

Chemical Analysis Report

SW-DIST-2019-10-02-01

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

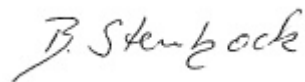
Event Description: **Gamble, Mil, Lil Man N, Lil Man S.**
Request ID: **RQ-2019-09-30-06**
Customer: **SW-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 25-OCT-2019 18:18



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 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: LIL MANATEE RIVER @ SAFFOLD RD

Collection Date/Time: 10/01/2019 10:30

Field ID: G2SW0103

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124012	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P371734	
	EPA 300.0 Rev. 2.1	Chloride	16		mg Cl/L	P372204	
		Sulfate	110		mg SO4/L	P372385	
	SM 2120 B	Color (true)	39	A	PCU	P371765	
	SM 2320 B-97	Total Alkalinity	38		mg CaCO3/L	P371986	
	SM 2540 C-97	TDS	250	A	mg/L	P372411	
	SM 2540 D-97	TSS	2	IA	mg/L	P372391	
	SM 4500 F-C-97	Fluoride	0.34		mg F/L	P371989	
2124013	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P372059	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P371804	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.50		mg N/L	P371786	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P371827	
	SM 5310 B-00	Organic Carbon	6.9		mg C/L	P371896	
2124014	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.17		mg P/L	P371781	
2124031	EPA 8321B	Aldicarb	0.020	U	ug/L	P371702	
		Aldicarb Sulfone	0.0020	U	ug/L	P371702	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P371702	MS
		Carbaryl	0.0020	U	ug/L	P371702	
		Carbofuran	0.0020	U	ug/L	P371702	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P371702	
		Methiocarb	0.0020	U	ug/L	P371702	
		Methomyl	0.0020	U	ug/L	P371702	
		Oxamyl	0.0020	U	ug/L	P371702	
		Propoxur	0.0020	U	ug/L	P371702	
2124032		2,4-D	0.0051	I	ug/L	P371789	
		Acesulfame K**	0.10	U	ug/L	P371761	
		AMPA**	0.37	I	ug/L	P371761	
		Sucralose**	0.010	U	ug/L	P371761	
		Acetaminophen**	0.0080	U	ug/L	P371789	
		Acetamiprid**	0.0020	U	ug/L	P371789	
		Endothal**	0.25	U	ug/L	P371761	
		Glufosinate**	0.10	U	ug/L	P371761	
		Glyphosate**	0.20	I	ug/L	P371761	
		Afidopyropen**	0.0020	UJ	ug/L	P371789	
		Bentazon	8.0E-04	U	ug/L	P371789	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371789	
		Carbamazepine**	8.0E-04	U	ug/L	P371789	
		Clothianidin**	0.22		ug/L	P371789	
		Dinotefuran**	0.0089		ug/L	P371789	
		Diuron	0.0027	I	ug/L	P371789	
		Fenuron	0.016	U	ug/L	P371789	
		Fluridone**	8.0E-04	U	ug/L	P371789	
		Imazapyr**	0.021		ug/L	P371789	

Field ID: G2SW0103

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124032	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P371789	
		Ibuprofen**	0.020	U	ug/L	P371789	
		Imidacloprid	0.32		ug/L	P371789	
		Linuron	0.0040	U	ug/L	P371789	
		Mandestrobin**	0.0020	UJ	ug/L	P371789	
		MCP	0.0020	U	ug/L	P371789	
		Naproxen**	0.0080	U	ug/L	P371789	
		Primidone**	0.0040	U	ug/L	P371789	
		Pyraclostrobin**	0.0020	U	ug/L	P371789	
		Thiamethoxam**	0.45		ug/L	P371789	
		Tolfenpyrad**	0.0020	U	ug/L	P371789	
		Triclopyr**	0.0040	U	ug/L	P371789	
2124038	EPA 8270E	Aldrin	4.2	UJ	ng/L	P371894	SUR
		Alpha-BHC	2.1	UJ	ng/L	P371894	SUR
		Alpha-Chlordane	1.1	UJ	ng/L	P371894	SUR
		Beta-BHC	11	UJ	ng/L	P371894	SUR
		Bifenthrin**	4.2	UJ	ng/L	P371894	SUR
		Delta-BHC	8.4	UJ	ng/L	P371894	SUR
		Gamma-BHC	8.4	UJ	ng/L	P371894	SUR
		Carbophenothion	11	UJ	ng/L	P371894	SUR
		Chlorothalonil	2.1	UJ	ng/L	P371894	SUR
		Cis-Nonachlor**	1.1	UJ	ng/L	P371894	SUR
		Cypermethrin	21	UJ	ng/L	P371894	SUR
		DDD-p,p'	6.3	UJ	ng/L	P371894	SUR
		DDE-p,p'	6.3	UJ	ng/L	P371894	SUR
		DDT-p,p'	7.4	UJ	ng/L	P371894	SUR
		Dicofol	32	UJ	ng/L	P371894	SUR
		Dieldrin	4.2	UJ	ng/L	P371894	SUR
		Endosulfan I	4.2	UJ	ng/L	P371894	SUR
		Endosulfan II	4.2	UJ	ng/L	P371894	SUR
		Endosulfan Sulfate	2.1	UJ	ng/L	P371894	SUR
		Endrin	2.1	UJ	ng/L	P371894	SUR
		Endrin Aldehyde	2.1	UJ	ng/L	P371894	SUR
		Endrin Ketone	2.1	UJ	ng/L	P371894	SUR
		Ethalfuralin**	3.2	UJ	ng/L	P371894	SUR
		Gamma-Chlordane	1.1	UJ	ng/L	P371894	SUR
		Heptachlor	1.6	UJ	ng/L	P371894	SUR
		Heptachlor Epoxide	2.1	UJ	ng/L	P371894	SUR
		Hexachlorobenzene	2.1	UJ	ng/L	P371894	SUR
		Methoxychlor	4.2	UJ	ng/L	P371894	SUR
		Mirex	2.1	UJ	ng/L	P371894	SUR
		Permethrin	11	UJ	ng/L	P371894	SUR
		Trans-Nonachlor**	1.1	UJ	ng/L	P371894	SUR
		Trifluralin	2.6	UJ	ng/L	P371894	SUR
	EPA 8276	Chlordane	5.3	U	ng/L	P371894	

Field ID: G2SW0103

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124038	EPA 8276	Toxaphene	32	U	ng/L	P371894	
2124039	EPA 8270E	Acetochlor	0.26	U	ng/L	P371775	
		Alachlor	0.26	U	ng/L	P371775	
		Ametryn	0.61	U	ng/L	P371775	MS
		Atrazine	0.26	U	ng/L	P371775	
		Atrazine Desethyl	1.5	UJ	ng/L	P371775	RPD
		Azinphos Methyl	5.1	U	ng/L	P371775	
		Bromacil	310		ng/L	P371775	
		Butylate	0.41	U	ng/L	P371775	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P371775	
		Chlorpyrifos Methyl	0.10	U	ng/L	P371775	
		Cyanazine	3.3	UJ	ng/L	P371775	CCV, RPD
		Demeton	7.2	U	ng/L	P371775	
		Diazinon	0.13	U	ng/L	P371775	
		Dimethenamid**	0.10	U	ng/L	P371775	
		Disulfoton	0.51	U	ng/L	P371775	
		Dithiopyr**	0.10	U	ng/L	P371775	
		EPTC	1.3	U	ng/L	P371775	
		Ethion	0.15	U	ng/L	P371775	
		Ethoprop	0.10	U	ng/L	P371775	
		Fenamiphos	0.51	U	ng/L	P371775	
		Fipronil	0.26	U	ng/L	P371775	
		Fipronil Desulfinyl**	0.13	U	ng/L	P371775	
		Fipronil Sulfide	0.15	U	ng/L	P371775	
		Fipronil Sulfone	0.15	U	ng/L	P371775	
		Fonofos	0.20	U	ng/L	P371775	
		Hexazinone	1.3	I	ng/L	P371775	
		Malathion	0.36	U	ng/L	P371775	
		Metalaxyl	14		ng/L	P371775	
		Metolachlor	8.2		ng/L	P371775	
		Metribuzin	2.6	IJ	ng/L	P371775	RPD
		Mevinphos	0.51	U	ng/L	P371775	
		Molinate	0.31	U	ng/L	P371775	
		Norflurazon	20		ng/L	P371775	
		Oxadiazon**	0.10	U	ng/L	P371775	
		Parathion Ethyl	0.26	U	ng/L	P371775	
		Parathion Methyl	0.56	U	ng/L	P371775	
		Pendimethalin	1.0	U	ng/L	P371775	
		Phorate	0.26	U	ng/L	P371775	
		Prodiamine**	0.18	UJ	ng/L	P371775	MS, RPD
		Prometon	0.92	U	ng/L	P371775	
		Prometryn	0.20	U	ng/L	P371775	
		Simazine	0.51	U	ng/L	P371775	
		Tebuconazole**	0.51	UJ	ng/L	P371775	RPD
		Terbufos	0.10	U	ng/L	P371775	

Field ID: G2SW0103

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124039	EPA 8270E	Terbutylazine	0.43	U	ng/L	P371775	
2124045	EPA 200.7 Rev. 4.4	Barium	24.5		ug/L	P371821	
		Calcium	34.7		mg/L	P371821	
		Iron	240		ug/L	P371821	
		Magnesium	15.5		mg/L	P371821	
		Potassium	6.3		mg/L	P371821	
		Sodium	8.6		mg/L	P371821	
		Zinc	5.0	U	ug/L	P371821	
	EPA 200.8 Rev. 5.4	Aluminum	187		ug/L	P371821	
		Antimony	0.058	I	ug/L	P371821	
		Arsenic	0.30		ug/L	P371821	
		Boron**	34.2		ug/L	P371821	
		Cadmium	0.098		ug/L	P371821	
		Chromium	0.41	I	ug/L	P371821	
		Copper	1.34		ug/L	P371821	
		Lead	0.20	U	ug/L	P371821	
		Nickel	0.50	U	ug/L	P371821	
		Selenium	0.20	U	ug/L	P371821	
		Silver	0.010	U	ug/L	P371821	
		Thallium	0.10	U	ug/L	P371821	

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 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: MS accuracy for metolachlor not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: MILL CREEK @ UPPER MANATEE RVR RD

Collection Date/Time: 10/01/2019 11:50

Field ID: G2SW0040

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124034	EPA 8321B	2,4-D	0.020		ug/L	P371789	
		Acesulfame K**	0.10	U	ug/L	P371761	
		AMPA**	1.7	I	ug/L	P371761	
		Sucralose**	2.4		ug/L	P371761	
		Acetaminophen**	0.0080	U	ug/L	P371789	
		Acetamiprid**	0.0020	U	ug/L	P371789	
		Endothall**	0.25	U	ug/L	P371761	
		Glufosinate**	1.0	U	ug/L	P371761	
		Glyphosate**	1.0	U	ug/L	P371761	
		Afidopyropen**	0.0020	UJ	ug/L	P371789	
		Bentazon	0.088		ug/L	P371789	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371789	
		Carbamazepine**	0.0030	I	ug/L	P371789	
		Clothianidin**	0.0029	I	ug/L	P371789	
		Dinotefuran**	0.0039	I	ug/L	P371789	
		Diuron	0.060		ug/L	P371789	
		Fenuron	0.016	U	ug/L	P371789	
		Fluridone**	0.057		ug/L	P371789	
		Imazapyr**	0.19		ug/L	P371789	
		Hydrocodone**	0.0020	U	ug/L	P371789	
		Ibuprofen**	0.020	U	ug/L	P371789	
		Imidacloprid	0.049		ug/L	P371789	
		Linuron	0.0040	U	ug/L	P371789	
		Mandestrobin**	0.0020	UJ	ug/L	P371789	
		MCPP	0.0020	U	ug/L	P371789	
		Naproxen**	0.0080	U	ug/L	P371789	
		Primidone**	0.011	I	ug/L	P371789	
		Pyraclostrobin**	0.0020	U	ug/L	P371789	
		Thiamethoxam**	0.0020	U	ug/L	P371789	
		Tolfenpyrad**	0.0020	U	ug/L	P371789	
		Triclopyr**	0.0040	U	ug/L	P371789	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8321B: MDL for some parameters elevated due to matrix interference.

Sample Location: LIL MANATEE RIVER N.FORK @ CARLTON LAKE RD

Collection Date/Time: 10/01/2019 10:00

Field ID: G2SW0100

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124033	EPA 8321B	2,4-D	0.0020	U	ug/L	P371789	
		Acesulfame K**	0.10	U	ug/L	P371761	
		AMPA**	0.55		ug/L	P371761	
		Sucralose**	0.010	U	ug/L	P371761	
		Acetaminophen**	0.0080	U	ug/L	P371789	
		Acetamiprid**	0.0020	U	ug/L	P371789	
		Endothall**	0.25	U	ug/L	P371761	
		Glufosinate**	0.10	U	ug/L	P371761	
		Glyphosate**	0.57		ug/L	P371761	
		Afidopyropen**	0.0020	UJ	ug/L	P371789	
		Bentazon	8.0E-04	U	ug/L	P371789	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P371789	
		Carbamazepine**	8.0E-04	U	ug/L	P371789	
		Clothianidin**	0.0048	I	ug/L	P371789	
		Dinotefuran**	0.0065	I	ug/L	P371789	
		Diuron	0.0023	I	ug/L	P371789	
		Fenuron	0.016	U	ug/L	P371789	
		Fluridone**	8.0E-04	U	ug/L	P371789	
		Imazapyr**	0.057		ug/L	P371789	
		Hydrocodone**	0.0020	U	ug/L	P371789	
		Ibuprofen**	0.020	U	ug/L	P371789	
		Imidacloprid	0.021		ug/L	P371789	
		Linuron	0.0040	U	ug/L	P371789	
		Mandestrobin**	0.0020	UJ	ug/L	P371789	
		MCPP	0.0020	U	ug/L	P371789	
		Naproxen**	0.0080	U	ug/L	P371789	
		Primidone**	0.0040	U	ug/L	P371789	
		Pyraclostrobin**	0.0020	U	ug/L	P371789	
		Thiamethoxam**	0.010		ug/L	P371789	
		Tolfenpyrad**	0.0020	U	ug/L	P371789	
		Triclopyr**	0.0040	U	ug/L	P371789	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371734

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P371821

Component	Result	Code	Units
Barium	1.0	U	ug/L
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: P371821

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372204

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372059

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371804

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371786

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371827

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371781

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

Reference Method: EPA 8270E
Batch ID: P371775

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P371775

Component	Result	Code	Units
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 8270E
Batch ID: P371894

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
Bifenthrin	4.0	U	ng/L
Carbophenothion	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	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
Ethalfuralin	3.0	U	ng/L
Gamma-BHC	8.0	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P371894

Component	Result	Code	Units
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P371894

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

Reference Method: EPA 8321B
Batch ID: P371702

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P371761

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: P371789

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P371789

Component	Result	Code	Units
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
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B
Batch ID: P371765

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P371986

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

Reference Method: SM 2540 C-97
Batch ID: P372411

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P372391

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P371989

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P371896

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: P371821

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	103		P	85 - 115
Calcium	106		P	85 - 115
Iron	111		P	85 - 115
Magnesium	113		P	85 - 115
Potassium	107		P	85 - 115
Sodium	112		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371821

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	103		P	85 - 115
Boron	101		P	85 - 115
Cadmium	99.0		P	85 - 115
Chromium	99.8		P	85 - 115
Copper	103		P	85 - 115
Lead	103		P	85 - 115
Nickel	102		P	85 - 115
Selenium	101		P	85 - 115
Silver	102		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372204

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372059

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: P371804

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.8		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P371786

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: P371827

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.7		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.2		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P371775

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	95.1	100	P/P	69 - 122
Alachlor	91.9	101	P/P	71 - 120
Ametryn	92.6	89.1	P/P	47 - 138
Atrazine	103	95.6	P/P	74 - 124
Atrazine Desethyl	70.4	102	P/P	38 - 138
Azinphos Methyl	107	119	P/P	69 - 154
Bromacil	77.8	82.4	P/P	39 - 121
Butylate	61.1	67.0	P/P	27 - 87.0
Chlorpyrifos Ethyl	96.2	99.4	P/P	69 - 118
Chlorpyrifos Methyl	89.1	98.2	P/P	70 - 120
Cyanazine	103	166	P/P	20 - 250
Demeton	70.9	77.8	P/P	39 - 118
Diazinon	91.6	99.7	P/P	68 - 127
Dimethenamid	96.0	99.9	P/P	66 - 125
Disulfoton	81.7	85.1	P/P	52 - 126
Dithiopyr	97.6	97.6	P/P	67 - 127
EPTC	65.1	69.6	P/P	24 - 88.0
Ethion	112	93.3	P/P	51 - 132
Ethoprop	85.0	91.9	P/P	58 - 117
Fenamiphos	86.4	99.6	P/P	38 - 139
Fipronil	101	107	P/P	61 - 124
Fipronil Desulfinyl	95.4	89.4	P/P	47 - 120
Fipronil Sulfide	101	105	P/P	56 - 119
Fipronil Sulfone	99.9	89.8	P/P	50 - 117
Fonofos	80.3	94.9	P/P	60 - 121
Hexazinone	103	94.6	P/P	55 - 137
Malathion	103	100	P/P	66 - 126
Metalaxyl	78.7	92.9	P/P	33 - 140
Metolachlor	99.3	97.2	P/P	69 - 119
Metribuzin	106	184	P/P	31 - 238
Mevinphos	77.8	91.9	P/P	42 - 113
Molinate	70.9	79.5	P/P	32 - 96.0
Norflurazon	96.1	101	P/P	54 - 123
Oxadiazon	102	94.1	P/P	63 - 128

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P371775

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	94.7	90.4	P/P	72 - 111
Parathion Methyl	93.2	95.1	P/P	74 - 126
Pendimethalin	97.9	92.2	P/P	61 - 131
Phorate	87.5	97.7	P/P	51 - 115
Prodiamine	106	49.8	P/P	38 - 144
Prometon	91.6	87.4	P/P	54 - 119
Prometryn	93.0	86.8	P/P	63 - 120
Simazine	105	101	P/P	75 - 126
Tebuconazole	88.3	64.8	P/P	20 - 119
Terbufos	84.8	95.1	P/P	64 - 116
Terbuthylazine	102	97.2	P/P	73 - 117

Reference Method: EPA 8270E
Batch ID: P371894

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	49.1	49.4	P/P	20 - 93.0
Alpha-BHC	96.2	92.5	P/P	55 - 133
Alpha-Chlordane	92.4	93.2	P/P	58 - 112
Beta-BHC	112	111	P/P	54 - 168
Bifenthrin	97.6	98.4	P/P	30 - 134
Carbophenothion	89.7	88.7	P/P	26 - 147
Chlorothalonil	100	99.2	P/P	20 - 155
Cis-Nonachlor	99.1	99.5	P/P	54 - 115
Cypermethrin	110	107	P/P	40 - 137
DDD-p,p'	99.4	101	P/P	65 - 129
DDE-p,p'	89.3	91.5	P/P	57 - 116
DDT-p,p'	84.1	84.4	P/P	53 - 133
Delta-BHC	106	103	P/P	59 - 178
Dicofol	99.1	94.0	P/P	24 - 138
Dieldrin	94.5	92.8	P/P	60 - 120
Endosulfan I	91.6	92.4	P/P	64 - 118
Endosulfan II	104	105	P/P	58 - 142
Endosulfan Sulfate	102	99.0	P/P	60 - 127
Endrin	94.8	97.5	P/P	59 - 122
Endrin Aldehyde	102	101	P/P	49 - 132
Endrin Ketone	102	102	P/P	64 - 121
Ethalfuralin	93.4	91.6	P/P	60 - 126
Gamma-BHC	98.5	89.9	P/P	57 - 154
Gamma-Chlordane	91.1	91.1	P/P	56 - 110
Heptachlor	81.7	83.0	P/P	46 - 96.0
Heptachlor Epoxide	92.8	92.9	P/P	61 - 112
Hexachlorobenzene	83.9	84.5	P/P	44 - 98.0
Methoxychlor	98.4	95.3	P/P	63 - 134
Mirex	72.0	71.4	P/P	45 - 100
Permethrin	88.4	89.1	P/P	53 - 115
Trans-Nonachlor	92.0	91.8	P/P	47 - 110
Trifluralin	93.1	93.2	P/P	39 - 142

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P371894

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	99.2	98.1	P/P	43 - 128
Toxaphene	81.7	81.0	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P371702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	81.8		P	40 - 160
Aldicarb	71.5		P	30 - 160
Aldicarb Sulfone	88.2		P	40 - 160
Aldicarb Sulfoxide	93.9		P	40 - 160
Carbaryl	88.5		P	40 - 160
Carbofuran	101		P	40 - 160
Methiocarb	76.5		P	40 - 160
Methomyl	84.1		P	40 - 160
Oxamyl	88.4		P	40 - 160
Propoxur	86.4		P	40 - 160

Reference Method: EPA 8321B
Batch ID: P371761

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	115		P	40 - 150
AMPA	112		P	40 - 150
Endothall	86.8		P	40 - 150
Glufosinate	103		P	40 - 150
Glyphosate	97.9		P	40 - 140
Sucralose	74.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P371789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	134		P	40 - 160
Acetaminophen	90.3		P	30 - 160
Acetamiprid	102		P	40 - 160
Afidopyropen	92.5		P	40 - 160
Bentazon	106		P	30 - 160
Benzovindiflupyr	99.0		P	40 - 160
Carbamazepine	110		P	40 - 160
Clothianidin	101		P	40 - 160
Dinotefuran	97.1		P	40 - 160
Diuron	108		P	40 - 160
Fenuron	107		P	40 - 160
Fluridone	97.7		P	40 - 160
Hydrocodone	99.7		P	40 - 160
Ibuprofen	95.1		P	30 - 160
Imazapyr	112		P	40 - 160
Imidacloprid	109		P	40 - 160
Linuron	86.4		P	40 - 160
Mandestrobin	96.4		P	40 - 160
MCPP	141		P	40 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P371789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Naproxen	80.9		P	40 - 160
Primidone	98.4		P	40 - 160
Pyraclostrobin	88.1		P	30 - 160
Thiamethoxam	108		P	40 - 160
Tolfenpyrad	63.3		P	40 - 160
Triclopyr	121		P	30 - 160

Reference Method: SM 2120 B
Batch ID: P371765

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

Reference Method: SM 2320 B-97
Batch ID: P371986

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P371989

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P371896

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 200.7 Rev. 4.4
Batch ID: P371821

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2123929	Barium	99.2		P	80 - 120
2123929	Calcium	103		P	80 - 120
2123929	Iron	107		P	80 - 120
2123929	Magnesium	102		P	80 - 120
2123929	Potassium	103		P	80 - 120
2123929	Sodium	105		P	80 - 120
2123929	Zinc	98.6		P	80 - 120
2124134	Barium	103	103	P/P	80 - 120
2124134	Calcium	105		P	80 - 120
2124134	Iron	109	109	P/P	80 - 120
2124134	Magnesium	111	111	P/P	80 - 120
2124134	Potassium	110	111	P/P	80 - 120
2124134	Sodium	113	112	P/P	80 - 120
2124134	Zinc	101	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P371821

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2123929	Aluminum	103		P	80 - 120
2123929	Antimony	103		P	80 - 120
2123929	Arsenic	104		P	80 - 120
2123929	Boron	103		P	80 - 120
2123929	Cadmium	97.5		P	80 - 120
2123929	Chromium	99.7		P	80 - 120
2123929	Copper	101		P	80 - 120
2123929	Lead	104		P	80 - 120
2123929	Nickel	100		P	80 - 120
2123929	Selenium	105		P	80 - 120
2123929	Silver	99.6		P	80 - 120
2123929	Thallium	107		P	80 - 120
2124134	Aluminum	101	101	P/P	80 - 120
2124134	Antimony	105	103	P/P	80 - 120
2124134	Arsenic	104	104	P/P	80 - 120
2124134	Boron	106	105	P/P	80 - 120
2124134	Cadmium	100	99.9	P/P	80 - 120
2124134	Chromium	103	102	P/P	80 - 120
2124134	Copper	100	99.5	P/P	80 - 120
2124134	Lead	104	103	P/P	80 - 120
2124134	Nickel	101	101	P/P	80 - 120
2124134	Selenium	102	103	P/P	80 - 120
2124134	Silver	102	101	P/P	80 - 120
2124134	Thallium	106	107	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372204

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2123965	Chloride	102		P	90 - 110
2124102	Chloride	99.0		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124556	Sulfate	99.7		P	90 - 110
2124564	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372059

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2123961	Ammonia-N	98.8	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371804

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124013	Kjeldahl Nitrogen	98.8	92.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124023	NO2NO3-N	99.9	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124060	Total-P	94.2	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2123880	O-Phosphate-P	93.5	94.6	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P371775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124532	Acetochlor	114	104	P/P	63 - 129
2124532	Alachlor	112	101	P/P	65 - 127
2124532	Ametryn	216	217	F/F	40 - 164
2124532	Atrazine	104	100	P/P	66 - 135
2124532	Atrazine Desethyl	103	109	P/P	14 - 157
2124532	Azinphos Methyl	125	108	P/P	49 - 180
2124532	Bromacil	79.2	80.8	P/P	48 - 130
2124532	Butylate	57.7	50.9	P/P	10 - 94.0
2124532	Chlorpyrifos Ethyl	106	92.7	P/P	58 - 123
2124532	Chlorpyrifos Methyl	106	94.9	P/P	58 - 125
2124532	Cyanazine	137	139	P/P	24 - 253
2124532	Demeton	95.0	86.3	P/P	25 - 149
2124532	Diazinon	120	106	P/P	59 - 144
2124532	Dimethenamid	110	101	P/P	46 - 139
2124532	Disulfoton	113	98.8	P/P	54 - 132

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P371775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124532	Dithiopyr	106	94.8	P/P	64 - 130
2124532	EPTC	65.4	58.8	P/P	10 - 92.0
2124532	Ethion	94.1	90.4	P/P	30 - 148
2124532	Ethoprop	109	98.3	P/P	50 - 130
2124532	Fenamiphos	95.3	78.1	P/P	49 - 142
2124532	Fipronil	93.9	94.8	P/P	46 - 140
2124532	Fipronil Desulfinyl	72.7	76.5	P/P	30 - 121
2124532	Fipronil Sulfide	68.4	72.5	P/P	31 - 136
2124532	Fipronil Sulfone	52.7	59.7	P/P	16 - 136
2124532	Fonofos	110	97.9	P/P	55 - 129
2124532	Hexazinone	114	107	P/P	56 - 141
2124532	Malathion	96.8	90.5	P/P	56 - 135
2124532	Metalaxyl	93.9	86.1	P/P	54 - 135
2124532	Metribuzin	191	175	P/P	45 - 254
2124532	Mevinphos	101	93.2	P/P	33 - 131
2124532	Molinate	87.8	79.9	P/P	14 - 98.0
2124532	Norflurazon	70.6	84.7	P/P	34 - 136
2124532	Oxadiazon	99.2	87.2	P/P	67 - 116
2124532	Parathion Ethyl	101	92.7	P/P	66 - 118
2124532	Parathion Methyl	112	105	P/P	64 - 136
2124532	Pendimethalin	110	97.5	P/P	59 - 144
2124532	Phorate	112	102	P/P	42 - 130
2124532	Prodiamine	44.1	39.0	P/F	42 - 148
2124532	Prometon	102	94.9	P/P	59 - 134
2124532	Prometryn	107	93.3	P/P	54 - 135
2124532	Simazine	112	103	P/P	53 - 156
2124532	Tebuconazole	53.4	63.7	P/P	10 - 131
2124532	Terbufos	122	105	P/P	57 - 131
2124532	Terbutylazine	105	98.5	P/P	68 - 125

Reference Method: EPA 8270E
Batch ID: P371894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124829	Aldrin	63.0	61.6	P/P	25 - 92.0
2124829	Alpha-BHC	102	98.8	P/P	48 - 150
2124829	Alpha-Chlordane	91.4	88.2	P/P	50 - 115
2124829	Beta-BHC	120	120	P/P	39 - 184
2124829	Bifenthrin	107	105	P/P	46 - 116
2124829	Carbophenothion	115	113	P/P	27 - 180
2124829	Chlorothalonil	11.8	11.0	P/P	10 - 216
2124829	Cis-Nonachlor	97.0	93.2	P/P	55 - 112
2124829	Cypermethrin	111	111	P/P	40 - 153
2124829	DDD-p,p'	94.9	92.4	P/P	53 - 128
2124829	DDE-p,p'	85.1	81.6	P/P	48 - 116
2124829	DDT-p,p'	85.4	85.6	P/P	47 - 128
2124829	Delta-BHC	117	112	P/P	48 - 221
2124829	Dicofol	96.5	102	P/P	10 - 147
2124829	Dieldrin	94.9	91.6	P/P	48 - 128
2124829	Endosulfan I	98.5	91.6	P/P	58 - 126
2124829	Endosulfan II	109	103	P/P	50 - 150
2124829	Endosulfan Sulfate	104	98.9	P/P	56 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P371894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124829	Endrin	99.2	93.0	P/P	50 - 126
2124829	Endrin Aldehyde	85.3	77.9	P/P	12 - 145
2124829	Endrin Ketone	107	105	P/P	59 - 132
2124829	Ethalfuralin	96.7	95.0	P/P	65 - 122
2124829	Gamma-BHC	102	101	P/P	40 - 190
2124829	Gamma-Chlordane	89.5	86.7	P/P	50 - 112
2124829	Heptachlor	85.0	80.8	P/P	41 - 98.0
2124829	Heptachlor Epoxide	95.2	91.6	P/P	55 - 117
2124829	Hexachlorobenzene	83.0	85.1	P/P	47 - 91.0
2124829	Methoxychlor	99.0	97.2	P/P	55 - 133
2124829	Mirex	78.2	78.3	P/P	44 - 101
2124829	Permethrin	93.6	92.8	P/P	52 - 124
2124829	Trans-Nonachlor	84.9	82.3	P/P	53 - 99.0
2124829	Trifluralin	94.3	92.6	P/P	10 - 201

Reference Method: EPA 8276
Batch ID: P371894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124805	Chlordane	82.8	89.1	P/P	34 - 136
2124805	Toxaphene	69.3	68.6	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P371702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2123651	3-Hydroxycarbofuran	91.9	87.7	P/P	40 - 160
2123651	Aldicarb	85.5	81.8	P/P	30 - 160
2123651	Aldicarb Sulfone	97.5	97.1	P/P	40 - 160
2123651	Aldicarb Sulfoxide	38.3	35.9	F/F	40 - 160
2123651	Carbaryl	65.0	65.3	P/P	40 - 160
2123651	Carbofuran	78.4	76.1	P/P	40 - 160
2123651	Methiocarb	70.7	66.8	P/P	40 - 160
2123651	Methomyl	64.6	63.1	P/P	40 - 160
2123651	Oxamyl	86.6	82.0	P/P	40 - 160
2123651	Propoxur	70.7	67.0	P/P	40 - 160

Reference Method: EPA 8321B
Batch ID: P371761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2123614	Acesulfame K	68.3	69.1	P/P	40 - 150
2123614	AMPA	56.2	57.1	P/P	40 - 150
2123614	Endothall	55.1	63.4	P/P	40 - 150
2123614	Glufosinate	67.8	80.6	P/P	40 - 150
2123614	Glyphosate	95.8	78.2	P/P	40 - 140
2123614	Sucralose	74.0	72.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P371789

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

Reference Method: EPA 8321B
Batch ID: P371789

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124032	2,4-D	136	114	P/P	40 - 160
2124032	Acetaminophen	73.6	74.1	P/P	30 - 160
2124032	Acetamiprid	106	103	P/P	40 - 160
2124032	Afidopyropen	88.9	87.6	P/P	40 - 160
2124032	Bentazon	76.5	75.9	P/P	30 - 160
2124032	Benzovindiflupyr	99.7	91.0	P/P	40 - 160
2124032	Carbamazepine	104	98.2	P/P	40 - 160
2124032	Dinotefuran	109	101	P/P	40 - 160
2124032	Diuron	97.1	88.9	P/P	40 - 160
2124032	Fenuron	94.0	84.2	P/P	40 - 160
2124032	Fluridone	91.8	87.5	P/P	40 - 160
2124032	Hydrocodone	106	101	P/P	40 - 160
2124032	Ibuprofen	86.3	78.9	P/P	30 - 160
2124032	Imazapyr	99.3	103	P/P	40 - 160
2124032	Linuron	79.9	73.9	P/P	40 - 160
2124032	Mandestrobin	94.2	85.6	P/P	40 - 160
2124032	MCP	152	133	P/P	40 - 160
2124032	Naproxen	98.9	78.8	P/P	40 - 160
2124032	Primidone	106	96.0	P/P	40 - 160
2124032	Pyraclostrobin	98.3	87.8	P/P	30 - 160
2124032	Tolfenpyrad	63.0	56.5	P/P	40 - 160
2124032	Triclopyr	128	96.6	P/P	30 - 160

Reference Method: SM 5310 B-00
Batch ID: P371896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124060	Organic Carbon	93.8	91.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P371734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124059	Turbidity	6.48	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P371821

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124134	Barium	0.242	Spike	P	0 - 20
2124134	Calcium	0.589	Spike	P	0 - 20
2124134	Iron	0.300	Spike	P	0 - 20
2124134	Magnesium	0.110	Spike	P	0 - 20
2124134	Potassium	0.126	Spike	P	0 - 20
2124134	Sodium	0.776	Spike	P	0 - 20
2124134	Zinc	0.182	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P371821

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124134	Aluminum	0.478	Spike	P	0 - 20
2124134	Antimony	1.33	Spike	P	0 - 20
2124134	Arsenic	0.570	Spike	P	0 - 20
2124134	Boron	0.443	Spike	P	0 - 20
2124134	Cadmium	0.0139	Spike	P	0 - 20
2124134	Chromium	1.05	Spike	P	0 - 20
2124134	Copper	0.823	Spike	P	0 - 20
2124134	Lead	1.16	Spike	P	0 - 20
2124134	Nickel	0.561	Spike	P	0 - 20
2124134	Selenium	1.51	Spike	P	0 - 20
2124134	Silver	1.30	Spike	P	0 - 20
2124134	Thallium	0.304	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P372204

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2123965	Chloride	0.638	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P372385

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124556	Sulfate	0.0936	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372059

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2123961	Ammonia-N	0.216	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371804

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124013	Kjeldahl Nitrogen	4.95	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P371786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124023	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124060	Total-P	4.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2123880	O-Phosphate-P	1.12	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P371775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124532	Acetochlor	9.59	Spike	P	0 - 30
2124532	Alachlor	9.91	Spike	P	0 - 30
2124532	Ametryn	0.751	Spike	P	0 - 30
2124532	Atrazine	2.33	Spike	P	0 - 30
2124532	Atrazine Desethyl	5.08	Spike	P	0 - 30
2124532	Azinphos Methyl	14.4	Spike	P	0 - 30
2124532	Bromacil	1.51	Spike	P	0 - 30
2124532	Butylate	12.4	Spike	P	0 - 30
2124532	Chlorpyrifos Ethyl	13.3	Spike	P	0 - 30
2124532	Chlorpyrifos Methyl	10.9	Spike	P	0 - 30
2124532	Cyanazine	1.19	Spike	P	0 - 30
2124532	Demeton	9.60	Spike	P	0 - 30
2124532	Diazinon	12.6	Spike	P	0 - 30
2124532	Dimethenamid	8.51	Spike	P	0 - 30
2124532	Disulfoton	13.5	Spike	P	0 - 30
2124532	Dithiopyr	10.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P371775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124532	EPTC	10.6	Spike	P	0 - 30
2124532	Ethion	3.99	Spike	P	0 - 30
2124532	Ethoprop	10.4	Spike	P	0 - 30
2124532	Fenamiphos	19.8	Spike	P	0 - 30
2124532	Fipronil	0.894	Spike	P	0 - 30
2124532	Fipronil Desulfinyl	4.83	Spike	P	0 - 30
2124532	Fipronil Sulfide	4.97	Spike	P	0 - 30
2124532	Fipronil Sulfone	9.60	Spike	P	0 - 30
2124532	Fonofos	11.4	Spike	P	0 - 30
2124532	Hexazinone	5.92	Spike	P	0 - 30
2124532	Malathion	6.66	Spike	P	0 - 30
2124532	Metaxyl	8.66	Spike	P	0 - 30
2124532	Metolachlor	1.41	Spike	P	0 - 30
2124532	Metribuzin	8.52	Spike	P	0 - 30
2124532	Mevinphos	7.96	Spike	P	0 - 30
2124532	Molinate	9.41	Spike	P	0 - 30
2124532	Norflurazon	18.2	Spike	P	0 - 30
2124532	Oxadiazon	11.7	Spike	P	0 - 30
2124532	Parathion Ethyl	8.14	Spike	P	0 - 30
2124532	Parathion Methyl	6.57	Spike	P	0 - 30
2124532	Pendimethalin	12.2	Spike	P	0 - 30
2124532	Phorate	9.09	Spike	P	0 - 30
2124532	Prodiamine	12.4	Spike	P	0 - 30
2124532	Prometon	6.95	Spike	P	0 - 30
2124532	Prometryn	13.4	Spike	P	0 - 30
2124532	Simazine	8.03	Spike	P	0 - 30
2124532	Tebuconazole	15.6	Spike	P	0 - 30
2124532	Terbufos	14.6	Spike	P	0 - 30
2124532	Terbutylazine	6.18	Spike	P	0 - 30
LFB	Acetochlor	5.02	LCS	P	0 - 30
LFB	Alachlor	9.20	LCS	P	0 - 30
LFB	Ametryn	3.88	LCS	P	0 - 30
LFB	Atrazine	6.98	LCS	P	0 - 30
LFB	Atrazine Desethyl	36.2	LCS	F	0 - 30
LFB	Azinphos Methyl	10.1	LCS	P	0 - 30
LFB	Bromacil	5.73	LCS	P	0 - 30
LFB	Butylate	9.29	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.30	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	9.73	LCS	P	0 - 30
LFB	Cyanazine	46.7	LCS	F	0 - 30
LFB	Demeton	9.41	LCS	P	0 - 30
LFB	Diazinon	8.46	LCS	P	0 - 30
LFB	Dimethenamid	4.06	LCS	P	0 - 30
LFB	Disulfoton	3.99	LCS	P	0 - 30
LFB	Dithiopyr	0.00384	LCS	P	0 - 30
LFB	EPTC	6.57	LCS	P	0 - 30
LFB	Ethion	18.2	LCS	P	0 - 30
LFB	Ethoprop	7.81	LCS	P	0 - 30
LFB	Fenamiphos	14.3	LCS	P	0 - 30
LFB	Fipronil	5.66	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	6.47	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P371775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil Sulfide	3.73	LCS	P	0 - 30
LFB	Fipronil Sulfone	10.7	LCS	P	0 - 30
LFB	Fonofos	16.6	LCS	P	0 - 30
LFB	Hexazinone	8.31	LCS	P	0 - 30
LFB	Malathion	2.91	LCS	P	0 - 30
LFB	Metalaxyl	16.5	LCS	P	0 - 30
LFB	Metolachlor	2.19	LCS	P	0 - 30
LFB	Metribuzin	53.7	LCS	F	0 - 30
LFB	Mevinphos	16.6	LCS	P	0 - 30
LFB	Molinate	11.4	LCS	P	0 - 30
LFB	Norflurazon	4.89	LCS	P	0 - 30
LFB	Oxadiazon	8.18	LCS	P	0 - 30
LFB	Parathion Ethyl	4.59	LCS	P	0 - 30
LFB	Parathion Methyl	2.01	LCS	P	0 - 30
LFB	Pendimethalin	6.05	LCS	P	0 - 30
LFB	Phorate	11.0	LCS	P	0 - 30
LFB	Prodiamine	71.8	LCS	F	0 - 30
LFB	Prometon	4.65	LCS	P	0 - 30
LFB	Prometryn	6.86	LCS	P	0 - 30
LFB	Simazine	3.49	LCS	P	0 - 30
LFB	Tebuconazole	30.7	LCS	F	0 - 30
LFB	Terbufos	11.5	LCS	P	0 - 30
LFB	Terbuthylazine	4.77	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P371894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124829	Aldrin	2.13	Spike	P	0 - 30
2124829	Alpha-BHC	3.46	Spike	P	0 - 30
2124829	Alpha-Chlordane	3.62	Spike	P	0 - 30
2124829	Beta-BHC	0.152	Spike	P	0 - 30
2124829	Bifenthrin	1.71	Spike	P	0 - 30
2124829	Carbophenothion	1.31	Spike	P	0 - 30
2124829	Chlorothalonil	6.71	Spike	P	0 - 30
2124829	Cis-Nonachlor	4.02	Spike	P	0 - 30
2124829	Cypermethrin	0.0732	Spike	P	0 - 30
2124829	DDD-p,p'	2.61	Spike	P	0 - 30
2124829	DDE-p,p'	4.26	Spike	P	0 - 30
2124829	DDT-p,p'	0.259	Spike	P	0 - 30
2124829	Delta-BHC	3.97	Spike	P	0 - 30
2124829	Dicofol	5.60	Spike	P	0 - 30
2124829	Dieldrin	3.55	Spike	P	0 - 30
2124829	Endosulfan I	7.32	Spike	P	0 - 30
2124829	Endosulfan II	5.98	Spike	P	0 - 30
2124829	Endosulfan Sulfate	4.88	Spike	P	0 - 30
2124829	Endrin	6.44	Spike	P	0 - 30
2124829	Endrin Aldehyde	9.06	Spike	P	0 - 30
2124829	Endrin Ketone	1.97	Spike	P	0 - 30
2124829	Ethalfuralin	1.79	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P371894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124829	Gamma-BHC	0.806	Spike	P	0 - 30
2124829	Gamma-Chlordane	3.18	Spike	P	0 - 30
2124829	Heptachlor	5.09	Spike	P	0 - 30
2124829	Heptachlor Epoxide	3.81	Spike	P	0 - 30
2124829	Hexachlorobenzene	2.47	Spike	P	0 - 30
2124829	Methoxychlor	1.85	Spike	P	0 - 30
2124829	Mirex	0.174	Spike	P	0 - 30
2124829	Permethrin	0.877	Spike	P	0 - 30
2124829	Trans-Nonachlor	3.07	Spike	P	0 - 30
2124829	Trifluralin	1.75	Spike	P	0 - 30
LFB	Aldrin	0.594	LCS	P	0 - 30
LFB	Alpha-BHC	3.86	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.932	LCS	P	0 - 30
LFB	Beta-BHC	1.02	LCS	P	0 - 30
LFB	Bifenthrin	0.748	LCS	P	0 - 30
LFB	Carbophenothion	1.03	LCS	P	0 - 30
LFB	Chlorothalonil	1.27	LCS	P	0 - 30
LFB	Cis-Nonachlor	0.403	LCS	P	0 - 30
LFB	Cypermethrin	2.66	LCS	P	0 - 30
LFB	DDD-p,p'	1.16	LCS	P	0 - 30
LFB	DDE-p,p'	2.42	LCS	P	0 - 30
LFB	DDT-p,p'	0.288	LCS	P	0 - 30
LFB	Delta-BHC	3.48	LCS	P	0 - 30
LFB	Dicofol	5.24	LCS	P	0 - 30
LFB	Dieldrin	1.82	LCS	P	0 - 30
LFB	Endosulfan I	0.891	LCS	P	0 - 30
LFB	Endosulfan II	0.292	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.61	LCS	P	0 - 30
LFB	Endrin	2.81	LCS	P	0 - 30
LFB	Endrin Aldehyde	0.395	LCS	P	0 - 30
LFB	Endrin Ketone	0.0519	LCS	P	0 - 30
LFB	Ethalfuralin	1.88	LCS	P	0 - 30
LFB	Gamma-BHC	9.11	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.00860	LCS	P	0 - 30
LFB	Heptachlor	1.66	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.101	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.806	LCS	P	0 - 30
LFB	Methoxychlor	3.18	LCS	P	0 - 30
LFB	Mirex	0.768	LCS	P	0 - 30
LFB	Permethrin	0.773	LCS	P	0 - 30
LFB	Trans-Nonachlor	0.158	LCS	P	0 - 30
LFB	Trifluralin	0.0952	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P371894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124805	Chlordane	7.32	Spike	P	0 - 30
2124805	Toxaphene	0.996	Spike	P	0 - 30
LFB	Chlordane	1.14	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P371894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Toxaphene	0.909	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P371702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2123651	3-Hydroxycarbofuran	4.68	Spike	P	0 - 30
2123651	Aldicarb	4.43	Spike	P	0 - 30
2123651	Aldicarb Sulfone	0.365	Spike	P	0 - 30
2123651	Aldicarb Sulfoxide	6.52	Spike	P	0 - 30
2123651	Carbaryl	0.488	Spike	P	0 - 30
2123651	Carbofuran	3.05	Spike	P	0 - 30
2123651	Methiocarb	5.59	Spike	P	0 - 30
2123651	Methomyl	2.30	Spike	P	0 - 30
2123651	Oxamyl	5.37	Spike	P	0 - 30
2123651	Propoxur	5.34	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P371761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2123614	Acesulfame K	1.13	Spike	P	0 - 30
2123614	AMPA	1.37	Spike	P	0 - 30
2123614	Endothall	14.1	Spike	P	0 - 30
2123614	Glufosinate	17.3	Spike	P	0 - 30
2123614	Glyphosate	20.3	Spike	P	0 - 30
2123614	Sucralose	2.54	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P371789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124032	2,4-D	16.3	Spike	P	0 - 30
2124032	Acetaminophen	0.701	Spike	P	0 - 30
2124032	Acetamiprid	2.94	Spike	P	0 - 30
2124032	Afidopyropen	1.54	Spike	P	0 - 30
2124032	Bentazon	0.779	Spike	P	0 - 30
2124032	Benzovindiflupyr	9.15	Spike	P	0 - 30
2124032	Carbamazepine	6.11	Spike	P	0 - 30
2124032	Clothianidin	16.6	Spike	P	0 - 30
2124032	Dinotefuran	7.02	Spike	P	0 - 30
2124032	Diuron	8.53	Spike	P	0 - 30
2124032	Fenuron	11.0	Spike	P	0 - 30
2124032	Fluridone	4.74	Spike	P	0 - 30
2124032	Hydrocodone	4.79	Spike	P	0 - 30
2124032	Ibuprofen	9.00	Spike	P	0 - 30
2124032	Imazapyr	2.73	Spike	P	0 - 30
2124032	Imidacloprid	14.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P371789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124032	Linuron	7.87	Spike	P	0 - 30
2124032	Mandestrobin	9.51	Spike	P	0 - 30
2124032	MCCP	13.1	Spike	P	0 - 30
2124032	Naproxen	22.6	Spike	P	0 - 30
2124032	Primidone	9.67	Spike	P	0 - 30
2124032	Pyraclostrobin	11.3	Spike	P	0 - 30
2124032	Thiamethoxam	15.0	Spike	P	0 - 30
2124032	Tolfenpyrad	10.8	Spike	P	0 - 30
2124032	Triclopyr	27.9	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P371765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124012	Color (true)	1.17	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P371986

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2123854	Total Alkalinity	0.407	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P372411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124012	TDS	1.60	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P371989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2123854	Fluoride	0.480	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P371896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124060	Organic Carbon	1.85	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2124031
Field Sample ID: G2SW0103

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	71.7	P	30 - 160

Lab Sample ID: 2124032
Field Sample ID: G2SW0103

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	131	P	30 - 160
EPA 8321B	Acetaminophen-d4	68.5	P	30 - 160
EPA 8321B	Bentazon-d7	66.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.7	P	30 - 160
EPA 8321B	Diuron-d6	84.0	P	30 - 160
EPA 8321B	Endothall-d6	73.3	P	30 - 160
EPA 8321B	Endothall-d6	73.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	81.8	P	30 - 160
EPA 8321B	Primidone-d5	86.2	P	30 - 160
EPA 8321B	Sucralose-d6	67.3	P	30 - 160
EPA 8321B	Sucralose-d6	67.3	P	30 - 160

Lab Sample ID: 2124033
Field Sample ID: G2SW0100

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	132	P	30 - 160
EPA 8321B	Acetaminophen-d4	62.6	P	30 - 160
EPA 8321B	Bentazon-d7	55.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.6	P	30 - 160
EPA 8321B	Diuron-d6	84.9	P	30 - 160
EPA 8321B	Endothall-d6	67.6	P	30 - 160
EPA 8321B	Endothall-d6	67.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.5	P	30 - 160
EPA 8321B	Primidone-d5	88.2	P	30 - 160
EPA 8321B	Sucralose-d6	68.7	P	30 - 160
EPA 8321B	Sucralose-d6	68.7	P	30 - 160

Lab Sample ID: 2124034
Field Sample ID: G2SW0040

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	147	P	30 - 160
EPA 8321B	Acetaminophen-d4	66.9	P	30 - 160
EPA 8321B	Bentazon-d7	55.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	102	P	30 - 160
EPA 8321B	Diuron-d6	93.3	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	73.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	73.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	98.2	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2124034
Field Sample ID: G2SW0040

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Primidone-d5	96.3	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2124038
Field Sample ID: G2SW0103

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	114	F	39 - 109
EPA 8270E	Tetrachloro-m-xylene	90.8	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	69.6	P	30 - 103
EPA 8276	PCNB	132	P	37 - 143

Lab Sample ID: 2124039
Field Sample ID: G2SW0103

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	102	P	68 - 130
EPA 8270E	Terbufos-d10	123	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94664

Included Lab Sample IDs: 2124012

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A94674

Included Lab Sample IDs: 2124012

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94681

Included Lab Sample IDs: 2124014

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.4	96.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94685

Included Lab Sample IDs: 2124013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A94716

Included Lab Sample IDs: 2124031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	98.7	95.0	P/P	60 - 150
Aldicarb	114	102	P/P	60 - 150
Aldicarb Sulfone	85.7	88.5	P/P	50 - 150
Aldicarb Sulfoxide	87.5	82.8	P/P	50 - 150
Carbaryl	91.0	107	P/P	60 - 150
Carbofuran	112	117	P/P	50 - 150
Methiocarb	94.0	93.7	P/P	50 - 150
Methomyl	88.2	92.1	P/P	50 - 150
Oxamyl	90.3	87.3	P/P	50 - 150
Propoxur	104	103	P/P	50 - 150

Reference Method: SM 5310 B-00

Run ID: A94723

Included Lab Sample IDs: 2124013

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94725

Included Lab Sample IDs: 2124013

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94725

Included Lab Sample IDs: 2124013

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

Reference Method: EPA 8321B

Run ID: A94729

Included Lab Sample IDs: 2124032, 2124033, 2124034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	83.5	98.5	P/P	60 - 160
AMPA	98.5	98.6	P/P	60 - 160
AMPA	98.6	98.1	P/P	60 - 160
Glufosinate	69.4	87.7	P/P	60 - 160
Glufosinate	87.7	92.0	P/P	60 - 160
Glufosinate	92.0	81.2	P/P	60 - 160
Glyphosate	83.6	89.5	P/P	60 - 160
Glyphosate	89.5	90.3	P/P	60 - 160
Glyphosate	90.3	87.7	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A94730

Included Lab Sample IDs: 2124032, 2124033, 2124034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	101	108	P/P	60 - 160
Acesulfame K	108	109	P/P	60 - 160
Endothall	96.0	98.0	P/P	60 - 160
Endothall	98.0	104	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A94739

Included Lab Sample IDs: 2124045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	107	P/P	90 - 110
Calcium	103	105	P/P	90 - 110
Iron	104	105	P/P	90 - 110
Magnesium	103	104	P/P	90 - 110
Potassium	102	105	P/P	90 - 110
Sodium	104	109	P/P	90 - 110
Zinc	99.7	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94749

Included Lab Sample IDs: 2124013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.6	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A94752

Included Lab Sample IDs: 2124032, 2124033, 2124034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	103	91.7	P/P	50 - 150
Acetaminophen	97.7	95.1	P/P	60 - 160
Acetamiprid	105	106	P/P	50 - 150
Afidopyropen	97.6	110	P/P	50 - 150
Bentazon	104	102	P/P	50 - 160
Bentazon	93.6	103	P/P	50 - 160
Benzovindiflupyr	101	110	P/P	50 - 150
Carbamazepine	108	110	P/P	60 - 150
Clothianidin	97.4	109	P/P	60 - 150
Dinotefuran	107	103	P/P	50 - 150
Diuron	111	115	P/P	60 - 150
Fenuron	105	105	P/P	60 - 150
Fluridone	104	113	P/P	60 - 160
Hydrocodone	105	104	P/P	60 - 150
Ibuprofen	93.9	87.0	P/P	50 - 160
Imazapyr	115	96.2	P/P	50 - 150
Imidacloprid	102	106	P/P	60 - 150
Linuron	105	102	P/P	60 - 150
Mandestrobin	107	101	P/P	50 - 150
MCPP	100	100	P/P	50 - 150
Naproxen	85.5	76.6	P/P	50 - 160
Primidone	102	91.6	P/P	60 - 150
Pyraclostrobin	107	104	P/P	60 - 150
Thiamethoxam	102	102	P/P	50 - 150
Tolfenpyrad	103	103	P/P	60 - 150
Triclopyr	114	97.3	P/P	50 - 150

Reference Method: SM 2320 B-97

Run ID: A94754

Included Lab Sample IDs: 2124012

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

Reference Method: SM 4500 F-C-97

Run ID: A94754

Included Lab Sample IDs: 2124012

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94775

Included Lab Sample IDs: 2124013

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A94830

Included Lab Sample IDs: 2124012

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

Reference Method: EPA 8270E

Run ID: A94845

Included Lab Sample IDs: 2124038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	106		P	80 - 120
Alpha-BHC	112		P	80 - 120
Alpha-Chlordane	109		P	80 - 120
Beta-BHC	118		P	80 - 120
Bifenthrin	108		P	80 - 120
Carbophenothion	106		P	80 - 120
Chlorothalonil	101		P	80 - 120
Cis-Nonachlor	108		P	80 - 120
Cypermethrin	105		P	80 - 120
DDD-p,p'	109		P	80 - 120
DDE-p,p'	107		P	80 - 120
DDT-p,p'	108		P	80 - 120
Delta-BHC	105		P	80 - 120
Dicofol	107		P	80 - 120
Dieldrin	104		P	80 - 120
Endosulfan I	105		P	80 - 120
Endosulfan II	110		P	80 - 120
Endosulfan Sulfate	109		P	80 - 120
Endrin	112		P	80 - 120
Endrin Aldehyde	107		P	80 - 120
Endrin Ketone	112		P	80 - 120
Ethalfuralin	112		P	80 - 120
Gamma-BHC	109		P	80 - 120
Gamma-Chlordane	108		P	80 - 120
Heptachlor	109		P	80 - 120
Heptachlor Epoxide	106		P	80 - 120
Hexachlorobenzene	115		P	80 - 120
Methoxychlor	108		P	80 - 120
Mirex	105		P	80 - 120
Permethrin	100		P	80 - 120
Trans-Nonachlor	109		P	80 - 120
Trifluralin	113		P	80 - 120

Reference Method: EPA 8321B

Run ID: A94848

Included Lab Sample IDs: 2124032, 2124033, 2124034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	67.8	77.7	P/P	60 - 160
Sucralose	76.2	67.8	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A94920

Included Lab Sample IDs: 2124012

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94947

Included Lab Sample IDs: 2124045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	104	103	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	104	104	P/P	90 - 110
Boron	105	106	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	101	103	P/P	90 - 110
Copper	104	105	P/P	90 - 110
Lead	105	105	P/P	90 - 110
Nickel	103	104	P/P	90 - 110
Silver	99.0	99.5	P/P	90 - 110
Thallium	99.5	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A94978

Included Lab Sample IDs: 2124045

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

Reference Method: EPA 8276

Run ID: A94997

Included Lab Sample IDs: 2124038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.7		P	80 - 120
Toxaphene	96.3		P	80 - 120

Reference Method: EPA 8270E

Run ID: A95111

Included Lab Sample IDs: 2124039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	107		P	80 - 120
Ametryn	107		P	80 - 120
Atrazine	103		P	80 - 120
Atrazine Desethyl	88.6		P	80 - 120
Azinphos Methyl	87.6		P	80 - 120
Butylate	101		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	99.8		P	80 - 120
Cyanazine	71.0*		F	80 - 120
Demeton	98.4		P	80 - 120
Diazinon	104		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A95111
 Included Lab Sample IDs: 2124039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dimethenamid	105		P	80 - 120
Disulfoton	97.1		P	80 - 120
Dithiopyr	106		P	80 - 120
EPTC	102		P	80 - 120
Ethion	98.9		P	80 - 120
Ethoprop	100		P	80 - 120
Fenamiphos	102		P	80 - 120
Fipronil	104		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	100		P	80 - 120
Fipronil Sulfone	99.7		P	80 - 120
Fonofos	98.6		P	80 - 120
Hexazinone	102		P	80 - 120
Malathion	97.2		P	80 - 120
Metaxyl	104		P	80 - 120
Metolachlor	110		P	80 - 120
Metribuzin	91.3		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	102		P	80 - 120
Norflurazon	98.7		P	80 - 120
Oxadiazon	107		P	80 - 120
Parathion Ethyl	94.7		P	80 - 120
Parathion Methyl	97.7		P	80 - 120
Pendimethalin	98.2		P	80 - 120
Phorate	96.2		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	109		P	80 - 120
Prometryn	105		P	80 - 120
Simazine	97.2		P	80 - 120
Tebuconazole	104		P	80 - 120
Terbufos	96.1		P	80 - 120
Terbutylazine	103		P	80 - 120

Reference Method: EPA 8270E
 Run ID: A95117
 Included Lab Sample IDs: 2124039

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	103		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						6.48	
EPA 200.7 Rev. 4.4	Barium	103		99.2	103	103		0.242
	Calcium	106		103	105			0.589
	Iron	111		107	109	109		0.300
	Magnesium	113		102	111	111		0.110
	Potassium	107		103	110	111		0.126
	Sodium	112		105	113	112		0.776
	Zinc	100		98.6	101	102		0.182
EPA 200.8 Rev. 5.4	Aluminum	100		103	101	101		0.478
	Antimony	102		103	105	103		1.33
	Arsenic	103		104	104	104		0.570
	Boron	101		103	106	105		0.443
	Cadmium	99.0		97.5	100	99.9		0.0139
	Chromium	99.8		99.7	103	102		1.05
	Copper	103		101	100	99.5		0.823
	Lead	103		104	104	103		1.16
	Nickel	102		100	101	101		0.561
	Selenium	101		105	102	103		1.51
	Silver	102		99.6	102	101		1.30
	Thallium	103		107	106	107		0.304
EPA 300.0 Rev. 2.1	Chloride	102		102	99.0		0.638	
	Sulfate	100		99.7	100		0.0936	
EPA 350.1 Rev. 2.0	Ammonia-N	101		98.8	99.0			0.216
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.8		98.8	92.6			4.95
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102		99.9	99.9			0.0
EPA 365.1 Rev. 2.0	Total-P	95.7		94.2	100			4.23
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.2		93.5	94.6			1.12
EPA 8270E	Acetochlor	95.1	100	114	104	5.02		9.59
	Alachlor	101	91.9	112	101	9.20		9.91
	Aldrin	49.1	49.4	63.0	61.6	0.594		2.13
	Alpha-BHC	96.2	92.5	102	98.8	3.86		3.46
	Alpha-Chlordane	92.4	93.2	91.4	88.2	0.932		3.62
	Ametryn	89.1	92.6	216	217	3.88		0.751
	Atrazine	95.6	103	104	100	6.98		2.33
	Atrazine Desethyl	102	70.4	103	109	36.2		5.08
	Azinphos Methyl	119	107	125	108	10.1		14.4
	Beta-BHC	112	111	120	120	1.02		0.152
	Bifenthrin	97.6	98.4	107	105	0.748		1.71
	Bromacil	82.4	77.8	79.2	80.8	5.73		1.51
	Butylate	67.0	61.1	57.7	50.9	9.29		12.4
	Carbophenothion	89.7	88.7	113	115	1.03		1.31
	Chlorothalonil	100	99.2	11.8	11.0	1.27		6.71
	Chlorpyrifos Ethyl	99.4	96.2	106	92.7	3.30		13.3
	Chlorpyrifos Methyl	89.1	98.2	106	94.9	9.73		10.9
	Cis-Nonachlor	99.1	99.5	97.0	93.2	0.403		4.02
	Cyanazine	103	166	137	139	46.7		1.19
	Cypermethrin	110	107	111	111	2.66		0.0732
	DDD-p,p'	99.4	101	94.9	92.4	1.16		2.61
	DDE-p,p'	89.3	91.5	85.1	81.6	2.42		4.26
	DDT-p,p'	84.1	84.4	85.4	85.6	0.288		0.259
	Delta-BHC	106	103	117	112	3.48		3.97
	Demeton	70.9	77.8	95.0	86.3	9.41		9.60
	Diazinon	91.6	99.7	120	106	8.46		12.6
	Dicofol	99.1	94.0	96.5	102	5.24		5.60

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Dieldrin	94.5	92.8	94.9	91.6	1.82		3.55
	Dimethenamid	96.0	99.9	110	101	4.06		8.51
	Disulfoton	81.7	85.1	113	98.8	3.99		13.5
	Dithiopyr	97.6	97.6	106	94.8	0.0038		10.8
	Endosulfan I	91.6	92.4	98.5	91.6	0.891		7.32
	Endosulfan II	104	105	109	103	0.292		5.98
	Endosulfan Sulfate	102	99.0	104	98.9	2.61		4.88
	Endrin	94.8	97.5	99.2	93.0	2.81		6.44
	Endrin Aldehyde	102	101	85.3	77.9	0.395		9.06
	Endrin Ketone	102	102	107	105	0.0519		1.97
	EPTC	69.6	65.1	65.4	58.8	6.57		10.6
	Ethalfuralin	93.4	91.6	96.7	95.0	1.88		1.79
	Ethion	93.3	112	94.1	90.4	18.2		3.99
	Ethoprop	91.9	85.0	109	98.3	7.81		10.4
	Fenamiphos	99.6	86.4	95.3	78.1	14.3		19.8
	Fipronil	107	101	93.9	94.8	5.66		0.894
	Fipronil Desulfinyl	89.4	95.4	72.7	76.5	6.47		4.83
	Fipronil Sulfide	105	101	68.4	72.5	3.73		4.97
	Fipronil Sulfone	89.8	99.9	52.7	59.7	10.7		9.60
	Fonofos	94.9	80.3	110	97.9	16.6		11.4
	Gamma-BHC	98.5	89.9	102	101	9.11		0.806
	Gamma-Chlordane	91.1	91.1	89.5	86.7	0.0086		3.18
	Heptachlor	81.7	83.0	85.0	80.8	1.66		5.09
	Heptachlor Epoxide	92.8	92.9	95.2	91.6	0.101		3.81
	Hexachlorobenzene	83.9	84.5	83.0	85.1	0.806		2.47
	Hexazinone	94.6	103	114	107	8.31		5.92
	Malathion	100	103	96.8	90.5	2.91		6.66
	Metalaxyl	92.9	78.7	93.9	86.1	16.5		8.66
	Methoxychlor	98.4	95.3	99.0	97.2	3.18		1.85
	Metolachlor	97.2	99.3			2.19		1.41
	Metribuzin	184	106	191	175	53.7		8.52
	Mevinphos	91.9	77.8	101	93.2	16.6		7.96
	Mirex	72.0	71.4	78.2	78.3	0.768		0.174
	Molinate	79.5	70.9	87.8	79.9	11.4		9.41
	Norflurazon	101	96.1	70.6	84.7	4.89		18.2
	Oxadiazon	94.1	102	99.2	87.2	8.18		11.7
	Parathion Ethyl	90.4	94.7	101	92.7	4.59		8.14
	Parathion Methyl	95.1	93.2	112	105	2.01		6.57
	Pendimethalin	92.2	97.9	110	97.5	6.05		12.2
	Permethrin	88.4	89.1	93.6	92.8	0.773		0.877
	Phorate	97.7	87.5	112	102	11.0		9.09
	Prodiamine	49.8	106	44.1	39.0	71.8		12.4
	Prometon	87.4	91.6	102	94.9	4.65		6.95
	Prometryn	86.8	93.0	107	93.3	6.86		13.4
	Simazine	101	105	112	103	3.49		8.03
	Tebuconazole	64.8	88.3	53.4	63.7	30.7		15.6
	Terbufos	95.1	84.8	122	105	11.5		14.6
	Terbuthylazine	97.2	102	105	98.5	4.77		6.18
	Trans-Nonachlor	92.0	91.8	84.9	82.3	0.158		3.07
	Trifluralin	93.1	93.2	94.3	92.6	0.0952		1.75
EPA 8276	Chlordane	99.2	98.1	82.8	89.1	1.14		7.32
	Toxaphene	81.7	81.0	69.3	68.6	0.909		0.996
EPA 8321B	2,4-D	134		136	114			16.3
	3-Hydroxycarbofuran	81.8		91.9	87.7			4.68

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Acesulfame K	115	68.3	69.1		1.13
	Acetaminophen	90.3	73.6	74.1		0.701
	Acetamiprid	102	106	103		2.94
	Afidopyropen	92.5	88.9	87.6		1.54
	Aldicarb	71.5	85.5	81.8		4.43
	Aldicarb Sulfone	88.2	97.5	97.1		0.365
	Aldicarb Sulfoxide	93.9	38.3	35.9		6.52
	AMPA	112	56.2	57.1		1.37
	Bentazon	106	76.5	75.9		0.779
	Benzovindiflupyr	99.0	99.7	91.0		9.15
	Carbamazepine	110	104	98.2		6.11
	Carbaryl	88.5	65.0	65.3		0.488
	Carbofuran	101	78.4	76.1		3.05
	Clothianidin	101				16.6
	Dinotefuran	97.1	109	101		7.02
	Diuron	108	97.1	88.9		8.53
	Endothall	86.8	55.1	63.4		14.1
	Fenuron	107	94.0	84.2		11.0
	Fluridone	97.7	91.8	87.5		4.74
	Glufosinate	103	67.8	80.6		17.3
	Glyphosate	97.9	95.8	78.2		20.3
	Hydrocodone	99.7	106	101		4.79
	Ibuprofen	95.1	86.3	78.9		9.00
	Imazapyr	112	99.3	103		2.73
	Imidacloprid	109				14.8
	Linuron	86.4	79.9	73.9		7.87
	Mandestrobin	96.4	94.2	85.6		9.51
	MCPP	141	152	133		13.1
	Methiocarb	76.5	70.7	66.8		5.59
	Methomyl	84.1	64.6	63.1		2.30
	Naproxen	80.9	98.9	78.8		22.6
	Oxamyl	88.4	86.6	82.0		5.37
	Primidone	98.4	106	96.0		9.67
	Propoxur	86.4	70.7	67.0		5.34
	Pyraclostrobin	88.1	98.3	87.8		11.3
	Sucralose	74.3	74.0	72.1		2.54
	Thiamethoxam	108				15.0
	Tolfenpyrad	63.3	63.0	56.5		10.8
	Triclopyr	121	128	96.6		27.9
SM 2120 B	Color (true)	102			1.17	
SM 2320 B-97	Total Alkalinity	103			0.407	
SM 2540 C-97	TDS				1.60	
SM 4500 F-C-97	Fluoride	98.2				0.480
SM 5310 B-00	Organic Carbon	94.6	93.8	91.1		1.85

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2124012
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2124045

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2124045
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2124012
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2124012
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2124013
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2124013
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2124013
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2124013
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2124014
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2124038
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2124039
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2124038
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2124031
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2124032, 2124033, 2124034
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2124032, 2124033, 2124034
SM 2120 B / E31780	True Color measured at 450 nm	2124012
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2124012
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2124012
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2124012
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2124012
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2124013

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	10/02/2019			10/02/2019 17:19	Rosalyn Ballman	2124012
EPA 200.7 Rev. 4.4	10/02/2019	10/03/2019 15:15	Elliott D. Healy	10/04/2019 15:08	Alexander Thompson	2124045
EPA 200.8 Rev. 5.4	10/02/2019	10/03/2019 15:15	Elliott D. Healy	10/14/2019 23:28	Robert K Palmer	2124045
	10/02/2019	10/03/2019 15:15	Elliott D. Healy	10/16/2019 00:35	Robert K Palmer	2124045
EPA 300.0 Rev. 2.1	10/02/2019			10/08/2019 13:30	Jhamieka S. Greenwood	2124012
	10/02/2019			10/12/2019 00:47	Julia Storbeck	2124012
EPA 350.1 Rev. 2.0	10/02/2019			10/07/2019 14:38	Ping Hua	2124013
EPA 351.2 Rev. 2.0	10/02/2019	10/03/2019 12:50	Sima Feizi	10/04/2019 22:04	Julia Storbeck	2124013
EPA 353.2 Rev. 2.0	10/02/2019			10/03/2019 09:24	Beverly Y. Sanders	2124013
EPA 365.1 Rev. 2.0	10/02/2019	10/03/2019 12:34	Vijayalakshmi Reddy	10/04/2019 10:41	Lipi Saha	2124013
EPA 365.1 Rev. 2.0 dissolved	10/02/2019			10/02/2019 16:36	Virginia P. Brown	2124014
EPA 8270E	10/02/2019	10/04/2019 09:00	Fe-Val Siddell	10/09/2019 21:22	Vandana T. Nagar	2124039
	10/02/2019	10/04/2019 09:00	Fe-Val Siddell	10/10/2019 16:14	Vandana T. Nagar	2124039
	10/02/2019	10/07/2019 08:30	Rasheda Ghaffari	10/10/2019 01:04	Arthur Maknenko	2124038
EPA 8276	10/02/2019	10/07/2019 08:30	Rasheda Ghaffari	10/11/2019 10:25	Michael Poppell	2124038
EPA 8321B	10/02/2019	10/02/2019 14:00	Hoor Shaik	10/03/2019 20:53	Juyoung Kim	2124031
	10/02/2019	10/03/2019 10:00	Rebecca Ware	10/03/2019 14:34	Rebecca Ware	2124032
	10/02/2019	10/03/2019 10:00	Rebecca Ware	10/03/2019 15:04	Rebecca Ware	2124033
	10/02/2019	10/03/2019 10:00	Rebecca Ware	10/03/2019 15:18	Rebecca Ware	2124034
	10/02/2019	10/03/2019 10:00	Rebecca Ware	10/04/2019 11:50	Rebecca Ware	2124032
	10/02/2019	10/03/2019 10:00	Rebecca Ware	10/04/2019 12:12	Rebecca Ware	2124033
	10/02/2019	10/03/2019 10:00	Rebecca Ware	10/04/2019 14:21	Rebecca Ware	2124034
	10/02/2019	10/03/2019 10:00	Rebecca Ware	10/09/2019 19:58	Rebecca Ware	2124032
	10/02/2019	10/03/2019 10:00	Rebecca Ware	10/09/2019 20:22	Rebecca Ware	2124033
	10/02/2019	10/03/2019 10:00	Rebecca Ware	10/09/2019 20:33	Rebecca Ware	2124034
	10/02/2019	10/04/2019 09:00	Hoor Shaik	10/05/2019 02:57	Juyoung Kim	2124032
	10/02/2019	10/04/2019 09:00	Hoor Shaik	10/05/2019 03:32	Juyoung Kim	2124033
	10/02/2019	10/04/2019 09:00	Hoor Shaik	10/05/2019 04:06	Juyoung Kim	2124034
	10/02/2019	10/04/2019 09:00	Hoor Shaik	10/07/2019 10:33	Juyoung Kim	2124034
SM 2120 B	10/02/2019			10/02/2019 18:53	Madeline Funaro	2124012
SM 2320 B-97	10/02/2019			10/03/2019 22:02	Dale L. Simmons	2124012
SM 2540 C-97	10/02/2019			10/04/2019 14:37	Yijie Li	2124012
SM 2540 D-97	10/02/2019			10/04/2019 14:37	Yijie Li	2124012
SM 4500 F-C-97	10/02/2019			10/03/2019 22:02	Dale L. Simmons	2124012
SM 5310 B-00	10/02/2019			10/04/2019 00:57	Madeline Funaro	2124013