Chemical Analysis Report

NE-DIST-2020-02-19-01

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

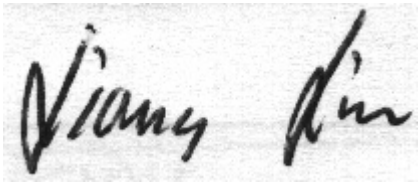
Event Description: **LSJR East 2020**
Request ID: **RQ-2020-02-17-31**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

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: Liang Lin, Environmental Administrator

Date Certified: 13-MAR-2020 11:18



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Greenfield Creek @ Queens Harbour Blvd **Collection Date/Time: 02/18/2020 09:25**

Field ID: 20030809 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159120	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P379330	
	EPA 300.0 Rev. 2.1	Chloride	2.5E+03		mg Cl/L	P380075	
		Sulfate	380		mg SO4/L	P379723	
	SM 2120 B-2011	Color (true)	58		PCU	P379231	
	SM 2320 B-2011	Total Alkalinity	92		mg CaCO3/L	P379786	
	SM 2540 C-2011	TDS	4.26E+03		mg/L	P379936	
	SM 2540 D-2011	TSS	3	I	mg/L	P379962	
	SM 4500 F-C-2011	Fluoride	0.23		mg F/L	P379747	
2159121	EPA 350.1 Rev. 2.0	Ammonia-N	0.050		mg N/L	P379730	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P379312	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.088		mg N/L	P380354	
	EPA 365.1 Rev. 2.0	Total-P	0.064		mg P/L	P379841	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P379433	
2159122	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.023		mg P/L	P379216	
2159142	EPA 8321B	2,4-D	0.075		ug/L	P379284	
		Acesulfame K**	0.10	U	ug/L	P379180	MS
		AMPA**	1.0	U	ug/L	P379180	
		Sucralose**	0.27		ug/L	P379180	
		Acetaminophen**	0.0080	U	ug/L	P379284	
		Acetamiprid**	0.0020	U	ug/L	P379284	
		Endothall**	0.25	U	ug/L	P379180	
		Glufosinate**	1.0	U	ug/L	P379180	
		Glyphosate**	1.0	U	ug/L	P379180	
		Afidopyropen**	0.0020	UJ	ug/L	P379284	
		Bentazon	0.036		ug/L	P379284	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379284	
		Carbamazepine**	8.0E-04	U	ug/L	P379284	
		Clothianidin**	0.0021	I	ug/L	P379284	
		Dinotefuran**	0.0020	U	ug/L	P379284	
		Diuron	0.0048	I	ug/L	P379284	
		Fenuron	0.016	U	ug/L	P379284	
		Fluridone**	0.082		ug/L	P379284	
		Imazapyr**	0.18		ug/L	P379284	
		Hydrocodone**	0.0020	U	ug/L	P379284	
		Ibuprofen**	0.020	U	ug/L	P379284	
		Imidacloprid	0.0092		ug/L	P379284	MS
		Linuron	0.0040	U	ug/L	P379284	
		Mandestrobin**	0.0020	UJ	ug/L	P379284	
		MCPP	0.058		ug/L	P379284	
		Naproxen**	0.0080	U	ug/L	P379284	
		Primidone**	0.0040	U	ug/L	P379284	
		Pyraclostrobin**	0.0020	U	ug/L	P379284	
		Thiamethoxam**	0.0020	U	ug/L	P379284	

Field ID: 20030809 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159142	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379284	
		Triclopyr**	0.0040	U	ug/L	P379284	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis.
EPA 8321B: MDL for some parameters elevated due to matrix interference.

Sample Location: Newcastle Cr @ Ft Caroline Hills Rd **Collection Date/Time: 02/18/2020 10:05**

Field ID: 20030872 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159114	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P379330	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P379720	
		Sulfate	34		mg SO4/L	P379723	
	SM 2120 B-2011	Color (true)	10		PCU	P379231	
	SM 2320 B-2011	Total Alkalinity	37		mg CaCO3/L	P379786	
	SM 2540 C-2011	TDS	125		mg/L	P379935	
	SM 2540 D-2011	TSS	6	I	mg/L	P379961	
	SM 4500 F-C-2011	Fluoride	0.037	I	mg F/L	P379747	
2159116	EPA 350.1 Rev. 2.0	Ammonia-N	0.068		mg N/L	P379577	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P379483	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.29		mg N/L	P380098	
	EPA 365.1 Rev. 2.0	Total-P	0.048		mg P/L	P379843	
	SM 5310 B-2011	Organic Carbon	2.6		mg C/L	P379433	
2159118	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.013		mg P/L	P379215	
2159140	EPA 8321B	2,4-D	0.0041	I	ug/L	P379284	
		Acesulfame K**	0.10	U	ug/L	P379180	MS
		AMPA**	0.10	U	ug/L	P379180	
		Sucralose**	0.010	U	ug/L	P379180	
		Acetaminophen**	0.0080	U	ug/L	P379284	
		Acetamiprid**	0.0020	U	ug/L	P379284	
		Endothall**	0.25	U	ug/L	P379180	
		Glufosinate**	0.10	U	ug/L	P379180	
		Glyphosate**	0.48		ug/L	P379180	
		Afidopyropen**	0.0020	UJ	ug/L	P379284	
		Bentazon	0.10		ug/L	P379284	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379284	
		Carbamazepine**	8.0E-04	U	ug/L	P379284	
		Clothianidin**	0.0020	U	ug/L	P379284	
		Dinotefuran**	0.0020	U	ug/L	P379284	
		Diuron	0.0020	U	ug/L	P379284	
		Fenuron	0.016	U	ug/L	P379284	
		Fluridone**	8.0E-04	U	ug/L	P379284	
		Imazapyr**	0.015	I	ug/L	P379284	
		Hydrocodone**	0.0020	U	ug/L	P379284	
		Ibuprofen**	0.020	U	ug/L	P379284	
		Imidacloprid	0.011		ug/L	P379284	MS
		Linuron	0.0040	U	ug/L	P379284	
		Mandestrobin**	0.0020	UJ	ug/L	P379284	
		MCPP	0.0093		ug/L	P379284	
		Naproxen**	0.0080	U	ug/L	P379284	
		Primidone**	0.0040	U	ug/L	P379284	
		Pyraclostrobin**	0.0020	U	ug/L	P379284	
		Thiamethoxam**	0.0020	U	ug/L	P379284	

Field ID: 20030872 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159140	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379284	
		Triclopyr**	0.0040	U	ug/L	P379284	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis.

Sample Location: Little Pottsburg Creek at Emerson **Collection Date/Time: 02/18/2020 12:00**

Field ID: 20030070 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159111	EPA 180.1 Rev. 2.0	Turbidity	5.3	A	NTU	P379330	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P379720	
		Sulfate	44		mg SO4/L	P379723	
	SM 2120 B-2011	Color (true)	33	A	PCU	P379231	
	SM 2320 B-2011	Total Alkalinity	146		mg CaCO3/L	P379786	
	SM 2540 C-2011	TDS	266		mg/L	P379935	
	SM 2540 D-2011	TSS	2	I	mg/L	P379961	
	SM 4500 F-C-2011	Fluoride	0.19		mg F/L	P379747	
2159112	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P379577	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P379483	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P380098	
	EPA 365.1 Rev. 2.0	Total-P	0.096		mg P/L	P379843	
	SM 5310 B-2011	Organic Carbon	8.2		mg C/L	P379432	
2159113	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.035		mg P/L	P379215	
2159139	EPA 8321B	2,4-D	0.40		ug/L	P379284	
		Acesulfame K**	0.10	U	ug/L	P379180	MS
		AMPA**	0.64		ug/L	P379180	
		Sucralose**	0.43		ug/L	P379180	
		Acetaminophen**	0.080		ug/L	P379284	
		Acetamiprid**	0.0020	U	ug/L	P379284	
		Endothall**	0.25	U	ug/L	P379180	
		Glufosinate**	0.10	U	ug/L	P379180	
		Glyphosate**	2.2		ug/L	P379180	
		Afidopyropen**	0.0020	UJ	ug/L	P379284	
		Bentazon	0.038		ug/L	P379284	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379284	
		Carbamazepine**	0.0013	I	ug/L	P379284	
		Clothianidin**	0.0020	U	ug/L	P379284	
		Dinotefuran**	0.0071	I	ug/L	P379284	
		Diuron	0.28		ug/L	P379284	
		Fenuron	0.016	U	ug/L	P379284	
		Fluridone**	0.010		ug/L	P379284	
		Imazapyr**	0.41		ug/L	P379284	
		Hydrocodone**	0.0020	U	ug/L	P379284	
		Ibuprofen**	0.020	U	ug/L	P379284	
		Imidacloprid	0.035		ug/L	P379284	MS
		Linuron	0.0040	U	ug/L	P379284	
		Mandestrobin**	0.0020	UJ	ug/L	P379284	
		MCPP	0.083		ug/L	P379284	
		Naproxen**	0.0080	U	ug/L	P379284	
		Primidone**	0.0044	I	ug/L	P379284	
		Pyraclostrobin**	0.0020	U	ug/L	P379284	
		Thiamethoxam**	0.0020	U	ug/L	P379284	

Field ID: 20030070 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159139	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379284	
		Triclopyr**	0.0040	U	ug/L	P379284	
2159147	EPA 200.7 Rev. 4.4	Barium	40.3		ug/L	P379279	
		Calcium	65.6		mg/L	P379279	
		Iron	1.30E+03		ug/L	P379279	
		Magnesium	10.2		mg/L	P379279	
		Potassium	2.3		mg/L	P379279	
		Sodium	20.6		mg/L	P379279	
		Zinc	12	I	ug/L	P379279	
	EPA 200.8 Rev. 5.4	Aluminum	18	I	ug/L	P379279	
		Antimony	0.37		ug/L	P379279	
		Arsenic	0.73		ug/L	P379279	
		Boron**	38.2		ug/L	P379279	
		Cadmium	0.020	U	ug/L	P379279	
		Chromium	0.40	U	ug/L	P379279	
		Copper	3.32		ug/L	P379279	
		Lead	0.20	I	ug/L	P379279	
		Nickel	0.72	I	ug/L	P379279	
		Selenium	0.20	U	ug/L	P379279	
		Silver	0.010	U	ug/L	P379279	
		Thallium	0.10	U	ug/L	P379279	
	SM 2340B	Hardness	206		mg/L	P379279	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis. The surrogate 2,4-D-d3 recovery could not be assessed due to an elevated level of 2,4-D in the sample matrix.

Sample Location: Drainage Ditch Parental Home Rd **Collection Date/Time: 02/18/2020 12:40**

Field ID: 20030071 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159115	EPA 180.1 Rev. 2.0	Turbidity	5.2		NTU	P379330	
	EPA 300.0 Rev. 2.1	Chloride	57		mg Cl/L	P379720	
		Sulfate	33		mg SO4/L	P379723	
	SM 2120 B-2011	Color (true)	32		PCU	P379231	
	SM 2320 B-2011	Total Alkalinity	133		mg CaCO3/L	P379786	
	SM 2540 C-2011	TDS	296	A	mg/L	P379936	
	SM 2540 D-2011	TSS	3	I A	mg/L	P379962	
	SM 4500 F-C-2011	Fluoride	0.18		mg F/L	P379747	
2159117	EPA 350.1 Rev. 2.0	Ammonia-N	0.071		mg N/L	P379577	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P379483	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P380098	
	EPA 365.1 Rev. 2.0	Total-P	0.045		mg P/L	P379843	
	SM 5310 B-2011	Organic Carbon	8.5		mg C/L	P379433	
2159119	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P379215	
2159141	EPA 8321B	2,4-D	0.058		ug/L	P379284	
		Acesulfame K**	0.10	U	ug/L	P379180	MS
		AMPA**	0.61		ug/L	P379180	
		Sucralose**	0.12		ug/L	P379180	
		Acetaminophen**	0.0080	U	ug/L	P379284	
		Acetamiprid**	0.0020	U	ug/L	P379284	
		Endothall**	0.25	U	ug/L	P379180	
		Glufosinate**	0.10	U	ug/L	P379180	
		Glyphosate**	1.7		ug/L	P379180	
		Afidopyropen**	0.0020	UJ	ug/L	P379284	
		Bentazon	0.017		ug/L	P379284	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379284	
		Carbamazepine**	8.0E-04	U	ug/L	P379284	
		Clothianidin**	0.0020	U	ug/L	P379284	
		Dinotefuran**	0.0022	I	ug/L	P379284	
		Diuron	0.014		ug/L	P379284	
		Fenuron	0.016	U	ug/L	P379284	
		Fluridone**	0.0012	I	ug/L	P379284	
		Imazapyr**	1.0		ug/L	P379284	
		Hydrocodone**	0.0020	U	ug/L	P379284	
		Ibuprofen**	0.020	U	ug/L	P379284	
		Imidacloprid	0.013		ug/L	P379284	MS
		Linuron	0.0040	U	ug/L	P379284	
		Mandestrobin**	0.0020	UJ	ug/L	P379284	
		MCPP	0.025		ug/L	P379284	
		Naproxen**	0.0080	U	ug/L	P379284	
		Primidone**	0.0040	U	ug/L	P379284	
		Pyraclostrobin**	0.0020	U	ug/L	P379284	
		Thiamethoxam**	0.0020	U	ug/L	P379284	

Field ID: 20030071 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159141	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P379284	
		Triclopyr**	0.0040	U	ug/L	P379284	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis.

Sample Location: Big Pottsburg CR Bowden Rd **Collection Date/Time: 02/18/2020 13:00**

Field ID: 20030068 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159108	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P379329	
	EPA 300.0 Rev. 2.1	Chloride	31	A	mg Cl/L	P379720	
		Sulfate	30	A	mg SO4/L	P379723	
	SM 2120 B-2011	Color (true)	51		PCU	P379231	
	SM 2320 B-2011	Total Alkalinity	90		mg CaCO3/L	P379786	
	SM 2540 C-2011	TDS	190	A	mg/L	P379935	
	SM 2540 D-2011	TSS	3	I A	mg/L	P379961	
	SM 4500 F-C-2011	Fluoride	0.12		mg F/L	P379747	
2159109	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P379577	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P379483	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.067		mg N/L	P380098	
	EPA 365.1 Rev. 2.0	Total-P	0.082		mg P/L	P379842	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P379432	
2159110	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.040		mg P/L	P379215	
2159137	EPA 8321B	Aldicarb	0.020	U	ug/L	P379101	
		Aldicarb Sulfone	0.0020	U	ug/L	P379101	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P379101	
		Carbaryl	0.0020	U	ug/L	P379101	
		Carbofuran	0.0020	U	ug/L	P379101	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P379101	
		Methiocarb	0.0020	U	ug/L	P379101	
		Methomyl	0.0020	U	ug/L	P379101	
		Oxamyl	0.0020	U	ug/L	P379101	
		Propoxur	0.0020	U	ug/L	P379101	
2159138		2,4-D	0.047		ug/L	P379284	
		Acesulfame K**	0.10	UJ	ug/L	P379180	MS
		AMPA**	0.80		ug/L	P379180	
		Sucralose**	0.10		ug/L	P379180	
		Acetaminophen**	0.0088	I	ug/L	P379284	
		Acetamiprid**	0.0020	U	ug/L	P379284	
		Endothall**	0.25	U	ug/L	P379180	
		Glufosinate**	0.10	U	ug/L	P379180	
		Glyphosate**	8.9		ug/L	P379180	
		Afidopyropen**	0.0020	UJ	ug/L	P379284	
		Bentazon	0.044		ug/L	P379284	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P379284	
		Carbamazepine**	8.0E-04	U	ug/L	P379284	
		Clothianidin**	0.0020	U	ug/L	P379284	
		Dinotefuran**	0.0030	I	ug/L	P379284	
		Diuron	0.010		ug/L	P379284	
		Fenuron	0.016	U	ug/L	P379284	
		Fluridone**	0.026		ug/L	P379284	
		Imazapyr**	0.28		ug/L	P379284	

Field ID: 20030068 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159138	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P379284	
		Ibuprofen**	0.020	U	ug/L	P379284	
		Imidacloprid	0.025		ug/L	P379284	MS
		Linuron	0.0040	U	ug/L	P379284	
		Mandestrobin**	0.0020	UJ	ug/L	P379284	
		MCPP	0.0028	I	ug/L	P379284	
		Naproxen**	0.0080	U	ug/L	P379284	
		Primidone**	0.0040	U	ug/L	P379284	
		Pyraclostrobin**	0.0020	U	ug/L	P379284	
		Thiamethoxam**	0.0020	U	ug/L	P379284	
		Tolfenpyrad**	0.0020	U	ug/L	P379284	
		Triclopyr**	0.0040	U	ug/L	P379284	
2159145	EPA 8270E	Aldrin	4.1	U	ng/L	P379464	
		Alpha-BHC	2.1	U	ng/L	P379464	
		Alpha-Chlordane	1.0	U	ng/L	P379464	
		Beta-BHC	10	U	ng/L	P379464	
		Beta-Cyfluthrin**	15	U	ng/L	P379464	
		Bifenthrin**	4.1	U	ng/L	P379464	
		Delta-BHC	8.2	U	ng/L	P379464	
		Gamma-BHC	8.2	U	ng/L	P379464	
		Chlorothalonil	2.1	U	ng/L	P379464	
		Cis-Nonachlor**	1.0	U	ng/L	P379464	
		Cypermethrin	21	U	ng/L	P379464	
		Dacthal**	1.0	U	ng/L	P379464	
		DDD-p,p'	6.2	U	ng/L	P379464	
		DDE-p,p'	6.2	U	ng/L	P379464	
		DDT-p,p'	7.2	U	ng/L	P379464	
		Dicofol	31	U	ng/L	P379464	
		Dieldrin	4.1	U	ng/L	P379464	
		Endosulfan I	4.1	U	ng/L	P379464	
		Endosulfan II	4.1	U	ng/L	P379464	
		Endosulfan Sulfate	2.1	U	ng/L	P379464	
		Endrin	2.1	U	ng/L	P379464	
		Endrin Aldehyde	2.1	U	ng/L	P379464	
		Endrin Ketone	2.1	U	ng/L	P379464	
		Ethalfluralin**	3.1	U	ng/L	P379464	
		Gamma-Chlordane	1.0	U	ng/L	P379464	
		Heptachlor	1.5	U	ng/L	P379464	
		Heptachlor Epoxide	2.1	U	ng/L	P379464	
		Hexachlorobenzene	2.1	U	ng/L	P379464	
		Lambda-Cyhalothrin**	15	U	ng/L	P379464	
		Methoxychlor	4.1	U	ng/L	P379464	
		Mirex	2.1	U	ng/L	P379464	
		Permethrin	10	U	ng/L	P379464	
		Phenothrin**	31	UJ	ng/L	P379464	LCS

Field ID: 20030068 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159145	EPA 8270E	Prallethrin**	31	U	ng/L	P379464	
		Trans-Nonachlor**	1.0	U	ng/L	P379464	
		Trifluralin	2.6	U	ng/L	P379464	
	EPA 8276	Chlordane	7.4	I	ng/L	P379464	
		Toxaphene	31	U	ng/L	P379464	
2159146	EPA 8270E	Acetochlor	0.24	U	ng/L	P379289	
		Alachlor	0.24	U	ng/L	P379289	
		Ametryn	2.0	I	ng/L	P379289	
		Atrazine	120		ng/L	P379289	
		Atrazine Desethyl	13		ng/L	P379289	RPD
		Azinphos Methyl	1.9	U	ng/L	P379289	
		Bromacil	0.47	U	ng/L	P379289	
		Butylate	0.38	U	ng/L	P379289	RPD
		Carbophenothion	0.47	U	ng/L	P379289	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P379289	
		Chlorpyrifos Methyl	0.047	U	ng/L	P379289	
		Cyanazine	3.1	U	ng/L	P379289	
		Demeton	1.4	UJ	ng/L	P379289	RPD
		Diazinon	0.12	U	ng/L	P379289	
		Dimethenamid**	0.094	U	ng/L	P379289	
		Disulfoton	0.47	U	ng/L	P379289	
		Dithiopyr**	0.75		ng/L	P379289	
		EPTC	1.2	U	ng/L	P379289	RPD
		Ethion	0.14	U	ng/L	P379289	
		Ethoprop	0.094	U	ng/L	P379289	
		Fenamiphos	0.47	U	ng/L	P379289	
		Fipronil	0.43	I	ng/L	P379289	
		Fipronil Desulfinyl**	1.3		ng/L	P379289	
		Fipronil Sulfide	1.2		ng/L	P379289	
		Fipronil Sulfone	1.4		ng/L	P379289	
		Flumioxazin**	3.1	I	ng/L	P379289	
		Fonofos	0.19	U	ng/L	P379289	
		Hexazinone	0.76	I	ng/L	P379289	
		Imazalil**	0.71	U	ng/L	P379289	MS, RPD
		Malathion	0.33	U	ng/L	P379289	
		Metalaxyl	0.71	U	ng/L	P379289	
		Metolachlor	0.47	U	ng/L	P379289	
		Metribuzin	3.1	U	ng/L	P379289	
		Mevinphos	0.47	U	ng/L	P379289	
		Molinate	0.28	U	ng/L	P379289	
		Norflurazon	0.47	U	ng/L	P379289	
		Oxadiazon**	1.3		ng/L	P379289	
		Parathion Ethyl	0.24	U	ng/L	P379289	
		Parathion Methyl	0.52	U	ng/L	P379289	
		Pendimethalin	21		ng/L	P379289	

Field ID: 20030068 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2159146	EPA 8270E	Phorate	0.24	U	ng/L	P379289	
		Prodiamine**	0.83		ng/L	P379289	RPD
		Prometon	0.85	U	ng/L	P379289	
		Prometryn	0.19	U	ng/L	P379289	
		Pronamide**	0.14	U	ng/L	P379289	
		Propiconazole**	4.5		ng/L	P379289	
		Simazine	68		ng/L	P379289	
		Sulfentrazone**	2.9	J	ng/L	P379289	RPD
		Tebuconazole**	0.47	UJ	ng/L	P379289	RPD
		Terbufos	0.094	U	ng/L	P379289	
		Terbuthylazine	0.40	U	ng/L	P379289	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379329

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379330

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379279

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379279

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379720

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379723

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380075

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379577

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379730

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379312

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379483

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380098

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380354

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379841

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379842

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379843

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379215

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379216

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

Reference Method: EPA 8270E
Batch ID: P379289

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Carbophenothion	0.50	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Flumioxazin	1.8	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	0.50	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P379289

Component	Result	Code	Units
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P379464

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfluralin	3.0	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P379464

Component	Result	Code	Units
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Prallethrin	30	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8276
Batch ID: P379464

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

Reference Method: EPA 8321B
Batch ID: P379101

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: P379180

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: P379284

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P379284

Component	Result	Code	Units
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P379231

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P379786

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

Reference Method: SM 2540 C-2011
Batch ID: P379935

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P379936

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379961

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P379962

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P379962

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P379747

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P379432

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

Reference Method: SM 5310 B-2011
Batch ID: P379433

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: P379279

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	106		P	85 - 115
Calcium	107		P	85 - 115
Iron	109		P	85 - 115
Magnesium	112		P	85 - 115
Potassium	107		P	85 - 115
Sodium	112		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379279

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	91.9		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	100		P	85 - 115
Boron	95.9		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	97.1		P	85 - 115
Copper	95.3		P	85 - 115
Lead	95.4		P	85 - 115
Nickel	94.4		P	85 - 115
Selenium	105		P	85 - 115
Silver	100		P	85 - 115
Thallium	99.4		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379720

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379723

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380075

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379577

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379730

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379312

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379483

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380098

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380354

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379841

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379842

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379843

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379215

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379216

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

Reference Method: EPA 8270E
Batch ID: P379289

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	99.5	94.5	P/P	71 - 122
Alachlor	99.0	94.9	P/P	70 - 121
Ametryn	103	116	P/P	49 - 137
Atrazine	100	101	P/P	76 - 125
Atrazine Desethyl	85.0	80.3	P/P	31 - 144
Azinphos Methyl	133	111	P/P	67 - 150
Bromacil	89.5	99.6	P/P	36 - 121
Butylate	48.8	60.6	P/P	33 - 88.0
Carbophenothion	104	108	P/P	50 - 150
Chlorpyrifos Ethyl	104	103	P/P	73 - 117
Chlorpyrifos Methyl	97.9	92.9	P/P	68 - 121
Cyanazine	127	99.0	P/P	20 - 250
Demeton	78.6	56.8	P/P	30 - 123
Diazinon	91.9	89.8	P/P	70 - 128
Dimethenamid	92.4	94.4	P/P	66 - 122
Disulfoton	87.6	65.7	P/P	46 - 124
Dithiopyr	97.4	98.5	P/P	69 - 122
EPTC	46.5	57.9	P/P	31 - 90.0
Ethion	98.9	107	P/P	45 - 135
Ethoprop	87.0	79.0	P/P	59 - 118
Fenamiphos	105	102	P/P	30 - 136
Fipronil	87.5	108	P/P	57 - 127
Fipronil Desulfinyl	94.6	107	P/P	51 - 122
Fipronil Sulfide	88.8	107	P/P	57 - 119
Fipronil Sulfone	95.4	104	P/P	51 - 119
Flumioxazin	157	161	P/P	70 - 200
Fonofos	93.4	77.1	P/P	60 - 120
Hexazinone	96.5	116	P/P	57 - 142
Imazalil	94.4	90.8	P/P	50 - 150
Malathion	109	111	P/P	67 - 128
Metalaxyl	106	101	P/P	21 - 148
Metolachlor	92.3	94.5	P/P	70 - 120
Metribuzin	104	104	P/P	20 - 253
Mevinphos	79.5	69.5	P/P	47 - 116
Molinate	66.0	63.7	P/P	41 - 99.0
Norflurazon	91.8	109	P/P	54 - 127
Oxadiazon	95.2	107	P/P	65 - 122
Parathion Ethyl	95.4	95.5	P/P	71 - 113
Parathion Methyl	95.9	96.4	P/P	73 - 129
Pendimethalin	93.1	94.3	P/P	63 - 130
Phorate	90.0	75.7	P/P	48 - 118
Prodiamine	104	93.8	P/P	20 - 144
Prometon	94.8	98.6	P/P	53 - 120
Prometryn	102	103	P/P	63 - 119
Pronamide	92.7	104	P/P	50 - 150
Propiconazole	99.8	117	P/P	50 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P379289

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Simazine	101	101	P/P	77 - 129
Sulfentrazone	70.2	99.9	P/P	50 - 150
Tebuconazole	59.8	103	P/P	20 - 118
Terbufos	92.6	79.5	P/P	61 - 119
Terbuthylazine	96.0	98.0	P/P	75 - 119

Reference Method: EPA 8270E
Batch ID: P379464

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	36.4	34.7	P/P	20 - 87.0
Alpha-BHC	79.5	78.2	P/P	65 - 142
Alpha-Chlordane	84.0	81.6	P/P	58 - 106
Beta-BHC	109	111	P/P	65 - 179
Beta-Cyfluthrin	101	89.0	P/P	50 - 150
Bifenthrin	79.6	81.2	P/P	38 - 128
Chlorothalonil	114	102	P/P	20 - 214
Cis-Nonachlor	87.8	86.7	P/P	56 - 113
Cypermethrin	83.1	85.5	P/P	37 - 130
Dacthal	90.0	88.5	P/P	50 - 150
DDD-p,p'	89.7	90.3	P/P	66 - 119
DDE-p,p'	81.7	80.3	P/P	53 - 108
DDT-p,p'	76.6	76.7	P/P	57 - 133
Delta-BHC	140	136	P/P	68 - 187
Dicofol	97.9	106	P/P	66 - 123
Dieldrin	95.3	90.1	P/P	65 - 111
Endosulfan I	95.7	96.7	P/P	65 - 115
Endosulfan II	97.5	96.3	P/P	68 - 133
Endosulfan Sulfate	97.1	96.9	P/P	62 - 127
Endrin	91.7	87.9	P/P	64 - 122
Endrin Aldehyde	106	102	P/P	61 - 132
Endrin Ketone	94.5	95.3	P/P	66 - 120
Ethalfluralin	73.6	71.3	P/P	57 - 127
Gamma-BHC	103	101	P/P	71 - 158
Gamma-Chlordane	78.7	79.0	P/P	53 - 106
Heptachlor	68.7	65.6	P/P	45 - 96.0
Heptachlor Epoxide	87.5	85.4	P/P	64 - 109
Hexachlorobenzene	63.9	62.2	P/P	46 - 103
Lambda-Cyhalothrin	91.6	89.7	P/P	50 - 150
Methoxychlor	87.9	82.0	P/P	69 - 149
Mirex	64.8	64.9	P/P	31 - 90.0
Permethrin	72.0	74.0	P/P	41 - 108
Phenothrin	42.9	42.5	F/F	50 - 150
Prallethrin	53.6	52.0	P/P	40 - 140
Trans-Nonachlor	80.9	79.8	P/P	50 - 107
Trifluralin	74.3	73.9	P/P	58 - 119

Reference Method: EPA 8276
Batch ID: P379464

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	100	102	P/P	47 - 119

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P379464

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	99.2	99.7	P/P	41 - 112

Reference Method: EPA 8321B
Batch ID: P379101

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	88.6		P	30 - 160
Aldicarb	74.0		P	30 - 160
Aldicarb Sulfone	95.0		P	30 - 160
Aldicarb Sulfoxide	96.0		P	30 - 160
Carbaryl	61.9		P	30 - 160
Carbofuran	70.2		P	30 - 160
Methiocarb	73.0		P	30 - 160
Methomyl	85.6		P	30 - 160
Oxamyl	92.9		P	30 - 160
Propoxur	71.7		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P379180

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	59.9		P	40 - 150
AMPA	76.0		P	40 - 150
Endothall	100		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	106		P	40 - 140
Sucralose	117		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379284

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	134		P	30 - 160
Acetaminophen	94.3		P	30 - 160
Acetamiprid	91.3		P	30 - 160
Afidopyropen	96.5		P	30 - 160
Bentazon	89.5		P	30 - 160
Benzovindiflupyr	85.5		P	30 - 160
Carbamazepine	96.6		P	30 - 160
Clothianidin	106		P	30 - 160
Dinotefuran	107		P	30 - 160
Diuron	96.5		P	30 - 160
Fenuron	104		P	30 - 160
Fluridone	101		P	30 - 160
Hydrocodone	105		P	30 - 160
Ibuprofen	87.0		P	30 - 160
Imazapyr	72.8		P	30 - 160
Imidacloprid	120		P	30 - 160
Linuron	84.6		P	30 - 160
Mandestrobin	91.0		P	30 - 160
MCPP	145		P	30 - 160
Naproxen	112		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P379284

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Primidone	104		P	30 - 160
Pyraclostrobin	78.1		P	30 - 160
Thiamethoxam	93.8		P	30 - 160
Tolfenpyrad	70.0		P	30 - 160
Triclopyr	131		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P379231

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

Reference Method: SM 2320 B-2011
Batch ID: P379786

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

Reference Method: SM 4500 F-C-2011
Batch ID: P379747

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	92 - 103

Reference Method: SM 5310 B-2011
Batch ID: P379432

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.9		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P379433

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158739	Barium	106		P	80 - 120
2158739	Calcium	102		P	80 - 120
2158739	Iron	110		P	80 - 120
2158739	Magnesium	103		P	80 - 120
2158739	Potassium	108		P	80 - 120
2158739	Sodium	103		P	80 - 120
2158739	Zinc	105		P	80 - 120
2159002	Barium	105	105	P/P	80 - 120
2159002	Calcium	109	105	P/P	80 - 120
2159002	Iron	109	105	P/P	80 - 120
2159002	Magnesium	116	111	P/P	80 - 120
2159002	Potassium	108	107	P/P	80 - 120
2159002	Sodium	106	105	P/P	80 - 120
2159002	Zinc	105	105	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158739	Aluminum	96.9		P	80 - 120
2158739	Antimony	107		P	80 - 120
2158739	Arsenic	105		P	80 - 120
2158739	Boron	98.1		P	80 - 120
2158739	Cadmium	105		P	80 - 120
2158739	Chromium	99.6		P	80 - 120
2158739	Copper	97.0		P	80 - 120
2158739	Lead	96.7		P	80 - 120
2158739	Nickel	95.7		P	80 - 120
2158739	Selenium	109		P	80 - 120
2158739	Silver	101		P	80 - 120
2158739	Thallium	107		P	80 - 120
2159002	Aluminum	97.2	96.0	P/P	80 - 120
2159002	Antimony	104	104	P/P	80 - 120
2159002	Arsenic	102	101	P/P	80 - 120
2159002	Boron	95.6	95.6	P/P	80 - 120
2159002	Cadmium	102	101	P/P	80 - 120
2159002	Chromium	99.1	98.6	P/P	80 - 120
2159002	Copper	99.0	98.4	P/P	80 - 120
2159002	Lead	95.7	95.3	P/P	80 - 120
2159002	Nickel	97.3	97.9	P/P	80 - 120
2159002	Selenium	107	106	P/P	80 - 120
2159002	Silver	100	99.9	P/P	80 - 120
2159002	Thallium	105	106	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379720

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158962	Chloride	102		P	90 - 110
2159108	Chloride	105		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158962	Sulfate	101		P	90 - 110
2159108	Sulfate	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380075

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2160190	Chloride	99.9		P	90 - 110
2160192	Chloride	95.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159026	Ammonia-N	99.2	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379730

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159177	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158896	Kjeldahl Nitrogen	99.4	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379483

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159116	Kjeldahl Nitrogen	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380098

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159068	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380354

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159121	NO2NO3-N	98.0	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158899	Total-P	98.2	98.8	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379842

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158998	Total-P	107	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379843

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159112	Total-P	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159110	O-Phosphate-P	95.7	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379216

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159122	O-Phosphate-P	93.2	90.5	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P379289

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158576	Acetochlor	101	96.3	P/P	68 - 126
2158576	Alachlor	103	97.8	P/P	66 - 125
2158576	Ametryn	101	98.3	P/P	31 - 182
2158576	Atrazine Desethyl	60.9	84.6	P/P	13 - 161
2158576	Azinphos Methyl	125	122	P/P	54 - 162
2158576	Bromacil	88.2	78.7	P/P	34 - 144
2158576	Butylate	32.5	50.9	P/P	16 - 92.0
2158576	Carbophenothion	110	101	P/P	50 - 150
2158576	Chlorpyrifos Ethyl	123	108	P/P	63 - 124
2158576	Chlorpyrifos Methyl	103	99.9	P/P	64 - 125
2158576	Cyanazine	106	102	P/P	13 - 245
2158576	Demeton	85.9	87.5	P/P	20 - 154
2158576	Diazinon	97.0	93.7	P/P	66 - 141
2158576	Dimethenamid	100	94.3	P/P	50 - 130
2158576	Disulfoton	90.2	89.5	P/P	55 - 130
2158576	Dithiopyr	99.8	92.7	P/P	66 - 122
2158576	EPTC	29.1	41.4	P/P	15 - 93.0
2158576	Ethion	121	107	P/P	15 - 148
2158576	Ethoprop	95.7	96.1	P/P	59 - 126
2158576	Fenamiphos	100	94.3	P/P	39 - 137
2158576	Fipronil	109	100	P/P	47 - 131
2158576	Fipronil Desulfinyl	110	97.4	P/P	43 - 121
2158576	Fipronil Sulfide	112	98.5	P/P	29 - 134
2158576	Fipronil Sulfone	108	90.8	P/P	19 - 131
2158576	Flumioxazin	177	174	P/P	70 - 200
2158576	Fonofos	93.0	85.8	P/P	62 - 128
2158576	Imazalil	66.8	210	P/F	50 - 150
2158576	Malathion	115	104	P/P	54 - 135

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P379289

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158576	Metalaxyl	105	100	P/P	46 - 136
2158576	Mevinphos	83.8	86.7	P/P	44 - 135
2158576	Molinate	57.2	68.8	P/P	31 - 104
2158576	Norflurazon	106	85.4	P/P	32 - 134
2158576	Oxadiazon	96.3	88.1	P/P	55 - 123
2158576	Parathion Ethyl	108	97.6	P/P	67 - 120
2158576	Parathion Methyl	109	105	P/P	70 - 140
2158576	Pendimethalin	110	101	P/P	59 - 145
2158576	Phorate	82.6	86.5	P/P	52 - 127
2158576	Prodiamine	110	76.7	P/P	11 - 157
2158576	Prometon	89.1	93.4	P/P	55 - 130
2158576	Prometryn	106	99.8	P/P	55 - 127
2158576	Pronamide	99.4	108	P/P	50 - 150
2158576	Propiconazole	112	111	P/P	50 - 150
2158576	Simazine	119	107	P/P	58 - 159
2158576	Sulfentrazone	100	90.6	P/P	50 - 150
2158576	Tebuconazole	97.4	76.4	P/P	10 - 122
2158576	Terbufos	97.9	98.6	P/P	65 - 131
2158576	Terbuthylazine	102	95.1	P/P	63 - 131

Reference Method: EPA 8270E
Batch ID: P379464

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158803	Aldrin	56.0	56.7	P/P	32 - 82.0
2158803	Alpha-BHC	79.3	80.8	P/P	68 - 157
2158803	Alpha-Chlordane	89.3	86.1	P/P	54 - 108
2158803	Beta-BHC	115	116	P/P	54 - 200
2158803	Beta-Cyfluthrin	102	103	P/P	50 - 150
2158803	Bifenthrin	86.1	85.7	P/P	49 - 124
2158803	Chlorothalonil	35.9	44.6	P/P	10 - 289
2158803	Cis-Nonachlor	90.5	90.0	P/P	53 - 112
2158803	Cypermethrin	91.7	94.5	P/P	43 - 141
2158803	Dacthal	90.9	89.7	P/P	50 - 150
2158803	DDD-p,p'	91.3	91.8	P/P	58 - 125
2158803	DDE-p,p'	87.6	85.8	P/P	50 - 108
2158803	DDT-p,p'	81.8	82.3	P/P	52 - 140
2158803	Delta-BHC	146	142	P/P	61 - 228
2158803	Dicofol	103	91.6	P/P	59 - 130
2158803	Dieldrin	103	97.2	P/P	57 - 121
2158803	Endosulfan I	104	92.0	P/P	62 - 123
2158803	Endosulfan II	99.2	98.3	P/P	48 - 163
2158803	Endosulfan Sulfate	98.3	101	P/P	63 - 132
2158803	Endrin	91.4	92.9	P/P	58 - 128
2158803	Endrin Aldehyde	95.1	87.6	P/P	44 - 126
2158803	Endrin Ketone	96.7	96.3	P/P	68 - 127
2158803	Ethalfluralin	75.5	74.4	P/P	55 - 131
2158803	Gamma-BHC	106	107	P/P	54 - 206
2158803	Gamma-Chlordane	83.9	83.9	P/P	52 - 105
2158803	Heptachlor	69.7	72.7	P/P	47 - 94.0
2158803	Heptachlor Epoxide	91.6	91.2	P/P	61 - 113
2158803	Hexachlorobenzene	65.4	66.1	P/P	45 - 100

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P379464

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158803	Lambda-Cyhalothrin	97.6	97.1	P/P	50 - 150
2158803	Methoxychlor	89.5	87.0	P/P	63 - 153
2158803	Mirex	72.3	72.7	P/P	38 - 90.0
2158803	Permethrin	81.2	81.7	P/P	45 - 112
2158803	Phenothrin	65.6	65.5	P/P	50 - 150
2158803	Prallethrin	64.3	63.0	P/P	40 - 140
2158803	Trans-Nonachlor	86.1	84.9	P/P	50 - 103
2158803	Trifluralin	76.7	77.0	P/P	57 - 122

Reference Method: EPA 8276
Batch ID: P379464

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159216	Chlordane	74.2	74.6	P/P	34 - 129
2159216	Toxaphene	99.9	102	P/P	26 - 123

Reference Method: EPA 8321B
Batch ID: P379101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2157327	3-Hydroxycarbofuran	83.4	82.9	P/P	30 - 160
2157327	Aldicarb	78.2	64.9	P/P	30 - 160
2157327	Aldicarb Sulfone	103	101	P/P	30 - 160
2157327	Aldicarb Sulfoxide	44.3	45.6	P/P	30 - 160
2157327	Carbaryl	50.0	61.4	P/P	30 - 160
2157327	Carbofuran	67.6	69.0	P/P	30 - 160
2157327	Methiocarb	58.9	63.7	P/P	30 - 160
2157327	Methomyl	77.8	90.0	P/P	30 - 160
2157327	Oxamyl	96.1	98.0	P/P	30 - 160
2157327	Propoxur	62.4	66.7	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P379180

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159138	Acesulfame K	15.6	17.9	F/F	40 - 150
2159138	AMPA	66.1	70.1	P/P	40 - 150
2159138	Endothall	112	127	P/P	40 - 150
2159138	Glufosinate	130	129	P/P	40 - 150
2159138	Glyphosate	130	95.2	P/P	40 - 140
2159138	Sucralose	109	82.7	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P379284

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158935	2,4-D	132	135	P/P	30 - 160
2158935	Acetaminophen	104	101	P/P	30 - 160
2158935	Acetamiprid	98.3	82.8	P/P	30 - 160
2158935	Afidopyropen	110	101	P/P	30 - 160
2158935	Bentazon	76.2	81.1	P/P	30 - 160
2158935	Benzovindiflupyr	83.9	82.0	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P379284

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158935	Carbamazepine	85.7	91.8	P/P	30 - 160
2158935	Clothianidin	112	104	P/P	30 - 160
2158935	Dinotefuran	130	126	P/P	30 - 160
2158935	Diuron	83.6	83.9	P/P	30 - 160
2158935	Fenuron	89.5	81.7	P/P	30 - 160
2158935	Fluridone	104	107	P/P	30 - 160
2158935	Hydrocodone	120	102	P/P	30 - 160
2158935	Ibuprofen	87.9	78.7	P/P	30 - 160
2158935	Imazapyr	102	104	P/P	30 - 160
2158935	Imidacloprid	157	169	P/F	30 - 160
2158935	Linuron	81.1	81.5	P/P	30 - 160
2158935	Mandestrobin	87.4	90.5	P/P	30 - 160
2158935	MCPP	149	154	P/P	30 - 160
2158935	Naproxen	139	129	P/P	30 - 160
2158935	Primidone	97.0	103	P/P	30 - 160
2158935	Pyraclostrobin	62.9	66.0	P/P	30 - 160
2158935	Thiamethoxam	142	138	P/P	30 - 160
2158935	Tolfenpyrad	60.3	59.5	P/P	30 - 160
2158935	Triclopyr	122	125	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P379747

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158939	Fluoride	97.9	99.2	P/P	89 - 106

Reference Method: SM 5310 B-2011
Batch ID: P379432

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2158942	Organic Carbon	104	105	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P379433

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2159165	Organic Carbon	97.4	101	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379329

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158963	Turbidity	4.44	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P379330

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159111	Turbidity	0.570	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P379279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159002	Barium	0.640	Spike	P	0 - 20
2159002	Calcium	2.88	Spike	P	0 - 20
2159002	Iron	3.66	Spike	P	0 - 20
2159002	Magnesium	3.50	Spike	P	0 - 20
2159002	Potassium	0.422	Spike	P	0 - 20
2159002	Sodium	0.981	Spike	P	0 - 20
2159002	Zinc	0.495	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P379279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159002	Aluminum	1.24	Spike	P	0 - 20
2159002	Antimony	0.00801	Spike	P	0 - 20
2159002	Arsenic	0.201	Spike	P	0 - 20
2159002	Boron	0.0281	Spike	P	0 - 20
2159002	Cadmium	0.446	Spike	P	0 - 20
2159002	Chromium	0.477	Spike	P	0 - 20
2159002	Copper	0.656	Spike	P	0 - 20
2159002	Lead	0.451	Spike	P	0 - 20
2159002	Nickel	0.588	Spike	P	0 - 20
2159002	Selenium	1.73	Spike	P	0 - 20
2159002	Silver	0.355	Spike	P	0 - 20
2159002	Thallium	0.647	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379720

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159108	Chloride	0.975	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P379723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159108	Sulfate	0.847	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P380075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2160190	Chloride	0.686	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159026	Ammonia-N	1.52	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P379730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159177	Ammonia-N	0.398	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158896	Kjeldahl Nitrogen	2.42	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P379483

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159116	Kjeldahl Nitrogen	0.858	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380098

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159068	NO2NO3-N	0.496	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P380354

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159121	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158899	Total-P	0.667	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158998	Total-P	1.89	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P379843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159112	Total-P	0.0583	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159110	O-Phosphate-P	0.663	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P379216

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159122	O-Phosphate-P	2.35	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P379289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158576	Acetochlor	4.82	Spike	P	0 - 30
2158576	Alachlor	4.86	Spike	P	0 - 30
2158576	Ametryn	2.56	Spike	P	0 - 30
2158576	Atrazine	0.914	Spike	P	0 - 30
2158576	Atrazine Desethyl	32.6	Spike	F	0 - 30
2158576	Azinphos Methyl	2.79	Spike	P	0 - 30
2158576	Bromacil	6.53	Spike	P	0 - 30
2158576	Butylate	44.1	Spike	F	0 - 30
2158576	Carbophenothion	8.54	Spike	P	0 - 30
2158576	Chlorpyrifos Ethyl	12.8	Spike	P	0 - 30
2158576	Chlorpyrifos Methyl	3.51	Spike	P	0 - 30
2158576	Cyanazine	3.58	Spike	P	0 - 30
2158576	Demeton	1.84	Spike	P	0 - 30
2158576	Diazinon	3.38	Spike	P	0 - 30
2158576	Dimethenamid	5.93	Spike	P	0 - 30
2158576	Disulfoton	0.861	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P379289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158576	Dithiopyr	6.97	Spike	P	0 - 30
2158576	EPTC	34.9	Spike	F	0 - 30
2158576	Ethion	12.1	Spike	P	0 - 30
2158576	Ethoprop	0.412	Spike	P	0 - 30
2158576	Fenamiphos	6.01	Spike	P	0 - 30
2158576	Fipronil	8.25	Spike	P	0 - 30
2158576	Fipronil Desulfinyl	12.2	Spike	P	0 - 30
2158576	Fipronil Sulfide	12.6	Spike	P	0 - 30
2158576	Fipronil Sulfone	15.0	Spike	P	0 - 30
2158576	Flumioxazin	1.43	Spike	P	0 - 30
2158576	Fonofos	8.11	Spike	P	0 - 30
2158576	Hexazinone	2.10	Spike	P	0 - 30
2158576	Imazalil	103	Spike	F	0 - 30
2158576	Malathion	7.70	Spike	P	0 - 30
2158576	Metalaxyl	4.64	Spike	P	0 - 30
2158576	Metolachlor	0.666	Spike	P	0 - 30
2158576	Metribuzin	5.83	Spike	P	0 - 30
2158576	Mevinphos	3.40	Spike	P	0 - 30
2158576	Molinate	18.4	Spike	P	0 - 30
2158576	Norflurazon	14.3	Spike	P	0 - 30
2158576	Oxadiazon	7.41	Spike	P	0 - 30
2158576	Parathion Ethyl	10.3	Spike	P	0 - 30
2158576	Parathion Methyl	3.53	Spike	P	0 - 30
2158576	Pendimethalin	8.53	Spike	P	0 - 30
2158576	Phorate	4.55	Spike	P	0 - 30
2158576	Prodiamine	35.8	Spike	F	0 - 30
2158576	Prometon	4.70	Spike	P	0 - 30
2158576	Prometryn	6.20	Spike	P	0 - 30
2158576	Pronamide	7.96	Spike	P	0 - 30
2158576	Propiconazole	0.837	Spike	P	0 - 30
2158576	Simazine	10.9	Spike	P	0 - 30
2158576	Sulfentrazone	10.3	Spike	P	0 - 30
2158576	Tebuconazole	22.2	Spike	P	0 - 30
2158576	Terbufos	0.749	Spike	P	0 - 30
2158576	Terbuthylazine	6.68	Spike	P	0 - 30
LFB	Acetochlor	5.23	LCS	P	0 - 30
LFB	Alachlor	4.30	LCS	P	0 - 30
LFB	Ametryn	12.1	LCS	P	0 - 30
LFB	Atrazine	0.993	LCS	P	0 - 30
LFB	Atrazine Desethyl	5.76	LCS	P	0 - 30
LFB	Azinphos Methyl	18.7	LCS	P	0 - 30
LFB	Bromacil	10.6	LCS	P	0 - 30
LFB	Butylate	21.6	LCS	P	0 - 30
LFB	Carbophenothion	4.56	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	0.380	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.19	LCS	P	0 - 30
LFB	Cyanazine	24.5	LCS	P	0 - 30
LFB	Demeton	32.1	LCS	F	0 - 30
LFB	Diazinon	2.31	LCS	P	0 - 30
LFB	Dimethenamid	2.12	LCS	P	0 - 30
LFB	Disulfoton	28.6	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P379289

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	1.16	LCS	P	0 - 30
LFB	EPTC	21.8	LCS	P	0 - 30
LFB	Ethion	7.62	LCS	P	0 - 30
LFB	Ethoprop	9.55	LCS	P	0 - 30
LFB	Fenamiphos	2.54	LCS	P	0 - 30
LFB	Fipronil	21.2	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	12.8	LCS	P	0 - 30
LFB	Fipronil Sulfide	18.9	LCS	P	0 - 30
LFB	Fipronil Sulfone	8.42	LCS	P	0 - 30
LFB	Flumioxazin	2.02	LCS	P	0 - 30
LFB	Fonofos	19.1	LCS	P	0 - 30
LFB	Hexazinone	18.1	LCS	P	0 - 30
LFB	Imazalil	3.84	LCS	P	0 - 30
LFB	Malathion	2.14	LCS	P	0 - 30
LFB	Metalaxyl	5.64	LCS	P	0 - 30
LFB	Metolachlor	2.33	LCS	P	0 - 30
LFB	Metribuzin	0.236	LCS	P	0 - 30
LFB	Mevinphos	13.5	LCS	P	0 - 30
LFB	Molinate	3.45	LCS	P	0 - 30
LFB	Norflurazon	17.2	LCS	P	0 - 30
LFB	Oxadiazon	11.3	LCS	P	0 - 30
LFB	Parathion Ethyl	0.157	LCS	P	0 - 30
LFB	Parathion Methyl	0.529	LCS	P	0 - 30
LFB	Pendimethalin	1.32	LCS	P	0 - 30
LFB	Phorate	17.3	LCS	P	0 - 30
LFB	Prodiamine	10.4	LCS	P	0 - 30
LFB	Prometon	3.91	LCS	P	0 - 30
LFB	Prometryn	1.77	LCS	P	0 - 30
LFB	Pronamide	11.4	LCS	P	0 - 30
LFB	Propiconazole	15.9	LCS	P	0 - 30
LFB	Simazine	0.173	LCS	P	0 - 30
LFB	Sulfentrazone	34.9	LCS	F	0 - 30
LFB	Tebuconazole	53.0	LCS	F	0 - 30
LFB	Terbufos	15.2	LCS	P	0 - 30
LFB	Terbuthylazine	2.05	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P379464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158803	Aldrin	1.11	Spike	P	0 - 30
2158803	Alpha-BHC	1.89	Spike	P	0 - 30
2158803	Alpha-Chlordane	3.68	Spike	P	0 - 30
2158803	Beta-BHC	1.56	Spike	P	0 - 30
2158803	Beta-Cyfluthrin	0.782	Spike	P	0 - 30
2158803	Bifenthrin	0.444	Spike	P	0 - 30
2158803	Chlorothalonil	21.6	Spike	P	0 - 30
2158803	Cis-Nonachlor	0.498	Spike	P	0 - 30
2158803	Cypermethrin	3.09	Spike	P	0 - 30
2158803	Dacthal	1.23	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P379464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158803	DDD-p,p'	0.494	Spike	P	0 - 30
2158803	DDE-p,p'	2.10	Spike	P	0 - 30
2158803	DDT-p,p'	0.674	Spike	P	0 - 30
2158803	Delta-BHC	2.12	Spike	P	0 - 30
2158803	Dicofol	11.9	Spike	P	0 - 30
2158803	Dieldrin	5.32	Spike	P	0 - 30
2158803	Endosulfan I	12.2	Spike	P	0 - 30
2158803	Endosulfan II	0.888	Spike	P	0 - 30
2158803	Endosulfan Sulfate	2.97	Spike	P	0 - 30
2158803	Endrin	1.59	Spike	P	0 - 30
2158803	Endrin Aldehyde	8.23	Spike	P	0 - 30
2158803	Endrin Ketone	0.387	Spike	P	0 - 30
2158803	Ethalfluralin	1.42	Spike	P	0 - 30
2158803	Gamma-BHC	1.26	Spike	P	0 - 30
2158803	Gamma-Chlordane	0.0441	Spike	P	0 - 30
2158803	Heptachlor	4.17	Spike	P	0 - 30
2158803	Heptachlor Epoxide	0.434	Spike	P	0 - 30
2158803	Hexachlorobenzene	1.08	Spike	P	0 - 30
2158803	Lambda-Cyhalothrin	0.432	Spike	P	0 - 30
2158803	Methoxychlor	2.75	Spike	P	0 - 30
2158803	Mirex	0.533	Spike	P	0 - 30
2158803	Permethrin	0.573	Spike	P	0 - 30
2158803	Phenothrin	0.205	Spike	P	0 - 30
2158803	Prallethrin	1.95	Spike	P	0 - 30
2158803	Trans-Nonachlor	1.42	Spike	P	0 - 30
2158803	Trifluralin	0.438	Spike	P	0 - 30
LFB	Aldrin	4.57	LCS	P	0 - 30
LFB	Alpha-BHC	1.69	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.96	LCS	P	0 - 30
LFB	Beta-BHC	1.65	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	12.9	LCS	P	0 - 30
LFB	Bifenthrin	2.02	LCS	P	0 - 30
LFB	Chlorothalonil	11.1	LCS	P	0 - 30
LFB	Cis-Nonachlor	1.24	LCS	P	0 - 30
LFB	Cypermethrin	2.85	LCS	P	0 - 30
LFB	Dacthal	1.75	LCS	P	0 - 30
LFB	DDD-p,p'	0.690	LCS	P	0 - 30
LFB	DDE-p,p'	1.66	LCS	P	0 - 30
LFB	DDT-p,p'	0.165	LCS	P	0 - 30
LFB	Delta-BHC	2.92	LCS	P	0 - 30
LFB	Dicofol	7.99	LCS	P	0 - 30
LFB	Dieldrin	5.69	LCS	P	0 - 30
LFB	Endosulfan I	1.07	LCS	P	0 - 30
LFB	Endosulfan II	1.25	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.293	LCS	P	0 - 30
LFB	Endrin	4.25	LCS	P	0 - 30
LFB	Endrin Aldehyde	3.54	LCS	P	0 - 30
LFB	Endrin Ketone	0.851	LCS	P	0 - 30
LFB	Ethalfluralin	3.18	LCS	P	0 - 30
LFB	Gamma-BHC	1.83	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.393	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P379464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Heptachlor	4.62	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.35	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.62	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	2.13	LCS	P	0 - 30
LFB	Methoxychlor	6.93	LCS	P	0 - 30
LFB	Mirex	0.111	LCS	P	0 - 30
LFB	Permethrin	2.79	LCS	P	0 - 30
LFB	Phenothrin	1.04	LCS	P	0 - 30
LFB	Prallethrin	3.11	LCS	P	0 - 30
LFB	Trans-Nonachlor	1.40	LCS	P	0 - 30
LFB	Trifluralin	0.523	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P379464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159216	Chlordane	0.387	Spike	P	0 - 30
2159216	Toxaphene	2.48	Spike	P	0 - 30
LFB	Chlordane	1.99	LCS	P	0 - 30
LFB	Toxaphene	0.532	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2157327	3-Hydroxycarbofuran	0.617	Spike	P	0 - 30
2157327	Aldicarb	18.6	Spike	P	0 - 30
2157327	Aldicarb Sulfone	2.41	Spike	P	0 - 30
2157327	Aldicarb Sulfoxide	3.00	Spike	P	0 - 30
2157327	Carbaryl	20.4	Spike	P	0 - 30
2157327	Carbofuran	2.07	Spike	P	0 - 30
2157327	Methiocarb	7.82	Spike	P	0 - 30
2157327	Methomyl	14.5	Spike	P	0 - 30
2157327	Oxamyl	2.01	Spike	P	0 - 30
2157327	Propoxur	5.32	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P379180

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159138	Acesulfame K	13.7	Spike	P	0 - 30
2159138	AMPA	2.70	Spike	P	0 - 30
2159138	Endothall	12.8	Spike	P	0 - 30
2159138	Glufosinate	1.15	Spike	P	0 - 30
2159138	Glyphosate	3.45	Spike	P	0 - 30
2159138	Sucralose	26.5	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P379284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158935	2,4-D	1.90	Spike	P	0 - 30
2158935	Acetaminophen	2.79	Spike	P	0 - 30
2158935	Acetamiprid	17.1	Spike	P	0 - 30
2158935	Afidopyropen	8.35	Spike	P	0 - 30
2158935	Bentazon	6.16	Spike	P	0 - 30
2158935	Benzovindiflupyr	2.35	Spike	P	0 - 30
2158935	Carbamazepine	6.89	Spike	P	0 - 30
2158935	Clothianidin	7.99	Spike	P	0 - 30
2158935	Dinotefuran	3.00	Spike	P	0 - 30
2158935	Diuron	0.361	Spike	P	0 - 30
2158935	Fenuron	9.15	Spike	P	0 - 30
2158935	Fluridone	2.45	Spike	P	0 - 30
2158935	Hydrocodone	15.9	Spike	P	0 - 30
2158935	Ibuprofen	11.1	Spike	P	0 - 30
2158935	Imazapyr	1.43	Spike	P	0 - 30
2158935	Imidacloprid	7.13	Spike	P	0 - 30
2158935	Linuron	0.524	Spike	P	0 - 30
2158935	Mandestrobin	3.58	Spike	P	0 - 30
2158935	MCPP	3.37	Spike	P	0 - 30
2158935	Naproxen	7.89	Spike	P	0 - 30
2158935	Primidone	6.05	Spike	P	0 - 30
2158935	Pyraclostrobin	4.86	Spike	P	0 - 30
2158935	Thiamethoxam	2.47	Spike	P	0 - 30
2158935	Tolfenpyrad	1.45	Spike	P	0 - 30
2158935	Triclopyr	2.62	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P379231

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159111	Color (true)	5.27	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P379786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158939	Total Alkalinity	0.243	Sample	P	0 - 2.8

Reference Method: SM 2540 C-2011
Batch ID: P379935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159108	TDS	3.67	Sample	P	0 - 10

Quality Assurance Report
Precision

Reference Method: SM 2540 C-2011
Batch ID: P379936

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159115	TDS	4.73	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P379747

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158939	Fluoride	0.979	Spike	P	0 - 2.5

Reference Method: SM 5310 B-2011
Batch ID: P379432

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2158942	Organic Carbon	0.480	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P379433

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2159165	Organic Carbon	1.94	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2159137
Field Sample ID: 20030068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	52.2	P	30 - 160

Lab Sample ID: 2159138
Field Sample ID: 20030068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	137	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.9	P	30 - 160
EPA 8321B	Diuron-d6	83.8	P	30 - 160
EPA 8321B	Endothall-d6	124	P	30 - 160
EPA 8321B	Endothall-d6	124	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	131	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	131	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.3	P	30 - 160
EPA 8321B	Primidone-d5	120	P	30 - 160
EPA 8321B	Sucralose-d6	73.5	P	30 - 160
EPA 8321B	Sucralose-d6	73.5	P	30 - 160

Lab Sample ID: 2159139
Field Sample ID: 20030070

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	99.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.6	P	30 - 160
EPA 8321B	Diuron-d6	73.3	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	124	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	124	P	30 - 160
EPA 8321B	Ibuprofen-d3	90.6	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	54.8	P	30 - 160
EPA 8321B	Sucralose-d6	54.8	P	30 - 160

Lab Sample ID: 2159140
Field Sample ID: 20030872

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	132	P	30 - 160
EPA 8321B	Acetaminophen-d4	31.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	71.4	P	30 - 160
EPA 8321B	Diuron-d6	54.1	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	130	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	130	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.1	P	30 - 160
EPA 8321B	Primidone-d5	68.6	P	30 - 160
EPA 8321B	Sucralose-d6	95.6	P	30 - 160
EPA 8321B	Sucralose-d6	95.6	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 2159141
Field Sample ID: 20030071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	126	P	30 - 160
EPA 8321B	Acetaminophen-d4	37.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.7	P	30 - 160
EPA 8321B	Diuron-d6	43.4	P	30 - 160
EPA 8321B	Endothall-d6	121	P	30 - 160
EPA 8321B	Endothall-d6	121	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	120	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	120	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.7	P	30 - 160
EPA 8321B	Primidone-d5	77.5	P	30 - 160
EPA 8321B	Sucralose-d6	71.7	P	30 - 160
EPA 8321B	Sucralose-d6	71.7	P	30 - 160

Lab Sample ID: 2159142
Field Sample ID: 20030809

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	113	P	30 - 160
EPA 8321B	Acetaminophen-d4	35.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.7	P	30 - 160
EPA 8321B	Diuron-d6	45.8	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Endothall-d6	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	105	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	105	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.5	P	30 - 160
EPA 8321B	Primidone-d5	64.2	P	30 - 160
EPA 8321B	Sucralose-d6	36.1	P	30 - 160
EPA 8321B	Sucralose-d6	36.1	P	30 - 160

Lab Sample ID: 2159145
Field Sample ID: 20030068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	87.3	P	44 - 112
EPA 8270E	Tetrachloro-m-xylene	58.1	P	34 - 106
EPA 8276	Decachlorobiphenyl	72.1	P	26 - 97.0
EPA 8276	PCNB	82.9	P	38 - 141

Lab Sample ID: 2159146
Field Sample ID: 20030068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	100	P	72 - 135
EPA 8270E	Terbufos-d10	83.5	P	57 - 134

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A37839
Included Lab Sample IDs: 2159147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Selenium	106	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A97656
Included Lab Sample IDs: 2159110, 2159113, 2159118, 2159119, 2159122

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	94.4	96.4	P/P	90 - 110
O-Phosphate-P	96.7	94.4	P/P	90 - 110

Reference Method: SM 2120 B-2011
Run ID: A97663
Included Lab Sample IDs: 2159108, 2159111, 2159114, 2159115, 2159120

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.5	99.6	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A97703
Included Lab Sample IDs: 2159108, 2159111, 2159114, 2159115, 2159120

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.0	P/P	95 - 105
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 8321B
Run ID: A97710
Included Lab Sample IDs: 2159137

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	97.4	106	P/P	60 - 150
Aldicarb	112	106	P/P	60 - 150
Aldicarb Sulfone	110	105	P/P	50 - 150
Aldicarb Sulfoxide	108	100	P/P	50 - 150
Carbaryl	110	103	P/P	60 - 150
Carbofuran	114	113	P/P	50 - 150
Methiocarb	97.7	98.3	P/P	50 - 150
Methomyl	108	101	P/P	50 - 150
Oxamyl	102	95.1	P/P	50 - 150
Propoxur	84.1	102	P/P	50 - 150

Reference Method: SM 5310 B-2011
Run ID: A97742
Included Lab Sample IDs: 2159109, 2159112, 2159116, 2159117, 2159121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.1	99.8	P/P	90 - 110
Organic Carbon	99.8	102	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A97771
Included Lab Sample IDs: 2159108, 2159111, 2159114, 2159115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	98.5	P/P	90 - 110
Chloride	99.5	100	P/P	90 - 110
Sulfate	100	98.8	P/P	90 - 110
Sulfate	99.6	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A97772
Included Lab Sample IDs: 2159147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	93.7	95.5	P/P	90 - 110
Antimony	102	102	P/P	90 - 110
Arsenic	97.3	97.2	P/P	90 - 110
Boron	98.4	98.4	P/P	90 - 110
Cadmium	97.5	97.6	P/P	90 - 110
Chromium	94.4	94.2	P/P	90 - 110
Copper	93.5	94.2	P/P	90 - 110
Lead	93.0	94.0	P/P	90 - 110
Nickel	93.2	93.8	P/P	90 - 110
Silver	99.3	99.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A97785
Included Lab Sample IDs: 2159121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.7	95.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A97786
Included Lab Sample IDs: 2159147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	102	P/P	90 - 110
Iron	98.7	99.5	P/P	90 - 110
Potassium	98.8	99.1	P/P	90 - 110
Sodium	101	101	P/P	90 - 110
Zinc	102	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A97797
Included Lab Sample IDs: 2159109, 2159112, 2159116, 2159117

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A97800
Included Lab Sample IDs: 2159116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A97800
Included Lab Sample IDs: 2159116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.0	92.1	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A97815
Included Lab Sample IDs: 2159146

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.1		P	80 - 120
Alachlor	99.9		P	80 - 120
Ametryn	117		P	80 - 120
Atrazine Desethyl	120		P	80 - 120
Azinphos Methyl	102		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	96.4		P	80 - 120
Carbophenothion	98.5		P	80 - 120
Chlorpyrifos Ethyl	97.2		P	80 - 120
Chlorpyrifos Methyl	95.1		P	80 - 120
Cyanazine	103		P	80 - 120
Demeton	99.9		P	80 - 120
Diazinon	104		P	80 - 120
Dimethenamid	100		P	80 - 120
Disulfoton	98.1		P	80 - 120
Dithiopyr	105		P	80 - 120
EPTC	99.2		P	80 - 120
Ethion	94.9		P	80 - 120
Ethoprop	98.5		P	80 - 120
Fenamiphos	97.9		P	80 - 120
Fipronil	97.4		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	98.4		P	80 - 120
Fipronil Sulfone	95.8		P	80 - 120
Flumioxazin	91.2		P	80 - 120
Fonofos	98.9		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	101		P	80 - 120
Malathion	92.3		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	107		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	85.9		P	80 - 120
Molinate	98.3		P	80 - 120
Norflurazon	104		P	80 - 120
Oxadiazon	109		P	80 - 120
Parathion Ethyl	97.7		P	80 - 120
Parathion Methyl	91.1		P	80 - 120
Pendimethalin	99.2		P	80 - 120
Phorate	100		P	80 - 120
Prodiamine	97.3		P	80 - 120
Prometon	104		P	80 - 120
Prometryn	106		P	80 - 120
Pronamide	97.5		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A97815
Included Lab Sample IDs: 2159146

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Propiconazole	103		P	80 - 120
Sulfentrazone	106		P	80 - 120
Tebuconazole	106		P	80 - 120
Terbufos	99.0		P	80 - 120
Terbuthylazine	101		P	80 - 120

Reference Method: EPA 8321B
Run ID: A97817
Included Lab Sample IDs: 2159138, 2159139, 2159140, 2159141, 2159142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	60.5	60.4	P/P	60 - 160
Acesulfame K	67.0	77.2	P/P	60 - 160
Endothall	101	92.6	P/P	60 - 160
Endothall	96.2	105	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A97819
Included Lab Sample IDs: 2159138, 2159139, 2159140, 2159141, 2159142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	71.3	79.1	P/P	60 - 160
AMPA	78.0	81.8	P/P	60 - 160
Glufosinate	95.6	104	P/P	60 - 160
Glufosinate	96.6	106	P/P	60 - 160
Glyphosate	105	109	P/P	60 - 160
Glyphosate	110	103	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A97830
Included Lab Sample IDs: 2159109, 2159112, 2159117

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.3	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A97843
Included Lab Sample IDs: 2159121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.6	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A97845
Included Lab Sample IDs: 2159108, 2159111, 2159114, 2159115, 2159120

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A97872
Included Lab Sample IDs: 2159108, 2159111, 2159114, 2159115, 2159120

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	103	101	P/P	90 - 110
Total Alkalinity	99.1	103	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A97908
Included Lab Sample IDs: 2159138, 2159139, 2159140, 2159141, 2159142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	122	125	P/P	60 - 160
Sucralose	125	125	P/P	60 - 160

Reference Method: EPA 8276
Run ID: A97911
Included Lab Sample IDs: 2159145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.5		P	80 - 120
Toxaphene	98.0		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A97919
Included Lab Sample IDs: 2159147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	99.4	98.6	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A97922
Included Lab Sample IDs: 2159147

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.1	99.7	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A97933
Included Lab Sample IDs: 2159121

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

Reference Method: EPA 8270E
Run ID: A97948
Included Lab Sample IDs: 2159146

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	95.2		P	80 - 120
Simazine	97.4		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A97954
Included Lab Sample IDs: 2159109, 2159112

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.9	99.0	P/P	90 - 110
Total-P	99.0	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A97962
Included Lab Sample IDs: 2159116, 2159117

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

Reference Method: EPA 8270E
Run ID: A97969
Included Lab Sample IDs: 2159145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	99.0		P	80 - 120
Alpha-BHC	93.4		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	111		P	80 - 120
Beta-Cyfluthrin	96.4		P	80 - 120
Bifenthrin	98.8		P	80 - 120
Chlorothalonil	104		P	80 - 120
Cis-Nonachlor	100		P	80 - 120
Cypermethrin	97.6		P	80 - 120
Dacthal	101		P	80 - 120
DDD-p,p'	99.1		P	80 - 120
DDE-p,p'	99.4		P	80 - 120
DDT-p,p'	98.3		P	80 - 120
Delta-BHC	105		P	80 - 120
Dicofol	101		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	106		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	104		P	80 - 120
Endrin	99.4		P	80 - 120
Endrin Aldehyde	112		P	80 - 120
Endrin Ketone	103		P	80 - 120
Ethalfluralin	99.9		P	80 - 120
Gamma-BHC	106		P	80 - 120
Gamma-Chlordane	99.6		P	80 - 120
Heptachlor	99.7		P	80 - 120
Heptachlor Epoxide	101		P	80 - 120
Hexachlorobenzene	100		P	80 - 120
Lambda-Cyhalothrin	94.7		P	80 - 120
Methoxychlor	100		P	80 - 120
Mirex	98.4		P	80 - 120
Permethrin	94.0		P	80 - 120
Phenothrin	91.0		P	80 - 120
Prallethrin	104		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Trifluralin	99.0		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A98001
Included Lab Sample IDs: 2159120

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A98012
Included Lab Sample IDs: 2159109, 2159112, 2159116, 2159117

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

Reference Method: EPA 8321B
Run ID: A98066
Included Lab Sample IDs: 2159138, 2159139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	88.6	P/P	50 - 150
Acetaminophen	149	73.4	P/P	60 - 160
Acetamiprid	120	105	P/P	50 - 150
Afidopyropen	102	89.3	P/P	50 - 150
Bentazon	77.9	130	P/P	50 - 160
Benzovindiflupyr	103	90.3	P/P	50 - 150
Carbamazepine	106	90.6	P/P	60 - 150
Clothianidin	125	108	P/P	60 - 150
Dinotefuran	142	113	P/P	50 - 150
Diuron	134	102	P/P	60 - 150
Fenuron	125	115	P/P	60 - 150
Fluridone	104	97.2	P/P	60 - 160
Hydrocodone	144	111	P/P	60 - 150
Ibuprofen	90.4	110	P/P	50 - 160
Imazapyr	76.1	103	P/P	50 - 150
Imidacloprid	139	108	P/P	60 - 150
Linuron	138	110	P/P	60 - 150
Mandestrobin	112	110	P/P	50 - 150
MCPP	82.0	83.7	P/P	50 - 150
Naproxen	104	87.4	P/P	50 - 160
Primidone	125	101	P/P	60 - 150
Pyraclostrobin	98.9	93.1	P/P	60 - 150
Thiamethoxam	148	104	P/P	50 - 150
Tolfenpyrad	119	100	P/P	60 - 150
Triclopyr	83.9	90.7	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A98067
Included Lab Sample IDs: 2159140, 2159141, 2159142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	81.7	71.8	P/P	50 - 150
Acetaminophen	136	61.4	P/P	60 - 160
Acetamiprid	95.7	81.2	P/P	50 - 150
Afidopyropen	77.5	64.1	P/P	50 - 150
Bentazon	77.8	85.1	P/P	50 - 160
Bentazon	87.7	88.8	P/P	50 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A98067
Included Lab Sample IDs: 2159140, 2159141, 2159142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Benzovindiflupyr	81.1	64.3	P/P	50 - 150
Carbamazepine	88.3	71.6	P/P	60 - 150
Clothianidin	92.1	63.4	P/P	60 - 150
Dinotefuran	93.5	60.4	P/P	50 - 150
Diuron	102	69.3	P/P	60 - 150
Fenuron	96.3	92.4	P/P	60 - 150
Fluridone	81.3	81.8	P/P	60 - 160
Hydrocodone	86.0	63.7	P/P	60 - 150
Ibuprofen	88.3	80.8	P/P	50 - 160
Imazapyr	72.3	91.5	P/P	50 - 150
Imazapyr	98.1	93.1	P/P	50 - 150
Imidacloprid	91.7	76.4	P/P	60 - 150
Linuron	86.2	69.0	P/P	60 - 150
Mandestrobin	102	96.3	P/P	50 - 150
MCPP	77.5	75.6	P/P	50 - 150
Naproxen	67.7	80.0	P/P	50 - 160
Primidone	109	66.9	P/P	60 - 150
Pyraclostrobin	91.6	80.9	P/P	60 - 150
Thiamethoxam	104	75.2	P/P	50 - 150
Tolfenpyrad	99.3	75.1	P/P	60 - 150
Triclopyr	87.7	84.2	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A98101
Included Lab Sample IDs: 2159121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	100	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			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							4.44	
	Turbidity							0.570	
EPA 200.7 Rev. 4.4	Barium	106		106	105	105			0.640
	Calcium	107		102	109	105			2.88
	Iron	109		110	109	105			3.66
	Magnesium	112		103	116	111			3.50
	Potassium	107		108	108	107			0.422
	Sodium	112		103	106	105			0.981
	Zinc	106		105	105	105			0.495
EPA 200.8 Rev. 5.4	Aluminum	91.9		97.2	96.0	96.9			1.24
	Antimony	104		104	104	107			0.0080
	Arsenic	100		102	101	105			0.201
	Boron	95.9		95.6	95.6	98.1			0.0281
	Cadmium	104		102	101	105			0.446
	Chromium	97.1		99.1	98.6	99.6			0.477
	Copper	95.3		99.0	98.4	97.0			0.656
	Lead	95.4		95.7	95.3	96.7			0.451
	Nickel	94.4		97.3	97.9	95.7			0.588
	Selenium	105		107	106	109			1.73
	Silver	100		100	99.9	101			0.355
	Thallium	99.4		105	106	107			0.647
EPA 300.0 Rev. 2.1	Chloride	101		105	102			0.975	
	Chloride	102		99.9	95.8			0.686	
	Sulfate	102		103	101			0.847	
EPA 350.1 Rev. 2.0	Ammonia-N	97.0		99.2	101				1.52
	Ammonia-N	100		101	101				0.398
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5		102	99.4				2.42
	Kjeldahl Nitrogen	96.5		101	102				0.858
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5		101	100				0.496
	NO2NO3-N	99.0		98.0	98.0				0.0
EPA 365.1 Rev. 2.0	Total-P	103		98.2	98.8				0.667
	Total-P	105		107	105				1.89
	Total-P	105		104	105				0.0583
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104		95.7	96.6				0.663
	O-Phosphate-P	101		93.2	90.5				2.35
EPA 8270E	Acetochlor	99.5	94.5	101	96.3		5.23		4.82
	Alachlor	99.0	94.9	103	97.8		4.30		4.86
	Aldrin	36.4	34.7	56.0	56.7		4.57		1.11
	Alpha-BHC	79.5	78.2	79.3	80.8		1.69		1.89
	Alpha-Chlordane	84.0	81.6	89.3	86.1		2.96		3.68
	Ametryn	103	116	101	98.3		12.1		2.56
	Atrazine	100	101				0.993		0.914
	Atrazine Desethyl	85.0	80.3	60.9	84.6		5.76		32.6
	Azinphos Methyl	133	111	125	122		18.7		2.79
	Beta-BHC	109	111	115	116		1.65		1.56
	Beta-Cyfluthrin	101	89.0	102	103		12.9		0.782
	Bifenthrin	79.6	81.2	86.1	85.7		2.02		0.444
	Bromacil	89.5	99.6	88.2	78.7		10.6		6.53
	Butylate	48.8	60.6	32.5	50.9		21.6		44.1
	Carbophenothion	104	108	110	101		4.56		8.54
	Chlorothalonil	114	102	35.9	44.6		11.1		21.6
	Chlorpyrifos Ethyl	104	103	123	108		0.380		12.8
	Chlorpyrifos Methyl	97.9	92.9	103	99.9		5.19		3.51
	Cis-Nonachlor	87.8	86.7	90.5	90.0		1.24		0.498

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Cyanazine	127	99.0	106	102	24.5		3.58
	Cypermethrin	83.1	85.5	91.7	94.5	2.85		3.09
	Dacthal	90.0	88.5	90.9	89.7	1.75		1.23
	DDD-p,p'	89.7	90.3	91.3	91.8	0.690		0.494
	DDE-p,p'	81.7	80.3	87.6	85.8	1.66		2.10
	DDT-p,p'	76.6	76.7	81.8	82.3	0.165		0.674
	Delta-BHC	140	136	146	142	2.92		2.12
	Demeton	78.6	56.8	85.9	87.5	32.1		1.84
	Diazinon	91.9	89.8	97.0	93.7	2.31		3.38
	Dicofol	97.9	106	103	91.6	7.99		11.9
	Dieldrin	95.3	90.1	103	97.2	5.69		5.32
	Dimethenamid	92.4	94.4	100	94.3	2.12		5.93
	Disulfoton	87.6	65.7	90.2	89.5	28.6		0.861
	Dithiopyr	97.4	98.5	99.8	92.7	1.16		6.97
	Endosulfan I	95.7	96.7	104	92.0	1.07		12.2
	Endosulfan II	97.5	96.3	99.2	98.3	1.25		0.888
	Endosulfan Sulfate	97.1	96.9	98.3	101	0.293		2.97
	Endrin	91.7	87.9	91.4	92.9	4.25		1.59
	Endrin Aldehyde	106	102	95.1	87.6	3.54		8.23
	Endrin Ketone	94.5	95.3	96.7	96.3	0.851		0.387
	EPTC	46.5	57.9	29.1	41.4	21.8		34.9
	Ethalfluralin	73.6	71.3	75.5	74.4	3.18		1.42
	Ethion	98.9	107	121	107	7.62		12.1
	Ethoprop	87.0	79.0	95.7	96.1	9.55		0.412
	Fenamiphos	105	102	100	94.3	2.54		6.01
	Fipronil	87.5	108	109	100	21.2		8.25
	Fipronil Desulfinyl	94.6	107	110	97.4	12.8		12.2
	Fipronil Sulfide	88.8	107	112	98.5	18.9		12.6
	Fipronil Sulfone	95.4	104	108	90.8	8.42		15.0
	Flumioxazin	157	161	177	174	2.02		1.43
	Fonofos	93.4	77.1	93.0	85.8	19.1		8.11
	Gamma-BHC	103	101	106	107	1.83		1.26
	Gamma-Chlordane	78.7	79.0	83.9	83.9	0.393		0.0441
	Heptachlor	68.7	65.6	69.7	72.7	4.62		4.17
	Heptachlor Epoxide	87.5	85.4	91.6	91.2	2.35		0.434
	Hexachlorobenzene	63.9	62.2	65.4	66.1	2.62		1.08
	Hexazinone	96.5	116			18.1		2.10
	Imazalil	94.4	90.8	66.8	210	3.84		103
	Lambda-Cyhalothrin	91.6	89.7	97.6	97.1	2.13		0.432
	Malathion	109	111	115	104	2.14		7.70
	Metalaxyl	106	101	105	100	5.64		4.64
	Methoxychlor	82.0	87.9	89.5	87.0	6.93		2.75
	Metolachlor	92.3	94.5			2.33		0.666
	Metribuzin	104	104			0.236		5.83
	Mevinphos	79.5	69.5	83.8	86.7	13.5		3.40
	Mirex	64.8	64.9	72.3	72.7	0.111		0.533
	Molinate	66.0	63.7	57.2	68.8	3.45		18.4
	Norflurazon	91.8	109	106	85.4	17.2		14.3
	Oxadiazon	95.2	107	96.3	88.1	11.3		7.41
	Parathion Ethyl	95.4	95.5	108	97.6	0.157		10.3
	Parathion Methyl	95.9	96.4	109	105	0.529		3.53
	Pendimethalin	93.1	94.3	110	101	1.32		8.53
	Permethrin	72.0	74.0	81.2	81.7	2.79		0.573
	Phenothrin	42.9	42.5	65.6	65.5	1.04		0.205

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Phorate	90.0	75.7	82.6	86.5	17.3		4.55
	Prallethrin	53.6	52.0	64.3	63.0	3.11		1.95
	Prodiamine	104	93.8	110	76.7	10.4		35.8
	Prometon	94.8	98.6	89.1	93.4	3.91		4.70
	Prometryn	102	103	106	99.8	1.77		6.20
	Pronamide	92.7	104	99.4	108	11.4		7.96
	Propiconazole	99.8	117	112	111	15.9		0.837
	Simazine	101	101	119	107	0.173		10.9
	Sulfentrazone	70.2	99.9	100	90.6	34.9		10.3
	Tebuconazole	59.8	103	97.4	76.4	53.0		22.2
	Terbufos	92.6	79.5	97.9	98.6	15.2		0.749
	Terbuthylazine	96.0	98.0	102	95.1	2.05		6.68
	Trans-Nonachlor	80.9	79.8	86.1	84.9	1.40		1.42
	Trifluralin	74.3	73.9	76.7	77.0	0.523		0.438
EPA 8276	Chlordane	100	102	74.2	74.6	1.99		0.387
	Toxaphene	99.2	99.7	99.9	102	0.532		2.48
EPA 8321B	2,4-D	134		132	135			1.90
	3-Hydroxycarbofuran	88.6		82.9	83.4			0.617
	Acesulfame K	59.9		15.6	17.9			13.7
	Acetaminophen	94.3		104	101			2.79
	Acetamiprid	91.3		98.3	82.8			17.1
	Afidopyropen	96.5		110	101			8.35
	Aldicarb	74.0		64.9	78.2			18.6
	Aldicarb Sulfone	95.0		103	101			2.41
	Aldicarb Sulfoxide	96.0		44.3	45.6			3.00
	AMPA	76.0		66.1	70.1			2.70
	Bentazon	89.5		76.2	81.1			6.16
	Benzovindiflupyr	85.5		83.9	82.0			2.35
	Carbamazepine	96.6		85.7	91.8			6.89
	Carbaryl	61.9		61.4	50.0			20.4
	Carbofuran	70.2		69.0	67.6			2.07
	Clothianidin	106		112	104			7.99
	Dinotefuran	107		130	126			3.00
	Diuron	96.5		83.6	83.9			0.361
	Endothall	100		112	127			12.8
	Fenuron	104		89.5	81.7			9.15
	Fluridone	101		104	107			2.45
	Glufosinate	101		130	129			1.15
	Glyphosate	106		130	95.2			3.45
	Hydrocodone	105		120	102			15.9
	Ibuprofen	87.0		87.9	78.7			11.1
	Imazapyr	72.8		102	104			1.43
	Imidacloprid	120		157	169			7.13
	Linuron	84.6		81.1	81.5			0.524
	Mandestrobin	91.0		87.4	90.5			3.58
	MCPP	145		149	154			3.37
	Methiocarb	73.0		63.7	58.9			7.82
	Methomyl	85.6		90.0	77.8			14.5
	Naproxen	112		139	129			7.89
	Oxamyl	92.9		96.1	98.0			2.01
	Primidone	104		97.0	103			6.05
	Propoxur	71.7		66.7	62.4			5.32
	Pyraclostrobin	78.1		62.9	66.0			4.86
	Sucralose	117		109	82.7			26.5

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Thiamethoxam	93.8	142	138			2.47
	Tolfenpyrad	70.0	60.3	59.5			1.45
	Triclopyr	131	122	125			2.62
SM 2120 B-2011	Color (true)	99.9				5.27	
SM 2320 B-2011	Total Alkalinity	101				0.243	
SM 2540 C-2011	TDS					3.67	
	TDS					4.73	
SM 4500 F-C-2011	Fluoride	98.1	97.9	99.2			0.979
SM 5310 B-2011	Organic Carbon	97.9	104	105			0.480
	Organic Carbon	97.8	97.4	101			1.94

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2159108, 2159111, 2159114, 2159115, 2159120
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2159147
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2159147
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2159108, 2159111, 2159114, 2159115, 2159120
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2159108, 2159111, 2159114, 2159115, 2159120
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2159109, 2159112, 2159116, 2159117, 2159121
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2159109, 2159112, 2159116, 2159117, 2159121
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2159109, 2159112, 2159116, 2159117, 2159121
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2159109, 2159112, 2159116, 2159117, 2159121
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2159110, 2159113, 2159118, 2159119, 2159122
EPA 8270E	Organochlorine pesticides in water matrices by GC/MS-SIM	2159145
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2159146
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2159145
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2159137
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2159138, 2159139, 2159140, 2159141, 2159142
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2159138, 2159139, 2159140, 2159141, 2159142
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2159108, 2159111, 2159114, 2159115, 2159120
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2159108, 2159111, 2159114, 2159115, 2159120
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2159147
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2159108, 2159111, 2159114, 2159115, 2159120
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2159108, 2159111, 2159114, 2159115, 2159120
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2159108, 2159111, 2159114, 2159115, 2159120
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2159109, 2159112, 2159116, 2159117, 2159121

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	02/19/2020			02/19/2020 17:56	Yen Ta	2159108, 2159111, 2159114, 2159115, 2159120
EPA 200.7 Rev. 4.4	02/19/2020	02/20/2020 15:35	Elliott D. Healy	02/24/2020 19:10	Martin Acosta	2159147
	02/19/2020	02/20/2020 15:35	Elliott D. Healy	03/03/2020 00:33	Betina Topolski	2159147
EPA 200.8 Rev. 5.4	02/19/2020	02/20/2020 15:35	Elliott D. Healy	02/25/2020 04:33	Justin Cutchin	2159147
	02/19/2020	02/20/2020 15:35	Elliott D. Healy	02/26/2020 22:06	Justin Cutchin	2159147
	02/19/2020	02/20/2020 15:35	Elliott D. Healy	03/02/2020 20:49	Alexander Thompson	2159147
EPA 300.0 Rev. 2.1	02/19/2020			02/27/2020 01:26	Elliott Rodriguez	2159108
	02/19/2020			02/27/2020 04:40	Elliott Rodriguez	2159111
	02/19/2020			02/27/2020 04:52	Elliott Rodriguez	2159114
	02/19/2020			02/27/2020 05:04	Elliott Rodriguez	2159115
	02/19/2020			02/27/2020 05:16	Elliott Rodriguez	2159120
	02/19/2020			03/05/2020 01:31	Lipi Saha	2159120
EPA 350.1 Rev. 2.0	02/19/2020			02/25/2020 13:44	Ping Hua	2159109
	02/19/2020			02/25/2020 13:45	Ping Hua	2159112
	02/19/2020			02/25/2020 13:47	Ping Hua	2159116
	02/19/2020			02/25/2020 13:48	Ping Hua	2159117
	02/19/2020			02/26/2020 11:23	Ping Hua	2159121
EPA 351.2 Rev. 2.0	02/19/2020	02/21/2020 09:15	Sima Feizi	02/24/2020 19:23	Jhamieka S. Greenwood	2159121
	02/19/2020	02/24/2020 14:25	Elliott Rodriguez	02/25/2020 15:58	Jhamieka S. Greenwood	2159116
	02/19/2020	02/24/2020 14:25	Elliott Rodriguez	02/25/2020 17:52	Jhamieka S. Greenwood	2159109
	02/19/2020	02/24/2020 14:25	Elliott Rodriguez	02/25/2020 17:54	Jhamieka S. Greenwood	2159112
	02/19/2020	02/24/2020 14:25	Elliott Rodriguez	02/25/2020 17:55	Jhamieka S. Greenwood	2159117
EPA 353.2 Rev. 2.0	02/19/2020			03/05/2020 09:33	Beverly Y. Sanders	2159109
	02/19/2020			03/05/2020 09:34	Beverly Y. Sanders	2159112
	02/19/2020			03/05/2020 09:35	Beverly Y. Sanders	2159116
	02/19/2020			03/05/2020 09:37	Beverly Y. Sanders	2159117
	02/19/2020			03/10/2020 09:07	Beverly Y. Sanders	2159121
EPA 365.1 Rev. 2.0	02/19/2020	02/28/2020 14:20	Yen Ta	03/02/2020 14:14	Lipi Saha	2159121
	02/19/2020	02/28/2020 14:20	Yen Ta	03/02/2020 16:59	Lipi Saha	2159109
	02/19/2020	02/28/2020 14:20	Yen Ta	03/02/2020 17:05	Lipi Saha	2159112
	02/19/2020	02/28/2020 14:20	Yen Ta	03/03/2020 13:13	Benjamin T. Nordmann	2159116
	02/19/2020	02/28/2020 14:20	Yen Ta	03/03/2020 13:14	Benjamin T. Nordmann	2159117
EPA 365.1 Rev. 2.0 dissolved	02/19/2020			02/19/2020 18:19	Carlos Miranda	2159110
	02/19/2020			02/19/2020 18:22	Carlos Miranda	2159113
	02/19/2020			02/19/2020 18:23	Carlos Miranda	2159118
	02/19/2020			02/19/2020 18:24	Carlos Miranda	2159119
	02/19/2020			02/19/2020 18:35	Carlos Miranda	2159122
EPA 8270E	02/19/2020	02/21/2020 08:30	Rasheda Ghaffari	03/02/2020 19:57	Michael Poppell	2159145
	02/19/2020	02/21/2020 09:00	Fe-Val Siddell	02/24/2020 19:23	Vandana T. Nagar	2159146

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	02/19/2020	02/21/2020 09:00	Fe-Val Siddell	02/26/2020 18:56	Vandana T. Nagar	2159146
EPA 8276	02/19/2020	02/21/2020 08:30	Rasheda Ghaffari	02/28/2020 04:46	Michael Poppell	2159145
EPA 8321B	02/19/2020	02/19/2020 14:30	Hoor Shaik	02/21/2020 06:04	Juyoung Kim	2159137
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 05:40	Rebecca Ware	2159142
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 15:39	Rebecca Ware	2159138
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 15:53	Rebecca Ware	2159139
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 16:07	Rebecca Ware	2159140
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/20/2020 16:20	Rebecca Ware	2159141
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/21/2020 01:24	Rebecca Ware	2159138
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/21/2020 01:35	Rebecca Ware	2159139
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/21/2020 01:46	Rebecca Ware	2159140
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/21/2020 01:57	Rebecca Ware	2159141
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/21/2020 07:38	Rebecca Ware	2159142
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/27/2020 03:03	Rebecca Ware	2159138
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/27/2020 03:15	Rebecca Ware	2159139
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/27/2020 03:27	Rebecca Ware	2159140
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/27/2020 03:38	Rebecca Ware	2159141
	02/19/2020	02/19/2020 16:00	Rebecca Ware	02/27/2020 04:02	Rebecca Ware	2159142
	02/19/2020	02/23/2020 09:00	Hoor Shaik	03/06/2020 11:15	Juyoung Kim	2159138
	02/19/2020	02/23/2020 09:00	Hoor Shaik	03/06/2020 11:19	Juyoung Kim	2159140
	02/19/2020	02/23/2020 09:00	Hoor Shaik	03/06/2020 11:50	Juyoung Kim	2159139
	02/19/2020	02/23/2020 09:00	Hoor Shaik	03/06/2020 11:54	Juyoung Kim	2159141
	02/19/2020	02/23/2020 09:00	Hoor Shaik	03/07/2020 12:29	Juyoung Kim	2159142
	02/19/2020	02/23/2020 09:00	Hoor Shaik	03/09/2020 07:41	Juyoung Kim	2159140
	02/19/2020	02/23/2020 09:00	Hoor Shaik	03/09/2020 08:16	Juyoung Kim	2159141
SM 2120 B-2011	02/19/2020			02/19/2020 17:32	Madeline Funaro	2159108
	02/19/2020			02/19/2020 17:34	Madeline Funaro	2159111
	02/19/2020			02/19/2020 17:35	Madeline Funaro	2159114, 2159115
	02/19/2020			02/19/2020 17:36	Madeline Funaro	2159120
SM 2320 B-2011	02/19/2020			02/27/2020 16:19	Dale L. Simmons	2159108
	02/19/2020			02/27/2020 16:30	Dale L. Simmons	2159111
	02/19/2020			02/27/2020 16:40	Dale L. Simmons	2159114
	02/19/2020			02/27/2020 16:51	Dale L. Simmons	2159115
	02/19/2020			02/27/2020 17:20	Dale L. Simmons	2159120
SM 2340B	02/19/2020			03/03/2020 00:33	Betina Topolski	2159147
SM 2540 C-2011	02/19/2020			02/24/2020 15:24	Yijie Li	2159108, 2159111, 2159114, 2159115, 2159120
SM 2540 D-2011	02/19/2020			02/24/2020 15:24	Yijie Li	2159108, 2159111, 2159114, 2159115, 2159120
SM 4500 F-C-2011	02/19/2020			02/26/2020 06:27	Dale L. Simmons	2159108

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	02/19/2020			02/26/2020 06:40	Dale L. Simmons	2159111
	02/19/2020			02/26/2020 06:53	Dale L. Simmons	2159114
	02/19/2020			02/26/2020 07:06	Dale L. Simmons	2159115
	02/19/2020			02/26/2020 07:19	Dale L. Simmons	2159120
SM 5310 B-2011	02/19/2020			02/22/2020 03:41	Madeline Funaro	2159109
	02/19/2020			02/22/2020 04:20	Madeline Funaro	2159112
	02/19/2020			02/22/2020 05:49	Madeline Funaro	2159116
	02/19/2020			02/22/2020 06:05	Madeline Funaro	2159117
	02/19/2020			02/22/2020 06:17	Madeline Funaro	2159121