

Chemical Analysis Report

NW-DIST-2022-08-17-02

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

Event Description: **Rest Area Run Bioassessment**

Request ID: **RQ-2022-06-20-41**

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 Butler

For additional information please contact
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 08-SEP-2022 10:58

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

NON-CONFORMANCE REPORT INCLUDED

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Beaver Pond Creek

Collection Date/Time: 08/15/2022 12:15

Field ID: 33010066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350002	EPA 8321B	2,4-D	0.0032	I Y	ug/L	P418371	
		Acesulfame K	0.18	I Y	ug/L	P418300	
		2,4,5-T	0.0040	UY	ug/L	P418371	
		AMPA	0.10	UY	ug/L	P418300	
		Acetaminophen	0.0080	UY	ug/L	P418371	
		Acetamiprid	0.0020	UY	ug/L	P418371	
		Endothall	0.25	UY	ug/L	P418300	
		Glufosinate	0.10	UY	ug/L	P418300	
		Glyphosate	0.10	UY	ug/L	P418300	
		Afidopyropen	0.0020	UY	ug/L	P418371	
		Bentazon	0.0049	Y	ug/L	P418371	
		Sucralose	0.56	Y	ug/L	P418300	
		Benzovindiflupyr	0.0020	UY	ug/L	P418371	
		Carbamazepine	0.0022	I Y	ug/L	P418371	
		Clothianidin	0.0020	UY	ug/L	P418371	
		Dinotefuran	0.0020	UY	ug/L	P418371	
		Diuron	0.0020	UY	ug/L	P418371	
		Fenuron	0.032	UY	ug/L	P418371	
		Fluridone	8.0E-04	UY	ug/L	P418371	
		Imazapyr	0.0095	I Y	ug/L	P418371	
		Hydrocodone	0.0020	UY	ug/L	P418371	
		Ibuprofen	0.080	UY	ug/L	P418371	
		Imidacloprid	0.0025	I Y	ug/L	P418371	
		Linuron	0.0040	UY	ug/L	P418371	
		Mandestrobin	0.0020	UY	ug/L	P418371	
		MCPP	0.026	Y	ug/L	P418371	
		Naproxen	0.0080	UY	ug/L	P418371	
		Primidone	0.0040	UY	ug/L	P418371	
		Pyraclostrobin	0.0020	UY	ug/L	P418371	
		Silvex	0.0040	UY	ug/L	P418371	
		Thiamethoxam	0.0020	UY	ug/L	P418371	
		Tolfenpyrad	0.0020	UY	ug/L	P418371	
		Triclopyr	0.0040	UY	ug/L	P418371	
2350012	EPA 200.7 Rev. 4.4	Calcium	20.5		mg/L	P418358	
		Iron	2.71E+03		ug/L	P418358	
		Magnesium	3.49		mg/L	P418358	
		Potassium	5.3		mg/L	P418358	
		Sodium	12.5		mg/L	P418358	
		Strontium	54.9		ug/L	P418358	
		Tin	4.8	I	ug/L	P418358	
		Titanium	2.1	I	ug/L	P418358	
		Vanadium	2.0	U	ug/L	P418358	
		Zinc	5.0	U	ug/L	P418358	
	EPA 200.8 Rev. 5.4	Aluminum	168		ug/L	P418358	

Field ID: 33010066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350012	EPA 200.8 Rev. 5.4	Antimony	0.091	I	ug/L	P418358	
		Arsenic	1.30		ug/L	P418358	
		Barium	21.7		ug/L	P418358	
		Beryllium	0.019	I	ug/L	P418358	
		Boron	99.6		ug/L	P418358	
		Cadmium	0.020	U	ug/L	P418358	
		Chromium	0.74	I	ug/L	P418358	
		Cobalt	0.516		ug/L	P418358	
		Copper	0.54	I	ug/L	P418358	
		Lead	0.36	I	ug/L	P418358	
		Manganese	166		ug/L	P418358	
		Molybdenum	0.28	I	ug/L	P418358	
		Nickel	0.81	I	ug/L	P418358	
		Selenium	0.20	U	ug/L	P418358	
		Silver	0.010	U	ug/L	P418358	
		Thallium	0.10	U	ug/L	P418358	
	SM 2340 B-2011	Hardness	65.5		mg/L	P418358	
2350024	EPA 8270E	Oxybenzone**	9.7	UY	ng/L	P418246	
		Acetochlor	0.24	UY	ng/L	P418246	
		Octinoxate**	19	UY	ng/L	P418246	
		Alachlor	0.24	UY	ng/L	P418246	
		Avobenzone**	97	UY	ng/L	P418246	
		Ametryn	0.61	IY	ng/L	P418246	
		Atrazine	3.5	Y	ng/L	P418246	
		PBDE-47**	3.9	UY	ng/L	P418246	
		Atrazine Desethyl	1.5	UY	ng/L	P418246	
		PBDE-99**	4.9	UY	ng/L	P418246	
		Azinphos Methyl	1.9	UY	ng/L	P418246	
		Tri-o-cresyl Phosphate**	5.8	UY	ng/L	P418246	
		Azoxystrobin	0.49	UY	ng/L	P418246	
		Bromacil	0.49	UY	ng/L	P418246	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	UY	ng/L	P418246	
		Butylate	0.39	UY	ng/L	P418246	
		Dechlorane Plus**	29	UY	ng/L	P418246	
		Caffeine**	39	Y	ng/L	P418246	
		Carbophenothion	0.19	UY	ng/L	P418246	
		Carfentrazone Ethyl	0.097	UY	ng/L	P418246	
		Chlorfenapyr	0.17	UY	ng/L	P418246	
		Chlorpyrifos Ethyl	0.24	UY	ng/L	P418246	
		Chlorpyrifos Methyl	0.049	UY	ng/L	P418246	
		Coumaphos	0.49	UY	ng/L	P418246	
		Cyanazine	3.2	UY	ng/L	P418246	
		Cyprodinil	0.097	UY	ng/L	P418246	
		Demeton	1.5	UY	ng/L	P418246	

Field ID: 33010066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350024	EPA 8270E	Diazinon	0.12	UY	ng/L	P418246	
		Difenoconazole	0.58	UY	ng/L	P418246	
		Dimethenamid	0.097	UYJ	ng/L	P418246	LCS
		Dimethomorph	0.17	UY	ng/L	P418246	
		Disulfoton	0.49	UY	ng/L	P418246	
		Dithiopyr	1.1	VY	ng/L	P418246	
		EPTC	1.2	UY	ng/L	P418246	
		Ethion	0.15	UY	ng/L	P418246	
		Ethoprop	0.097	UY	ng/L	P418246	
		Etridiazole	0.15	UY	ng/L	P418246	
		Fenamiphos	0.49	UY	ng/L	P418246	
		Fenbuconazole	0.12	UY	ng/L	P418246	
		Fipronil	0.24	UY	ng/L	P418246	
		Fipronil Desulfinyl**	0.22	IY	ng/L	P418246	
		Fipronil Sulfide	0.55	IY	ng/L	P418246	
		Fipronil Sulfone	0.73	Y	ng/L	P418246	
		Fluazifop-P-butyl	0.097	UY	ng/L	P418246	
		Fludioxonil	0.12	UY	ng/L	P418246	
		Flumioxazin	1.7	UY	ng/L	P418246	
		Flutolanil	0.097	UY	ng/L	P418246	
		Fluxapyroxad	0.097	UY	ng/L	P418246	
		Fonofos	0.19	UY	ng/L	P418246	
		Hexazinone	0.49	UY	ng/L	P418246	
		Imazalil	0.73	UY	ng/L	P418246	
		Iprodione	0.58	UY	ng/L	P418246	
		Loratadine**	0.097	UY	ng/L	P418246	
		Malathion	0.34	UY	ng/L	P418246	
		Metalaxyl	0.73	UY	ng/L	P418246	
		Metolachlor	0.50	IY	ng/L	P418246	
		Metribuzin	2.4	UY	ng/L	P418246	
		Mevinphos	1.0	UY	ng/L	P418246	
		Molinate	0.29	UY	ng/L	P418246	
		Myclobutanil	0.24	UY	ng/L	P418246	
		Naled	1.5	UY	ng/L	P418246	
		Napropamide	0.39	UY	ng/L	P418246	
		Norflurazon	0.49	UY	ng/L	P418246	
		Oxadiazon	0.29	UY	ng/L	P418246	
		Oxyfluorfen	0.15	UY	ng/L	P418246	
		Parathion Ethyl	0.24	UY	ng/L	P418246	
		Parathion Methyl	0.54	UY	ng/L	P418246	
		Pendimethalin	0.97	UY	ng/L	P418246	
		Phenytion**	3.4	UY	ng/L	P418246	MS
		Phorate	0.51	UY	ng/L	P418246	
		Prodiamine	0.17	UY	ng/L	P418246	
		Prometon	0.88	UY	ng/L	P418246	

Field ID: 33010066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350024	EPA 8270E	Prometryn	0.19	UY	ng/L	P418246	
		Pronamide	0.15	UY	ng/L	P418246	
		Propanil	0.12	UY	ng/L	P418246	
		Propargite	1.5	UY	ng/L	P418246	
		Propiconazole	1.5	IY	ng/L	P418246	
		Pyraflufen Ethyl	0.24	UYJ	ng/L	P418246	LCS
		Pyridaben	0.44	UY	ng/L	P418246	
		Pyriproxyfen	0.12	UY	ng/L	P418246	
		Simazine	0.49	UY	ng/L	P418246	
		Stirophos	0.12	UY	ng/L	P418246	MS
		Sulfentrazone	1.5	IY	ng/L	P418246	
		Tebuconazole	0.49	UY	ng/L	P418246	
		Terbufos	0.097	UY	ng/L	P418246	
		Terbuthylazine	0.41	UY	ng/L	P418246	
		Thiobencarb	0.58	UY	ng/L	P418246	
		Triadimefon	0.24	UY	ng/L	P418246	

Ref. Method and Comment:

EPA 8321B: Y - Sample was received with inadequate sample preservation; see NCR report.

EPA 8270E: Y - Due to improper preservation; see NCR report.

EPA 8270E: MS accuracy for bromacil and norflurazon not assessed due to high content of these parameters in the sample spiked. V - Due to the presence of dithiopyr in both the Method Blanks and the sample. Y - Due to improper preservation; see NCR report. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Rest Area Run below Beaver Pond Creek

Collection Date/Time: 08/15/2022 09:55

Field ID: G5NW0068

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350013	EPA 200.7 Rev. 4.4	Calcium	5.21		mg/L	P418358	
		Iron	780		ug/L	P418358	
		Magnesium	1.46		mg/L	P418358	
		Potassium	1.8		mg/L	P418358	
		Sodium	5.9		mg/L	P418358	
		Strontium	19.4		ug/L	P418358	
		Tin	3.0	U	ug/L	P418358	
		Titanium	1.7	I	ug/L	P418358	
		Vanadium	2.0	U	ug/L	P418358	
		Zinc	5.0	U	ug/L	P418358	
	EPA 200.8 Rev. 5.4	Aluminum	151		ug/L	P418358	
		Antimony	0.050	U	ug/L	P418358	
		Arsenic	0.53		ug/L	P418358	
		Barium	19.0		ug/L	P418358	
		Beryllium	0.017	I	ug/L	P418358	
		Boron	33.7		ug/L	P418358	
		Cadmium	0.020	U	ug/L	P418358	
		Chromium	0.57	I	ug/L	P418358	
		Cobalt	0.161		ug/L	P418358	
		Copper	0.40	U	ug/L	P418358	
		Lead	0.27	I	ug/L	P418358	
		Manganese	20.8		ug/L	P418358	
		Molybdenum	0.15	U	ug/L	P418358	
		Nickel	0.50	U	ug/L	P418358	
		Selenium	0.20	U	ug/L	P418358	
		Silver	0.010	U	ug/L	P418358	
		Thallium	0.10	U	ug/L	P418358	
	SM 2340 B-2011	Hardness	19.0		mg/L	P418358	

Sample Location: Beaver Pond Creek

Collection Date/Time: 08/15/2022 12:15

Field ID: 33010066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2350379	DEP SOP: NU-094-1	Color (true)	69	YQ	PCU	P418275	
	EPA 180.1 Rev. 2.0	Turbidity	29	YQ	NTU	P418267	
	EPA 300.0 Rev. 2.1	Chloride	14	A	mg Cl/L	P418868	
		Sulfate	1.8	AY	mg SO4/L	P418871	
	SM 2320 B-2011	Total Alkalinity	67	Y	mg CaCO3/L	P418456	
	SM 2540 C-2011	TDS	119	Y	mg/L	P418646	
	SM 2540 D-2011	TSS	17	Y	mg/L	P418606	
	SM 4500-F- C-2011	Fluoride	0.069	I	mg F/L	P418466	
2350380	EPA 350.1 Rev. 2.0	Ammonia-N	0.068	Y	mg N/L	P418541	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0	Y	mg N/L	P418775	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.056	Y	mg N/L	P418532	
	EPA 365.1 Rev. 2.0	Total-P	0.047	Y	mg P/L	P418512	
	SM 5310 B-2011	Organic Carbon	15	Y	mg C/L	P418502	
2350381	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	IYQ	mg P/L	P418333	

Ref. Method and Comment:

DEP SOP: NU-094-1: Sample received outside of the acceptable temperature range. Please see NCR. The sample expired upon receipt.
 EPA 180.1 Rev. 2.0: Sample received outside of the acceptable temperature range. Please see NCR. The sample expired upon receipt.
 EPA 300.0 Rev. 2.1: Sulfate: Sample recieved outside of the acceptable temperature range. Please see NCR.
 SM 2320 B-2011: Sample received outside of the acceptable temperature range. Please see NCR.
 SM 2540 C-2011: Sample received outside of the acceptable temperature range. Please see NCR
 SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample. Sample received outside of the acceptable temperature range. Please see NCR
 EPA 350.1 Rev. 2.0: Sample received outside of the acceptable temperature range. Please see NCR.
 EPA 351.2 Rev. 2.0: Sample received outside of the acceptable temperature range. Please see NCR.
 EPA 353.2 Rev. 2.0: Sample received outside of the acceptable temperature range. Please see NCR.
 EPA 365.1 Rev. 2.0: Total-P: Sample received outside of the acceptable temperature range. Please see NCR.
 SM 5310 B-2011: Sample received outside of the acceptable temperature range. Please see NCR.
 EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The sample expired upon receipt. Sample recieved outside of the acceptable temperature range. Please see NCR.

Non-Conformance Report

NCR ID: 9516

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
NW-DIST-2022-08-17-02	TLH-2022-08-17-128	2350379	
NW-DIST-2022-08-17-02	TLH-2022-08-17-128	2350380	
NW-DIST-2022-08-17-02	TLH-2022-08-17-128	2350381	
NW-DIST-2022-08-17-02	TLH-2022-08-17-37	2350002	
NW-DIST-2022-08-17-02	TLH-2022-08-17-40	2350024	

NCR Type: SHIPPING/RECEIVING

NCR Category: Samples arrived late

Observation: Samples arrived late, samples received outside the acceptable temperature range.

Resolution: Samples will be qualified as appropriate.
Customer contacted, email correspondence attached to sample submittal forms.

Authorized by/Date: Kyle Klug 8/23/2022

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

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P418275

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418267

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418358

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: P418358

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: P418868

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: P418871

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418541

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418775

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418532

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418512

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418333

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

Reference Method: EPA 8270E
Batch ID: P418246

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: P418246

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	0.44	I	ng/L
Dithiopyr	0.37	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: P418246

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: P418246

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: P418246

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: P418300

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: P418371

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: P418456

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P418456

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

Reference Method: SM 2540 C-2011
Batch ID: P418646

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P418606

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P418466

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P418502

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: P418275

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.7		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418267

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.7		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418358

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	105		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	105		P	85 - 115
Sodium	101		P	85 - 115
Strontium	105		P	85 - 115
Tin	108		P	85 - 115
Titanium	105		P	85 - 115
Vanadium	99.9		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418358

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	98.1		P	85 - 115
Barium	103		P	85 - 115
Beryllium	95.4		P	85 - 115
Boron	104		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	105		P	85 - 115
Cobalt	92.0		P	85 - 115
Copper	91.0		P	85 - 115
Lead	96.1		P	85 - 115
Manganese	101		P	85 - 115
Molybdenum	98.2		P	85 - 115
Nickel	92.9		P	85 - 115
Selenium	98.5		P	85 - 115
Silver	99.4		P	85 - 115
Thallium	94.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418868

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418541

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418775

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418532

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418512

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418333

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

Reference Method: EPA 8270E
Batch ID: P418246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	85.9		P	50 - 150
Acetochlor	75.0		P	70 - 121
Alachlor	72.3		P	68 - 119
Ametryn	76.9		P	64 - 139
Atrazine	81.5		P	76 - 120
Atrazine Desethyl	52.5		P	44 - 126
Avobenzone	77.1		P	76 - 212
Azinphos Methyl	97.3		P	43 - 192
Azoxystrobin	102		P	36 - 224
Bromacil	53.2		P	52 - 121
Butylate	44.5		P	28 - 91.0
Caffeine	89.3		P	50 - 134
Carbophenothion	74.6		P	56 - 129
Carfentrazone Ethyl	79.1		P	60 - 141
Chlorfenapyr	76.6		P	56 - 115
Chlorpyrifos Ethyl	78.9		P	60 - 118

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P418246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	86.0		P	68 - 119
Coumaphos	79.5		P	18 - 250
Cyanazine	66.4		P	61 - 250
Cyprodinil	70.5		P	55 - 145
Dechlorane Plus	101		P	50 - 150
Demeton	71.8		P	30 - 159
Diazinon	81.2		P	70 - 123
Difenoconazole	82.8		P	49 - 204
Dimethenamid	58.9		F	64 - 115
Dimethomorph	101		P	12 - 219
Disulfoton	76.0		P	44 - 125
Dithiopyr	72.3		P	64 - 115
EPTC	43.9		P	28 - 86.0
Ethion	39.6		P	33 - 125
Ethoprop	79.5		P	64 - 116
Etridiazole	49.3		P	34 - 91.0
Fenamiphos	74.3		P	12 - 127
Fenbuconazole	71.6		P	59 - 151
Fipronil	71.1		P	67 - 129
Fipronil Desulfinyl	79.3		P	65 - 127
Fipronil Sulfide	61.3		P	61 - 116
Fipronil Sulfone	57.7		P	55 - 117
Fluazifop-P-butyl	73.3		P	62 - 127
Fludioxonil	67.9		P	62 - 128
Flumioxazin	98.1		P	33 - 250
Flutolanil	65.8		P	56 - 127
Fluxapyroxad	58.8		P	45 - 128
Fonofos	73.8		P	62 - 111
Hexazinone	73.7		P	46 - 139
Imazalil	61.8		P	38 - 142
Iprodione	68.7		P	47 - 135
Loratadine	98.4		P	10 - 244
Malathion	91.0		P	61 - 139
Metaxyl	66.2		P	10 - 119
Metolachlor	71.5		P	65 - 118
Metribuzin	88.8		P	51 - 250
Mevinphos	72.1		P	53 - 121
Molinate	58.4		P	42 - 96.0
Myclobutanil	64.6		P	55 - 128
Naled	60.8		P	10 - 98.0
Napropamide	58.8		P	49 - 121
Norflurazon	65.3		P	61 - 126
Octinoxate	70.2		P	30 - 159
Oxadiazon	59.9		P	59 - 116
Oxybenzone	62.0		P	61 - 139
Oxyfluorfen	81.7		P	64 - 137
Parathion Ethyl	85.3		P	70 - 112
Parathion Methyl	96.7		P	76 - 133
PBDE-47	73.7		P	50 - 150
PBDE-99	72.6		P	50 - 150
Pendimethalin	72.7		P	52 - 117
Phenytol	12.4		P	10 - 199

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P418246

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	71.5		P	48 - 121
Prodiamine	36.6		P	26 - 142
Prometon	56.9		P	43 - 123
Prometryn	66.7		P	66 - 127
Pronamide	80.7		P	75 - 121
Propanil	69.9		P	45 - 150
Propargite	46.2		P	42 - 208
Propiconazole	60.8		P	60 - 125
Pyraflufen Ethyl	68.6		F	70 - 138
Pyridaben	81.5		P	35 - 245
Pyriproxyfen	66.3		P	30 - 149
Simazine	76.6		P	72 - 125
Stirophos	50.7		P	29 - 164
Sulfentrazone	31.2		P	21 - 139
Tebuconazole	33.2		P	10 - 115
Terbufos	88.6		P	60 - 123
Terbutylazine	73.9		P	72 - 115
Thiobencarb	66.9		P	31 - 139
Tri-o-cresyl Phosphate	74.6		P	50 - 150
Triadimefon	65.1		P	65 - 116

Reference Method: EPA 8321B

Batch ID: P418300

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	93.5		P	40 - 150
AMPA	111		P	40 - 150
Endothall	108		P	40 - 150
Glufosinate	117		P	40 - 150
Glyphosate	109		P	40 - 150
Sucralose	107		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P418371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	66.7		P	40 - 150
2,4,5-T	72.5		P	40 - 150
Acetaminophen	88.1		P	30 - 150
Acetamiprid	80.9		P	40 - 150
Afidopyropen	89.0		P	30 - 150
Bentazon	114		P	30 - 150
Benzovindiflupyr	98.5		P	40 - 150
Carbamazepine	117		P	40 - 150
Clothianidin	100		P	40 - 150
Dinotefuran	108		P	40 - 150
Diuron	86.2		P	40 - 150
Fenuron	113		P	40 - 150
Fluridone	90.2		P	40 - 150
Hydrocodone	99.0		P	40 - 150
Ibuprofen	81.9		P	40 - 150
Imazapyr	86.3		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P418371

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imidacloprid	93.3		P	40 - 150
Linuron	101		P	40 - 150
Mandestrobin	101		P	40 - 150
MCPP	85.7		P	40 - 150
Naproxen	148		P	40 - 150
Primidone	89.4		P	40 - 150
Pyraclostrobin	88.9		P	40 - 150
Silvex	66.8		P	40 - 150
Thiamethoxam	101		P	40 - 150
Tolfenpyrad	40.5		P	30 - 150
Triclopyr	68.9		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P418456

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.7		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P418466

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P418502

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P418358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2349421	Calcium	105		P	80 - 120
2349421	Iron	101	109	P/P	80 - 120
2349421	Magnesium	102	108	P/P	80 - 120
2349421	Potassium	110	106	P/P	80 - 120
2349421	Sodium	105		P	80 - 120
2349421	Strontium	105	108	P/P	80 - 120
2349421	Tin	109	111	P/P	80 - 120
2349421	Titanium	104	106	P/P	80 - 120
2349421	Vanadium	99.9	102	P/P	80 - 120
2349421	Zinc	99.4	102	P/P	80 - 120
2349423	Calcium	102		P	80 - 120
2349423	Iron	105		P	80 - 120
2349423	Magnesium	105		P	80 - 120
2349423	Potassium	106		P	80 - 120
2349423	Sodium	105		P	80 - 120
2349423	Strontium	106		P	80 - 120
2349423	Tin	104		P	80 - 120
2349423	Titanium	103		P	80 - 120
2349423	Vanadium	100		P	80 - 120
2349423	Zinc	97.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P418358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2349421	Aluminum	98.6	96.5	P/P	80 - 120
2349421	Antimony	101	99.8	P/P	80 - 120
2349421	Arsenic	97.1	95.5	P/P	80 - 120
2349421	Barium	101	99.9	P/P	80 - 120
2349421	Beryllium	94.8		P	80 - 120
2349421	Boron	99.7	100	P/P	80 - 120
2349421	Cadmium	102	102	P/P	80 - 120
2349421	Chromium	105	103	P/P	80 - 120
2349421	Cobalt	90.8	89.4	P/P	80 - 120
2349421	Copper	92.3	91.0	P/P	80 - 120
2349421	Lead	95.6	94.8	P/P	80 - 120
2349421	Manganese	99.4	98.0	P/P	80 - 120
2349421	Molybdenum	98.3	97.3	P/P	80 - 120
2349421	Nickel	92.0	90.4	P/P	80 - 120
2349421	Selenium	96.8	94.5	P/P	80 - 120
2349421	Silver	98.9	97.1	P/P	80 - 120
2349421	Thallium	95.2	96.1	P/P	80 - 120
2349423	Aluminum	97.1		P	80 - 120
2349423	Antimony	101		P	80 - 120
2349423	Arsenic	95.6		P	80 - 120
2349423	Barium	101		P	80 - 120
2349423	Beryllium	94.3	99.6	P/P	80 - 120
2349423	Boron	103		P	80 - 120
2349423	Cadmium	102		P	80 - 120
2349423	Chromium	105		P	80 - 120
2349423	Cobalt	90.3		P	80 - 120
2349423	Copper	87.3		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P418358

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2349423	Lead	95.1		P	80 - 120
2349423	Manganese	100		P	80 - 120
2349423	Molybdenum	97.2		P	80 - 120
2349423	Nickel	90.4		P	80 - 120
2349423	Selenium	96.6		P	80 - 120
2349423	Silver	98.3		P	80 - 120
2349423	Thallium	94.1		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P418868

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350379	Chloride	99.0		P	90 - 110
2350628	Chloride	98.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P418871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350379	Sulfate	99.2		P	90 - 110
2350628	Sulfate	99.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P418541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350631	Ammonia-N	96.6	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P418775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2349404	Kjeldahl Nitrogen	95.4	97.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P418532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350380	NO2NO3-N	95.6	95.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P418512

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350479	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P418333

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350548	O-Phosphate-P	101	99.1	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P418246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350224	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	76.4	73.5	P/P	50 - 150
2350224	Acetochlor	82.9	92.0	P/P	65 - 124
2350224	Alachlor	68.4	80.0	P/P	61 - 121
2350224	Ametryn	54.1	62.9	P/P	52 - 216
2350224	Atrazine	89.4	101	P/P	68 - 133
2350224	Atrazine Desethyl	44.0	51.0	P/P	15 - 160
2350224	Avobenzone	84.2	79.5	P/P	59 - 206
2350224	Azinphos Methyl	102	100	P/P	40 - 292
2350224	Azoxystrobin	102	126	P/P	12 - 242
2350224	Butylate	56.8	43.7	P/P	14 - 94.0
2350224	Caffeine	86.9	91.2	P/P	10 - 226
2350224	Carbophenothion	78.1	82.1	P/P	49 - 122
2350224	Carfentrazone Ethyl	80.5	79.0	P/P	53 - 138
2350224	Chlorfenapyr	76.3	70.4	P/P	50 - 150
2350224	Chlorpyrifos Ethyl	75.6	73.1	P/P	52 - 122
2350224	Chlorpyrifos Methyl	85.9	80.6	P/P	66 - 117
2350224	Coumaphos	50.3	52.0	P/P	50 - 220
2350224	Cyanazine	71.4	71.5	P/P	43 - 245
2350224	Cyprodinil	68.1	73.9	P/P	50 - 150
2350224	Dechlorane Plus	90.5	81.3	P/P	50 - 150
2350224	Demeton	90.0	92.6	P/P	43 - 188
2350224	Diazinon	87.0	97.5	P/P	69 - 131
2350224	Difenoconazole	104	102	P/P	34 - 231
2350224	Dimethenamid	70.0	74.6	P/P	55 - 118
2350224	Dimethomorph	103	137	P/P	50 - 150
2350224	Disulfoton	81.1	84.6	P/P	38 - 141
2350224	Dithiopyr	57.8	57.6	P/P	42 - 116
2350224	EPTC	52.5	49.8	P/P	18 - 85.0
2350224	Ethion	55.6	40.8	P/P	10 - 131
2350224	Ethoprop	91.5	86.4	P/P	65 - 129
2350224	Etridiazole	63.1	61.8	P/P	50 - 150
2350224	Fenamiphos	70.4	67.7	P/P	31 - 137
2350224	Fenbuconazole	76.2	73.3	P/P	57 - 160
2350224	Fipronil	80.4	84.5	P/P	62 - 132
2350224	Fipronil Desulfinyl	86.1	82.2	P/P	57 - 131
2350224	Fipronil Sulfide	64.4	64.4	P/P	15 - 138
2350224	Fipronil Sulfone	70.2	76.3	P/P	21 - 134
2350224	Fluazifop-P-butyl	79.4	85.5	P/P	54 - 133
2350224	Fludioxonil	73.7	82.8	P/P	58 - 127
2350224	Flumioxazin	111	113	P/P	33 - 300
2350224	Flutolanil	69.4	83.8	P/P	42 - 130
2350224	Fluxapyroxad	71.5	68.5	P/P	23 - 141
2350224	Fonofos	80.7	78.8	P/P	58 - 119
2350224	Hexazinone	82.3	79.8	P/P	68 - 172
2350224	Imazalil	61.7	86.9	P/P	48 - 283
2350224	Iprodione	75.5	81.1	P/P	38 - 140
2350224	Loratadine	101	136	P/P	50 - 150
2350224	Malathion	92.1	83.8	P/P	40 - 137
2350224	Metalaxyl	69.0	73.2	P/P	21 - 129
2350224	Metolachlor	71.2	79.4	P/P	55 - 122
2350224	Metribuzin	94.3	100	P/P	38 - 187
2350224	Mevinphos	78.7	77.0	P/P	54 - 134

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P418246

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350224	Molinate	68.4	65.5	P/P	41 - 97.0
2350224	Myclobutanil	73.7	77.4	P/P	56 - 125
2350224	Naled	85.7	88.3	P/P	10 - 108
2350224	Napropamide	55.0	62.3	P/P	50 - 150
2350224	Octinoxate	70.8	68.3	P/P	25 - 150
2350224	Oxadiazon	66.0	75.6	P/P	40 - 119
2350224	Oxybenzone	71.3	71.2	P/P	59 - 147
2350224	Oxyfluorfen	92.2	102	P/P	61 - 153
2350224	Parathion Ethyl	90.1	94.6	P/P	59 - 130
2350224	Parathion Methyl	110	109	P/P	65 - 155
2350224	PBDE-47	75.4	70.4	P/P	50 - 150
2350224	PBDE-99	65.4	61.2	P/P	50 - 150
2350224	Pendimethalin	87.0	92.3	P/P	49 - 138
2350224	Phenytoin	24.5	27.9	F/F	50 - 200
2350224	Phorate	85.7	83.9	P/P	54 - 161
2350224	Prodiamine	48.1	52.5	P/P	33 - 161
2350224	Prometon	74.5	77.2	P/P	48 - 140
2350224	Prometryn	65.8	65.3	P/P	55 - 134
2350224	Pronamide	87.3	85.4	P/P	66 - 137
2350224	Propanil	84.0	87.2	P/P	50 - 150
2350224	Propargite	55.2	53.6	P/P	50 - 200
2350224	Propiconazole	68.3	71.8	P/P	36 - 150
2350224	Pyraflufen Ethyl	70.6	71.9	P/P	50 - 150
2350224	Pyridaben	80.7	69.2	P/P	50 - 200
2350224	Pyriproxyfen	69.4	65.4	P/P	10 - 165
2350224	Simazine	84.2	93.3	P/P	57 - 145
2350224	Stirophos	49.4	37.8	F/F	50 - 150
2350224	Sulfentrazone	81.1	77.4	P/P	34 - 140
2350224	Tebuconazole	44.2	42.3	P/P	10 - 127
2350224	Terbufos	102	104	P/P	59 - 138
2350224	Terbuthylazine	87.2	94.2	P/P	68 - 119
2350224	Thiobencarb	69.5	69.8	P/P	50 - 150
2350224	Tri-o-cresyl Phosphate	75.6	71.3	P/P	50 - 150
2350224	Triadimefon	74.6	69.7	P/P	50 - 150

Reference Method: EPA 8321B

Batch ID: P418300

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2349650	Acesulfame K	79.1	90.9	P/P	40 - 150
2349650	AMPA	103	98.5	P/P	40 - 150
2349650	Endothall	127	131	P/P	40 - 150
2349650	Glufosinate	103	102	P/P	40 - 150
2349650	Glyphosate	110	107	P/P	40 - 150
2349650	Sucralose	93.0	109	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P418371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350002	2,4-D	68.8	70.9	P/P	40 - 150
2350002	2,4,5-T	68.5	72.4	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P418371

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350002	Acetaminophen	71.5	74.1	P/P	30 - 150
2350002	Acetamiprid	57.5	58.9	P/P	40 - 150
2350002	Afidopyropen	52.4	67.1	P/P	30 - 150
2350002	Bentazon	103	90.0	P/P	30 - 150
2350002	Benzovindiflupyr	70.0	92.2	P/P	40 - 150
2350002	Carbamazepine	90.8	90.3	P/P	40 - 150
2350002	Clothianidin	66.9	55.7	P/P	40 - 150
2350002	Dinotefuran	96.9	96.5	P/P	40 - 150
2350002	Diuron	76.3	86.0	P/P	40 - 150
2350002	Fenuron	80.3	80.9	P/P	40 - 150
2350002	Fluridone	93.5	109	P/P	40 - 150
2350002	Hydrocodone	103	104	P/P	40 - 150
2350002	Ibuprofen	71.3	75.7	P/P	40 - 150
2350002	Imazapyr	70.8	74.5	P/P	40 - 150
2350002	Imidacloprid	53.3	65.8	P/P	40 - 150
2350002	Linuron	86.8	80.1	P/P	40 - 150
2350002	Mandestrobin	89.9	89.6	P/P	40 - 150
2350002	MCPP	75.3	65.7	P/P	40 - 150
2350002	Naproxen	84.6	81.0	P/P	40 - 150
2350002	Primidone	46.9	51.1	P/P	40 - 150
2350002	Pyraclostrobin	84.9	84.6	P/P	40 - 150
2350002	Silvex	63.0	63.6	P/P	40 - 150
2350002	Thiamethoxam	94.8	92.0	P/P	40 - 150
2350002	Tolfenpyrad	46.9	50.0	P/P	30 - 150
2350002	Triclopyr	65.7	66.5	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P418466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350630	Fluoride	102	101	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P418502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2350304	Organic Carbon	97.7	97.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P418275

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2349716	Color (true)	1.57	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350232	Turbidity	0.932	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2349421	Calcium	0.379	Spike	P	0 - 20
2349421	Iron	6.70	Spike	P	0 - 20
2349421	Magnesium	3.87	Spike	P	0 - 20
2349421	Potassium	2.22	Spike	P	0 - 20
2349421	Sodium	4.07	Spike	P	0 - 20
2349421	Strontium	2.23	Spike	P	0 - 20
2349421	Tin	1.83	Spike	P	0 - 20
2349421	Titanium	2.16	Spike	P	0 - 20
2349421	Vanadium	2.13	Spike	P	0 - 20
2349421	Zinc	2.52	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418358

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2349421	Aluminum	2.02	Spike	P	0 - 20
2349421	Antimony	1.52	Spike	P	0 - 20
2349421	Arsenic	1.55	Spike	P	0 - 20
2349421	Barium	0.647	Spike	P	0 - 20
2349421	Beryllium	3.14	Spike	P	0 - 20
2349421	Boron	0.398	Spike	P	0 - 20
2349421	Cadmium	0.118	Spike	P	0 - 20
2349421	Chromium	2.03	Spike	P	0 - 20
2349421	Cobalt	1.55	Spike	P	0 - 20
2349421	Copper	1.44	Spike	P	0 - 20
2349421	Lead	0.862	Spike	P	0 - 20
2349421	Manganese	0.857	Spike	P	0 - 20
2349421	Molybdenum	1.00	Spike	P	0 - 20
2349421	Nickel	1.86	Spike	P	0 - 20
2349421	Selenium	2.41	Spike	P	0 - 20
2349421	Silver	1.85	Spike	P	0 - 20
2349421	Thallium	0.876	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350379	Chloride	0.804	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350379	Sulfate	1.23	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350631	Ammonia-N	3.09	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2349404	Kjeldahl Nitrogen	1.94	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P418532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350380	NO2NO3-N	0.406	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P418512

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350479	Total-P	0.165	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350548	O-Phosphate-P	2.00	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P418246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350224	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	3.87	Spike	P	0 - 30
2350224	Acetochlor	10.5	Spike	P	0 - 27

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P418246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350224	Alachlor	15.7	Spike	P	0 - 27
2350224	Ametryn	6.93	Spike	P	0 - 34
2350224	Atrazine	7.54	Spike	P	0 - 41
2350224	Atrazine Desethyl	14.7	Spike	P	0 - 38
2350224	Avobenzone	5.73	Spike	P	0 - 30
2350224	Azinphos Methyl	2.32	Spike	P	0 - 62
2350224	Azoxystrobin	18.2	Spike	P	0 - 32
2350224	Bromacil	19.9	Spike	P	0 - 30
2350224	Butylate	26.1	Spike	P	0 - 59
2350224	Caffeine	4.77	Spike	P	0 - 60
2350224	Carbophenothion	5.02	Spike	P	0 - 25
2350224	Carfentrazone Ethyl	1.87	Spike	P	0 - 26
2350224	Chlorfenapyr	8.01	Spike	P	0 - 30
2350224	Chlorpyrifos Ethyl	3.45	Spike	P	0 - 27
2350224	Chlorpyrifos Methyl	6.36	Spike	P	0 - 26
2350224	Coumaphos	3.30	Spike	P	0 - 30
2350224	Cyanazine	0.158	Spike	P	0 - 58
2350224	Cyprodinil	8.14	Spike	P	0 - 30
2350224	Dechlorane Plus	10.7	Spike	P	0 - 30
2350224	Demeton	2.80	Spike	P	0 - 25
2350224	Diazinon	11.4	Spike	P	0 - 29
2350224	Difenoconazole	1.73	Spike	P	0 - 25
2350224	Dimethenamid	6.38	Spike	P	0 - 30
2350224	Dimethomorph	28.4	Spike	P	0 - 30
2350224	Disulfoton	4.19	Spike	P	0 - 33
2350224	Dithiopyr	0.207	Spike	P	0 - 22
2350224	EPTC	5.27	Spike	P	0 - 38
2350224	Ethion	30.6	Spike	P	0 - 79
2350224	Ethoprop	5.73	Spike	P	0 - 23
2350224	Etridiazole	2.16	Spike	P	0 - 30
2350224	Fenamiphos	3.97	Spike	P	0 - 58
2350224	Fenbuconazole	3.46	Spike	P	0 - 37
2350224	Fipronil	4.98	Spike	P	0 - 33
2350224	Fipronil Desulfanyl	4.63	Spike	P	0 - 26
2350224	Fipronil Sulfide	0.00776	Spike	P	0 - 37
2350224	Fipronil Sulfone	8.31	Spike	P	0 - 50
2350224	Fluazifop-P-butyl	7.37	Spike	P	0 - 24
2350224	Fludioxonil	11.7	Spike	P	0 - 26
2350224	Flumioxazin	2.23	Spike	P	0 - 37
2350224	Flutolanil	18.7	Spike	P	0 - 26
2350224	Fluxapyroxad	4.30	Spike	P	0 - 34
2350224	Fonofos	2.40	Spike	P	0 - 27
2350224	Hexazinone	2.79	Spike	P	0 - 36
2350224	Imazalil	34.0	Spike	P	0 - 65
2350224	Iprodione	7.14	Spike	P	0 - 33
2350224	Loratadine	29.3	Spike	P	0 - 30
2350224	Malathion	9.40	Spike	P	0 - 44
2350224	Metalaxyl	3.54	Spike	P	0 - 38
2350224	Metolachlor	10.3	Spike	P	0 - 36
2350224	Metribuzin	6.04	Spike	P	0 - 63
2350224	Mevinphos	2.22	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P418246

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350224	Molinate	4.32	Spike	P	0 - 40
2350224	Myclobutanil	4.83	Spike	P	0 - 21
2350224	Naled	2.95	Spike	P	0 - 26
2350224	Napropamide	12.5	Spike	P	0 - 30
2350224	Norflurazon	4.63	Spike	P	0 - 24
2350224	Octinoxate	3.67	Spike	P	0 - 30
2350224	Oxadiazon	13.5	Spike	P	0 - 27
2350224	Oxybenzone	0.0905	Spike	P	0 - 30
2350224	Oxyfluorfen	10.5	Spike	P	0 - 24
2350224	Parathion Ethyl	4.84	Spike	P	0 - 28
2350224	Parathion Methyl	1.07	Spike	P	0 - 27
2350224	PBDE-47	6.75	Spike	P	0 - 30
2350224	PBDE-99	6.55	Spike	P	0 - 30
2350224	Pendimethalin	5.88	Spike	P	0 - 31
2350224	Phenytoin	13.0	Spike	P	0 - 30
2350224	Phorate	2.19	Spike	P	0 - 27
2350224	Prodiamine	8.77	Spike	P	0 - 52
2350224	Prometon	3.49	Spike	P	0 - 31
2350224	Prometryn	0.847	Spike	P	0 - 28
2350224	Pronamide	2.20	Spike	P	0 - 26
2350224	Propanil	3.71	Spike	P	0 - 30
2350224	Propargite	2.97	Spike	P	0 - 30
2350224	Propiconazole	4.93	Spike	P	0 - 31
2350224	Pyraflufen Ethyl	1.86	Spike	P	0 - 30
2350224	Pyridaben	15.3	Spike	P	0 - 30
2350224	Pyriproxyfen	5.80	Spike	P	0 - 50
2350224	Simazine	10.2	Spike	P	0 - 29
2350224	Stirophos	26.6	Spike	P	0 - 30
2350224	Sulfentrazone	4.68	Spike	P	0 - 33
2350224	Tebuconazole	4.34	Spike	P	0 - 44
2350224	Terbufos	2.59	Spike	P	0 - 29
2350224	Terbutylazine	7.67	Spike	P	0 - 27
2350224	Thiobencarb	0.510	Spike	P	0 - 30
2350224	Tri-o-cresyl Phosphate	5.79	Spike	P	0 - 30
2350224	Triadimefon	6.83	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P418300

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2349650	Acesulfame K	13.8	Spike	P	0 - 30
2349650	AMPA	4.26	Spike	P	0 - 30
2349650	Endothall	2.83	Spike	P	0 - 30
2349650	Glufosinate	0.409	Spike	P	0 - 30
2349650	Glyphosate	3.07	Spike	P	0 - 30
2349650	Sucralose	15.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P418371

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350002	2,4-D	2.78	Spike	P	0 - 30
2350002	2,4,5-T	5.55	Spike	P	0 - 30
2350002	Acetaminophen	3.62	Spike	P	0 - 30
2350002	Acetamiprid	2.51	Spike	P	0 - 30
2350002	Afidopyropen	24.5	Spike	P	0 - 30
2350002	Bentazon	8.29	Spike	P	0 - 30
2350002	Benzovindiflupyr	27.3	Spike	P	0 - 30
2350002	Carbamazepine	0.568	Spike	P	0 - 30
2350002	Clothianidin	18.2	Spike	P	0 - 30
2350002	Dinotefuran	0.482	Spike	P	0 - 30
2350002	Diuron	11.9	Spike	P	0 - 30
2350002	Fenuron	0.732	Spike	P	0 - 30
2350002	Fluridone	15.4	Spike	P	0 - 30
2350002	Hydrocodone	1.10	Spike	P	0 - 30
2350002	Ibuprofen	6.05	Spike	P	0 - 30
2350002	Imazapyr	4.43	Spike	P	0 - 30
2350002	Imidacloprid	19.9	Spike	P	0 - 30
2350002	Linuron	8.07	Spike	P	0 - 30
2350002	Mandestrobin	0.383	Spike	P	0 - 30
2350002	MCP	9.35	Spike	P	0 - 30
2350002	Naproxen	4.33	Spike	P	0 - 30
2350002	Primidone	8.47	Spike	P	0 - 30
2350002	Pyraclostrobin	0.375	Spike	P	0 - 30
2350002	Silvex	0.989	Spike	P	0 - 30
2350002	Thiamethoxam	2.91	Spike	P	0 - 30
2350002	Tolfenpyrad	6.38	Spike	P	0 - 30
2350002	Triclopyr	1.32	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
 Batch ID: P418456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350630	Total Alkalinity	1.01	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
 Batch ID: P418646

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350210	TDS	3.47	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
 Batch ID: P418466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350630	Fluoride	0.484	Spike	P	0 - 1.6

Quality Assurance Report

Precision

Reference Method: SM 5310 B-2011
Batch ID: P418502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2350304	Organic Carbon	0.0722	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2350002
Field Sample ID: 33010066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	75.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	69.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.3	P	30 - 160
EPA 8321B	Diuron-d6	103	P	30 - 160
EPA 8321B	Endothall-d6	142	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	86.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.1	P	30 - 160
EPA 8321B	Primidone-d5	45.7	P	30 - 160
EPA 8321B	Sucralose-d6	110	P	30 - 160

Lab Sample ID: 2350024
Field Sample ID: 33010066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	42.8	P	20 - 200
EPA 8270E	Simazine-d10	82.7	P	71 - 140
EPA 8270E	Terbufos-d10	77.0	P	62 - 131
EPA 8270E	Terphenyl-d14	66.9	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114165

Included Lab Sample IDs: 2350379

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

Reference Method: DEP SOP: NU-094-1

Run ID: A114167

Included Lab Sample IDs: 2350379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.6	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A114190

Included Lab Sample IDs: 2350381

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.7	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A114225

Included Lab Sample IDs: 2350012, 2350013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Calcium	101	101	P/P	90 - 110
Iron	101	98.6	P/P	90 - 110
Iron	98.6	102	P/P	90 - 110
Magnesium	100	102	P/P	90 - 110
Magnesium	101	100	P/P	90 - 110
Potassium	100	102	P/P	90 - 110
Potassium	102	102	P/P	90 - 110
Sodium	97.6	99.4	P/P	90 - 110
Sodium	99.1	97.6	P/P	90 - 110
Strontium	101	101	P/P	90 - 110
Strontium	101	101	P/P	90 - 110
Tin	100	99.8	P/P	90 - 110
Tin	101	100	P/P	90 - 110
Titanium	101	101	P/P	90 - 110
Titanium	101	101	P/P	90 - 110
Vanadium	101	101	P/P	90 - 110
Vanadium	101	101	P/P	90 - 110
Zinc	100	99.0	P/P	90 - 110
Zinc	99.0	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A114235

Included Lab Sample IDs: 2350002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	113	114	P/P	60 - 160
Endothall	101	109	P/P	60 - 160
Glufosinate	107	114	P/P	60 - 160
Glyphosate	111	111	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A114238
Included Lab Sample IDs: 2350002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	96.4	96.5	P/P	60 - 160
Sucralose	108	109	P/P	60 - 160

Reference Method: SM 2320 B-2011
Run ID: A114240
Included Lab Sample IDs: 2350379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.7	100	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A114240
Included Lab Sample IDs: 2350379

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

Reference Method: SM 5310 B-2011
Run ID: A114255
Included Lab Sample IDs: 2350380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.9	96.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114256
Included Lab Sample IDs: 2350012, 2350013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.1	96.8	P/P	90 - 110
Antimony	97.6	97.2	P/P	90 - 110
Arsenic	97.0	97.0	P/P	90 - 110
Barium	96.9	96.7	P/P	90 - 110
Beryllium	93.6	95.6	P/P	90 - 110
Cadmium	105	105	P/P	90 - 110
Chromium	105	105	P/P	90 - 110
Cobalt	91.7	91.5	P/P	90 - 110
Copper	92.6	92.2	P/P	90 - 110
Lead	92.6	92.7	P/P	90 - 110
Manganese	101	101	P/P	90 - 110
Molybdenum	96.7	96.8	P/P	90 - 110
Nickel	92.1	91.4	P/P	90 - 110
Selenium	101	100	P/P	90 - 110
Silver	97.6	97.1	P/P	90 - 110
Thallium	98.6	99.1	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A114261
Included Lab Sample IDs: 2350024

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

Reference Method: EPA 8270E
Run ID: A114261
Included Lab Sample IDs: 2350024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	95.6		P	80 - 120
Alachlor	96.2		P	80 - 120
Ametryn	87.4		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	103		P	80 - 120
Azinphos Methyl	103		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	94.9		P	80 - 120
Butylate	100		P	80 - 120
Caffeine	95.3		P	80 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	97.3		P	80 - 120
Chlorfenapyr	102		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Coumaphos	97.9		P	80 - 120
Cyanazine	95.4		P	80 - 120
Cyprodinil	93.9		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	103		P	80 - 120
Difenoconazole	98.1		P	80 - 120
Dimethenamid	94.2		P	80 - 120
Dimethomorph	96.4		P	80 - 120
Disulfoton	98.0		P	80 - 120
Dithiopyr	95.0		P	80 - 120
EPTC	101		P	80 - 120
Ethion	102		P	80 - 120
Ethoprop	102		P	80 - 120
Etridiazole	101		P	80 - 120
Fenamiphos	94.6		P	80 - 120
Fenbuconazole	94.5		P	80 - 120
Fipronil	98.2		P	80 - 120
Fipronil Desulfinyl	97.5		P	80 - 120
Fipronil Sulfide	95.7		P	80 - 120
Fipronil Sulfone	92.5		P	80 - 120
Fluazifop-P-butyl	90.5		P	80 - 120
Fludioxonil	96.9		P	80 - 120
Flumioxazin	93.9		P	80 - 120
Flutolanil	94.7		P	80 - 120
Fluxapyroxad	95.4		P	80 - 120
Fonofos	98.7		P	80 - 120
Hexazinone	96.9		P	80 - 120
Imazalil	98.0		P	80 - 120
Iprodione	96.1		P	80 - 120
Loratadine	99.8		P	80 - 120
Malathion	98.6		P	80 - 120
Metalaxyl	87.7		P	80 - 120
Metolachlor	96.3		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114261
Included Lab Sample IDs: 2350024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Myclobutanil	94.1		P	80 - 120
Naled	100		P	80 - 120
Napropamide	96.3		P	80 - 120
Norflurazon	98.7		P	80 - 120
Oxadiazon	101		P	80 - 120
Oxyfluorfen	98.0		P	80 - 120
Parathion Ethyl	102		P	80 - 120
Parathion Methyl	106		P	80 - 120
Pendimethalin	97.5		P	80 - 120
Phenytol	97.3		P	80 - 120
Phorate	102		P	80 - 120
Prodiamine	94.9		P	80 - 120
Prometon	95.6		P	80 - 120
Prometryn	93.0		P	80 - 120
Pronamide	102		P	80 - 120
Propanil	94.2		P	80 - 120
Propargite	98.9		P	80 - 120
Propiconazole	97.7		P	80 - 120
Pyraflufen Ethyl	99.0		P	80 - 120
Pyridaben	95.9		P	80 - 120
Pyriproxyfen	97.7		P	80 - 120
Simazine	106		P	80 - 120
Stiophos	105		P	80 - 120
Sulfentrazone	98.8		P	80 - 120
Tebuconazole	96.9		P	80 - 120
Terbufos	99.4		P	80 - 120
Terbutylazine	104		P	80 - 120
Thiobencarb	100		P	80 - 120
Triadimefon	97.5		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A114268
Included Lab Sample IDs: 2350380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.0	96.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A114274
Included Lab Sample IDs: 2350380

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114284
Included Lab Sample IDs: 2350012, 2350013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	97.4	98.8	P/P	90 - 110
Boron	98.8	94.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A114335

Included Lab Sample IDs: 2350379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.4	98.9	P/P	90 - 110
Sulfate	99.1	99.9	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114340

Included Lab Sample IDs: 2350024

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	96.8		P	80 - 120
Avobenzene	94.1		P	80 - 120
Dechlorane Plus	97.7		P	80 - 120
Octinoxate	93.7		P	80 - 120
Oxybenzone	92.9		P	80 - 120
PBDE-47	96.9		P	80 - 120
PBDE-99	97.8		P	80 - 120
Tri-o-cresyl Phosphate	101		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114348

Included Lab Sample IDs: 2350380

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A114369

Included Lab Sample IDs: 2350002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.2	110	P/P	50 - 150
2,4,5-T	92.9	116	P/P	50 - 150
Acetaminophen	95.3	90.1	P/P	60 - 160
Acetamiprid	99.7	122	P/P	50 - 150
Afidopyropen	85.5	94.4	P/P	50 - 150
Bentazon	103	96.7	P/P	50 - 160
Benzovindiflupyr	106	115	P/P	50 - 150
Carbamazepine	100	106	P/P	60 - 150
Clothianidin	98.8	86.1	P/P	60 - 150
Dinotefuran	101	102	P/P	50 - 150
Diuron	98.3	89.8	P/P	60 - 160
Fenuron	98.1	95.4	P/P	60 - 150
Fluridone	125	102	P/P	60 - 160
Hydrocodone	99.2	96.1	P/P	60 - 150
Ibuprofen	85.5	60.3	P/P	50 - 160
Imazapyr	88.2	83.0	P/P	50 - 150
Imidacloprid	85.1	97.8	P/P	60 - 150
Linuron	70.8	97.1	P/P	60 - 150
Mandestrobin	104	94.9	P/P	50 - 150
MCPP	95.0	88.0	P/P	50 - 150
Naproxen	141	110	P/P	50 - 160
Primidone	103	102	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A114369
Included Lab Sample IDs: 2350002

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	102	99.8	P/P	60 - 150
Silvex	101	99.3	P/P	50 - 150
Thiamethoxam	96.0	103	P/P	50 - 150
Tolfenpyrad	97.1	93.6	P/P	60 - 150
Triclopyr	103	106	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114444
Included Lab Sample IDs: 2350380

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

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	99.7					1.57	
EPA 180.1 Rev. 2.0	Turbidity	96.7					0.932	
EPA 200.7 Rev. 4.4	Calcium	103	105	102				0.379
	Iron	105	101	109	105			6.70
	Magnesium	106	102	108	105			3.87
	Potassium	105	110	106	106			2.22
	Sodium	101	105	105				4.07
	Strontium	105	105	108	106			2.23
	Tin	108	109	111	104			1.83
	Titanium	105	104	106	103			2.16
	Vanadium	99.9	99.9	102	100			2.13
	Zinc	100	99.4	102	97.9			2.52
EPA 200.8 Rev. 5.4	Aluminum	100	98.6	96.5	97.1			2.02
	Antimony	103	101	99.8	101			1.52
	Arsenic	98.1	97.1	95.5	95.6			1.55
	Barium	103	101	99.9	101			0.647
	Beryllium	95.4	99.6	94.8	94.3			3.14
	Boron	104	99.7	100	103			0.398
	Cadmium	103	102	102	102			0.118
	Chromium	105	105	103	105			2.03
	Cobalt	92.0	90.8	89.4	90.3			1.55
	Copper	91.0	92.3	91.0	87.3			1.44
	Lead	96.1	95.6	94.8	95.1			0.862
	Manganese	101	99.4	98.0	100			0.857
	Molybdenum	98.2	98.3	97.3	97.2			1.00
	Nickel	92.9	92.0	90.4	90.4			1.86
	Selenium	98.5	96.8	94.5	96.6			2.41
	Silver	99.4	98.9	97.1	98.3			1.85
	Thallium	94.9	95.2	96.1	94.1			0.876
EPA 300.0 Rev. 2.1	Chloride	98.2	99.0	98.8			0.804	
	Sulfate	98.7	99.2	99.5			1.23	
EPA 350.1 Rev. 2.0	Ammonia-N	101	96.6	101				3.09
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	95.4	97.9				1.94
EPA 353.2 Rev. 2.0	NO2NO3-N	96.5	95.6	95.1				0.406
EPA 365.1 Rev. 2.0	Total-P	103	104	104				0.165
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.9	101	99.1				2.00
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	85.9	76.4	73.5				3.87
	Acetochlor	75.0	82.9	92.0				10.5
	Alachlor	72.3	68.4	80.0				15.7
	Ametryn	76.9	54.1	62.9				6.93
	Atrazine	81.5	89.4	101				7.54
	Atrazine Desethyl	52.5	44.0	51.0				14.7
	Avobenzone	77.1	84.2	79.5				5.73
	Azinphos Methyl	97.3	102	100				2.32
	Azoxystrobin	102	102	126				18.2
	Bromacil	53.2						19.9
	Butylate	44.5	56.8	43.7				26.1
	Caffeine	89.3	86.9	91.2				4.77
	Carbophenothion	74.6	78.1	82.1				5.02
	Carfentrazone Ethyl	79.1	80.5	79.0				1.87
	Chlorfenapyr	76.6	76.3	70.4				8.01
	Chlorpyrifos Ethyl	78.9	75.6	73.1				3.45

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	86.0	85.9	80.6		6.36
	Coumaphos	79.5	50.3	52.0		3.30
	Cyanazine	66.4	71.4	71.5		0.158
	Cyprodinil	70.5	68.1	73.9		8.14
	Dechlorane Plus	101	90.5	81.3		10.7
	Demeton	71.8	90.0	92.6		2.80
	Diazinon	81.2	87.0	97.5		11.4
	Difenoconazole	82.8	104	102		1.73
	Dimethenamid	58.9	70.0	74.6		6.38
	Dimethomorph	101	103	137		28.4
	Disulfoton	76.0	81.1	84.6		4.19
	Dithiopyr	72.3	57.8	57.6		0.207
	EPTC	43.9	52.5	49.8		5.27
	Ethion	39.6	55.6	40.8		30.6
	Ethoprop	79.5	91.5	86.4		5.73
	Etridiazole	49.3	63.1	61.8		2.16
	Fenamiphos	74.3	70.4	67.7		3.97
	Fenbuconazole	71.6	76.2	73.3		3.46
	Fipronil	71.1	80.4	84.5		4.98
	Fipronil Desulfinyl	79.3	86.1	82.2		4.63
	Fipronil Sulfide	61.3	64.4	64.4		0.0077
	Fipronil Sulfone	57.7	70.2	76.3		8.31
	Fluazifop-P-butyl	73.3	79.4	85.5		7.37
	Fludioxonil	67.9	73.7	82.8		11.7
	Flumioxazin	98.1	111	113		2.23
	Flutolanil	65.8	69.4	83.8		18.7
	Fluxapyroxad	58.8	71.5	68.5		4.30
	Fonofos	73.8	80.7	78.8		2.40
	Hexazinone	73.7	82.3	79.8		2.79
	Imazalil	61.8	61.7	86.9		34.0
	Iprodione	68.7	75.5	81.1		7.14
	Loratadine	98.4	101	136		29.3
	Malathion	91.0	92.1	83.8		9.40
	Metalaxyl	66.2	69.0	73.2		3.54
	Metolachlor	71.5	71.2	79.4		10.3
	Metribuzin	88.8	94.3	100		6.04
	Mevinphos	72.1	78.7	77.0		2.22
	Molinate	58.4	68.4	65.5		4.32
	Myclobutanil	64.6	73.7	77.4		4.83
	Naled	60.8	85.7	88.3		2.95
	Napropamide	58.8	55.0	62.3		12.5
	Norflurazon	65.3				4.63
	Octinoxate	70.2	70.8	68.3		3.67
	Oxadiazon	59.9	66.0	75.6		13.5
	Oxybenzone	62.0	71.3	71.2		0.0905
	Oxyfluorfen	81.7	92.2	102		10.5
	Parathion Ethyl	85.3	90.1	94.6		4.84
	Parathion Methyl	96.7	110	109		1.07
	PBDE-47	73.7	75.4	70.4		6.75
	PBDE-99	72.6	65.4	61.2		6.55
	Pendimethalin	72.7	87.0	92.3		5.88
	Phenytol	12.4	24.5	27.9		13.0
	Phorate	71.5	85.7	83.9		2.19
	Prodimamine	36.6	48.1	52.5		8.77

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Prometon	56.9	74.5	77.2			3.49
	Prometryn	66.7	65.8	65.3			0.847
	Pronamide	80.7	87.3	85.4			2.20
	Propanil	69.9	84.0	87.2			3.71
	Propargite	46.2	55.2	53.6			2.97
	Propiconazole	60.8	68.3	71.8			4.93
	Pyraflufen Ethyl	68.6	70.6	71.9			1.86
	Pyridaben	81.5	80.7	69.2			15.3
	Pyriproxyfen	66.3	69.4	65.4			5.80
	Simazine	76.6	84.2	93.3			10.2
	Stirophos	50.7	49.4	37.8			26.6
	Sulfentrazone	31.2	81.1	77.4			4.68
	Tebuconazole	33.2	44.2	42.3			4.34
	Terbufos	88.6	102	104			2.59
	Terbuthylazine	73.9	87.2	94.2			7.67
	Thiobencarb	66.9	69.5	69.8			0.510
	Tri-o-cresyl Phosphate	74.6	75.6	71.3			5.79
	Triadimefon	65.1	74.6	69.7			6.83
EPA 8321B	2,4-D	66.7	68.8	70.9			2.78
	2,4,5-T	72.5	68.5	72.4			5.55
	Acesulfame K	93.5	79.1	90.9			13.8
	Acetaminophen	88.1	71.5	74.1			3.62
	Acetamiprid	80.9	57.5	58.9			2.51
	Afidopyropen	89.0	52.4	67.1			24.5
	AMPA	111	103	98.5			4.26
	Bentazon	114	103	90.0			8.29
	Benzovindiflupyr	98.5	70.0	92.2			27.3
	Carbamazepine	117	90.8	90.3			0.568
	Clothianidin	100	66.9	55.7			18.2
	Dinotefuran	108	96.9	96.5			0.482
	Diuron	86.2	76.3	86.0			11.9
	Endothall	108	127	131			2.83
	Fenuron	113	80.3	80.9			0.732
	Fluridone	90.2	93.5	109			15.4
	Glufosinate	117	103	102			0.409
	Glyphosate	109	110	107			3.07
	Hydrocodone	99.0	103	104			1.10
	Ibuprofen	81.9	71.3	75.7			6.05
	Imazapyr	86.3	70.8	74.5			4.43
	Imidacloprid	93.3	53.3	65.8			19.9
	Linuron	101	86.8	80.1			8.07
	Mandestrobin	101	89.9	89.6			0.383
	MCPP	85.7	75.3	65.7			9.35
	Naproxen	148	84.6	81.0			4.33
	Primidone	89.4	46.9	51.1			8.47
	Pyraclostrobin	88.9	84.9	84.6			0.375
	Silvex	66.8	63.0	63.6			0.989
	Sucralose	107	93.0	109			15.2
	Thiamethoxam	101	94.8	92.0			2.91
	Tolfenpyrad	40.5	46.9	50.0			6.38
	Triclopyr	68.9	65.7	66.5			1.32
SM 2320 B-2011	Total Alkalinity	99.7				1.01	
SM 2540 C-2011	TDS					3.47	
SM 4500-F- C-2011	Fluoride	102	102	101			0.484

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 5310 B-2011	Organic Carbon	95.2	97.7 97.6			0.0722

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2350379
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2350379
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2350012, 2350013
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2350012, 2350013
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2350379
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2350379
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2350380
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2350380
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2350380
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2350380
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2350381
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2350024
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2350024
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2350002
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2350379
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2350012, 2350013
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2350379
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2350379
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2350379
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2350380

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	08/17/2022			08/17/2022 16:58	Anna M. Plaviak	2350379
EPA 180.1 Rev. 2.0	08/17/2022			08/17/2022 15:50	Khloe J Berg	2350379
EPA 200.7 Rev. 4.4	08/17/2022	08/19/2022 10:10	Megan Whitefoot	08/20/2022 10:17	McKinley C Carter	2350012
	08/17/2022	08/19/2022 10:10	Megan Whitefoot	08/20/2022 10:53	McKinley C Carter	2350013
EPA 200.8 Rev. 5.4	08/17/2022	08/19/2022 10:10	Megan Whitefoot	08/22/2022 22:47	Emily M Philpot	2350012
	08/17/2022	08/19/2022 10:10	Megan Whitefoot	08/22/2022 22:57	Emily M Philpot	2350013
	08/17/2022	08/19/2022 10:10	Megan Whitefoot	08/23/2022 19:41	Megan Whitefoot	2350012
	08/17/2022	08/19/2022 10:10	Megan Whitefoot	08/23/2022 20:53	Megan Whitefoot	2350013
EPA 300.0 Rev. 2.1	08/17/2022			08/26/2022 22:49	Anna M. Plaviak	2350379
EPA 350.1 Rev. 2.0	08/17/2022			08/23/2022 15:35	Judith K. Clark	2350380
EPA 351.2 Rev. 2.0	08/17/2022	08/30/2022 09:19	Samantha L Bates	08/30/2022 13:46	Alexandra J Mattheus	2350380
EPA 353.2 Rev. 2.0	08/17/2022			08/23/2022 11:15	Beverly Y. Sanders	2350380
EPA 365.1 Rev. 2.0	08/17/2022	08/24/2022 15:20	Simonne.V. Calhoun	08/25/2022 14:22	James L Waggeberby	2350380
EPA 365.1 Rev. 2.0 dissolved	08/17/2022			08/18/2022 14:03	Chandler E Cox	2350381
EPA 8270E	08/17/2022	08/19/2022 08:00	Fe-Val Siddell	08/22/2022 17:51	Michael Poppell	2350024
	08/17/2022	08/19/2022 08:00	Fe-Val Siddell	08/24/2022 20:20	Lipi Saha	2350024
EPA 8321B	08/17/2022	08/19/2022 09:00	Umesh Chiluwal	08/19/2022 11:24	Umesh Chiluwal	2350002
	08/17/2022	08/19/2022 09:00	Umesh Chiluwal	08/19/2022 19:54	Umesh Chiluwal	2350002
	08/17/2022	08/22/2022 09:30	June Rhew	08/26/2022 08:38	Juyoung Kim	2350002
SM 2320 B-2011	08/17/2022			08/20/2022 03:01	Adam P Silver	2350379
SM 2340 B-2011	08/17/2022			08/20/2022 10:17	McKinley C Carter	2350012
	08/17/2022			08/20/2022 10:53	McKinley C Carter	2350013
SM 2540 C-2011	08/17/2022			08/19/2022 15:07	Yijie Li	2350379
SM 2540 D-2011	08/17/2022			08/19/2022 15:07	Yijie Li	2350379
SM 4500-F- C-2011	08/17/2022			08/20/2022 03:01	Adam P Silver	2350379
SM 5310 B-2011	08/17/2022			08/22/2022 20:23	Khloe J Berg	2350380