

Chemical Analysis Report

TLH-ROC-2021-08-02-01

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

Event Description: **Run 16**
Request ID: **RQ-2021-07-26-56**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

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

Certified by: Colin Wright, Program Administrator

Date Certified: 30-AUG-2021 08:35

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

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: Mosquito Creek @ SR269

Collection Date/Time: 08/02/2021 11:20

Field ID: G2TLHR0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266495	EPA 180.1 Rev. 2.0	Turbidity	8.3		NTU	P401904	
	EPA 300.0 Rev. 2.1	Chloride	4.7		mg Cl/L	P402411	
		Sulfate	0.82		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	43		PCU	P401910	
	SM 2320 B-2011	Total Alkalinity	31		mg CaCO3/L	P402031	
	SM 2540 C-2011	TDS	62		mg/L	P402433	
	SM 2540 D-2011	TSS	6	I	mg/L	P402191	
	SM 4500 F-C-2011	Fluoride	0.068	I	mg F/L	P402036	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P402265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.36		mg N/L	P402782	
2266496	EPA 353.2 Rev. 2.0	NO2NO3-N	0.58		mg N/L	P402032	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P402008	
	SM 5310 B-2011	Organic Carbon	4.6		mg C/L	P402489	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.024		mg P/L	P401901	
	dissolved						
2266519	EPA 8321B	2,4-D	0.0020	U	ug/L	P401918	
		Acesulfame K	0.10	U	ug/L	P401884	
		2,4,5-T	0.0040	U	ug/L	P401918	
		AMPA	0.10	U	ug/L	P401884	
		Acetaminophen	0.0080	U	ug/L	P401918	
		Acetamiprid	0.0020	U	ug/L	P401918	
		Endothall	0.25	U	ug/L	P401884	
		Glufosinate	0.10	U	ug/L	P401884	
		Glyphosate	0.10	U	ug/L	P401884	
		Afidopyropen	0.0020	U	ug/L	P401918	
		Bentazon	0.014		ug/L	P401918	
		Sucralose	0.12		ug/L	P401884	
		Benzovindiflupyr	0.0070	I	ug/L	P401918	
		Carbamazepine	0.0020	I	ug/L	P401918	
		Clothianidin	0.0020	U	ug/L	P401918	
		Dinotefuran	0.13		ug/L	P401918	
		Diuron	0.0020	U	ug/L	P401918	
		Fenuron	0.016	U	ug/L	P401918	
		Fluridone	8.0E-04	U	ug/L	P401918	
		Imazapyr	0.0096	I	ug/L	P401918	
		Hydrocodone	0.0020	U	ug/L	P401918	
		Ibuprofen	0.020	U	ug/L	P401918	
		Imidacloprid	0.0091		ug/L	P401918	
		Linuron	0.0040	U	ug/L	P401918	
		Mandestrobin	0.0020	U	ug/L	P401918	
		MCP	0.0020	U	ug/L	P401918	
		Naproxen	0.0080	U	ug/L	P401918	
		Primidone	0.0040	U	ug/L	P401918	
		Pyraclostrobin	0.0020	U	ug/L	P401918	

Field ID: G2TLHR0015

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266519	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P401918	
		Tolfenpyrad	0.0020	U	ug/L	P401918	MS
		Triclopyr	0.0040	U	ug/L	P401918	
2266522	EPA 8276	Chlordane	5.2	U	ng/L	P402013	
		Toxaphene	31	U	ng/L	P402013	
2266529	EPA 200.7 Rev. 4.4	Barium	23.1		ug/L	P402337	
		Calcium	8.49		mg/L	P402337	
		Iron	730		ug/L	P402337	
		Magnesium	3.55		mg/L	P402337	
		Manganese	43.4		ug/L	P402337	
		Potassium	0.73	I	mg/L	P402337	
		Sodium	2.4		mg/L	P402337	
		Zinc	5.0	U	ug/L	P402337	
	EPA 200.8 Rev. 5.4	Aluminum	161		ug/L	P402337	
		Antimony	0.050	U	ug/L	P402337	
		Arsenic	0.56		ug/L	P402337	
		Beryllium	0.024	I	ug/L	P402337	
		Boron**	12.1		ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.40	U	ug/L	P402337	
		Copper	0.58	I	ug/L	P402337	
		Lead	0.28	I	ug/L	P402337	
		Nickel	0.50	U	ug/L	P402337	
		Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
	SM 2340B	Hardness	35.8		mg/L	P402337	

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: South Mosquito Creek dstream Atwater Rd

Collection Date/Time: 08/02/2021 10:05

Field ID: G2TLHR0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266489	EPA 180.1 Rev. 2.0	Turbidity	5.7		NTU	P401904	
	EPA 300.0 Rev. 2.1	Chloride	4.3		mg Cl/L	P402411	
		Sulfate	0.34	I	mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	37		PCU	P401910	
	SM 2320 B-2011	Total Alkalinity	3.9		mg CaCO3/L	P402031	
	SM 2540 C-2011	TDS	31		mg/L	P402432	
	SM 2540 D-2011	TSS	5	I	mg/L	P402190	
	SM 4500 F-C-2011	Fluoride	0.053	I	mg F/L	P402036	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.023		mg N/L	P402265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P402884	MS
2266491	EPA 353.2 Rev. 2.0	NO2NO3-N	1.0		mg N/L	P402032	
	EPA 365.1 Rev. 2.0	Total-P	0.073		mg P/L	P402007	
	SM 5310 B-2011	Organic Carbon	3.2		mg C/L	P402489	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.034		mg P/L	P401901	
	dissolved						
2266517	EPA 8321B	2,4-D	0.0020	U	ug/L	P401918	
		Acesulfame K	0.10	U	ug/L	P401884	
		2,4,5-T	0.0040	U	ug/L	P401918	
		AMPA	0.10	U	ug/L	P401884	
		Acetaminophen	0.0080	U	ug/L	P401918	
		Acetamiprid	0.0020	U	ug/L	P401918	
		Endothall	0.25	U	ug/L	P401884	
		Glufosinate	0.10	U	ug/L	P401884	
		Glyphosate	0.10	U	ug/L	P401884	
		Afidopyropen	0.0020	U	ug/L	P401918	
		Bentazon	0.0080		ug/L	P401918	
		Sucralose	0.045		ug/L	P401884	
		Benzovindiflupyr	0.0054	I	ug/L	P401918	
		Carbamazepine	8.0E-04	U	ug/L	P401918	
		Clothianidin	0.0020	U	ug/L	P401918	
		Dinotefuran	0.088		ug/L	P401918	
		Diuron	0.0020	U	ug/L	P401918	
		Fenuron	0.016	U	ug/L	P401918	
		Fluridone	8.0E-04	U	ug/L	P401918	
		Imazapyr	0.0040	U	ug/L	P401918	
		Hydrocodone	0.0020	U	ug/L	P401918	
		Ibuprofen	0.020	U	ug/L	P401918	
		Imidacloprid	0.010		ug/L	P401918	
		Linuron	0.0040	U	ug/L	P401918	
		Mandestrobin	0.0020	U	ug/L	P401918	
		MCP	0.0020	U	ug/L	P401918	
		Naproxen	0.0080	U	ug/L	P401918	
		Primidone	0.0040	U	ug/L	P401918	
		Pyraclostrobin	0.0020	U	ug/L	P401918	

Field ID: G2TLHR0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266517	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P401918	
		Tolfenpyrad	0.0020	U	ug/L	P401918	MS
		Triclopyr	0.0040	U	ug/L	P401918	
2266527	EPA 200.7 Rev. 4.4	Barium	20.0		ug/L	P402337	
		Calcium	1.86		mg/L	P402337	
		Iron	1.08E+03		ug/L	P402337	
		Magnesium	1.33		mg/L	P402337	
		Manganese	24.3		ug/L	P402337	
		Potassium	0.65	I	mg/L	P402337	
		Sodium	2.4		mg/L	P402337	
		Zinc	5.0	U	ug/L	P402337	
	EPA 200.8 Rev. 5.4	Aluminum	209		ug/L	P402337	
		Antimony	0.050	U	ug/L	P402337	
		Arsenic	0.71		ug/L	P402337	
		Beryllium	0.026	I	ug/L	P402337	
		Boron**	9.1		ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.40	U	ug/L	P402337	
		Copper	0.40	U	ug/L	P402337	
		Lead	0.20	U	ug/L	P402337	
		Nickel	0.50	U	ug/L	P402337	
	SM 2340B	Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
		Hardness	10.1		mg/L	P402337	

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: Crooked Creek @ Aspalaga Rd

Collection Date/Time: 08/02/2021 12:05

Field ID: G2TLHR0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266477	EPA 180.1 Rev. 2.0	Turbidity	9.5	A	NTU	P401904	
	EPA 300.0 Rev. 2.1	Chloride	2.6		mg Cl/L	P402411	
		Sulfate	0.74		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	42		PCU	P401910	
	SM 2320 B-2011	Total Alkalinity	9.4		mg CaCO3/L	P402031	
	SM 2540 C-2011	TDS	34		mg/L	P402432	
	SM 2540 D-2011	TSS	10		mg/L	P402190	
	SM 4500 F-C-2011	Fluoride	0.069	I	mg F/L	P402036	
2266478	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P402267	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28		mg N/L	P402782	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P402030	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P402007	
	SM 5310 B-2011	Organic Carbon	3.7		mg C/L	P402489	
2266479	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.096		mg P/L	P401901	
2266516	EPA 8321B	2,4-D	0.0020	U	ug/L	P401918	
		Acesulfame K	0.10	U	ug/L	P401884	
		2,4,5-T	0.0040	U	ug/L	P401918	
		AMPA	0.10	U	ug/L	P401884	
		Acetaminophen	0.0080	U	ug/L	P401918	
		Acetamiprid	0.0020	U	ug/L	P401918	
		Endothall	0.25	U	ug/L	P401884	
		Glufosinate	0.10	U	ug/L	P401884	
		Glyphosate	0.10	U	ug/L	P401884	
		Afidopyrophen	0.0020	U	ug/L	P401918	
		Bentazon	8.0E-04	U	ug/L	P401918	
		Sucralose	0.021	I	ug/L	P401884	
		Benzovindiflupyr	0.0020	U	ug/L	P401918	
		Carbamazepine	8.0E-04	U	ug/L	P401918	
		Clothianidin	0.0020	U	ug/L	P401918	
		Dinotefuran	0.0020	U	ug/L	P401918	
		Diuron	0.0020	U	ug/L	P401918	
		Fenuron	0.016	U	ug/L	P401918	
		Fluridone	8.0E-04	U	ug/L	P401918	
		Imazapyr	0.025		ug/L	P401918	
		Hydrocodone	0.0020	U	ug/L	P401918	
		Ibuprofen	0.020	U	ug/L	P401918	
		Imidacloprid	0.0020	U	ug/L	P401918	
		Linuron	0.0040	U	ug/L	P401918	
		Mandestrobin	0.0020	U	ug/L	P401918	
		MCP	0.0020	U	ug/L	P401918	
		Naproxen	0.0080	U	ug/L	P401918	
		Primidone	0.0040	U	ug/L	P401918	
		Pyraclostrobin	0.0020	U	ug/L	P401918	

Field ID: G2TLHR0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266516	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P401918	
		Tolfenpyrad	0.0020	U	ug/L	P401918	MS
		Triclopyr	0.0040	U	ug/L	P401918	

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: Apalachicola River @ Bristol Landing

Collection Date/Time: 08/02/2021 12:45

Field ID: G2TLHR0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266490	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P401904	
	EPA 300.0 Rev. 2.1	Chloride	5.3		mg Cl/L	P402411	
		Sulfate	5.2		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	13		PCU	P401910	
	SM 2320 B-2011	Total Alkalinity	44		mg CaCO3/L	P402031	
	SM 2540 C-2011	TDS	71		mg/L	P402432	
	SM 2540 D-2011	TSS	5	I	mg/L	P402190	
	SM 4500 F-C-2011	Fluoride	0.071	I	mg F/L	P402036	
2266492	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P402265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31		mg N/L	P402884	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.44		mg N/L	P402032	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P402008	
	SM 5310 B-2011	Organic Carbon	3.3		mg C/L	P402489	
2266494	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401901	
2266518	EPA 8321B	2,4-D	0.019		ug/L	P401918	
		Acesulfame K	0.10	U	ug/L	P401884	
		2,4,5-T	0.0040	U	ug/L	P401918	
		AMPA	0.10	U	ug/L	P401884	
		Acetaminophen	0.025	I	ug/L	P401918	
		Acetamiprid	0.0020	U	ug/L	P401918	
		Endothall	0.25	U	ug/L	P401884	
		Glufosinate	0.10	U	ug/L	P401884	
		Glyphosate	0.10	U	ug/L	P401884	
		Afidopyrophen	0.0020	U	ug/L	P401918	
		Bentazon	0.0063		ug/L	P401918	
		Sucralose	0.81		ug/L	P401884	
		Benzovindiflupyr	0.0024	I	ug/L	P401918	
		Carbamazepine	0.0015	I	ug/L	P401918	
		Clothianidin	0.0020	U	ug/L	P401918	
		Dinotefuran	0.0020	U	ug/L	P401918	
		Diuron	0.014		ug/L	P401918	
		Fenuron	0.016	U	ug/L	P401918	
		Fluridone	8.0E-04	U	ug/L	P401918	
		Imazapyr	0.025		ug/L	P401918	
		Hydrocodone	0.0020	U	ug/L	P401918	
		Ibuprofen	0.020	U	ug/L	P401918	
		Imidacloprid	0.0068	I	ug/L	P401918	
		Linuron	0.0040	U	ug/L	P401918	
		Mandestrobin	0.0020	U	ug/L	P401918	
		MCP	0.0037	I	ug/L	P401918	
		Naproxen	0.0080	U	ug/L	P401918	
		Primidone	0.0040	U	ug/L	P401918	
		Pyraclostrobin	0.0020	U	ug/L	P401918	

Field ID: G2TLHR0043

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266518	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P401918	
		Tolfenpyrad	0.0020	U	ug/L	P401918	MS
		Triclopyr	0.0040	U	ug/L	P401918	
2266528	EPA 200.7 Rev. 4.4	Barium	20.5		ug/L	P402337	
		Calcium	15.9		mg/L	P402337	
		Iron	330		ug/L	P402337	
		Magnesium	2.10		mg/L	P402337	
		Manganese	77.5		ug/L	P402337	
		Potassium	1.6		mg/L	P402337	
		Sodium	5.8		mg/L	P402337	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P402337	
		Aluminum	151		ug/L	P402337	
		Antimony	0.071	I	ug/L	P402337	
		Arsenic	0.45		ug/L	P402337	
		Beryllium	0.019	I	ug/L	P402337	
		Boron**	15.0		ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.40	U	ug/L	P402337	
		Copper	0.56	I	ug/L	P402337	
		Lead	0.20	U	ug/L	P402337	
		Nickel	0.50	U	ug/L	P402337	
		Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
	SM 2340B	Hardness	48.4		mg/L	P402337	

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: Tenmile Creek @ SR73

Collection Date/Time: 08/02/2021 13:20

Field ID: G2TLHR0055

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266480	EPA 180.1 Rev. 2.0	Turbidity	4.8		NTU	P401904	
	EPA 300.0 Rev. 2.1	Chloride	3.1		mg Cl/L	P402411	
		Sulfate	1.2		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	180		PCU	P401910	
	SM 2320 B-2011	Total Alkalinity	0.76	I	mg CaCO3/L	P402031	
	SM 2540 C-2011	TDS	36		mg/L	P402432	
	SM 2540 D-2011	TSS	7	I	mg/L	P402190	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P402036	
2266483	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P402265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P402782	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P402030	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P402007	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P402489	
2266486	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401901	
2266524	EPA 200.7 Rev. 4.4	Barium	11.3		ug/L	P402337	
		Calcium	1.22		mg/L	P402337	
		Iron	620		ug/L	P402337	
		Magnesium	0.65		mg/L	P402337	
		Manganese	15.2		ug/L	P402337	
		Potassium	0.45	I	mg/L	P402337	
		Sodium	2.0	I	mg/L	P402337	
		Zinc	5.0	U	ug/L	P402337	
	EPA 200.8 Rev. 5.4	Aluminum	400		ug/L	P402337	
		Antimony	0.050	U	ug/L	P402337	
		Arsenic	0.40		ug/L	P402337	
		Beryllium	0.028	I	ug/L	P402337	
		Boron**	9.8		ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.47	I	ug/L	P402337	
		Copper	0.40	U	ug/L	P402337	
		Lead	0.36	I	ug/L	P402337	
		Nickel	0.50	U	ug/L	P402337	
		Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
	SM 2340B	Hardness	5.7		mg/L	P402337	

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: Tributary South Mosquito Creek

Collection Date/Time: 08/02/2021 10:30

Field ID: G2TLHR0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266481	EPA 180.1 Rev. 2.0	Turbidity	8.5		NTU	P401904	
	EPA 300.0 Rev. 2.1	Chloride	4.4		mg Cl/L	P402411	
		Sulfate	0.85		mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	37	A	PCU	P401910	
	SM 2320 B-2011	Total Alkalinity	55		mg CaCO3/L	P402031	
	SM 2540 C-2011	TDS	88		mg/L	P402432	
	SM 2540 D-2011	TSS	8	I	mg/L	P402190	
	SM 4500 F-C-2011	Fluoride	0.085	I	mg F/L	P402036	
2266484	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P402265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.32		mg N/L	P402782	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P402030	
	EPA 365.1 Rev. 2.0	Total-P	0.028		mg P/L	P402007	
	SM 5310 B-2011	Organic Carbon	4.2		mg C/L	P402489	
2266487	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.011		mg P/L	P401901	
2266525	EPA 200.7 Rev. 4.4	Barium	23.6		ug/L	P402337	
		Calcium	15.2		mg/L	P402337	
		Iron	1.0E+03		ug/L	P402337	
		Magnesium	5.97		mg/L	P402337	
		Manganese	46.4		ug/L	P402337	
		Potassium	0.76	I	mg/L	P402337	
		Sodium	2.7		mg/L	P402337	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P402337	
		Aluminum	591		ug/L	P402337	
		Antimony	0.050	U	ug/L	P402337	
		Arsenic	0.51		ug/L	P402337	
		Beryllium	0.037	I	ug/L	P402337	
		Boron**	13.9		ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.93	I	ug/L	P402337	
		Copper	0.40	U	ug/L	P402337	
		Lead	0.36	I	ug/L	P402337	
		Nickel	0.50	U	ug/L	P402337	
		Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
		Hardness	62.6		mg/L	P402337	

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: FB

Collection Date/Time: 08/02/2021 10:45

Field ID: FB_08022021

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266498	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P401904	MS
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P402411	
		Sulfate	0.20	U	mg SO4/L	P402414	
	SM 2120 B-2011	Color (true)	2.5	U	PCU	P401910	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P402031	
	SM 2540 C-2011	TDS	15	U	mg/L	P402432	
	SM 2540 D-2011	TSS	2	U	mg/L	P402190	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P402036	
2266499	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P402265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P402636	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P402032	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P402008	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P402489	
2266500	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401901	
2266520	EPA 8321B	Aldicarb	0.020	U	ug/L	P401862	
		Aldicarb Sulfone	0.0020	U	ug/L	P401862	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P401862	
		Carbaryl	0.0020	U	ug/L	P401862	
		Carbofuran	0.0020	U	ug/L	P401862	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P401862	
		Methiocarb	0.0020	U	ug/L	P401862	
		Methomyl	0.0020	U	ug/L	P401862	
		Oxamyl	0.0020	U	ug/L	P401862	
		Propoxur	0.0020	U	ug/L	P401862	
2266521		2,4-D	0.0020	U	ug/L	P401918	
		Acesulfame K	0.10	U	ug/L	P401884	
		2,4,5-T	0.0040	U	ug/L	P401918	
		AMPA	0.10	U	ug/L	P401884	
		Acetaminophen	0.0080	U	ug/L	P401918	
		Acetamiprid	0.0020	U	ug/L	P401918	
		Endothall	0.25	U	ug/L	P401884	
		Glufosinate	0.10	U	ug/L	P401884	
		Glyphosate	0.10	U	ug/L	P401884	
		Afidopyropen	0.0020	U	ug/L	P401918	
		Bentazon	8.0E-04	U	ug/L	P401918	
		Sucralose	0.010	U	ug/L	P401884	
		Benzovindiflupyr	0.0020	U	ug/L	P401918	
		Carbamazepine	8.0E-04	U	ug/L	P401918	
		Clothianidin	0.0020	U	ug/L	P401918	
		Dinotefuran	0.0020	U	ug/L	P401918	
		Diuron	0.0020	U	ug/L	P401918	
		Fenuron	0.016	U	ug/L	P401918	
		Fluridone	8.0E-04	U	ug/L	P401918	

Field ID: FB_08022021

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266521	EPA 8321B	Imazapyr	0.0040	U	ug/L	P401918	
		Hydrocodone	0.0020	U	ug/L	P401918	
		Ibuprofen	0.020	U	ug/L	P401918	
		Imidacloprid	0.0020	U	ug/L	P401918	
		Linuron	0.0040	U	ug/L	P401918	
		Mandestrobin	0.0020	U	ug/L	P401918	
		MCP	0.0020	U	ug/L	P401918	
		Naproxen	0.0080	U	ug/L	P401918	
		Primidone	0.0040	U	ug/L	P401918	
		Pyraclostrobin	0.0020	U	ug/L	P401918	
		Thiamethoxam	0.0020	U	ug/L	P401918	
		Tolfenpyrad	0.0020	U	ug/L	P401918	MS
		Triclopyr	0.0040	U	ug/L	P401918	
2266523	EPA 8270E	Aldrin	0.68	U	ng/L	P402013	
		Alpha-BHC	0.10	U	ng/L	P402013	
		Alpha-Chlordane	0.21	U	ng/L	P402013	
		Beta-BHC	0.10	U	ng/L	P402013	
		Beta-Cyfluthrin**	1.3	U	ng/L	P402013	
		Bifenthrin**	0.52	U	ng/L	P402013	
		Carbophenothion	0.94	U	ng/L	P402013	
		Chlorothalonil	0.52	U	ng/L	P402013	
		Cis-Nonachlor**	0.21	U	ng/L	P402013	
		Cypermethrin	1.6	U	ng/L	P402013	
		Dacthal**	0.16	U	ng/L	P402013	
		DDD-p,p'	0.26	U	ng/L	P402013	
		DDE-p,p'	0.21	U	ng/L	P402013	
		DDT-p,p'	0.26	U	ng/L	P402013	
		Delta-BHC	0.42	U	ng/L	P402013	
		Deltamethrin**	1.3	U	ng/L	P402013	
		Dichlobenil**	0.10	U	ng/L	P402013	
		Dicofol	1.3	U	ng/L	P402013	
		Dieldrin	0.42	U	ng/L	P402013	
		Endosulfan I	0.42	U	ng/L	P402013	
		Endosulfan II	0.42	U	ng/L	P402013	
		Endosulfan Sulfate	0.31	U	ng/L	P402013	
		Endrin	0.42	U	ng/L	P402013	
		Endrin Aldehyde	0.78	U	ng/L	P402013	
		Endrin Ketone	0.42	U	ng/L	P402013	
		Esfenvalerate**	0.78	U	ng/L	P402013	
		Ethalfuralin**	0.16	U	ng/L	P402013	
		Fenprothrin**	0.26	U	ng/L	P402013	
		Gamma-BHC	0.13	U	ng/L	P402013	
		Gamma-Chlordane	0.21	U	ng/L	P402013	
		Heptachlor	0.21	U	ng/L	P402013	
		Heptachlor Epoxide	0.26	U	ng/L	P402013	

Field ID: FB_08022021

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266523	EPA 8270E	Hexachlorobenzene	1.0	U	ng/L	P402013	
		Kepone**	5.2	U	ng/L	P402013	
		Lambda-Cyhalothrin**	0.78	U	ng/L	P402013	
		Methoxychlor	0.31	U	ng/L	P402013	
		MGK-264**	0.21	U	ng/L	P402013	
		Mirex	0.73	U	ng/L	P402013	
		Permethrin	1.7	U	ng/L	P402013	
		Phenothrin**	0.94	U	ng/L	P402013	
		Piperonyl Butoxide**	0.16	U	ng/L	P402013	
		Prallethrin**	2.1	U	ng/L	P402013	
		Tau-Fluvalinate**	0.26	U	ng/L	P402013	
		Tetramethrin**	0.78	U	ng/L	P402013	
		Trans-Nonachlor**	0.21	U	ng/L	P402013	
		Triclosan Methyl**	0.16	U	ng/L	P402013	
		Trifluralin	0.21	U	ng/L	P402013	
	EPA 8276	Chlordane	5.2	U	ng/L	P402013	
		Toxaphene	31	U	ng/L	P402013	
2266530	EPA 200.7 Rev. 4.4	Barium	1.0	U	ug/L	P402337	
		Calcium	0.075	U	mg/L	P402337	
		Iron	30	U	ug/L	P402337	
		Magnesium	0.040	U	mg/L	P402337	
		Manganese	1.0	U	ug/L	P402337	
		Potassium	0.30	U	mg/L	P402337	
		Sodium	0.50	U	mg/L	P402337	
		Zinc	5.0	U	ug/L	P402337	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P402337	
		Antimony	0.050	U	ug/L	P402337	
		Arsenic	0.050	U	ug/L	P402337	
		Beryllium	0.010	U	ug/L	P402337	
		Boron**	2.0	U	ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.40	U	ug/L	P402337	
		Copper	0.40	U	ug/L	P402337	
		Lead	0.20	U	ug/L	P402337	
		Nickel	0.50	U	ug/L	P402337	
		Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
	SM 2340B	Hardness	0.35	U	mg/L	P402337	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Big Creek @ SR65

Collection Date/Time: 08/02/2021 14:15

Field ID: G1TLHR0056

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266482	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P401904	
	EPA 300.0 Rev. 2.1	Chloride	1.8		mg Cl/L	P402411	
		Sulfate	0.75		mg SO4/L	P402414	
		Color (true)	160		PCU	P401910	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P402031	
	SM 2540 C-2011	TDS	38		mg/L	P402432	
	SM 2540 D-2011	TSS	4	I	mg/L	P402190	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P402036	
2266485	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P402265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P402782	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.46		mg N/L	P402030	
	EPA 365.1 Rev. 2.0	Total-P	0.0096		mg P/L	P402007	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P402489	
2266488	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401901	
2266526	EPA 200.7 Rev. 4.4	Barium	7.4		ug/L	P402337	
		Calcium	0.99		mg/L	P402337	
		Iron	210		ug/L	P402337	
		Magnesium	0.47		mg/L	P402337	
		Manganese	15.8		ug/L	P402337	
		Potassium	0.30	U	mg/L	P402337	
		Sodium	1.3	I	mg/L	P402337	
		Zinc	7.1	I	ug/L	P402337	
	EPA 200.8 Rev. 5.4	Aluminum	286		ug/L	P402337	
		Antimony	0.093	I	ug/L	P402337	
		Arsenic	0.19	I	ug/L	P402337	
		Beryllium	0.025	I	ug/L	P402337	
		Boron**	8.3		ug/L	P402337	
		Cadmium	0.020	U	ug/L	P402337	
		Chromium	0.40	U	ug/L	P402337	
		Copper	1.10		ug/L	P402337	
		Lead	0.41		ug/L	P402337	
		Nickel	0.50	U	ug/L	P402337	
		Selenium	0.20	U	ug/L	P402337	
		Silver	0.010	U	ug/L	P402337	
		Thallium	0.10	U	ug/L	P402337	
	SM 2340B	Hardness	4.4		mg/L	P402337	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401904

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402337

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: P402337

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: P402411

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402265

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402267

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402636

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402782

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402884

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402030

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402032

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402007

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402008

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401901

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P402013

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P402013

Component	Result	Code	Units
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.70	U	ng/L
Mirex	0.70	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276

Batch ID: P402013

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P401862

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

Reference Method: EPA 8321B

Batch ID: P401884

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

Reference Method: EPA 8321B

Batch ID: P401918

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
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

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P401910

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P402031

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

Reference Method: SM 2540 C-2011
Batch ID: P402432

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P402433

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P402190

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P402191

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P402036

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P402489

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: P402337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	90.0		P	85 - 115
Calcium	95.9		P	85 - 115
Iron	98.8		P	85 - 115
Magnesium	100		P	85 - 115
Manganese	90.8		P	85 - 115
Potassium	88.8		P	85 - 115
Sodium	95.9		P	85 - 115
Zinc	88.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	101		P	85 - 115
Beryllium	101		P	85 - 115
Boron	101		P	85 - 115
Cadmium	99.7		P	85 - 115
Chromium	102		P	85 - 115
Copper	101		P	85 - 115
Lead	101		P	85 - 115
Nickel	102		P	85 - 115
Selenium	99.8		P	85 - 115
Silver	102		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402414

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P402265

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P402267

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P402636

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P402782

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	108		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P402884

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P402030

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P402032

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: P402007

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P402008

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: P401901

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.9		P	90 - 110

Reference Method: EPA 8270E

Batch ID: P402013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	44.7	43.4	P/P	20 - 150
Alpha-BHC	83.8	82.4	P/P	50 - 150
Alpha-Chlordane	77.6	77.2	P/P	50 - 150
Beta-BHC	94.5	91.6	P/P	50 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P402013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	78.9	77.1	P/P	50 - 150
Bifenthrin	52.5	52.8	P/P	40 - 150
Carbophenothion	58.0	54.7	P/P	20 - 150
Chlorothalonil	103	102	P/P	20 - 150
Cis-Nonachlor	71.9	69.7	P/P	50 - 150
Cypermethrin	75.5	75.5	P/P	50 - 150
Dacthal	88.1	87.9	P/P	50 - 150
DDD-p,p'	68.2	68.9	P/P	50 - 150
DDE-p,p'	75.0	74.9	P/P	50 - 150
DDT-p,p'	80.9	80.4	P/P	50 - 150
Delta-BHC	103	103	P/P	50 - 150
Deltamethrin	83.0	81.6	P/P	50 - 150
Dichlobenil	76.4	73.0	P/P	40 - 150
Dicofol	84.4	81.6	P/P	50 - 150
Dieldrin	81.0	80.5	P/P	50 - 150
Endosulfan I	74.2	75.1	P/P	50 - 150
Endosulfan II	76.8	76.4	P/P	50 - 150
Endosulfan Sulfate	93.3	86.4	P/P	50 - 150
Endrin	74.2	75.2	P/P	50 - 150
Endrin Aldehyde	71.1	68.0	P/P	50 - 150
Endrin Ketone	86.0	82.6	P/P	50 - 150
Esfenvalerate	67.7	68.1	P/P	50 - 180
Ethalfuralin	67.5	72.0	P/P	50 - 150
Fenpropathrin	65.5	67.5	P/P	50 - 150
Gamma-BHC	91.2	86.0	P/P	50 - 150
Gamma-Chlordane	69.7	69.4	P/P	50 - 150
Heptachlor	69.2	69.8	P/P	50 - 150
Heptachlor Epoxide	74.2	72.9	P/P	50 - 150
Hexachlorobenzene	71.0	71.1	P/P	50 - 150
Kepone	120	124	P/P	30 - 180
Lambda-Cyhalothrin	64.6	63.7	P/P	50 - 200
Methoxychlor	73.7	72.8	P/P	50 - 150
MGK-264	72.7	70.9	P/P	30 - 150
Mirex	56.5	56.7	P/P	50 - 180
Permethrin	74.4	72.1	P/P	50 - 150
Phenothrin	48.6	51.0	P/P	20 - 150
Piperonyl Butoxide	92.2	93.9	P/P	50 - 150
Prallethrin	62.9	58.3	P/P	30 - 150
Tau-Fluvalinate	61.9	60.9	P/P	40 - 150
Tetramethrin	63.7	65.4	P/P	30 - 150
Trans-Nonachlor	73.4	70.4	P/P	50 - 150
Triclosan Methyl	79.8	79.5	P/P	50 - 150
Trifluralin	70.2	70.8	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P402013

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	85.9	90.9	P/P	56 - 117
Toxaphene	96.1	94.8	P/P	45 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P401862

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	86.7		P	40 - 150
Aldicarb	75.3		P	30 - 150
Aldicarb Sulfone	87.3		P	40 - 150
Aldicarb Sulfoxide	82.3		P	40 - 150
Carbaryl	78.8		P	40 - 150
Carbofuran	79.2		P	40 - 150
Methiocarb	79.0		P	40 - 150
Methomyl	86.9		P	40 - 150
Oxamyl	88.7		P	40 - 150
Propoxur	83.6		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P401884

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	113		P	40 - 150
AMPA	100		P	40 - 150
Endothall	87.3		P	40 - 150
Glufosinate	95.9		P	40 - 150
Glyphosate	102		P	40 - 150
Sucralose	95.0		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P401918

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	98.3		P	40 - 150
2,4,5-T	95.2		P	40 - 150
Acetaminophen	96.7		P	30 - 150
Acetamiprid	75.6		P	40 - 150
Afidopyropen	58.5		P	40 - 150
Bentazon	99.0		P	30 - 150
Benzovindiflupyr	85.7		P	40 - 150
Carbamazepine	78.9		P	40 - 150
Clothianidin	79.0		P	40 - 150
Dinotefuran	83.4		P	40 - 150
Diuron	81.0		P	40 - 150
Fenuron	86.8		P	40 - 150
Fluridone	89.8		P	40 - 150
Hydrocodone	84.7		P	40 - 150
Ibuprofen	79.6		P	40 - 150
Imazapyr	95.6		P	40 - 150
Imidacloprid	80.5		P	40 - 150
Linuron	80.3		P	40 - 150
Mandestrobin	88.2		P	40 - 150
MCPP	94.2		P	40 - 150
Naproxen	80.5		P	40 - 150
Primidone	79.4		P	40 - 150
Pyraclostrobin	83.4		P	40 - 150
Thiamethoxam	86.1		P	40 - 150
Tolfenpyrad	48.5		P	30 - 150
Triclopyr	96.0		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P401910

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.5		P	90 - 110

Reference Method: SM 2320 B-2011
Batch ID: P402031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P402036

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.4		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P402489

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267102	Barium	94.4		P	80 - 120
2267102	Calcium	80.1		P	80 - 120
2267102	Iron	103		P	80 - 120
2267102	Magnesium	84.8		P	80 - 120
2267102	Manganese	96.2		P	80 - 120
2267102	Potassium	90.7		P	80 - 120
2267102	Sodium	82.8		P	80 - 120
2267102	Zinc	97.4		P	80 - 120
2267664	Barium	99.2	100	P/P	80 - 120
2267664	Calcium	97.2	103	P/P	80 - 120
2267664	Iron	102	104	P/P	80 - 120
2267664	Magnesium	104	105	P/P	80 - 120
2267664	Manganese	99.4	101	P/P	80 - 120
2267664	Potassium	98.2	99.0	P/P	80 - 120
2267664	Sodium	96.4	101	P/P	80 - 120
2267664	Zinc	99.3	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2267102	Aluminum	99.9		P	80 - 120
2267102	Antimony	106		P	80 - 120
2267102	Arsenic	102		P	80 - 120
2267102	Beryllium	100		P	80 - 120
2267102	Boron	98.0		P	80 - 120
2267102	Cadmium	101		P	80 - 120
2267102	Chromium	105		P	80 - 120
2267102	Copper	100		P	80 - 120
2267102	Lead	103		P	80 - 120
2267102	Nickel	101		P	80 - 120
2267102	Selenium	96.9		P	80 - 120
2267102	Silver	99.5		P	80 - 120
2267102	Thallium	106		P	80 - 120
2267664	Aluminum	98.6	98.6	P/P	80 - 120
2267664	Antimony	102	103	P/P	80 - 120
2267664	Arsenic	98.7	99.3	P/P	80 - 120
2267664	Beryllium	99.9	100	P/P	80 - 120
2267664	Boron	97.5	98.0	P/P	80 - 120
2267664	Cadmium	98.4	98.2	P/P	80 - 120
2267664	Chromium	101	103	P/P	80 - 120
2267664	Copper	101	102	P/P	80 - 120
2267664	Lead	99.6	101	P/P	80 - 120
2267664	Nickel	99.6	101	P/P	80 - 120
2267664	Selenium	97.3	98.2	P/P	80 - 120
2267664	Silver	98.6	111	P/P	80 - 120
2267664	Thallium	102	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402411

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266208	Chloride	95.5		P	90 - 110
2266490	Chloride	97.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P402414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266208	Sulfate	95.3		P	90 - 110
2266490	Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266492	Ammonia-N	97.6	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266082	Ammonia-N	99.4	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266478	Kjeldahl Nitrogen	108	109	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2268946	Kjeldahl Nitrogen	114	109	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402030

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266478	NO2NO3-N	102	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402032

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266572	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402007

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266562	Total-P	102	103	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P402008

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266492	Total-P	108	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401901

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266487	O-Phosphate-P	97.3	96.7	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P402013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266201	Aldrin	38.6	39.8	P/P	20 - 170
2266201	Alpha-BHC	86.0	89.4	P/P	50 - 170
2266201	Alpha-Chlordane	76.0	78.0	P/P	50 - 170
2266201	Beta-BHC	103	105	P/P	50 - 170
2266201	Beta-Cyfluthrin	102	103	P/P	50 - 170
2266201	Bifenthrin	64.2	67.1	P/P	40 - 170
2266201	Carbophenothion	59.5	58.8	P/P	20 - 170
2266201	Chlorothalonil	108	109	P/P	20 - 170
2266201	Cis-Nonachlor	71.9	74.5	P/P	50 - 170
2266201	Cypermethrin	97.5	99.0	P/P	50 - 170
2266201	Dacthal	87.7	88.4	P/P	50 - 170
2266201	DDD-p,p'	70.6	72.2	P/P	50 - 170
2266201	DDE-p,p'	74.6	75.8	P/P	50 - 170
2266201	DDT-p,p'	79.6	80.9	P/P	50 - 170
2266201	Delta-BHC	110	113	P/P	50 - 170
2266201	Deltamethrin	108	110	P/P	50 - 170
2266201	Dichlobenil	82.9	82.3	P/P	40 - 170
2266201	Dicofol	86.2	83.4	P/P	50 - 170
2266201	Dieldrin	86.4	87.9	P/P	50 - 170
2266201	Endosulfan I	72.7	73.9	P/P	50 - 170
2266201	Endosulfan II	80.3	82.5	P/P	50 - 170
2266201	Endosulfan Sulfate	90.2	91.0	P/P	50 - 170
2266201	Endrin	75.5	77.0	P/P	50 - 170
2266201	Endrin Aldehyde	74.7	76.5	P/P	50 - 170
2266201	Endrin Ketone	88.2	90.2	P/P	50 - 170
2266201	Esfenvalerate	92.3	93.5	P/P	50 - 180
2266201	Ethalfuralin	68.9	68.1	P/P	50 - 170
2266201	Fenpropathrin	74.6	75.3	P/P	50 - 170
2266201	Gamma-BHC	93.5	95.5	P/P	50 - 170
2266201	Gamma-Chlordane	70.2	72.0	P/P	50 - 170
2266201	Heptachlor	68.7	69.8	P/P	50 - 170
2266201	Heptachlor Epoxide	74.6	77.7	P/P	50 - 170
2266201	Hexachlorobenzene	72.0	72.6	P/P	50 - 170
2266201	Kepone	130	123	P/P	30 - 180
2266201	Lambda-Cyhalothrin	92.1	89.6	P/P	50 - 200
2266201	Methoxychlor	74.6	74.6	P/P	50 - 170
2266201	MGK-264	69.3	70.1	P/P	30 - 170
2266201	Mirex	61.2	62.4	P/P	50 - 180
2266201	Permethrin	93.3	95.6	P/P	50 - 170
2266201	Phenothrin	47.1	50.6	P/P	20 - 170

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P402013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266201	Piperonyl Butoxide	101	103	P/P	50 - 170
2266201	Prallethrin	61.5	61.1	P/P	30 - 170
2266201	Tau-Fluvalinate	86.8	86.9	P/P	40 - 170
2266201	Tetramethrin	61.3	66.8	P/P	30 - 170
2266201	Trans-Nonachlor	71.7	75.3	P/P	50 - 170
2266201	Triclosan Methyl	76.9	78.8	P/P	50 - 170
2266201	Trifluralin	69.8	70.8	P/P	50 - 170

Reference Method: EPA 8276
Batch ID: P402013

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266184	Chlordane	80.7	83.2	P/P	47 - 128
2266184	Toxaphene	91.2	91.1	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P401862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265964	3-Hydroxycarbofuran	85.8	90.3	P/P	40 - 150
2265964	Aldicarb	78.7	83.9	P/P	30 - 150
2265964	Aldicarb Sulfone	96.2	106	P/P	40 - 150
2265964	Aldicarb Sulfoxide	38.3	42.3	F/P	40 - 150
2265964	Carbaryl	76.8	79.3	P/P	40 - 150
2265964	Carbofuran	79.7	83.2	P/P	40 - 150
2265964	Methiocarb	77.6	81.6	P/P	40 - 150
2265964	Methomyl	84.3	90.9	P/P	40 - 150
2265964	Oxamyl	89.8	96.7	P/P	40 - 150
2265964	Propoxur	81.5	86.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401884

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266516	Acesulfame K	125	111	P/P	40 - 150
2266516	AMPA	110	116	P/P	40 - 150
2266516	Endothall	92.6	91.0	P/P	40 - 150
2266516	Glufosinate	131	129	P/P	40 - 150
2266516	Glyphosate	110	109	P/P	40 - 150
2266516	Sucralose	95.7	95.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265965	2,4-D	81.9	74.1	P/P	40 - 150
2265965	2,4,5-T	77.8	67.2	P/P	40 - 150
2265965	Acetaminophen	119	105	P/P	30 - 150
2265965	Acetamiprid	70.0	72.6	P/P	40 - 150
2265965	Afidopyropen	44.8	51.7	P/P	40 - 150
2265965	Bentazon	69.7	57.9	P/P	30 - 150
2265965	Benzovindiflupyr	61.3	49.5	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P401918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265965	Carbamazepine	77.4	78.6	P/P	40 - 150
2265965	Clothianidin	84.6	81.1	P/P	40 - 150
2265965	Dinotefuran	98.5	108	P/P	40 - 150
2265965	Diuron	69.6	61.7	P/P	40 - 150
2265965	Fenuron	84.8	85.8	P/P	40 - 150
2265965	Fluridone	71.8	62.4	P/P	40 - 150
2265965	Hydrocodone	92.2	102	P/P	40 - 150
2265965	Ibuprofen	58.0	48.3	P/P	40 - 150
2265965	Imazapyr	124	127	P/P	40 - 150
2265965	Imidacloprid	93.2	93.0	P/P	40 - 150
2265965	Linuron	63.0	52.0	P/P	40 - 150
2265965	Mandestrobin	70.0	59.3	P/P	40 - 150
2265965	MCPP	82.0	70.1	P/P	40 - 150
2265965	Naproxen	62.2	55.7	P/P	40 - 150
2265965	Primidone	83.1	86.4	P/P	40 - 150
2265965	Pyraclostrobin	59.3	46.1	P/P	40 - 150
2265965	Thiamethoxam	100	103	P/P	40 - 150
2265965	Tolfenpyrad	35.4	29.0	P/F	30 - 150
2265965	Triclopyr	78.7	67.7	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P402036

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266796	Fluoride	97.9	97.9	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P402489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266484	Organic Carbon	97.0	96.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P401904

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266477	Turbidity	0.738	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402337

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267664	Barium	1.01	Spike	P	0 - 20
2267664	Calcium	3.47	Spike	P	0 - 20
2267664	Iron	1.40	Spike	P	0 - 20
2267664	Magnesium	0.982	Spike	P	0 - 20
2267664	Manganese	1.48	Spike	P	0 - 20
2267664	Potassium	0.903	Spike	P	0 - 20
2267664	Sodium	3.17	Spike	P	0 - 20
2267664	Zinc	1.59	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402337

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267664	Aluminum	0.0371	Spike	P	0 - 20
2267664	Antimony	1.29	Spike	P	0 - 20
2267664	Arsenic	0.615	Spike	P	0 - 20
2267664	Beryllium	0.335	Spike	P	0 - 20
2267664	Boron	0.480	Spike	P	0 - 20
2267664	Cadmium	0.208	Spike	P	0 - 20
2267664	Chromium	2.09	Spike	P	0 - 20
2267664	Copper	0.870	Spike	P	0 - 20
2267664	Lead	1.23	Spike	P	0 - 20
2267664	Nickel	1.33	Spike	P	0 - 20
2267664	Selenium	0.902	Spike	P	0 - 20
2267664	Silver	11.5	Spike	P	0 - 20
2267664	Thallium	1.48	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402411

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266208	Chloride	1.19	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P402414

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266208	Sulfate	1.63	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266492	Ammonia-N	0.122	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266082	Ammonia-N	0.182	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266586	Kjeldahl Nitrogen	0.409	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266478	Kjeldahl Nitrogen	0.877	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2268946	Kjeldahl Nitrogen	4.41	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402030

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266478	NO2NO3-N	1.11	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266572	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266562	Total-P	0.472	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P402008

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266492	Total-P	4.68	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401901

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266487	O-Phosphate-P	0.554	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P402013

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266201	Aldrin	3.17	Spike	P	0 - 30
2266201	Alpha-BHC	3.82	Spike	P	0 - 30
2266201	Alpha-Chlordane	2.64	Spike	P	0 - 30
2266201	Beta-BHC	2.20	Spike	P	0 - 30
2266201	Beta-Cyfluthrin	1.28	Spike	P	0 - 30
2266201	Bifenthrin	4.39	Spike	P	0 - 30
2266201	Carbophenothion	1.11	Spike	P	0 - 30
2266201	Chlorothalonil	0.921	Spike	P	0 - 50
2266201	Cis-Nonachlor	3.54	Spike	P	0 - 30
2266201	Cypermethrin	1.58	Spike	P	0 - 30
2266201	Dacthal	0.758	Spike	P	0 - 30
2266201	DDD-p,p'	2.27	Spike	P	0 - 30
2266201	DDE-p,p'	1.60	Spike	P	0 - 30
2266201	DDT-p,p'	1.59	Spike	P	0 - 30
2266201	Delta-BHC	3.22	Spike	P	0 - 30
2266201	Deltamethrin	1.90	Spike	P	0 - 30
2266201	Dichlobenil	0.671	Spike	P	0 - 30
2266201	Dicofol	3.34	Spike	P	0 - 30
2266201	Dieldrin	1.71	Spike	P	0 - 30
2266201	Endosulfan I	1.68	Spike	P	0 - 30
2266201	Endosulfan II	2.69	Spike	P	0 - 30
2266201	Endosulfan Sulfate	0.904	Spike	P	0 - 30
2266201	Endrin	1.93	Spike	P	0 - 30
2266201	Endrin Aldehyde	2.32	Spike	P	0 - 30
2266201	Endrin Ketone	2.16	Spike	P	0 - 30
2266201	Esfenvalerate	1.34	Spike	P	0 - 30
2266201	Ethalfuralin	1.09	Spike	P	0 - 30
2266201	Fenpropathrin	1.01	Spike	P	0 - 30
2266201	Gamma-BHC	2.17	Spike	P	0 - 30
2266201	Gamma-Chlordane	2.57	Spike	P	0 - 30
2266201	Heptachlor	1.62	Spike	P	0 - 30
2266201	Heptachlor Epoxide	4.01	Spike	P	0 - 30
2266201	Hexachlorobenzene	0.843	Spike	P	0 - 30
2266201	Kepone	5.39	Spike	P	0 - 30
2266201	Lambda-Cyhalothrin	2.81	Spike	P	0 - 30
2266201	Methoxychlor	0.0419	Spike	P	0 - 30
2266201	MGK-264	1.10	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P402013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266201	Mirex	1.89	Spike	P	0 - 30
2266201	Permethrin	2.42	Spike	P	0 - 30
2266201	Phenothrin	7.17	Spike	P	0 - 30
2266201	Piperonyl Butoxide	1.53	Spike	P	0 - 30
2266201	Prallethrin	0.659	Spike	P	0 - 30
2266201	Tau-Fluvalinate	0.0665	Spike	P	0 - 30
2266201	Tetramethrin	8.60	Spike	P	0 - 30
2266201	Trans-Nonachlor	4.91	Spike	P	0 - 30
2266201	Triclosan Methyl	2.44	Spike	P	0 - 30
2266201	Trifluralin	1.47	Spike	P	0 - 30
LFB	Aldrin	2.83	LCS	P	0 - 30
LFB	Alpha-BHC	1.62	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.527	LCS	P	0 - 30
LFB	Beta-BHC	3.10	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	2.36	LCS	P	0 - 30
LFB	Bifenthrin	0.585	LCS	P	0 - 30
LFB	Carbophenothion	5.69	LCS	P	0 - 30
LFB	Chlorothalonil	1.57	LCS	P	0 - 50
LFB	Cis-Nonachlor	3.12	LCS	P	0 - 30
LFB	Cypermethrin	0.0341	LCS	P	0 - 30
LFB	Dacthal	0.176	LCS	P	0 - 30
LFB	DDD-p,p'	1.02	LCS	P	0 - 30
LFB	DDE-p,p'	0.158	LCS	P	0 - 30
LFB	DDT-p,p'	0.622	LCS	P	0 - 30
LFB	Delta-BHC	0.296	LCS	P	0 - 30
LFB	Deltamethrin	1.74	LCS	P	0 - 30
LFB	Dichlobenil	4.58	LCS	P	0 - 30
LFB	Dicofol	3.37	LCS	P	0 - 30
LFB	Dieldrin	0.623	LCS	P	0 - 30
LFB	Endosulfan I	1.14	LCS	P	0 - 30
LFB	Endosulfan II	0.610	LCS	P	0 - 30
LFB	Endosulfan Sulfate	7.63	LCS	P	0 - 30
LFB	Endrin	1.27	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.51	LCS	P	0 - 30
LFB	Endrin Ketone	4.03	LCS	P	0 - 30
LFB	Esfenvalerate	0.557	LCS	P	0 - 30
LFB	Ethalfuralin	6.47	LCS	P	0 - 30
LFB	Fenpropathrin	3.06	LCS	P	0 - 30
LFB	Gamma-BHC	5.88	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.404	LCS	P	0 - 30
LFB	Heptachlor	0.798	LCS	P	0 - 30
LFB	Heptachlor Epoxide	1.86	LCS	P	0 - 30
LFB	Hexachlorobenzene	0.262	LCS	P	0 - 30
LFB	Kepone	2.97	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	1.34	LCS	P	0 - 30
LFB	Methoxychlor	1.10	LCS	P	0 - 30
LFB	MGK-264	2.58	LCS	P	0 - 30
LFB	Mirex	0.224	LCS	P	0 - 30
LFB	Permethrin	3.12	LCS	P	0 - 30
LFB	Phenothrin	4.84	LCS	P	0 - 30
LFB	Piperonyl Butoxide	1.84	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P402013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Prallethrin	7.59	LCS	P	0 - 30
LFB	Tau-Fluvalinate	1.56	LCS	P	0 - 30
LFB	Tetramethrin	2.74	LCS	P	0 - 30
LFB	Trans-Nonachlor	4.09	LCS	P	0 - 30
LFB	Triclosan Methyl	0.439	LCS	P	0 - 30
LFB	Trifluralin	0.808	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P402013

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266184	Chlordane	3.01	Spike	P	0 - 30
2266184	Toxaphene	0.140	Spike	P	0 - 30
LFB	Chlordane	5.64	LCS	P	0 - 30
LFB	Toxaphene	1.34	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265964	3-Hydroxycarbofuran	5.07	Spike	P	0 - 30
2265964	Aldicarb	6.39	Spike	P	0 - 30
2265964	Aldicarb Sulfone	9.60	Spike	P	0 - 30
2265964	Aldicarb Sulfoxide	9.77	Spike	P	0 - 30
2265964	Carbaryl	3.32	Spike	P	0 - 30
2265964	Carbofuran	4.33	Spike	P	0 - 30
2265964	Methiocarb	5.08	Spike	P	0 - 30
2265964	Methomyl	7.57	Spike	P	0 - 30
2265964	Oxamyl	7.37	Spike	P	0 - 30
2265964	Propoxur	5.93	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401884

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266516	Acesulfame K	12.1	Spike	P	0 - 30
2266516	AMPA	5.11	Spike	P	0 - 30
2266516	Endothall	1.71	Spike	P	0 - 30
2266516	Glufosinate	1.41	Spike	P	0 - 30
2266516	Glyphosate	0.594	Spike	P	0 - 30
2266516	Sucralose	0.170	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265965	2,4-D	8.53	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P401918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265965	2,4,5-T	14.6	Spike	P	0 - 30
2265965	Acetaminophen	12.4	Spike	P	0 - 30
2265965	Acetamiprid	3.65	Spike	P	0 - 30
2265965	Afidopyropen	14.2	Spike	P	0 - 30
2265965	Bentazon	10.6	Spike	P	0 - 30
2265965	Benzovindiflupyr	21.2	Spike	P	0 - 30
2265965	Carbamazepine	1.36	Spike	P	0 - 30
2265965	Clothianidin	4.27	Spike	P	0 - 30
2265965	Dinotefuran	9.20	Spike	P	0 - 30
2265965	Diuron	10.2	Spike	P	0 - 30
2265965	Fenuron	1.16	Spike	P	0 - 30
2265965	Fluridone	14.1	Spike	P	0 - 30
2265965	Hydrocodone	10.1	Spike	P	0 - 30
2265965	Ibuprofen	18.1	Spike	P	0 - 30
2265965	Imazapyr	2.32	Spike	P	0 - 30
2265965	Imidacloprid	0.285	Spike	P	0 - 30
2265965	Linuron	19.0	Spike	P	0 - 30
2265965	Mandestrobin	16.7	Spike	P	0 - 30
2265965	MCPP	15.0	Spike	P	0 - 30
2265965	Naproxen	11.0	Spike	P	0 - 30
2265965	Primidone	3.93	Spike	P	0 - 30
2265965	Pyraclostrobin	25.1	Spike	P	0 - 30
2265965	Thiamethoxam	2.50	Spike	P	0 - 30
2265965	Tolfenpyrad	20.1	Spike	P	0 - 30
2265965	Triclopyr	15.0	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P401910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266481	Color (true)	5.60	Sample	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P402031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266796	Total Alkalinity	2.15	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011

Batch ID: P402432

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267072	TDS	6.48	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P402433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2267075	TDS	4.36	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P402036

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266796	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P402489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266484	Organic Carbon	0.212	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2266516

Field Sample ID: G2TLHR0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	58.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.7	P	30 - 160
EPA 8321B	Diuron-d6	80.3	P	30 - 160
EPA 8321B	Endothall-d6	92.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	117	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.4	P	30 - 160
EPA 8321B	Primidone-d5	76.0	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	30 - 160

Lab Sample ID: 2266517

Field Sample ID: G2TLHR0057

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	137	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	119	P	30 - 160
EPA 8321B	Diuron-d6	101	P	30 - 160
EPA 8321B	Endothall-d6	89.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	78.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.3	P	30 - 160
EPA 8321B	Primidone-d5	91.4	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160

Lab Sample ID: 2266518

Field Sample ID: G2TLHR0043

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	120	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	109	P	30 - 160
EPA 8321B	Diuron-d6	92.8	P	30 - 160
EPA 8321B	Endothall-d6	88.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.3	P	30 - 160
EPA 8321B	Primidone-d5	87.6	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2266519

Field Sample ID: G2TLHR0015

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	79.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	110	P	30 - 160
EPA 8321B	Diuron-d6	88.4	P	30 - 160
EPA 8321B	Endothall-d6	89.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	100	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.7	P	30 - 160
EPA 8321B	Primidone-d5	81.7	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2266520
Field Sample ID: FB_08022021

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	79.5	P	30 - 160

Lab Sample ID: 2266521
Field Sample ID: FB_08022021

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	79.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	59.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.5	P	30 - 160
EPA 8321B	Diuron-d6	86.4	P	30 - 160
EPA 8321B	Endothall-d6	86.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	104	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.4	P	30 - 160
EPA 8321B	Primidone-d5	71.0	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2266522
Field Sample ID: G2TLHR0015

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	55.6	P	29 - 92.0
EPA 8276	PCNB	70.7	P	43 - 134

Lab Sample ID: 2266523
Field Sample ID: FB_08022021

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	81.3	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	70.8	P	30 - 110
EPA 8276	Decachlorobiphenyl	56.2	P	29 - 92.0
EPA 8276	PCNB	73.7	P	43 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A107006

Included Lab Sample IDs: 2266479, 2266486, 2266487, 2266488, 2266493, 2266494, 2266497, 2266500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.7	P/P	90 - 110
O-Phosphate-P	98.7	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A107007

Included Lab Sample IDs: 2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498

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

Reference Method: SM 2120 B-2011

Run ID: A107010

Included Lab Sample IDs: 2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.0	98.5	P/P	85 - 115
Color (true)	99.3	98.5	P/P	85 - 115

Reference Method: EPA 8321B

Run ID: A107050

Included Lab Sample IDs: 2266516, 2266517, 2266518, 2266519, 2266521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	114	104	P/P	60 - 160
Acesulfame K	98.0	114	P/P	60 - 160
Endothall	85.9	69.8	P/P	60 - 160
Endothall	94.5	85.9	P/P	60 - 160
Sucralose	105	97.7	P/P	60 - 160
Sucralose	97.7	93.2	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A107055

Included Lab Sample IDs: 2266520

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	103	103	P/P	60 - 150
Aldicarb	107	101	P/P	60 - 150
Aldicarb Sulfone	102	102	P/P	50 - 150
Aldicarb Sulfoxide	103	103	P/P	50 - 150
Carbaryl	104	106	P/P	60 - 150
Carbofuran	105	103	P/P	50 - 150
Methiocarb	102	107	P/P	50 - 150
Methomyl	102	103	P/P	50 - 150
Oxamyl	103	103	P/P	50 - 150
Propoxur	105	109	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107057

Included Lab Sample IDs: 2266478, 2266483, 2266484, 2266485, 2266491, 2266492, 2266496, 2266499

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107057

Included Lab Sample IDs: 2266478, 2266483, 2266484, 2266485, 2266491, 2266492, 2266496, 2266499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110
NO2NO3-N	102	102	P/P	90 - 110
NO2NO3-N	103	102	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A107058

Included Lab Sample IDs: 2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.9	103	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A107058

Included Lab Sample IDs: 2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498

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

Reference Method: EPA 8321B

Run ID: A107073

Included Lab Sample IDs: 2266516, 2266517, 2266518, 2266519, 2266521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	105	106	P/P	60 - 160
Glufosinate	104	108	P/P	60 - 160
Glyphosate	106	106	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107087

Included Lab Sample IDs: 2266478, 2266491, 2266496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	104	P/P	90 - 110
Total-P	104	106	P/P	90 - 110
Total-P	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107092

Included Lab Sample IDs: 2266483, 2266484, 2266485, 2266492, 2266499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.2	98.5	P/P	90 - 110
Total-P	98.5	98.0	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A107110

Included Lab Sample IDs: 2266523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.8		P	80 - 120
Alpha-BHC	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A107110
Included Lab Sample IDs: 2266523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-Chlordane	104		P	80 - 120
Beta-BHC	101		P	80 - 120
Beta-Cyfluthrin	102		P	80 - 120
Bifenthrin	101		P	80 - 120
Carbophenothion	102		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cis-Nonachlor	98.6		P	80 - 120
Cypermethrin	103		P	80 - 120
Dacthal	96.1		P	80 - 120
DDD-p,p'	99.3		P	80 - 120
DDE-p,p'	95.6		P	80 - 120
DDT-p,p'	95.2		P	80 - 120
Delta-BHC	107		P	80 - 120
Deltamethrin	97.4		P	80 - 120
Dichlobenil	96.0		P	80 - 120
Dicofol	102		P	80 - 120
Dieldrin	103		P	80 - 120
Endosulfan I	95.6		P	80 - 120
Endosulfan II	97.9		P	80 - 120
Endosulfan Sulfate	97.7		P	80 - 120
Endrin	99.6		P	80 - 120
Endrin Aldehyde	101		P	80 - 120
Endrin Ketone	99.8		P	80 - 120
Esfenvalerate	100		P	80 - 120
Ethalfuralin	97.1		P	80 - 120
Fenpropathrin	96.1		P	80 - 120
Gamma-BHC	100		P	80 - 120
Gamma-Chlordane	93.8		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	95.1		P	80 - 120
Hexachlorobenzene	103		P	80 - 120
Kepone	91.6		P	80 - 120
Lambda-Cyhalothrin	104		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	99.2		P	80 - 120
Mirex	94.6		P	80 - 120
Permethrin	101		P	80 - 120
Phenothrin	102		P	80 - 120
Piperonyl Butoxide	102		P	80 - 120
Prallethrin	95.4		P	80 - 120
Tau-Fluvalinate	99.1		P	80 - 120
Tetramethrin	99.7		P	80 - 120
Trans-Nonachlor	97.7		P	80 - 120
Triclosan Methyl	95.1		P	80 - 120
Trifluralin	95.4		P	80 - 120

Reference Method: EPA 8321B
Run ID: A107122
Included Lab Sample IDs: 2266516, 2266517, 2266518, 2266519, 2266521

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

Reference Method: EPA 8321B

Run ID: A107122

Included Lab Sample IDs: 2266516, 2266517, 2266518, 2266519, 2266521

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.8	98.7	P/P	50 - 150
2,4,5-T	98.4	104	P/P	50 - 150
Acetaminophen	108	113	P/P	60 - 160
Acetamiprid	109	108	P/P	50 - 150
Afidopyropen	112	113	P/P	50 - 150
Bentazon	124	128	P/P	50 - 160
Benzovindiflupyr	119	119	P/P	50 - 150
Carbamazepine	108	109	P/P	60 - 150
Clothianidin	92.9	91.0	P/P	60 - 150
Dinotefuran	113	112	P/P	50 - 150
Diuron	116	114	P/P	60 - 160
Fenuron	108	109	P/P	60 - 150
Fluridone	123	126	P/P	60 - 160
Hydrocodone	113	112	P/P	60 - 150
Ibuprofen	108	112	P/P	50 - 160
Imazapyr	117	121	P/P	50 - 150
Imidacloprid	99.8	99.6	P/P	60 - 150
Linuron	105	93.5	P/P	60 - 150
Mandestrobin	122	125	P/P	50 - 150
MCPP	92.4	91.6	P/P	50 - 150
Naproxen	87.4	95.5	P/P	50 - 160
Primidone	93.8	90.7	P/P	60 - 150
Pyraclostrobin	119	121	P/P	60 - 150
Thiamethoxam	115	112	P/P	50 - 150
Tolfenpyrad	105	105	P/P	60 - 150
Triclopyr	98.6	99.3	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107154

Included Lab Sample IDs: 2266478, 2266483, 2266484, 2266485, 2266491, 2266492, 2266496, 2266499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	98.6	P/P	90 - 110
Ammonia-N	99.4	98.9	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A107166

Included Lab Sample IDs: 2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.6	98.8	P/P	90 - 110
Chloride	98.8	99.1	P/P	90 - 110
Sulfate	98.3	98.7	P/P	90 - 110
Sulfate	98.5	98.3	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A107203

Included Lab Sample IDs: 2266522, 2266523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276

Run ID: A107203

Included Lab Sample IDs: 2266522, 2266523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Toxaphene	101		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107219

Included Lab Sample IDs: 2266524, 2266525, 2266526, 2266527, 2266528, 2266529, 2266530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	97.7	99.0	P/P	95 - 105
Barium	99.0	94.6	P/P	90 - 110
Calcium	104	99.2	P/P	90 - 110
Calcium	98.3	104	P/P	95 - 105
Iron	103	99.3	P/P	90 - 110
Iron	98.4	103	P/P	95 - 105
Magnesium	103	99.9	P/P	90 - 110
Magnesium	98.4	103	P/P	95 - 105
Manganese	103	104	P/P	95 - 105
Manganese	104	99.2	P/P	90 - 110
Potassium	95.8	99.8	P/P	95 - 105
Potassium	99.8	95.5	P/P	90 - 110
Sodium	102	97.2	P/P	90 - 110
Sodium	98.5	102	P/P	95 - 105
Zinc	101	104	P/P	95 - 105
Zinc	104	99.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107222

Included Lab Sample IDs: 2266524, 2266525, 2266526, 2266527, 2266528, 2266529, 2266530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	99.0	P/P	90 - 110
Aluminum	101	100	P/P	90 - 110
Antimony	100	101	P/P	90 - 110
Antimony	101	101	P/P	90 - 110
Arsenic	99.2	99.3	P/P	90 - 110
Arsenic	99.3	98.2	P/P	90 - 110
Beryllium	98.1	99.9	P/P	90 - 110
Beryllium	99.9	98.9	P/P	90 - 110
Boron	96.9	95.8	P/P	90 - 110
Boron	98.9	96.9	P/P	90 - 110
Cadmium	97.3	98.0	P/P	90 - 110
Cadmium	98.0	98.9	P/P	90 - 110
Chromium	101	98.9	P/P	90 - 110
Chromium	99.1	101	P/P	90 - 110
Copper	98.4	96.2	P/P	90 - 110
Copper	98.4	98.4	P/P	90 - 110
Lead	97.1	97.0	P/P	90 - 110
Lead	97.7	97.1	P/P	90 - 110
Nickel	99.1	96.3	P/P	90 - 110
Nickel	99.7	99.1	P/P	90 - 110
Selenium	97.3	97.4	P/P	90 - 110
Selenium	97.4	96.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107222

Included Lab Sample IDs: 2266524, 2266525, 2266526, 2266527, 2266528, 2266529, 2266530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	94.1	94.2	P/P	90 - 110
Silver	94.4	94.1	P/P	90 - 110
Thallium	99.3	100	P/P	90 - 110
Thallium	100	99.4	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A107256

Included Lab Sample IDs: 2266478, 2266483, 2266484, 2266485, 2266491, 2266492, 2266496, 2266499

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.7	P/P	90 - 110
Organic Carbon	98.0	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107355

Included Lab Sample IDs: 2266499

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107391

Included Lab Sample IDs: 2266478, 2266483, 2266484, 2266485, 2266496

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107481

Included Lab Sample IDs: 2266491, 2266492

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	102	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							0.738	
EPA 200.7 Rev. 4.4	Barium	90.0		94.4	99.2	100			1.01
	Calcium	95.9		80.1	97.2	103			3.47
	Iron	98.8		103	102	104			1.40
	Magnesium	100		84.8	104	105			0.982
	Manganese	90.8		96.2	99.4	101			1.48
	Potassium	88.8		90.7	98.2	99.0			0.903
	Sodium	95.9		82.8	96.4	101			3.17
	Zinc	88.8		97.4	99.3	101			1.59
EPA 200.8 Rev. 5.4	Aluminum	101		98.6	98.6	99.9			0.0371
	Antimony	103		102	103	106			1.29
	Arsenic	101		98.7	99.3	102			0.615
	Beryllium	101		99.9	100	100			0.335
	Boron	101		97.5	98.0	98.0			0.480
	Cadmium	99.7		98.4	98.2	101			0.208
	Chromium	102		101	103	105			2.09
	Copper	101		101	102	100			0.870
	Lead	101		99.6	101	103			1.23
	Nickel	102		99.6	101	101			1.33
	Selenium	99.8		97.3	98.2	96.9			0.902
	Silver	102		98.6	111	99.5			11.5
	Thallium	103		102	103	106			1.48
EPA 300.0 Rev. 2.1	Chloride	97.7		95.5	97.5			1.19	
	Sulfate	97.0		95.3	97.3			1.63	
EPA 350.1 Rev. 2.0	Ammonia-N	101		97.6	97.4				0.122
	Ammonia-N	101		99.4	99.6				0.182
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107							0.409
	Kjeldahl Nitrogen	108		108	109				0.877
	Kjeldahl Nitrogen	103		109	114				4.41
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102		102	99.5				1.11
	NO ₂ NO ₃ -N	102		100	100				0.0
EPA 365.1 Rev. 2.0	Total-P	106		102	103				0.472
	Total-P	106		108	103				4.68
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.9		97.3	96.7				0.554
EPA 8270E	Aldrin	44.7	43.4	38.6	39.8	2.83			3.17
	Alpha-BHC	83.8	82.4	86.0	89.4	1.62			3.82
	Alpha-Chlordane	77.6	77.2	76.0	78.0	0.527			2.64
	Beta-BHC	94.5	91.6	103	105	3.10			2.20
	Beta-Cyfluthrin	78.9	77.1	102	103	2.36			1.28
	Bifenthrin	52.5	52.8	64.2	67.1	0.585			4.39
	Carbophenothion	58.0	54.7	59.5	58.8	5.69			1.11
	Chlorothalonil	103	102	108	109	1.57			0.921
	Cis-Nonachlor	71.9	69.7	71.9	74.5	3.12			3.54
	Cypermethrin	75.5	75.5	97.5	99.0	0.0341			1.58
	Dacthal	87.9	88.1	87.7	88.4	0.176			0.758
	DDD-p,p'	68.9	68.2	70.6	72.2	1.02			2.27
	DDE-p,p'	74.9	75.0	74.6	75.8	0.158			1.60
	DDT-p,p'	80.4	80.9	79.6	80.9	0.622			1.59
	Delta-BHC	103	103	110	113	0.296			3.22
	Deltamethrin	81.6	83.0	108	110	1.74			1.90
	Dichlobenil	73.0	76.4	82.9	82.3	4.58			0.671
	Dicofol	81.6	84.4	86.2	83.4	3.37			3.34
	Dieldrin	80.5	81.0	86.4	87.9	0.623			1.71
	Endosulfan I	75.1	74.2	72.7	73.9	1.14			1.68

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Endosulfan II	76.4	76.8	80.3	82.5	0.610		2.69
	Endosulfan Sulfate	86.4	93.3	90.2	91.0	7.63		0.904
	Endrin	75.2	74.2	75.5	77.0	1.27		1.93
	Endrin Aldehyde	68.0	71.1	74.7	76.5	4.51		2.32
	Endrin Ketone	82.6	86.0	88.2	90.2	4.03		2.16
	Esfenvalerate	68.1	67.7	92.3	93.5	0.557		1.34
	Ethalfuralin	72.0	67.5	68.9	68.1	6.47		1.09
	Fenpropathrin	67.5	65.5	74.6	75.3	3.06		1.01
	Gamma-BHC	86.0	91.2	93.5	95.5	5.88		2.17
	Gamma-Chlordane	69.4	69.7	70.2	72.0	0.404		2.57
	Heptachlor	69.8	69.2	68.7	69.8	0.798		1.62
	Heptachlor Epoxide	72.9	74.2	74.6	77.7	1.86		4.01
	Hexachlorobenzene	71.1	71.0	72.0	72.6	0.262		0.843
	Kepone	124	120	130	123	2.97		5.39
	Lambda-Cyhalothrin	63.7	64.6	92.1	89.6	1.34		2.81
	Methoxychlor	72.8	73.7	74.6	74.6	1.10		0.0419
	MGK-264	70.9	72.7	69.3	70.1	2.58		1.10
	Mirex	56.7	56.5	61.2	62.4	0.224		1.89
	Permethrin	72.1	74.4	93.3	95.6	3.12		2.42
	Phenothrin	51.0	48.6	47.1	50.6	4.84		7.17
	Piperonyl Butoxide	93.9	92.2	101	103	1.84		1.53
	Prallethrin	58.3	62.9	61.5	61.1	7.59		0.659
	Tau-Fluvalinate	60.9	61.9	86.8	86.9	1.56		0.0665
	Tetramethrin	65.4	63.7	61.3	66.8	2.74		8.60
	Trans-Nonachlor	70.4	73.4	71.7	75.3	4.09		4.91
	Triclosan Methyl	79.5	79.8	76.9	78.8	0.439		2.44
	Trifluralin	70.8	70.2	69.8	70.8	0.808		1.47
EPA 8276	Chlordane	85.9	90.9	80.7	83.2	5.64		3.01
	Toxaphene	96.1	94.8	91.2	91.1	1.34		0.140
EPA 8321B	2,4-D	98.3		81.9	74.1			8.53
	2,4,5-T	95.2		77.8	67.2			14.6
	3-Hydroxycarbofuran	86.7		85.8	90.3			5.07
	Acesulfame K	113		125	111			12.1
	Acetaminophen	96.7		119	105			12.4
	Acetamiprid	75.6		70.0	72.6			3.65
	Afidopyropen	58.5		44.8	51.7			14.2
	Aldicarb	75.3		78.7	83.9			6.39
	Aldicarb Sulfone	87.3		96.2	106			9.60
	Aldicarb Sulfoxide	82.3		38.3	42.3			9.77
	AMPA	100		110	116			5.11
	Bentazon	99.0		69.7	57.9			10.6
	Benzovindiflupyr	85.7		61.3	49.5			21.2
	Carbamazepine	78.9		77.4	78.6			1.36
	Carbaryl	78.8		76.8	79.3			3.32
	Carbofuran	79.2		79.7	83.2			4.33
	Clothianidin	79.0		84.6	81.1			4.27
	Dinotefuran	83.4		98.5	108			9.20
	Diuron	81.0		69.6	61.7			10.2
	Endothall	87.3		92.6	91.0			1.71
	Fenuron	86.8		84.8	85.8			1.16
	Fluridone	89.8		71.8	62.4			14.1
	Glufosinate	95.9		131	129			1.41
	Glyphosate	102		110	109			0.594
	Hydrocodone	84.7		92.2	102			10.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Ibuprofen	79.6	58.0	48.3		18.1
	Imazapyr	95.6	124	127		2.32
	Imidacloprid	80.5	93.2	93.0		0.285
	Linuron	80.3	63.0	52.0		19.0
	Mandestrobin	88.2	70.0	59.3		16.7
	MCCP	94.2	82.0	70.1		15.0
	Methiocarb	79.0	77.6	81.6		5.08
	Methomyl	86.9	84.3	90.9		7.57
	Naproxen	80.5	62.2	55.7		11.0
	Oxamyl	88.7	89.8	96.7		7.37
	Primidone	79.4	83.1	86.4		3.93
	Propoxur	83.6	81.5	86.4		5.93
	Pyraclostrobin	83.4	59.3	46.1		25.1
	Sucralose	95.0	95.7	95.6		0.170
	Thiamethoxam	86.1	100	103		2.50
	Tolfenpyrad	48.5	35.4	29.0		20.1
	Triclopyr	96.0	78.7	67.7		15.0
SM 2120 B-2011	Color (true)	98.5			5.60	
SM 2320 B-2011	Total Alkalinity	103			2.15	
SM 2540 C-2011	TDS				6.48	
	TDS				4.36	
SM 4500 F-C-2011	Fluoride	98.4	97.9	97.9		0.0
SM 5310 B-2011	Organic Carbon	98.3	97.0	96.7		0.212

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2266524, 2266525, 2266526, 2266527, 2266528, 2266529, 2266530
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2266524, 2266525, 2266526, 2266527, 2266528, 2266529, 2266530
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2266478, 2266483, 2266484, 2266485, 2266491, 2266492, 2266496, 2266499
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2266478, 2266483, 2266484, 2266485, 2266491, 2266492, 2266496, 2266499
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2266478, 2266483, 2266484, 2266485, 2266491, 2266492, 2266496, 2266499
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2266478, 2266483, 2266484, 2266485, 2266491, 2266492, 2266496, 2266499
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2266479, 2266486, 2266487, 2266488, 2266493, 2266494, 2266497, 2266500
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2266523
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2266522, 2266523
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2266520
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2266516, 2266517, 2266518, 2266519, 2266521
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498

Reference Method Descriptions

Method	Description	Associated Samples
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2266524, 2266525, 2266526, 2266527, 2266528, 2266529, 2266530
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2266478, 2266483, 2266484, 2266485, 2266491, 2266492, 2266496, 2266499

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	08/02/2021			08/03/2021 16:13	Sarah A Nixon	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
EPA 200.7 Rev. 4.4	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 12:31	Betina Topolski	2266530
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 12:55	Betina Topolski	2266524
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 13:00	Betina Topolski	2266525
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 13:04	Betina Topolski	2266526
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 13:09	Betina Topolski	2266527
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 13:30	Betina Topolski	2266528
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 13:34	Betina Topolski	2266529
EPA 200.8 Rev. 5.4	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 14:10	Alexander Thompson	2266530
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 16:06	Alexander Thompson	2266524
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 16:15	Alexander Thompson	2266525
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 16:25	Alexander Thompson	2266526
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 16:35	Alexander Thompson	2266527
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 16:44	Alexander Thompson	2266528
	08/02/2021	08/11/2021 16:45	Elliott D. Healy	08/12/2021 16:54	Alexander Thompson	2266529
EPA 300.0 Rev. 2.1	08/02/2021			08/11/2021 13:12	Lipi Saha	2266490
	08/02/2021			08/11/2021 14:24	Lipi Saha	2266477
	08/02/2021			08/11/2021 14:37	Lipi Saha	2266480
	08/02/2021			08/11/2021 14:49	Lipi Saha	2266481
	08/02/2021			08/11/2021 15:01	Lipi Saha	2266482
	08/02/2021			08/11/2021 15:37	Lipi Saha	2266489
	08/02/2021			08/11/2021 15:49	Lipi Saha	2266495
	08/02/2021			08/11/2021 16:02	Lipi Saha	2266498
EPA 350.1 Rev. 2.0	08/02/2021			08/10/2021 13:02	Ping Hua	2266492
	08/02/2021			08/10/2021 13:06	Ping Hua	2266483
	08/02/2021			08/10/2021 13:07	Ping Hua	2266484
	08/02/2021			08/10/2021 13:08	Ping Hua	2266485
	08/02/2021			08/10/2021 13:10	Ping Hua	2266491
	08/02/2021			08/10/2021 13:11	Ping Hua	2266496
	08/02/2021			08/10/2021 13:16	Ping Hua	2266499
	08/02/2021			08/10/2021 14:07	Ping Hua	2266478
EPA 351.2 Rev. 2.0	08/02/2021	08/18/2021 14:23	Benjamin T. Nordmann	08/19/2021 14:07	Virginia P. Brown	2266499
	08/02/2021	08/20/2021 15:23	Benjamin T. Nordmann	08/23/2021 10:21	Virginia P. Brown	2266478
	08/02/2021	08/20/2021 15:23	Benjamin T. Nordmann	08/23/2021 10:26	Virginia P. Brown	2266483
	08/02/2021	08/20/2021 15:23	Benjamin T. Nordmann	08/23/2021 10:28	Virginia P. Brown	2266484
	08/02/2021	08/20/2021 15:23	Benjamin T. Nordmann	08/23/2021 10:29	Virginia P. Brown	2266485
	08/02/2021	08/20/2021 15:23	Benjamin T. Nordmann	08/23/2021 10:34	Virginia P. Brown	2266496
	08/02/2021	08/24/2021 17:15	Benjamin T. Nordmann	08/25/2021 15:59	Virginia P. Brown	2266491
	08/02/2021	08/24/2021 17:15	Benjamin T. Nordmann	08/25/2021 16:01	Virginia P. Brown	2266492

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 353.2 Rev. 2.0	08/02/2021			08/05/2021 10:06	Beverly Y. Sanders	2266478
	08/02/2021			08/05/2021 10:19	Beverly Y. Sanders	2266483
	08/02/2021			08/05/2021 10:20	Beverly Y. Sanders	2266484
	08/02/2021			08/05/2021 10:21	Beverly Y. Sanders	2266485
	08/02/2021			08/05/2021 10:34	Beverly Y. Sanders	2266492
	08/02/2021			08/05/2021 10:35	Beverly Y. Sanders	2266496
	08/02/2021			08/05/2021 10:37	Beverly Y. Sanders	2266499
	08/02/2021			08/05/2021 11:18	Beverly Y. Sanders	2266491
	08/02/2021			08/05/2021 11:18	Beverly Y. Sanders	2266491
EPA 365.1 Rev. 2.0	08/02/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 08:46	Shengyu Ding	2266478
	08/02/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 08:52	Shengyu Ding	2266491
	08/02/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 09:14	Shengyu Ding	2266496
	08/02/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 11:51	Shengyu Ding	2266483
	08/02/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 11:59	Shengyu Ding	2266484
	08/02/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 12:00	Shengyu Ding	2266485
	08/02/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 12:05	Shengyu Ding	2266499
EPA 365.1 Rev. 2.0 dissolved	08/02/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 12:08	Shengyu Ding	2266492
	08/02/2021			08/03/2021 15:50	Patrick M. Roche	2266487
	08/02/2021			08/03/2021 15:52	Patrick M. Roche	2266479
	08/02/2021			08/03/2021 15:53	Patrick M. Roche	2266486
	08/02/2021			08/03/2021 15:54	Patrick M. Roche	2266488
	08/02/2021			08/03/2021 15:55	Patrick M. Roche	2266493
	08/02/2021			08/03/2021 15:56	Patrick M. Roche	2266494
	08/02/2021			08/03/2021 16:01	Patrick M. Roche	2266497
EPA 8270E	08/02/2021			08/03/2021 16:02	Patrick M. Roche	2266500
	08/02/2021	08/04/2021 08:00	Rasheda Ghaffari	08/07/2021 00:39	Arthur Maknenko	2266523
	08/02/2021	08/04/2021 08:00	Rasheda Ghaffari	08/06/2021 18:31	Julie Wi	2266522
EPA 8276	08/02/2021	08/04/2021 08:00	Rasheda Ghaffari	08/06/2021 19:26	Julie Wi	2266523
	08/02/2021	08/04/2021 08:30	Hoor Shaik	08/05/2021 02:01	Juyoung Kim	2266520
EPA 8321B	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/04/2021 14:25	Juyoung Kim	2266516
	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/04/2021 14:38	Juyoung Kim	2266517
	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/04/2021 14:52	Juyoung Kim	2266518
	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/04/2021 15:06	Juyoung Kim	2266519
	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/04/2021 15:33	Juyoung Kim	2266521
	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/05/2021 12:08	Juyoung Kim	2266516
	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/05/2021 12:19	Juyoung Kim	2266517
	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/05/2021 12:29	Juyoung Kim	2266518
	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/05/2021 12:40	Juyoung Kim	2266519
	08/02/2021	08/04/2021 13:15	Juyoung Kim	08/05/2021 12:51	Juyoung Kim	2266521
	08/02/2021	08/04/2021 14:00	Hoor Shaik	08/07/2021 04:42	Juyoung Kim	2266516
	08/02/2021	08/04/2021 14:00	Hoor Shaik	08/07/2021 05:17	Juyoung Kim	2266517

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	08/02/2021	08/04/2021 14:00	Hoor Shaik	08/07/2021 05:51	Juyoung Kim	2266518
	08/02/2021	08/04/2021 14:00	Hoor Shaik	08/07/2021 06:26	Juyoung Kim	2266519
	08/02/2021	08/04/2021 14:00	Hoor Shaik	08/07/2021 07:00	Juyoung Kim	2266521
SM 2120 B-2011	08/02/2021			08/03/2021 17:42	Madeline Gruver	2266477
	08/02/2021			08/03/2021 17:44	Madeline Gruver	2266481
	08/02/2021			08/03/2021 17:46	Madeline Gruver	2266489, 2266490
	08/02/2021			08/03/2021 17:47	Madeline Gruver	2266495, 2266498
	08/02/2021			08/03/2021 18:27	Madeline Gruver	2266480
	08/02/2021			08/03/2021 18:28	Madeline Gruver	2266482
SM 2320 B-2011	08/02/2021			08/04/2021 16:40	Dale L. Simmons	2266477
	08/02/2021			08/04/2021 16:48	Dale L. Simmons	2266480
	08/02/2021			08/04/2021 17:03	Dale L. Simmons	2266481
	08/02/2021			08/04/2021 17:10	Dale L. Simmons	2266482
	08/02/2021			08/04/2021 17:20	Dale L. Simmons	2266489
	08/02/2021			08/04/2021 17:34	Dale L. Simmons	2266490
SM 2340B	08/02/2021			08/04/2021 17:48	Dale L. Simmons	2266495
	08/02/2021			08/04/2021 17:57	Dale L. Simmons	2266498
	08/02/2021			08/12/2021 12:31	Betina Topolski	2266530
	08/02/2021			08/12/2021 12:55	Betina Topolski	2266524
	08/02/2021			08/12/2021 13:00	Betina Topolski	2266525
	08/02/2021			08/12/2021 13:04	Betina Topolski	2266526
SM 2540 C-2011	08/02/2021			08/12/2021 13:09	Betina Topolski	2266527
	08/02/2021			08/12/2021 13:30	Betina Topolski	2266528
	08/02/2021			08/12/2021 13:34	Betina Topolski	2266529
	08/02/2021			08/06/2021 15:32	Yijie Li	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
SM 2540 D-2011	08/02/2021			08/06/2021 15:32	Yijie Li	2266477, 2266480, 2266481, 2266482, 2266489, 2266490, 2266495, 2266498
SM 4500 F-C-2011	08/02/2021			08/04/2021 16:40	Dale L. Simmons	2266477
	08/02/2021			08/04/2021 16:48	Dale L. Simmons	2266480
	08/02/2021			08/04/2021 17:03	Dale L. Simmons	2266481
	08/02/2021			08/04/2021 17:10	Dale L. Simmons	2266482
	08/02/2021			08/04/2021 17:20	Dale L. Simmons	2266489
	08/02/2021			08/04/2021 17:34	Dale L. Simmons	2266490
SM 5310 B-2011	08/02/2021			08/04/2021 17:48	Dale L. Simmons	2266495
	08/02/2021			08/04/2021 17:57	Dale L. Simmons	2266498
	08/02/2021			08/13/2021 21:10	Touraj Touran	2266484
	08/02/2021			08/13/2021 22:04	Touraj Touran	2266485
	08/02/2021			08/13/2021 23:39	Touraj Touran	2266478
	08/02/2021			08/13/2021 23:52	Touraj Touran	2266483

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-2011	08/02/2021			08/14/2021 00:05	Touraj Touran	2266491
	08/02/2021			08/14/2021 00:18	Touraj Touran	2266492
	08/02/2021			08/14/2021 00:31	Touraj Touran	2266496
	08/02/2021			08/14/2021 00:44	Touraj Touran	2266499