

Chemical Analysis Report

SW-DIST-2019-02-28-03

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

Event Description: **SMP - Run 11; Gily, Owen Cr, Myakka**
Request ID: **RQ-2019-02-25-19**
Customer: **SW-DIST**
Project ID: **SMP**

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Date Certified: 20-MAR-2019 13:46



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: 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 by the Florida Department of Health Environmental Laboratory Certification Program 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: GILLEY CRK @ STRICKLANDS

Collection Date/Time: 02/27/2019 13:54

Field ID: G2SW0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066120	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P359716	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P360204	
		Sulfate	16		mg SO4/L	P360209	
	SM 2120 B	Color (true)	97		PCU	P359710	
	SM 2320 B-97	Total Alkalinity	22		mg CaCO3/L	P359960	
	SM 2540 C-97	TDS	84		mg/L	P360004	
	SM 2540 D-97	TSS	4	I	mg/L	P359854	
	SM 4500 F-C-97	Fluoride	0.21		mg F/L	P359962	
2066121	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P360055	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P359839	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.38		mg N/L	P359828	
	EPA 365.1 Rev. 2.0	Total-P	0.47		mg P/L	P359845	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P360191	
2066122	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.38		mg P/L	P359721	
2066140	EPA 8321B	Aldicarb	0.020	U	ug/L	P359745	
		Aldicarb Sulfone	0.0020	U	ug/L	P359745	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P359745	RPD
		Carbaryl	0.0020	U	ug/L	P359745	
		Carbofuran	0.0020	U	ug/L	P359745	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P359745	
		Methiocarb	0.0020	U	ug/L	P359745	
		Methomyl	0.0020	U	ug/L	P359745	
		Oxamyl	0.0020	U	ug/L	P359745	
		Propoxur	0.0020	U	ug/L	P359745	
2066141		Acesulfame K**	0.10	U	ug/L	P359705	
		2,4-D	0.0020	U	ug/L	P359745	
		AMPA**	1.1	J	ug/L	P359705	CCV, RPD
		Sucralose**	0.010	U	ug/L	P359705	
		Endothall**	0.25	U	ug/L	P359705	
		Acetaminophen**	0.0080	U	ug/L	P359745	
		Glufosinate**	0.10	U	ug/L	P359705	
		Glyphosate**	0.50		ug/L	P359705	
		Bentazon	0.0016	I	ug/L	P359745	
		Carbamazepine**	8.0E-04	U	ug/L	P359745	
		Diuron	0.0020	U	ug/L	P359745	
		Fenuron	0.016	U	ug/L	P359745	
		Fluridone**	8.0E-04	U	ug/L	P359745	
		Imazapyr**	0.052		ug/L	P359745	
		Hydrocodone**	0.0020	U	ug/L	P359745	
		Ibuprofen**	0.020	U	ug/L	P359745	
		Imidacloprid	0.0064	I	ug/L	P359745	MS
		Linuron	0.0040	U	ug/L	P359745	
		MCP	0.0020	U	ug/L	P359745	
		MCP	0.0020	U	ug/L	P359745	

Field ID: G2SW0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066141	EPA 8321B	Naproxen**	0.0080	U	ug/L	P359745	
		Primidone**	0.0040	U	ug/L	P359745	
		Pyraclostrobin**	0.0020	U	ug/L	P359745	
		Triclopyr**	0.0040	U	ug/L	P359745	RPD
2066149	EPA 8270D	Aldrin	4.3	U	ng/L	P359723	RPD
		Alpha-BHC	2.2	U	ng/L	P359723	
		Alpha-Chlordane	1.1	U	ng/L	P359723	
		Beta-BHC	11	U	ng/L	P359723	MS
		Bifenthrin**	4.3	U	ng/L	P359723	
		Delta-BHC	11	U	ng/L	P359723	
		Gamma-BHC	11	U	ng/L	P359723	
		Carbophenothion	13	U	ng/L	P359723	
		Chlorothalonil	2.2	U	ng/L	P359723	RPD
		Cis-Nonachlor**	1.1	U	ng/L	P359723	
		Cypermethrin	22	U	ng/L	P359723	RPD
		DDD-p,p'	8.7	U	ng/L	P359723	
		DDE-p,p'	8.7	U	ng/L	P359723	
		DDT-p,p'	11	U	ng/L	P359723	
		Dicofol	32	U	ng/L	P359723	
		Dieldrin	4.3	U	ng/L	P359723	
		Endosulfan I	4.3	U	ng/L	P359723	
		Endosulfan II	4.3	U	ng/L	P359723	
		Endosulfan Sulfate	2.2	U	ng/L	P359723	
		Endrin	2.2	U	ng/L	P359723	
		Endrin Aldehyde	2.2	U	ng/L	P359723	
		Endrin Ketone	2.2	U	ng/L	P359723	
		Ethalfuralin**	3.2	U	ng/L	P359723	
		Gamma-Chlordane	1.1	U	ng/L	P359723	
		Heptachlor	1.6	U	ng/L	P359723	
		Heptachlor Epoxide	2.2	U	ng/L	P359723	
		Hexachlorobenzene**	2.2	U	ng/L	P359723	
		Methoxychlor	4.3	U	ng/L	P359723	
		Mirex	2.2	UJ	ng/L	P359723	LCS, MS, RPD
		Permethrin	11	U	ng/L	P359723	RPD
		Trans-Nonachlor**	1.1	U	ng/L	P359723	
		Trifluralin	2.7	U	ng/L	P359723	
		Chlordane	5.4	U	ng/L	P359723	
		Toxaphene	32	U	ng/L	P359723	
2066150	EPA 8270D	Acetochlor	0.25	U	ng/L	P359947	
		Alachlor	0.25	U	ng/L	P359947	
		Ametryn	0.59	U	ng/L	P359947	
		Atrazine	1.8		ng/L	P359947	
		Atrazine Desethyl	1.5	U	ng/L	P359947	
		Azinphos Methyl	4.9	U	ng/L	P359947	

Field ID: G2SW0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066150	EPA 8270D	Bromacil	10	J	ng/L	P359947	RPD
		Butylate	0.39	UJ	ng/L	P359947	LCS
		Chlorpyrifos Ethyl	0.49	I	ng/L	P359947	
		Chlorpyrifos Methyl	0.099	U	ng/L	P359947	
		Cyanazine	3.2	U	ng/L	P359947	
		Demeton	6.9	U	ng/L	P359947	
		Diazinon	0.12	U	ng/L	P359947	
		Dimethenamid**	0.099	U	ng/L	P359947	
		Disulfoton	0.49	U	ng/L	P359947	
		Dithiopyr**	0.099	U	ng/L	P359947	
		EPTC	1.2	U	ng/L	P359947	RPD
		Ethion	0.15	U	ng/L	P359947	
		Ethoprop	0.099	U	ng/L	P359947	
		Fenamiphos	0.49	U	ng/L	P359947	
		Fipronil	0.25	U	ng/L	P359947	
		Fipronil Desulfinyl**	0.12	U	ng/L	P359947	
		Fipronil Sulfide	0.15	U	ng/L	P359947	
		Fipronil Sulfone	0.15	U	ng/L	P359947	
		Fonofos	0.20	U	ng/L	P359947	
		Hexazinone	0.49	U	ng/L	P359947	
		Malathion	0.35	U	ng/L	P359947	
		Metalaxyl	0.30	U	ng/L	P359947	
		Metolachlor	5.7		ng/L	P359947	
		Metribuzin	1.2	IJ	ng/L	P359947	RPD
		Mevinphos	0.49	U	ng/L	P359947	
		Molinate	0.30	U	ng/L	P359947	
		Norflurazon	110		ng/L	P359947	
		Oxadiazon**	0.30	I	ng/L	P359947	
		Parathion Ethyl	0.25	U	ng/L	P359947	
		Parathion Methyl	0.54	U	ng/L	P359947	
		Pendimethalin	1.3	I	ng/L	P359947	
		Phorate	0.25	U	ng/L	P359947	
		Prodiamine**	0.17	U	ng/L	P359947	
		Prometon	0.89	U	ng/L	P359947	
		Prometryn	0.20	U	ng/L	P359947	
		Simazine	0.49	U	ng/L	P359947	
		Tebuconazole**	0.49	UJ	ng/L	P359947	RPD
		Terbufos	0.099	U	ng/L	P359947	
		Terbuthylazine	0.42	U	ng/L	P359947	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

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

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

Sample Location: MYAKKA RIVER @ CLAY GULLY IN PARK

Collection Date/Time: 02/27/2019 12:40

Field ID: G3SW0054

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2066117	EPA 180.1 Rev. 2.0	Turbidity	6.2		NTU	P359716	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P360204	
		Sulfate	53		mg SO4/L	P360209	
	SM 2120 B	Color (true)	280		PCU	P359710	
	SM 2320 B-97	Total Alkalinity	36		mg CaCO3/L	P359960	
	SM 2540 C-97	TDS	228		mg/L	P360004	
	SM 2540 D-97	TSS	3	I	mg/L	P359854	
	SM 4500 F-C-97	Fluoride	0.23		mg F/L	P359962	
2066118	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P360055	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P359839	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P359828	
	EPA 365.1 Rev. 2.0	Total-P	0.43		mg P/L	P359845	
	SM 5310 B-00	Organic Carbon	26		mg C/L	P360191	
2066119	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.32		mg P/L	P359721	

Ref. Method and Comment:

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

EPA 365.1 Rev. 2.0: Total-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359716

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360204

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360209

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360055

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359839

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359828

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359845

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359721

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

Reference Method: EPA 8270D
Batch ID: P359723

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	10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D
Batch ID: P359723

Component	Result	Code	Units
Bifenthrin	4.0	U	ng/L
Carbophenothion	12	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	8.0	U	ng/L
DDE-p,p'	8.0	U	ng/L
DDT-p,p'	10	U	ng/L
Delta-BHC	10	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
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	10	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270D
Batch ID: P359947

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	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	3.2	U	ng/L
Demeton	7.0	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P359947

Component	Result	Code	Units
Fenamiphos	0.50	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
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	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	0.55	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 8276
Batch ID: P359723

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P359705

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: P359745

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P359745

Component	Result	Code	Units
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
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0069	I	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	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: P359710

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P359960

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

Reference Method: SM 2540 C-97
Batch ID: P360004

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P359854

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P359962

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P360191

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360204

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360209

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360055

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359839

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359828

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359845

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359721

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

Reference Method: EPA 8270D
Batch ID: P359723

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	47.6	59.7	P/P	20 - 93.0
Alpha-BHC	111	111	P/P	57 - 119
Alpha-Chlordane	80.4	84.3	P/P	58 - 112
Beta-BHC	142	144	P/P	56 - 149
Bifenthrin	70.9	88.9	P/P	50 - 130
Carbophenothion	82.2	94.2	P/P	26 - 147
Chlorothalonil	112	116	P/P	20 - 155
Cis-Nonachlor	85.1	90.8	P/P	50 - 130
Cypermethrin	68.8	76.2	P/P	40 - 137
DDD-p,p'	97.5	102	P/P	65 - 129

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P359723

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDE-p,p'	86.3	84.1	P/P	57 - 116
DDT-p,p'	96.2	107	P/P	53 - 133
Delta-BHC	151	152	P/P	59 - 163
Dicofol	95.3	97.2	P/P	24 - 138
Dieldrin	88.9	92.5	P/P	60 - 120
Endosulfan I	90.3	89.8	P/P	64 - 118
Endosulfan II	98.5	101	P/P	58 - 142
Endosulfan Sulfate	92.6	96.7	P/P	60 - 127
Endrin	99.5	102	P/P	59 - 122
Endrin Aldehyde	111	111	P/P	49 - 132
Endrin Ketone	92.6	95.2	P/P	64 - 121
Ethalfuralin	86.0	90.0	P/P	50 - 130
Gamma-BHC	130	122	P/P	56 - 141
Gamma-Chlordane	76.7	83.2	P/P	56 - 110
Heptachlor	58.8	66.9	P/P	46 - 96.0
Heptachlor Epoxide	86.1	86.4	P/P	61 - 112
Hexachlorobenzene	65.8	72.6	P/P	50 - 130
Methoxychlor	100	91.9	P/P	63 - 134
Mirex	44.8	55.8	F/P	45 - 100
Permethrin	68.0	78.5	P/P	53 - 115
Trans-Nonachlor	75.9	82.8	P/P	50 - 130
Trifluralin	83.4	90.1	P/P	39 - 142

Reference Method: EPA 8270D
Batch ID: P359947

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	112	109	P/P	71 - 121
Alachlor	109	96.4	P/P	72 - 119
Ametryn	112	110	P/P	47 - 144
Atrazine	103	101	P/P	75 - 123
Atrazine Desethyl	98.8	89.1	P/P	45 - 133
Azinphos Methyl	96.2	110	P/P	66 - 165
Bromacil	108	55.0	P/P	43 - 123
Butylate	84.6	65.3	F/P	27 - 83.0
Chlorpyrifos Ethyl	93.8	95.0	P/P	70 - 117
Chlorpyrifos Methyl	84.6	94.8	P/P	71 - 120
Cyanazine	99.0	94.0	P/P	34 - 264
Demeton	80.6	86.5	P/P	41 - 122
Diazinon	110	98.6	P/P	70 - 127
Dimethenamid	112	101	P/P	60 - 130
Disulfoton	87.8	94.8	P/P	56 - 127
Dithiopyr	110	97.0	P/P	60 - 130
EPTC	81.0	72.2	P/P	24 - 84.0
Ethion	103	77.8	P/P	53 - 132
Ethoprop	104	90.7	P/P	57 - 117
Fenamiphos	94.6	86.1	P/P	55 - 136
Fipronil	108	84.0	P/P	64 - 126
Fipronil Desulfinyl	99.4	88.7	P/P	60 - 130
Fipronil Sulfide	102	82.0	P/P	57 - 120
Fipronil Sulfone	104	82.7	P/P	52 - 115
Fonofos	87.6	93.1	P/P	61 - 121

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P359947

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hexazinone	130	96.6	P/P	62 - 131
Malathion	98.5	97.9	P/P	67 - 126
Metalaxyl	111	98.0	P/P	54 - 128
Metolachlor	112	103	P/P	71 - 118
Metribuzin	86.2	145	P/P	42 - 221
Mevinphos	94.7	88.9	P/P	45 - 114
Molinate	84.4	76.6	P/P	33 - 91.0
Norflurazon	105	85.6	P/P	60 - 123
Oxadiazon	113	95.8	P/P	60 - 130
Parathion Ethyl	90.5	91.0	P/P	73 - 111
Parathion Methyl	96.6	117	P/P	74 - 126
Pendimethalin	88.6	93.6	P/P	63 - 131
Phorate	81.6	89.4	P/P	54 - 115
Prodiamine	93.6	91.8	P/P	60 - 130
Prometon	107	83.6	P/P	61 - 120
Prometryn	107	94.7	P/P	62 - 126
Simazine	101	105	P/P	75 - 126
Tebuconazole	100	73.9	P/P	30 - 100
Terbufos	89.7	91.5	P/P	65 - 116
Terbuthylazine	106	98.0	P/P	73 - 117

Reference Method: EPA 8276
Batch ID: P359723

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	86.0	75.8	P/P	43 - 128
Toxaphene	62.4	63.3	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P359705

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	120		P	40 - 150
AMPA	87.3		P	40 - 150
Endothall	100		P	40 - 150
Glufosinate	135		P	40 - 150
Glyphosate	123		P	40 - 140
Sucralose	97.7		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P359745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	78.8		P	40 - 150
3-Hydroxycarbofuran	98.8		P	40 - 150
Acetaminophen	106		P	30 - 150
Aldicarb	87.4		P	30 - 150
Aldicarb Sulfone	109		P	40 - 150
Aldicarb Sulfoxide	106		P	40 - 150
Bentazon	118		P	30 - 150
Carbamazepine	91.4		P	40 - 150
Carbaryl	83.6		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P359745

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbofuran	83.9		P	40 - 150
Diuron	84.8		P	40 - 150
Fenuron	110		P	40 - 150
Fluridone	108		P	40 - 150
Hydrocodone	111		P	40 - 150
Ibuprofen	68.3		P	40 - 150
Imazapyr	102		P	40 - 150
Imidacloprid	103		P	40 - 150
Linuron	79.7		P	40 - 150
MCPP	87.4		P	40 - 150
Methiocarb	78.1		P	40 - 150
Methomyl	85.6		P	40 - 150
Naproxen	73.3		P	40 - 150
Oxamyl	105		P	40 - 150
Primidone	92.9		P	40 - 150
Propoxur	74.0		P	40 - 150
Pyraclostrobin	72.5		P	40 - 150
Triclopyr	53.2		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P359710

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

Reference Method: SM 2320 B-97
Batch ID: P359960

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

Reference Method: SM 4500 F-C-97
Batch ID: P359962

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.4		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P360191

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065922	Chloride	105		P	90 - 110
2066095	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360209

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065922	Sulfate	103		P	90 - 110
2066095	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360055

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066167	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359839

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066099	Kjeldahl Nitrogen	97.0	97.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066118	NO2NO3-N	99.5	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359721

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066169	O-Phosphate-P	94.7	96.1	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P359723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065655	Aldrin	68.1	48.8	P/P	25 - 92.0
2065655	Alpha-BHC	121	117	P/P	49 - 130
2065655	Alpha-Chlordane	88.7	72.3	P/P	50 - 115
2065655	Beta-BHC	170	171	F/F	43 - 157
2065655	Bifenthrin	94.5	72.8	P/P	50 - 130
2065655	Carbophenothion	119	101	P/P	27 - 180
2065655	Chlorothalonil	127	47.9	P/P	10 - 216
2065655	Cis-Nonachlor	91.6	74.2	P/P	50 - 130
2065655	Cypermethrin	85.0	61.5	P/P	40 - 153
2065655	DDD-p,p'	106	91.4	P/P	53 - 128
2065655	DDE-p,p'	93.4	74.3	P/P	48 - 116
2065655	DDT-p,p'	108	87.4	P/P	47 - 128
2065655	Delta-BHC	181	181	P/P	51 - 196
2065655	Dicofol	99.9	90.0	P/P	10 - 147

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P359723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065655	Dieldrin	93.6	84.9	P/P	48 - 128
2065655	Endosulfan I	96.9	89.8	P/P	58 - 126
2065655	Endosulfan II	104	96.2	P/P	50 - 150
2065655	Endosulfan Sulfate	106	103	P/P	56 - 130
2065655	Endrin	106	94.8	P/P	50 - 126
2065655	Endrin Aldehyde	100	92.9	P/P	12 - 145
2065655	Endrin Ketone	106	107	P/P	59 - 132
2065655	Ethalfuralin	99.6	79.4	P/P	50 - 130
2065655	Gamma-BHC	140	141	P/P	50 - 155
2065655	Gamma-Chlordane	84.6	66.6	P/P	50 - 112
2065655	Heptachlor	70.3	54.9	P/P	41 - 98.0
2065655	Heptachlor Epoxide	92.8	85.9	P/P	55 - 117
2065655	Hexachlorobenzene	77.8	59.4	P/P	50 - 130
2065655	Methoxychlor	117	98.0	P/P	55 - 133
2065655	Mirex	60.0	40.1	P/F	44 - 101
2065655	Permethrin	82.6	58.6	P/P	52 - 124
2065655	Trans-Nonachlor	85.7	66.3	P/P	50 - 130
2065655	Trifluralin	97.6	76.4	P/P	10 - 201

Reference Method: EPA 8270D
Batch ID: P359947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065382	Acetochlor	107	106	P/P	63 - 129
2065382	Alachlor	106	103	P/P	65 - 127
2065382	Ametryn	102	98.6	P/P	40 - 164
2065382	Atrazine	108	119	P/P	66 - 135
2065382	Atrazine Desethyl	89.1	77.1	P/P	14 - 157
2065382	Azinphos Methyl	133	124	P/P	49 - 180
2065382	Bromacil	91.8	88.4	P/P	48 - 130
2065382	Butylate	63.3	48.6	P/P	10 - 94.0
2065382	Chlorpyrifos Ethyl	88.6	99.9	P/P	58 - 123
2065382	Chlorpyrifos Methyl	92.5	95.3	P/P	58 - 125
2065382	Cyanazine	97.4	109	P/P	24 - 253
2065382	Demeton	89.6	90.9	P/P	25 - 149
2065382	Diazinon	101	102	P/P	59 - 144
2065382	Dimethenamid	103	108	P/P	60 - 130
2065382	Disulfoton	97.8	99.0	P/P	54 - 132
2065382	Dithiopyr	100	101	P/P	60 - 130
2065382	EPTC	65.1	45.8	P/P	10 - 92.0
2065382	Ethion	49.7	60.1	P/P	30 - 148
2065382	Ethoprop	100	97.1	P/P	50 - 130
2065382	Fenamiphos	105	78.5	P/P	49 - 142
2065382	Fipronil	89.5	96.9	P/P	46 - 140
2065382	Fipronil Desulfinyl	73.0	76.3	P/P	60 - 130
2065382	Fipronil Sulfide	80.9	82.0	P/P	31 - 136
2065382	Fipronil Sulfone	81.5	92.3	P/P	16 - 136
2065382	Fonofos	96.1	100	P/P	55 - 129
2065382	Hexazinone	91.2	95.0	P/P	56 - 141
2065382	Malathion	92.5	96.9	P/P	56 - 135
2065382	Metalaxyl	97.4	98.1	P/P	54 - 135
2065382	Metolachlor	109	110	P/P	51 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P359947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065382	Metribuzin	149	150	P/P	45 - 254
2065382	Mevinphos	82.6	91.0	P/P	33 - 131
2065382	Molinate	85.2	75.0	P/P	14 - 98.0
2065382	Norflurazon	97.4	98.2	P/P	34 - 136
2065382	Oxadiazon	88.6	90.4	P/P	60 - 130
2065382	Parathion Ethyl	88.9	92.9	P/P	66 - 118
2065382	Parathion Methyl	120	124	P/P	64 - 136
2065382	Pendimethalin	71.9	71.8	P/P	59 - 144
2065382	Phorate	96.7	91.8	P/P	42 - 130
2065382	Prodiamine	89.6	80.9	P/P	60 - 130
2065382	Prometon	85.0	81.5	P/P	59 - 134
2065382	Prometryn	88.1	88.0	P/P	54 - 135
2065382	Simazine	105	111	P/P	53 - 156
2065382	Tebuconazole	64.3	72.1	P/P	30 - 100
2065382	Terbufos	99.4	99.0	P/P	57 - 131
2065382	Terbutylazine	96.9	98.5	P/P	68 - 125

Reference Method: EPA 8276
Batch ID: P359723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066296	Chlordane	83.1	80.0	P/P	34 - 136
2066296	Toxaphene	59.0	59.8	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P359705

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2065894	Acesulfame K	120	118	P/P	40 - 150
2065894	AMPA	99.1	67.4	P/P	40 - 150
2065894	Endothall	83.4	81.8	P/P	40 - 150
2065894	Glufosinate	119	99.7	P/P	40 - 150
2065894	Glyphosate	122	104	P/P	40 - 140
2065894	Sucralose	96.7	91.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P359745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066125	3-Hydroxycarbofuran	94.4	87.4	P/P	40 - 150
2066125	Aldicarb	62.6	63.4	P/P	30 - 150
2066125	Aldicarb Sulfone	104	96.2	P/P	40 - 150
2066125	Aldicarb Sulfoxide	69.2	41.7	P/P	40 - 150
2066125	Carbaryl	49.2	54.5	P/P	40 - 150
2066125	Carbofuran	52.7	56.6	P/P	40 - 150
2066125	Methiocarb	48.8	50.9	P/P	40 - 150
2066125	Methomyl	67.2	69.4	P/P	40 - 150
2066125	Oxamyl	87.5	75.6	P/P	40 - 150
2066125	Propoxur	46.8	51.2	P/P	40 - 150
2066126	2,4-D	91.8	76.5	P/P	40 - 150
2066126	Acetaminophen	105	104	P/P	30 - 150
2066126	Bentazon	72.6	70.7	P/P	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P359745

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066126	Carbamazepine	72.7	74.1	P/P	40 - 150
2066126	Diuron	64.4	61.0	P/P	40 - 150
2066126	Fenuron	94.1	94.3	P/P	40 - 150
2066126	Fluridone	96.3	90.0	P/P	40 - 150
2066126	Hydrocodone	103	95.5	P/P	40 - 150
2066126	Ibuprofen	64.4	63.1	P/P	40 - 150
2066126	Imazapyr	105	120	P/P	40 - 150
2066126	Imidacloprid	160	158	F/F	40 - 150
2066126	Linuron	70.6	65.9	P/P	40 - 150
2066126	MCPP	117	106	P/P	40 - 150
2066126	Naproxen	70.4	58.7	P/P	40 - 150
2066126	Primidone	95.4	101	P/P	40 - 150
2066126	Pyraclostrobin	64.5	62.9	P/P	40 - 150
2066126	Triclopyr	63.0	45.4	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P359962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066484	Fluoride	94.5	94.0	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P360191

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2066167	Organic Carbon	95.3	93.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066132	Turbidity	2.20	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065922	Chloride	0.719	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P360209

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065922	Sulfate	0.683	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P360055

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066167	Ammonia-N	1.41	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359839

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066099	Kjeldahl Nitrogen	0.630	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066118	NO2NO3-N	0.578	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359845

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066121	Total-P	0.516	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359721

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066169	O-Phosphate-P	0.970	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 8270D
Batch ID: P359723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065655	Aldrin	32.9	Spike	F	0 - 30
2065655	Alpha-BHC	3.13	Spike	P	0 - 30
2065655	Alpha-Chlordane	20.4	Spike	P	0 - 30
2065655	Beta-BHC	0.424	Spike	P	0 - 30
2065655	Bifenthrin	25.9	Spike	P	0 - 30
2065655	Carbophenothion	15.9	Spike	P	0 - 30
2065655	Chlorothalonil	90.6	Spike	F	0 - 30
2065655	Cis-Nonachlor	21.0	Spike	P	0 - 30
2065655	Cypermethrin	32.1	Spike	F	0 - 30
2065655	DDD-p,p'	15.2	Spike	P	0 - 30
2065655	DDE-p,p'	22.8	Spike	P	0 - 30
2065655	DDT-p,p'	21.4	Spike	P	0 - 30
2065655	Delta-BHC	0.271	Spike	P	0 - 30
2065655	Dicofol	10.4	Spike	P	0 - 30
2065655	Dieldrin	9.71	Spike	P	0 - 30
2065655	Endosulfan I	7.63	Spike	P	0 - 30
2065655	Endosulfan II	7.80	Spike	P	0 - 30
2065655	Endosulfan Sulfate	3.61	Spike	P	0 - 30
2065655	Endrin	11.3	Spike	P	0 - 30
2065655	Endrin Aldehyde	7.44	Spike	P	0 - 30
2065655	Endrin Ketone	0.126	Spike	P	0 - 30
2065655	Ethalfuralin	22.6	Spike	P	0 - 30
2065655	Gamma-BHC	0.881	Spike	P	0 - 30
2065655	Gamma-Chlordane	23.8	Spike	P	0 - 30
2065655	Heptachlor	24.6	Spike	P	0 - 30
2065655	Heptachlor Epoxide	7.73	Spike	P	0 - 30
2065655	Hexachlorobenzene	26.8	Spike	P	0 - 30
2065655	Methoxychlor	18.1	Spike	P	0 - 30
2065655	Mirex	39.9	Spike	F	0 - 30
2065655	Permethrin	34.0	Spike	F	0 - 30
2065655	Trans-Nonachlor	25.5	Spike	P	0 - 30
2065655	Trifluralin	24.4	Spike	P	0 - 30
LFB	Aldrin	22.4	LCS	P	0 - 30
LFB	Alpha-BHC	0.0415	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.64	LCS	P	0 - 30
LFB	Beta-BHC	1.46	LCS	P	0 - 30
LFB	Bifenthrin	22.5	LCS	P	0 - 30
LFB	Carbophenothion	13.5	LCS	P	0 - 30
LFB	Chlorothalonil	3.82	LCS	P	0 - 30
LFB	Cis-Nonachlor	6.44	LCS	P	0 - 30
LFB	Cypermethrin	10.2	LCS	P	0 - 30
LFB	DDD-p,p'	4.40	LCS	P	0 - 30
LFB	DDE-p,p'	2.58	LCS	P	0 - 30
LFB	DDT-p,p'	10.7	LCS	P	0 - 30
LFB	Delta-BHC	0.738	LCS	P	0 - 30
LFB	Dicofol	1.95	LCS	P	0 - 30
LFB	Dieldrin	3.99	LCS	P	0 - 30
LFB	Endosulfan I	0.490	LCS	P	0 - 30
LFB	Endosulfan II	2.66	LCS	P	0 - 30
LFB	Endosulfan Sulfate	4.36	LCS	P	0 - 30
LFB	Endrin	2.84	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P359723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Endrin Aldehyde	0.249	LCS	P	0 - 30
LFB	Endrin Ketone	2.80	LCS	P	0 - 30
LFB	Ethalfuralin	4.51	LCS	P	0 - 30
LFB	Gamma-BHC	6.33	LCS	P	0 - 30
LFB	Gamma-Chlordane	8.12	LCS	P	0 - 30
LFB	Heptachlor	12.8	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.329	LCS	P	0 - 30
LFB	Hexachlorobenzene	9.87	LCS	P	0 - 30
LFB	Methoxychlor	8.65	LCS	P	0 - 30
LFB	Mirex	22.0	LCS	P	0 - 30
LFB	Permethrin	14.4	LCS	P	0 - 30
LFB	Trans-Nonachlor	8.76	LCS	P	0 - 30
LFB	Trifluralin	7.71	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P359947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065382	Acetochlor	1.28	Spike	P	0 - 30
2065382	Alachlor	3.28	Spike	P	0 - 30
2065382	Ametryn	3.84	Spike	P	0 - 30
2065382	Atrazine	10.1	Spike	P	0 - 30
2065382	Atrazine Desethyl	14.5	Spike	P	0 - 30
2065382	Azinphos Methyl	6.98	Spike	P	0 - 30
2065382	Bromacil	3.84	Spike	P	0 - 30
2065382	Butylate	26.3	Spike	P	0 - 30
2065382	Chlorpyrifos Ethyl	12.0	Spike	P	0 - 30
2065382	Chlorpyrifos Methyl	2.98	Spike	P	0 - 30
2065382	Cyanazine	11.2	Spike	P	0 - 30
2065382	Demeton	1.42	Spike	P	0 - 30
2065382	Diazinon	1.42	Spike	P	0 - 30
2065382	Dimethenamid	4.83	Spike	P	0 - 30
2065382	Disulfoton	1.27	Spike	P	0 - 30
2065382	Dithiopyr	1.14	Spike	P	0 - 30
2065382	EPTC	34.8	Spike	F	0 - 30
2065382	Ethion	19.0	Spike	P	0 - 30
2065382	Ethoprop	3.38	Spike	P	0 - 30
2065382	Fenamiphos	28.8	Spike	P	0 - 30
2065382	Fipronil	7.95	Spike	P	0 - 30
2065382	Fipronil Desulfinyl	4.40	Spike	P	0 - 30
2065382	Fipronil Sulfide	1.30	Spike	P	0 - 30
2065382	Fipronil Sulfone	12.4	Spike	P	0 - 30
2065382	Fonofos	4.35	Spike	P	0 - 30
2065382	Hexazinone	4.02	Spike	P	0 - 30
2065382	Malathion	4.68	Spike	P	0 - 30
2065382	Metaxyl	0.716	Spike	P	0 - 30
2065382	Metolachlor	1.24	Spike	P	0 - 30
2065382	Metribuzin	0.341	Spike	P	0 - 30
2065382	Mevinphos	9.75	Spike	P	0 - 30
2065382	Molinate	12.8	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270D
Batch ID: P359947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065382	Norflurazon	0.794	Spike	P	0 - 30
2065382	Oxadiazon	2.01	Spike	P	0 - 30
2065382	Parathion Ethyl	4.37	Spike	P	0 - 30
2065382	Parathion Methyl	2.71	Spike	P	0 - 30
2065382	Pendimethalin	0.106	Spike	P	0 - 30
2065382	Phorate	5.18	Spike	P	0 - 30
2065382	Prodiamine	10.2	Spike	P	0 - 30
2065382	Prometon	4.14	Spike	P	0 - 30
2065382	Prometryn	0.0766	Spike	P	0 - 30
2065382	Simazine	6.05	Spike	P	0 - 30
2065382	Tebuconazole	11.4	Spike	P	0 - 30
2065382	Terbufos	0.389	Spike	P	0 - 30
2065382	Terbutylazine	1.62	Spike	P	0 - 30
LFB	Acetochlor	2.61	LCS	P	0 - 30
LFB	Alachlor	12.0	LCS	P	0 - 30
LFB	Ametryn	1.53	LCS	P	0 - 30
LFB	Atrazine	1.95	LCS	P	0 - 30
LFB	Atrazine Desethyl	10.3	LCS	P	0 - 30
LFB	Azinphos Methyl	13.2	LCS	P	0 - 30
LFB	Bromacil	65.1	LCS	F	0 - 30
LFB	Butylate	25.8	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.25	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	11.3	LCS	P	0 - 30
LFB	Cyanazine	5.11	LCS	P	0 - 30
LFB	Demeton	7.02	LCS	P	0 - 30
LFB	Diazinon	11.1	LCS	P	0 - 30
LFB	Dimethenamid	10.5	LCS	P	0 - 30
LFB	Disulfoton	7.62	LCS	P	0 - 30
LFB	Dithiopyr	12.5	LCS	P	0 - 30
LFB	EPTC	11.5	LCS	P	0 - 30
LFB	Ethion	28.3	LCS	P	0 - 30
LFB	Ethoprop	13.4	LCS	P	0 - 30
LFB	Fenamiphos	9.40	LCS	P	0 - 30
LFB	Fipronil	25.4	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	11.4	LCS	P	0 - 30
LFB	Fipronil Sulfide	22.0	LCS	P	0 - 30
LFB	Fipronil Sulfone	23.0	LCS	P	0 - 30
LFB	Fonofos	6.10	LCS	P	0 - 30
LFB	Hexazinone	29.3	LCS	P	0 - 30
LFB	Malathion	0.580	LCS	P	0 - 30
LFB	Metalaxyl	12.6	LCS	P	0 - 30
LFB	Metolachlor	7.93	LCS	P	0 - 30
LFB	Metribuzin	51.1	LCS	F	0 - 30
LFB	Mevinphos	6.32	LCS	P	0 - 30
LFB	Molinate	9.68	LCS	P	0 - 30
LFB	Norflurazon	20.8	LCS	P	0 - 30
LFB	Oxadiazon	16.1	LCS	P	0 - 30
LFB	Parathion Ethyl	0.577	LCS	P	0 - 30
LFB	Parathion Methyl	18.7	LCS	P	0 - 30
LFB	Pendimethalin	5.45	LCS	P	0 - 30
LFB	Phorate	9.09	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P359947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Prodiamine	1.90	LCS	P	0 - 30
LFB	Prometon	24.5	LCS	P	0 - 30
LFB	Prometryn	12.5	LCS	P	0 - 30
LFB	Simazine	4.64	LCS	P	0 - 30
LFB	Tebuconazole	30.1	LCS	F	0 - 30
LFB	Terbufos	2.01	LCS	P	0 - 30
LFB	Terbutylazine	7.93	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P359723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066296	Chlordane	3.87	Spike	P	0 - 30
2066296	Toxaphene	1.37	Spike	P	0 - 30
LFB	Chlordane	12.6	LCS	P	0 - 30
LFB	Toxaphene	1.49	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P359705

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065894	Acesulfame K	1.98	Spike	P	0 - 30
2065894	AMPA	38.1	Spike	F	0 - 30
2065894	Endothall	1.95	Spike	P	0 - 30
2065894	Glufosinate	17.5	Spike	P	0 - 30
2065894	Glyphosate	15.3	Spike	P	0 - 30
2065894	Sucralose	4.53	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P359745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066125	3-Hydroxycarbofuran	7.78	Spike	P	0 - 30
2066125	Aldicarb	1.38	Spike	P	0 - 30
2066125	Aldicarb Sulfone	7.30	Spike	P	0 - 30
2066125	Aldicarb Sulfoxide	49.8	Spike	F	0 - 30
2066125	Carbaryl	10.1	Spike	P	0 - 30
2066125	Carbofuran	7.14	Spike	P	0 - 30
2066125	Methiocarb	4.29	Spike	P	0 - 30
2066125	Methomyl	3.20	Spike	P	0 - 30
2066125	Oxamyl	14.6	Spike	P	0 - 30
2066125	Propoxur	8.88	Spike	P	0 - 30
2066126	2,4-D	13.8	Spike	P	0 - 30
2066126	Acetaminophen	1.65	Spike	P	0 - 30
2066126	Bentazon	1.34	Spike	P	0 - 30
2066126	Carbamazepine	1.65	Spike	P	0 - 30
2066126	Diuron	5.14	Spike	P	0 - 30
2066126	Fenuron	0.205	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P359745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066126	Fluridone	5.94	Spike	P	0 - 30
2066126	Hydrocodone	7.99	Spike	P	0 - 30
2066126	Ibuprofen	2.01	Spike	P	0 - 30
2066126	Imazapyr	5.68	Spike	P	0 - 30
2066126	Imidacloprid	1.18	Spike	P	0 - 30
2066126	Linuron	6.94	Spike	P	0 - 30
2066126	MCP	8.69	Spike	P	0 - 30
2066126	Naproxen	18.2	Spike	P	0 - 30
2066126	Primidone	5.75	Spike	P	0 - 30
2066126	Pyraclostrobin	2.60	Spike	P	0 - 30
2066126	Triclopyr	32.6	Spike	F	0 - 30

Reference Method: SM 2120 B
Batch ID: P359710

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2065963	Color (true)	2.53	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P359960

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066484	Total Alkalinity	0.179	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P360004

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066092	TDS	1.76	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P359962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066484	Fluoride	0.459	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P360191

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2066167	Organic Carbon	1.16	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: 2066140
Field Sample ID: G2SW0024

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	51.4	P	30 - 160

Lab Sample ID: 2066141
Field Sample ID: G2SW0024

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	89.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.9	P	30 - 160
EPA 8321B	Diuron-d6	69.8	P	30 - 160
EPA 8321B	Endothall-d6	93.9	P	40 - 160
EPA 8321B	Endothall-d6	93.9	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	73.8	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	73.8	P	40 - 160
EPA 8321B	Ibuprofen-d3	61.9	P	30 - 160
EPA 8321B	Primidone-d5	91.8	P	30 - 160
EPA 8321B	Sucralose-d6	98.7	P	30 - 160
EPA 8321B	Sucralose-d6	98.7	P	30 - 160

Lab Sample ID: 2066149
Field Sample ID: G2SW0024

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	91.7	P	39 - 109
EPA 8270D	Tetrachloro-m-xylene	73.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	56.2	P	30 - 103
EPA 8276	PCNB	96.2	P	37 - 143

Lab Sample ID: 2066150
Field Sample ID: G2SW0024

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	113	P	68 - 130
EPA 8270D	Terbufos-d10	92.5	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A89729

Included Lab Sample IDs: 2066117, 2066120

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	99.2	P/P	90 - 115
Color (true)	99.2	102	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A89730

Included Lab Sample IDs: 2066117, 2066120

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: A89731

Included Lab Sample IDs: 2066119, 2066122

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.5	96.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A89771

Included Lab Sample IDs: 2066118, 2066121

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A89812

Included Lab Sample IDs: 2066118, 2066121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	105	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A89826

Included Lab Sample IDs: 2066117, 2066120

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

Reference Method: SM 4500 F-C-97

Run ID: A89826

Included Lab Sample IDs: 2066117, 2066120

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

Reference Method: EPA 8270D

Run ID: A89833

Included Lab Sample IDs: 2066149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	93.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A89833
Included Lab Sample IDs: 2066149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-BHC	95.2		P	80 - 120
Alpha-Chlordane	94.9		P	80 - 120
Beta-BHC	95.5		P	80 - 120
Bifenthrin	93.2		P	80 - 120
Carbophenothion	87.9		P	80 - 120
Chlorothalonil	89.7		P	80 - 120
Cis-Nonachlor	93.7		P	80 - 120
Cypermethrin	90.0		P	80 - 120
DDD-p,p'	97.2		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	103		P	80 - 120
Delta-BHC	95.1		P	80 - 120
Dicofol	92.7		P	80 - 120
Dieldrin	95.3		P	80 - 120
Endosulfan I	95.3		P	80 - 120
Endosulfan II	87.4		P	80 - 120
Endosulfan Sulfate	97.7		P	80 - 120
Endrin	96.5		P	80 - 120
Endrin Aldehyde	93.7		P	80 - 120
Endrin Ketone	98.6		P	80 - 120
Ethalfuralin	94.4		P	80 - 120
Gamma-BHC	96.7		P	80 - 120
Gamma-Chlordane	94.9		P	80 - 120
Heptachlor	91.0		P	80 - 120
Heptachlor Epoxide	95.2		P	80 - 120
Hexachlorobenzene	96.1		P	80 - 120
Methoxychlor	96.6		P	80 - 120
Mirex	97.3		P	80 - 120
Permethrin	89.8		P	80 - 120
Trans-Nonachlor	94.9		P	80 - 120
Trifluralin	93.8		P	80 - 120

Reference Method: EPA 8321B
Run ID: A89843
Included Lab Sample IDs: 2066141

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	104	125	P/P	60 - 160
Endothall	98.1	115	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A89845
Included Lab Sample IDs: 2066141

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	64.6	56.1*	P/F	60 - 160
Glufosinate	92.9	77.4	P/P	60 - 160
Glyphosate	96.3	78.1	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A89854

Included Lab Sample IDs: 2066150

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.6		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine	95.3		P	80 - 120
Atrazine Desethyl	97.7		P	80 - 120
Azinphos Methyl	103		P	80 - 120
Bromacil	98.4		P	80 - 120
Butylate	95.3		P	80 - 120
Chlorpyrifos Ethyl	98.3		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	89.0		P	80 - 120
Demeton	97.4		P	80 - 120
Diazinon	93.0		P	80 - 120
Dimethenamid	97.8		P	80 - 120
Disulfoton	93.3		P	80 - 120
Dithiopyr	95.3		P	80 - 120
EPTC	96.4		P	80 - 120
Ethion	98.3		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	94.3		P	80 - 120
Fipronil	95.6		P	80 - 120
Fipronil Desulfinyl	97.3		P	80 - 120
Fipronil Sulfide	96.3		P	80 - 120
Fipronil Sulfone	98.3		P	80 - 120
Fonofos	98.1		P	80 - 120
Hexazinone	99.3		P	80 - 120
Malathion	97.1		P	80 - 120
Metalaxyl	98.3		P	80 - 120
Metolachlor	99.7		P	80 - 120
Metribuzin	86.8		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	95.9		P	80 - 120
Norflurazon	94.0		P	80 - 120
Oxadiazon	100		P	80 - 120
Parathion Ethyl	94.9		P	80 - 120
Parathion Methyl	97.5		P	80 - 120
Pendimethalin	93.0		P	80 - 120
Phorate	100		P	80 - 120
Prodiamine	97.9		P	80 - 120
Prometon	97.5		P	80 - 120
Prometryn	97.6		P	80 - 120
Simazine	102		P	80 - 120
Tebuconazole	95.8		P	80 - 120
Terbufos	99.1		P	80 - 120
Terbutylazine	98.7		P	80 - 120

Reference Method: EPA 8276

Run ID: A89856

Included Lab Sample IDs: 2066149

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

Reference Method: EPA 8276
Run ID: A89856
Included Lab Sample IDs: 2066149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	93.8		P	80 - 120
Toxaphene	90.1		P	80 - 120

Reference Method: EPA 8321B
Run ID: A89867
Included Lab Sample IDs: 2066141

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	88.2	97.6	P/P	50 - 150
3-Hydroxycarbofuran	116	109	P/P	60 - 150
Acetaminophen	112	113	P/P	60 - 160
Aldicarb	96.9	98.4	P/P	60 - 150
Aldicarb Sulfone	104	103	P/P	50 - 150
Aldicarb Sulfoxide	92.9	94.6	P/P	50 - 150
Bentazon	115	114	P/P	50 - 160
Carbamazepine	101	101	P/P	60 - 150
Carbaryl	103	102	P/P	60 - 150
Carbofuran	109	108	P/P	50 - 150
Diuron	108	103	P/P	60 - 150
Fenuron	102	102	P/P	60 - 150
Fluridone	102	104	P/P	60 - 160
Hydrocodone	104	107	P/P	60 - 150
Ibuprofen	115	100	P/P	50 - 160
Imazapyr	108	98.9	P/P	50 - 150
Imidacloprid	90.6	95.8	P/P	60 - 150
Linuron	95.7	95.6	P/P	60 - 150
MCPP	93.2	89.3	P/P	50 - 150
Methiocarb	98.7	102	P/P	50 - 150
Methomyl	101	101	P/P	50 - 150
Naproxen	114	133	P/P	50 - 160
Oxamyl	98.8	97.2	P/P	50 - 150
Primidone	88.9	92.3	P/P	60 - 150
Propoxur	103	105	P/P	50 - 150
Pyraclostrobin	95.8	92.4	P/P	60 - 150
Triclopyr	90.7	87.7	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A89868
Included Lab Sample IDs: 2066118, 2066121

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A89885
Included Lab Sample IDs: 2066117, 2066120

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A89919

Included Lab Sample IDs: 2066118, 2066121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.2	92.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A89939

Included Lab Sample IDs: 2066118, 2066121

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

Reference Method: EPA 8321B

Run ID: A90049

Included Lab Sample IDs: 2066141

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	95.9	96.5	P/P	60 - 160

* 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	MS
							SMP	
EPA 180.1 Rev. 2.0	Turbidity						2.20	
EPA 300.0 Rev. 2.1	Chloride	105		105	104		0.719	
	Sulfate	105		103	104		0.683	
EPA 350.1 Rev. 2.0	Ammonia-N	101		101	103			1.41
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		97.0	97.9			0.630
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100		99.5	98.5			0.578
EPA 365.1 Rev. 2.0	Total-P	104						0.516
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.1		94.7	96.1			0.970
EPA 8270D	Acetochlor	112	109	107	106	2.61		1.28
	Alachlor	109	96.4	106	103	12.0		3.28
	Aldrin	47.6	59.7	68.1	48.8	22.4		32.9
	Alpha-BHC	111	111	121	117	0.0415		3.13
	Alpha-Chlordane	80.4	84.3	88.7	72.3	4.64		20.4
	Ametryn	112	110	102	98.6	1.53		3.84
	Atrazine	103	101	108	119	1.95		10.1
	Atrazine Desethyl	98.8	89.1	89.1	77.1	10.3		14.5
	Azinphos Methyl	96.2	110	133	124	13.2		6.98
	Beta-BHC	142	144	170	171	1.46		0.424
	Bifenthrin	70.9	88.9	94.5	72.8	22.5		25.9
	Bromacil	108	55.0	91.8	88.4	65.1		3.84
	Butylate	84.6	65.3	63.3	48.6	25.8		26.3
	Carbophenothion	82.2	94.2	119	101	13.5		15.9
	Chlorothalonil	112	116	127	47.9	3.82		90.6
	Chlorpyrifos Ethyl	93.8	95.0	88.6	99.9	1.25		12.0
	Chlorpyrifos Methyl	84.6	94.8	92.5	95.3	11.3		2.98
	Cis-Nonachlor	85.1	90.8	91.6	74.2	6.44		21.0
	Cyanazine	99.0	94.0	97.4	109	5.11		11.2
	Cypermethrin	68.8	76.2	85.0	61.5	10.2		32.1
	DDD-p,p'	97.5	102	106	91.4	4.40		15.2
	DDE-p,p'	86.3	84.1	93.4	74.3	2.58		22.8
	DDT-p,p'	96.2	107	108	87.4	10.7		21.4
	Delta-BHC	151	152	181	181	0.738		0.271
	Demeton	80.6	86.5	89.6	90.9	7.02		1.42
	Diazinon	110	98.6	101	102	11.1		1.42
	Dicofol	95.3	97.2	99.9	90.0	1.95		10.4
	Dieldrin	88.9	92.5	93.6	84.9	3.99		9.71
	Dimethenamid	112	101	103	108	10.5		4.83
	Disulfoton	87.8	94.8	97.8	99.0	7.62		1.27
	Dithiopyr	110	97.0	100	101	12.5		1.14
	Endosulfan I	90.3	89.8	96.9	89.8	0.490		7.63
	Endosulfan II	98.5	101	104	96.2	2.66		7.80
	Endosulfan Sulfate	92.6	96.7	106	103	4.36		3.61
	Endrin	99.5	102	106	94.8	2.84		11.3
	Endrin Aldehyde	111	111	100	92.9	0.249		7.44
	Endrin Ketone	92.6	95.2	106	107	2.80		0.126
	EPTC	81.0	72.2	65.1	45.8	11.5		34.8
	Ethalfuralin	86.0	90.0	99.6	79.4	4.51		22.6
	Ethion	103	77.8	49.7	60.1	28.3		19.0
	Ethoprop	104	90.7	100	97.1	13.4		3.38
	Fenamiphos	94.6	86.1	105	78.5	9.40		28.8
	Fipronil	108	84.0	89.5	96.9	25.4		7.95
	Fipronil Desulfinyl	99.4	88.7	73.0	76.3	11.4		4.40
	Fipronil Sulfide	102	82.0	80.9	82.0	22.0		1.30
	Fipronil Sulfone	104	82.7	81.5	92.3	23.0		12.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Fonofos	87.6	93.1	96.1	100	6.10	4.35
	Gamma-BHC	130	122	140	141	6.33	0.881
	Gamma-Chlordane	76.7	83.2	84.6	66.6	8.12	23.8
	Heptachlor	58.8	66.9	70.3	54.9	12.8	24.6
	Heptachlor Epoxide	86.1	86.4	92.8	85.9	0.329	7.73
	Hexachlorobenzene	65.8	72.6	77.8	59.4	9.87	26.8
	Hexazinone	130	96.6	91.2	95.0	29.3	4.02
	Malathion	98.5	97.9	92.5	96.9	0.580	4.68
	Metalaxyl	111	98.0	97.4	98.1	12.6	0.716
	Methoxychlor	100	91.9	117	98.0	8.65	18.1
	Metolachlor	112	103	109	110	7.93	1.24
	Metribuzin	86.2	145	149	150	51.1	0.341
	Mevinphos	94.7	88.9	82.6	91.0	6.32	9.75
	Mirex	44.8	55.8	60.0	40.1	22.0	39.9
	Molinate	84.4	76.6	85.2	75.0	9.68	12.8
	Norflurazon	105	85.6	97.4	98.2	20.8	0.794
	Oxadiazon	113	95.8	88.6	90.4	16.1	2.01
	Parathion Ethyl	90.5	91.0	88.9	92.9	0.577	4.37
	Parathion Methyl	96.6	117	120	124	18.7	2.71
	Pendimethalin	88.6	93.6	71.9	71.8	5.45	0.106
	Permethrin	68.0	78.5	82.6	58.6	14.4	34.0
	Phorate	81.6	89.4	96.7	91.8	9.09	5.18
	Prodiamine	93.6	91.8	89.6	80.9	1.90	10.2
	Prometon	107	83.6	85.0	81.5	24.5	4.14
	Prometryn	107	94.7	88.1	88.0	12.5	0.0766
	Simazine	101	105	105	111	4.64	6.05
	Tebuconazole	100	73.9	64.3	72.1	30.1	11.4
	Terbufos	89.7	91.5	99.4	99.0	2.01	0.389
	Terbuthylazine	106	98.0	96.9	98.5	7.93	1.62
	Trans-Nonachlor	75.9	82.8	85.7	66.3	8.76	25.5
	Trifluralin	83.4	90.1	97.6	76.4	7.71	24.4
EPA 8276	Chlordane	86.0	75.8	83.1	80.0	12.6	3.87
	Toxaphene	62.4	63.3	59.0	59.8	1.49	1.37
EPA 8321B	2,4-D	78.8		91.8	76.5		13.8
	3-Hydroxycarbofuran	98.8		87.4	94.4		7.78
	Acesulfame K	120		120	118		1.98
	Acetaminophen	106		105	104		1.65
	Aldicarb	87.4		63.4	62.6		1.38
	Aldicarb Sulfone	109		96.2	104		7.30
	Aldicarb Sulfoxide	106		41.7	69.2		49.8
	AMPA	87.3		99.1	67.4		38.1
	Bentazon	118		72.6	70.7		1.34
	Carbamazepine	91.4		72.7	74.1		1.65
	Carbaryl	83.6		49.2	54.5		10.1
	Carbofuran	83.9		52.7	56.6		7.14
	Diuron	84.8		64.4	61.0		5.14
	Endothall	100		83.4	81.8		1.95
	Fenuron	110		94.1	94.3		0.205
	Fluridone	108		96.3	90.0		5.94
	Glufosinate	135		119	99.7		17.5
	Glyphosate	123		122	104		15.3
	Hydrocodone	111		103	95.5		7.99
	Ibuprofen	68.3		64.4	63.1		2.01
	Imazapyr	102		105	120		5.68

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Imidacloprid	103	160	158		1.18
	Linuron	79.7	70.6	65.9		6.94
	MCP	87.4	117	106		8.69
	Methiocarb	78.1	48.8	50.9		4.29
	Methomyl	85.6	69.4	67.2		3.20
	Naproxen	73.3	70.4	58.7		18.2
	Oxamyl	105	75.6	87.5		14.6
	Primidone	92.9	95.4	101		5.75
	Propoxur	74.0	46.8	51.2		8.88
	Pyraclostrobin	72.5	64.5	62.9		2.60
	Sucralose	97.7	96.7	91.8		4.53
	Triclopyr	53.2	63.0	45.4		32.6
SM 2120 B	Color (true)	99.9			2.53	
SM 2320 B-97	Total Alkalinity	101			0.179	
SM 2540 C-97	TDS				1.76	
SM 4500 F-C-97	Fluoride	94.4	94.5	94.0		0.459
SM 5310 B-00	Organic Carbon	94.6	95.3	93.7		1.16

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2066117, 2066120
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2066117, 2066120
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2066117, 2066120
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2066118, 2066121
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2066118, 2066121
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2066118, 2066121
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2066118, 2066121
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2066119, 2066122
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2066149
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2066150
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2066149
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2066140
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2066141
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2066141
SM 2120 B / E31780	True Color measured at 450 nm	2066117, 2066120
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2066117, 2066120
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2066117, 2066120
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2066117, 2066120
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2066117, 2066120
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2066118, 2066121

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	02/28/2019			02/28/2019 17:07	Adrian Shelby	2066117, 2066120
EPA 300.0 Rev. 2.1	02/28/2019			03/09/2019 19:43	Lipi Saha	2066117
	02/28/2019			03/09/2019 19:58	Lipi Saha	2066120
EPA 350.1 Rev. 2.0	02/28/2019			03/06/2019 13:39	Ping Hua	2066118
	02/28/2019			03/06/2019 13:41	Ping Hua	2066121
EPA 351.2 Rev. 2.0	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 14:05	Joseph Suarez	2066118
	02/28/2019	03/04/2019 16:00	Adrian Shelby	03/05/2019 14:07	Joseph Suarez	2066121
EPA 353.2 Rev. 2.0	02/28/2019			03/04/2019 11:55	Beverly Y. Sanders	2066118
	02/28/2019			03/04/2019 12:04	Beverly Y. Sanders	2066121
EPA 365.1 Rev. 2.0	02/28/2019	03/04/2019 13:30	Sima Feizi	03/08/2019 22:57	Rosalyn Ballman	2066121
	02/28/2019	03/04/2019 13:30	Sima Feizi	03/08/2019 23:03	Rosalyn Ballman	2066118
EPA 365.1 Rev. 2.0 dissolved	02/28/2019			02/28/2019 16:17	Jhamieka S. Greenwood	2066122
	02/28/2019			02/28/2019 16:18	Jhamieka S. Greenwood	2066119
EPA 8270D	02/28/2019	03/04/2019 08:30	Rasheda Ghaffari	03/06/2019 19:00	Vandana T. Nagar	2066150
	02/28/2019	03/04/2019 09:00	Fe-Val Siddell	03/05/2019 22:15	Dinesh Mishra	2066149
EPA 8276	02/28/2019	03/04/2019 09:00	Fe-Val Siddell	03/06/2019 12:34	Arthur Maknenko	2066149
EPA 8321B	02/28/2019	03/04/2019 10:00	Rebecca Ware	03/04/2019 15:22	Rebecca Ware	2066141
	02/28/2019	03/04/2019 10:00	Rebecca Ware	03/05/2019 15:06	Rebecca Ware	2066141
	02/28/2019	03/04/2019 10:00	Rebecca Ware	03/11/2019 23:25	Rebecca Ware	2066141
	02/28/2019	03/06/2019 10:00	Hoor Shaik	03/06/2019 19:14	Juyoung Kim	2066140
	02/28/2019	03/06/2019 10:00	Hoor Shaik	03/07/2019 02:09	Juyoung Kim	2066141
SM 2120 B	02/28/2019			02/28/2019 16:28	Chelsea Hernandez	2066120
	02/28/2019			02/28/2019 16:39	Chelsea Hernandez	2066117
SM 2320 B-97	02/28/2019			03/05/2019 23:28	Dale L. Simmons	2066117
	02/28/2019			03/05/2019 23:40	Dale L. Simmons	2066120
SM 2540 C-97	02/28/2019			03/01/2019 15:45	Mariam Hanna	2066117, 2066120
SM 2540 D-97	02/28/2019			03/01/2019 15:45	Mariam Hanna	2066117, 2066120
SM 4500 F-C-97	02/28/2019			03/05/2019 23:28	Dale L. Simmons	2066117
	02/28/2019			03/05/2019 23:40	Dale L. Simmons	2066120
SM 5310 B-00	02/28/2019			03/09/2019 01:01	Julia Storbeck	2066121
	02/28/2019			03/09/2019 12:47	Julia Storbeck	2066118