

Chemical Analysis Report

SO-DIST-2018-10-31-01

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

Event Description: **Peace River Streams**
Request ID: **RQ-2018-10-29-44**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901
Attn: Nicole Reistad

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 26-NOV-2018 15:31

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: RunoffPeace River Site3

Collection Date/Time: 10/30/2018 09:35

Field ID: G3SD0132

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037800	EPA 180.1 Rev. 2.0	Turbidity	18	A	NTU	P354005	
	EPA 300.0 Rev. 2.1	Chloride	28		mg Cl/L	P354899	MS
		Sulfate	18		mg SO4/L	P354902	
	SM 2120 B	Color (true)	110		PCU	P354080	
	SM 2320 B-97	Total Alkalinity	56		mg CaCO3/L	P354357	
	SM 2540 C-97	TDS	212	A	mg/L	P354574	
	SM 2540 D-97	TSS	5	IA	mg/L	P354497	
	SM 4500 F-C-97	Fluoride	0.41		mg F/L	P354363	
2037802	EPA 350.1 Rev. 2.0	Ammonia-N	0.064		mg N/L	P354389	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P354289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.023		mg N/L	P354293	
	EPA 365.1 Rev. 2.0	Total-P	0.87		mg P/L	P354160	
	SM 5310 B-00	Organic Carbon	22		mg C/L	P354254	
2037804	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.44		mg P/L	P354008	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: PrairieCreek@WshngtnLp

Collection Date/Time: 10/30/2018 10:20

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037806	EPA 180.1 Rev. 2.0	Turbidity	4.9		NTU	P354005	
	EPA 300.0 Rev. 2.1	Chloride	97		mg Cl/L	P354899	MS
		Sulfate	74		mg SO4/L	P354902	
	SM 2120 B	Color (true)	74		PCU	P354078	
	SM 2320 B-97	Total Alkalinity	144		mg CaCO3/L	P354357	
	SM 2540 C-97	TDS	489		mg/L	P354574	
	SM 2540 D-97	TSS	4	I	mg/L	P354497	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P354363	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P354389	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P354289	
2037808	EPA 353.2 Rev. 2.0	NO2NO3-N	0.70		mg N/L	P354294	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P354186	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P354254	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.13		mg P/L	P354008	
	dissolved						
2037826	EPA 8321B	Aldicarb	0.020	U	ug/L	P354103	
		Aldicarb Sulfone	0.0020	U	ug/L	P354103	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P354103	
		Carbaryl	0.0020	U	ug/L	P354103	
		Carbofuran	0.0020	U	ug/L	P354103	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P354103	
		Methiocarb	0.0020	U	ug/L	P354103	
		Methomyl	0.0020	U	ug/L	P354103	
		Oxamyl	0.0020	U	ug/L	P354103	
		Propoxur	0.0020	U	ug/L	P354103	
		2,4-D	0.0042	I	ug/L	P354103	
		Bentazon	0.018		ug/L	P354103	
		MCP	0.0020	U	ug/L	P354103	MS
		Triclopyr**	0.0040	U	ug/L	P354103	
2037828		Imidacloprid	0.33		ug/L	P354103	MS
		Diuron	0.031		ug/L	P354103	
		Pyraclostrobin**	0.0020	U	ug/L	P354103	
		Primidone**	0.0040	U	ug/L	P354103	
		Linuron	0.0040	U	ug/L	P354103	
		Acetaminophen**	0.0080	U	ug/L	P354103	
		Fenuron	0.030	I	ug/L	P354103	
		Imazapyr**	0.011	I	ug/L	P354103	
		Carbamazepine**	8.0E-04	U	ug/L	P354103	
		Fluridone**	0.0086		ug/L	P354103	
		Hydrocodone**	8.0E-04	U	ug/L	P354103	
		Naproxen**	0.0080	U	ug/L	P354103	
		Ibuprofen**	0.020	U	ug/L	P354103	
		Sucralose**	0.010	U	ug/L	P353941	
		Glyphosate**	1.0		ug/L	P353941	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037828	EPA 8321B	AMPA**	1.4		ug/L	P353941	
		Endothall**	0.25	U	ug/L	P353941	MS
		Glufosinate**	0.10	U	ug/L	P353941	
		Acesulfame K**	0.10	U	ug/L	P353941	
2037830	EPA 8270D	Aldrin	4.4	U	ng/L	P354444	
		Alpha-BHC	2.2	U	ng/L	P354444	MS
		Beta-BHC	4.4	UJ	ng/L	P354444	LCS
		Delta-BHC	4.4	UJ	ng/L	P354444	LCS
		Gamma-BHC	4.4	UJ	ng/L	P354444	LCS, MS
		Carbophenothion	4.4	U	ng/L	P354444	
		Chlorothalonil	2.2	U	ng/L	P354444	
		Cypermethrin	22	U	ng/L	P354444	
		DDD-p,p'	3.3	U	ng/L	P354444	
		DDE-p,p'	3.3	U	ng/L	P354444	
		DDT-p,p'	3.3	U	ng/L	P354444	
		Dieldrin	4.4	U	ng/L	P354444	
		Endosulfan I	4.4	U	ng/L	P354444	
		Endosulfan II	4.4	U	ng/L	P354444	
		Endosulfan Sulfate	2.2	U	ng/L	P354444	
		Endrin	2.2	U	ng/L	P354444	
		Endrin Aldehyde	2.2	U	ng/L	P354444	
		Heptachlor	1.6	U	ng/L	P354444	
		Heptachlor Epoxide	2.2	U	ng/L	P354444	
		Methoxychlor	4.4	U	ng/L	P354444	
		Mirex	2.2	U	ng/L	P354444	
		Permethrin	11	U	ng/L	P354444	
		Trifluralin	1.1	U	ng/L	P354444	
		Alpha-Chlordane	1.1	U	ng/L	P354444	
		Gamma-Chlordane	1.1	U	ng/L	P354444	
		Endrin Ketone	2.2	U	ng/L	P354444	
		Dicofol	33	U	ng/L	P354444	
	EPA 8276	Chlordane	2.9	IJ	ng/L	P354444	RPD
		Toxaphene	33	UJ	ng/L	P354444	RPD
2037832	EPA 8270D	Alachlor	0.25	U	ng/L	P354130	
		Ametryn	0.32	U	ng/L	P354130	
		Atrazine	4.0		ng/L	P354130	MS
		Atrazine Desethyl	3.3	I	ng/L	P354130	MS
		Azinphos Methyl	2.2	U	ng/L	P354130	
		Bromacil	360		ng/L	P354130	
		Butylate	0.39	U	ng/L	P354130	RPD
		Chlorpyrifos Ethyl	1.6		ng/L	P354130	
		Chlorpyrifos Methyl	0.099	U	ng/L	P354130	
		Demeton	2.0	U	ng/L	P354130	
		Diazinon	0.12	U	ng/L	P354130	MS
		Disulfoton	0.49	U	ng/L	P354130	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037832	EPA 8270D	EPTC	1.2	U	ng/L	P354130	RPD
		Ethion	0.15	UJ	ng/L	P354130	RPD
		Ethoprop	0.099	UJ	ng/L	P354130	LCS
		Fenamiphos	0.25	U	ng/L	P354130	
		Fipronil	0.25	UJ	ng/L	P354130	RPD
		Fipronil Sulfide	0.15	U	ng/L	P354130	
		Fipronil Sulfone	0.15	U	ng/L	P354130	
		Hexazinone	110	J	ng/L	P354130	
		Malathion	0.35	U	ng/L	P354130	
		Metribuzin	0.20	UJ	ng/L	P354130	MS, RPD
		Mevinphos	0.49	U	ng/L	P354130	
		Molinate	0.30	U	ng/L	P354130	
		Norflurazon	400		ng/L	P354130	
		Pendimethalin	0.99	U	ng/L	P354130	
		Phorate	0.25	U	ng/L	P354130	
		Prometon	0.89	U	ng/L	P354130	
		Prometryn	0.20	U	ng/L	P354130	
		Simazine	2.7		ng/L	P354130	
		Terbufos	0.099	UJ	ng/L	P354130	RPD
		Terbutylazine	0.42	U	ng/L	P354130	MS
		Fonofos	0.20	U	ng/L	P354130	
		Metalaxyl	57		ng/L	P354130	
		Metolachlor	29		ng/L	P354130	
		Acetochlor	0.25	U	ng/L	P354130	
		Cyanazine	0.49	U	ng/L	P354130	
		Parathion Ethyl	0.25	U	ng/L	P354130	
		Parathion Methyl	0.25	U	ng/L	P354130	
		Dimethenamid**	0.099	U	ng/L	P354130	
		Fipronil Desulfinyl**	0.12	UJ	ng/L	P354130	
		Dithiopyr**	0.10	I	ng/L	P354130	
		Prodiamine**	0.17	UJ	ng/L	P354130	LCS, RPD
		Oxadiazon**	0.19	I	ng/L	P354130	
		Tebuconazole**	0.49	UJ	ng/L	P354130	LCS, RPD
2037834	EPA 200.7 Rev. 4.4	Calcium	80.4		mg/L	P354217	
		Iron	850		ug/L	P354217	
		Magnesium	18.5		mg/L	P354217	
		Potassium	8.0		mg/L	P354217	
		Sodium	52.1		mg/L	P354217	
		Zinc	5.0	U	ug/L	P354217	
	EPA 200.8 Rev. 5.4	Arsenic	1.27		ug/L	P354217	
		Cadmium	0.020	U	ug/L	P354217	
		Chromium	0.53	I	ug/L	P354217	
		Copper	0.82		ug/L	P354217	
		Lead	0.14	I	ug/L	P354217	
		Nickel	0.83		ug/L	P354217	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037834	EPA 200.8 Rev. 5.4	Silver	0.010	U	ug/L	P354217	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

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

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

EPA 8270D: Estimated value for Hexazinone due to internal standard recovery outside control limits. Estimated value for Fipronil Desulfinyl due to lack of the second source standard. Refer to the narrative for an explanation of QC Codes.

Sample Location: MyrtleSlough@PinelIsland

Collection Date/Time: 10/30/2018 12:00

Field ID: G3SD0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037812	EPA 180.1 Rev. 2.0	Turbidity	7.0		NTU	P354005	
	EPA 300.0 Rev. 2.1	Chloride	33		mg Cl/L	P354900	
		Sulfate	15		mg SO4/L	P354903	
		Color (true)	120		PCU	P354078	
	SM 2320 B-97	Total Alkalinity	216		mg CaCO3/L	P354357	
	SM 2540 C-97	TDS	344		mg/L	P354574	
	SM 2540 D-97	TSS	6	I	mg/L	P354497	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P354363	
2037813	EPA 350.1 Rev. 2.0	Ammonia-N	0.29		mg N/L	P354507	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P354289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.23		mg N/L	P354294	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P354186	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P354254	
2037814	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P354008	
2037836	EPA 200.7 Rev. 4.4	Calcium	92.1		mg/L	P354217	
		Iron	2.45E+03		ug/L	P354217	
		Magnesium	5.91		mg/L	P354217	
		Potassium	2.1		mg/L	P354217	
		Sodium	24.0		mg/L	P354217	
		Zinc	5.0	U	ug/L	P354217	
	EPA 200.8 Rev. 5.4	Arsenic	1.46		ug/L	P354217	
		Cadmium	0.020	U	ug/L	P354217	
		Chromium	0.47	I	ug/L	P354217	
		Copper	0.20	U	ug/L	P354217	
		Lead	0.16	I	ug/L	P354217	
		Nickel	0.27	I	ug/L	P354217	
		Silver	0.010	U	ug/L	P354217	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Myrtle Slough @ SR 31

Collection Date/Time: 10/30/2018 12:45

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037807	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P354005	
	EPA 300.0 Rev. 2.1	Chloride	170		mg Cl/L	P354900	
		Sulfate	88		mg SO4/L	P354903	
	SM 2120 B	Color (true)	53		PCU	P354078	
	SM 2320 B-97	Total Alkalinity	206		mg CaCO3/L	P354357	
	SM 2540 C-97	TDS	614		mg/L	P354574	
	SM 2540 D-97	TSS	12		mg/L	P354497	
	SM 4500 F-C-97	Fluoride	0.19		mg F/L	P354363	
2037809	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P354507	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P354289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.47		mg N/L	P354294	
	EPA 365.1 Rev. 2.0	Total-P	0.084		mg P/L	P354186	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P354254	
2037811	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P354008	
2037827	EPA 8321B	Aldicarb	0.020	U	ug/L	P354103	
		Aldicarb Sulfone	0.0020	U	ug/L	P354103	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P354103	
		Carbaryl	0.0020	U	ug/L	P354103	
		Carbofuran	0.0020	U	ug/L	P354103	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P354103	
		Methiocarb	0.0020	U	ug/L	P354103	
		Methomyl	0.0020	U	ug/L	P354103	
		Oxamyl	0.0020	U	ug/L	P354103	
		Propoxur	0.0020	U	ug/L	P354103	
		2,4-D	0.017		ug/L	P354103	
		Bentazon	8.0E-04	U	ug/L	P354103	
		MCP	0.0020	U	ug/L	P354103	MS
2037829		Triclopyr**	0.0040	U	ug/L	P354103	
		Imidacloprid	0.36		ug/L	P354103	MS
		Diuron	0.045		ug/L	P354103	
		Pyraclostrobin**	0.0020	U	ug/L	P354103	
		Primidone**	0.0040	U	ug/L	P354103	
		Linuron	0.0040	U	ug/L	P354103	
		Acetaminophen**	0.019	I	ug/L	P354103	
		Fenuron	0.016	U	ug/L	P354103	
		Imazapyr**	0.011	I	ug/L	P354103	
		Carbamazepine**	8.0E-04	U	ug/L	P354103	
		Fluridone**	0.024		ug/L	P354103	
		Hydrocodone**	8.0E-04	U	ug/L	P354103	
		Naproxen**	0.0080	U	ug/L	P354103	
		Ibuprofen**	0.020	U	ug/L	P354103	
		Sucralose**	0.010	U	ug/L	P353941	
		Glyphosate**	24		ug/L	P353941	

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037829	EPA 8321B	AMPA**	2.5		ug/L	P353941	
		Endothall**	0.25	U	ug/L	P353941	MS
		Glufosinate**	0.10	U	ug/L	P353941	
		Acesulfame K**	0.10	U	ug/L	P353941	
2037831	EPA 8270D	Aldrin	4.3	U	ng/L	P354444	
		Alpha-BHC	2.2	U	ng/L	P354444	MS
		Beta-BHC	4.3	UJ	ng/L	P354444	LCS
		Delta-BHC	4.3	UJ	ng/L	P354444	LCS
		Gamma-BHC	4.3	UJ	ng/L	P354444	LCS, MS
		Carbophenothion	4.3	U	ng/L	P354444	
		Chlorothalonil	2.2	U	ng/L	P354444	
		Cypermethrin	22	U	ng/L	P354444	
		DDD-p,p'	3.2	U	ng/L	P354444	
		DDE-p,p'	3.2	U	ng/L	P354444	
		DDT-p,p'	3.2	U	ng/L	P354444	
		Dieldrin	4.3	U	ng/L	P354444	
		Endosulfan I	4.3	U	ng/L	P354444	
		Endosulfan II	4.3	U	ng/L	P354444	
		Endosulfan Sulfate	2.2	U	ng/L	P354444	
		Endrin	2.2	U	ng/L	P354444	
		Endrin Aldehyde	2.2	U	ng/L	P354444	
		Heptachlor	1.6	U	ng/L	P354444	
		Heptachlor Epoxide	2.2	U	ng/L	P354444	
		Methoxychlor	4.3	U	ng/L	P354444	
		Mirex	2.2	U	ng/L	P354444	
		Permethrin	11	U	ng/L	P354444	
		Trifluralin	1.1	U	ng/L	P354444	
		Alpha-Chlordane	1.1	U	ng/L	P354444	
		Gamma-Chlordane	1.1	U	ng/L	P354444	
		Endrin Ketone	2.2	U	ng/L	P354444	
		Dicofol	32	U	ng/L	P354444	
	EPA 8276	Chlordane	2.7	UJ	ng/L	P354444	RPD
		Toxaphene	32	UJ	ng/L	P354444	RPD
2037833	EPA 8270D	Alachlor	0.24	U	ng/L	P354130	
		Ametryn	0.32	U	ng/L	P354130	
		Atrazine	6.5		ng/L	P354130	MS
		Atrazine Desethyl	3.1	I	ng/L	P354130	MS
		Azinphos Methyl	2.2	U	ng/L	P354130	
		Bromacil	130		ng/L	P354130	
		Butylate	0.39	U	ng/L	P354130	RPD
		Chlorpyrifos Ethyl	0.24	U	ng/L	P354130	
		Chlorpyrifos Methyl	0.098	U	ng/L	P354130	
		Demeton	2.0	U	ng/L	P354130	
		Diazinon	0.12	U	ng/L	P354130	MS
		Disulfoton	0.49	U	ng/L	P354130	

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037833	EPA 8270D	EPTC	1.2	U	ng/L	P354130	RPD
		Ethion	0.15	UJ	ng/L	P354130	RPD
		Ethoprop	0.098	UJ	ng/L	P354130	LCS
		Fenamiphos	0.24	U	ng/L	P354130	
		Fipronil	0.24	UJ	ng/L	P354130	RPD
		Fipronil Sulfide	0.15	U	ng/L	P354130	
		Fipronil Sulfone	0.15	U	ng/L	P354130	
		Hexazinone	0.49	U	ng/L	P354130	
		Malathion	0.34	U	ng/L	P354130	
		Metribuzin	0.20	UJ	ng/L	P354130	MS, RPD
		Mevinphos	0.49	U	ng/L	P354130	
		Molinate	0.29	U	ng/L	P354130	
		Norflurazon	570		ng/L	P354130	
		Pendimethalin	0.98	U	ng/L	P354130	
		Phorate	0.24	U	ng/L	P354130	
		Prometon	0.88	U	ng/L	P354130	
		Prometryn	0.20	U	ng/L	P354130	
		Simazine	1.9	I	ng/L	P354130	
		Terbufos	0.098	UJ	ng/L	P354130	RPD
		Terbuthylazine	0.42	U	ng/L	P354130	MS
		Fonofos	0.20	U	ng/L	P354130	
		Metalaxyl	75		ng/L	P354130	
		Metolachlor	9.3		ng/L	P354130	
		Acetochlor	0.24	U	ng/L	P354130	
		Cyanazine	0.49	U	ng/L	P354130	
		Parathion Ethyl	0.24	U	ng/L	P354130	
		Parathion Methyl	0.24	U	ng/L	P354130	
		Dimethenamid**	0.098	U	ng/L	P354130	
		Fipronil Desulfinyl**	0.12	UJ	ng/L	P354130	
		Dithiopyr**	0.098	I	ng/L	P354130	
		Prodiamine**	0.17	UJ	ng/L	P354130	LCS, RPD
		Oxadiazon**	0.28	I	ng/L	P354130	
		Tebuconazole**	1.0	IJ	ng/L	P354130	LCS, RPD
2037835	EPA 200.7 Rev. 4.4	Calcium	119		mg/L	P354217	
		Iron	540		ug/L	P354217	
		Magnesium	13.8		mg/L	P354217	
		Potassium	11.1		mg/L	P354217	
		Sodium	73.4		mg/L	P354217	
		Zinc	5.0	U	ug/L	P354217	
	EPA 200.8 Rev. 5.4	Arsenic	0.86		ug/L	P354217	
		Cadmium	0.020	U	ug/L	P354217	
		Chromium	0.81	I	ug/L	P354217	
		Copper	1.35		ug/L	P354217	
		Lead	0.18	I	ug/L	P354217	
		Nickel	1.92		ug/L	P354217	

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037835	EPA 200.8 Rev. 5.4	Silver	0.010	U	ug/L	P354217	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8270D: Refer to the narrative for an explanation of QC Codes.
EPA 8276: Refer to the narrative for an explanation of QC Codes.
EPA 8270D: Estimated value for Fipronil Desulfinyl due to lack of the second source standard. Refer to the narrative for an explanation of QC Codes.

Sample Location: Hog Bay @ CR 763

Collection Date/Time: 10/30/2018 13:25

Field ID: G3SD0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2037801	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P354005	
	EPA 300.0 Rev. 2.1	Chloride	90		mg Cl/L	P354900	
		Sulfate	96		mg SO4/L	P354903	
	SM 2120 B	Color (true)	81		PCU	P354078	
	SM 2320 B-97	Total Alkalinity	126		mg CaCO3/L	P354357	
	SM 2540 C-97	TDS	508		mg/L	P354574	
	SM 2540 D-97	TSS	4	I	mg/L	P354497	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P354363	
2037803	EPA 350.1 Rev. 2.0	Ammonia-N	0.063		mg N/L	P354389	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P354289	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P354294	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P354160	
	SM 5310 B-00	Organic Carbon	16		mg C/L	P354254	
2037805	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.17		mg P/L	P354008	

Ref. Method and Comment:

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

SM 4500 F-C-97: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P354005

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P354217

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: P354217

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: P354899

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354900

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354902

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354903

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: P354389

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354507

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354289

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354293

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354294

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354160

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354186

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354008

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

Reference Method: EPA 8270D
Batch ID: P354130

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: P354130

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
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	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 Desulfinyl	0.12	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
Metaxalyl	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
Oxadiazon	0.10	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
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270D
Batch ID: P354444

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P354444

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

Reference Method: EPA 8276
Batch ID: P354444

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

Reference Method: EPA 8321B
Batch ID: P353941

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P354103

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P354103

Component	Result	Code	Units
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B
Batch ID: P354078

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P354080

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P354357

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

Reference Method: SM 2540 C-97
Batch ID: P354574

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P354497

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P354363

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P354254

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P354217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	108		P	85 - 115
Iron	108		P	85 - 115
Magnesium	113		P	85 - 115
Potassium	109		P	85 - 115
Sodium	112		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P354217

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	105		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	101		P	85 - 115
Copper	102		P	85 - 115
Lead	99.4		P	85 - 115
Nickel	102		P	85 - 115
Silver	96.4		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354899

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354900

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354902

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354903

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.7		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354507

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354289

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354293

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354294

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: P354160

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354186

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: P354008

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

Reference Method: EPA 8270D
Batch ID: P354130

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	95.5	107	P/P	74 - 119
Alachlor	93.8	96.1	P/P	75 - 118
Ametryn	111	111	P/P	59 - 137
Atrazine	99.1	102	P/P	73 - 120
Atrazine Desethyl	92.4	74.7	P/P	19 - 129
Azinphos Methyl	108	113	P/P	65 - 181
Bromacil	77.6	91.0	P/P	43 - 123
Butylate	44.3	49.1	P/P	28 - 85.0
Chlorpyrifos Ethyl	90.8	94.5	P/P	55 - 112
Chlorpyrifos Methyl	97.2	84.5	P/P	35 - 124

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P354130

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cyanazine	101	82.0	P/P	26 - 262
Demeton	77.1	63.5	P/P	43 - 122
Diazinon	102	95.8	P/P	72 - 120
Dimethenamid	91.9	105	P/P	60 - 130
Disulfoton	103	77.5	P/P	45 - 137
Dithiopyr	105	107	P/P	60 - 130
EPTC	39.5	46.3	P/P	28 - 95.0
Ethion	69.2	96.2	P/P	63 - 127
Ethoprop	57.6	67.1	F/P	63 - 109
Fenamiphos	75.9	88.4	P/P	66 - 136
Fipronil	79.3	114	P/P	63 - 126
Fipronil Sulfide	81.5	99.6	P/P	59 - 123
Fipronil Sulfone	75.3	97.2	P/P	56 - 122
Fonofos	95.7	79.7	P/P	64 - 114
Hexazinone	94.0	99.1	P/P	49 - 144
Malathion	78.6	101	P/P	68 - 131
Metaxyl	99.6	94.5	P/P	57 - 126
Metolachlor	80.6	102	P/P	75 - 118
Metribuzin	118	83.1	P/P	46 - 169
Mevinphos	92.1	80.4	P/P	34 - 126
Molinate	52.0	57.3	P/P	37 - 101
Norflurazon	98.1	111	P/P	63 - 127
Oxadiazon	83.9	108	P/P	60 - 130
Parathion Ethyl	83.4	84.6	P/P	78 - 109
Parathion Methyl	111	93.3	P/P	74 - 123
Pendimethalin	82.7	75.1	P/P	51 - 130
Phorate	77.6	63.7	P/P	53 - 116
Prodiamine	110	139	P/F	60 - 130
Prometon	88.0	90.6	P/P	66 - 124
Prometryn	94.8	95.6	P/P	66 - 124
Simazine	105	107	P/P	62 - 134
Tebuconazole	43.8	103	P/F	30 - 100
Terbufos	104	72.2	P/P	59 - 115
Terbutylazine	96.8	103	P/P	76 - 113

Reference Method: EPA 8270D
Batch ID: P354444

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	82.4	84.3	P/P	24 - 89.0
Alpha-BHC	114	107	P/P	58 - 117
Alpha-Chlordane	102	107	P/P	56 - 115
Beta-BHC	153	155	F/F	55 - 137
Carbophenothion	102	107	P/P	37 - 145
Chlorothalonil	152	155	P/P	26 - 163
Cypermethrin	84.6	90.0	P/P	42 - 156
DDD-p,p'	98.8	114	P/P	59 - 129
DDE-p,p'	103	109	P/P	52 - 117
DDT-p,p'	109	114	P/P	48 - 128
Delta-BHC	177	188	F/F	59 - 158
Dicofol	119	112	P/P	19 - 124
Dieldrin	110	112	P/P	57 - 126

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P354444

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endosulfan I	114	110	P/P	59 - 133
Endosulfan II	115	103	P/P	58 - 148
Endosulfan Sulfate	107	105	P/P	56 - 135
Endrin	114	114	P/P	50 - 140
Endrin Aldehyde	113	105	P/P	47 - 141
Endrin Ketone	106	105	P/P	63 - 123
Gamma-BHC	176	150	F/F	59 - 132
Gamma-Chlordane	98.8	103	P/P	55 - 112
Heptachlor	88.4	93.3	P/P	45 - 102
Heptachlor Epoxide	109	108	P/P	61 - 116
Methoxychlor	128	125	P/P	60 - 133
Mirex	76.1	85.5	P/P	40 - 98.0
Permethrin	80.7	86.9	P/P	45 - 131
Trifluralin	100	100	P/P	38 - 179

Reference Method: EPA 8276
Batch ID: P354444

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	91.9	56.3	P/P	47 - 125
Toxaphene	89.3	60.0	P/P	46 - 147

Reference Method: EPA 8321B
Batch ID: P353941

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	74.4		P	40 - 150
AMPA	91.2		P	40 - 150
Endothall	108		P	40 - 150
Glufosinate	98.7		P	40 - 150
Glyphosate	85.8		P	40 - 140
Sucralose	91.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354103

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	105		P	40 - 150
3-Hydroxycarbofuran	107		P	40 - 150
Acetaminophen	131		P	30 - 150
Aldicarb	95.0		P	30 - 150
Aldicarb Sulfone	129		P	40 - 150
Aldicarb Sulfoxide	72.6		P	40 - 150
Bentazon	85.8		P	30 - 150
Carbamazepine	93.3		P	40 - 150
Carbaryl	85.7		P	40 - 150
Carbofuran	81.0		P	40 - 150
Diuron	81.1		P	40 - 150
Fenuron	129		P	40 - 150
Fluridone	113		P	40 - 150
Hydrocodone	124		P	40 - 150
Ibuprofen	86.1		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P354103

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imazapyr	112		P	40 - 150
Imidacloprid	129		P	40 - 160
Linuron	91.7		P	40 - 150
MCPP	118		P	40 - 150
Methiocarb	75.3		P	40 - 150
Methomyl	119		P	40 - 150
Naproxen	80.0		P	40 - 150
Oxamyl	103		P	40 - 150
Primidone	115		P	40 - 150
Propoxur	81.1		P	40 - 150
Pyraclostrobin	82.7		P	40 - 150
Triclopyr	112		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P354078

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.2		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P354080

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.6		P	90 - 110

Reference Method: SM 2320 B-97
Batch ID: P354357

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P354363

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P354254

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P354217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037787	Calcium	109		P	80 - 120
2037787	Iron	110		P	80 - 120
2037787	Magnesium	111		P	80 - 120
2037787	Potassium	112		P	80 - 120
2037787	Sodium	110		P	80 - 120
2037787	Zinc	107		P	80 - 120
2037931	Calcium	110		P	80 - 120
2037931	Iron	106		P	80 - 120
2037931	Magnesium	114	114	P/P	80 - 120
2037931	Potassium	117	116	P/P	80 - 120
2037931	Sodium	111	112	P/P	80 - 120
2037931	Zinc	105	106	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P354217

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037787	Arsenic	103		P	80 - 120
2037787	Cadmium	101		P	80 - 120
2037787	Chromium	103		P	80 - 120
2037787	Copper	100		P	80 - 120
2037787	Lead	98.5		P	80 - 120
2037787	Nickel	100		P	80 - 120
2037787	Silver	94.0		P	80 - 120
2037931	Arsenic	104	103	P/P	80 - 120
2037931	Cadmium	105	104	P/P	80 - 120
2037931	Chromium	102	102	P/P	80 - 120
2037931	Copper	99.7	99.4	P/P	80 - 120
2037931	Lead	99.2	98.5	P/P	80 - 120
2037931	Nickel	100	99.7	P/P	80 - 120
2037931	Silver	97.6	97.6	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354899

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037278	Chloride	90.0		P	90 - 110
2037582	Chloride	86.0		F	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037862	Chloride	101		P	90 - 110
2037914	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354902

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037278	Sulfate	95.9		P	90 - 110
2037582	Sulfate	90.6		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037862	Sulfate	97.0		P	90 - 110
2037914	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037781	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354507

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037917	Ammonia-N	99.6	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354289

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037803	Kjeldahl Nitrogen	102	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354293

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037686	NO2NO3-N	103	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037803	NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037687	Total-P	101	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354186

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037863	Total-P	101	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354008

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037688	O-Phosphate-P	97.2	97.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P354130

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038293	Acetochlor	123	118	P/P	67 - 125
2038293	Alachlor	113	111	P/P	69 - 123
2038293	Ametryn	121	128	P/P	52 - 151
2038293	Atrazine	128	113	F/P	71 - 125
2038293	Atrazine Desethyl	133	150	F/F	10 - 129
2038293	Azinphos Methyl	139	157	P/P	48 - 200
2038293	Bromacil	112	106	P/P	46 - 130
2038293	Butylate	32.7	65.3	P/P	10 - 85.0
2038293	Chlorpyrifos Ethyl	96.0	87.2	P/P	54 - 115
2038293	Chlorpyrifos Methyl	89.8	88.7	P/P	44 - 117
2038293	Cyanazine	186	206	P/P	10 - 262
2038293	Demeton	67.3	87.3	P/P	24 - 145
2038293	Diazinon	128	129	P/F	66 - 129
2038293	Dimethenamid	122	115	P/P	60 - 130
2038293	Disulfoton	94.7	105	P/P	45 - 139
2038293	Dithiopyr	122	119	P/P	60 - 130
2038293	EPTC	29.1	50.4	P/P	10 - 86.0
2038293	Ethion	97.6	69.2	P/P	59 - 133
2038293	Ethoprop	80.0	80.2	P/P	54 - 116
2038293	Fenamiphos	95.1	77.0	P/P	55 - 140
2038293	Fipronil	121	117	P/P	37 - 142
2038293	Fipronil Sulfide	94.2	90.3	P/P	37 - 130
2038293	Fipronil Sulfone	83.1	81.5	P/P	18 - 143
2038293	Fonofos	89.4	96.1	P/P	55 - 118
2038293	Hexazinone	123	115	P/P	62 - 140
2038293	Malathion	99.0	98.7	P/P	64 - 132
2038293	Metalaxyl	118	115	P/P	55 - 129
2038293	Metolachlor	116	105	P/P	56 - 137
2038293	Metribuzin	220	225	F/F	16 - 218
2038293	Mevinphos	89.2	99.6	P/P	34 - 129
2038293	Molinate	42.7	54.9	P/P	16 - 99.0
2038293	Norflurazon	118	122	P/P	43 - 135
2038293	Oxadiazon	113	104	P/P	60 - 130
2038293	Parathion Ethyl	99.6	93.0	P/P	71 - 112
2038293	Parathion Methyl	108	107	P/P	65 - 127
2038293	Pendimethalin	127	122	P/P	35 - 159
2038293	Phorate	81.4	97.5	P/P	41 - 129
2038293	Prodiamine	111	77.3	P/P	60 - 130
2038293	Prometon	119	115	P/P	56 - 140
2038293	Prometryn	115	109	P/P	65 - 130
2038293	Simazine	115	98.9	P/P	54 - 148
2038293	Tebuconazole	96.9	54.2	P/P	30 - 100
2038293	Terbufos	101	112	P/P	53 - 126
2038293	Terbuthylazine	123	119	F/F	73 - 114

Reference Method: EPA 8270D
Batch ID: P354444

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038615	Aldrin	76.8	79.8	P/P	26 - 96.0
2038615	Alpha-BHC	127	131	F/F	51 - 123
2038615	Alpha-Chlordane	109	93.4	P/P	45 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P354444

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038615	Beta-BHC	129	134	P/P	43 - 146
2038615	Carbophenothion	113	122	P/P	26 - 179
2038615	Chlorothalonil	157	181	P/P	10 - 215
2038615	Cypermethrin	80.0	102	P/P	35 - 169
2038615	DDD-p,p'	106	93.7	P/P	49 - 131
2038615	DDE-p,p'	108	94.6	P/P	39 - 127
2038615	DDT-p,p'	98.8	106	P/P	49 - 120
2038615	Delta-BHC	159	143	P/P	49 - 187
2038615	Dicofol	102	108	P/P	10 - 129
2038615	Dieldrin	125	114	P/P	46 - 132
2038615	Endosulfan I	121	102	P/P	57 - 130
2038615	Endosulfan II	110	114	P/P	52 - 148
2038615	Endosulfan Sulfate	95.6	103	P/P	55 - 129
2038615	Endrin	104	96.0	P/P	45 - 133
2038615	Endrin Aldehyde	93.2	91.5	P/P	26 - 140
2038615	Endrin Ketone	102	103	P/P	60 - 125
2038615	Gamma-BHC	161	161	F/F	50 - 145
2038615	Gamma-Chlordane	97.3	91.7	P/P	44 - 118
2038615	Heptachlor	84.0	88.0	P/P	35 - 106
2038615	Heptachlor Epoxide	99.4	98.0	P/P	52 - 123
2038615	Methoxychlor	126	125	P/P	54 - 132
2038615	Mirex	68.1	80.5	P/P	36 - 107
2038615	Permethrin	74.0	91.4	P/P	47 - 135
2038615	Trifluralin	98.4	99.0	P/P	32 - 228

Reference Method: EPA 8276
Batch ID: P354444

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037620	Chlordane	72.6	64.1	P/P	41 - 134
2037620	Toxaphene	65.7	60.9	P/P	39 - 158

Reference Method: EPA 8321B
Batch ID: P353941

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037201	Acesulfame K	145	147	P/P	40 - 150
2037201	AMPA	87.4	90.9	P/P	40 - 150
2037201	Endothall	150	156	F/F	40 - 150
2037201	Glufosinate	78.8	87.1	P/P	40 - 150
2037201	Glyphosate	72.2	64.4	P/P	40 - 140
2037201	Sucralose	97.7	104	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P354103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038087	3-Hydroxycarbofuran	96.4	91.7	P/P	40 - 150
2038087	Aldicarb	73.2	76.6	P/P	30 - 150
2038087	Aldicarb Sulfone	110	109	P/P	40 - 150
2038087	Aldicarb Sulfoxide	43.2	42.6	P/P	40 - 150
2038087	Carbaryl	68.2	69.0	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P354103

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2038087	Carbofuran	64.0	66.0	P/P	40 - 150
2038087	Methiocarb	59.0	59.6	P/P	40 - 150
2038087	Methomyl	102	101	P/P	40 - 150
2038087	Oxamyl	83.4	85.8	P/P	40 - 150
2038087	Propoxur	63.5	62.8	P/P	40 - 150
2038088	2,4-D	125	138	P/P	40 - 150
2038088	Acetaminophen	131	127	P/P	30 - 150
2038088	Bentazon	48.3	48.5	P/P	30 - 150
2038088	Carbamazepine	73.3	71.8	P/P	40 - 150
2038088	Diuron	58.9	53.6	P/P	40 - 150
2038088	Fenuron	132	122	P/P	40 - 150
2038088	Fluridone	114	106	P/P	40 - 150
2038088	Hydrocodone	120	111	P/P	40 - 150
2038088	Ibuprofen	78.1	79.6	P/P	40 - 150
2038088	Imazapyr	116	108	P/P	40 - 150
2038088	Imidacloprid	204	177	F/F	40 - 160
2038088	Linuron	62.7	64.9	P/P	40 - 150
2038088	MCPP	151	145	F/P	40 - 150
2038088	Naproxen	81.8	80.5	P/P	40 - 150
2038088	Primidone	114	107	P/P	40 - 150
2038088	Pyraclostrobin	75.0	73.5	P/P	40 - 150
2038088	Triclopyr	131	132	P/P	40 - 150

Reference Method: SM 5310 B-00
Batch ID: P354254

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2037802	Organic Carbon	100		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P354005

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037800	Turbidity	1.67	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P354217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037931	Calcium	0.493	Spike	P	0 - 20
2037931	Iron	0.557	Spike	P	0 - 20
2037931	Magnesium	0.406	Spike	P	0 - 20
2037931	Potassium	0.861	Spike	P	0 - 20
2037931	Sodium	0.488	Spike	P	0 - 20
2037931	Zinc	0.619	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P354217

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037931	Arsenic	0.157	Spike	P	0 - 20
2037931	Cadmium	0.945	Spike	P	0 - 20
2037931	Chromium	0.536	Spike	P	0 - 20
2037931	Copper	0.317	Spike	P	0 - 20
2037931	Lead	0.663	Spike	P	0 - 20
2037931	Nickel	0.395	Spike	P	0 - 20
2037931	Silver	0.0233	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354899

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037278	Chloride	3.44	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037862	Chloride	0.445	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P354903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037862	Sulfate	0.128	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037781	Ammonia-N	2.18	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P354507

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037917	Ammonia-N	1.12	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P354289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037803	Kjeldahl Nitrogen	3.39	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354293

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037686	NO2NO3-N	0.284	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P354294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037803	NO2NO3-N	0.717	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037687	Total-P	1.59	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P354186

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037863	Total-P	0.671	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P354008

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037688	O-Phosphate-P	0.264	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 8270D
Batch ID: P354130

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038293	Acetochlor	3.94	Spike	P	0 - 30
2038293	Alachlor	2.18	Spike	P	0 - 30
2038293	Ametryn	5.12	Spike	P	0 - 30
2038293	Atrazine	9.20	Spike	P	0 - 30
2038293	Atrazine Desethyl	11.8	Spike	P	0 - 30
2038293	Azinphos Methyl	12.1	Spike	P	0 - 30
2038293	Bromacil	5.43	Spike	P	0 - 30
2038293	Butylate	66.6	Spike	F	0 - 30
2038293	Chlorpyrifos Ethyl	9.67	Spike	P	0 - 30
2038293	Chlorpyrifos Methyl	1.16	Spike	P	0 - 30
2038293	Cyanazine	10.4	Spike	P	0 - 30
2038293	Demeton	25.8	Spike	P	0 - 30
2038293	Diazinon	1.01	Spike	P	0 - 30
2038293	Dimethenamid	5.84	Spike	P	0 - 30
2038293	Disulfoton	10.3	Spike	P	0 - 30
2038293	Dithiopyr	2.01	Spike	P	0 - 30
2038293	EPTC	53.6	Spike	F	0 - 30
2038293	Ethion	34.1	Spike	F	0 - 30
2038293	Ethoprop	0.331	Spike	P	0 - 30
2038293	Fenamiphos	21.0	Spike	P	0 - 30
2038293	Fipronil	3.58	Spike	P	0 - 30
2038293	Fipronil Sulfide	4.24	Spike	P	0 - 30
2038293	Fipronil Sulfone	1.77	Spike	P	0 - 30
2038293	Fonofos	7.21	Spike	P	0 - 30
2038293	Hexazinone	6.61	Spike	P	0 - 30
2038293	Malathion	0.264	Spike	P	0 - 30
2038293	Metalaxyl	2.17	Spike	P	0 - 30
2038293	Metolachlor	9.95	Spike	P	0 - 30
2038293	Metribuzin	2.20	Spike	P	0 - 30
2038293	Mevinphos	10.9	Spike	P	0 - 30
2038293	Molinate	24.9	Spike	P	0 - 30
2038293	Norflurazon	3.26	Spike	P	0 - 30
2038293	Oxadiazon	8.62	Spike	P	0 - 30
2038293	Parathion Ethyl	6.80	Spike	P	0 - 30
2038293	Parathion Methyl	0.640	Spike	P	0 - 30
2038293	Pendimethalin	4.65	Spike	P	0 - 30
2038293	Phorate	18.0	Spike	P	0 - 30
2038293	Prodiamine	36.2	Spike	F	0 - 30
2038293	Prometon	3.05	Spike	P	0 - 30
2038293	Prometryn	5.67	Spike	P	0 - 30
2038293	Simazine	14.6	Spike	P	0 - 30
2038293	Tebuconazole	53.0	Spike	F	0 - 30
2038293	Terbufos	10.4	Spike	P	0 - 30
2038293	Terbutylazine	3.20	Spike	P	0 - 30
LFB	Acetochlor	11.7	LCS	P	0 - 30
LFB	Alachlor	2.50	LCS	P	0 - 30
LFB	Ametryn	0.595	LCS	P	0 - 30
LFB	Atrazine	2.80	LCS	P	0 - 30
LFB	Atrazine Desethyl	21.3	LCS	P	0 - 30
LFB	Azinphos Methyl	3.89	LCS	P	0 - 30
LFB	Bromacil	15.8	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P354130

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Butylate	10.3	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.02	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	13.9	LCS	P	0 - 30
LFB	Cyanazine	20.7	LCS	P	0 - 30
LFB	Demeton	19.3	LCS	P	0 - 30
LFB	Diazinon	6.40	LCS	P	0 - 30
LFB	Dimethenamid	13.3	LCS	P	0 - 30
LFB	Disulfoton	28.4	LCS	P	0 - 30
LFB	Dithiopyr	1.88	LCS	P	0 - 30
LFB	EPTC	15.7	LCS	P	0 - 30
LFB	Ethion	32.7	LCS	F	0 - 30
LFB	Ethoprop	15.2	LCS	P	0 - 30
LFB	Fenamiphos	15.2	LCS	P	0 - 30
LFB	Fipronil	36.1	LCS	F	0 - 30
LFB	Fipronil Sulfide	20.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	25.4	LCS	P	0 - 30
LFB	Fonofos	18.2	LCS	P	0 - 30
LFB	Hexazinone	5.28	LCS	P	0 - 30
LFB	Malathion	24.8	LCS	P	0 - 30
LFB	Metalaxyl	5.31	LCS	P	0 - 30
LFB	Metolachlor	23.6	LCS	P	0 - 30
LFB	Metribuzin	35.0	LCS	F	0 - 30
LFB	Mevinphos	13.6	LCS	P	0 - 30
LFB	Molinate	9.57	LCS	P	0 - 30
LFB	Norflurazon	12.0	LCS	P	0 - 30
LFB	Oxadiazon	25.3	LCS	P	0 - 30
LFB	Parathion Ethyl	1.51	LCS	P	0 - 30
LFB	Parathion Methyl	17.0	LCS	P	0 - 30
LFB	Pendimethalin	9.63	LCS	P	0 - 30
LFB	Phorate	19.7	LCS	P	0 - 30
LFB	Prodiamine	23.0	LCS	P	0 - 30
LFB	Prometon	2.94	LCS	P	0 - 30
LFB	Prometryn	0.872	LCS	P	0 - 30
LFB	Simazine	1.96	LCS	P	0 - 30
LFB	Tebuconazole	80.8	LCS	F	0 - 30
LFB	Terbufos	36.1	LCS	F	0 - 30
LFB	Terbutylazine	5.81	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P354444

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038615	Aldrin	3.80	Spike	P	0 - 30
2038615	Alpha-BHC	2.82	Spike	P	0 - 30
2038615	Alpha-Chlordane	15.4	Spike	P	0 - 30
2038615	Beta-BHC	3.67	Spike	P	0 - 30
2038615	Carbophenothion	7.30	Spike	P	0 - 30
2038615	Chlorothalonil	14.5	Spike	P	0 - 30
2038615	Cypermethrin	23.8	Spike	P	0 - 30
2038615	DDD-p,p'	12.6	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P354444

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038615	DDE-p,p'	13.3	Spike	P	0 - 30
2038615	DDT-p,p'	6.66	Spike	P	0 - 30
2038615	Delta-BHC	10.5	Spike	P	0 - 30
2038615	Dicofol	5.89	Spike	P	0 - 30
2038615	Dieldrin	8.81	Spike	P	0 - 30
2038615	Endosulfan I	16.7	Spike	P	0 - 30
2038615	Endosulfan II	3.88	Spike	P	0 - 30
2038615	Endosulfan Sulfate	7.05	Spike	P	0 - 30
2038615	Endrin	7.49	Spike	P	0 - 30
2038615	Endrin Aldehyde	1.88	Spike	P	0 - 30
2038615	Endrin Ketone	1.44	Spike	P	0 - 30
2038615	Gamma-BHC	0.162	Spike	P	0 - 30
2038615	Gamma-Chlordane	6.02	Spike	P	0 - 30
2038615	Heptachlor	4.71	Spike	P	0 - 30
2038615	Heptachlor Epoxide	1.40	Spike	P	0 - 30
2038615	Methoxychlor	1.03	Spike	P	0 - 30
2038615	Mirex	16.6	Spike	P	0 - 30
2038615	Permethrin	21.0	Spike	P	0 - 30
2038615	Trifluralin	0.668	Spike	P	0 - 30
LFB	Aldrin	2.30	LCS	P	0 - 30
LFB	Alpha-BHC	6.57	LCS	P	0 - 30
LFB	Alpha-Chlordane	5.20	LCS	P	0 - 30
LFB	Beta-BHC	1.63	LCS	P	0 - 30
LFB	Carbophenothion	4.38	LCS	P	0 - 30
LFB	Chlorothalonil	1.64	LCS	P	0 - 30
LFB	Cypermethrin	6.19	LCS	P	0 - 30
LFB	DDD-p,p'	14.2	LCS	P	0 - 30
LFB	DDE-p,p'	6.38	LCS	P	0 - 30
LFB	DDT-p,p'	3.93	LCS	P	0 - 30
LFB	Delta-BHC	6.32	LCS	P	0 - 30
LFB	Dicofol	6.57	LCS	P	0 - 30
LFB	Dieldrin	1.90	LCS	P	0 - 30
LFB	Endosulfan I	3.12	LCS	P	0 - 30
LFB	Endosulfan II	11.4	LCS	P	0 - 30
LFB	Endosulfan Sulfate	1.70	LCS	P	0 - 30
LFB	Endrin	0.601	LCS	P	0 - 30
LFB	Endrin Aldehyde	7.06	LCS	P	0 - 30
LFB	Endrin Ketone	0.953	LCS	P	0 - 30
LFB	Gamma-BHC	16.2	LCS	P	0 - 30
LFB	Gamma-Chlordane	3.79	LCS	P	0 - 30
LFB	Heptachlor	5.36	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.25	LCS	P	0 - 30
LFB	Methoxychlor	2.00	LCS	P	0 - 30
LFB	Mirex	11.8	LCS	P	0 - 30
LFB	Permethrin	7.39	LCS	P	0 - 30
LFB	Trifluralin	0.365	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P354444

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037620	Chlordane	12.3	Spike	P	0 - 30
2037620	Toxaphene	7.63	Spike	P	0 - 30
LFB	Chlordane	48.0	LCS	F	0 - 30
LFB	Toxaphene	39.3	LCS	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P353941

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037201	Acesulfame K	1.03	Spike	P	0 - 30
2037201	AMPA	3.89	Spike	P	0 - 30
2037201	Endothall	3.54	Spike	P	0 - 30
2037201	Glufosinate	10.0	Spike	P	0 - 30
2037201	Glyphosate	11.3	Spike	P	0 - 30
2037201	Sucralose	5.93	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P354103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2038087	3-Hydroxycarbofuran	5.00	Spike	P	0 - 30
2038087	Aldicarb	4.58	Spike	P	0 - 30
2038087	Aldicarb Sulfone	1.16	Spike	P	0 - 30
2038087	Aldicarb Sulfoxide	1.44	Spike	P	0 - 30
2038087	Carbaryl	1.24	Spike	P	0 - 30
2038087	Carbofuran	3.01	Spike	P	0 - 30
2038087	Methiocarb	1.05	Spike	P	0 - 30
2038087	Methomyl	0.557	Spike	P	0 - 30
2038087	Oxamyl	2.79	Spike	P	0 - 30
2038087	Propoxur	1.17	Spike	P	0 - 30
2038088	2,4-D	6.27	Spike	P	0 - 30
2038088	Acetaminophen	2.80	Spike	P	0 - 30
2038088	Bentazon	0.207	Spike	P	0 - 30
2038088	Carbamazepine	1.63	Spike	P	0 - 30
2038088	Diuron	5.85	Spike	P	0 - 30
2038088	Fenuron	7.71	Spike	P	0 - 30
2038088	Fluridone	7.93	Spike	P	0 - 30
2038088	Hydrocodone	8.07	Spike	P	0 - 30
2038088	Ibuprofen	1.97	Spike	P	0 - 30
2038088	Imazapyr	6.30	Spike	P	0 - 30
2038088	Imidacloprid	12.1	Spike	P	0 - 30
2038088	Linuron	3.45	Spike	P	0 - 30
2038088	MCCP	2.76	Spike	P	0 - 30
2038088	Naproxen	1.51	Spike	P	0 - 30
2038088	Primidone	5.94	Spike	P	0 - 30
2038088	Pyraclostrobin	2.10	Spike	P	0 - 30
2038088	Triclopyr	1.01	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2120 B
Batch ID: P354078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037843	Color (true)	6.17	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P354080

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037624	Color (true)	7.01	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P354357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037675	Total Alkalinity	0.756	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P354574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037800	TDS	6.15	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P354363

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037675	Fluoride	0.469	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P354254

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2037802	Organic Carbon	0.710	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2037826
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	55.7	P	30 - 160

Lab Sample ID: 2037827
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	58.5	P	30 - 160

Lab Sample ID: 2037828
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	67.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	125	P	30 - 160
EPA 8321B	Carbamazepine-d10	67.6	P	30 - 160
EPA 8321B	Diuron-d6	88.3	P	30 - 160
EPA 8321B	Endothall-d6	127	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	76.9	P	40 - 160
EPA 8321B	Ibuprofen-d3	55.4	P	30 - 160
EPA 8321B	Primidone-d5	87.9	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	40 - 160

Lab Sample ID: 2037829
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	85.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	128	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.4	P	30 - 160
EPA 8321B	Diuron-d6	85.1	P	30 - 160
EPA 8321B	Endothall-d6	107	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	67.1	P	40 - 160
EPA 8321B	Ibuprofen-d3	68.6	P	30 - 160
EPA 8321B	Primidone-d5	95.1	P	30 - 160
EPA 8321B	Sucralose-d6	93.5	P	40 - 160

Lab Sample ID: 2037830
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	73.2	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	67.5	P	34 - 101
EPA 8276	Decachlorobiphenyl	64.4	P	31 - 108
EPA 8276	PCNB	94.8	P	62 - 142

Lab Sample ID: 2037831
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	108	P	37 - 117
EPA 8270D	Tetrachloro-m-xylene	91.6	P	34 - 101
EPA 8276	Decachlorobiphenyl	86.1	P	31 - 108

Quality Assurance Report Surrogates

Lab Sample ID: 2037831
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	PCNB	121	P	62 - 142

Lab Sample ID: 2037832
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	106	P	71 - 126
EPA 8270D	Terbufos-d10	98.7	P	59 - 149

Lab Sample ID: 2037833
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	113	P	71 - 126
EPA 8270D	Terbufos-d10	99.7	P	59 - 149

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A87427

Included Lab Sample IDs: 2037800, 2037801, 2037806, 2037807, 2037812

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A87428

Included Lab Sample IDs: 2037804, 2037805, 2037810, 2037811, 2037814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.8	97.7	P/P	90 - 110
O-Phosphate-P	98.4	96.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A87433

Included Lab Sample IDs: 2037828, 2037829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	81.0	78.4	P/P	60 - 160
Endothall	122	99.1	P/P	60 - 160

Reference Method: SM 2120 B

Run ID: A87462

Included Lab Sample IDs: 2037800, 2037801, 2037806, 2037807, 2037812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	100	P/P	85 - 115
Color (true)	99.9	99.0	P/P	85 - 115

Reference Method: EPA 8321B

Run ID: A87506

Included Lab Sample IDs: 2037828, 2037829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	84.4	88.5	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A87521

Included Lab Sample IDs: 2037828, 2037829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	74.5	135	P/P	60 - 160
Glufosinate	102	123	P/P	60 - 160
Glyphosate	115	122	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A87528

Included Lab Sample IDs: 2037802, 2037803

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A87546

Included Lab Sample IDs: 2037802, 2037803, 2037808, 2037809, 2037813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	96.7	P/P	90 - 110
Organic Carbon	97.0	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A87559

Included Lab Sample IDs: 2037808, 2037809, 2037813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	101	P/P	90 - 110
Total-P	101	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87560

Included Lab Sample IDs: 2037802, 2037803, 2037808, 2037809, 2037813

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87579

Included Lab Sample IDs: 2037834, 2037835, 2037836

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	106	100	P/P	90 - 110
Iron	105	100	P/P	90 - 110
Magnesium	106	101	P/P	90 - 110
Potassium	105	98.8	P/P	90 - 110
Sodium	109	99.6	P/P	90 - 110
Zinc	106	102	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A87599

Included Lab Sample IDs: 2037800, 2037801, 2037806, 2037807, 2037812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.1	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A87599

Included Lab Sample IDs: 2037800, 2037801, 2037806, 2037807, 2037812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87606

Included Lab Sample IDs: 2037802, 2037803, 2037808

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87617

Included Lab Sample IDs: 2037802, 2037803, 2037808, 2037809, 2037813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	104	P/P	90 - 110
Kjeldahl Nitrogen	104	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87623

Included Lab Sample IDs: 2037834, 2037835, 2037836

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	102	102	P/P	90 - 110
Arsenic	103	102	P/P	90 - 110
Cadmium	99.1	99.9	P/P	90 - 110
Cadmium	99.9	101	P/P	90 - 110
Chromium	101	100	P/P	90 - 110
Chromium	98.9	101	P/P	90 - 110
Copper	100	101	P/P	90 - 110
Copper	102	100	P/P	90 - 110
Lead	100	100	P/P	90 - 110
Lead	99.8	100	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Silver	94.1	94.8	P/P	90 - 110
Silver	94.1	94.1	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A87626

Included Lab Sample IDs: 2037828, 2037829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.5	101	P/P	50 - 150
3-Hydroxycarbofuran	112	109	P/P	50 - 150
Acetaminophen	118	97.7	P/P	60 - 160
Aldicarb	88.8	100	P/P	60 - 150
Aldicarb Sulfone	114	112	P/P	50 - 150
Aldicarb Sulfoxide	110	101	P/P	50 - 150
Bentazon	98.4	106	P/P	50 - 160
Carbamazepine	113	111	P/P	60 - 160
Carbaryl	121	118	P/P	60 - 150
Carbofuran	112	111	P/P	50 - 150
Diuron	111	99.8	P/P	60 - 150
Fenuron	106	118	P/P	60 - 150
Fluridone	123	128	P/P	60 - 160
Hydrocodone	109	109	P/P	60 - 150
Ibuprofen	76.0	106	P/P	50 - 160
Imazapyr	76.6	104	P/P	50 - 150
Imidacloprid	112	113	P/P	60 - 160
Linuron	127	116	P/P	60 - 150
MCPP	100	99.3	P/P	50 - 150
Methiocarb	113	111	P/P	50 - 150
Methomyl	102	108	P/P	50 - 150
Naproxen	95.9	96.8	P/P	50 - 160
Oxamyl	103	93.6	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A87626

Included Lab Sample IDs: 2037828, 2037829

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Primidone	115	107	P/P	60 - 160
Propoxur	107	108	P/P	50 - 150
Pyraclostrobin	101	92.3	P/P	60 - 150
Triclopyr	98.7	99.2	P/P	50 - 160

Reference Method: EPA 8270D

Run ID: A87661

Included Lab Sample IDs: 2037830, 2037831

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	94.5		P	80 - 120
Alpha-BHC	93.1		P	80 - 120
Alpha-Chlordane	98.9		P	80 - 120
Beta-BHC	99.3		P	80 - 120
Carbophenothion	95.7		P	80 - 120
Chlorothalonil	81.7		P	80 - 120
Cypermethrin	84.5		P	80 - 120
DDD-p,p'	94.4		P	80 - 120
DDE-p,p'	104		P	80 - 120
DDT-p,p'	98.2		P	80 - 120
Delta-BHC	91.9		P	80 - 120
Dicofol	91.7		P	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	96.0		P	80 - 120
Endosulfan II	98.3		P	80 - 120
Endosulfan Sulfate	87.8		P	80 - 120
Endrin	109		P	80 - 120
Endrin Aldehyde	111		P	80 - 120
Endrin Ketone	92.5		P	80 - 120
Gamma-BHC	96.0		P	80 - 120
Gamma-Chlordane	98.5		P	80 - 120
Heptachlor	92.1		P	80 - 120
Heptachlor Epoxide	96.8		P	80 - 120
Methoxychlor	110		P	80 - 120
Mirex	88.2		P	80 - 120
Permethrin	85.8		P	80 - 120
Trifluralin	92.9		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87674

Included Lab Sample IDs: 2037809, 2037813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.4	100	P/P	90 - 110
Ammonia-N	100	100	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A87688

Included Lab Sample IDs: 2037830, 2037831

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 8276

Run ID: A87688

Included Lab Sample IDs: 2037830, 2037831

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.5		P	80 - 120
Toxaphene	97.3		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A87809

Included Lab Sample IDs: 2037800, 2037801, 2037806, 2037807, 2037812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	104	P/P	90 - 110
Chloride	103	102	P/P	90 - 110
Chloride	106	98.0	P/P	90 - 110
Chloride	98.0	102	P/P	90 - 110
Sulfate	100	102	P/P	90 - 110
Sulfate	101	100	P/P	90 - 110
Sulfate	104	95.9	P/P	90 - 110
Sulfate	95.9	100	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A87841

Included Lab Sample IDs: 2037832, 2037833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.4		P	80 - 120
Alachlor	101		P	80 - 120
Ametryn	95.1		P	80 - 120
Atrazine	102		P	80 - 120
Atrazine Desethyl	107		P	80 - 120
Azinphos Methyl	99.1		P	80 - 120
Butylate	99.2		P	80 - 120
Chlorpyrifos Ethyl	98.3		P	80 - 120
Chlorpyrifos Methyl	97.5		P	80 - 120
Cyanazine	113		P	80 - 120
Demeton	98.8		P	80 - 120
Diazinon	97.9		P	80 - 120
Dimethenamid	98.7		P	80 - 120
Disulfoton	96.2		P	80 - 120
Dithiopyr	102		P	80 - 120
EPTC	102		P	80 - 120
Ethion	96.9		P	80 - 120
Ethoprop	106		P	80 - 120
Fenamiphos	95.9		P	80 - 120
Fipronil	97.5		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	97.0		P	80 - 120
Fipronil Sulfone	98.0		P	80 - 120
Fonofos	98.0		P	80 - 120
Hexazinone	97.2		P	80 - 120
Malathion	96.8		P	80 - 120
Metalaxyl	99.5		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A87841

Included Lab Sample IDs: 2037832, 2037833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mevinphos	101		P	80 - 120
Molinate	97.4		P	80 - 120
Oxadiazon	102		P	80 - 120
Parathion Ethyl	96.1		P	80 - 120
Parathion Methyl	96.7		P	80 - 120
Pendimethalin	102		P	80 - 120
Phorate	93.5		P	80 - 120
Prodiamine	101		P	80 - 120
Prometon	97.5		P	80 - 120
Prometryn	97.8		P	80 - 120
Simazine	101		P	80 - 120
Tebuconazole	98.2		P	80 - 120
Terbufos	96.0		P	80 - 120
Terbuthylazine	98.6		P	80 - 120

Reference Method: EPA 8270D

Run ID: A87845

Included Lab Sample IDs: 2037832, 2037833

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	92.5		P	80 - 120
Norflurazon	100		P	80 - 120

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						1.67	
EPA 200.7 Rev. 4.4	Calcium	108		109	110			0.493
	Iron	108		110	106			0.557
	Magnesium	113		111	114	114		0.406
	Potassium	109		112	117	116		0.861
	Sodium	112		110	111	112		0.488
	Zinc	105		107	105	106		0.619
EPA 200.8 Rev. 5.4	Arsenic	105		103	104	103		0.157
	Cadmium	102		101	105	104		0.945
	Chromium	101		103	102	102		0.536
	Copper	102		100	99.7	99.4		0.317
	Lead	99.4		98.5	99.2	98.5		0.663
	Nickel	102		100	100	99.7		0.395
	Silver	96.4		94.0	97.6	97.6		0.0233
EPA 300.0 Rev. 2.1	Chloride	104		90.0	86.0		3.44	
	Chloride	103		101	102		0.445	
	Sulfate	101		95.9	90.6			
	Sulfate	99.5		97.0	100		0.128	
EPA 350.1 Rev. 2.0	Ammonia-N	98.7		101	103			2.18
	Ammonia-N	97.1		99.6	101			1.12
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	110		102	109			3.39
EPA 353.2 Rev. 2.0	NO2NO3-N	102		103	104			0.284
	NO2NO3-N	102		104				0.717
EPA 365.1 Rev. 2.0	Total-P	101		101	99.2			1.59
	Total-P	102		101	99.9			0.671
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		97.2	97.5			0.264
EPA 8270D	Acetochlor	95.5	107	123	118	11.7		3.94
	Alachlor	93.8	96.1	113	111	2.50		2.18
	Aldrin	82.4	84.3	76.8	79.8	2.30		3.80
	Alpha-BHC	114	107	127	131	6.57		2.82
	Alpha-Chlordane	102	107	93.4	109	5.20		15.4
	Ametryn	111	111	121	128	0.595		5.12
	Atrazine	99.1	102	128	113	2.80		9.20
	Atrazine Desethyl	92.4	74.7	133	150	21.3		11.8
	Azinphos Methyl	108	113	139	157	3.89		12.1
	Beta-BHC	153	155	129	134	1.63		3.67
	Bromacil	77.6	91.0	112	106	15.8		5.43
	Butylate	44.3	49.1	32.7	65.3	10.3		66.6
	Carbophenothion	102	107	122	113	4.38		7.30
	Chlorothalonil	152	155	181	157	1.64		14.5
	Chlorpyrifos Ethyl	90.8	94.5	96.0	87.2	4.02		9.67
	Chlorpyrifos Methyl	97.2	84.5	89.8	88.7	13.9		1.16
	Cyanazine	101	82.0	186	206	20.7		10.4
	Cypermethrin	84.6	90.0	102	80.0	6.19		23.8
	DDD-p,p'	98.8	114	93.7	106	14.2		12.6
	DDE-p,p'	103	109	108	94.6	6.38		13.3
	DDT-p,p'	109	114	98.8	106	3.93		6.66
	Delta-BHC	177	188	159	143	6.32		10.5
	Demeton	77.1	63.5	67.3	87.3	19.3		25.8
	Diazinon	102	95.8	128	129	6.40		1.01
	Dicofol	119	112	108	102	6.57		5.89
	Dieldrin	110	112	125	114	1.90		8.81
	Dimethenamid	91.9	105	122	115	13.3		5.84
	Disulfoton	103	77.5	94.7	105	28.4		10.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270D	Dithiopyr	105	107	122	119	1.88		2.01
	Endosulfan I	114	110	121	102	3.12		16.7
	Endosulfan II	115	103	110	114	11.4		3.88
	Endosulfan Sulfate	107	105	95.6	103	1.70		7.05
	Endrin	114	114	104	96.0	0.601		7.49
	Endrin Aldehyde	113	105	93.2	91.5	7.06		1.88
	Endrin Ketone	106	105	103	102	0.953		1.44
	EPTC	39.5	46.3	29.1	50.4	15.7		53.6
	Ethion	69.2	96.2	97.6	69.2	32.7		34.1
	Ethoprop	57.6	67.1	80.0	80.2	15.2		0.331
	Fenamiphos	75.9	88.4	95.1	77.0	15.2		21.0
	Fipronil	79.3	114	121	117	36.1		3.58
	Fipronil Sulfide	81.5	99.6	94.2	90.3	20.0		4.24
	Fipronil Sulfone	75.3	97.2	83.1	81.5	25.4		1.77
	Fonofos	95.7	79.7	89.4	96.1	18.2		7.21
	Gamma-BHC	176	150	161	161	16.2		0.162
	Gamma-Chlordane	98.8	103	91.7	97.3	3.79		6.02
	Heptachlor	88.4	93.3	84.0	88.0	5.36		4.71
	Heptachlor Epoxide	109	108	99.4	98.0	1.25		1.40
	Hexazinone	94.0	99.1	123	115	5.28		6.61
	Malathion	78.6	101	99.0	98.7	24.8		0.264
	Metalaxyl	99.6	94.5	118	115	5.31		2.17
	Methoxychlor	128	125	126	125	2.00		1.03
	Metolachlor	80.6	102	116	105	23.6		9.95
	Metribuzin	118	83.1	220	225	35.0		2.20
	Mevinphos	92.1	80.4	89.2	99.6	13.6		10.9
	Mirex	76.1	85.5	80.5	68.1	11.8		16.6
	Molinate	52.0	57.3	42.7	54.9	9.57		24.9
	Norflurazon	98.1	111	118	122	12.0		3.26
	Oxadiazon	83.9	108	113	104	25.3		8.62
	Parathion Ethyl	83.4	84.6	99.6	93.0	1.51		6.80
	Parathion Methyl	111	93.3	108	107	17.0		0.640
	Pendimethalin	82.7	75.1	127	122	9.63		4.65
	Permethrin	80.7	86.9	91.4	74.0	7.39		21.0
	Phorate	77.6	63.7	81.4	97.5	19.7		18.0
	Prodiamine	110	139	111	77.3	23.0		36.2
	Prometon	88.0	90.6	119	115	2.94		3.05
	Prometryn	94.8	95.6	115	109	0.872		5.67
	Simazine	105	107	115	98.9	1.96		14.6
	Tebuconazole	43.8	103	96.9	54.2	80.8		53.0
	Terbufos	104	72.2	101	112	36.1		10.4
	Terbuthylazine	96.8	103	123	119	5.81		3.20
	Trifluralin	100	100	99.0	98.4	0.365		0.668
EPA 8276	Chlordane	91.9	56.3	72.6	64.1	48.0		12.3
	Toxaphene	89.3	60.0	65.7	60.9	39.3		7.63
EPA 8321B	2,4-D	105		125	138			6.27
	3-Hydroxycarbofuran	107		96.4	91.7			5.00
	Acesulfame K	74.4		145	147			1.03
	Acetaminophen	131		131	127			2.80
	Aldicarb	95.0		73.2	76.6			4.58
	Aldicarb Sulfone	129		110	109			1.16
	Aldicarb Sulfoxide	72.6		43.2	42.6			1.44
	AMPA	91.2		87.4	90.9			3.89
	Bentazon	85.8		48.3	48.5			0.207

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	
						SMP	MS
EPA 8321B	Carbamazepine	93.3	73.3	71.8			1.63
	Carbaryl	85.7	68.2	69.0			1.24
	Carbofuran	81.0	64.0	66.0			3.01
	Diuron	81.1	58.9	53.6			5.85
	Endothall	108	150	156			3.54
	Fenuron	129	132	122			7.71
	Fluridone	113	114	106			7.93
	Glufosinate	98.7	78.8	87.1			10.0
	Glyphosate	85.8	72.2	64.4			11.3
	Hydrocodone	124	120	111			8.07
	Ibuprofen	86.1	78.1	79.6			1.97
	Imazapyr	112	116	108			6.30
	Imidacloprid	129	204	177			12.1
	Linuron	91.7	62.7	64.9			3.45
	MCPPP	118	151	145			2.76
	Methiocarb	75.3	59.0	59.6			1.05
	Methomyl	119	102	101			0.557
	Naproxen	80.0	81.8	80.5			1.51
	Oxamyl	103	83.4	85.8			2.79
	Primidone	115	114	107			5.94
	Propoxur	81.1	63.5	62.8			1.17
	Pyraclostrobin	82.7	75.0	73.5			2.10
	Sucralose	91.9	97.7	104			5.93
	Triclopyr	112	131	132			1.01
SM 2120 B	Color (true)	98.2				6.17	
	Color (true)	97.6				7.01	
SM 2320 B-97	Total Alkalinity	101				0.756	
SM 2540 C-97	TDS					6.15	
SM 4500 F-C-97	Fluoride	101					0.469
SM 5310 B-00	Organic Carbon	98.2	100				0.710

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2037800, 2037801, 2037806, 2037807, 2037812
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2037834, 2037835, 2037836
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2037834, 2037835, 2037836
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2037800, 2037801, 2037806, 2037807, 2037812
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2037800, 2037801, 2037806, 2037807, 2037812
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2037802, 2037803, 2037808, 2037809, 2037813
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2037802, 2037803, 2037808, 2037809, 2037813
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2037802, 2037803, 2037808, 2037809, 2037813
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2037802, 2037803, 2037808, 2037809, 2037813
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2037804, 2037805, 2037810, 2037811, 2037814
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2037830, 2037831

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2037832, 2037833
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2037830, 2037831
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2037826, 2037827
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2037828, 2037829
SM 2120 B / E31780	True Color measured at 450 nm	2037800, 2037801, 2037806, 2037807, 2037812
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2037800, 2037801, 2037806, 2037807, 2037812
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2037800, 2037801, 2037806, 2037807, 2037812
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2037800, 2037801, 2037806, 2037807, 2037812
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2037800, 2037801, 2037806, 2037807, 2037812
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2037802, 2037803, 2037808, 2037809, 2037813

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	10/31/2018			10/31/2018 15:58	Megan Treadwell	2037800, 2037801, 2037806, 2037807, 2037812
EPA 200.7 Rev. 4.4	10/31/2018	11/05/2018 14:50	Elliott D. Healy	11/06/2018 16:02	Betina Topolski	2037834
	10/31/2018	11/05/2018 14:50	Elliott D. Healy	11/06/2018 16:09	Betina Topolski	2037835
	10/31/2018	11/05/2018 14:50	Elliott D. Healy	11/06/2018 16:16	Betina Topolski	2037836
EPA 200.8 Rev. 5.4	10/31/2018	11/05/2018 14:50	Elliott D. Healy	11/07/2018 16:29	Allison Taylor	2037834
	10/31/2018	11/05/2018 14:50	Elliott D. Healy	11/07/2018 17:08	Allison Taylor	2037835
	10/31/2018	11/05/2018 14:50	Elliott D. Healy	11/07/2018 17:17	Allison Taylor	2037836
EPA 300.0 Rev. 2.1	10/31/2018			11/16/2018 00:46	Lipi Saha	2037800
	10/31/2018			11/16/2018 02:11	Lipi Saha	2037806
	10/31/2018			11/16/2018 06:48	Lipi Saha	2037812
	10/31/2018			11/16/2018 08:25	Lipi Saha	2037807
	10/31/2018			11/16/2018 08:49	Lipi Saha	2037801
EPA 350.1 Rev. 2.0	10/31/2018			11/07/2018 15:11	Ping Hua	2037802
	10/31/2018			11/07/2018 15:13	Ping Hua	2037803
	10/31/2018			11/07/2018 15:14	Ping Hua	2037808
	10/31/2018			11/08/2018 11:35	Ping Hua	2037809
	10/31/2018			11/08/2018 14:28	Ping Hua	2037813
EPA 351.2 Rev. 2.0	10/31/2018	11/06/2018 12:30	Adrian Shelby	11/07/2018 17:35	Virginia P. Brown	2037802
	10/31/2018	11/06/2018 12:30	Adrian Shelby	11/07/2018 17:37	Virginia P. Brown	2037803
	10/31/2018	11/06/2018 12:30	Adrian Shelby	11/07/2018 17:45	Virginia P. Brown	2037808
	10/31/2018	11/06/2018 12:30	Adrian Shelby	11/07/2018 17:46	Virginia P. Brown	2037809
	10/31/2018	11/06/2018 12:30	Adrian Shelby	11/07/2018 17:48	Virginia P. Brown	2037813
EPA 353.2 Rev. 2.0	10/31/2018			11/06/2018 11:52	Lauren Bottorf	2037802
	10/31/2018			11/06/2018 11:59	Lauren Bottorf	2037803
	10/31/2018			11/06/2018 12:05	Lauren Bottorf	2037808
	10/31/2018			11/06/2018 12:06	Lauren Bottorf	2037809
	10/31/2018			11/06/2018 12:07	Lauren Bottorf	2037813
EPA 365.1 Rev. 2.0	10/31/2018	11/02/2018 12:40	Sima Feizi	11/05/2018 12:32	Beverly Y. Sanders	2037802
	10/31/2018	11/02/2018 12:40	Sima Feizi	11/05/2018 12:33	Beverly Y. Sanders	2037803
	10/31/2018	11/05/2018 11:55	Sima Feizi	11/06/2018 11:12	Beverly Y. Sanders	2037808
	10/31/2018	11/05/2018 11:55	Sima Feizi	11/06/2018 11:13	Beverly Y. Sanders	2037809
	10/31/2018	11/05/2018 11:55	Sima Feizi	11/06/2018 11:16	Beverly Y. Sanders	2037813
EPA 365.1 Rev. 2.0 dissolved	10/31/2018			10/31/2018 16:19	Julia Storbeck	2037811
	10/31/2018			10/31/2018 16:20	Julia Storbeck	2037814
	10/31/2018			10/31/2018 16:26	Julia Storbeck	2037804
	10/31/2018			10/31/2018 16:27	Julia Storbeck	2037805
	10/31/2018			10/31/2018 16:33	Julia Storbeck	2037810
EPA 8270D	10/31/2018	11/05/2018 08:15	Rasheda Ghaffari	11/09/2018 00:52	Arthur Maknenko	2037830
	10/31/2018	11/05/2018 08:15	Rasheda Ghaffari	11/09/2018 01:22	Arthur Maknenko	2037831

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270D	10/31/2018	11/05/2018 08:30	Fe-Val Siddell	11/06/2018 15:32	Vandana T. Nagar	2037832
	10/31/2018	11/05/2018 08:30	Fe-Val Siddell	11/06/2018 15:56	Vandana T. Nagar	2037833
	10/31/2018	11/05/2018 08:30	Fe-Val Siddell	11/07/2018 15:49	Vandana T. Nagar	2037832
	10/31/2018	11/05/2018 08:30	Fe-Val Siddell	11/07/2018 16:13	Vandana T. Nagar	2037833
EPA 8276	10/31/2018	11/05/2018 08:15	Rasheda Ghaffari	11/09/2018 04:55	Dinesh Mishra	2037830
	10/31/2018	11/05/2018 08:15	Rasheda Ghaffari	11/09/2018 05:50	Dinesh Mishra	2037831
EPA 8321B	10/31/2018	10/31/2018 13:15	Rebecca Ware	11/01/2018 07:23	Rebecca Ware	2037828
	10/31/2018	10/31/2018 13:15	Rebecca Ware	11/01/2018 07:38	Rebecca Ware	2037829
	10/31/2018	10/31/2018 13:15	Rebecca Ware	11/02/2018 09:03	Rebecca Ware	2037828
	10/31/2018	10/31/2018 13:15	Rebecca Ware	11/02/2018 09:14	Rebecca Ware	2037829
	10/31/2018	10/31/2018 13:15	Rebecca Ware	11/03/2018 03:20	Mohammad Ghaffari	2037828
	10/31/2018	10/31/2018 13:15	Rebecca Ware	11/03/2018 03:35	Mohammad Ghaffari	2037829
	10/31/2018	11/06/2018 10:00	Hoor Shaik	11/06/2018 19:48	Juyoung Kim	2037826
	10/31/2018	11/06/2018 10:00	Hoor Shaik	11/06/2018 20:22	Juyoung Kim	2037827
	10/31/2018	11/06/2018 10:00	Hoor Shaik	11/07/2018 02:08	Juyoung Kim	2037828
	10/31/2018	11/06/2018 10:00	Hoor Shaik	11/07/2018 02:43	Juyoung Kim	2037829
	10/31/2018	11/06/2018 10:00	Hoor Shaik	11/08/2018 09:50	Juyoung Kim	2037828
	10/31/2018	11/06/2018 10:00	Hoor Shaik	11/08/2018 10:24	Juyoung Kim	2037829
SM 2120 B	10/31/2018			10/31/2018 15:33	Chelsea Hernandez	2037801, 2037806
	10/31/2018			10/31/2018 15:34	Chelsea Hernandez	2037807
	10/31/2018			10/31/2018 15:35	Chelsea Hernandez	2037812
	10/31/2018			10/31/2018 15:56	Chelsea Hernandez	2037800
SM 2320 B-97	10/31/2018			11/07/2018 03:59	Dale L. Simmons	2037800
	10/31/2018			11/07/2018 04:09	Dale L. Simmons	2037801
	10/31/2018			11/07/2018 04:20	Dale L. Simmons	2037806
	10/31/2018			11/07/2018 04:31	Dale L. Simmons	2037807
	10/31/2018			11/07/2018 04:42	Dale L. Simmons	2037812
SM 2540 C-97	10/31/2018			11/02/2018 16:03	Yijie Li	2037800, 2037801, 2037806, 2037807, 2037812
SM 2540 D-97	10/31/2018			11/02/2018 16:03	Yijie Li	2037800, 2037801, 2037806, 2037807, 2037812
SM 4500 F-C-97	10/31/2018			11/07/2018 03:59	Dale L. Simmons	2037800
	10/31/2018			11/07/2018 04:09	Dale L. Simmons	2037801
	10/31/2018			11/07/2018 04:20	Dale L. Simmons	2037806
	10/31/2018			11/07/2018 04:31	Dale L. Simmons	2037807
	10/31/2018			11/07/2018 04:42	Dale L. Simmons	2037812
SM 5310 B-00	10/31/2018			11/06/2018 02:16	Megan Treadwell	2037802
	10/31/2018			11/06/2018 03:05	Megan Treadwell	2037803
	10/31/2018			11/06/2018 03:17	Megan Treadwell	2037808
	10/31/2018			11/06/2018 03:30	Megan Treadwell	2037809

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	10/31/2018			11/06/2018 04:06	Megan Treadwell	2037813