

Chemical Analysis Report

NW-DIST-2022-09-02-03

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **LVI Only**
Request ID: **RQ-2022-08-29-20**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Myranda K Butler

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

Certified by: Colin Wright, Program Administrator

Date Certified: 21-SEP-2022 08:54

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

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Court Martial Lake

Collection Date/Time: 09/01/2022 13:30

Field ID: G3NW0446

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2354044	DEP SOP: NU-094-1	Color (true)	17		PCU	P419198	
	EPA 180.1 Rev. 2.0	Turbidity	0.55	I	NTU	P419082	
	EPA 300.0 Rev. 2.1	Chloride	2.9		mg Cl/L	P419739	
		Sulfate	2.4		mg SO4/L	P419742	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P419601	
	SM 2540 C-2011	TDS	18	I	mg/L	P419415	
	SM 2540 D-2011	TSS	2	U	mg/L	P419314	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P419604	
2354045	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P419310	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P419171	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P419365	
	EPA 365.1 Rev. 2.0	Total-P	0.005		mg P/L	P419343	
	SM 5310 B-2011	Organic Carbon	4.7		mg C/L	P419352	
2354046	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P419078	
2354048	EPA 8321B	2,4-D	0.0020	U	ug/L	P419218	
		Acesulfame K	0.10	U	ug/L	P418988	
		2,4,5-T	0.0040	U	ug/L	P419218	
		AMPA	0.10	U	ug/L	P418988	
		Acetaminophen	0.0080	U	ug/L	P419218	
		Acetamiprid	0.0020	U	ug/L	P419218	
		Endothall	0.25	U	ug/L	P418988	
		Glufosinate	0.10	U	ug/L	P418988	
		Glyphosate	0.10	U	ug/L	P418988	
		Afidopyropen	0.0020	U	ug/L	P419218	
		Bentazon	8.0E-04	U	ug/L	P419218	
		Sucralose	0.010	U	ug/L	P418988	
		Benzovindiflupyr	0.0020	U	ug/L	P419218	
		Carbamazepine	8.0E-04	U	ug/L	P419218	
		Clothianidin	0.0020	U	ug/L	P419218	
		Dinotefuran	0.0020	U	ug/L	P419218	
		Diuron	0.0020	U	ug/L	P419218	
		Fenuron	0.032	U	ug/L	P419218	
		Fluridone	8.0E-04	U	ug/L	P419218	
		Imazapyr	0.13		ug/L	P419218	
		Hydrocodone	0.0020	U	ug/L	P419218	
		Ibuprofen	0.080	U	ug/L	P419218	
		Imidacloprid	0.0020	U	ug/L	P419218	
		Linuron	0.0040	U	ug/L	P419218	
		Mandestrobin	0.0020	U	ug/L	P419218	
		MCPP	0.0040	U	ug/L	P419218	
		Naproxen	0.0080	U	ug/L	P419218	
		Primidone	0.0040	U	ug/L	P419218	
		Pyraclostrobin	0.0020	U	ug/L	P419218	

Field ID: G3NW0446

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2354048	EPA 8321B	Silvex	0.0040	U	ug/L	P419218	
		Thiamethoxam	0.0020	U	ug/L	P419218	
		Tolfenpyrad	0.0020	U	ug/L	P419218	
		Triclopyr	0.0040	U	ug/L	P419218	
2354049	EPA 200.7 Rev. 4.4	Calcium	0.87		mg/L	P419177	
		Iron	30	U	ug/L	P419177	
		Magnesium	0.55		mg/L	P419177	
		Potassium	0.58	I	mg/L	P419177	
		Sodium	1.5	I	mg/L	P419177	
		Strontium	3.2	I	ug/L	P419177	
		Tin	3.0	U	ug/L	P419177	
		Titanium	0.75	U	ug/L	P419177	
		Vanadium	2.0	U	ug/L	P419177	
		Zinc	5.0	U	ug/L	P419177	
	EPA 200.8 Rev. 5.4	Aluminum	70		ug/L	P419177	
		Antimony	0.050	U	ug/L	P419177	
		Arsenic	0.31		ug/L	P419177	
		Barium	8.51		ug/L	P419177	
		Beryllium	0.019	I	ug/L	P419177	
		Boron	10.2		ug/L	P419177	
		Cadmium	0.020	U	ug/L	P419177	
		Chromium	0.40	U	ug/L	P419177	
		Cobalt	0.075	I	ug/L	P419177	
		Copper	0.57	I	ug/L	P419177	
		Lead	0.20	U	ug/L	P419177	
		Manganese	5.85		ug/L	P419177	
		Molybdenum	0.15	U	ug/L	P419177	
		Nickel	0.50	U	ug/L	P419177	
		Selenium	0.20	U	ug/L	P419177	
		Silver	0.010	U	ug/L	P419177	
		Thallium	0.10	U	ug/L	P419177	
	SM 2340 B-2011	Hardness	4.4		mg/L	P419177	
2354050	EPA 8270E	Oxybenzone**	9.7	UJ	ng/L	P419168	MS
		Acetochlor	0.24	U	ng/L	P419168	
		Octinoxate**	19	U	ng/L	P419168	
		Alachlor	0.24	U	ng/L	P419168	
		Avobenzone**	97	UJ	ng/L	P419168	MS
		Ametryn	0.58	U	ng/L	P419168	
		Atrazine	1.7		ng/L	P419168	
		PBDE-47**	3.9	U	ng/L	P419168	
		Atrazine Desethyl	1.5	U	ng/L	P419168	
		PBDE-99**	4.8	U	ng/L	P419168	
		Azinphos Methyl	1.9	U	ng/L	P419168	
		Tri-o-cresyl Phosphate**	5.8	U	ng/L	P419168	
		Azoxystrobin	0.48	U	ng/L	P419168	

Field ID: G3NW0446

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2354050	EPA 8270E	Bromacil	0.48	U	ng/L	P419168	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P419168	
		Butylate	0.39	U	ng/L	P419168	
		Dechlorane Plus**	29	U	ng/L	P419168	
		Caffeine**	7.3	U	ng/L	P419168	
		Carbophenothion	0.19	U	ng/L	P419168	
		Carfentrazone Ethyl	0.097	U	ng/L	P419168	
		Chlorfenapyr	0.17	U	ng/L	P419168	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P419168	
		Chlorpyrifos Methyl	0.048	U	ng/L	P419168	
		Coumaphos	0.48	U	ng/L	P419168	
		Cyanazine	3.1	U	ng/L	P419168	
		Cyprodinil	0.097	U	ng/L	P419168	
		Demeton	1.5	U	ng/L	P419168	
		Diazinon	0.12	U	ng/L	P419168	
		Difenoconazole	0.58	U	ng/L	P419168	
		Dimethenamid	0.097	U	ng/L	P419168	
		Dimethomorph	0.17	U	ng/L	P419168	
		Disulfoton	0.48	U	ng/L	P419168	
		Dithiopyr	0.35	IV	ng/L	P419168	
		EPTC	1.2	U	ng/L	P419168	
		Ethion	0.15	U	ng/L	P419168	
		Ethoprop	0.097	U	ng/L	P419168	
		Etridiazole	0.15	U	ng/L	P419168	
		Fenamiphos	0.48	U	ng/L	P419168	
		Fenbuconazole	0.12	U	ng/L	P419168	
		Fipronil	0.24	U	ng/L	P419168	
		Fipronil Desulfinyl**	0.12	U	ng/L	P419168	
		Fipronil Sulfide	0.15	U	ng/L	P419168	
		Fipronil Sulfone	0.15	U	ng/L	P419168	
		Fluazifop-P-butyl	0.097	U	ng/L	P419168	
		Fludioxonil	0.12	U	ng/L	P419168	
		Flumioxazin	1.7	U	ng/L	P419168	
		Flutolanil	0.097	U	ng/L	P419168	
		Fluxapyroxad	0.097	U	ng/L	P419168	
		Fonofos	0.19	U	ng/L	P419168	
		Hexazinone	0.48	U	ng/L	P419168	
		Imazalil	0.73	U	ng/L	P419168	
		Iprodione	0.58	U	ng/L	P419168	
		Loratadine**	0.097	U	ng/L	P419168	
		Malathion	0.34	U	ng/L	P419168	
		Metalaxyl	0.73	U	ng/L	P419168	
		Metolachlor	0.56	I	ng/L	P419168	
		Metribuzin	2.4	U	ng/L	P419168	

Field ID: G3NW0446

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2354050	EPA 8270E	Mevinphos	1.0	U	ng/L	P419168	
		Molinate	0.29	U	ng/L	P419168	
		Myclobutanil	0.24	U	ng/L	P419168	
		Naled	1.5	U	ng/L	P419168	
		Napropamide	0.39	U	ng/L	P419168	
		Norflurazon	0.48	U	ng/L	P419168	
		Oxadiazon	0.29	U	ng/L	P419168	
		Oxyfluorfen	0.15	U	ng/L	P419168	
		Parathion Ethyl	0.24	U	ng/L	P419168	
		Parathion Methyl	0.53	U	ng/L	P419168	
		Pendimethalin	0.97	U	ng/L	P419168	
		Phenytoin**	3.4	UJ	ng/L	P419168	MS, RPD
		Phorate	0.51	U	ng/L	P419168	
		Prodiamine	0.17	U	ng/L	P419168	
		Prometon	0.87	U	ng/L	P419168	
		Prometryn	0.19	U	ng/L	P419168	
		Pronamide	0.15	U	ng/L	P419168	
		Propanil	0.12	U	ng/L	P419168	
		Propargite	1.5	U	ng/L	P419168	
		Propiconazole	0.48	U	ng/L	P419168	
		Pyraflufen Ethyl	0.24	U	ng/L	P419168	
		Pyridaben	0.44	U	ng/L	P419168	
		Pyriproxyfen	0.12	U	ng/L	P419168	
		Simazine	0.48	U	ng/L	P419168	
		Stirophos	0.12	U	ng/L	P419168	
		Sulfentrazone	0.48	U	ng/L	P419168	
		Tebuconazole	1.2	I	ng/L	P419168	
		Terbufos	0.097	U	ng/L	P419168	
		Terbuthylazine	0.41	U	ng/L	P419168	
		Thiobencarb	0.58	U	ng/L	P419168	
		Triadimefon	0.24	U	ng/L	P419168	

Ref. Method and Comment:

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

SM 4500-F- C-2011: Batch matrix spike recoveries are unavailable because of high 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 8321B: MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

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

EPA 8270E: V - Due to the presence of dithiopyr in both Method Blanks and the sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P419198

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419082

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419177

Component	Result	Code	Units
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
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419177

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
Copper	0.40	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 300.0 Rev. 2.1
Batch ID: P419739

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419742

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419310

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419171

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419365

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419343

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P419078

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

Reference Method: EPA 8270E
Batch ID: P419168

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
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
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419168

Component	Result	Code	Units
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	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	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
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	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
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.24	I	ng/L
Dithiopyr	0.25	I	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
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419168

Component	Result	Code	Units
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
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
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.75	U	ng/L
Metaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	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
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419168

Component	Result	Code	Units
Oxybenzone	10	U	ng/L
Oxybenzone	10	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
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiatone	0.18	U	ng/L
Prodiatone	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
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	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
Stirophos	0.12	U	ng/L
Stirophos	0.12	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
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P419168

Component	Result	Code	Units
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B

Batch ID: P418988

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: P419218

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	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P419601

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P419601

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

Reference Method: SM 2540 C-2011
Batch ID: P419415

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P419314

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P419604

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P419352

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P419198

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419082

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419177

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	111		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	108		P	85 - 115
Sodium	107		P	85 - 115
Strontium	110		P	85 - 115
Tin	111		P	85 - 115
Titanium	108		P	85 - 115
Vanadium	107		P	85 - 115
Zinc	110		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419177

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	104		P	85 - 115
Barium	107		P	85 - 115
Beryllium	98.1		P	85 - 115
Boron	105		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	101		P	85 - 115
Cobalt	101		P	85 - 115
Copper	102		P	85 - 115
Lead	96.6		P	85 - 115
Manganese	102		P	85 - 115
Molybdenum	101		P	85 - 115
Nickel	103		P	85 - 115
Selenium	102		P	85 - 115
Silver	89.3		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419739

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.8		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419742

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419310

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419171

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419365

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: P419343

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P419078

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

Reference Method: EPA 8270E
Batch ID: P419168

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	80.4		P	50 - 150
Acetochlor	102		P	70 - 121
Alachlor	98.5		P	68 - 119
Ametryn	69.5		P	64 - 139
Atrazine	92.5		P	76 - 120
Atrazine Desethyl	97.2		P	44 - 126
Avobenzone	78.9		P	59 - 206
Azinphos Methyl	108		P	43 - 192
Azoxystrobin	105		P	36 - 224
Bromacil	113		P	52 - 121
Butylate	47.8		P	28 - 91.0
Caffeine	87.0		P	50 - 134
Carbophenothion	93.7		P	56 - 129
Carfentrazone Ethyl	138		P	60 - 141
Chlorfenapyr	76.6		P	56 - 115
Chlorpyrifos Ethyl	89.2		P	60 - 118

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P419168

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	92.5		P	68 - 119
Coumaphos	210		P	18 - 250
Cyanazine	184		P	61 - 250
Cyprodinil	138		P	55 - 145
Dechlorane Plus	84.4		P	50 - 150
Demeton	88.2		P	30 - 159
Diazinon	118		P	70 - 123
Difenoconazole	180		P	49 - 204
Dimethenamid	83.8		P	64 - 115
Dimethomorph	141		P	12 - 219
Disulfoton	81.4		P	44 - 125
Dithiopyr	107		P	64 - 115
EPTC	47.4		P	28 - 86.0
Ethion	83.1		P	33 - 125
Ethoprop	88.6		P	64 - 116
Etridiazole	69.1		P	34 - 91.0
Fenamiphos	117		P	12 - 127
Fenbuconazole	138		P	59 - 151
Fipronil	118		P	67 - 129
Fipronil Desulfinyl	108		P	65 - 127
Fipronil Sulfide	89.8		P	61 - 116
Fipronil Sulfone	103		P	55 - 117
Fluazifop-P-butyl	105		P	62 - 127
Fludioxonil	111		P	62 - 128
Flumioxazin	148		P	33 - 250
Flutolanil	114		P	56 - 127
Fluxapyroxad	121		P	45 - 128
Fonofos	95.9		P	62 - 111
Hexazinone	91.5		P	46 - 139
Imazalil	84.7		P	38 - 142
Iprodione	90.3		P	47 - 135
Loratadine	188		P	10 - 244
Malathion	126		P	61 - 139
Metaxyl	94.1		P	10 - 119
Metolachlor	100		P	65 - 118
Metribuzin	92.2		P	51 - 250
Mevinphos	83.6		P	53 - 121
Molinate	68.8		P	42 - 96.0
Myclobutanil	123		P	55 - 128
Naled	93.2		P	10 - 98.0
Napropamide	64.9		P	49 - 121
Norflurazon	104		P	61 - 126
Octinoxate	82.0		P	25 - 150
Oxadiazon	91.0		P	59 - 116
Oxybenzone	74.8		P	59 - 147
Oxyfluorfen	114		P	64 - 137
Parathion Ethyl	85.2		P	70 - 112
Parathion Methyl	106		P	76 - 133
PBDE-47	76.8		P	50 - 150
PBDE-99	65.9		P	50 - 150
Pendimethalin	72.9		P	52 - 117
Phenytol	19.6		P	10 - 199

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P419168

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	56.3		P	48 - 121
Prodiamine	33.8		P	26 - 142
Prometon	115		P	43 - 123
Prometryn	126		P	66 - 127
Pronamide	111		P	75 - 121
Propanil	81.3		P	45 - 150
Propargite	187		P	42 - 208
Propiconazole	122		P	60 - 125
Pyraflufen Ethyl	101		P	70 - 138
Pyridaben	197		P	35 - 245
Pyriproxyfen	109		P	30 - 149
Simazine	92.3		P	72 - 125
Stirophos	84.9		P	29 - 164
Sulfentrazone	81.9		P	21 - 139
Tebuconazole	92.9		P	10 - 115
Terbufos	105		P	60 - 123
Terbuthylazine	83.3		P	72 - 115
Thiobencarb	84.6		P	31 - 139
Tri-o-cresyl Phosphate	78.1		P	50 - 150
Triadimefon	74.8		P	65 - 116

Reference Method: EPA 8321B

Batch ID: P418988

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	112		P	40 - 150
AMPA	103		P	40 - 150
Endothall	99.2		P	40 - 150
Glufosinate	85.2		P	40 - 150
Glyphosate	112		P	40 - 150
Sucralose	102		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P419218

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	110		P	40 - 150
2,4,5-T	120		P	40 - 150
Acetaminophen	86.5		P	30 - 150
Acetamiprid	79.0		P	40 - 150
Afidopyropen	39.1		P	30 - 150
Bentazon	102		P	30 - 150
Benzovindiflupyr	93.5		P	40 - 150
Carbamazepine	108		P	40 - 150
Clothianidin	113		P	40 - 150
Dinotefuran	78.8		P	40 - 150
Diuron	110		P	40 - 150
Fenuron	96.9		P	40 - 150
Fluridone	103		P	40 - 150
Hydrocodone	98.5		P	40 - 150
Ibuprofen	102		P	40 - 150
Imazapyr	96.7		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P419218

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imidacloprid	93.4		P	40 - 150
Linuron	111		P	40 - 150
Mandestrobin	101		P	40 - 150
MCPP	111		P	40 - 150
Naproxen	118		P	40 - 150
Primidone	97.3		P	40 - 150
Pyraclostrobin	93.7		P	40 - 150
Silvex	109		P	40 - 150
Thiamethoxam	106		P	40 - 150
Tolfenpyrad	60.2		P	30 - 150
Triclopyr	96.3		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P419601

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P419604

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P419352

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P419177

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353696	Calcium	106		P	80 - 120
2353696	Iron	107	109	P/P	80 - 120
2353696	Magnesium	104		P	80 - 120
2353696	Potassium	105		P	80 - 120
2353696	Sodium	105		P	80 - 120
2353696	Strontium	105	107	P/P	80 - 120
2353696	Tin	106	108	P/P	80 - 120
2353696	Titanium	103	106	P/P	80 - 120
2353696	Vanadium	102	105	P/P	80 - 120
2353696	Zinc	104	106	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P419177

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353696	Aluminum	102	99.2	P/P	80 - 120
2353696	Antimony	104	103	P/P	80 - 120
2353696	Arsenic	105	103	P/P	80 - 120
2353696	Barium	106	103	P/P	80 - 120
2353696	Beryllium	101	99.0	P/P	80 - 120
2353696	Boron	106	99.4	P/P	80 - 120
2353696	Cadmium	100	98.2	P/P	80 - 120
2353696	Chromium	105	101	P/P	80 - 120
2353696	Cobalt	102	98.9	P/P	80 - 120
2353696	Copper	101	97.6	P/P	80 - 120
2353696	Lead	97.7	95.3	P/P	80 - 120
2353696	Manganese	104	101	P/P	80 - 120
2353696	Molybdenum	103	101	P/P	80 - 120
2353696	Nickel	103	100	P/P	80 - 120
2353696	Selenium	101	100	P/P	80 - 120
2353696	Silver	88.8	87.5	P/P	80 - 120
2353696	Thallium	105	102	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P419739

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353690	Chloride	98.2		P	90 - 110
2354011	Chloride	98.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P419742

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353690	Sulfate	95.1		P	90 - 110
2354011	Sulfate	97.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P419310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353651	Ammonia-N	98.4	98.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P419365

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354014	NO2NO3-N	96.5	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P419343

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354141	Total-P	105	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P419078

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353982	O-Phosphate-P	100	98.9	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P419168

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354050	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	69.0	79.8	P/P	50 - 150
2354050	Acetochlor	92.5	108	P/P	65 - 124
2354050	Alachlor	79.6	87.9	P/P	61 - 121
2354050	Ametryn	184	172	P/P	52 - 216
2354050	Atrazine	69.2	78.0	P/P	68 - 133
2354050	Atrazine Desethyl	88.0	82.3	P/P	15 - 160
2354050	Avobenzone	57.5	67.9	F/P	59 - 206
2354050	Azinphos Methyl	83.2	99.8	P/P	40 - 292
2354050	Azoxystrobin	94.5	101	P/P	12 - 242
2354050	Bromacil	88.4	85.9	P/P	54 - 167
2354050	Butylate	61.3	58.5	P/P	14 - 94.0
2354050	Caffeine	78.3	80.0	P/P	10 - 226
2354050	Carbophenothion	81.5	90.0	P/P	49 - 122
2354050	Carfentrazone Ethyl	98.8	112	P/P	53 - 138
2354050	Chlorfenapyr	76.8	67.2	P/P	50 - 150
2354050	Chlorpyrifos Ethyl	78.4	83.0	P/P	52 - 122
2354050	Chlorpyrifos Methyl	95.4	91.1	P/P	66 - 117
2354050	Coumaphos	193	185	P/P	50 - 220
2354050	Cyanazine	194	185	P/P	43 - 245
2354050	Cyprodinil	114	134	P/P	50 - 150
2354050	Dechlorane Plus	73.0	81.9	P/P	50 - 150
2354050	Demeton	104	95.0	P/P	43 - 188
2354050	Diazinon	121	124	P/P	69 - 131
2354050	Difenoconazole	106	92.6	P/P	34 - 231
2354050	Dimethenamid	74.2	90.0	P/P	55 - 118
2354050	Dimethomorph	102	103	P/P	50 - 150
2354050	Disulfoton	79.6	76.7	P/P	38 - 141
2354050	Dithiopyr	111	103	P/P	42 - 116
2354050	EPTC	47.5	53.4	P/P	18 - 85.0
2354050	Ethion	83.8	79.2	P/P	10 - 131
2354050	Ethoprop	83.3	84.4	P/P	65 - 129
2354050	Etridiazole	66.5	77.3	P/P	50 - 150
2354050	Fenamiphos	103	107	P/P	31 - 137
2354050	Fenbuconazole	121	148	P/P	57 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P419168

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354050	Fipronil	107	123	P/P	62 - 132
2354050	Fipronil Desulfinyl	100	98.2	P/P	57 - 131
2354050	Fipronil Sulfide	81.8	85.4	P/P	15 - 138
2354050	Fipronil Sulfone	93.5	97.7	P/P	21 - 134
2354050	Fluazifop-P-butyl	94.1	109	P/P	54 - 133
2354050	Fludioxonil	99.2	112	P/P	58 - 127
2354050	Flumioxazin	156	199	P/P	33 - 300
2354050	Flutolanil	98.0	117	P/P	42 - 130
2354050	Fluxapyroxad	65.5	61.2	P/P	23 - 141
2354050	Fonofos	66.1	75.5	P/P	58 - 119
2354050	Hexazinone	80.3	85.0	P/P	68 - 172
2354050	Imazalil	86.8	114	P/P	48 - 283
2354050	Iprodione	85.9	93.3	P/P	38 - 140
2354050	Loratadine	111	109	P/P	50 - 150
2354050	Malathion	129	122	P/P	40 - 137
2354050	Metalaxyl	79.0	81.7	P/P	21 - 129
2354050	Metolachlor	98.5	98.0	P/P	55 - 122
2354050	Metribuzin	60.8	67.6	P/P	38 - 187
2354050	Mevinphos	76.4	77.6	P/P	54 - 134
2354050	Molinate	68.8	69.5	P/P	41 - 97.0
2354050	Myclobutanil	112	123	P/P	56 - 125
2354050	Naled	102	105	P/P	10 - 108
2354050	Napropamide	65.4	78.5	P/P	50 - 150
2354050	Norflurazon	117	116	P/P	32 - 122
2354050	Octinoxate	60.7	72.5	P/P	25 - 150
2354050	Oxadiazon	85.3	84.0	P/P	40 - 119
2354050	Oxybenzone	55.5	64.1	F/P	59 - 147
2354050	Oxyfluorfen	106	126	P/P	61 - 153
2354050	Parathion Ethyl	79.2	88.9	P/P	59 - 130
2354050	Parathion Methyl	101	95.1	P/P	65 - 155
2354050	PBDE-47	65.0	75.1	P/P	50 - 150
2354050	PBDE-99	60.4	72.1	P/P	50 - 150
2354050	Pendimethalin	80.1	80.3	P/P	49 - 138
2354050	Phenytoin	40.6	56.9	F/P	50 - 200
2354050	Phorate	77.3	69.8	P/P	54 - 161
2354050	Prodiamine	44.8	48.0	P/P	33 - 161
2354050	Prometon	62.7	65.9	P/P	48 - 140
2354050	Prometryn	108	132	P/P	55 - 134
2354050	Pronamide	131	136	P/P	66 - 137
2354050	Propanil	69.3	78.9	P/P	50 - 150
2354050	Propargite	57.7	67.2	P/P	50 - 200
2354050	Propiconazole	150	146	P/P	36 - 150
2354050	Pyraflufen Ethyl	133	132	P/P	50 - 150
2354050	Pyridaben	103	104	P/P	50 - 200
2354050	Pyriproxyfen	75.3	84.1	P/P	10 - 165
2354050	Simazine	64.4	67.7	P/P	57 - 145
2354050	Stirophos	120	131	P/P	50 - 150
2354050	Sulfentrazone	112	130	P/P	34 - 140
2354050	Tebuconazole	50.4	46.4	P/P	10 - 127
2354050	Terbufos	111	107	P/P	59 - 138
2354050	Terbutylazine	77.9	86.2	P/P	68 - 119
2354050	Thiobencarb	78.4	90.7	P/P	50 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P419168

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354050	Tri-o-cresyl Phosphate	58.3	69.7	P/P	50 - 150
2354050	Triadimefon	69.1	78.5	P/P	50 - 150

Reference Method: EPA 8321B

Batch ID: P418988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353620	Acesulfame K	111	111	P/P	40 - 150
2353620	AMPA	101	105	P/P	40 - 150
2353620	Endothall	91.4	91.8	P/P	40 - 150
2353620	Glufosinate	71.2	73.3	P/P	40 - 150
2353620	Glyphosate	93.0	95.9	P/P	40 - 150
2353620	Sucralose	98.2	101	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P419218

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354048	2,4-D	112	112	P/P	40 - 150
2354048	2,4,5-T	130	123	P/P	40 - 150
2354048	Acetaminophen	60.9	61.9	P/P	30 - 150
2354048	Acetamiprid	51.8	56.1	P/P	40 - 150
2354048	Afidopyropen	34.8	32.0	P/P	30 - 150
2354048	Bentazon	138	132	P/P	30 - 150
2354048	Benzovindiflupyr	105	97.5	P/P	40 - 150
2354048	Carbamazepine	82.6	83.7	P/P	40 - 150
2354048	Clothianidin	57.9	62.2	P/P	40 - 150
2354048	Dinotefuran	84.4	78.3	P/P	40 - 150
2354048	Diuron	99.1	101	P/P	40 - 150
2354048	Fenuron	74.8	78.9	P/P	40 - 150
2354048	Fluridone	99.0	101	P/P	40 - 150
2354048	Hydrocodone	111	105	P/P	40 - 150
2354048	Ibuprofen	114	117	P/P	40 - 150
2354048	Imidacloprid	69.9	62.9	P/P	40 - 150
2354048	Linuron	102	112	P/P	40 - 150
2354048	Mandestrobin	94.6	98.7	P/P	40 - 150
2354048	MCPP	127	121	P/P	40 - 150
2354048	Naproxen	143	149	P/P	40 - 150
2354048	Primidone	46.1	44.9	P/P	40 - 150
2354048	Pyraclostrobin	94.6	102	P/P	40 - 150
2354048	Silvex	114	102	P/P	40 - 150
2354048	Thiamethoxam	76.3	84.5	P/P	40 - 150
2354048	Tolfenpyrad	61.8	65.7	P/P	30 - 150
2354048	Triclopyr	108	102	P/P	40 - 150

Reference Method: SM 5310 B-2011

Batch ID: P419352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2354070	Organic Carbon	97.1	98.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P419198

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353863	Color (true)	0.336	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354010	Turbidity	1.08	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P419177

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353696	Calcium	1.77	Spike	P	0 - 20
2353696	Iron	1.92	Spike	P	0 - 20
2353696	Magnesium	2.60	Spike	P	0 - 20
2353696	Potassium	2.18	Spike	P	0 - 20
2353696	Sodium	2.27	Spike	P	0 - 20
2353696	Strontium	1.71	Spike	P	0 - 20
2353696	Tin	2.46	Spike	P	0 - 20
2353696	Titanium	2.87	Spike	P	0 - 20
2353696	Vanadium	2.91	Spike	P	0 - 20
2353696	Zinc	2.67	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P419177

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353696	Aluminum	2.97	Spike	P	0 - 20
2353696	Antimony	1.25	Spike	P	0 - 20
2353696	Arsenic	2.11	Spike	P	0 - 20
2353696	Barium	1.83	Spike	P	0 - 20
2353696	Beryllium	1.49	Spike	P	0 - 20
2353696	Boron	5.27	Spike	P	0 - 20
2353696	Cadmium	2.29	Spike	P	0 - 20
2353696	Chromium	3.43	Spike	P	0 - 20
2353696	Cobalt	2.88	Spike	P	0 - 20
2353696	Copper	3.13	Spike	P	0 - 20
2353696	Lead	2.51	Spike	P	0 - 20
2353696	Manganese	2.20	Spike	P	0 - 20
2353696	Molybdenum	2.21	Spike	P	0 - 20
2353696	Nickel	2.94	Spike	P	0 - 20
2353696	Selenium	0.947	Spike	P	0 - 20
2353696	Silver	1.47	Spike	P	0 - 20
2353696	Thallium	2.23	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353690	Chloride	0.00596	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353690	Sulfate	0.105	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P419310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353651	Ammonia-N	0.187	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419171

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353889	Kjeldahl Nitrogen	4.71	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419365

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354014	NO2NO3-N	0.505	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354141	Total-P	1.59	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P419078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353982	O-Phosphate-P	1.42	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P419168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354050	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	14.5	Spike	P	0 - 30
2354050	Acetochlor	15.9	Spike	P	0 - 27

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P419168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354050	Alachlor	9.88	Spike	P	0 - 27
2354050	Ametryn	6.80	Spike	P	0 - 34
2354050	Atrazine	7.48	Spike	P	0 - 41
2354050	Atrazine Desethyl	6.73	Spike	P	0 - 38
2354050	Avobenzone	16.6	Spike	P	0 - 30
2354050	Azinphos Methyl	18.1	Spike	P	0 - 62
2354050	Azoxystrobin	6.45	Spike	P	0 - 32
2354050	Bromacil	2.91	Spike	P	0 - 30
2354050	Butylate	4.66	Spike	P	0 - 59
2354050	Caffeine	2.17	Spike	P	0 - 60
2354050	Carbophenothion	9.90	Spike	P	0 - 25
2354050	Carfentrazone Ethyl	12.6	Spike	P	0 - 26
2354050	Chlorfenapyr	13.4	Spike	P	0 - 30
2354050	Chlorpyrifos Ethyl	5.66	Spike	P	0 - 27
2354050	Chlorpyrifos Methyl	4.69	Spike	P	0 - 26
2354050	Coumaphos	4.14	Spike	P	0 - 30
2354050	Cyanazine	4.44	Spike	P	0 - 58
2354050	Cyprodinil	16.4	Spike	P	0 - 30
2354050	Dechlorane Plus	11.4	Spike	P	0 - 30
2354050	Demeton	8.66	Spike	P	0 - 25
2354050	Diazinon	2.58	Spike	P	0 - 29
2354050	Difenoconazole	13.7	Spike	P	0 - 25
2354050	Dimethenamid	19.2	Spike	P	0 - 30
2354050	Dimethomorph	1.10	Spike	P	0 - 30
2354050	Disulfoton	3.67	Spike	P	0 - 33
2354050	Dithiopyr	6.56	Spike	P	0 - 22
2354050	EPTC	11.8	Spike	P	0 - 38
2354050	Ethion	5.62	Spike	P	0 - 79
2354050	Ethoprop	1.28	Spike	P	0 - 23
2354050	Etridiazole	15.0	Spike	P	0 - 30
2354050	Fenamiphos	3.51	Spike	P	0 - 58
2354050	Fenbuconazole	19.5	Spike	P	0 - 37
2354050	Fipronil	14.3	Spike	P	0 - 33
2354050	Fipronil Desulfanyl	1.96	Spike	P	0 - 26
2354050	Fipronil Sulfide	4.28	Spike	P	0 - 37
2354050	Fipronil Sulfone	4.44	Spike	P	0 - 50
2354050	Fluazifop-P-butyl	14.7	Spike	P	0 - 24
2354050	Fludioxonil	12.2	Spike	P	0 - 26
2354050	Flumioxazin	24.0	Spike	P	0 - 37
2354050	Flutolanil	17.7	Spike	P	0 - 26
2354050	Fluxapyroxad	6.73	Spike	P	0 - 34
2354050	Fonofos	13.3	Spike	P	0 - 27
2354050	Hexazinone	5.73	Spike	P	0 - 36
2354050	Imazalil	27.6	Spike	P	0 - 65
2354050	Iprodione	8.23	Spike	P	0 - 33
2354050	Loratadine	1.80	Spike	P	0 - 30
2354050	Malathion	5.40	Spike	P	0 - 44
2354050	Metalaxyl	3.35	Spike	P	0 - 38
2354050	Metolachlor	0.510	Spike	P	0 - 36
2354050	Metribuzin	10.5	Spike	P	0 - 63
2354050	Mevinphos	1.58	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P419168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354050	Molinate	1.02	Spike	P	0 - 40
2354050	Myclobutanil	9.52	Spike	P	0 - 21
2354050	Naled	3.58	Spike	P	0 - 26
2354050	Napropamide	18.2	Spike	P	0 - 30
2354050	Norflurazon	0.562	Spike	P	0 - 24
2354050	Octinoxate	17.8	Spike	P	0 - 30
2354050	Oxadiazon	1.50	Spike	P	0 - 27
2354050	Oxybenzone	14.5	Spike	P	0 - 30
2354050	Oxyfluorfen	17.9	Spike	P	0 - 24
2354050	Parathion Ethyl	11.5	Spike	P	0 - 28
2354050	Parathion Methyl	6.05	Spike	P	0 - 27
2354050	PBDE-47	14.5	Spike	P	0 - 30
2354050	PBDE-99	17.6	Spike	P	0 - 30
2354050	Pendimethalin	0.275	Spike	P	0 - 31
2354050	Phenytoin	33.5	Spike	F	0 - 30
2354050	Phorate	10.2	Spike	P	0 - 27
2354050	Prodiamine	6.88	Spike	P	0 - 52
2354050	Prometon	5.00	Spike	P	0 - 31
2354050	Prometryn	19.4	Spike	P	0 - 28
2354050	Pronamide	3.45	Spike	P	0 - 26
2354050	Propanil	12.9	Spike	P	0 - 30
2354050	Propargite	15.1	Spike	P	0 - 30
2354050	Propiconazole	2.64	Spike	P	0 - 31
2354050	Pyraflufen Ethyl	0.517	Spike	P	0 - 30
2354050	Pyridaben	1.44	Spike	P	0 - 30
2354050	Pyriproxyfen	11.0	Spike	P	0 - 50
2354050	Simazine	5.08	Spike	P	0 - 29
2354050	Stirophos	9.10	Spike	P	0 - 30
2354050	Sulfentrazone	14.6	Spike	P	0 - 33
2354050	Tebuconazole	6.92	Spike	P	0 - 44
2354050	Terbufos	3.06	Spike	P	0 - 29
2354050	Terbutylazine	10.1	Spike	P	0 - 27
2354050	Thiobencarb	14.5	Spike	P	0 - 30
2354050	Tri-o-cresyl Phosphate	17.8	Spike	P	0 - 30
2354050	Triadimefon	12.7	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P418988

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353620	Acesulfame K	0.483	Spike	P	0 - 30
2353620	AMPA	3.86	Spike	P	0 - 30
2353620	Endothall	0.349	Spike	P	0 - 30
2353620	Glufosinate	2.88	Spike	P	0 - 30
2353620	Glyphosate	3.06	Spike	P	0 - 30
2353620	Sucralose	2.04	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P419218

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354048	2,4-D	0.602	Spike	P	0 - 30
2354048	2,4,5-T	5.08	Spike	P	0 - 30
2354048	Acetaminophen	1.72	Spike	P	0 - 30
2354048	Acetamiprid	7.88	Spike	P	0 - 30
2354048	Afidopyropen	8.28	Spike	P	0 - 30
2354048	Bentazon	4.11	Spike	P	0 - 30
2354048	Benzovindiflupyr	7.12	Spike	P	0 - 30
2354048	Carbamazepine	1.34	Spike	P	0 - 30
2354048	Clothianidin	7.12	Spike	P	0 - 30
2354048	Dinotefuran	7.51	Spike	P	0 - 30
2354048	Diuron	2.08	Spike	P	0 - 30
2354048	Fenuron	5.36	Spike	P	0 - 30
2354048	Fluridone	1.63	Spike	P	0 - 30
2354048	Hydrocodone	6.01	Spike	P	0 - 30
2354048	Ibuprofen	2.14	Spike	P	0 - 30
2354048	Imazapyr	3.06	Spike	P	0 - 30
2354048	Imidacloprid	10.5	Spike	P	0 - 30
2354048	Linuron	8.69	Spike	P	0 - 30
2354048	Mandestrobin	4.33	Spike	P	0 - 30
2354048	MCPP	4.65	Spike	P	0 - 30
2354048	Naproxen	4.10	Spike	P	0 - 30
2354048	Primidone	2.75	Spike	P	0 - 30
2354048	Pyraclostrobin	7.17	Spike	P	0 - 30
2354048	Silvex	10.5	Spike	P	0 - 30
2354048	Thiamethoxam	10.2	Spike	P	0 - 30
2354048	Tolfenpyrad	6.23	Spike	P	0 - 30
2354048	Triclopyr	5.90	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P419601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354534	Total Alkalinity	0.353	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P419415

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353828	TDS	7.89	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P419604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354534	Fluoride	0.0	Spike	P	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P419352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2354070	Organic Carbon	1.21	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2354048

Field Sample ID: G3NW0446

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	103	P	30 - 160
EPA 8321B	Acetaminophen-d4	44.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.6	P	30 - 160
EPA 8321B	Diuron-d6	90.0	P	30 - 160
EPA 8321B	Endothall-d6	86.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Ibuprofen-d3	90.6	P	30 - 160
EPA 8321B	Primidone-d5	37.3	P	30 - 160
EPA 8321B	Sucralose-d6	99.9	P	30 - 160

Lab Sample ID: 2354050

Field Sample ID: G3NW0446

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	85.3	P	20 - 200
EPA 8270E	Simazine-d10	97.3	P	71 - 140
EPA 8270E	Terbufos-d10	105	P	62 - 131
EPA 8270E	Terphenyl-d14	74.0	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A114525

Included Lab Sample IDs: 2354046

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	98.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114527

Included Lab Sample IDs: 2354044

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

Reference Method: EPA 8321B

Run ID: A114565

Included Lab Sample IDs: 2354048

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	114	111	P/P	60 - 160
Sucralose	106	101	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A114567

Included Lab Sample IDs: 2354048

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	110	P/P	60 - 160
Endothall	87.1	81.6	P/P	60 - 160
Glufosinate	78.7	94.1	P/P	60 - 160
Glyphosate	102	114	P/P	60 - 160

Reference Method: DEP SOP: NU-094-1

Run ID: A114577

Included Lab Sample IDs: 2354044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A114588

Included Lab Sample IDs: 2354049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	102	P/P	90 - 110
Iron	105	103	P/P	90 - 110
Magnesium	105	102	P/P	90 - 110
Potassium	104	102	P/P	90 - 110
Sodium	103	102	P/P	90 - 110
Strontium	102	99.8	P/P	90 - 110
Tin	102	102	P/P	90 - 110
Titanium	99.4	96.9	P/P	90 - 110
Vanadium	98.5	97.3	P/P	90 - 110
Zinc	102	98.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114593

Included Lab Sample IDs: 2354049

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	101	P/P	90 - 110
Antimony	99.8	101	P/P	90 - 110
Arsenic	104	106	P/P	90 - 110
Barium	102	102	P/P	90 - 110
Beryllium	99.3	97.1	P/P	90 - 110
Boron	101	101	P/P	90 - 110
Cadmium	103	103	P/P	90 - 110
Chromium	103	105	P/P	90 - 110
Cobalt	101	102	P/P	90 - 110
Copper	103	104	P/P	90 - 110
Lead	94.7	94.3	P/P	90 - 110
Manganese	104	104	P/P	90 - 110
Molybdenum	100	101	P/P	90 - 110
Nickel	103	103	P/P	90 - 110
Selenium	103	105	P/P	90 - 110
Silver	99.0	99.8	P/P	90 - 110
Thallium	105	104	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A114605

Included Lab Sample IDs: 2354048

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	113	99.0	P/P	50 - 150
2,4,5-T	113	123	P/P	50 - 150
Acetaminophen	85.8	95.9	P/P	60 - 160
Acetamiprid	90.8	109	P/P	50 - 150
Afidopyropen	123	124	P/P	50 - 150
Bentazon	109	89.8	P/P	50 - 160
Benzovindiflupyr	107	108	P/P	50 - 150
Carbamazepine	128	110	P/P	60 - 150
Clothianidin	117	131	P/P	60 - 150
Dinotefuran	98.8	98.1	P/P	50 - 150
Diuron	130	134	P/P	60 - 160
Fenuron	106	105	P/P	60 - 150
Fluridone	106	113	P/P	60 - 160
Hydrocodone	95.3	104	P/P	60 - 150
Ibuprofen	121	91.7	P/P	50 - 160
Imazapyr	97.7	103	P/P	50 - 150
Imidacloprid	110	129	P/P	60 - 150
Linuron	123	112	P/P	60 - 150
Mandestrobin	104	103	P/P	50 - 150
MCPP	109	114	P/P	50 - 150
Naproxen	112	121	P/P	50 - 160
Primidone	134	136	P/P	60 - 150
Pyraclostrobin	105	108	P/P	60 - 150
Silvex	102	108	P/P	50 - 150
Thiamethoxam	106	121	P/P	50 - 150
Tolfenpyrad	108	103	P/P	60 - 150
Triclopyr	90.5	101	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A114608

Included Lab Sample IDs: 2354045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	103	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114613

Included Lab Sample IDs: 2354045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.0	97.3	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A114631

Included Lab Sample IDs: 2354045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.5	96.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A114640

Included Lab Sample IDs: 2354045

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114681

Included Lab Sample IDs: 2354045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	100	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A114732

Included Lab Sample IDs: 2354044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	98.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A114732

Included Lab Sample IDs: 2354044

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

Reference Method: EPA 8270E

Run ID: A114772

Included Lab Sample IDs: 2354050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	93.3		P	80 - 120
Avobenzon	94.9		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114772
Included Lab Sample IDs: 2354050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dechlorane Plus	95.0		P	80 - 120
Octinoxate	93.8		P	80 - 120
Oxybenzone	90.5		P	80 - 120
PBDE-47	91.4		P	80 - 120
PBDE-99	94.4		P	80 - 120
Tri-o-cresyl Phosphate	93.4		P	80 - 120

Reference Method: EPA 8270E
Run ID: A114774
Included Lab Sample IDs: 2354050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	95.8		P	80 - 120
Ametryn	112		P	80 - 120
Atrazine	99.2		P	80 - 120
Atrazine Desethyl	98.9		P	80 - 120
Azinphos Methyl	99.8		P	80 - 120
Azoxystrobin	94.2		P	80 - 120
Bromacil	98.8		P	80 - 120
Caffeine	91.7		P	80 - 120
Carbophenothion	93.0		P	80 - 120
Carfentrazone Ethyl	97.4		P	80 - 120
Chlorfenapyr	95.9		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	94.7		P	80 - 120
Coumaphos	96.9		P	80 - 120
Cyanazine	115		P	80 - 120
Cyprodinil	94.6		P	80 - 120
Demeton	98.4		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	100		P	80 - 120
Dimethenamid	102		P	80 - 120
Dimethomorph	93.6		P	80 - 120
Disulfoton	98.6		P	80 - 120
Dithiopyr	99.1		P	80 - 120
EPTC	93.7		P	80 - 120
Ethion	98.9		P	80 - 120
Ethoprop	98.8		P	80 - 120
Etridiazole	98.6		P	80 - 120
Fenamiphos	104		P	80 - 120
Fenbuconazole	89.9		P	80 - 120
Fipronil	99.9		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	94.3		P	80 - 120
Fipronil Sulfone	99.8		P	80 - 120
Fluazifop-P-butyl	107		P	80 - 120
Fludioxonil	99.9		P	80 - 120
Flumioxazin	93.6		P	80 - 120
Flutolanil	94.4		P	80 - 120
Fluxapyroxad	99.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114774
Included Lab Sample IDs: 2354050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fonofos	114		P	80 - 120
Hexazinone	103		P	80 - 120
Imazalil	93.1		P	80 - 120
Loratadine	96.1		P	80 - 120
Malathion	87.1		P	80 - 120
Metalaxyl	95.1		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	93.7		P	80 - 120
Mevinphos	96.7		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	108		P	80 - 120
Naled	93.4		P	80 - 120
Napropamide	93.4		P	80 - 120
Norflurazon	92.9		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	96.5		P	80 - 120
Parathion Ethyl	94.5		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	103		P	80 - 120
Phenytoin	94.5		P	80 - 120
Phorate	95.9		P	80 - 120
Prodiamine	93.4		P	80 - 120
Prometryn	96.1		P	80 - 120
Pronamide	99.9		P	80 - 120
Propanil	85.9		P	80 - 120
Propiconazole	94.5		P	80 - 120
Pyraflufen Ethyl	86.3		P	80 - 120
Simazine	101		P	80 - 120
Stirophos	97.5		P	80 - 120
Sulfentrazone	99.8		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	97.6		P	80 - 120
Terbuthylazine	99.4		P	80 - 120
Thiobencarb	96.7		P	80 - 120
Triadimefon	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A114789
Included Lab Sample IDs: 2354044

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

Reference Method: EPA 8270E
Run ID: A114792
Included Lab Sample IDs: 2354050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Butylate	96.2		P	80 - 120
Iprodione	101		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E

Run ID: A114792

Included Lab Sample IDs: 2354050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Prometon	99.0		P	80 - 120
Propargite	98.2		P	80 - 120
Pyridaben	103		P	80 - 120
Pyriproxyfen	101		P	80 - 120

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	101				0.336	
EPA 180.1 Rev. 2.0	Turbidity	97.0				1.08	
EPA 200.7 Rev. 4.4	Calcium	106	106				1.77
	Iron	111	107	109			1.92
	Magnesium	105	104				2.60
	Potassium	108	105				2.18
	Sodium	107	105				2.27
	Strontium	110	105	107			1.71
	Tin	111	106	108			2.46
	Titanium	108	103	106			2.87
	Vanadium	107	102	105			2.91
	Zinc	110	104	106			2.67
EPA 200.8 Rev. 5.4	Aluminum	102	102	99.2			2.97
	Antimony	103	104	103			1.25
	Arsenic	104	105	103			2.11
	Barium	107	106	103			1.83
	Beryllium	98.1	101	99.0			1.49
	Boron	105	106	99.4			5.27
	Cadmium	101	100	98.2			2.29
	Chromium	101	105	101			3.43
	Cobalt	101	102	98.9			2.88
	Copper	102	101	97.6			3.13
	Lead	96.6	97.7	95.3			2.51
	Manganese	102	104	101			2.20
	Molybdenum	101	103	101			2.21
	Nickel	103	103	100			2.94
	Selenium	102	101	100			0.947
	Silver	89.3	88.8	87.5			1.47
	Thallium	102	105	102			2.23
EPA 300.0 Rev. 2.1	Chloride	98.8	98.2	98.4		0.0059	
	Sulfate	98.2	95.1	97.6		0.105	
EPA 350.1 Rev. 2.0	Ammonia-N	98.0	98.4	98.2			0.187
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100					4.71
EPA 353.2 Rev. 2.0	NO2NO3-N	100	96.5	97.5			0.505
EPA 365.1 Rev. 2.0	Total-P	104	105	108			1.59
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	100	98.9			1.42
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	80.4	69.0	79.8			14.5
	Acetochlor	102	92.5	108			15.9
	Alachlor	98.5	79.6	87.9			9.88
	Ametryn	69.5	184	172			6.80
	Atrazine	92.5	69.2	78.0			7.48
	Atrazine Desethyl	97.2	88.0	82.3			6.73
	Avobenzone	78.9	57.5	67.9			16.6
	Azinphos Methyl	108	83.2	99.8			18.1
	Azoxystrobin	105	94.5	101			6.45
	Bromacil	113	88.4	85.9			2.91
	Butylate	47.8	61.3	58.5			4.66
	Caffeine	87.0	78.3	80.0			2.17
	Carbophenothion	93.7	81.5	90.0			9.90
	Carfentrazone Ethyl	138	98.8	112			12.6
	Chlorfenapyr	76.6	76.8	67.2			13.4
	Chlorpyrifos Ethyl	89.2	78.4	83.0			5.66

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Chlorpyrifos Methyl	92.5	95.4	91.1			4.69
	Coumaphos	210	193	185			4.14
	Cyanazine	184	194	185			4.44
	Cyprodinil	138	114	134			16.4
	Dechlorane Plus	84.4	73.0	81.9			11.4
	Demeton	88.2	104	95.0			8.66
	Diazinon	118	121	124			2.58
	Difenoconazole	180	106	92.6			13.7
	Dimethenamid	83.8	74.2	90.0			19.2
	Dimethomorph	141	102	103			1.10
	Disulfoton	81.4	79.6	76.7			3.67
	Dithiopyr	107	111	103			6.56
	EPTC	47.4	47.5	53.4			11.8
	Ethion	83.1	83.8	79.2			5.62
	Ethoprop	88.6	83.3	84.4			1.28
	Etridiazole	69.1	66.5	77.3			15.0
	Fenamiphos	117	103	107			3.51
	Fenbuconazole	138	121	148			19.5
	Fipronil	118	107	123			14.3
	Fipronil Desulfinyl	108	100	98.2			1.96
	Fipronil Sulfide	89.8	81.8	85.4			4.28
	Fipronil Sulfone	103	93.5	97.7			4.44
	Fluazifop-P-butyl	105	94.1	109			14.7
	Fludioxonil	111	99.2	112			12.2
	Flumioxazin	148	156	199			24.0
	Flutolanil	114	98.0	117			17.7
	Fluxapyroxad	121	65.5	61.2			6.73
	Fonofos	95.9	66.1	75.5			13.3
	Hexazinone	91.5	80.3	85.0			5.73
	Imazalil	84.7	86.8	114			27.6
	Iprodione	90.3	85.9	93.3			8.23
	Loratadine	188	111	109			1.80
	Malathion	126	129	122			5.40
	Metalaxyl	94.1	79.0	81.7			3.35
	Metolachlor	100	98.5	98.0			0.510
	Metribuzin	92.2	60.8	67.6			10.5
	Mevinphos	83.6	76.4	77.6			1.58
	Molinate	68.8	68.8	69.5			1.02
	Myclobutanil	123	112	123			9.52
	Naled	93.2	102	105			3.58
	Napropamide	64.9	65.4	78.5			18.2
	Norflurazon	104	117	116			0.562
	Octinoxate	82.0	60.7	72.5			17.8
	Oxadiazon	91.0	85.3	84.0			1.50
	Oxybenzone	74.8	55.5	64.1			14.5
	Oxyfluorfen	114	106	126			17.9
	Parathion Ethyl	85.2	79.2	88.9			11.5
	Parathion Methyl	106	101	95.1			6.05
	PBDE-47	76.8	65.0	75.1			14.5
	PBDE-99	65.9	60.4	72.1			17.6
	Pendimethalin	72.9	80.1	80.3			0.275
	Phenytoin	19.6	40.6	56.9			33.5
	Phorate	56.3	77.3	69.8			10.2
	Prodiamine	33.8	44.8	48.0			6.88

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Prometon	115	62.7	65.9			5.00
	Prometryn	126	108	132			19.4
	Pronamide	111	131	136			3.45
	Propanil	81.3	69.3	78.9			12.9
	Propargite	187	57.7	67.2			15.1
	Propiconazole	122	150	146			2.64
	Pyraflufen Ethyl	101	133	132			0.517
	Pyridaben	197	103	104			1.44
	Pyriproxyfen	109	75.3	84.1			11.0
	Simazine	92.3	64.4	67.7			5.08
	Stirophos	84.9	120	131			9.10
	Sulfentrazone	81.9	112	130			14.6
	Tebuconazole	92.9	50.4	46.4			6.92
	Terbufos	105	111	107			3.06
	Terbuthylazine	83.3	77.9	86.2			10.1
	Thiobencarb	84.6	78.4	90.7			14.5
	Tri-o-cresyl Phosphate	78.1	58.3	69.7			17.8
	Triadimefon	74.8	69.1	78.5			12.7
EPA 8321B	2,4-D	110	112	112			0.602
	2,4,5-T	120	130	123			5.08
	Acesulfame K	112	111	111			0.483
	Acetaminophen	86.5	60.9	61.9			1.72
	Acetamiprid	79.0	51.8	56.1			7.88
	Afidopyropen	39.1	34.8	32.0			8.28
	AMPA	103	101	105			3.86
	Bentazon	102	138	132			4.11
	Benzovindiflupyr	93.5	105	97.5			7.12
	Carbamazepine	108	82.6	83.7			1.34
	Clothianidin	113	57.9	62.2			7.12
	Dinotefuran	78.8	84.4	78.3			7.51
	Diuron	110	99.1	101			2.08
	Endothall	99.2	91.4	91.8			0.349
	Fenuron	96.9	74.8	78.9			5.36
	Fluridone	103	99.0	101			1.63
	Glufosinate	85.2	71.2	73.3			2.88
	Glyphosate	112	93.0	95.9			3.06
	Hydrocodone	98.5	111	105			6.01
	Ibuprofen	102	114	117			2.14
	Imazapyr	96.7					3.06
	Imidacloprid	93.4	69.9	62.9			10.5
	Linuron	111	102	112			8.69
	Mandestrobin	101	94.6	98.7			4.33
	MCPP	111	127	121			4.65
	Naproxen	118	143	149			4.10
	Primidone	97.3	46.1	44.9			2.75
	Pyraclostrobin	93.7	94.6	102			7.17
	Silvex	109	114	102			10.5
	Sucralose	102	98.2	101			2.04
	Thiamethoxam	106	76.3	84.5			10.2
	Tolfenpyrad	60.2	61.8	65.7			6.23
	Triclopyr	96.3	108	102			5.90
SM 2320 B-2011	Total Alkalinity	101				0.353	
SM 2540 C-2011	TDS					7.89	
SM 4500-F- C-2011	Fluoride	99.3					0.0

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision	
				LCS	SMP
SM 5310 B-2011	Organic Carbon	96.0	97.1 98.7		MS
					1.21

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2354044
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2354044
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2354049
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2354049
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2354044
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2354044
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2354045
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2354045
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2354045
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2354045
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2354046
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2354050
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2354050
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2354048
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2354044
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2354049
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2354044
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2354044
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2354044
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2354045

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	09/02/2022			09/02/2022 14:50	Blanca Fach	2354044
EPA 180.1 Rev. 2.0	09/02/2022			09/02/2022 13:12	Chandler E Cox	2354044
EPA 200.7 Rev. 4.4	09/02/2022	09/07/2022 09:55	Megan Whitefoot	09/07/2022 20:26	McKinley C Carter	2354049
EPA 200.8 Rev. 5.4	09/02/2022	09/07/2022 09:55	Megan Whitefoot	09/07/2022 19:07	Megan Whitefoot	2354049
EPA 300.0 Rev. 2.1	09/02/2022			09/14/2022 22:39	Anna M. Plaviak	2354044
EPA 350.1 Rev. 2.0	09/02/2022			09/08/2022 14:22	Ping Hua	2354045
EPA 351.2 Rev. 2.0	09/02/2022	09/07/2022 13:36	Samantha L Bates	09/08/2022 10:47	Samantha L Bates	2354045
EPA 353.2 Rev. 2.0	09/02/2022			09/09/2022 10:14	Beverly Y. Sanders	2354045
EPA 365.1 Rev. 2.0	09/02/2022	09/09/2022 16:30	Adam P Silver	09/12/2022 14:12	Simonne.V. Calhoun	2354045
EPA 365.1 Rev. 2.0 dissolved	09/02/2022			09/02/2022 15:10	Elise M. Gillis	2354046
EPA 8270E	09/02/2022	09/08/2022 08:00	Fe-Val Siddell	09/09/2022 20:00	Michael Poppell	2354050
	09/02/2022	09/08/2022 08:00	Fe-Val Siddell	09/14/2022 18:04	Lipi Saha	2354050
	09/02/2022	09/08/2022 08:00	Fe-Val Siddell	09/18/2022 16:51	Michael Poppell	2354050
EPA 8321B	09/02/2022	09/06/2022 12:30	Umesh Chiluwal	09/06/2022 17:16	Umesh Chiluwal	2354048
	09/02/2022	09/06/2022 12:30	Umesh Chiluwal	09/07/2022 03:25	Umesh Chiluwal	2354048
	09/02/2022	09/08/2022 09:00	Hoor Shaik	09/09/2022 06:13	Juyoung Kim	2354048
SM 2320 B-2011	09/02/2022			09/13/2022 23:14	Dale L. Simmons	2354044
SM 2340 B-2011	09/02/2022			09/07/2022 20:26	McKinley C Carter	2354049
SM 2540 C-2011	09/02/2022			09/07/2022 13:56	Yijie Li	2354044
SM 2540 D-2011	09/02/2022			09/07/2022 13:56	Yijie Li	2354044
SM 4500-F- C-2011	09/02/2022			09/13/2022 23:14	Dale L. Simmons	2354044
SM 5310 B-2011	09/02/2022			09/08/2022 18:31	Khloe J Berg	2354045