

Chemical Analysis Report

WAS-SECT-2021-07-27-01

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

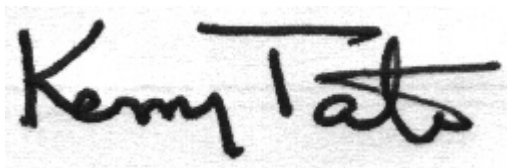
Event Description: **LVI x 2**
Request ID: **RQ-2021-07-12-02**
Customer: **WAS-SECT**
Project ID: **SMP**

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

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: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 23-AUG-2021 11:04

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

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: Deadenings Lake

Collection Date/Time: 07/27/2021 12:56

Field ID: G3WA0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265288	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P401655	
	EPA 300.0 Rev. 2.1	Chloride	2.2		mg Cl/L	P401814	
		Sulfate	0.35	I	mg SO4/L	P401817	
	SM 2120 B-2011	Color (true)	37		PCU	P401659	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P401738	
	SM 2540 C-2011	TDS	17	I	mg/L	P402088	
	SM 2540 D-2011	TSS	2	U	mg/L	P401831	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P401740	
2265289	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P402123	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31		mg N/L	P402634	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P401696	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P401761	
	SM 5310 B-2011	Organic Carbon	6.7		mg C/L	P402250	
2265290	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P401651	
2265292	EPA 8321B	2,4-D	0.0020	U	ug/L	P401633	
		Acesulfame K	0.10	U	ug/L	P401536	
		2,4,5-T	0.0040	U	ug/L	P401633	
		AMPA	0.10	U	ug/L	P401536	
		Acetaminophen	0.0080	U	ug/L	P401633	
		Acetamiprid	0.0020	U	ug/L	P401633	
		Endothall	0.25	U	ug/L	P401536	
		Glufosinate	0.10	U	ug/L	P401536	
		Glyphosate	0.10	U	ug/L	P401536	
		Afidopyropen	0.0020	U	ug/L	P401633	
		Bentazon	8.0E-04	U	ug/L	P401633	
		Sucralose	0.014	I	ug/L	P401536	
		Benzovindiflupyr	0.0020	U	ug/L	P401633	
		Carbamazepine	8.0E-04	U	ug/L	P401633	
		Clothianidin	0.0020	U	ug/L	P401633	
		Dinotefuran	0.0020	U	ug/L	P401633	
		Diuron	0.0020	U	ug/L	P401633	
		Fenuron	0.016	U	ug/L	P401633	
		Fluridone	8.0E-04	U	ug/L	P401633	
		Imazapyr	0.0040	U	ug/L	P401633	
		Hydrocodone	0.0020	U	ug/L	P401633	
		Ibuprofen	0.020	U	ug/L	P401633	
		Imidacloprid	0.0020	U	ug/L	P401633	
		Linuron	0.0040	U	ug/L	P401633	
		Mandestrobin	0.0020	U	ug/L	P401633	
		MCPP	0.0020	U	ug/L	P401633	
		Naproxen	0.0080	U	ug/L	P401633	
		Primidone	0.0040	U	ug/L	P401633	
		Pyraclostrobin	0.0020	U	ug/L	P401633	

Field ID: G3WA0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265292	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P401633	
		Tolfenpyrad	0.0020	U	ug/L	P401633	
		Triclopyr	0.0040	U	ug/L	P401633	
2265293	EPA 200.7 Rev. 4.4	Calcium	0.45		mg/L	P402262	
		Iron	110	I	ug/L	P401702	
		Magnesium	0.33		mg/L	P402262	
		Potassium	0.30	U	mg/L	P401702	
		Sodium	0.97	I	mg/L	P401702	
		Strontium	3.2	I	ug/L	P401702	
		Tin	3.0	U	ug/L	P401702	
		Titanium	0.75	U	ug/L	P401702	
		Vanadium	2.0	U	ug/L	P401702	
		Zinc	5.0	U	ug/L	P402262	
	EPA 200.8 Rev. 5.4	Aluminum	83		ug/L	P401702	
		Antimony	0.050	U	ug/L	P401702	
		Arsenic	0.20	I	ug/L	P401702	
		Barium	3.30		ug/L	P401702	
		Beryllium	0.011	I	ug/L	P401702	
		Boron**	8.1		ug/L	P401702	
		Cadmium	0.020	U	ug/L	P401702	
		Chromium	0.40	U	ug/L	P401702	
		Cobalt	0.063	I	ug/L	P401702	
		Copper	0.40	U	ug/L	P402262	
		Lead	0.22	I	ug/L	P401702	
		Manganese	13.0		ug/L	P401702	
		Molybdenum	0.15	U	ug/L	P401702	
		Nickel	0.50	U	ug/L	P401702	
		Selenium	0.20	U	ug/L	P401702	
		Silver	0.010	U	ug/L	P401702	
		Thallium	0.10	U	ug/L	P401702	
	SM 2340B	Hardness	2.5		mg/L	P402262	
2265294	EPA 8270E	Acetochlor	0.24	U	ng/L	P401725	
		Alachlor	0.24	U	ng/L	P401725	
		Ametryn	0.57	U	ng/L	P401725	
		Atrazine	1.2		ng/L	P401725	
		Atrazine Desethyl	1.5	I	ng/L	P401725	
		Azinphos Methyl	1.9	U	ng/L	P401725	
		Azoxystrobin**	0.48	I	ng/L	P401725	
		Bromacil	0.48	U	ng/L	P401725	
		Butylate	0.38	U	ng/L	P401725	
		Caffeine**	14	IV	ng/L	P401725	
		Carbophenothion	0.48	U	ng/L	P401725	
		Carfentrazone Ethyl**	0.095	U	ng/L	P401725	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P401725	
		Chlorpyrifos Methyl	0.048	U	ng/L	P401725	

Field ID: G3WA0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265294	EPA 8270E	Cyanazine	3.1	U	ng/L	P401725	
		Demeton	1.4	U	ng/L	P401725	
		Diazinon	0.12	U	ng/L	P401725	
		Difenoconazole**	0.57	U	ng/L	P401725	
		Dimethenamid**	0.54		ng/L	P401725	
		Disulfoton	0.48	U	ng/L	P401725	
		Dithiopyr**	0.17	U	ng/L	P401725	
		EPTC	1.2	U	ng/L	P401725	
		Ethion	0.14	U	ng/L	P401725	
		Ethoprop	0.095	U	ng/L	P401725	
		Fenamiphos	0.48	U	ng/L	P401725	
		Fenbuconazole**	0.12	U	ng/L	P401725	
		Fipronil	0.24	U	ng/L	P401725	
		Fipronil Desulfinyl**	0.12	U	ng/L	P401725	
		Fipronil Sulfide	0.14	U	ng/L	P401725	
		Fipronil Sulfone	0.14	U	ng/L	P401725	
		Fluazifop-P-butyl**	0.095	U	ng/L	P401725	
		Fludioxonil**	0.12	U	ng/L	P401725	
		Flumioxazin**	1.7	U	ng/L	P401725	
		Flutolanil**	0.34	I	ng/L	P401725	
		Fluxapyroxad**	0.095	U	ng/L	P401725	
		Fonofos	0.19	U	ng/L	P401725	
		Hexazinone	0.48	U	ng/L	P401725	
		Imazalil**	0.71	U	ng/L	P401725	
		Iprodione**	0.57	UJ	ng/L	P401725	LCS
		Malathion	0.33	U	ng/L	P401725	
		Metaxyl	0.71	U	ng/L	P401725	
		Metolachlor	1.2	I	ng/L	P401725	
		Metribuzin	3.1	U	ng/L	P401725	
		Mevinphos	1.0	U	ng/L	P401725	
		Molinate	0.29	U	ng/L	P401725	
		Myclobutanil**	0.24	U	ng/L	P401725	
		Naled**	1.4	UJ	ng/L	P401725	LCS
		Norflurazon	0.48	U	ng/L	P401725	
		Oxadiazon	0.29	U	ng/L	P401725	
		Oxyfluorfen**	0.14	U	ng/L	P401725	
		Parathion Ethyl	0.24	U	ng/L	P401725	
		Parathion Methyl	0.52	U	ng/L	P401725	
		Pendimethalin	0.95	U	ng/L	P401725	
		Phorate	0.50	U	ng/L	P401725	
		Prodiamine**	0.17	U	ng/L	P401725	
		Prometon	0.86	U	ng/L	P401725	
		Prometryn	0.19	U	ng/L	P401725	
		Pronamide**	0.14	U	ng/L	P401725	
		Propiconazole**	0.48	U	ng/L	P401725	

Field ID: G3WA0017

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2265294	EPA 8270E	Pyriproxyfen**	0.12	U	ng/L	P401725	
		Simazine	0.48	U	ng/L	P401725	
		Sulfentrazone**	0.48	U	ng/L	P401725	
		Tebuconazole**	0.57	I	ng/L	P401725	
		Terbufos	0.095	U	ng/L	P401725	
		Terbuthylazine	0.40	U	ng/L	P401725	

Ref. Method and Comment:

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

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

EPA 8270E: MS accuracy for several parameters not assessed due to high content of these parameters in the sample spiked. V - Due to the presence of Caffeine in both the Method Blank and the sample. 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: P401655

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P401702

Component	Result	Code	Units
Iron	30	U	ug/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402262

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Magnesium	0.040	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P401702

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	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 200.8 Rev. 5.4

Batch ID: P402262

Component	Result	Code	Units
Copper	0.40	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P401814

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P401817

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P402123

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P402634

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P401696

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P401761

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P401651

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

Reference Method: EPA 8270E
 Batch ID: P401725

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P401725

Component	Result	Code	Units
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	18	I	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P401725

Component	Result	Code	Units
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P401725

Component	Result	Code	Units
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8321B

Batch ID: P401536

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: P401633

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P401633

Component	Result	Code	Units
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: P401659

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011

Batch ID: P401738

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

Reference Method: SM 2540 C-2011

Batch ID: P402088

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P401831

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P401740

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P402250

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: P401702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	106		P	85 - 115
Potassium	101		P	85 - 115
Sodium	101		P	85 - 115
Strontium	100		P	85 - 115
Tin	99.2		P	85 - 115
Titanium	101		P	85 - 115
Vanadium	99.7		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402262

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	95.4		P	85 - 115
Magnesium	98.5		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P401702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	96.9		P	85 - 115
Antimony	96.9		P	85 - 115
Arsenic	98.5		P	85 - 115
Barium	98.2		P	85 - 115
Beryllium	100		P	85 - 115
Boron	97.6		P	85 - 115
Cadmium	93.5		P	85 - 115
Chromium	94.5		P	85 - 115
Cobalt	96.5		P	85 - 115
Lead	95.7		P	85 - 115
Manganese	95.4		P	85 - 115
Molybdenum	94.2		P	85 - 115
Nickel	97.9		P	85 - 115
Selenium	96.9		P	85 - 115
Silver	107		P	85 - 115
Thallium	97.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P402262

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	93.0		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P401814

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.9		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P401817

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

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P402123

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

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P402634

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P401696

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P401761

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	109		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P401651

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.4		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P401725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	110	114	P/P	70 - 121
Alachlor	107	105	P/P	70 - 119
Ametryn	106	120	P/P	61 - 135
Atrazine	106	103	P/P	76 - 123
Atrazine Desethyl	73.2	63.8	P/P	35 - 140
Azinphos Methyl	143	137	P/P	57 - 163
Azoxystrobin	93.6	106	P/P	43 - 231
Bromacil	116	119	P/P	42 - 123
Butylate	43.1	40.0	P/P	34 - 92.0
Caffeine	120	91.3	P/P	70 - 130
Carbophenothion	104	113	P/P	61 - 121
Carfentrazone Ethyl	127	132	P/P	62 - 139
Chlorpyrifos Ethyl	93.5	94.9	P/P	67 - 121
Chlorpyrifos Methyl	92.5	96.1	P/P	67 - 120
Cyanazine	216	224	P/P	20 - 226
Demeton	64.7	47.9	P/P	35 - 125

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P401725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diazinon	121	115	P/P	70 - 122
Difenoconazole	90.4	90.1	P/P	56 - 186
Dimethenamid	91.1	91.4	P/P	67 - 119
Disulfoton	71.8	53.9	P/P	47 - 120
Dithiopyr	110	112	P/P	67 - 118
EPTC	36.8	40.3	P/P	33 - 90.0
Ethion	98.1	93.3	P/P	40 - 133
Ethoprop	90.6	88.9	P/P	61 - 121
Fenamiphos	92.2	82.2	P/P	31 - 139
Fenbuconazole	139	132	P/P	66 - 141
Fipronil	84.4	89.5	P/P	62 - 129
Fipronil Desulfinyl	115	120	P/P	59 - 126
Fipronil Sulfide	93.2	96.9	P/P	63 - 117
Fipronil Sulfone	84.8	91.1	P/P	57 - 117
Fluazifop-P-butyl	112	118	P/P	63 - 124
Fludioxonil	109	108	P/P	63 - 123
Flumioxazin	244	233	P/P	34 - 245
Flutolanil	111	109	P/P	56 - 131
Fluxapyroxad	103	107	P/P	57 - 117
Fonofos	79.2	82.1	P/P	61 - 116
Hexazinone	104	105	P/P	55 - 138
Imazalil	99.4	81.6	P/P	33 - 143
Iprodione	133	128	F/F	59 - 118
Malathion	111	113	P/P	62 - 138
Metalaxyl	94.6	96.9	P/P	24 - 147
Metolachlor	112	103	P/P	68 - 118
Metribuzin	103	96.1	P/P	20 - 239
Mevinphos	74.5	74.9	P/P	46 - 124
Molinate	55.3	51.6	P/P	46 - 100
Myclobutanil	107	104	P/P	32 - 149
Naled	24.3	24.0	F/F	32 - 95.0
Norflurazon	101	107	P/P	57 - 127
Oxadiazon	98.3	97.6	P/P	63 - 118
Oxyfluorfen	118	112	P/P	69 - 137
Parathion Ethyl	91.2	96.3	P/P	70 - 113
Parathion Methyl	87.8	101	P/P	71 - 130
Pendimethalin	87.9	83.1	P/P	55 - 118
Phorate	80.8	75.0	P/P	46 - 125
Prodiamine	56.1	52.7	P/P	20 - 141
Prometon	104	102	P/P	54 - 122
Prometryn	112	114	P/P	66 - 124
Pronamide	107	107	P/P	79 - 122
Propiconazole	104	105	P/P	61 - 126
Pyriproxyfen	103	102	P/P	52 - 131
Simazine	105	102	P/P	75 - 128
Sulfentrazone	103	116	P/P	20 - 132
Tebuconazole	57.0	58.0	P/P	20 - 116
Terbufos	104	96.9	P/P	61 - 117
Terbuthylazine	98.0	98.5	P/P	74 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P401536

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	101		P	40 - 150
AMPA	115		P	40 - 150
Endothall	74.0		P	40 - 150
Glufosinate	104		P	40 - 150
Glyphosate	97.1		P	40 - 150
Sucralose	101		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P401633

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	118		P	40 - 150
2,4,5-T	121		P	40 - 150
Acetaminophen	107		P	30 - 150
Acetamiprid	88.4		P	40 - 150
Afidopyropen	64.9		P	40 - 150
Bentazon	113		P	30 - 150
Benzovindiflupyr	86.8		P	40 - 150
Carbamazepine	101		P	40 - 150
Clothianidin	99.5		P	40 - 150
Dinotefuran	89.4		P	40 - 150
Diuron	107		P	40 - 150
Fenuron	98.9		P	40 - 150
Fluridone	95.1		P	40 - 150
Hydrocodone	95.4		P	40 - 150
Ibuprofen	88.8		P	40 - 150
Imazapyr	107		P	40 - 150
Imidacloprid	100		P	40 - 150
Linuron	84.9		P	40 - 150
Mandestrobin	86.1		P	40 - 150
MCPP	116		P	40 - 150
Naproxen	86.6		P	40 - 150
Primidone	105		P	40 - 150
Pyraclostrobin	82.4		P	40 - 150
Thiamethoxam	93.5		P	40 - 150
Tolfenpyrad	48.2		P	30 - 150
Triclopyr	114		P	40 - 150

Reference Method: SM 2120 B-2011

Batch ID: P401659

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-2011

Batch ID: P401738

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P401740

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

Reference Method: SM 5310 B-2011
Batch ID: P402250

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P401702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265145	Iron	99.3		P	80 - 120
2265145	Potassium	98.4		P	80 - 120
2265145	Sodium	105		P	80 - 120
2265145	Strontium	95.6		P	80 - 120
2265145	Tin	93.6		P	80 - 120
2265145	Titanium	96.1		P	80 - 120
2265145	Vanadium	96.5		P	80 - 120
2265293	Iron	103	104	P/P	80 - 120
2265293	Potassium	103	104	P/P	80 - 120
2265293	Sodium	103	105	P/P	80 - 120
2265293	Strontium	98.3	99.6	P/P	80 - 120
2265293	Tin	96.9	98.8	P/P	80 - 120
2265293	Titanium	99.4	101	P/P	80 - 120
2265293	Vanadium	98.1	99.6	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P402262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265003	Calcium	91.2		P	80 - 120
2265003	Magnesium	96.2		P	80 - 120
2265003	Zinc	95.5		P	80 - 120
2265339	Calcium	104		P	80 - 120
2265339	Magnesium	94.1	95.9	P/P	80 - 120
2265339	Zinc	107	107	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P401702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265145	Aluminum	95.6		P	80 - 120
2265145	Antimony	96.5		P	80 - 120
2265145	Arsenic	98.1		P	80 - 120
2265145	Barium	98.0		P	80 - 120
2265145	Beryllium	102		P	80 - 120
2265145	Boron	99.4		P	80 - 120
2265145	Cadmium	94.6		P	80 - 120
2265145	Chromium	95.2		P	80 - 120
2265145	Cobalt	94.0		P	80 - 120
2265145	Lead	95.7		P	80 - 120
2265145	Manganese	95.1		P	80 - 120
2265145	Molybdenum	94.0		P	80 - 120
2265145	Nickel	95.6		P	80 - 120
2265145	Selenium	97.5		P	80 - 120
2265145	Silver	106		P	80 - 120
2265145	Thallium	102		P	80 - 120
2265293	Aluminum	96.5	94.7	P/P	80 - 120
2265293	Antimony	97.0	94.9	P/P	80 - 120
2265293	Arsenic	98.8	96.8	P/P	80 - 120
2265293	Barium	98.6	96.7	P/P	80 - 120
2265293	Beryllium	98.2	97.6	P/P	80 - 120
2265293	Boron	97.3	95.3	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265293	Cadmium	94.8	91.2	P/P	80 - 120
2265293	Chromium	95.2	92.6	P/P	80 - 120
2265293	Cobalt	96.1	94.1	P/P	80 - 120
2265293	Lead	94.6	93.2	P/P	80 - 120
2265293	Manganese	95.7	93.6	P/P	80 - 120
2265293	Molybdenum	94.4	92.8	P/P	80 - 120
2265293	Nickel	101	96.4	P/P	80 - 120
2265293	Selenium	96.9	95.7	P/P	80 - 120
2265293	Silver	107	106	P/P	80 - 120
2265293	Thallium	100	99.9	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265003	Copper	91.6		P	80 - 120
2265339	Copper	111	94.2	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264973	Chloride	101		P	90 - 110
2265165	Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401817

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264973	Sulfate	102		P	90 - 110
2265165	Sulfate	99.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265153	Ammonia-N	98.8	99.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265204	NO2NO3-N	98.5	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265289	Total-P	108	107	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401651

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265333	O-Phosphate-P	99.9	99.9	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P401725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265967	Acetochlor	99.7	113	P/P	66 - 122
2265967	Alachlor	96.7	102	P/P	65 - 122
2265967	Ametryn	141	113	P/P	45 - 173
2265967	Atrazine Desethyl	72.2	55.2	P/P	25 - 150
2265967	Azinphos Methyl	115	109	P/P	44 - 174
2265967	Bromacil	114	122	P/P	31 - 145
2265967	Butylate	42.9	50.4	P/P	15 - 97.0
2265967	Caffeine	103	106	P/P	70 - 130
2265967	Carbophenothion	87.9	101	P/P	42 - 129
2265967	Carfentrazone Ethyl	108	113	P/P	62 - 145
2265967	Chlorpyrifos Ethyl	77.1	79.6	P/P	60 - 124
2265967	Chlorpyrifos Methyl	86.6	95.7	P/P	66 - 119
2265967	Cyanazine	201	203	P/P	17 - 225
2265967	Demeton	91.2	97.4	P/P	36 - 142
2265967	Diazinon	108	119	P/P	70 - 128
2265967	Difenoconazole	208	208	P/P	33 - 222
2265967	Dimethenamid	79.5	96.1	P/P	54 - 125
2265967	Disulfoton	78.9	79.7	P/P	49 - 133
2265967	Dithiopyr	97.5	111	P/P	55 - 123
2265967	EPTC	42.9	52.1	P/P	19 - 91.0
2265967	Ethion	86.0	97.0	P/P	13 - 143
2265967	Ethoprop	92.6	94.9	P/P	49 - 144
2265967	Fenamiphos	78.3	78.2	P/P	32 - 136
2265967	Fenbuconazole	134	137	P/P	73 - 148
2265967	Fipronil	123	128	P/P	57 - 129
2265967	Fipronil Desulfinyl	114	127	P/P	49 - 127
2265967	Fipronil Sulfide	84.2	93.2	P/P	44 - 127
2265967	Fipronil Sulfone	83.7	92.5	P/P	35 - 126
2265967	Fluazifop-P-butyl	108	116	P/P	67 - 129
2265967	Fludioxonil	95.0	108	P/P	61 - 126
2265967	Flumioxazin	247	237	P/P	38 - 279
2265967	Flutolanil	103	109	P/P	55 - 136
2265967	Fluxapyroxad	95.5	100	P/P	33 - 140
2265967	Fonofos	73.0	92.4	P/P	58 - 125
2265967	Hexazinone	91.6	99.9	P/P	57 - 148
2265967	Imazalil	111	103	P/P	10 - 221
2265967	Iprodione	121	119	P/P	32 - 140
2265967	Malathion	92.7	101	P/P	52 - 138
2265967	Metalaxyl	91.9	104	P/P	46 - 134
2265967	Metribuzin	95.8	104	P/P	16 - 272
2265967	Mevinphos	84.1	87.9	P/P	45 - 140
2265967	Molinate	55.0	60.8	P/P	41 - 103
2265967	Myclobutanil	98.0	101	P/P	60 - 134
2265967	Naled	22.3	24.7	P/P	20 - 113
2265967	Norflurazon	92.7	98.1	P/P	51 - 123
2265967	Oxadiazon	82.2	91.5	P/P	44 - 125

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P401725

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265967	Oxyfluorfen	116	127	P/P	66 - 176
2265967	Parathion Ethyl	90.6	91.4	P/P	57 - 132
2265967	Parathion Methyl	102	114	P/P	59 - 156
2265967	Pendimethalin	89.6	91.8	P/P	59 - 129
2265967	Phorate	88.7	95.5	P/P	47 - 136
2265967	Prodiamine	69.1	83.0	P/P	10 - 159
2265967	Prometon	101	102	P/P	59 - 127
2265967	Prometryn	98.8	105	P/P	59 - 129
2265967	Pronamide	97.7	113	P/P	65 - 145
2265967	Propiconazole	101	112	P/P	28 - 165
2265967	Pyriproxyfen	84.4	91.9	P/P	21 - 180
2265967	Sulfentrazone	103	110	P/P	32 - 136
2265967	Tebuconazole	72.9	78.6	P/P	-8.3 - 117
2265967	Terbufos	100	111	P/P	61 - 131
2265967	Terbutylazine	92.3	93.8	P/P	62 - 126

Reference Method: EPA 8321B

Batch ID: P401536

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264960	Acesulfame K	145	144	P/P	40 - 150
2264960	AMPA	91.9	91.6	P/P	40 - 150
2264960	Endothall	99.9	104	P/P	40 - 150
2264960	Glufosinate	105	102	P/P	40 - 150
2264960	Glyphosate	79.6	78.4	P/P	40 - 150
2264960	Sucralose	101	103	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P401633

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264998	2,4-D	98.6	111	P/P	40 - 150
2264998	2,4,5-T	107	116	P/P	40 - 150
2264998	Acetaminophen	104	115	P/P	30 - 150
2264998	Acetamiprid	82.9	85.1	P/P	40 - 150
2264998	Afidopyropen	58.4	50.0	P/P	40 - 150
2264998	Bentazon	95.2	107	P/P	30 - 150
2264998	Benzovindiflupyr	80.7	89.7	P/P	40 - 150
2264998	Carbamazepine	94.2	105	P/P	40 - 150
2264998	Clothianidin	95.7	105	P/P	40 - 150
2264998	Dinotefuran	96.8	100	P/P	40 - 150
2264998	Diuron	94.1	105	P/P	40 - 150
2264998	Fenuron	88.1	95.5	P/P	40 - 150
2264998	Fluridone	86.9	96.2	P/P	40 - 150
2264998	Hydrocodone	90.2	98.4	P/P	40 - 150
2264998	Ibuprofen	96.8	89.8	P/P	40 - 150
2264998	Imazapyr	94.4	105	P/P	40 - 150
2264998	Imidacloprid	110	120	P/P	40 - 150
2264998	Linuron	76.0	88.3	P/P	40 - 150
2264998	Mandestrobin	82.9	91.3	P/P	40 - 150
2264998	MCP	107	118	P/P	40 - 150
2264998	Naproxen	86.3	92.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P401633

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2264998	Primidone	102	107	P/P	40 - 150
2264998	Pyraclostrobin	78.6	87.7	P/P	40 - 150
2264998	Thiamethoxam	102	110	P/P	40 - 150
2264998	Tolfenpyrad	47.8	54.0	P/P	30 - 150
2264998	Triclopyr	103	109	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P401740

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265297	Fluoride	101	98.6	P/P	92 - 107

Reference Method: SM 5310 B-2011

Batch ID: P402250

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265289	Organic Carbon	97.0	97.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265263	Turbidity	3.16	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P401702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265293	Iron	0.676	Spike	P	0 - 20
2265293	Potassium	0.640	Spike	P	0 - 20
2265293	Sodium	1.32	Spike	P	0 - 20
2265293	Strontium	1.35	Spike	P	0 - 20
2265293	Tin	1.95	Spike	P	0 - 20
2265293	Titanium	1.71	Spike	P	0 - 20
2265293	Vanadium	1.60	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P402262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265339	Calcium	1.27	Spike	P	0 - 20
2265339	Magnesium	1.76	Spike	P	0 - 20
2265339	Zinc	0.315	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265293	Aluminum	1.77	Spike	P	0 - 20
2265293	Antimony	2.13	Spike	P	0 - 20
2265293	Arsenic	2.06	Spike	P	0 - 20
2265293	Barium	1.90	Spike	P	0 - 20
2265293	Beryllium	0.610	Spike	P	0 - 20
2265293	Boron	1.86	Spike	P	0 - 20
2265293	Cadmium	3.84	Spike	P	0 - 20
2265293	Chromium	2.71	Spike	P	0 - 20
2265293	Cobalt	2.14	Spike	P	0 - 20
2265293	Lead	1.44	Spike	P	0 - 20
2265293	Manganese	1.64	Spike	P	0 - 20
2265293	Molybdenum	1.76	Spike	P	0 - 20
2265293	Nickel	4.47	Spike	P	0 - 20
2265293	Selenium	1.22	Spike	P	0 - 20
2265293	Silver	1.02	Spike	P	0 - 20
2265293	Thallium	0.435	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402262

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P402262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265339	Copper	16.8	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265165	Chloride	1.27	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401817

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265165	Sulfate	1.29	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265153	Ammonia-N	0.300	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265207	Kjeldahl Nitrogen	0.826	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265204	NO2NO3-N	1.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265289	Total-P	0.163	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401651

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265333	O-Phosphate-P	0.0	Spike	P	0 - 20

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265967	Acetochlor	7.42	Spike	P	0 - 30
2265967	Alachlor	5.49	Spike	P	0 - 30
2265967	Ametryn	21.4	Spike	P	0 - 30
2265967	Atrazine	3.83	Spike	P	0 - 30
2265967	Atrazine Desethyl	19.7	Spike	P	0 - 30
2265967	Azinphos Methyl	4.96	Spike	P	0 - 30
2265967	Azoxystrobin	7.55	Spike	P	0 - 30
2265967	Bromacil	6.53	Spike	P	0 - 30
2265967	Butylate	16.0	Spike	P	0 - 30
2265967	Caffeine	1.77	Spike	P	0 - 30
2265967	Carbophenothion	14.1	Spike	P	0 - 30
2265967	Carfentrazone Ethyl	4.27	Spike	P	0 - 30
2265967	Chlorpyrifos Ethyl	3.23	Spike	P	0 - 30
2265967	Chlorpyrifos Methyl	9.96	Spike	P	0 - 30
2265967	Cyanazine	1.08	Spike	P	0 - 30
2265967	Demeton	6.56	Spike	P	0 - 30
2265967	Diazinon	9.66	Spike	P	0 - 30
2265967	Difenoconazole	0.291	Spike	P	0 - 30
2265967	Dimethenamid	11.1	Spike	P	0 - 30
2265967	Disulfoton	0.947	Spike	P	0 - 30
2265967	Dithiopyr	12.1	Spike	P	0 - 30
2265967	EPTC	19.4	Spike	P	0 - 30
2265967	Ethion	12.0	Spike	P	0 - 30
2265967	Ethoprop	2.52	Spike	P	0 - 30
2265967	Fenamiphos	0.174	Spike	P	0 - 30
2265967	Fenbuconazole	2.32	Spike	P	0 - 30
2265967	Fipronil	4.12	Spike	P	0 - 30
2265967	Fipronil Desulfinyl	9.68	Spike	P	0 - 30
2265967	Fipronil Sulfide	10.2	Spike	P	0 - 30
2265967	Fipronil Sulfone	9.02	Spike	P	0 - 30
2265967	Fluazifop-P-butyl	7.21	Spike	P	0 - 30
2265967	Fludioxonil	13.1	Spike	P	0 - 30
2265967	Flumioxazin	3.88	Spike	P	0 - 30
2265967	Flutolanil	3.33	Spike	P	0 - 30
2265967	Fluxapyroxad	3.90	Spike	P	0 - 30
2265967	Fonofos	23.4	Spike	P	0 - 30
2265967	Hexazinone	6.85	Spike	P	0 - 30
2265967	Imazalil	7.54	Spike	P	0 - 30
2265967	Iprodione	1.76	Spike	P	0 - 30
2265967	Malathion	8.05	Spike	P	0 - 30
2265967	Metalaxyl	12.6	Spike	P	0 - 30
2265967	Metolachlor	1.60	Spike	P	0 - 30
2265967	Metribuzin	8.05	Spike	P	0 - 30
2265967	Mevinphos	4.39	Spike	P	0 - 30
2265967	Molinate	10.1	Spike	P	0 - 30
2265967	Myclobutanil	2.76	Spike	P	0 - 30
2265967	Naled	10.3	Spike	P	0 - 30
2265967	Norflurazon	5.61	Spike	P	0 - 30
2265967	Oxadiazon	6.27	Spike	P	0 - 30
2265967	Oxyfluorfen	8.93	Spike	P	0 - 30
2265967	Parathion Ethyl	0.927	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265967	Parathion Methyl	11.2	Spike	P	0 - 30
2265967	Pendimethalin	2.47	Spike	P	0 - 30
2265967	Phorate	7.36	Spike	P	0 - 30
2265967	Prodiamine	18.4	Spike	P	0 - 30
2265967	Prometon	0.208	Spike	P	0 - 30
2265967	Prometryn	5.95	Spike	P	0 - 30
2265967	Pronamide	14.1	Spike	P	0 - 30
2265967	Propiconazole	7.54	Spike	P	0 - 30
2265967	Pyriproxyfen	8.58	Spike	P	0 - 30
2265967	Simazine	5.41	Spike	P	0 - 30
2265967	Sulfentrazone	7.09	Spike	P	0 - 30
2265967	Tebuconazole	5.19	Spike	P	0 - 30
2265967	Terbufos	9.90	Spike	P	0 - 30
2265967	Terbuthylazine	1.61	Spike	P	0 - 30
LFB	Acetochlor	3.48	LCS	P	0 - 30
LFB	Alachlor	1.21	LCS	P	0 - 30
LFB	Ametryn	13.0	LCS	P	0 - 30
LFB	Atrazine	2.90	LCS	P	0 - 30
LFB	Atrazine Desethyl	13.6	LCS	P	0 - 30
LFB	Azinphos Methyl	4.09	LCS	P	0 - 30
LFB	Azoxystrobin	12.0	LCS	P	0 - 30
LFB	Bromacil	2.20	LCS	P	0 - 30
LFB	Butylate	7.31	LCS	P	0 - 30
LFB	Caffeine	27.4	LCS	P	0 - 30
LFB	Carbophenothion	7.66	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	3.91	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.52	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.82	LCS	P	0 - 30
LFB	Cyanazine	3.69	LCS	P	0 - 30
LFB	Demeton	30.0	LCS	P	0 - 30
LFB	Diazinon	4.67	LCS	P	0 - 30
LFB	Difenoconazole	0.285	LCS	P	0 - 30
LFB	Dimethenamid	0.366	LCS	P	0 - 30
LFB	Disulfoton	28.4	LCS	P	0 - 30
LFB	Dithiopyr	1.25	LCS	P	0 - 30
LFB	EPTC	9.21	LCS	P	0 - 30
LFB	Ethion	5.06	LCS	P	0 - 30
LFB	Ethoprop	1.82	LCS	P	0 - 30
LFB	Fenamiphos	11.6	LCS	P	0 - 30
LFB	Fenbuconazole	5.78	LCS	P	0 - 30
LFB	Fipronil	5.88	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	4.07	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.90	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.13	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	6.02	LCS	P	0 - 30
LFB	Fludioxonil	0.927	LCS	P	0 - 30
LFB	Flumioxazin	4.40	LCS	P	0 - 30
LFB	Flutolanil	1.81	LCS	P	0 - 30
LFB	Fluxapyroxad	3.69	LCS	P	0 - 30
LFB	Fonofos	3.71	LCS	P	0 - 30
LFB	Hexazinone	1.61	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P401725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Imazalil	19.7	LCS	P	0 - 30
LFB	Iprodione	3.58	LCS	P	0 - 30
LFB	Malathion	1.95	LCS	P	0 - 30
LFB	Metalaxyl	2.39	LCS	P	0 - 30
LFB	Metolachlor	8.30	LCS	P	0 - 30
LFB	Metribuzin	6.99	LCS	P	0 - 30
LFB	Mevinphos	0.520	LCS	P	0 - 30
LFB	Molinate	6.91	LCS	P	0 - 30
LFB	Myclobutanil	2.50	LCS	P	0 - 30
LFB	Naled	1.33	LCS	P	0 - 30
LFB	Norflurazon	5.92	LCS	P	0 - 30
LFB	Oxadiazon	0.738	LCS	P	0 - 30
LFB	Oxyfluorfen	5.46	LCS	P	0 - 30
LFB	Parathion Ethyl	5.47	LCS	P	0 - 30
LFB	Parathion Methyl	14.2	LCS	P	0 - 30
LFB	Pendimethalin	5.61	LCS	P	0 - 30
LFB	Phorate	7.53	LCS	P	0 - 30
LFB	Prodiamine	6.24	LCS	P	0 - 30
LFB	Prometon	2.80	LCS	P	0 - 30
LFB	Prometryn	1.86	LCS	P	0 - 30
LFB	Pronamide	0.628	LCS	P	0 - 30
LFB	Propiconazole	0.635	LCS	P	0 - 30
LFB	Pyriproxyfen	1.20	LCS	P	0 - 30
LFB	Simazine	2.20	LCS	P	0 - 30
LFB	Sulfentrazone	12.2	LCS	P	0 - 30
LFB	Tebuconazole	1.69	LCS	P	0 - 30
LFB	Terbufos	7.05	LCS	P	0 - 30
LFB	Terbutylazine	0.490	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P401536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264960	Acesulfame K	0.811	Spike	P	0 - 30
2264960	AMPA	0.390	Spike	P	0 - 30
2264960	Endothall	3.67	Spike	P	0 - 30
2264960	Glufosinate	2.67	Spike	P	0 - 30
2264960	Glyphosate	1.57	Spike	P	0 - 30
2264960	Sucralose	1.65	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P401633

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264998	2,4-D	9.08	Spike	P	0 - 30
2264998	2,4,5-T	7.96	Spike	P	0 - 30
2264998	Acetaminophen	10.7	Spike	P	0 - 30
2264998	Acetamiprid	2.62	Spike	P	0 - 30
2264998	Afidopyropen	15.6	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8321B

Batch ID: P401633

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2264998	Bentazon	7.74	Spike	P	0 - 30
2264998	Benzovindiflupyr	10.6	Spike	P	0 - 30
2264998	Carbamazepine	10.1	Spike	P	0 - 30
2264998	Clothianidin	9.03	Spike	P	0 - 30
2264998	Dinotefuran	3.39	Spike	P	0 - 30
2264998	Diuron	8.95	Spike	P	0 - 30
2264998	Fenuron	8.08	Spike	P	0 - 30
2264998	Fluridone	10.1	Spike	P	0 - 30
2264998	Hydrocodone	8.75	Spike	P	0 - 30
2264998	Ibuprofen	7.51	Spike	P	0 - 30
2264998	Imazapyr	8.09	Spike	P	0 - 30
2264998	Imidacloprid	7.84	Spike	P	0 - 30
2264998	Linuron	15.0	Spike	P	0 - 30
2264998	Mandestrobin	9.64	Spike	P	0 - 30
2264998	MCPP	9.10	Spike	P	0 - 30
2264998	Naproxen	6.67	Spike	P	0 - 30
2264998	Primidone	4.91	Spike	P	0 - 30
2264998	Pyraclostrobin	10.9	Spike	P	0 - 30
2264998	Thiamethoxam	7.64	Spike	P	0 - 30
2264998	Tolfenpyrad	12.4	Spike	P	0 - 30
2264998	Triclopyr	5.20	Spike	P	0 - 30

Reference Method: SM 2120 B-2011

Batch ID: P401659

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265364	Color (true)	5.30	Sample	P	0 - 20

Reference Method: SM 2320 B-2011

Batch ID: P401738

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265297	Total Alkalinity	0.188	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011

Batch ID: P402088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265061	TDS	4.20	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011

Batch ID: P401740

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265297	Fluoride	1.88	Spike	P	0 - 2.1

Quality Assurance Report

Precision

Reference Method: SM 5310 B-2011
Batch ID: P402250

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265289	Organic Carbon	0.458	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2265292

Field Sample ID: G3WA0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	100	P	30 - 160
EPA 8321B	Diuron-d6	83.3	P	30 - 160
EPA 8321B	Endothall-d6	89.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	97.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.9	P	30 - 160
EPA 8321B	Primidone-d5	96.8	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2265294

Field Sample ID: G3WA0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	22.5	P	20 - 200
EPA 8270E	Simazine-d10	118	P	73 - 135
EPA 8270E	Terbufos-d10	107	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A106883

Included Lab Sample IDs: 2265290

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A106884

Included Lab Sample IDs: 2265288

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

Reference Method: SM 2120 B-2011

Run ID: A106885

Included Lab Sample IDs: 2265288

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

Reference Method: EPA 8321B

Run ID: A106898

Included Lab Sample IDs: 2265292

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	119	120	P/P	60 - 160
Glufosinate	102	105	P/P	60 - 160
Glyphosate	102	103	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A106904

Included Lab Sample IDs: 2265292

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	99.5	99.0	P/P	60 - 160
Endothall	84.0	79.7	P/P	60 - 160
Sucralose	98.5	98.8	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A106905

Included Lab Sample IDs: 2265288

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A106916

Included Lab Sample IDs: 2265289

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A106931

Included Lab Sample IDs: 2265288

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

Reference Method: SM 4500 F-C-2011

Run ID: A106931

Included Lab Sample IDs: 2265288

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

Reference Method: EPA 8321B

Run ID: A106940

Included Lab Sample IDs: 2265292

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.0	90.1	P/P	50 - 150
2,4,5-T	95.6	97.1	P/P	50 - 150
Acetaminophen	104	101	P/P	60 - 160
Acetamiprid	96.1	97.6	P/P	50 - 150
Afidopyropen	94.0	95.1	P/P	50 - 150
Bentazon	107	109	P/P	50 - 160
Benzovindiflupyr	93.9	96.0	P/P	50 - 150
Carbamazepine	99.3	99.9	P/P	60 - 150
Clothianidin	95.5	94.2	P/P	60 - 150
Dinotefuran	104	102	P/P	50 - 150
Diuron	113	110	P/P	60 - 160
Fenuron	96.7	96.1	P/P	60 - 150
Fluridone	98.6	101	P/P	60 - 160
Hydrocodone	100	105	P/P	60 - 150
Ibuprofen	97.4	94.3	P/P	50 - 160
Imazapyr	107	111	P/P	50 - 150
Imidacloprid	91.9	92.8	P/P	60 - 150
Linuron	102	95.1	P/P	60 - 150
Mandestrobin	96.4	95.6	P/P	50 - 150
MCP	90.4	90.0	P/P	50 - 150
Naproxen	108	101	P/P	50 - 160
Primidone	101	92.7	P/P	60 - 150
Pyraclostrobin	97.5	98.2	P/P	60 - 150
Thiamethoxam	97.6	97.3	P/P	50 - 150
Tolfenpyrad	95.2	96.2	P/P	60 - 150
Triclopyr	90.6	92.4	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A106978

Included Lab Sample IDs: 2265289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	95.8	95.2	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107071

Included Lab Sample IDs: 2265293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	101	103	P/P	90 - 110
Potassium	103	104	P/P	90 - 110
Sodium	104	104	P/P	90 - 110
Strontium	104	103	P/P	90 - 110
Tin	101	104	P/P	90 - 110
Titanium	99.5	102	P/P	90 - 110
Vanadium	102	103	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A107074

Included Lab Sample IDs: 2265294

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	106		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	116		P	80 - 120
Azinphos Methyl	95.7		P	80 - 120
Azoxystrobin	95.2		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	101		P	70 - 120
Carbophenothion	99.3		P	80 - 120
Carfentrazone Ethyl	101		P	80 - 120
Chlorpyrifos Ethyl	99.4		P	80 - 120
Chlorpyrifos Methyl	99.2		P	80 - 120
Cyanazine	108		P	80 - 120
Demeton	96.1		P	80 - 120
Diazinon	99.5		P	80 - 120
Difenoconazole	92.5		P	80 - 120
Dimethenamid	104		P	80 - 120
Disulfoton	99.4		P	80 - 120
Dithiopyr	97.7		P	80 - 120
EPTC	102		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	92.0		P	80 - 120
Fenbuconazole	100		P	80 - 120
Fipronil	98.9		P	80 - 120
Fipronil Desulfinyl	92.6		P	80 - 120
Fipronil Sulfide	93.9		P	80 - 120
Fipronil Sulfone	98.7		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	99.9		P	80 - 120
Flumioxazin	89.9		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	99.2		P	80 - 120
Fonofos	95.4		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A107074
Included Lab Sample IDs: 2265294

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iprodione	96.8		P	80 - 120
Malathion	92.8		P	80 - 120
Metalaxyl	101		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	93.8		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	101		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	97.2		P	80 - 120
Parathion Ethyl	104		P	80 - 120
Parathion Methyl	103		P	80 - 120
Pendimethalin	112		P	80 - 120
Phorate	100		P	80 - 120
Prodiamine	110		P	80 - 120
Prometon	97.9		P	80 - 120
Prometryn	100		P	80 - 120
Pronamide	95.1		P	80 - 120
Propiconazole	102		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	104		P	80 - 120
Sulfentrazone	94.6		P	80 - 120
Tebuconazole	104		P	80 - 120
Terbufos	94.6		P	80 - 120
Terbutylazine	95.9		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A107098
Included Lab Sample IDs: 2265289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	99.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A107107
Included Lab Sample IDs: 2265293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.1	100	P/P	90 - 110
Antimony	97.9	98.3	P/P	90 - 110
Arsenic	102	101	P/P	90 - 110
Barium	100	100	P/P	90 - 110
Beryllium	97.7	99.1	P/P	90 - 110
Boron	94.7	96.7	P/P	90 - 110
Cadmium	97.2	97.6	P/P	90 - 110
Chromium	97.4	98.6	P/P	90 - 110
Cobalt	100	99.5	P/P	90 - 110
Lead	97.9	98.5	P/P	90 - 110
Manganese	97.3	97.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107107

Included Lab Sample IDs: 2265293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molybdenum	99.0	98.6	P/P	90 - 110
Nickel	102	101	P/P	90 - 110
Selenium	99.4	97.3	P/P	90 - 110
Silver	95.0	94.8	P/P	90 - 110
Thallium	100	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A107149

Included Lab Sample IDs: 2265289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.1	96.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A107192

Included Lab Sample IDs: 2265293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	91.2	92.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A107254

Included Lab Sample IDs: 2265293

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	101	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Zinc	100	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107354

Included Lab Sample IDs: 2265289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	98.8	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							3.16	
EPA 200.7 Rev. 4.4	Calcium	95.4		91.2	104				1.27
	Iron	106		99.3	103	104			0.676
	Magnesium	98.5		96.2	94.1	95.9			1.76
	Potassium	101		98.4	103	104			0.640
	Sodium	101		105	103	105			1.32
	Strontium	100		95.6	98.3	99.6			1.35
	Tin	99.2		93.6	96.9	98.8			1.95
	Titanium	101		96.1	99.4	101			1.71
	Vanadium	99.7		96.5	98.1	99.6			1.60
	Zinc	101		95.5	107	107			0.315
EPA 200.8 Rev. 5.4	Aluminum	96.9		96.5	94.7	95.6			1.77
	Antimony	96.9		97.0	94.9	96.5			2.13
	Arsenic	98.5		98.8	96.8	98.1			2.06
	Barium	98.2		98.6	96.7	98.0			1.90
	Beryllium	100		98.2	97.6	102			0.610
	Boron	97.6		97.3	95.3	99.4			1.86
	Cadmium	93.5		94.8	91.2	94.6			3.84
	Chromium	94.5		95.2	92.6	95.2			2.71
	Cobalt	96.5		96.1	94.1	94.0			2.14
	Copper	93.0		111	94.2	91.6			16.8
	Lead	95.7		94.6	93.2	95.7			1.44
	Manganese	95.4		95.7	93.6	95.1			1.64
	Molybdenum	94.2		94.4	92.8	94.0			1.76
	Nickel	97.9		101	96.4	95.6			4.47
	Selenium	96.9		96.9	95.7	97.5			1.22
	Silver	107		107	106	106			1.02
	Thallium	97.4		100	99.9	102			0.435
EPA 300.0 Rev. 2.1	Chloride	99.9		98.7	101			1.27	
	Sulfate	99.8		99.4	102			1.29	
EPA 350.1 Rev. 2.0	Ammonia-N	98.6		98.8	99.2				0.300
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103							0.826
EPA 353.2 Rev. 2.0	NO2NO3-N	100		98.5	97.5				1.02
EPA 365.1 Rev. 2.0	Total-P	109		108	107				0.163
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.4		99.9	99.9				0.0
EPA 8270E	Acetochlor	110	114	99.7	113		3.48		7.42
	Alachlor	107	105	96.7	102		1.21		5.49
	Ametryn	106	120	141	113		13.0		21.4
	Atrazine	106	103				2.90		3.83
	Atrazine Desethyl	73.2	63.8	72.2	55.2		13.6		19.7
	Azinphos Methyl	143	137	115	109		4.09		4.96
	Azoxystrobin	93.6	106				12.0		7.55
	Bromacil	116	119	114	122		2.20		6.53
	Butylate	43.1	40.0	42.9	50.4		7.31		16.0
	Caffeine	120	91.3	103	106		27.4		1.77
	Carbophenothion	104	113	87.9	101		7.66		14.1
	Carfentrazone Ethyl	127	132	108	113		3.91		4.27
	Chlorpyrifos Ethyl	93.5	94.9	77.1	79.6		1.52		3.23
	Chlorpyrifos Methyl	92.5	96.1	86.6	95.7		3.82		9.96
	Cyanazine	216	224	201	203		3.69		1.08
	Demeton	64.7	47.9	91.2	97.4		30.0		6.56
	Diazinon	121	115	108	119		4.67		9.66
	Difenoconazole	90.4	90.1	208	208		0.285		0.291
	Dimethenamid	91.1	91.4	79.5	96.1		0.366		11.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 8270E	Disulfoton	71.8	53.9	78.9	79.7	28.4		0.947
	Dithiopyr	110	112	97.5	111	1.25		12.1
	EPTC	36.8	40.3	42.9	52.1	9.21		19.4
	Ethion	98.1	93.3	86.0	97.0	5.06		12.0
	Ethoprop	90.6	88.9	92.6	94.9	1.82		2.52
	Fenamiphos	92.2	82.2	78.3	78.2	11.6		0.174
	Fenbuconazole	139	132	134	137	5.78		2.32
	Fipronil	84.4	89.5	123	128	5.88		4.12
	Fipronil Desulfinyl	115	120	114	127	4.07		9.68
	Fipronil Sulfide	93.2	96.9	84.2	93.2	3.90		10.2
	Fipronil Sulfone	84.8	91.1	83.7	92.5	7.13		9.02
	Fluazifop-P-butyl	112	118	108	116	6.02		7.21
	Fludioxonil	109	108	95.0	108	0.927		13.1
	Flumioxazin	244	233	247	237	4.40		3.88
	Flutolanil	111	109	103	109	1.81		3.33
	Fluxapyroxad	103	107	95.5	100	3.69		3.90
	Fonofos	79.2	82.1	73.0	92.4	3.71		23.4
	Hexazinone	104	105	91.6	99.9	1.61		6.85
	Imazalil	99.4	81.6	111	103	19.7		7.54
	Iprodione	133	128	121	119	3.58		1.76
	Malathion	111	113	92.7	101	1.95		8.05
	Metalaxyl	94.6	96.9	91.9	104	2.39		12.6
	Metolachlor	112	103			8.30		1.60
	Metribuzin	103	96.1	95.8	104	6.99		8.05
	Mevinphos	74.5	74.9	84.1	87.9	0.520		4.39
	Molinate	55.3	51.6	55.0	60.8	6.91		10.1
	Myclobutanil	107	104	98.0	101	2.50		2.76
	Naled	24.3	24.0	22.3	24.7	1.33		10.3
	Norflurazon	101	107	92.7	98.1	5.92		5.61
	Oxadiazon	98.3	97.6	82.2	91.5	0.738		6.27
	Oxyfluorfen	118	112	116	127	5.46		8.93
	Parathion Ethyl	91.2	96.3	90.6	91.4	5.47		0.927
	Parathion Methyl	87.8	101	102	114	14.2		11.2
	Pendimethalin	87.9	83.1	89.6	91.8	5.61		2.47
	Phorate	80.8	75.0	88.7	95.5	7.53		7.36
	Prodiamine	56.1	52.7	69.1	83.0	6.24		18.4
	Prometon	104	102	101	102	2.80		0.208
	Prometryn	112	114	98.8	105	1.86		5.95
	Pronamide	107	107	97.7	113	0.628		14.1
	Propiconazole	104	105	101	112	0.635		7.54
	Pyriproxyfen	103	102	84.4	91.9	1.20		8.58
	Simazine	105	102			2.20		5.41
	Sulfentrazone	103	116	103	110	12.2		7.09
	Tebuconazole	57.0	58.0	72.9	78.6	1.69		5.19
	Terbufos	104	96.9	100	111	7.05		9.90
	Terbuthylazine	98.0	98.5	92.3	93.8	0.490		1.61
EPA 8321B	2,4-D	118		98.6	111			9.08
	2,4,5-T	121		107	116			7.96
	Acesulfame K	101		145	144			0.811
	Acetaminophen	107		104	115			10.7
	Acetamiprid	88.4		82.9	85.1			2.62
	Afidopyropen	64.9		58.4	50.0			15.6
	AMPA	115		91.9	91.6			0.390
	Bentazon	113		95.2	107			7.74

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	Benzovindiflupyr	86.8	80.7	89.7		10.6
	Carbamazepine	101	94.2	105		10.1
	Clothianidin	99.5	95.7	105		9.03
	Dinotefuran	89.4	96.8	100		3.39
	Diuron	107	94.1	105		8.95
	Endothall	74.0	99.9	104		3.67
	Fenuron	98.9	88.1	95.5		8.08
	Fluridone	95.1	86.9	96.2		10.1
	Glufosinate	104	105	102		2.67
	Glyphosate	97.1	79.6	78.4		1.57
	Hydrocodone	95.4	90.2	98.4		8.75
	Ibuprofen	88.8	96.8	89.8		7.51
	Imazapyr	107	94.4	105		8.09
	Imidacloprid	100	110	120		7.84
	Linuron	84.9	76.0	88.3		15.0
	Mandestrobin	86.1	82.9	91.3		9.64
	MCPP	116	107	118		9.10
	Naproxen	86.6	86.3	92.2		6.67
	Primidone	105	102	107		4.91
	Pyraclostrobin	82.4	78.6	87.7		10.9
	Sucralose	101	101	103		1.65
	Thiamethoxam	93.5	102	110		7.64
	Tolfenpyrad	48.2	47.8	54.0		12.4
	Triclopyr	114	103	109		5.20
SM 2120 B-2011	Color (true)	101			5.30	
SM 2320 B-2011	Total Alkalinity	102			0.188	
SM 2540 C-2011	TDS				4.20	
SM 4500 F-C-2011	Fluoride	102	101	98.6		1.88
SM 5310 B-2011	Organic Carbon	97.6	97.0	97.6		0.458

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2265288
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2265293
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2265293
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2265288
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2265288
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2265289
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2265289
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2265289
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2265289
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2265290
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2265294
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2265292
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2265288
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2265288
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2265293
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2265288
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2265288

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2265288
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2265289

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	07/27/2021			07/28/2021 16:34	Sarah A Nixon	2265288
EPA 200.7 Rev. 4.4	07/27/2021	07/29/2021 14:20	Elliott D. Healy	08/05/2021 17:09	Betina Topolski	2265293
	07/27/2021	08/10/2021 16:20	Elliott D. Healy	08/13/2021 17:52	Josef B Mick	2265293
EPA 200.8 Rev. 5.4	07/27/2021	07/29/2021 14:20	Elliott D. Healy	08/07/2021 05:42	Alexander Thompson	2265293
	07/27/2021	08/10/2021 16:20	Elliott D. Healy	08/11/2021 16:53	Alexander Thompson	2265293
EPA 300.0 Rev. 2.1	07/27/2021			07/31/2021 07:03	Lipi Saha	2265288
EPA 350.1 Rev. 2.0	07/27/2021			08/06/2021 14:04	Roberta Tatti	2265289
EPA 351.2 Rev. 2.0	07/27/2021	08/18/2021 14:21	Benjamin T. Nordmann	08/19/2021 11:33	Virginia P. Brown	2265289
EPA 353.2 Rev. 2.0	07/27/2021			07/29/2021 10:02	Beverly Y. Sanders	2265289
EPA 365.1 Rev. 2.0	07/27/2021	07/30/2021 15:31	Simonne.V. Calhoun	08/02/2021 12:26	Shengyu Ding	2265289
EPA 365.1 Rev. 2.0 dissolved	07/27/2021			07/28/2021 14:54	Ping Hua	2265290
EPA 8270E	07/27/2021	08/02/2021 08:00	Rasheda Ghaffari	08/03/2021 19:47	Michael Poppell	2265294
EPA 8321B	07/27/2021	07/28/2021 08:30	Pramila Ghimire	07/28/2021 14:39	Juyoung Kim	2265292
	07/27/2021	07/28/2021 08:30	Pramila Ghimire	07/28/2021 18:44	Pramila Ghimire	2265292
	07/27/2021	07/29/2021 09:00	Hoor Shaik	07/30/2021 01:41	Juyoung Kim	2265292
SM 2120 B-2011	07/27/2021			07/28/2021 16:56	Benjamin T. Nordmann	2265288
SM 2320 B-2011	07/27/2021			07/29/2021 19:47	Sarah A Nixon	2265288
SM 2340B	07/27/2021			08/13/2021 17:52	Josef B Mick	2265293
SM 2540 C-2011	07/27/2021			07/30/2021 15:15	Yijie Li	2265288
SM 2540 D-2011	07/27/2021			07/30/2021 15:15	Yijie Li	2265288
SM 4500 F-C-2011	07/27/2021			07/29/2021 19:47	Sarah A Nixon	2265288
SM 5310 B-2011	07/27/2021			08/09/2021 22:49	Madeline Gruver	2265289