

Chemical Analysis Report

NW-DIST-2020-12-04-01

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

Event Description: **Pensacola Bayous**
Request ID: **RQ-2020-11-30-42**
Customer: **NW-DIST**
Project ID: **SMP**

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Date Certified: 22-DEC-2020 12:28



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: Weekly Bayou Near Mouth

Collection Date/Time: 12/03/2020 12:36

Field ID: G5NW0158

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2210947	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P390799	
	EPA 300.0 Rev. 2.1	Bromide	40		mg Br/L	P390929	
	SM 2320 B-2011	Total Alkalinity	73		mg CaCO3/L	P390811	
	SM 2540 D-2011	TSS	4	I	mg/L	P391151	
	SM 4500 F-C-2011	Fluoride	0.72		mg F/L	P390971	
2210948	EPA 350.1 Rev. 2.0	Ammonia-N	0.035		mg N/L	P391074	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P390833	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.033		mg N/L	P390762	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P390862	
	SM 5310 B-2011	Organic Carbon	3.2		mg C/L	P390898	
2210949	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P390720	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Bayou Chico NW of Bayou Chico Bridge

Collection Date/Time: 12/03/2020 09:42

Field ID: G4NW0450

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2210995	EPA 8270E	Aldrin	4.4	U	ng/L	P390734	
		Alpha-BHC	2.2	U	ng/L	P390734	
		Alpha-Chlordane	1.1	U	ng/L	P390734	
		Beta-BHC	8.8	U	ng/L	P390734	
		Beta-Cyfluthrin**	16	U	ng/L	P390734	
		Bifenthrin**	4.4	U	ng/L	P390734	
		Delta-BHC	8.8	U	ng/L	P390734	
		Gamma-BHC	8.8	U	ng/L	P390734	
		Carbophenothion	11	U	ng/L	P390734	
		Chlorothalonil	2.2	U	ng/L	P390734	
		Cis-Nonachlor**	1.1	U	ng/L	P390734	
		Cypermethrin	22	U	ng/L	P390734	
		Dacthal**	1.1	U	ng/L	P390734	
		DDD-p,p'	5.5	U	ng/L	P390734	
		DDE-p,p'	5.5	U	ng/L	P390734	
		DDT-p,p'	6.6	U	ng/L	P390734	
		Deltamethrin**	22	U	ng/L	P390734	
		Dicofol	33	U	ng/L	P390734	
		Dieldrin	4.4	U	ng/L	P390734	
		Endosulfan I	4.4	U	ng/L	P390734	
		Endosulfan II	4.4	U	ng/L	P390734	
		Endosulfan Sulfate	2.2	U	ng/L	P390734	
		Endrin	2.2	U	ng/L	P390734	
		Endrin Aldehyde	2.2	U	ng/L	P390734	RPD
		Endrin Ketone	2.2	U	ng/L	P390734	
		Ethalfuralin**	3.3	U	ng/L	P390734	
		Gamma-Chlordane	1.1	U	ng/L	P390734	
		Dichlobenil**	2.2	U	ng/L	P390734	RPD
		Esfenvalerate**	22	U	ng/L	P390734	
		Fenpropathrin**	11	U	ng/L	P390734	MS, RPD
		Heptachlor	1.6	U	ng/L	P390734	
		Heptachlor Epoxide	2.2	U	ng/L	P390734	
		Hexachlorobenzene	2.2	U	ng/L	P390734	
		Lambda-Cyhalothrin**	16	U	ng/L	P390734	
		Methoxychlor	4.4	U	ng/L	P390734	
		Mirex	2.2	U	ng/L	P390734	
		MGK-264**	3.3	U	ng/L	P390734	
		Permethrin	11	U	ng/L	P390734	
		Phenothrin**	33	U	ng/L	P390734	
		Piperonyl Butoxide**	1.6	U	ng/L	P390734	
		Prallethrin**	27	U	ng/L	P390734	
		Tau-Fluvalinate**	3.8	U	ng/L	P390734	
		Tetramethrin**	8.8	U	ng/L	P390734	
		Trans-Nonachlor**	1.1	U	ng/L	P390734	

Field ID: G4NW0450

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2210995	EPA 8270E	Triclosan Methyl**	1.1	U	ng/L	P390734	
		Trifluralin	2.7	U	ng/L	P390734	
	EPA 8276	Chlordane	5.5	U	ng/L	P390734	
		Toxaphene	33	U	ng/L	P390734	
2210998	EPA 8321B	2,4-D	0.0020	U	ug/L	P390943	
		Acesulfame K**	0.10	UJ	ug/L	P390748	MS, SUR
		AMPA**	0.10	UJ	ug/L	P390748	SUR
		Sucralose**	0.081		ug/L	P390748	
		Acetaminophen**	0.0080	U	ug/L	P390943	
		Acetamiprid**	0.0020	U	ug/L	P390943	
		Endothall**	0.25	UJ	ug/L	P390748	SUR
		Glufosinate**	0.10	UJ	ug/L	P390748	SUR
		Glyphosate**	0.10	UJ	ug/L	P390748	SUR
		Afidopyropen**	0.0020	U	ug/L	P390943	
		Bentazon	0.0015	I	ug/L	P390943	
		Benzovindiflupyr**	0.0020	U	ug/L	P390943	
		Carbamazepine**	8.0E-04	U	ug/L	P390943	
		Clothianidin**	0.0020	U	ug/L	P390943	
		Dinotefuran**	0.0020	U	ug/L	P390943	
		Diuron	0.0020	U	ug/L	P390943	
		Fenuron	0.016	U	ug/L	P390943	
		Fluridone**	8.0E-04	U	ug/L	P390943	
		Imazapyr**	0.0040	I	ug/L	P390943	
		Hydrocodone**	0.0020	U	ug/L	P390943	
		Ibuprofen**	0.020	U	ug/L	P390943	
		Imidacloprid	0.0020	U	ug/L	P390943	
		Linuron	0.0040	U	ug/L	P390943	
		Mandestrobin**	0.0020	U	ug/L	P390943	
		MCPP	0.0020	U	ug/L	P390943	
		Naproxen**	0.0080	U	ug/L	P390943	
		Primidone**	0.0040	U	ug/L	P390943	
		Pyraclostrobin**	0.0020	U	ug/L	P390943	
		Thiamethoxam**	0.0020	U	ug/L	P390943	
		Tolfenpyrad**	0.0020	U	ug/L	P390943	
		Triclopyr**	0.0040	U	ug/L	P390943	

Ref. Method and Comment:

EPA 8321B: Results confirmed in sample duplicate. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Bayou Chico Western Arm

Collection Date/Time: 12/03/2020 10:04

Field ID: G4NW0451

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2210996	EPA 8270E	Aldrin	4.5	U	ng/L	P390734	
		Alpha-BHC	2.2	U	ng/L	P390734	
		Alpha-Chlordane	1.1	U	ng/L	P390734	
		Beta-BHC	8.9	U	ng/L	P390734	
		Beta-Cyfluthrin**	17	U	ng/L	P390734	
		Bifenthrin**	4.5	U	ng/L	P390734	
		Delta-BHC	8.9	U	ng/L	P390734	
		Gamma-BHC	8.9	U	ng/L	P390734	
		Carbophenothion	11	U	ng/L	P390734	
		Chlorothalonil	2.2	U	ng/L	P390734	
		Cis-Nonachlor**	1.1	U	ng/L	P390734	
		Cypermethrin	22	U	ng/L	P390734	
		Dacthal**	1.1	U	ng/L	P390734	
		DDD-p,p'	5.6	U	ng/L	P390734	
		DDE-p,p'	5.6	U	ng/L	P390734	
		DDT-p,p'	6.7	U	ng/L	P390734	
		Deltamethrin**	22	U	ng/L	P390734	
		Dicofol	33	U	ng/L	P390734	
		Dieldrin	4.5	U	ng/L	P390734	
		Endosulfan I	4.5	U	ng/L	P390734	
		Endosulfan II	4.5	U	ng/L	P390734	
		Endosulfan Sulfate	2.2	U	ng/L	P390734	
		Endrin	2.2	U	ng/L	P390734	
		Endrin Aldehyde	2.2	U	ng/L	P390734	RPD
		Endrin Ketone	2.2	U	ng/L	P390734	
		Ethalfuralin**	3.3	U	ng/L	P390734	
		Gamma-Chlordane	1.1	U	ng/L	P390734	
		Dichlobenil**	2.2	U	ng/L	P390734	RPD
		Esfenvalerate**	22	U	ng/L	P390734	
		Fenpropathrin**	11	U	ng/L	P390734	MS, RPD
		Heptachlor	1.7	U	ng/L	P390734	
		Heptachlor Epoxide	2.2	U	ng/L	P390734	
		Hexachlorobenzene	2.2	U	ng/L	P390734	
		Lambda-Cyhalothrin**	17	U	ng/L	P390734	
		Methoxychlor	4.5	U	ng/L	P390734	
		Mirex	2.2	U	ng/L	P390734	
		MGK-264**	3.3	U	ng/L	P390734	
		Permethrin	11	U	ng/L	P390734	
		Phenothrin**	33	U	ng/L	P390734	
		Piperonyl Butoxide**	1.7	U	ng/L	P390734	
		Prallethrin**	28	U	ng/L	P390734	
		Tau-Fluvalinate**	3.9	U	ng/L	P390734	
		Tetramethrin**	8.9	U	ng/L	P390734	
		Trans-Nonachlor**	1.1	U	ng/L	P390734	

Field ID: G4NW0451

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2210996	EPA 8270E	Triclosan Methyl**	1.1	U	ng/L	P390734	
		Trifluralin	2.8	U	ng/L	P390734	
	EPA 8276	Chlordane	5.6	U	ng/L	P390734	
		Toxaphene	33	U	ng/L	P390734	
2210999	EPA 8321B	2,4-D	0.0020	U	ug/L	P390943	
		Acesulfame K**	0.11	IJ	ug/L	P390748	MS, SUR
		AMPA**	0.10	UJ	ug/L	P390748	SUR
		Sucralose**	0.16		ug/L	P390748	
		Acetaminophen**	0.0080	U	ug/L	P390943	
		Acetamiprid**	0.0020	U	ug/L	P390943	
		Endothall**	0.25	UJ	ug/L	P390748	SUR
		Glufosinate**	0.10	UJ	ug/L	P390748	SUR
		Glyphosate**	0.10	UJ	ug/L	P390748	SUR
		Afidopyropen**	0.0020	U	ug/L	P390943	
		Bentazon	8.0E-04	U	ug/L	P390943	
		Benzovindiflupyr**	0.0020	U	ug/L	P390943	
		Carbamazepine**	8.5E-04	I	ug/L	P390943	
		Clothianidin**	0.0020	U	ug/L	P390943	
		Dinotefuran**	0.0020	U	ug/L	P390943	
		Diuron	0.0020	U	ug/L	P390943	
		Fenuron	0.016	U	ug/L	P390943	
		Fluridone**	8.0E-04	U	ug/L	P390943	
		Imazapyr**	0.0044	I	ug/L	P390943	
		Hydrocodone**	0.0020	U	ug/L	P390943	
		Ibuprofen**	0.020	U	ug/L	P390943	
		Imidacloprid	0.0069	I	ug/L	P390943	
		Linuron	0.0040	U	ug/L	P390943	
		Mandestrobin**	0.0020	U	ug/L	P390943	
		MCPP	0.0020	U	ug/L	P390943	
		Naproxen**	0.0080	U	ug/L	P390943	
		Primidone**	0.0040	U	ug/L	P390943	
		Pyraclostrobin**	0.0020	U	ug/L	P390943	
		Thiamethoxam**	0.0020	U	ug/L	P390943	
		Tolfenpyrad**	0.0020	U	ug/L	P390943	
		Triclopyr**	0.0040	U	ug/L	P390943	

Ref. Method and Comment:

EPA 8321B: Results confirmed in sample duplicate. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Bayou Grande

Collection Date/Time: 12/03/2020 11:01

Field ID: G4NW0500

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2210941	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P390799	
	EPA 300.0 Rev. 2.1	Bromide	46		mg Br/L	P390929	
	SM 2320 B-2011	Total Alkalinity	84	A	mg CaCO3/L	P390811	
	SM 2540 D-2011	TSS	3	IA	mg/L	P391151	
	SM 4500 F-C-2011	Fluoride	0.86		mg F/L	P390971	
2210942	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P391074	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.29	I	mg N/L	P390833	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P390762	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P390862	
	SM 5310 B-2011	Organic Carbon	2.9		mg C/L	P390898	
2210943	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P390720	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Bayou Grande Near Navy Point Boat Ramp

Collection Date/Time: 12/03/2020 11:14

Field ID: G4NW0501

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2210944	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P390799	
	EPA 300.0 Rev. 2.1	Bromide	47		mg Br/L	P390929	
	SM 2320 B-2011	Total Alkalinity	86		mg CaCO3/L	P390811	
	SM 2540 D-2011	TSS	4	I	mg/L	P391151	
	SM 4500 F-C-2011	Fluoride	0.89		mg F/L	P390971	
2210945	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P391074	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30	I	mg N/L	P390833	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P390762	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P390862	
	SM 5310 B-2011	Organic Carbon	2.6		mg C/L	P390898	
2210946	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P390720	
2210997	EPA 8321B	2,4-D	0.0020	U	ug/L	P390943	
		Acesulfame K**	0.10	UJ	ug/L	P390748	MS, SUR
		AMPA**	0.10	UJ	ug/L	P390748	SUR
		Sucralose**	0.045		ug/L	P390748	
		Acetaminophen**	0.0080	U	ug/L	P390943	
		Acetamiprid**	0.0020	U	ug/L	P390943	
		Endothall**	0.25	UJ	ug/L	P390748	SUR
		Glufosinate**	0.10	UJ	ug/L	P390748	SUR
		Glyphosate**	0.10	UJ	ug/L	P390748	SUR
		Afidopyropen**	0.0020	U	ug/L	P390943	
		Bentazon	8.0E-04	U	ug/L	P390943	
		Benzovindiflupyr**	0.0020	U	ug/L	P390943	
		Carbamazepine**	8.0E-04	U	ug/L	P390943	
		Clothianidin**	0.0020	U	ug/L	P390943	
		Dinotefuran**	0.0020	U	ug/L	P390943	
		Diuron	0.0020	U	ug/L	P390943	
		Fenuron	0.016	U	ug/L	P390943	
		Fluridone**	8.0E-04	U	ug/L	P390943	
		Imazapyr**	0.0055	I	ug/L	P390943	
		Hydrocodone**	0.0020	U	ug/L	P390943	
		Ibuprofen**	0.020	U	ug/L	P390943	
		Imidacloprid	0.0020	U	ug/L	P390943	
		Linuron	0.0040	U	ug/L	P390943	
		Mandestrobin**	0.0020	U	ug/L	P390943	
		MCP	0.0020	U	ug/L	P390943	
		Naproxen**	0.0080	U	ug/L	P390943	
		Primidone**	0.0040	U	ug/L	P390943	
		Pyraclostrobin**	0.0020	U	ug/L	P390943	
		Thiamethoxam**	0.0020	U	ug/L	P390943	
		Tolfenpyrad**	0.0020	U	ug/L	P390943	
		Triclopyr**	0.0040	U	ug/L	P390943	

Field ID: G4NW0501

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Results confirmed in sample duplicate. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P390799

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390929

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391074

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390833

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390762

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390862

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390720

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

Reference Method: EPA 8270E
Batch ID: P390734

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	8.0	U	ng/L
Beta-Cyfluthrin	15	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P390734

Component	Result	Code	Units
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dichlobenil	2.0	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
Esfenvalerate	20	U	ng/L
Ethalfuralin	3.0	U	ng/L
Fenpropathrin	10	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
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
MGK-264	3.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Piperonyl Butoxide	1.5	U	ng/L
Prallethrin	25	U	ng/L
Tau-Fluvalinate	3.5	U	ng/L
Tetramethrin	8.0	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Triclosan Methyl	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P390734

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

Reference Method: EPA 8321B
Batch ID: P390748

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P390748

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P390943

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.025	I	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
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 2320 B-2011
Batch ID: P390811

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

Reference Method: SM 2540 D-2011
Batch ID: P391151

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P390971

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P390898

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: P390929

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391074

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390833

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390762

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: P390862

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390720

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

Reference Method: EPA 8270E
Batch ID: P390734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	47.5	53.9	P/P	20 - 87.0
Alpha-BHC	82.3	86.1	P/P	65 - 142
Alpha-Chlordane	80.0	85.4	P/P	58 - 106
Beta-BHC	88.9	90.0	P/P	65 - 179
Beta-Cyfluthrin	94.0	93.7	P/P	39 - 153
Bifenthrin	77.3	81.9	P/P	38 - 128
Carbophenothion	74.0	81.6	P/P	20 - 144
Chlorothalonil	42.8	56.3	P/P	20 - 214
Cis-Nonachlor	82.6	87.6	P/P	56 - 113
Cypermethrin	94.8	93.6	P/P	37 - 130
Dacthal	89.5	92.1	P/P	75 - 109
DDD-p,p'	85.4	89.3	P/P	66 - 119
DDE-p,p'	78.1	81.8	P/P	53 - 108
DDT-p,p'	81.8	86.6	P/P	57 - 133
Delta-BHC	95.9	104	P/P	68 - 187
Deltamethrin	98.9	96.2	P/P	50 - 200

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P390734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dichlobenil	76.7	75.1	P/P	25 - 140
Dicofol	79.6	82.8	P/P	66 - 123
Dieldrin	88.0	90.3	P/P	65 - 111
Endosulfan I	85.4	92.7	P/P	65 - 115
Endosulfan II	95.3	100	P/P	68 - 133
Endosulfan Sulfate	104	93.0	P/P	62 - 127
Endrin	88.2	90.4	P/P	64 - 122
Endrin Aldehyde	88.4	94.4	P/P	61 - 132
Endrin Ketone	91.5	88.3	P/P	66 - 120
Esfenvalerate	81.2	84.4	P/P	50 - 150
Ethalfuralin	75.0	76.9	P/P	57 - 127
Fenpropathrin	83.4	88.2	P/P	60 - 160
Gamma-BHC	90.7	94.4	P/P	71 - 158
Gamma-Chlordane	76.7	81.9	P/P	53 - 106
Heptachlor	64.5	72.4	P/P	45 - 96.0
Heptachlor Epoxide	83.9	86.5	P/P	64 - 109
Hexachlorobenzene	62.4	66.7	P/P	46 - 103
Lambda-Cyhalothrin	97.6	99.3	P/P	38 - 145
Methoxychlor	86.1	87.1	P/P	69 - 149
MGK-264	65.0	68.8	P/P	50 - 150
Mirex	62.9	69.1	P/P	31 - 90.0
Permethrin	75.4	79.4	P/P	41 - 108
Phenothrin	54.2	60.4	P/P	22 - 91.0
Piperonyl Butoxide	88.5	88.5	P/P	50 - 150
Prallethrin	68.0	69.0	P/P	32 - 92.0
Tau-Fluvalinate	100	102	P/P	50 - 150
Tetramethrin	98.3	91.4	P/P	60 - 160
Trans-Nonachlor	77.3	82.9	P/P	50 - 107
Triclosan Methyl	93.5	97.6	P/P	50 - 150
Trifluralin	74.1	76.5	P/P	58 - 119

Reference Method: EPA 8276
Batch ID: P390734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	101	99.1	P/P	47 - 119
Toxaphene	75.9	72.7	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P390748

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	114		P	40 - 150
AMPA	75.6		P	40 - 150
Endothall	78.0		P	40 - 150
Glufosinate	109		P	40 - 150
Glyphosate	96.7		P	40 - 140
Sucralose	99.1		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P390943

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	67.5		P	30 - 160
Acetaminophen	53.8		P	30 - 160
Acetamiprid	79.2		P	30 - 160
Afidopyropen	62.0		P	30 - 160
Bentazon	81.9		P	30 - 160
Benzovindiflupyr	62.8		P	30 - 160
Carbamazepine	56.9		P	30 - 160
Clothianidin	75.5		P	30 - 160
Dinotefuran	66.8		P	30 - 160
Diuron	58.5		P	30 - 160
Fenuron	78.0		P	30 - 160
Fluridone	64.4		P	30 - 160
Hydrocodone	95.8		P	30 - 160
Ibuprofen	54.5		P	30 - 160
Imazapyr	49.2		P	30 - 160
Imidacloprid	97.5		P	30 - 160
Linuron	59.1		P	30 - 160
Mandestrobin	68.3		P	30 - 160
MCPP	78.7		P	30 - 160
Naproxen	52.5		P	30 - 160
Primidone	76.6		P	30 - 160
Pyraclostrobin	53.2		P	30 - 160
Thiamethoxam	98.5		P	30 - 160
Tolfenpyrad	37.1		P	30 - 160
Triclopyr	46.5		P	30 - 160

Reference Method: SM 2320 B-2011
Batch ID: P390811

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P390971

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P390898

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	102		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210358	Bromide	97.2	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391074

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210255	Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210284	Kjeldahl Nitrogen	115	112	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390762

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210282	NO2NO3-N	99.5	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2209878	Total-P	105	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210943	O-Phosphate-P	100	100	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P390734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211015	Aldrin	54.3	47.6	P/P	32 - 82.0
2211015	Alpha-BHC	83.8	71.6	P/P	68 - 157
2211015	Alpha-Chlordane	77.6	67.9	P/P	54 - 108
2211015	Beta-BHC	89.6	79.2	P/P	54 - 200
2211015	Beta-Cyfluthrin	114	111	P/P	50 - 154
2211015	Bifenthrin	81.4	74.3	P/P	49 - 124
2211015	Carbophenothion	92.8	80.4	P/P	42 - 173
2211015	Chlorothalonil	29.3	29.4	P/P	10 - 289
2211015	Cis-Nonachlor	80.7	70.9	P/P	53 - 112
2211015	Cypermethrin	102	95.4	P/P	43 - 141
2211015	Dacthal	86.0	75.3	P/P	75 - 112
2211015	DDD-p,p'	81.3	71.2	P/P	58 - 125
2211015	DDE-p,p'	73.9	63.9	P/P	50 - 108
2211015	DDT-p,p'	79.7	69.8	P/P	52 - 140
2211015	Delta-BHC	143	122	P/P	61 - 228
2211015	Deltamethrin	106	100	P/P	50 - 200

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P390734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211015	Dichlobenil	59.9	43.9	P/P	25 - 140
2211015	Dicofol	64.8	70.5	P/P	59 - 130
2211015	Dieldrin	85.8	73.8	P/P	57 - 121
2211015	Endosulfan I	88.7	78.2	P/P	62 - 123
2211015	Endosulfan II	109	94.4	P/P	48 - 163
2211015	Endosulfan Sulfate	97.5	98.4	P/P	63 - 132
2211015	Endrin	85.0	73.7	P/P	58 - 128
2211015	Endrin Aldehyde	88.0	54.7	P/P	44 - 126
2211015	Endrin Ketone	86.9	81.7	P/P	68 - 127
2211015	Esfenvalerate	88.0	75.6	P/P	50 - 150
2211015	Ethalfuralin	72.0	64.3	P/P	55 - 131
2211015	Fenpropathrin	227	108	F/P	60 - 160
2211015	Gamma-BHC	92.9	79.6	P/P	54 - 206
2211015	Gamma-Chlordane	74.4	65.5	P/P	52 - 105
2211015	Heptachlor	62.2	52.2	P/P	47 - 94.0
2211015	Heptachlor Epoxide	81.0	70.2	P/P	61 - 113
2211015	Hexachlorobenzene	56.8	46.7	P/P	45 - 100
2211015	Lambda-Cyhalothrin	120	116	P/P	37 - 165
2211015	Methoxychlor	91.1	73.0	P/P	63 - 153
2211015	MGK-264	76.6	69.6	P/P	50 - 150
2211015	Mirex	65.8	60.3	P/P	38 - 90.0
2211015	Permethrin	78.9	70.9	P/P	45 - 112
2211015	Phenothrin	68.6	63.1	P/P	22 - 118
2211015	Piperonyl Butoxide	90.2	86.7	P/P	50 - 150
2211015	Prallethrin	73.1	67.0	P/P	21 - 114
2211015	Tau-Fluvalinate	125	117	P/P	50 - 150
2211015	Tetramethrin	109	108	P/P	60 - 160
2211015	Trans-Nonachlor	76.2	66.0	P/P	50 - 103
2211015	Triclosan Methyl	86.8	76.0	P/P	50 - 150
2211015	Trifluralin	70.9	62.1	P/P	57 - 122

Reference Method: EPA 8276
Batch ID: P390734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210995	Chlordane	122	114	P/P	34 - 129
2210995	Toxaphene	85.9	85.0	P/P	16 - 148

Reference Method: EPA 8321B
Batch ID: P390748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210272	Acesulfame K	137	160	P/F	40 - 150
2210272	AMPA	89.8	91.0	P/P	40 - 150
2210272	Endothall	109	112	P/P	40 - 150
2210272	Glufosinate	100	105	P/P	40 - 150
2210272	Glyphosate	87.1	88.6	P/P	40 - 140
2210272	Sucralose	96.3	102	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P390943

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210999	2,4-D	99.7	98.6	P/P	30 - 160
2210999	Acetaminophen	60.1	52.3	P/P	30 - 160
2210999	Acetamiprid	95.7	88.2	P/P	30 - 160
2210999	Afidopyropen	77.7	71.6	P/P	30 - 160
2210999	Bentazon	128	112	P/P	30 - 160
2210999	Benzovindiflupyr	74.3	72.9	P/P	30 - 160
2210999	Carbamazepine	55.1	52.1	P/P	30 - 160
2210999	Clothianidin	71.5	74.3	P/P	30 - 160
2210999	Dinotefuran	96.4	83.2	P/P	30 - 160
2210999	Diuron	56.2	52.9	P/P	30 - 160
2210999	Fenuron	67.2	65.9	P/P	30 - 160
2210999	Fluridone	71.2	66.6	P/P	30 - 160
2210999	Hydrocodone	111	127	P/P	30 - 160
2210999	Ibuprofen	64.8	54.9	P/P	30 - 160
2210999	Imazapyr	74.1	65.8	P/P	30 - 160
2210999	Imidacloprid	128	109	P/P	30 - 160
2210999	Linuron	65.3	62.1	P/P	30 - 160
2210999	Mandestrobin	72.7	72.2	P/P	30 - 160
2210999	MCP	98.5	98.4	P/P	30 - 160
2210999	Naproxen	78.0	65.2	P/P	30 - 160
2210999	Primidone	83.0	81.4	P/P	30 - 160
2210999	Pyraclostrobin	55.0	59.1	P/P	30 - 160
2210999	Thiamethoxam	118	116	P/P	30 - 160
2210999	Tolfenpyrad	42.1	38.7	P/P	30 - 160
2210999	Triclopyr	79.1	75.8	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P390971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2211425	Fluoride	97.8	99.3	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P390898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2210942	Organic Carbon	99.4	98.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P390799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211055	Turbidity	5.51	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P390929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210358	Bromide	2.28	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P391074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210255	Ammonia-N	0.130	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P390833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210284	Kjeldahl Nitrogen	2.02	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P390762

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210282	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P390862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2209878	Total-P	1.42	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P390720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210943	O-Phosphate-P	0.200	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P390734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211015	Aldrin	13.2	Spike	P	0 - 30
2211015	Alpha-BHC	15.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P390734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211015	Alpha-Chlordane	13.4	Spike	P	0 - 30
2211015	Beta-BHC	12.4	Spike	P	0 - 30
2211015	Beta-Cyfluthrin	2.54	Spike	P	0 - 30
2211015	Bifenthrin	9.08	Spike	P	0 - 30
2211015	Carbophenothion	14.2	Spike	P	0 - 30
2211015	Chlorothalonil	0.264	Spike	P	0 - 30
2211015	Cis-Nonachlor	13.0	Spike	P	0 - 30
2211015	Cypermethrin	6.68	Spike	P	0 - 30
2211015	Dacthal	13.3	Spike	P	0 - 30
2211015	DDD-p,p'	13.2	Spike	P	0 - 30
2211015	DDE-p,p'	14.4	Spike	P	0 - 30
2211015	DDT-p,p'	13.3	Spike	P	0 - 30
2211015	Delta-BHC	16.0	Spike	P	0 - 30
2211015	Deltamethrin	5.65	Spike	P	0 - 30
2211015	Dichlobenil	30.8	Spike	F	0 - 30
2211015	Dicofol	8.46	Spike	P	0 - 30
2211015	Dieldrin	15.1	Spike	P	0 - 30
2211015	Endosulfan I	12.7	Spike	P	0 - 30
2211015	Endosulfan II	14.7	Spike	P	0 - 30
2211015	Endosulfan Sulfate	0.948	Spike	P	0 - 30
2211015	Endrin	14.2	Spike	P	0 - 30
2211015	Endrin Aldehyde	46.6	Spike	F	0 - 30
2211015	Endrin Ketone	6.23	Spike	P	0 - 30
2211015	Esfenvalerate	15.1	Spike	P	0 - 30
2211015	Ethalfuralin	11.4	Spike	P	0 - 30
2211015	Fenpropathrin	71.3	Spike	F	0 - 30
2211015	Gamma-BHC	15.4	Spike	P	0 - 30
2211015	Gamma-Chlordane	12.8	Spike	P	0 - 30
2211015	Heptachlor	17.6	Spike	P	0 - 30
2211015	Heptachlor Epoxide	14.3	Spike	P	0 - 30
2211015	Hexachlorobenzene	19.5	Spike	P	0 - 30
2211015	Lambda-Cyhalothrin	3.22	Spike	P	0 - 30
2211015	Methoxychlor	22.0	Spike	P	0 - 30
2211015	MGK-264	9.48	Spike	P	0 - 30
2211015	Mirex	8.61	Spike	P	0 - 30
2211015	Permethrin	10.6	Spike	P	0 - 30
2211015	Phenothrin	8.35	Spike	P	0 - 30
2211015	Piperonyl Butoxide	3.93	Spike	P	0 - 30
2211015	Prallethrin	8.69	Spike	P	0 - 30
2211015	Tau-Fluvalinate	6.12	Spike	P	0 - 30
2211015	Tetramethrin	1.43	Spike	P	0 - 30
2211015	Trans-Nonachlor	14.4	Spike	P	0 - 30
2211015	Triclosan Methyl	13.2	Spike	P	0 - 30
2211015	Trifluralin	13.3	Spike	P	0 - 30
LFB	Aldrin	12.6	LCS	P	0 - 30
LFB	Alpha-BHC	4.61	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.56	LCS	P	0 - 30
LFB	Beta-BHC	1.25	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	0.395	LCS	P	0 - 30
LFB	Bifenthrin	5.83	LCS	P	0 - 30
LFB	Carbophenothion	9.84	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P390734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlorothalonil	27.2	LCS	P	0 - 30
LFB	Cis-Nonachlor	5.81	LCS	P	0 - 30
LFB	Cypermethrin	1.28	LCS	P	0 - 30
LFB	Dacthal	2.91	LCS	P	0 - 30
LFB	DDD-p,p'	4.52	LCS	P	0 - 30
LFB	DDE-p,p'	4.56	LCS	P	0 - 30
LFB	DDT-p,p'	5.61	LCS	P	0 - 30
LFB	Delta-BHC	7.82	LCS	P	0 - 30
LFB	Deltamethrin	2.73	LCS	P	0 - 30
LFB	Dichlobenil	2.03	LCS	P	0 - 30
LFB	Dicofol	3.97	LCS	P	0 - 30
LFB	Dieldrin	2.56	LCS	P	0 - 30
LFB	Endosulfan I	8.17	LCS	P	0 - 30
LFB	Endosulfan II	5.23	LCS	P	0 - 30
LFB	Endosulfan Sulfate	11.2	LCS	P	0 - 30
LFB	Endrin	2.48	LCS	P	0 - 30
LFB	Endrin Aldehyde	6.52	LCS	P	0 - 30
LFB	Endrin Ketone	3.59	LCS	P	0 - 30
LFB	Esfenvalerate	3.85	LCS	P	0 - 30
LFB	Ethalfuralin	2.55	LCS	P	0 - 30
LFB	Fenpropathrin	5.54	LCS	P	0 - 30
LFB	Gamma-BHC	3.95	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.60	LCS	P	0 - 30
LFB	Heptachlor	11.6	LCS	P	0 - 30
LFB	Heptachlor Epoxide	3.00	LCS	P	0 - 30
LFB	Hexachlorobenzene	6.73	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	1.76	LCS	P	0 - 30
LFB	Methoxychlor	1.25	LCS	P	0 - 30
LFB	MGK-264	5.74	LCS	P	0 - 30
LFB	Mirex	9.48	LCS	P	0 - 30
LFB	Permethrin	5.18	LCS	P	0 - 30
LFB	Phenothrin	10.9	LCS	P	0 - 30
LFB	Piperonyl Butoxide	0.00433	LCS	P	0 - 30
LFB	Prallethrin	1.48	LCS	P	0 - 30
LFB	Tau-Fluvalinate	1.97	LCS	P	0 - 30
LFB	Tetramethrin	7.29	LCS	P	0 - 30
LFB	Trans-Nonachlor	6.92	LCS	P	0 - 30
LFB	Triclosan Methyl	4.36	LCS	P	0 - 30
LFB	Trifluralin	3.18	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P390734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210995	Chlordane	7.00	Spike	P	0 - 30
2210995	Toxaphene	0.977	Spike	P	0 - 30
LFB	Chlordane	2.27	LCS	P	0 - 30
LFB	Toxaphene	4.30	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P390748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210272	Acesulfame K	15.9	Spike	P	0 - 30
2210272	AMPA	1.26	Spike	P	0 - 30
2210272	Endothall	3.35	Spike	P	0 - 30
2210272	Glufosinate	4.12	Spike	P	0 - 30
2210272	Glyphosate	1.77	Spike	P	0 - 30
2210272	Sucralose	5.49	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P390943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210999	2,4-D	1.09	Spike	P	0 - 30
2210999	Acetaminophen	14.0	Spike	P	0 - 30
2210999	Acetamiprid	8.16	Spike	P	0 - 30
2210999	Afidopyropen	8.15	Spike	P	0 - 30
2210999	Bentazon	12.9	Spike	P	0 - 30
2210999	Benzovindiflupyr	1.99	Spike	P	0 - 30
2210999	Carbamazepine	5.10	Spike	P	0 - 30
2210999	Clothianidin	3.83	Spike	P	0 - 30
2210999	Dinotefuran	14.8	Spike	P	0 - 30
2210999	Diuron	6.10	Spike	P	0 - 30
2210999	Fenuron	2.04	Spike	P	0 - 30
2210999	Fluridone	6.67	Spike	P	0 - 30
2210999	Hydrocodone	13.9	Spike	P	0 - 30
2210999	Ibuprofen	16.5	Spike	P	0 - 30
2210999	Imazapyr	11.0	Spike	P	0 - 30
2210999	Imidacloprid	15.2	Spike	P	0 - 30
2210999	Linuron	5.14	Spike	P	0 - 30
2210999	Mandestrobin	0.688	Spike	P	0 - 30
2210999	MCP	0.150	Spike	P	0 - 30
2210999	Naproxen	17.8	Spike	P	0 - 30
2210999	Primidone	1.91	Spike	P	0 - 30
2210999	Pyraclostrobin	7.13	Spike	P	0 - 30
2210999	Thiamethoxam	1.20	Spike	P	0 - 30
2210999	Tolfenpyrad	8.30	Spike	P	0 - 30
2210999	Triclopyr	4.27	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P390811

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210941	Total Alkalinity	0.271	Sample	P	0 - 8.1

Reference Method: SM 4500 F-C-2011
Batch ID: P390971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2211425	Fluoride	0.959	Spike	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P390898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2210942	Organic Carbon	0.753	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2210995
Field Sample ID: G4NW0450

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	62.3	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	38.5	P	34 - 106
EPA 8276	Decachlorobiphenyl	37.9	P	26 - 97.0
EPA 8276	PCNB	85.3	P	38 - 141

Lab Sample ID: 2210996
Field Sample ID: G4NW0451

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	62.9	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	38.7	P	34 - 106
EPA 8276	Decachlorobiphenyl	37.6	P	26 - 97.0
EPA 8276	PCNB	80.1	P	38 - 141

Lab Sample ID: 2210997
Field Sample ID: G4NW0501

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	93.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	50.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	51.6	P	30 - 160
EPA 8321B	Diuron-d6	55.8	P	30 - 160
EPA 8321B	Endothall-d6	239	F	40 - 160
EPA 8321B	Endothall-d6	239	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Ibuprofen-d3	49.9	P	30 - 160
EPA 8321B	Primidone-d5	96.7	P	30 - 160
EPA 8321B	Sucralose-d6	51.8	P	30 - 160
EPA 8321B	Sucralose-d6	51.8	P	30 - 160

Lab Sample ID: 2210998
Field Sample ID: G4NW0450

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	89.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	50.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	52.1	P	30 - 160
EPA 8321B	Diuron-d6	51.5	P	30 - 160
EPA 8321B	Endothall-d6	234	F	40 - 160
EPA 8321B	Endothall-d6	234	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Ibuprofen-d3	47.7	P	30 - 160
EPA 8321B	Primidone-d5	80.8	P	30 - 160
EPA 8321B	Sucralose-d6	52.8	P	30 - 160
EPA 8321B	Sucralose-d6	52.8	P	30 - 160

Lab Sample ID: 2210999
Field Sample ID: G4NW0451

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
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Quality Assurance Report Surrogates

Lab Sample ID: 2210999

Field Sample ID: G4NW0451

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	83.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	51.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.3	P	30 - 160
EPA 8321B	Diuron-d6	61.1	P	30 - 160
EPA 8321B	Endothall-d6	333	F	40 - 160
EPA 8321B	Endothall-d6	333	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	0.0	F	40 - 160
EPA 8321B	Ibuprofen-d3	49.2	P	30 - 160
EPA 8321B	Primidone-d5	82.9	P	30 - 160
EPA 8321B	Sucralose-d6	48.0	P	30 - 160
EPA 8321B	Sucralose-d6	48.0	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A102425
Included Lab Sample IDs: 2210943, 2210946, 2210949

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.2	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A102442
Included Lab Sample IDs: 2210942, 2210945, 2210948

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A102456
Included Lab Sample IDs: 2210941, 2210944, 2210947

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

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A102457
Included Lab Sample IDs: 2210941, 2210944, 2210947

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	103	102	P/P	95 - 105

Reference Method: SM 2320 B-2011
Run ID: A102461
Included Lab Sample IDs: 2210941, 2210944, 2210947

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.8	104	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A102470
Included Lab Sample IDs: 2210997, 2210998, 2210999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	113	107	P/P	60 - 160
AMPA	90.6	76.9	P/P	60 - 160
Endothall	79.2	102	P/P	60 - 160
Glufosinate	101	105	P/P	60 - 160
Glyphosate	95.7	94.7	P/P	60 - 160

Reference Method: SM 5310 B-2011
Run ID: A102488
Included Lab Sample IDs: 2210942, 2210945, 2210948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	97.2	P/P	90 - 110
Organic Carbon	102	100	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8321B

Run ID: A102510

Included Lab Sample IDs: 2210997, 2210998, 2210999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	97.3	97.3	P/P	60 - 160

Reference Method: SM 4500 F-C-2011

Run ID: A102518

Included Lab Sample IDs: 2210941, 2210944, 2210947

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

Reference Method: EPA 8321B

Run ID: A102532

Included Lab Sample IDs: 2210997, 2210998, 2210999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	52.8	67.3	P/P	50 - 150
2,4-D	88.8	52.8	P/P	50 - 150
Acetaminophen	80.9	82.7	P/P	60 - 160
Acetaminophen	82.7	78.2	P/P	60 - 160
Acetamiprid	113	87.6	P/P	50 - 150
Acetamiprid	75.7	113	P/P	50 - 150
Afidopyropen	90.0	94.2	P/P	50 - 150
Afidopyropen	94.2	73.3	P/P	50 - 150
Bentazon	83.3	69.2	P/P	50 - 160
Bentazon	84.4	83.3	P/P	50 - 160
Benzovindiflupyr	109	87.3	P/P	50 - 160
Benzovindiflupyr	87.3	75.8	P/P	50 - 160
Carbamazepine	101	93.3	P/P	60 - 150
Carbamazepine	102	101	P/P	60 - 150
Clothianidin	105	90.1	P/P	60 - 150
Clothianidin	94.0	105	P/P	60 - 150
Dinotefuran	105	92.0	P/P	50 - 150
Dinotefuran	92.0	92.6	P/P	50 - 150
Diuron	103	76.1	P/P	60 - 160
Diuron	76.1	82.9	P/P	60 - 160
Fenuron	108	61.5	P/P	60 - 150
Fenuron	61.5	85.6	P/P	60 - 150
Fluridone	108	85.2	P/P	60 - 160
Fluridone	85.2	77.3	P/P	60 - 160
Hydrocodone	106	85.3	P/P	60 - 150
Hydrocodone	85.3	96.8	P/P	60 - 150
Ibuprofen	77.0	83.4	P/P	50 - 160
Ibuprofen	83.4	82.0	P/P	50 - 160
Imazapyr	77.6	83.1	P/P	50 - 160
Imazapyr	83.1	84.6	P/P	50 - 160
Imidacloprid	102	60.6	P/P	60 - 150
Imidacloprid	115	102	P/P	60 - 150
Linuron	94.9	82.8	P/P	60 - 150
Linuron	98.7	94.9	P/P	60 - 150
Mandestrobin	106	92.2	P/P	50 - 150
Mandestrobin	92.2	89.6	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A102532

Included Lab Sample IDs: 2210997, 2210998, 2210999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCPP	76.4	79.1	P/P	50 - 150
MCPP	88.2	76.4	P/P	50 - 150
Naproxen	101	95.0	P/P	50 - 160
Naproxen	95.0	148	P/P	50 - 160
Primidone	92.6	97.8	P/P	60 - 150
Primidone	97.8	94.9	P/P	60 - 150
Pyraclostrobin	84.2	69.8	P/P	60 - 150
Pyraclostrobin	97.1	84.2	P/P	60 - 150
Thiamethoxam	108	119	P/P	50 - 150
Thiamethoxam	119	110	P/P	50 - 150
Tolfenpyrad	103	92.0	P/P	60 - 150
Tolfenpyrad	92.0	79.5	P/P	60 - 150
Triclopyr	74.0	81.0	P/P	50 - 150
Triclopyr	78.4	74.0	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A102536

Included Lab Sample IDs: 2210995, 2210996

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.6		P	80 - 120
Alpha-BHC	99.9		P	80 - 120
Alpha-Chlordane	99.4		P	80 - 120
Beta-BHC	98.6		P	80 - 120
Beta-Cyfluthrin	93.0		P	80 - 120
Bifenthrin	98.1		P	80 - 120
Carbophenothion	107		P	80 - 120
Chlorothalonil	113		P	80 - 120
Cis-Nonachlor	99.3		P	80 - 120
Cypermethrin	103		P	80 - 120
Dacthal	99.9		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	108		P	80 - 120
Delta-BHC	102		P	80 - 120
Deltamethrin	91.0		P	80 - 120
Dichlobenil	103		P	80 - 120
Dicofol	105		P	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	99.5		P	80 - 120
Endosulfan II	99.1		P	80 - 120
Endosulfan Sulfate	101		P	80 - 120
Endrin	96.7		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	100		P	80 - 120
Esfenvalerate	91.9		P	80 - 120
Ethalfuralin	97.5		P	80 - 120
Fenpropathrin	95.8		P	80 - 120
Gamma-BHC	99.9		P	80 - 120
Gamma-Chlordane	99.5		P	80 - 120
Heptachlor	97.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A102536

Included Lab Sample IDs: 2210995, 2210996

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Heptachlor Epoxide	98.1		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Lambda-Cyhalothrin	91.0		P	80 - 120
Methoxychlor	98.0		P	80 - 120
MGK-264	97.6		P	80 - 120
Mirex	100		P	80 - 120
Permethrin	93.8		P	80 - 120
Phenothrin	93.3		P	80 - 120
Piperonyl Butoxide	91.2		P	80 - 120
Prallethrin	91.1		P	80 - 120
Tau-Fluvalinate	94.8		P	80 - 120
Tetramethrin	97.9		P	80 - 120
Trans-Nonachlor	98.7		P	80 - 120
Triclosan Methyl	101		P	80 - 120
Trifluralin	98.2		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A102547

Included Lab Sample IDs: 2210942, 2210945, 2210948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.2	98.8	P/P	90 - 110
Kjeldahl Nitrogen	98.8	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A102553

Included Lab Sample IDs: 2210942, 2210945, 2210948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.2	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A102570

Included Lab Sample IDs: 2210942, 2210945, 2210948

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	96.8	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A102571

Included Lab Sample IDs: 2210995, 2210996

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	100		P	80 - 120
Toxaphene	81.6		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	MS
							SMP	
EPA 180.1 Rev. 2.0	Turbidity						5.51	
EPA 300.0 Rev. 2.1	Bromide	99.2		97.2	99.5			2.28
EPA 350.1 Rev. 2.0	Ammonia-N	97.0		102	102			0.130
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105		115	112			2.02
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100		99.5	99.5			0.0
EPA 365.1 Rev. 2.0	Total-P	106		105	103			1.42
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		100	100			0.200
EPA 8270E	Aldrin	47.5	53.9	54.3	47.6	12.6		13.2
	Alpha-BHC	82.3	86.1	83.8	71.6	4.61		15.7
	Alpha-Chlordane	80.0	85.4	77.6	67.9	6.56		13.4
	Beta-BHC	88.9	90.0	89.6	79.2	1.25		12.4
	Beta-Cyfluthrin	94.0	93.7	114	111	0.395		2.54
	Bifenthrin	77.3	81.9	81.4	74.3	5.83		9.08
	Carbophenothion	74.0	81.6	92.8	80.4	9.84		14.2
	Chlorothalonil	42.8	56.3	29.3	29.4	27.2		0.264
	Cis-Nonachlor	82.6	87.6	80.7	70.9	5.81		13.0
	Cypermethrin	94.8	93.6	102	95.4	1.28		6.68
	Dacthal	89.5	92.1	86.0	75.3	2.91		13.3
	DDD-p,p'	85.4	89.3	81.3	71.2	4.52		13.2
	DDE-p,p'	78.1	81.8	73.9	63.9	4.56		14.4
	DDT-p,p'	81.8	86.6	79.7	69.8	5.61		13.3
	Delta-BHC	95.9	104	143	122	7.82		16.0
	Deltamethrin	98.9	96.2	106	100	2.73		5.65
	Dichlobenil	76.7	75.1	59.9	43.9	2.03		30.8
	Dicofol	79.6	82.8	64.8	70.5	3.97		8.46
	Dieldrin	88.0	90.3	85.8	73.8	2.56		15.1
	Endosulfan I	85.4	92.7	88.7	78.2	8.17		12.7
	Endosulfan II	95.3	100	109	94.4	5.23		14.7
	Endosulfan Sulfate	104	93.0	97.5	98.4	11.2		0.948
	Endrin	88.2	90.4	85.0	73.7	2.48		14.2
	Endrin Aldehyde	88.4	94.4	88.0	54.7	6.52		46.6
	Endrin Ketone	91.5	88.3	86.9	81.7	3.59		6.23
	Esfenvalerate	81.2	84.4	88.0	75.6	3.85		15.1
	Ethalfuralin	75.0	76.9	72.0	64.3	2.55		11.4
	Fenpropathrin	83.4	88.2	227	108	5.54		71.3
	Gamma-BHC	90.7	94.4	92.9	79.6	3.95		15.4
	Gamma-Chlordane	76.7	81.9	74.4	65.5	6.60		12.8
	Heptachlor	64.5	72.4	62.2	52.2	11.6		17.6
	Heptachlor Epoxide	83.9	86.5	81.0	70.2	3.00		14.3
	Hexachlorobenzene	62.4	66.7	56.8	46.7	6.73		19.5
	Lambda-Cyhalothrin	97.6	99.3	120	116	1.76		3.22
	Methoxychlor	86.1	87.1	91.1	73.0	1.25		22.0
	MGK-264	65.0	68.8	76.6	69.6	5.74		9.48
	Mirex	62.9	69.1	65.8	60.3	9.48		8.61
	Permethrin	75.4	79.4	78.9	70.9	5.18		10.6
	Phenothrin	54.2	60.4	68.6	63.1	10.9		8.35
	Piperonyl Butoxide	88.5	88.5	90.2	86.7	0.0043		3.93
	Prallethrin	68.0	69.0	73.1	67.0	1.48		8.69
	Tau-Fluvalinate	100	102	125	117	1.97		6.12
	Tetramethrin	98.3	91.4	109	108	7.29		1.43
	Trans-Nonachlor	77.3	82.9	76.2	66.0	6.92		14.4
	Triclosan Methyl	93.5	97.6	86.8	76.0	4.36		13.2
	Trifluralin	74.1	76.5	70.9	62.1	3.18		13.3
EPA 8276	Chlordane	101	99.1	122	114	2.27		7.00

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8276	Toxaphene	75.9	72.7	85.9	85.0	4.30	0.977
EPA 8321B	2,4-D	67.5		99.7	98.6		1.09
	Acesulfame K	114		137	160		15.9
	Acetaminophen	53.8		60.1	52.3		14.0
	Acetamiprid	79.2		95.7	88.2		8.16
	Afidopyropen	62.0		77.7	71.6		8.15
	AMPA	75.6		89.8	91.0		1.26
	Bentazon	81.9		128	112		12.9
	Benzovindiflupyr	62.8		74.3	72.9		1.99
	Carbamazepine	56.9		55.1	52.1		5.10
	Clothianidin	75.5		71.5	74.3		3.83
	Dinotefuran	66.8		96.4	83.2		14.8
	Diuron	58.5		56.2	52.9		6.10
	Endothall	78.0		109	112		3.35
	Fenuron	78.0		67.2	65.9		2.04
	Fluridone	64.4		71.2	66.6		6.67
	Glufosinate	109		100	105		4.12
	Glyphosate	96.7		87.1	88.6		1.77
	Hydrocodone	95.8		111	127		13.9
	Ibuprofen	54.5		64.8	54.9		16.5
	Imazapyr	49.2		74.1	65.8		11.0
	Imidacloprid	97.5		128	109		15.2
	Linuron	59.1		65.3	62.1		5.14
	Mandestrobin	68.3		72.7	72.2		0.688
	MCPP	78.7		98.5	98.4		0.150
	Naproxen	52.5		78.0	65.2		17.8
	Primidone	76.6		83.0	81.4		1.91
	Pyraclostrobin	53.2		55.0	59.1		7.13
	Sucralose	99.1		96.3	102		5.49
	Thiamethoxam	98.5		118	116		1.20
	Tolfenpyrad	37.1		42.1	38.7		8.30
	Triclopyr	46.5		79.1	75.8		4.27
SM 2320 B-2011	Total Alkalinity	102				0.271	
SM 4500 F-C-2011	Fluoride	98.3		97.8	99.3		0.959
SM 5310 B-2011	Organic Carbon	102		99.4	98.6		0.753

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2210941, 2210944, 2210947
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2210941, 2210944, 2210947
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2210942, 2210945, 2210948
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2210942, 2210945, 2210948
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2210942, 2210945, 2210948
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2210942, 2210945, 2210948
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2210943, 2210946, 2210949
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2210995, 2210996
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2210995, 2210996
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2210997, 2210998, 2210999
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2210997, 2210998, 2210999
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2210941, 2210944, 2210947

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2210941, 2210944, 2210947
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2210941, 2210944, 2210947
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2210942, 2210945, 2210948

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	12/04/2020			12/04/2020 16:23	Blanca Fach	2210941, 2210944, 2210947
EPA 300.0 Rev. 2.1	12/04/2020			12/08/2020 18:03	Lipi Saha	2210941
	12/04/2020			12/08/2020 18:21	Lipi Saha	2210944
	12/04/2020			12/08/2020 18:39	Lipi Saha	2210947
EPA 350.1 Rev. 2.0	12/04/2020			12/13/2020 11:07	Ping Hua	2210942
	12/04/2020			12/13/2020 11:08	Ping Hua	2210945
	12/04/2020			12/13/2020 11:09	Ping Hua	2210948
EPA 351.2 Rev. 2.0	12/04/2020	12/07/2020 15:00	David Boose	12/11/2020 17:06	Julia Storbeck	2210942
	12/04/2020	12/07/2020 15:00	David Boose	12/11/2020 17:11	Julia Storbeck	2210945
	12/04/2020	12/07/2020 15:00	David Boose	12/11/2020 17:13	Julia Storbeck	2210948
EPA 353.2 Rev. 2.0	12/04/2020			12/07/2020 11:19	Beverly Y. Sanders	2210942
	12/04/2020			12/07/2020 11:20	Beverly Y. Sanders	2210945
	12/04/2020			12/07/2020 11:21	Beverly Y. Sanders	2210948
EPA 365.1 Rev. 2.0	12/04/2020	12/08/2020 17:16	Yen Ta	12/14/2020 11:57	Lipi Saha	2210942
	12/04/2020	12/08/2020 17:16	Yen Ta	12/14/2020 11:58	Lipi Saha	2210945
	12/04/2020	12/08/2020 17:16	Yen Ta	12/14/2020 11:59	Lipi Saha	2210948
EPA 365.1 Rev. 2.0 dissolved	12/04/2020			12/04/2020 16:23	Ping Hua	2210943
	12/04/2020			12/04/2020 16:26	Ping Hua	2210946
	12/04/2020			12/04/2020 16:27	Ping Hua	2210949
EPA 8270E	12/04/2020	12/09/2020 08:00	Fe-Val Siddell	12/11/2020 00:29	Arthur Maknenko	2210995
	12/04/2020	12/09/2020 08:00	Fe-Val Siddell	12/11/2020 01:01	Arthur Maknenko	2210996
EPA 8276	12/04/2020	12/09/2020 08:00	Fe-Val Siddell	12/12/2020 00:57	Michael Poppell	2210996
	12/04/2020	12/09/2020 14:00	Fe-Val Siddell	12/11/2020 23:07	Michael Poppell	2210995
EPA 8321B	12/04/2020	12/07/2020 08:30	Hoor Shaik	12/10/2020 08:21	Juyoung Kim	2210999
	12/04/2020	12/07/2020 08:30	Hoor Shaik	12/10/2020 15:51	Juyoung Kim	2210997
	12/04/2020	12/07/2020 08:30	Hoor Shaik	12/10/2020 16:26	Juyoung Kim	2210998
	12/04/2020	12/07/2020 11:00	Rebecca Ware	12/07/2020 18:39	Rebecca Ware	2210997
	12/04/2020	12/07/2020 11:00	Rebecca Ware	12/07/2020 18:53	Rebecca Ware	2210998
	12/04/2020	12/07/2020 11:00	Rebecca Ware	12/07/2020 19:07	Rebecca Ware	2210999
	12/04/2020	12/07/2020 11:00	Rebecca Ware	12/09/2020 21:02	Rebecca Ware	2210997
	12/04/2020	12/07/2020 11:00	Rebecca Ware	12/09/2020 21:14	Rebecca Ware	2210998
	12/04/2020	12/07/2020 11:00	Rebecca Ware	12/09/2020 21:25	Rebecca Ware	2210999
SM 2320 B-2011	12/04/2020			12/08/2020 00:22	Dale L. Simmons	2210941
	12/04/2020			12/08/2020 00:35	Dale L. Simmons	2210944
	12/04/2020			12/08/2020 00:48	Dale L. Simmons	2210947
SM 2540 D-2011	12/04/2020			12/09/2020 14:21	Yijie Li	2210941, 2210944, 2210947
SM 4500 F-C-2011	12/04/2020			12/09/2020 21:39	Dale L. Simmons	2210941
	12/04/2020			12/09/2020 21:44	Dale L. Simmons	2210944
	12/04/2020			12/09/2020 22:24	Dale L. Simmons	2210947
SM 5310 B-2011	12/04/2020			12/09/2020 04:54	David Boose	2210942

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	12/04/2020			12/09/2020 07:10	David Boose	2210945
	12/04/2020			12/09/2020 07:23	David Boose	2210948