

Chemical Analysis Report

NE-DIST-2021-02-12-01

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

Event Description: **LSJR Southside 2021**

Request ID: **RQ-2021-02-08-33**

Customer: **NE-DIST**

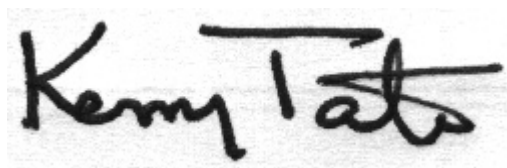
Project ID: **SMP**

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

Date Certified: 08-MAR-2021 13:16

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the top of the "T".

NON-CONFORMANCE REPORT INCLUDED

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: Cormorant Branch @ Marbon Rd

Collection Date/Time: 02/11/2021 10:45

Field ID: 20030852

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2224999	EPA 8321B	2,4-D	0.057		ug/L	P393672	
		Acesulfame K	0.10	I	ug/L	P393743	MS
		AMPA	0.29	I	ug/L	P393743	MS
		Sucralose	0.13		ug/L	P393743	
		Acetaminophen**	0.0080	U	ug/L	P393672	RPD
		Endothall	0.25	U	ug/L	P393743	
		Acetamiprid**	0.0020	U	ug/L	P393672	RPD
		Glufosinate	0.10	U	ug/L	P393743	MS
		Glyphosate	0.42		ug/L	P393743	MS
		Afidopyropen**	0.0020	U	ug/L	P393672	RPD
		Bentazon	0.024		ug/L	P393672	
		Benzovindiflupyr**	0.0020	U	ug/L	P393672	
		Carbamazepine**	8.0E-04	U	ug/L	P393672	
		Clothianidin**	0.011		ug/L	P393672	
		Dinotefuran**	0.0020	U	ug/L	P393672	
		Diuron	0.028		ug/L	P393672	
		Fenuron	0.016	U	ug/L	P393672	
		Fluridone**	0.015		ug/L	P393672	
		Imazapyr**	0.13		ug/L	P393672	
		Hydrocodone**	0.0020	U	ug/L	P393672	
		Ibuprofen**	0.020	U	ug/L	P393672	
		Imidacloprid	0.12		ug/L	P393672	
		Linuron	0.0040	U	ug/L	P393672	
		Mandestrobin**	0.0020	U	ug/L	P393672	
		MCPP	0.0055	I	ug/L	P393672	
		Naproxen**	0.0080	U	ug/L	P393672	
		Primidone**	0.0040	U	ug/L	P393672	RPD
		Pyraclostrobin**	0.0020	U	ug/L	P393672	
		Thiamethoxam**	0.0020	U	ug/L	P393672	
		Tolfenpyrad**	0.0020	U	ug/L	P393672	
		Triclopyr**	0.0040	U	ug/L	P393672	

Ref. Method and Comment:

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Miramar At San Jose

Collection Date/Time: 02/11/2021 13:40

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2224986	EPA 180.1 Rev. 2.0	Turbidity	2.3	A	NTU	P393708	
	EPA 300.0 Rev. 2.1	Chloride	31		mg Cl/L	P393882	
		Sulfate	64		mg SO4/L	P393885	
	SM 2120 B-2011	Color (true)	19		PCU	P393733	
	SM 2320 B-2011	Total Alkalinity	73		mg CaCO3/L	P393798	
	SM 2540 C-2011	TDS	255	A	mg/L	P394109	
	SM 2540 D-2011	TSS	2	IA	mg/L	P394093	
	SM 4500 F-C-2011	Fluoride	0.11		mg F/L	P393803	
2224987	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P394037	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P393894	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.79		mg N/L	P393757	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P393871	
	SM 5310 B-2011	Organic Carbon	6.3		mg C/L	P394395	
2224988	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.019		mg P/L	P393730	
2224996	EPA 8270E	Aldrin	0.79	U	ng/L	P393752	
		Dieldrin	8.1		ng/L	P393752	
		Alpha-BHC	2.1	U	ng/L	P393752	
		Kepone**	5.8	U	ng/L	P393752	
		Alpha-Chlordane	1.1	U	ng/L	P393752	
		Beta-BHC	8.4	U	ng/L	P393752	
		Beta-Cyfluthrin**	16	U	ng/L	P393752	
		Bifenthrin**	4.2	U	ng/L	P393752	
		Delta-BHC	8.4	U	ng/L	P393752	
		Gamma-BHC	8.4	U	ng/L	P393752	
		Carbophenothion	11	U	ng/L	P393752	
		Chlorothalonil	2.1	UJ	ng/L	P393752	RPD
		Cis-Nonachlor**	1.1	U	ng/L	P393752	
		Cypermethrin	21	U	ng/L	P393752	
		Dacthal**	1.1	U	ng/L	P393752	
		DDD-p,p'	5.3	U	ng/L	P393752	
		DDE-p,p'	5.3	U	ng/L	P393752	
		DDT-p,p'	6.3	U	ng/L	P393752	
		Deltamethrin**	21	U	ng/L	P393752	
		Dicofol	32	U	ng/L	P393752	
		Endosulfan I	4.2	U	ng/L	P393752	
		Endosulfan II	4.2	U	ng/L	P393752	
		Endosulfan Sulfate	2.1	U	ng/L	P393752	
		Endrin	2.1	U	ng/L	P393752	
		Endrin Aldehyde	2.1	U	ng/L	P393752	
		Endrin Ketone	2.1	U	ng/L	P393752	
		Ethalfuralin**	3.2	U	ng/L	P393752	
		Gamma-Chlordane	1.1	U	ng/L	P393752	
		Dichlobenil**	2.1	U	ng/L	P393752	

Field ID: G2NE1164

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2224996	EPA 8270E	Esfenvalerate**	21	U	ng/L	P393752	
		Fenpropathrin**	11	U	ng/L	P393752	
		Heptachlor	1.6	U	ng/L	P393752	
		Heptachlor Epoxide	2.1	U	ng/L	P393752	
		Hexachlorobenzene	2.1	U	ng/L	P393752	
		Lambda-Cyhalothrin**	16	U	ng/L	P393752	
		Methoxychlor	4.2	U	ng/L	P393752	
		Mirex	2.1	U	ng/L	P393752	
		MGK-264**	3.2	U	ng/L	P393752	
		Permethrin	11	U	ng/L	P393752	
		Phenothrin**	32	U	ng/L	P393752	
		Piperonyl Butoxide**	2.0	I	ng/L	P393752	
		Prallethrin**	26	U	ng/L	P393752	
		Tau-Fluvalinate**	3.7	U	ng/L	P393752	
		Tetramethrin**	8.4	U	ng/L	P393752	
		Trans-Nonachlor**	1.1	U	ng/L	P393752	
		Triclosan Methyl**	1.1	U	ng/L	P393752	
		Trifluralin	2.6	U	ng/L	P393752	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

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

Sample Location: Miramar Cr @ Gadsen Rd

Collection Date/Time: 02/11/2021 13:15

Field ID: 20030825

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2224997	EPA 8270E	Aldrin	0.79	U	ng/L	P393752	
		Dieldrin	3.2		ng/L	P393752	
		Alpha-BHC	2.1	U	ng/L	P393752	
		Kepone**	5.8	U	ng/L	P393752	
		Alpha-Chlordane	1.1	U	ng/L	P393752	
		Beta-BHC	8.5	U	ng/L	P393752	
		Beta-Cyfluthrin**	16	U	ng/L	P393752	
		Bifenthrin**	4.2	U	ng/L	P393752	
		Delta-BHC	8.5	U	ng/L	P393752	
		Gamma-BHC	8.5	U	ng/L	P393752	
		Carbophenothion	11	U	ng/L	P393752	
		Chlorothalonil	2.1	UJ	ng/L	P393752	RPD
		Cis-Nonachlor**	1.1	U	ng/L	P393752	
		Cypermethrin	21	U	ng/L	P393752	
		Dacthal**	1.1	U	ng/L	P393752	
		DDD-p,p'	5.3	U	ng/L	P393752	
		DDE-p,p'	5.3	U	ng/L	P393752	
		DDT-p,p'	6.3	U	ng/L	P393752	
		Deltamethrin**	21	U	ng/L	P393752	
		Dicofol	32	U	ng/L	P393752	
		Endosulfan I	4.2	U	ng/L	P393752	
		Endosulfan II	4.2	U	ng/L	P393752	
		Endosulfan Sulfate	2.1	U	ng/L	P393752	
		Endrin	2.1	U	ng/L	P393752	
		Endrin Aldehyde	2.1	U	ng/L	P393752	
		Endrin Ketone	2.1	U	ng/L	P393752	
		Ethalfuralin**	3.2	U	ng/L	P393752	
		Gamma-Chlordane	1.1	U	ng/L	P393752	
		Dichlobenil**	2.1	U	ng/L	P393752	
		Esfenvalerate**	21	U	ng/L	P393752	
		Fenpropathrin**	11	U	ng/L	P393752	
		Heptachlor	1.6	U	ng/L	P393752	
		Heptachlor Epoxide	2.1	U	ng/L	P393752	
		Hexachlorobenzene	2.1	U	ng/L	P393752	
		Lambda-Cyhalothrin**	16	U	ng/L	P393752	
		Methoxychlor	4.2	U	ng/L	P393752	
		Mirex	2.1	U	ng/L	P393752	
		MGK-264**	3.2	U	ng/L	P393752	
		Permethrin	11	U	ng/L	P393752	
		Phenothrin**	32	U	ng/L	P393752	
		Piperonyl Butoxide**	6.6		ng/L	P393752	
		Prallethrin**	26	U	ng/L	P393752	
		Tau-Fluvalinate**	3.7	U	ng/L	P393752	
		Tetramethrin**	8.5	U	ng/L	P393752	

Field ID: 20030825

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2224997	EPA 8270E	Trans-Nonachlor**	1.1	U	ng/L	P393752	
		Triclosan Methyl**	1.1	U	ng/L	P393752	
		Trifluralin	2.6	U	ng/L	P393752	
2225001	EPA 200.7 Rev. 4.4	Barium	52.9		ug/L	P393763	
		Calcium	40.2		mg/L	P393763	
		Iron	720		ug/L	P393763	
		Magnesium	9.53		mg/L	P393763	
		Manganese	72.8		ug/L	P393763	
		Potassium	2.4		mg/L	P393763	
		Sodium	19.2		mg/L	P393763	
		Zinc	7.7	I	ug/L	P393763	
	EPA 200.8 Rev. 5.4	Aluminum	26		ug/L	P393763	
		Antimony	0.15	I	ug/L	P393763	
		Arsenic	0.58		ug/L	P393763	
		Beryllium	0.042		ug/L	P393763	
		Boron**	51.2		ug/L	P393763	
		Cadmium	0.020	U	ug/L	P393763	
		Chromium	0.40	U	ug/L	P393763	
		Copper	9.28		ug/L	P393763	
		Lead	0.36	I	ug/L	P393763	
		Nickel	0.89	I	ug/L	P393763	
		Selenium	0.20	U	ug/L	P393763	
		Silver	0.010	U	ug/L	P393763	
		Thallium	0.10	U	ug/L	P393763	
	SM 2340B	Hardness	140		mg/L	P393763	

Ref. Method and Comment:

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

Sample Location: Goodbys Cr At Baymeadows

Collection Date/Time: 02/11/2021 12:35

Field ID: 20030593

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2224983	EPA 180.1 Rev. 2.0	Turbidity	6.7	A	NTU	P393727	
	EPA 300.0 Rev. 2.1	Bromide	0.33		mg Br/L	P394128	
	SM 2320 B-2011	Total Alkalinity	74		mg CaCO3/L	P393798	
	SM 2540 D-2011	TSS	4	I	mg/L	P394095	
	SM 4500 F-C-2011	Fluoride	0.10		mg F/L	P393803	
2224984	EPA 350.1 Rev. 2.0	Ammonia-N	0.084	J	mg N/L	P394037	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61	J	mg N/L	P393894	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17	J	mg N/L	P393756	
	EPA 365.1 Rev. 2.0	Total-P	0.089	J	mg P/L	P393871	
	SM 5310 B-2011	Organic Carbon	8.7	J	mg C/L	P394395	
2224985	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.033		mg P/L	P393730	
2224995	EPA 8276	Chlordane	5.4	I	ng/L	P393752	MS
		Toxaphene	31	UJ	ng/L	P393752	LCS
2224998	EPA 8321B	2,4-D	0.018		ug/L	P393672	
		Acesulfame K	0.12	I	ug/L	P393743	MS
		AMPA	0.49		ug/L	P393743	MS
		Sucralose	0.17		ug/L	P393743	
		Acetaminophen**	0.030	I	ug/L	P393672	RPD
		Endothall	0.25	U	ug/L	P393743	
		Acetamiprid**	0.0020	U	ug/L	P393672	RPD
		Glufosinate	0.10	U	ug/L	P393743	MS
		Glyphosate	0.86		ug/L	P393743	MS
		Afidopyropen**	0.0020	U	ug/L	P393672	RPD
		Bentazon	0.032		ug/L	P393672	
		Benzovindiflupyr**	0.0020	U	ug/L	P393672	
		Carbamazepine**	8.0E-04	U	ug/L	P393672	
		Clothianidin**	0.0031	I	ug/L	P393672	
		Dinotefuran**	0.0028	I	ug/L	P393672	
		Diuron	0.088		ug/L	P393672	
		Fenuron	0.016	U	ug/L	P393672	
		Fluridone**	0.0087		ug/L	P393672	
		Imazapyr**	0.53		ug/L	P393672	
		Hydrocodone**	0.0020	U	ug/L	P393672	
		Ibuprofen**	0.020	U	ug/L	P393672	
		Imidacloprid	0.051		ug/L	P393672	
		Linuron	0.0040	U	ug/L	P393672	
		Mandestrobin**	0.0020	U	ug/L	P393672	
		MCP	0.015		ug/L	P393672	
		Naproxen**	0.0080	U	ug/L	P393672	
		Primidone**	0.0040	U	ug/L	P393672	RPD
		Pyraclostrobin**	0.0020	U	ug/L	P393672	
		Thiamethoxam**	0.0020	U	ug/L	P393672	
		Tolfenpyrad**	0.0020	U	ug/L	P393672	

Field ID: 20030593

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2224998	EPA 8321B	Triclopyr**	0.0040	U	ug/L	P393672	
2225000	EPA 200.7 Rev. 4.4	Calcium	35.7		mg/L	P393763	
		Iron	1.06E+03		ug/L	P393763	
		Magnesium	10.9		mg/L	P393763	
		Manganese	25.2		ug/L	P393763	
		Zinc	6.8	I	ug/L	P393763	
	EPA 200.8 Rev. 5.4	Aluminum	114		ug/L	P393763	
		Antimony	0.23		ug/L	P393763	
		Arsenic	2.34		ug/L	P393763	
		Beryllium	0.018	I	ug/L	P393763	
		Cadmium	0.020	U	ug/L	P393763	
		Chromium	0.46	I	ug/L	P393763	
		Copper	2.05		ug/L	P393763	
		Lead	0.54		ug/L	P393763	
		Nickel	0.50	U	ug/L	P393763	
		Selenium	0.20	U	ug/L	P393763	
		Silver	0.010	U	ug/L	P393763	
		Thallium	0.10	U	ug/L	P393763	

Ref. Method and Comment:

EPA 350.1 Rev. 2.0: Sample integrity may be compromised because of sample spill.

EPA 351.2 Rev. 2.0: Sample integrity may be compromised because of sample spill.

EPA 353.2 Rev. 2.0: Sample integrity may be compromised because of sample spill.

EPA 365.1 Rev. 2.0: Total-P: Sample integrity may be compromised because of sample spill.

SM 5310 B-2011: Sample integrity may be compromised because of sample spill.

EPA 8276: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Non-Conformance Report

NCR ID: 8653

Event(s)

NE-DIST-2021-02-12-01

Job(s)

TLH-2021-02-12-15

Sample(s)

2224984

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Receiving

Observation: Sample tipped over while checking pH during login on 2/12/2021, approximately 30% of sample volume was lost.
Sample integrity compromised.

Resolution: The appropriate supervisor was contacted. Data will be qualified as appropriate.

Authorized by/Date: Joshua Ayres 2/17/2021

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P393708

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P393727

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P393763

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
Manganese	1.0	U	ug/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: P393763

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
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: P393882

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P393885

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394128

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394037

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P393894

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393756

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393757

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P393871

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P393730

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

Reference Method: EPA 8270E
Batch ID: P393752

Component	Result	Code	Units
Aldrin	0.75	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: P393752

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	0.40	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
Kepone	5.5	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: P393752

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

Reference Method: EPA 8321B

Batch ID: P393672

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P393672

Component	Result	Code	Units
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: EPA 8321B

Batch ID: P393743

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: SM 2120 B-2011

Batch ID: P393733

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P393798

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

Reference Method: SM 2540 C-2011

Batch ID: P394109

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P394093

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P394095

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P393803

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P394395

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: P393763

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	103		P	85 - 115
Iron	106		P	85 - 115
Magnesium	103		P	85 - 115
Manganese	99.2		P	85 - 115
Potassium	101		P	85 - 115
Sodium	100		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P393763

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	105		P	85 - 115
Antimony	109		P	85 - 115
Arsenic	104		P	85 - 115
Beryllium	95.1		P	85 - 115
Boron	103		P	85 - 115
Cadmium	98.9		P	85 - 115
Chromium	99.2		P	85 - 115
Copper	102		P	85 - 115
Lead	108		P	85 - 115
Nickel	101		P	85 - 115
Selenium	104		P	85 - 115
Silver	98.8		P	85 - 115
Thallium	105		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P393882

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P393885

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394128

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394037

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P393894

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P393756

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P393757

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: P393871

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P393730

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.9		P	90 - 110

Reference Method: EPA 8270E

Batch ID: P393752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	44.2	44.7	P/P	20 - 110
Alpha-BHC	80.6	82.3	P/P	58 - 130
Alpha-Chlordane	90.5	89.3	P/P	61 - 105
Beta-BHC	94.9	101	P/P	53 - 164
Beta-Cyfluthrin	105	82.4	P/P	40 - 140
Bifenthrin	82.4	72.5	P/P	44 - 122
Carbophenothion	72.0	69.4	P/P	20 - 161
Chlorothalonil	96.3	62.6	P/P	20 - 201
Cis-Nonachlor	95.1	93.7	P/P	60 - 110
Cypermethrin	75.5	66.8	P/P	43 - 131
Dacthal	97.4	98.4	P/P	76 - 108
DDD-p,p'	104	101	P/P	68 - 118
DDE-p,p'	82.6	83.4	P/P	56 - 107
DDT-p,p'	90.4	86.6	P/P	55 - 122
Delta-BHC	116	102	P/P	60 - 181
Deltamethrin	99.3	89.1	P/P	51 - 139
Dichlobenil	39.0	45.5	P/P	20 - 106
Dicofol	117	116	P/P	56 - 130
Dieldrin	89.2	88.0	P/P	58 - 112
Endosulfan I	93.9	85.0	P/P	68 - 115
Endosulfan II	132	108	P/P	69 - 133
Endosulfan Sulfate	89.7	82.6	P/P	65 - 126

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P393752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	86.4	90.7	P/P	66 - 118
Endrin Aldehyde	102	98.6	P/P	60 - 132
Endrin Ketone	94.9	92.9	P/P	68 - 121
Esfenvalerate	94.5	79.5	P/P	42 - 116
Ethalfuralin	80.8	79.9	P/P	50 - 118
Fenpropathrin	117	97.2	P/P	55 - 132
Gamma-BHC	94.2	95.4	P/P	65 - 147
Gamma-Chlordane	86.3	85.7	P/P	56 - 103
Heptachlor	65.2	63.5	P/P	47 - 95.0
Heptachlor Epoxide	90.7	89.8	P/P	67 - 107
Hexachlorobenzene	62.8	64.0	P/P	45 - 99.0
Kepone	110	117	P/P	28 - 128
Lambda-Cyhalothrin	97.1	71.8	P/P	41 - 135
Methoxychlor	101	98.2	P/P	61 - 138
MGK-264	62.7	66.9	P/P	20 - 109
Mirex	62.3	60.0	P/P	36 - 92.0
Permethrin	78.4	70.3	P/P	45 - 111
Phenothrin	52.8	44.4	P/P	22 - 88.0
Piperonyl Butoxide	108	106	P/P	67 - 120
Prallethrin	73.7	70.9	P/P	28 - 92.0
Tau-Fluvalinate	101	80.8	P/P	38 - 145
Tetramethrin	122	123	P/P	29 - 150
Trans-Nonachlor	85.0	85.0	P/P	54 - 105
Triclosan Methyl	102	105	P/P	76 - 115
Trifluralin	78.2	79.5	P/P	53 - 111

Reference Method: EPA 8276

Batch ID: P393752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	107	100	P/P	56 - 117
Toxaphene	128	120	F/F	45 - 116

Reference Method: EPA 8321B

Batch ID: P393672

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	95.6		P	30 - 160
Acetaminophen	148		P	30 - 160
Acetamiprid	86.9		P	30 - 160
Afidopyropen	72.0		P	30 - 160
Bentazon	89.3		P	30 - 160
Benzovindiflupyr	76.9		P	30 - 160
Carbamazepine	106		P	30 - 160
Clothianidin	90.2		P	30 - 160
Dinotefuran	82.1		P	30 - 160
Diuron	63.8		P	30 - 160
Fenuron	97.7		P	30 - 160
Fluridone	82.4		P	30 - 160
Hydrocodone	89.6		P	30 - 160
Ibuprofen	86.6		P	30 - 160
Imazapyr	97.9		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P393672

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imidacloprid	93.7		P	30 - 160
Linuron	69.0		P	30 - 160
Mandestrobin	81.5		P	30 - 160
MCP	97.0		P	30 - 160
Naproxen	52.5		P	30 - 160
Primidone	88.8		P	30 - 160
Pyraclostrobin	75.5		P	30 - 160
Thiamethoxam	83.4		P	30 - 160
Tolfenpyrad	45.0		P	30 - 160
Triclopyr	86.2		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P393743

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	96.6		P	40 - 150
AMPA	115		P	40 - 150
Endothall	143		P	40 - 150
Glufosinate	127		P	40 - 150
Glyphosate	114		P	40 - 140
Sucralose	98.0		P	40 - 150

Reference Method: SM 2120 B-2011
Batch ID: P393733

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	95.7		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P393798

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.9		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P393803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.6		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P394395

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P393763

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225001	Barium	106	107	P/P	80 - 120
2225001	Calcium	102		P	80 - 120
2225001	Iron	109	107	P/P	80 - 120
2225001	Magnesium	102		P	80 - 120
2225001	Manganese	104	104	P/P	80 - 120
2225001	Potassium	102	101	P/P	80 - 120
2225001	Sodium	100		P	80 - 120
2225001	Zinc	101	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P393763

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225001	Aluminum	104	102	P/P	80 - 120
2225001	Antimony	109	109	P/P	80 - 120
2225001	Arsenic	103	102	P/P	80 - 120
2225001	Beryllium	92.2	89.3	P/P	80 - 120
2225001	Boron	106	106	P/P	80 - 120
2225001	Cadmium	97.4	99.2	P/P	80 - 120
2225001	Chromium	97.6	98.3	P/P	80 - 120
2225001	Copper	96.6	97.6	P/P	80 - 120
2225001	Lead	107	107	P/P	80 - 120
2225001	Nickel	95.6	95.0	P/P	80 - 120
2225001	Selenium	99.6	98.9	P/P	80 - 120
2225001	Silver	100	101	P/P	80 - 120
2225001	Thallium	107	107	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P393882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224866	Chloride	106		P	90 - 110
2224986	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P393885

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224866	Sulfate	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P394128

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225457	Bromide	97.0	98.2	P/P	90 - 110
2225595	Bromide	96.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P394037

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225011	Ammonia-N	92.6	95.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P393894

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224979	Kjeldahl Nitrogen	92.8	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393756

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224890	NO2NO3-N	99.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393757

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225007	NO2NO3-N	99.2	98.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P393871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225007	Total-P	107	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P393730

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225111	O-Phosphate-P	97.4	98.2	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P393752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225254	Alpha-BHC	73.8	84.3	P/P	53 - 147
2225254	Alpha-Chlordane	82.7	85.7	P/P	56 - 107
2225254	Beta-BHC	95.1	101	P/P	43 - 182
2225254	Beta-Cyfluthrin	74.5	94.7	P/P	42 - 157
2225254	Bifenthrin	81.0	88.5	P/P	52 - 124
2225254	Carbophenothion	67.8	77.6	P/P	40 - 172
2225254	Chlorothalonil	81.4	95.8	P/P	10 - 265
2225254	Cis-Nonachlor	84.1	90.4	P/P	55 - 112
2225254	Cypermethrin	61.6	79.1	P/P	46 - 144
2225254	Dacthal	91.1	90.9	P/P	72 - 110
2225254	DDD-p,p'	88.7	93.1	P/P	58 - 123
2225254	DDE-p,p'	77.0	82.4	P/P	52 - 106
2225254	DDT-p,p'	84.6	89.2	P/P	50 - 127
2225254	Delta-BHC	110	133	P/P	56 - 222
2225254	Deltamethrin	82.9	100	P/P	47 - 152
2225254	Dichlobenil	40.0	36.4	P/P	22 - 99.0
2225254	Dicofol	97.9	96.7	P/P	38 - 145
2225254	Endosulfan I	84.8	87.5	P/P	64 - 124
2225254	Endosulfan II	95.0	106	P/P	52 - 159
2225254	Endosulfan Sulfate	71.2	81.0	P/P	62 - 136
2225254	Endrin	96.6	98.5	P/P	57 - 126
2225254	Endrin Aldehyde	91.3	100	P/P	41 - 128

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P393752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225254	Endrin Ketone	87.9	90.4	P/P	67 - 129
2225254	Esfenvalerate	79.1	97.1	P/P	50 - 120
2225254	Ethalfuralin	75.4	77.1	P/P	41 - 125
2225254	Fenpropathrin	95.9	119	P/P	40 - 202
2225254	Gamma-BHC	110	115	P/P	58 - 180
2225254	Gamma-Chlordane	77.2	81.3	P/P	54 - 103
2225254	Heptachlor	59.7	65.0	P/P	46 - 94.0
2225254	Heptachlor Epoxide	82.1	87.1	P/P	62 - 111
2225254	Hexachlorobenzene	60.1	65.8	P/P	42 - 95.0
2225254	Lambda-Cyhalothrin	79.4	99.3	P/P	37 - 162
2225254	Methoxychlor	96.9	103	P/P	52 - 143
2225254	MGK-264	54.3	67.5	P/P	37 - 102
2225254	Mirex	64.6	70.3	P/P	43 - 91.0
2225254	Permethrin	69.5	80.1	P/P	48 - 113
2225254	Phenothrin	48.5	65.5	P/P	30 - 104
2225254	Piperonyl Butoxide	98.0	113	P/P	67 - 127
2225254	Prallethrin	52.2	66.3	P/P	28 - 102
2225254	Tau-Fluvalinate	80.6	96.0	P/P	46 - 174
2225254	Tetramethrin	125	111	P/P	28 - 176
2225254	Trans-Nonachlor	77.6	82.3	P/P	51 - 103
2225254	Triclosan Methyl	92.3	96.0	P/P	67 - 116
2225254	Trifluralin	74.4	76.8	P/P	47 - 118
2225283	Aldrin	70.9	60.5	P/P	22 - 127
2225283	Dieldrin	91.3	81.6	P/P	52 - 123
2225283	Kepone	70.8	78.1	P/P	18 - 138

Reference Method: EPA 8276

Batch ID: P393752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2225283	Chlordane	142	114	F/P	47 - 128
2225283	Toxaphene	161	147	P/P	11 - 163

Reference Method: EPA 8321B

Batch ID: P393672

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224683	2,4-D	74.4	75.3	P/P	30 - 160
2224683	Acetaminophen	148	104	P/P	30 - 160
2224683	Acetamiprid	57.5	96.6	P/P	30 - 160
2224683	Afidopyropen	45.1	79.1	P/P	30 - 160
2224683	Benzovindiflupyr	65.1	70.2	P/P	30 - 160
2224683	Carbamazepine	69.5	76.1	P/P	30 - 160
2224683	Clothianidin	81.6	86.7	P/P	30 - 160
2224683	Dinotefuran	86.3	92.7	P/P	30 - 160
2224683	Diuron	46.5	47.6	P/P	30 - 160
2224683	Fenuron	61.5	68.8	P/P	30 - 160
2224683	Hydrocodone	84.6	88.6	P/P	30 - 160
2224683	Ibuprofen	73.9	74.2	P/P	30 - 160
2224683	Imidacloprid	122	129	P/P	30 - 160
2224683	Linuron	60.6	57.8	P/P	30 - 160
2224683	Mandestrobin	69.3	75.2	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P393672

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224683	MCP	74.9	85.5	P/P	30 - 160
2224683	Naproxen	70.9	53.6	P/P	30 - 160
2224683	Primidone	62.4	88.5	P/P	30 - 160
2224683	Pyraclostrobin	72.7	78.4	P/P	30 - 160
2224683	Thiamethoxam	97.4	110	P/P	30 - 160
2224683	Tolfenpyrad	41.7	44.4	P/P	30 - 160
2224683	Triclopyr	77.0	87.4	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P393743

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224945	Acesulfame K	5.72	5.08	F/F	40 - 150
2224945	AMPA	12.2	11.8	F/F	40 - 150
2224945	Endothall	139	139	P/P	40 - 150
2224945	Glufosinate	9.96	9.16	F/F	40 - 150
2224945	Glyphosate	493	517	F/F	40 - 140
2224945	Sucralose	81.2	92.5	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P393803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224966	Fluoride	96.8	96.8	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P394395

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2224940	Organic Carbon	91.4		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P393708

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224986	Turbidity	1.75	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P393727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224983	Turbidity	3.27	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P393763

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225001	Barium	1.19	Spike	P	0 - 20
2225001	Calcium	0.738	Spike	P	0 - 20
2225001	Iron	2.13	Spike	P	0 - 20
2225001	Magnesium	1.70	Spike	P	0 - 20
2225001	Manganese	0.0172	Spike	P	0 - 20
2225001	Potassium	0.791	Spike	P	0 - 20
2225001	Sodium	0.592	Spike	P	0 - 20
2225001	Zinc	1.27	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P393763

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225001	Aluminum	1.69	Spike	P	0 - 20
2225001	Antimony	0.0332	Spike	P	0 - 20
2225001	Arsenic	1.07	Spike	P	0 - 20
2225001	Beryllium	2.83	Spike	P	0 - 20
2225001	Boron	0.190	Spike	P	0 - 20
2225001	Cadmium	1.76	Spike	P	0 - 20
2225001	Chromium	0.795	Spike	P	0 - 20
2225001	Copper	0.668	Spike	P	0 - 20
2225001	Lead	0.134	Spike	P	0 - 20
2225001	Nickel	0.535	Spike	P	0 - 20
2225001	Selenium	0.767	Spike	P	0 - 20
2225001	Silver	0.836	Spike	P	0 - 20
2225001	Thallium	0.255	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P393882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224866	Chloride	0.00940	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P393885

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224866	Sulfate	1.00	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P394128

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225457	Bromide	1.19	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P394037

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225011	Ammonia-N	2.26	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P393894

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224979	Kjeldahl Nitrogen	4.24	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224890	NO2NO3-N	0.404	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P393757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225007	NO2NO3-N	0.494	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P393871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225007	Total-P	0.690	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P393730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225111	O-Phosphate-P	0.818	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P393752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225254	Alpha-BHC	13.2	Spike	P	0 - 30
2225254	Alpha-Chlordane	3.61	Spike	P	0 - 30
2225254	Beta-BHC	6.16	Spike	P	0 - 30
2225254	Beta-Cyfluthrin	24.0	Spike	P	0 - 30
2225254	Bifenthrin	8.86	Spike	P	0 - 30
2225254	Carbophenothion	13.5	Spike	P	0 - 30
2225254	Chlorothalonil	16.2	Spike	P	0 - 30
2225254	Cis-Nonachlor	7.24	Spike	P	0 - 30
2225254	Cypermethrin	24.8	Spike	P	0 - 30
2225254	Dacthal	0.281	Spike	P	0 - 30
2225254	DDD-p,p'	4.83	Spike	P	0 - 30
2225254	DDE-p,p'	6.89	Spike	P	0 - 30
2225254	DDT-p,p'	5.25	Spike	P	0 - 30
2225254	Delta-BHC	18.6	Spike	P	0 - 30
2225254	Deltamethrin	19.2	Spike	P	0 - 30
2225254	Dichlobenil	9.39	Spike	P	0 - 30
2225254	Dicofol	1.25	Spike	P	0 - 30
2225254	Endosulfan I	3.10	Spike	P	0 - 30
2225254	Endosulfan II	10.6	Spike	P	0 - 30
2225254	Endosulfan Sulfate	13.0	Spike	P	0 - 30
2225254	Endrin	1.91	Spike	P	0 - 30
2225254	Endrin Aldehyde	9.16	Spike	P	0 - 30
2225254	Endrin Ketone	2.80	Spike	P	0 - 30
2225254	Esfenvalerate	20.4	Spike	P	0 - 30
2225254	Ethalfuralin	2.24	Spike	P	0 - 30
2225254	Fenpropathrin	21.4	Spike	P	0 - 30
2225254	Gamma-BHC	4.36	Spike	P	0 - 30
2225254	Gamma-Chlordane	5.11	Spike	P	0 - 30
2225254	Heptachlor	8.45	Spike	P	0 - 30
2225254	Heptachlor Epoxide	4.99	Spike	P	0 - 30
2225254	Hexachlorobenzene	9.16	Spike	P	0 - 30
2225254	Lambda-Cyhalothrin	22.2	Spike	P	0 - 30
2225254	Methoxychlor	6.21	Spike	P	0 - 30
2225254	MGK-264	21.6	Spike	P	0 - 30
2225254	Mirex	8.39	Spike	P	0 - 30
2225254	Permethrin	14.2	Spike	P	0 - 30
2225254	Phenothrin	29.7	Spike	P	0 - 30
2225254	Piperonyl Butoxide	14.2	Spike	P	0 - 30
2225254	Prallethrin	23.8	Spike	P	0 - 30
2225254	Tau-Fluvalinate	17.5	Spike	P	0 - 30
2225254	Tetramethrin	12.1	Spike	P	0 - 30
2225254	Trans-Nonachlor	5.94	Spike	P	0 - 30
2225254	Triclosan Methyl	3.86	Spike	P	0 - 30
2225254	Trifluralin	3.19	Spike	P	0 - 30
2225283	Aldrin	15.8	Spike	P	0 - 30
2225283	Dieldrin	11.2	Spike	P	0 - 30
2225283	Kepone	9.80	Spike	P	0 - 30
LFB	Aldrin	1.08	LCS	P	0 - 30
LFB	Alpha-BHC	2.07	LCS	P	0 - 30
LFB	Alpha-Chlordane	1.39	LCS	P	0 - 30
LFB	Beta-BHC	5.92	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P393752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Beta-Cyfluthrin	24.3	LCS	P	0 - 30
LFB	Bifenthrin	12.8	LCS	P	0 - 30
LFB	Carbophenothion	3.71	LCS	P	0 - 30
LFB	Chlorothalonil	42.4	LCS	F	0 - 30
LFB	Cis-Nonachlor	1.46	LCS	P	0 - 30
LFB	Cypermethrin	12.2	LCS	P	0 - 30
LFB	Dacthal	1.05	LCS	P	0 - 30
LFB	DDD-p,p'	2.79	LCS	P	0 - 30
LFB	DDE-p,p'	0.973	LCS	P	0 - 30
LFB	DDT-p,p'	4.33	LCS	P	0 - 30
LFB	Delta-BHC	13.1	LCS	P	0 - 30
LFB	Deltamethrin	10.9	LCS	P	0 - 30
LFB	Dichlobenil	15.3	LCS	P	0 - 30
LFB	Dicofol	0.828	LCS	P	0 - 30
LFB	Dieldrin	1.41	LCS	P	0 - 30
LFB	Endosulfan I	10.0	LCS	P	0 - 30
LFB	Endosulfan II	19.8	LCS	P	0 - 30
LFB	Endosulfan Sulfate	8.26	LCS	P	0 - 30
LFB	Endrin	4.82	LCS	P	0 - 30
LFB	Endrin Aldehyde	3.52	LCS	P	0 - 30
LFB	Endrin Ketone	2.18	LCS	P	0 - 30
LFB	Esfenvalerate	17.3	LCS	P	0 - 30
LFB	Ethalfuralin	1.10	LCS	P	0 - 30
LFB	Fenpropathrin	18.3	LCS	P	0 - 30
LFB	Gamma-BHC	1.34	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.652	LCS	P	0 - 30
LFB	Heptachlor	2.63	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.10	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.89	LCS	P	0 - 30
LFB	Kepone	5.89	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	29.9	LCS	P	0 - 30
LFB	Methoxychlor	2.51	LCS	P	0 - 30
LFB	MGK-264	6.53	LCS	P	0 - 30
LFB	Mirex	3.77	LCS	P	0 - 30
LFB	Permethrin	10.8	LCS	P	0 - 30
LFB	Phenothrin	17.2	LCS	P	0 - 30
LFB	Piperonyl Butoxide	2.67	LCS	P	0 - 30
LFB	Prallethrin	3.87	LCS	P	0 - 30
LFB	Tau-Fluvalinate	22.1	LCS	P	0 - 30
LFB	Tetramethrin	0.631	LCS	P	0 - 30
LFB	Trans-Nonachlor	0.0963	LCS	P	0 - 30
LFB	Triclosan Methyl	2.60	LCS	P	0 - 30
LFB	Trifluralin	1.61	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P393752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225283	Chlordane	21.5	Spike	P	0 - 30
2225283	Toxaphene	8.76	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P393752

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Chlordane	6.84	LCS	P	0 - 30
LFB	Toxaphene	6.76	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P393672

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224683	2,4-D	1.12	Spike	P	0 - 30
2224683	Acetaminophen	35.1	Spike	F	0 - 30
2224683	Acetamiprid	50.8	Spike	F	0 - 30
2224683	Afidopyropen	54.7	Spike	F	0 - 30
2224683	Bentazon	0.00733	Spike	P	0 - 30
2224683	Benzovindiflupyr	7.60	Spike	P	0 - 30
2224683	Carbamazepine	8.36	Spike	P	0 - 30
2224683	Clothianidin	6.03	Spike	P	0 - 30
2224683	Dinotefuran	7.16	Spike	P	0 - 30
2224683	Diuron	2.41	Spike	P	0 - 30
2224683	Fenuron	11.3	Spike	P	0 - 30
2224683	Fluridone	6.25	Spike	P	0 - 30
2224683	Hydrocodone	4.64	Spike	P	0 - 30
2224683	Ibuprofen	0.424	Spike	P	0 - 30
2224683	Imazapyr	13.5	Spike	P	0 - 30
2224683	Imidacloprid	5.25	Spike	P	0 - 30
2224683	Linuron	4.72	Spike	P	0 - 30
2224683	Mandestrobin	8.17	Spike	P	0 - 30
2224683	MCP	13.3	Spike	P	0 - 30
2224683	Naproxen	27.9	Spike	P	0 - 30
2224683	Primidone	34.5	Spike	F	0 - 30
2224683	Pyraclostrobin	7.57	Spike	P	0 - 30
2224683	Thiamethoxam	11.8	Spike	P	0 - 30
2224683	Tolfenpyrad	6.33	Spike	P	0 - 30
2224683	Triclopyr	12.7	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P393743

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224945	Acesulfame K	11.9	Spike	P	0 - 30
2224945	AMPA	3.66	Spike	P	0 - 30
2224945	Endothall	0.576	Spike	P	0 - 30
2224945	Glufosinate	8.37	Spike	P	0 - 30
2224945	Glyphosate	4.72	Spike	P	0 - 30
2224945	Sucralose	11.3	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P393733

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 2120 B-2011
Batch ID: P393733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2225138	Color (true)	0.665	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P393798

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224966	Total Alkalinity	2.93	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
Batch ID: P394109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224986	TDS	2.35	Sample	P	0 - 10

Reference Method: SM 2540 D-2011
Batch ID: P394095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224811	TSS	5.13	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P393803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224966	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P394395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2224940	Organic Carbon	1.84	Sample	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2224995
Field Sample ID: 20030593

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	51.4	P	29 - 92.0
EPA 8276	PCNB	103	P	43 - 134

Lab Sample ID: 2224996
Field Sample ID: G2NE1164

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	70.8	P	40 - 123
EPA 8270E	Decachlorobiphenyl	91.1	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	38.5	P	31 - 100
EPA 8270E	Tetrachloro-m-xylene	40.0	P	33 - 102

Lab Sample ID: 2224997
Field Sample ID: 20030825

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	70.9	P	40 - 123
EPA 8270E	Decachlorobiphenyl	82.7	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	40.4	P	31 - 100
EPA 8270E	Tetrachloro-m-xylene	42.4	P	33 - 102

Lab Sample ID: 2224998
Field Sample ID: 20030593

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	95.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	107	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.1	P	30 - 160
EPA 8321B	Diuron-d6	62.7	P	30 - 160
EPA 8321B	Endothall-d6	136	P	30 - 160
EPA 8321B	Endothall-d6	136	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	123	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	123	P	30 - 160
EPA 8321B	Ibuprofen-d3	68.8	P	30 - 160
EPA 8321B	Primidone-d5	90.7	P	30 - 160
EPA 8321B	Sucralose-d6	96.2	P	30 - 160
EPA 8321B	Sucralose-d6	96.2	P	30 - 160

Lab Sample ID: 2224999
Field Sample ID: 20030852

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	121	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.4	P	30 - 160
EPA 8321B	Diuron-d6	60.2	P	30 - 160
EPA 8321B	Endothall-d6	119	P	30 - 160
EPA 8321B	Endothall-d6	119	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	114	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.5	P	30 - 160
EPA 8321B	Primidone-d5	94.8	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2224999
Field Sample ID: 20030852

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	94.5	P	30 - 160
EPA 8321B	Sucralose-d6	94.5	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A103560

Included Lab Sample IDs: 2224986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	101	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A103561

Included Lab Sample IDs: 2224998, 2224999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.4	98.8	P/P	50 - 150
Acetaminophen	112	107	P/P	60 - 160
Acetamiprid	108	107	P/P	50 - 150
Afidopyropen	111	99.3	P/P	50 - 150
Bentazon	139	139	P/P	50 - 160
Benzovindiflupyr	98.3	107	P/P	50 - 160
Carbamazepine	117	114	P/P	60 - 150
Clothianidin	95.4	94.3	P/P	60 - 150
Dinotefuran	102	102	P/P	50 - 150
Diuron	105	112	P/P	60 - 160
Fenuron	103	104	P/P	60 - 150
Fluridone	115	128	P/P	60 - 160
Hydrocodone	107	105	P/P	60 - 150
Ibuprofen	81.7	131	P/P	50 - 160
Imazapyr	118	88.9	P/P	50 - 160
Imidacloprid	99.8	101	P/P	60 - 150
Linuron	107	110	P/P	60 - 150
Mandestrobin	104	112	P/P	50 - 150
MCPP	107	109	P/P	50 - 150
Naproxen	87.5	77.2	P/P	50 - 160
Primidone	92.0	96.4	P/P	60 - 150
Pyraclostrobin	105	108	P/P	60 - 150
Thiamethoxam	95.9	102	P/P	50 - 150
Tolfenpyrad	101	100	P/P	60 - 150
Triclopyr	106	108	P/P	50 - 150

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A103563

Included Lab Sample IDs: 2224983

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	101	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A103565

Included Lab Sample IDs: 2224985, 2224988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	99.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B-2011

Run ID: A103566

Included Lab Sample IDs: 2224986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	96.9	99.4	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A103580

Included Lab Sample IDs: 2224984, 2224987

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	106	106	P/P	90 - 110
NO2NO3-N	106	106	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A103596

Included Lab Sample IDs: 2224983, 2224986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	92.7	97.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A103596

Included Lab Sample IDs: 2224983, 2224986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	98.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A103617

Included Lab Sample IDs: 2225000, 2225001

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	104	105	P/P	90 - 110
Calcium	102	102	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	102	103	P/P	90 - 110
Manganese	101	101	P/P	90 - 110
Potassium	99.0	101	P/P	90 - 110
Sodium	98.5	100	P/P	90 - 110
Zinc	102	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A103625

Included Lab Sample IDs: 2224998, 2224999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	83.2	74.4	P/P	60 - 160
AMPA	113	103	P/P	40 - 160
Endothall	134	147	P/P	60 - 160
Glufosinate	104	117	P/P	60 - 200
Glyphosate	133	113	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A103628

Included Lab Sample IDs: 2224986

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A103634

Included Lab Sample IDs: 2224987

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A103641

Included Lab Sample IDs: 2224984

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.6	98.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A103647

Included Lab Sample IDs: 2224998, 2224999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	98.2	101	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A103666

Included Lab Sample IDs: 2224984, 2224987

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.7	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A103698

Included Lab Sample IDs: 2224984, 2224987

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.7	99.4	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A103699

Included Lab Sample IDs: 2224996, 2224997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-BHC	100		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	99.9		P	80 - 120
Beta-Cyfluthrin	86.2		P	80 - 120
Bifenthrin	97.7		P	80 - 120
Carbophenothion	96.6		P	80 - 120
Chlorothalonil	108		P	80 - 120
Cis-Nonachlor	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A103699

Included Lab Sample IDs: 2224996, 2224997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cypermethrin	85.1		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	104		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	107		P	80 - 120
Delta-BHC	103		P	80 - 120
Deltamethrin	94.4		P	80 - 120
Dichlobenil	96.3		P	80 - 120
Dicofol	95.6		P	80 - 120
Endosulfan I	98.8		P	80 - 120
Endosulfan II	87.1		P	80 - 120
Endosulfan Sulfate	80.5		P	80 - 120
Endrin	98.3		P	80 - 120
Endrin Aldehyde	95.1		P	80 - 120
Endrin Ketone	95.7		P	80 - 120
Esfenvalerate	91.9		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	88.8		P	80 - 120
Gamma-BHC	104		P	80 - 120
Gamma-Chlordane	99.8		P	80 - 120
Heptachlor	93.6		P	80 - 120
Heptachlor Epoxide	98.3		P	80 - 120
Hexachlorobenzene	98.6		P	80 - 120
Lambda-Cyhalothrin	87.4		P	80 - 120
Methoxychlor	107		P	80 - 120
MGK-264	100		P	80 - 120
Mirex	91.5		P	80 - 120
Permethrin	88.2		P	80 - 120
Phenothrin	83.4		P	80 - 120
Piperonyl Butoxide	96.2		P	80 - 120
Prallethrin	93.6		P	80 - 120
Tau-Fluvalinate	93.3		P	80 - 120
Tetramethrin	117		P	80 - 120
Trans-Nonachlor	97.6		P	80 - 120
Triclosan Methyl	103		P	80 - 120
Trifluralin	97.3		P	80 - 120

Reference Method: EPA 8270E

Run ID: A103700

Included Lab Sample IDs: 2224996, 2224997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Dieldrin	98.2		P	80 - 120
Kepone	106		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A103734

Included Lab Sample IDs: 2224983

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A103734

Included Lab Sample IDs: 2224983

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	95.3	96.1	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A103753

Included Lab Sample IDs: 2224995

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.9		P	80 - 120
Toxaphene	90.1		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A103807

Included Lab Sample IDs: 2225000, 2225001

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	103	103	P/P	90 - 110
Antimony	103	103	P/P	90 - 110
Arsenic	100	100	P/P	90 - 110
Arsenic	101	100	P/P	90 - 110
Beryllium	95.3	95.5	P/P	90 - 110
Beryllium	98.1	95.3	P/P	90 - 110
Boron	99.7	109	P/P	90 - 110
Cadmium	99.7	99.9	P/P	90 - 110
Cadmium	99.9	99.7	P/P	90 - 110
Chromium	96.5	96.6	P/P	90 - 110
Chromium	98.5	96.5	P/P	90 - 110
Copper	97.8	99.1	P/P	90 - 110
Copper	99.7	97.8	P/P	90 - 110
Lead	104	105	P/P	90 - 110
Lead	105	105	P/P	90 - 110
Nickel	100	97.2	P/P	90 - 110
Nickel	97.2	98.1	P/P	90 - 110
Selenium	100	99.1	P/P	90 - 110
Selenium	102	100	P/P	90 - 110
Thallium	106	107	P/P	90 - 110
Thallium	107	106	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A103828

Included Lab Sample IDs: 2225000, 2225001

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	91.4	98.4	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A103849

Included Lab Sample IDs: 2224984, 2224987

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.4	94.6	P/P	90 - 110
Organic Carbon	94.6	94.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A103868

Included Lab Sample IDs: 2225000, 2225001

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	101	97.7	P/P	90 - 110
Silver	102	101	P/P	90 - 110

* 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						1.75	
	Turbidity						3.27	
EPA 200.7 Rev. 4.4	Barium	102		106	107			1.19
	Calcium	103		102				0.738
	Iron	106		109	107			2.13
	Magnesium	103		102				1.70
	Manganese	99.2		104	104			0.0172
	Potassium	101		102	101			0.791
	Sodium	100		100				0.592
	Zinc	100		101	102			1.27
EPA 200.8 Rev. 5.4	Aluminum	105		104	102			1.69
	Antimony	109		109	109			0.0332
	Arsenic	104		103	102			1.07
	Beryllium	95.1		92.2	89.3			2.83
	Boron	103		106	106			0.190
	Cadmium	98.9		97.4	99.2			1.76
	Chromium	99.2		97.6	98.3			0.795
	Copper	102		96.6	97.6			0.668
	Lead	108		107	107			0.134
	Nickel	101		95.6	95.0			0.535
	Selenium	104		99.6	98.9			0.767
	Silver	98.8		100	101			0.836
	Thallium	105		107	107			0.255
EPA 300.0 Rev. 2.1	Bromide	102		97.0	98.2	96.5		1.19
	Chloride	103		106	101		0.0094	
	Sulfate	103		105			1.00	
EPA 350.1 Rev. 2.0	Ammonia-N	98.2		92.6	95.2			2.26
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		92.8	99.8			4.24
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	106		99.8				0.404
	NO ₂ NO ₃ -N	102		99.2	98.7			0.494
EPA 365.1 Rev. 2.0	Total-P	105		107	106			0.690
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.9		97.4	98.2			0.818
EPA 8270E	Aldrin	44.2	44.7	70.9	60.5	1.08		15.8
	Alpha-BHC	80.6	82.3	73.8	84.3	2.07		13.2
	Alpha-Chlordane	90.5	89.3	82.7	85.7	1.39		3.61
	Beta-BHC	94.9	101	95.1	101	5.92		6.16
	Beta-Cyfluthrin	105	82.4	74.5	94.7	24.3		24.0
	Bifenthrin	82.4	72.5	81.0	88.5	12.8		8.86
	Carbophenothion	72.0	69.4	67.8	77.6	3.71		13.5
	Chlorothalonil	96.3	62.6	95.8	81.4	42.4		16.2
	Cis-Nonachlor	95.1	93.7	84.1	90.4	1.46		7.24
	Cypermethrin	75.5	66.8	61.6	79.1	12.2		24.8
	Dacthal	97.4	98.4	91.1	90.9	1.05		0.281
	DDD-p,p'	104	101	88.7	93.1	2.79		4.83
	DDE-p,p'	82.6	83.4	77.0	82.4	0.973		6.89
	DDT-p,p'	90.4	86.6	84.6	89.2	4.33		5.25
	Delta-BHC	116	102	110	133	13.1		18.6
	Deltamethrin	99.3	89.1	82.9	100	10.9		19.2
	Dichlobenil	39.0	45.5	40.0	36.4	15.3		9.39
	Dicofol	117	116	97.9	96.7	0.828		1.25
	Dieldrin	89.2	88.0	91.3	81.6	1.41		11.2
	Endosulfan I	93.9	85.0	84.8	87.5	10.0		3.10
	Endosulfan II	132	108	95.0	106	19.8		10.6
	Endosulfan Sulfate	89.7	82.6	71.2	81.0	8.26		13.0

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	SMP
EPA 8270E	Endrin	86.4	90.7	96.6	98.5	4.82	1.91
	Endrin Aldehyde	102	98.6	91.3	100	3.52	9.16
	Endrin Ketone	94.9	92.9	87.9	90.4	2.18	2.80
	Esfenvalerate	94.5	79.5	79.1	97.1	17.3	20.4
	Ethalfuralin	80.8	79.9	75.4	77.1	1.10	2.24
	Fenpropathrin	117	97.2	95.9	119	18.3	21.4
	Gamma-BHC	94.2	95.4	110	115	1.34	4.36
	Gamma-Chlordane	86.3	85.7	77.2	81.3	0.652	5.11
	Heptachlor	65.2	63.5	59.7	65.0	2.63	8.45
	Heptachlor Epoxide	90.7	89.8	82.1	87.1	1.10	4.99
	Hexachlorobenzene	62.8	64.0	60.1	65.8	1.89	9.16
	Kepone	110	117	70.8	78.1	5.89	9.80
	Lambda-Cyhalothrin	97.1	71.8	79.4	99.3	29.9	22.2
	Methoxychlor	101	98.2	96.9	103	2.51	6.21
	MGK-264	62.7	66.9	54.3	67.5	6.53	21.6
	Mirex	62.3	60.0	64.6	70.3	3.77	8.39
	Permethrin	78.4	70.3	69.5	80.1	10.8	14.2
	Phenothrin	52.8	44.4	48.5	65.5	17.2	29.7
	Piperonyl Butoxide	108	106	98.0	113	2.67	14.2
	Prallethrin	73.7	70.9	52.2	66.3	3.87	23.8
	Tau-Fluvalinate	101	80.8	80.6	96.0	22.1	17.5
	Tetramethrin	122	123	125	111	0.631	12.1
	Trans-Nonachlor	85.0	85.0	77.6	82.3	0.0963	5.94
	Triclosan Methyl	102	105	92.3	96.0	2.60	3.86
	Trifluralin	78.2	79.5	74.4	76.8	1.61	3.19
EPA 8276	Chlordane	107	100	142	114	6.84	21.5
EPA 8321B	Toxaphene	128	120	161	147	6.76	8.76
	2,4-D	95.6		74.4	75.3		1.12
	Acesulfame K	96.6		5.72	5.08		11.9
	Acetaminophen	148		148	104		35.1
	Acetamiprid	86.9		57.5	96.6		50.8
	Afidopyropen	72.0		45.1	79.1		54.7
	AMPA	115		12.2	11.8		3.66
	Bentazon	89.3					0.0073
	Benzovindiflupyr	76.9		65.1	70.2		7.60
	Carbamazepine	106		69.5	76.1		8.36
	Clothianidin	90.2		81.6	86.7		6.03
	Dinotefuran	82.1		86.3	92.7		7.16
	Diuron	63.8		46.5	47.6		2.41
	Endothall	143		139	139		0.576
	Fenuron	97.7		61.5	68.8		11.3
	Fluridone	82.4					6.25
	Glufosinate	127		9.96	9.16		8.37
	Glyphosate	114		493	517		4.72
	Hydrocodone	89.6		84.6	88.6		4.64
	Ibuprofen	86.6		73.9	74.2		0.424
	Imazapyr	97.9					13.5
	Imidacloprid	93.7		122	129		5.25
	Linuron	69.0		60.6	57.8		4.72
	Mandestrobin	81.5		69.3	75.2		8.17
	MCPP	97.0		74.9	85.5		13.3
	Naproxen	52.5		70.9	53.6		27.9
	Primidone	88.8		62.4	88.5		34.5
	Pyraclostrobin	75.5		72.7	78.4		7.57

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8321B	Sucralose	98.0	81.2	92.5		
	Thiamethoxam	83.4	97.4	110		
	Tolfenpyrad	45.0	41.7	44.4		
	Triclopyr	86.2	77.0	87.4		
SM 2120 B-2011	Color (true)	95.7				0.665
SM 2320 B-2011	Total Alkalinity	98.9				2.93
SM 2540 C-2011	TDS					2.35
SM 2540 D-2011	TSS					5.13
SM 4500 F-C-2011	Fluoride	97.6	96.8	96.8		
SM 5310 B-2011	Organic Carbon	97.3	91.4			1.84
						11.3
						11.8
						6.33
						12.7
						0.0

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2224983, 2224986
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2225000, 2225001
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2225000, 2225001
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2224983
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2224986
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2224986
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2224984, 2224987
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2224984, 2224987
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2224984, 2224987
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2224984, 2224987
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2224985, 2224988
EPA 8270E	Dieldrin (ultra low level) in water matrices by GC/MS/MS	2224996, 2224997
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2224996, 2224997
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2224995
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2224998, 2224999
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2224998, 2224999
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2224986
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2224983, 2224986
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2225001
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2224986
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2224983, 2224986
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2224983, 2224986
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2224984, 2224987

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	02/12/2021			02/12/2021 13:03	Julia Storbeck	2224986
	02/12/2021			02/12/2021 14:02	Yen Ta	2224983
EPA 200.7 Rev. 4.4	02/12/2021	02/15/2021 14:45	Elliott D. Healy	02/16/2021 17:06	Betina Topolski	2225000
	02/12/2021	02/15/2021 14:45	Elliott D. Healy	02/16/2021 17:22	Betina Topolski	2225001
EPA 200.8 Rev. 5.4	02/12/2021	02/15/2021 14:45	Elliott D. Healy	02/26/2021 16:22	Alexander Thompson	2225001
	02/12/2021	02/15/2021 14:45	Elliott D. Healy	02/26/2021 17:29	Alexander Thompson	2225000
	02/12/2021	02/15/2021 14:45	Elliott D. Healy	03/01/2021 14:36	Alexander Thompson	2225000
	02/12/2021	02/15/2021 14:45	Elliott D. Healy	03/01/2021 14:40	Alexander Thompson	2225001
	02/12/2021	02/15/2021 14:45	Elliott D. Healy	03/03/2021 14:01	Alexander Thompson	2225001
	02/12/2021	02/15/2021 14:45	Elliott D. Healy	03/03/2021 14:43	Alexander Thompson	2225000
	02/12/2021	02/15/2021 14:45	Elliott D. Healy	03/03/2021 14:43	Alexander Thompson	2225000
EPA 300.0 Rev. 2.1	02/12/2021			02/16/2021 12:36	Lipi Saha	2224986
	02/12/2021			02/23/2021 04:50	Lipi Saha	2224983
EPA 350.1 Rev. 2.0	02/12/2021			02/20/2021 12:41	Ping Hua	2224987
	02/12/2021			02/20/2021 12:50	Ping Hua	2224984
EPA 351.2 Rev. 2.0	02/12/2021	02/17/2021 12:20	Yen Ta	02/18/2021 16:59	Julia Storbeck	2224984
	02/12/2021	02/17/2021 12:20	Yen Ta	02/18/2021 17:00	Julia Storbeck	2224987
EPA 353.2 Rev. 2.0	02/12/2021			02/15/2021 10:23	Beverly Y. Sanders	2224984
	02/12/2021			02/15/2021 10:30	Beverly Y. Sanders	2224987
EPA 365.1 Rev. 2.0	02/12/2021	02/16/2021 18:52	Madeline Gruver	02/17/2021 13:45	Shengyu Wang	2224987
	02/12/2021	02/16/2021 18:52	Madeline Gruver	02/17/2021 16:15	Shengyu Wang	2224984
EPA 365.1 Rev. 2.0 dissolved	02/12/2021			02/12/2021 16:14	Julia Storbeck	2224985
	02/12/2021			02/12/2021 16:15	Julia Storbeck	2224988
EPA 8270E	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/17/2021 22:20	Michael Poppell	2224996
	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/17/2021 22:51	Michael Poppell	2224997
	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/20/2021 18:25	Julie Wi	2224996
	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/20/2021 18:48	Julie Wi	2224997
EPA 8276	02/12/2021	02/16/2021 08:00	Fe-Val Siddell	02/24/2021 11:22	Arthur Maknenko	2224995
EPA 8321B	02/12/2021	02/12/2021 13:00	Hoor Shaik	02/13/2021 18:08	Juyoung Kim	2224998
	02/12/2021	02/12/2021 13:00	Hoor Shaik	02/13/2021 18:43	Juyoung Kim	2224999
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/15/2021 12:19	Rebecca Ware	2224998
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/15/2021 12:32	Rebecca Ware	2224999
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/18/2021 02:09	Rebecca Ware	2224998
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/18/2021 02:21	Rebecca Ware	2224999
	02/12/2021	02/15/2021 10:00	Rebecca Ware	02/12/2021 15:50	Madeline Gruver	2224986
SM 2120 B-2011	02/12/2021			02/15/2021 19:10	Dale L. Simmons	2224983
SM 2320 B-2011	02/12/2021			02/15/2021 19:21	Dale L. Simmons	2224986
SM 2340B	02/12/2021			02/16/2021 17:22	Betina Topolski	2225001
SM 2540 C-2011	02/12/2021			02/15/2021 14:26	Yijie Li	2224986
SM 2540 D-2011	02/12/2021			02/15/2021 14:26	Yijie Li	2224983, 2224986
SM 4500 F-C-2011	02/12/2021			02/15/2021 19:10	Dale L. Simmons	2224983

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	02/12/2021			02/15/2021 19:21	Dale L. Simmons	2224986
SM 5310 B-2011	02/12/2021			02/26/2021 06:39	Madeline Gruver	2224984
	02/12/2021			02/26/2021 07:13	Madeline Gruver	2224987