	90 - 110
Total Alkalinity	98.6	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A81083

Included Lab Sample IDs: 1954979, 1954980, 1954981, 1954988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	98.1	P/P	90 - 110
Fluoride	99.5	101	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A81085

Included Lab Sample IDs: 1954982, 1954983, 1954984

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

Reference Method: EPA 8321B

Run ID: A81086

Included Lab Sample IDs: 1955024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.3	94.7	P/P	60 - 150
Glyphosate	83.8	95.2	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A81087

Included Lab Sample IDs: 1954979, 1954980, 1954981, 1954988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	106	108	P/P	90 - 110
Chloride	108	107	P/P	90 - 110
Sulfate	103	105	P/P	90 - 110
Sulfate	105	104	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A81093

Included Lab Sample IDs: 1955003, 1955004, 1955005, 1955024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	93.8	P/P	50 - 150
Acetaminophen	102	103	P/P	60 - 150
Acetaminophen	103	101	P/P	60 - 150
Bentazon	102	98.0	P/P	50 - 150
Carbamazepine	105	106	P/P	60 - 150
Carbamazepine	106	103	P/P	60 - 150
Diuron	101	108	P/P	60 - 150
Diuron	108	95.8	P/P	60 - 150
Fenuron	101	103	P/P	60 - 150
Fenuron	105	104	P/P	60 - 150
Fluridone	106	101	P/P	60 - 160
Fluridone	106	106	P/P	60 - 160
Imidacloprid	102	95.1	P/P	60 - 150
Imidacloprid	95.1	96.0	P/P	60 - 150
Linuron	101	106	P/P	60 - 150
Linuron	106	106	P/P	60 - 150
MCPP	97.6	94.4	P/P	50 - 150
Primidone	104	101	P/P	60 - 150
Primidone	95.0	104	P/P	60 - 150
Triclopyr	91.2	83.8	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A81096

Included Lab Sample IDs: 1954983, 1954984

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

Reference Method: EPA 8321B

Run ID: A81106

Included Lab Sample IDs: 1955024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	83.8	85.8	P/P	60 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A81107

Included Lab Sample IDs: 1954982, 1954983, 1954984

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A81111

Included Lab Sample IDs: 1954982

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

Reference Method: SM 5310 B-00

Run ID: A81124

Included Lab Sample IDs: 1954989

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.3	97.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A81138

Included Lab Sample IDs: 1954989

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A81152

Included Lab Sample IDs: 1955007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.0	99.6	P/P	90 - 110
Antimony	104	103	P/P	90 - 110
Arsenic	99.1	97.7	P/P	90 - 110
Barium	96.2	95.3	P/P	90 - 110
Beryllium	97.0	95.2	P/P	90 - 110
Boron	97.6	99.8	P/P	90 - 110
Cadmium	96.1	95.5	P/P	90 - 110
Chromium	95.4	93.6	P/P	90 - 110
Cobalt	96.0	93.9	P/P	90 - 110
Copper	98.9	97.4	P/P	90 - 110
Lead	96.1	97.1	P/P	90 - 110
Molybdenum	95.1	93.1	P/P	90 - 110
Nickel	98.8	97.2	P/P	90 - 110
Selenium	96.9	97.0	P/P	90 - 110
Silver	104	104	P/P	90 - 110
Thallium	93.6	94.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A81156

Included Lab Sample IDs: 1954989

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A81173

Included Lab Sample IDs: 1955007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	105	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A81173

Included Lab Sample IDs: 1955007

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	103	105	P/P	95 - 105
Magnesium	104	106	P/P	95 - 105
Manganese	101	101	P/P	95 - 105
Potassium	103	105	P/P	95 - 105
Sodium	98.7	101	P/P	95 - 105
Strontium	97.9	97.1	P/P	95 - 105
Tin	98.8	99.5	P/P	95 - 105
Titanium	99.7	99.4	P/P	95 - 105
Vanadium	99.5	99.6	P/P	95 - 105
Zinc	101	101	P/P	95 - 105

Reference Method: EPA 8276

Run ID: A81190

Included Lab Sample IDs: 1955026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	113		P	80 - 120
Toxaphene	106		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A81225

Included Lab Sample IDs: 1954982, 1954983, 1954984, 1954989

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

Reference Method: EPA 8270D

Run ID: A81287

Included Lab Sample IDs: 1955026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.8		P	80 - 120
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	96.9		P	80 - 120
Beta-BHC	94.6		P	80 - 120
Carbophenothion	85.8		P	80 - 120
Chlorothalonil	114		P	80 - 120
Cypermethrin	89.1		P	80 - 120
DDD-p,p'	96.9		P	80 - 120
DDE-p,p'	99.0		P	80 - 120
DDT-p,p'	106		P	80 - 120
Delta-BHC	95.4		P	80 - 120
Dicofol	91.7		P	80 - 120
Dieldrin	96.8		P	80 - 120
Endosulfan I	97.1		P	80 - 120
Endosulfan II	98.7		P	80 - 120
Endosulfan Sulfate	98.2		P	80 - 120
Endrin	91.3		P	80 - 120
Endrin Aldehyde	93.2		P	80 - 120
Endrin Ketone	95.8		P	80 - 120
Gamma-BHC	96.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A81287

Included Lab Sample IDs: 1955026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-Chlordane	95.9		P	80 - 120
Heptachlor	91.9		P	80 - 120
Heptachlor Epoxide	97.1		P	80 - 120
Methoxychlor	104		P	80 - 120
Mirex	99.6		P	80 - 120
Permethrin	90.0		P	80 - 120
Trifluralin	100		P	80 - 120

Reference Method: EPA 8270D

Run ID: A81366

Included Lab Sample IDs: 1955027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.9		P	80 - 120
Alachlor	97.1		P	80 - 120
Ametryn	90.5		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	108		P	80 - 120
Azinphos Methyl	94.8		P	80 - 120
Bromacil	97.9		P	80 - 120
Butylate	98.0		P	80 - 120
Chlorpyrifos Ethyl	96.6		P	80 - 120
Chlorpyrifos Methyl	98.0		P	80 - 120
Cyanazine	108		P	80 - 120
Demeton	150*		F	80 - 120
Diazinon	92.6		P	80 - 120
Disulfoton	97.9		P	80 - 120
EPTC	97.7		P	80 - 120
Ethion	99.7		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	94.7		P	80 - 120
Fipronil	94.5		P	80 - 120
Fipronil Sulfide	96.6		P	80 - 120
Fipronil Sulfone	97.7		P	80 - 120
Fonofos	97.6		P	80 - 120
Hexazinone	94.7		P	80 - 120
Malathion	97.6		P	80 - 120
Metalaxyl	97.2		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	95.5		P	80 - 120
Mevinphos	92.2		P	80 - 120
Molinate	102		P	80 - 120
Norflurazon	98.2		P	80 - 120
Parathion Ethyl	90.9		P	80 - 120
Parathion Methyl	94.0		P	80 - 120
Pendimethalin	96.7		P	80 - 120
Phorate	96.1		P	80 - 120
Prometon	97.3		P	80 - 120
Prometryn	95.8		P	80 - 120
Simazine	92.8		P	80 - 120
Terbufos	96.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A81366
Included Lab Sample IDs: 1955027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Terbutylazine	96.3		P	80 - 120

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				1.77	
EPA 200.7 Rev. 4.4	Calcium	105				0.919
	Iron	104	107 109			2.19
	Magnesium	109	109 110			0.895
	Manganese	105	104 105			0.309
	Potassium	102	101 103			0.998
	Sodium	99.9				0.362
	Strontium	99.0	99.9 100			0.450
	Tin	103	105 107			1.39
	Titanium	102	105 103			1.80
	Vanadium	105	107 108			0.632
	Zinc	101	102 102			0.0903
EPA 200.8 Rev. 5.4	Aluminum	98.9	95.2 97.5			2.27
	Antimony	102	99.5 102			2.04
	Arsenic	104	100 102			1.27
	Barium	99.1	95.1 97.5			1.96
	Beryllium	101	98.8 98.5			0.374
	Boron	101	99.2 100			0.760
	Cadmium	103	99.1 100			1.37
	Chromium	98.8	95.2 97.2			1.98
	Cobalt	100	95.3 96.8			1.55
	Copper	101	95.9 97.0			1.08
	Lead	98.5	96.4 98.3			1.97
	Molybdenum	95.5	93.2 94.6			1.38
	Nickel	101	96.6 97.6			1.03
	Selenium	101	98.4 99.4			1.04
	Silver	103	99.6 99.9			0.274
	Thallium	94.5	93.0 95.6			2.75
EPA 300.0 Rev. 2.1	Chloride	101	101 98.8		1.93	
	Chloride	105	100 102		3.77	
	Sulfate	97.4	100 95.7		2.92	
	Sulfate	102	94.6 96.9		4.14	
EPA 350.1 Rev. 2.0	Ammonia-N	103	100 99.8			0.455
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.3	94.4 90.8			2.17
	Kjeldahl Nitrogen	98.8	97.2 94.9			1.99
	Kjeldahl Nitrogen	104	99.2 101			1.55
EPA 353.2 Rev. 2.0	NO2NO3-N	104	105 104			0.697
EPA 365.1 Rev. 2.0	Total-P	98.5	97.4 99.8			1.95
	Total-P	102	98.2 98.4			0.148

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 365.1 Rev. 2.0 dissolved EPA 8270D	O-Phosphate-P	102		93.8	94.6			0.495
	Acetochlor	110	90.8	94.3	90.4	19.4		4.24
	Alachlor	109	93.8	95.4	92.1	14.8		3.60
	Aldrin	61.9	62.9	63.4	65.3	1.50		2.95
	Alpha-BHC	77.3	85.6	97.6	94.3	10.3		3.47
	Alpha-Chlordane	83.9	89.9	92.6	91.3	6.93		1.40
	Ametryn	79.3	142	88.0	65.0	56.5		30.0
	Atrazine	109	111	105	108	1.58		2.03
	Atrazine Desethyl	106	79.2	66.0	107	29.0		47.0
	Azinphos Methyl	153	127	105	126	18.2		18.4
	Beta-BHC	102	109	112	101	6.98		10.2
	Bromacil	112	115	93.1	86.4	2.87		7.53
	Butylate	56.7	67.7	59.1	50.4	17.7		15.9
	Carbophenothion	68.0	67.4	84.7	83.7	0.843		1.24
	Chlorothalonil	92.0	124	116	116	29.2		0.154
	Chlorpyrifos Ethyl	125	109	99.8	97.8	13.7		2.00
	Chlorpyrifos Methyl	107	100	92.3	105	6.63		12.5
	Cyanazine	287	127	113	267	77.5		80.8
	Cypermethrin	83.8	96.3	101	88.3	13.9		13.4
	DDD-p,p'	97.4	104	103	100	6.65		3.33
	DDE-p,p'	93.6	84.6	96.5	94.3	10.1		2.27
	DDT-p,p'	90.8	90.1	95.1	89.1	0.858		6.49
	Delta-BHC	109	120	126	126	9.61		0.0231
	Demeton	106	88.6	81.2	90.6	18.2		10.9
	Diazinon	104	102	79.5	85.6	2.07		7.33
	Dicofol	93.1	89.2	93.5	81.0	4.26		14.3
	Dieldrin	98.3	86.4	97.3	104	12.9		6.57
	Disulfoton	121	76.0	84.4	99.9	45.5		16.8
	Endosulfan I	103	96.6	103	107	6.86		3.06
	Endosulfan II	127	96.9	119	114	26.8		4.11
	Endosulfan Sulfate	103	92.7	101	90.7	10.7		10.5
	Endrin	96.1	87.7	92.1	92.7	9.17		0.601
	Endrin Aldehyde	103	98.5	104	87.7	4.76		16.9
	Endrin Ketone	93.2	99.2	97.5	90.4	6.18		7.56
	EPTC	54.7	69.1	59.7	49.0	23.2		19.8
	Ethion	105	114	104	87.0	7.72		17.4
	Ethoprop	122	97.4	86.7	102	22.8		16.2
	Fenamiphos	130	79.3	109	108	48.2		0.945
	Fipronil	114	106	103	89.8	7.23		14.0
	Fipronil Sulfide	121	76.0	107	96.8	45.4		9.96
	Fipronil Sulfone	114	85.6	107	92.3	28.9		14.4
	Fonofos	133	89.8	80.4	96.7	38.9		18.4
	Gamma-BHC	78.2	78.0	92.5	88.5	0.326		4.39
	Gamma-Chlordane	81.4	85.7	88.4	89.5	5.07		1.22
	Heptachlor	60.1	67.3	71.3	74.4	11.4		4.17
	Heptachlor Epoxide	89.4	86.2	92.7	90.6	3.63		2.30
	Hexazinone	109	119	116	94.6	8.95		17.7
	Malathion	120	116	98.6	90.2	3.93		8.11
	Metalaxyl	114	96.6	94.9	91.2	16.6		3.93
	Methoxychlor	104	95.6	114	97.0	8.49		16.2
	Metolachlor	110	99.1	103	91.5	10.3		11.0
	Metribuzin	234	122	111	175	63.1		43.9
	Mevinphos	86.2	104	53.1	62.9	19.0		16.9
	Mirex	78.0	72.0	85.6	77.4	7.99		10.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Molinate	99.6	61.6	61.1	61.8	47.2	1.12
	Norflurazon	113	130	107	84.8	14.1	21.2
	Parathion Ethyl	112	105	91.7	92.2	6.99	0.529
	Parathion Methyl	122	105	93.1	100	15.2	7.60
	Pendimethalin	120	124	98.9	102	2.54	3.04
	Permethrin	85.9	77.4	89.5	80.7	10.4	10.3
	Phorate	103	67.6	75.6	87.7	41.1	14.8
	Prometon	98.9	95.2	97.1	86.6	3.82	11.4
	Prometryn	107	100	102	87.9	5.96	14.4
	Simazine	127	131	102	108	3.00	6.10
	Terbufos	113	86.0	83.0	97.8	27.5	16.4
	Terbutylazine	111	91.3	99.6	96.7	19.2	2.92
	Trifluralin	77.3	73.6	82.1	82.9	4.92	1.04
	Chlordane	91.0	90.0	107	101	1.15	4.99
	Toxaphene	96.3	100	103	108	4.16	5.26
EPA 8276							
EPA 8321B	AMPA	126		126	122		3.95
	Glyphosate	120		128	128		0.156
	Pyraclostrobin	142		148	140		6.04
	Sucralose	87.8		64.2	64.3		0.230
	Sucralose	89.5		105	108		1.64
SM 2120 B	Color (true)					0.696	
	Color (true)					2.76	
	Color (true)					11.0	
SM 2320 B-97	Total Alkalinity	100				0.591	
SM 2540 C-97	TDS					3.36	
	TDS					2.90	
SM 4500 F-C-97	Fluoride	96.7		96.6	95.2		0.986
SM 5310 B-00	Organic Carbon	98.4		97.6	98.1		0.402
	Organic Carbon	96.2		95.3	96.9		1.56
USGS O-2060-01	2,4-D	103		99.4	82.6		12.8
	Acetaminophen	95.0		111	114		2.56
	Bentazon	94.6		59.6	53.1		7.08
	Carbamazepine	98.5		96.3	95.0		1.30
	Diuron	83.7		80.0	76.1		4.61
	Fenuron	103		88.8	90.0		1.32
	Fluridone	100		79.9	77.0		3.18
	Imidacloprid	99.8		157	155		1.02
	Linuron	90.5		85.5	76.0		11.7
	MCPP	93.3		72.0	65.6		9.42
	Primidone	107		101	110		8.67
	Triclopyr	90.8		71.9	62.5		14.0

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1954979, 1954980, 1954981, 1954988
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1955007
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1955007
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1954979, 1954980, 1954981, 1954988

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1954979, 1954980, 1954981, 1954988
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1954982, 1954983, 1954984, 1954989
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1954982, 1954983, 1954984, 1954989
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1954982, 1954983, 1954984, 1954989
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1954982, 1954983, 1954984, 1954989
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1954985, 1954986, 1954987, 1954990
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1955026
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1955027
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1955026
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1955003, 1955004, 1955005, 1955024
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1955024
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1955024
SM 2120 B / E31780	True Color measured at 450 nm	1954979, 1954980, 1954981, 1954988
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1954979, 1954980, 1954981, 1954988
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1954979, 1954980, 1954981, 1954988
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1954979, 1954980, 1954981, 1954988
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1954979, 1954980, 1954981, 1954988
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1954982, 1954983, 1954984, 1954989
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1955003, 1955004, 1955005, 1955024
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1955003, 1955004, 1955005, 1955024

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	12/19/2017			12/19/2017 16:37	DeAsia Armster	1954979, 1954980, 1954981, 1954988
EPA 200.7 Rev. 4.4	12/19/2017	12/20/2017	Elliott D. Healy	12/28/2017	Betina Topolski	1955007
EPA 200.8 Rev. 5.4	12/19/2017	12/20/2017	Elliott D. Healy	12/26/2017	Nadine Brooks	1955007
EPA 300.0 Rev. 2.1	12/19/2017			12/21/2017	Julia Storbeck	1954979, 1954980, 1954981, 1954988
EPA 350.1 Rev. 2.0	12/19/2017			12/29/2017	Sofia Elnemr	1954982, 1954983, 1954984, 1954989
EPA 351.2 Rev. 2.0	12/19/2017	12/21/2017	Adrian Shelby	12/22/2017	Joseph Suarez	1954982, 1954983, 1954984
	12/19/2017	12/26/2017	Adrian Shelby	12/27/2017	Joseph Suarez	1954989
EPA 353.2 Rev. 2.0	12/19/2017			12/21/2017	Beverly Y. Sanders	1954982, 1954983, 1954984, 1954989
EPA 365.1 Rev. 2.0	12/19/2017	12/21/2017	Adrian Shelby	12/22/2017	Lipi Saha	1954983, 1954984
	12/19/2017	12/21/2017	Adrian Shelby	12/26/2017	Lipi Saha	1954982
	12/19/2017	12/27/2017	Sima Feizi	12/28/2017	Lipi Saha	1954989
EPA 365.1 Rev. 2.0 dissolved	12/19/2017			12/19/2017 15:21	Megan Treadwell	1954985
	12/19/2017			12/19/2017 15:22	Megan Treadwell	1954986
	12/19/2017			12/19/2017 15:27	Megan Treadwell	1954987
	12/19/2017			12/19/2017 15:28	Megan Treadwell	1954990
EPA 8270D	12/19/2017	12/21/2017	Fe-Val Siddell	12/26/2017	Vandana T. Nagar	1955027
	12/19/2017	12/21/2017	Rasheda Ghaffari	12/27/2017	Goutam Palui	1955026
EPA 8276	12/19/2017	12/21/2017	Rasheda Ghaffari	12/27/2017	John P. Burgos	1955026
EPA 8321B	12/19/2017	12/20/2017	Juyoung Kim	12/21/2017	Juyoung Kim	1955003, 1955004, 1955005, 1955024
	12/19/2017	12/21/2017	Juyoung Kim	12/21/2017	Juyoung Kim	1955024
	12/19/2017	12/21/2017	Juyoung Kim	12/23/2017	Juyoung Kim	1955024
SM 2120 B	12/19/2017			12/19/2017 16:12	Tanya Welborn	1954979
	12/19/2017			12/19/2017 16:17	Tanya Welborn	1954981
	12/19/2017			12/19/2017 16:28	Tanya Welborn	1954980
	12/19/2017			12/19/2017 16:47	Tanya Welborn	1954988
SM 2320 B-97	12/19/2017			12/21/2017	Dale L. Simmons	1954979, 1954980, 1954981, 1954988
SM 2540 C-97	12/19/2017			12/20/2017	Yijie Li	1954979, 1954980, 1954981, 1954988
SM 2540 D-97	12/19/2017			12/20/2017	Yijie Li	1954979, 1954980, 1954981, 1954988
SM 4500 F-C-97	12/19/2017			12/21/2017	Dale L. Simmons	1954979, 1954980, 1954981, 1954988
SM 5310 B-00	12/19/2017			12/21/2017	Megan Treadwell	1954982, 1954983, 1954984
	12/19/2017			12/22/2017	Megan Treadwell	1954989
USGS O-2060-01	12/19/2017	12/20/2017	Hoor Shaik	12/21/2017	Julie Michelle Frank	1955003, 1955004, 1955005, 1955024