

Chemical Analysis Report

CEN-DIST-2022-09-01-01

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

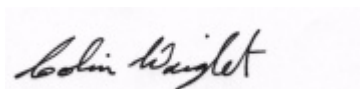
Event Description: **Peanut Lake - LVI**
Request ID: **RQ-2022-07-25-15**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matthew Bearden

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: 22-SEP-2022 12:14



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: Lake Peanut @ Center

Collection Date/Time: 08/31/2022 12:00

Field ID: G1CE0124

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353690	DEP SOP: NU-094-1	Color (true)	14		PCU	P419023	
	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P419015	
	EPA 300.0 Rev. 2.1	Chloride	12	A	mg Cl/L	P419739	
		Sulfate	25	A	mg SO4/L	P419742	
	SM 2320 B-2011	Total Alkalinity	10		mg CaCO3/L	P419411	
	SM 2540 C-2011	TDS	93		mg/L	P419430	
	SM 2540 D-2011	TSS	3	I	mg/L	P419320	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P419389	
2353691	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P419144	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P419174	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.012		mg N/L	P419296	
	EPA 365.1 Rev. 2.0	Total-P	0.010		mg P/L	P419249	
	SM 5310 B-2011	Organic Carbon	5.7		mg C/L	P419188	
2353692	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P419024	
2353695	EPA 8321B	2,4-D	0.0022	I	ug/L	P419091	
		Acesulfame K	0.10	U	ug/L	P418988	
		2,4,5-T	0.0040	U	ug/L	P419091	
		AMPA	0.10	U	ug/L	P418988	
		Acetaminophen	0.0080	U	ug/L	P419091	
		Acetamiprid	0.0020	U	ug/L	P419091	
		Endothall	0.25	U	ug/L	P418988	
		Glufosinate	0.10	U	ug/L	P418988	
		Glyphosate	0.10	U	ug/L	P418988	
		Afidopyrophen	0.0020	U	ug/L	P419091	
		Bentazon	8.0E-04	U	ug/L	P419091	
		Sucralose	0.12		ug/L	P418988	
		Benzovindiflupyr	0.0020	U	ug/L	P419091	
		Carbamazepine	8.0E-04	U	ug/L	P419091	
		Clothianidin	0.011		ug/L	P419091	
		Dinotefuran	0.0020	U	ug/L	P419091	
		Diuron	0.0020	U	ug/L	P419091	
		Fenuron	0.032	U	ug/L	P419091	
		Fluridone	8.0E-04	U	ug/L	P419091	
		Imazapyr	0.0040	U	ug/L	P419091	
		Hydrocodone	0.0020	U	ug/L	P419091	
		Ibuprofen	0.080	U	ug/L	P419091	
		Imidacloprid	0.018		ug/L	P419091	
		Linuron	0.0040	U	ug/L	P419091	
		Mandestrobin	0.0020	U	ug/L	P419091	
		MCP	0.0040	U	ug/L	P419091	
		Naproxen	0.0080	U	ug/L	P419091	
		Primidone	0.0040	U	ug/L	P419091	
		Pyraclostrobin	0.0020	U	ug/L	P419091	

Field ID: G1CE0124

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353695	EPA 8321B	Silvex	0.0040	U	ug/L	P419091	
		Thiamethoxam	0.011		ug/L	P419091	RPD
		Tolfenpyrad	0.0020	U	ug/L	P419091	
		Triclopyr	0.0040	U	ug/L	P419091	
2353696	EPA 200.7 Rev. 4.4	Calcium	7.13		mg/L	P419177	
		Iron	30	U	ug/L	P419177	
		Magnesium	5.48		mg/L	P419177	
		Potassium	6.5		mg/L	P419177	
		Sodium	4.5		mg/L	P419177	
		Strontium	37.4		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	11	I	ug/L	P419177	
		Antimony	0.055	I	ug/L	P419177	
		Arsenic	0.065	I	ug/L	P419177	
		Barium	29.9		ug/L	P419177	
		Beryllium	0.010	U	ug/L	P419177	
		Boron	29.6		ug/L	P419177	
		Cadmium	0.020	U	ug/L	P419177	
		Chromium	0.40	U	ug/L	P419177	
		Cobalt	0.021	I	ug/L	P419177	
		Copper	0.83		ug/L	P419177	
		Lead	0.20	U	ug/L	P419177	
		Manganese	12.3		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	
		Hardness	40.4		mg/L	P419177	
2353697	SM 2340 B-2011	Oxybenzone**	9.6	U	ng/L	P418990	
	EPA 8270E	Acetochlor	0.24	U	ng/L	P418990	RPD
		Octinoxate**	19	U	ng/L	P418990	
		Alachlor	0.24	U	ng/L	P418990	RPD
		Avobenzone**	96	U	ng/L	P418990	RPD
		Ametryn	0.57	U	ng/L	P418990	
		Atrazine	1.5		ng/L	P418990	
		PBDE-47**	3.8	U	ng/L	P418990	
		Atrazine Desethyl	1.4	U	ng/L	P418990	
		PBDE-99**	4.8	U	ng/L	P418990	
		Azinphos Methyl	1.9	U	ng/L	P418990	
		Tri-o-cresyl Phosphate**	5.7	U	ng/L	P418990	
		Azoxystrobin	0.48	U	ng/L	P418990	

Field ID: G1CE0124

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353697	EPA 8270E	Bromacil	0.48	U	ng/L	P418990	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	11	U	ng/L	P418990	
		Butylate	0.38	U	ng/L	P418990	
		Dechlorane Plus**	29	U	ng/L	P418990	RPD
		Caffeine**	8.3	I	ng/L	P418990	
		Carbophenothion	0.19	U	ng/L	P418990	RPD
		Carfentrazone Ethyl	0.096	U	ng/L	P418990	RPD
		Chlorfenapyr	0.17	U	ng/L	P418990	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P418990	
		Chlorpyrifos Methyl	0.048	U	ng/L	P418990	RPD
		Coumaphos	0.48	U	ng/L	P418990	RPD
		Cyanazine	3.1	U	ng/L	P418990	
		Cyprodinil	0.096	U	ng/L	P418990	
		Demeton	1.4	U	ng/L	P418990	RPD
		Diazinon	0.12	U	ng/L	P418990	RPD
		Difenoconazole	0.57	U	ng/L	P418990	RPD
		Dimethenamid	0.096	U	ng/L	P418990	MS, RPD
		Dimethomorph	0.17	U	ng/L	P418990	RPD
		Disulfoton	0.48	U	ng/L	P418990	
		Dithiopyr	1.6	V	ng/L	P418990	RPD
		EPTC	1.2	U	ng/L	P418990	
		Ethion	0.14	U	ng/L	P418990	
		Ethoprop	0.096	U	ng/L	P418990	
		Etridiazole	0.14	U	ng/L	P418990	MS, RPD
		Fenamiphos	0.48	U	ng/L	P418990	
		Fenbuconazole	0.12	U	ng/L	P418990	
		Fipronil	0.24	U	ng/L	P418990	
		Fipronil Desulfinyl**	0.12	U	ng/L	P418990	RPD
		Fipronil Sulfide	0.14	U	ng/L	P418990	
		Fipronil Sulfone	0.14	U	ng/L	P418990	
		Fluazifop-P-butyl	0.096	U	ng/L	P418990	RPD
		Fludioxonil	0.12	U	ng/L	P418990	RPD
		Flumioxazin	1.7	U	ng/L	P418990	
		Flutolanil	0.096	U	ng/L	P418990	RPD
		Fluxapyroxad	0.096	U	ng/L	P418990	
		Fonofos	0.19	U	ng/L	P418990	RPD
		Hexazinone	0.48	U	ng/L	P418990	
		Imazalil	0.72	UJ	ng/L	P418990	LCS, MS, RPD
		Iprodione	0.57	U	ng/L	P418990	
		Loratadine**	0.096	U	ng/L	P418990	RPD
		Malathion	3.1		ng/L	P418990	
		Metalaxyl	0.72	U	ng/L	P418990	
		Metolachlor	0.41	I	ng/L	P418990	
		Metribuzin	2.4	U	ng/L	P418990	

Field ID: G1CE0124

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2353697	EPA 8270E	Mevinphos	1.0	U	ng/L	P418990	
		Molinate	0.29	U	ng/L	P418990	
		Myclobutanil	0.24	U	ng/L	P418990	RPD
		Naled	1.4	U	ng/L	P418990	RPD
		Napropamide	0.38	U	ng/L	P418990	
		Norflurazon	0.48	I	ng/L	P418990	
		Oxadiazon	0.29	U	ng/L	P418990	RPD
		Oxyfluorfen	0.14	U	ng/L	P418990	RPD
		Parathion Ethyl	0.24	U	ng/L	P418990	RPD
		Parathion Methyl	0.53	U	ng/L	P418990	RPD
		Pendimethalin	0.96	U	ng/L	P418990	
		Phenytoin**	3.3	U	ng/L	P418990	
		Phorate	0.50	U	ng/L	P418990	
		Prodiamine	0.17	U	ng/L	P418990	
		Prometon	0.86	U	ng/L	P418990	RPD
		Prometryn	0.19	U	ng/L	P418990	RPD
		Pronamide	0.14	U	ng/L	P418990	
		Propanil	0.12	U	ng/L	P418990	
		Propargite	1.4	U	ng/L	P418990	RPD
		Propiconazole	0.48	U	ng/L	P418990	
		Pyraflufen Ethyl	0.24	U	ng/L	P418990	RPD
		Pyridaben	1.1	I	ng/L	P418990	RPD
		Pyriproxyfen	0.12	U	ng/L	P418990	
		Simazine	0.48	U	ng/L	P418990	
		Stirophos	0.12	U	ng/L	P418990	
		Sulfentrazone	0.48	U	ng/L	P418990	
		Tebuconazole	0.48	U	ng/L	P418990	
		Terbufos	0.096	U	ng/L	P418990	
		Terbuthylazine	0.41	U	ng/L	P418990	MS, RPD
		Thiobencarb	0.57	U	ng/L	P418990	
		Triadimefon	0.24	U	ng/L	P418990	

Ref. Method and Comment:

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

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P419023

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419015

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: P419144

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419174

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419296

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419249

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P419024

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

Reference Method: EPA 8270E
Batch ID: P418990

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: P418990

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	0.21	I	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
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: P418990

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: P418990

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
Sulfentrazole	0.50	U	ng/L
Sulfentrazole	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: P418990

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: P419091

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: P419411

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P419411

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

Reference Method: SM 2540 C-2011
Batch ID: P419430

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P419320

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P419389

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P419188

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: P419023

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	95.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419015

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.4		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: P419144

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419174

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419296

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: P419249

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P419024

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

Reference Method: EPA 8270E
Batch ID: P418990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	59.7		P	50 - 150
Acetochlor	73.7		P	70 - 121
Alachlor	68.6		P	68 - 119
Ametryn	76.5		P	64 - 139
Atrazine	79.0		P	76 - 120
Atrazine Desethyl	52.1		P	44 - 126
Avobenzone	62.2		P	59 - 206
Azinphos Methyl	90.2		P	43 - 192
Azoxystrobin	79.5		P	36 - 224
Bromacil	71.4		P	52 - 121
Butylate	52.7		P	28 - 91.0
Caffeine	61.3		P	50 - 134
Carbophenothion	74.5		P	56 - 129
Carfentrazone Ethyl	82.5		P	60 - 141
Chlorfenapyr	76.0		P	56 - 115
Chlorpyrifos Ethyl	74.5		P	60 - 118

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P418990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	74.8		P	68 - 119
Coumaphos	80.1		P	18 - 250
Cyanazine	83.7		P	61 - 250
Cyprodinil	66.4		P	55 - 145
Dechlorane Plus	64.9		P	50 - 150
Demeton	60.6		P	30 - 159
Diazinon	71.3		P	70 - 123
Difenoconazole	84.9		P	49 - 204
Dimethenamid	64.6		P	64 - 115
Dimethomorph	70.3		P	12 - 219
Disulfoton	68.9		P	44 - 125
Dithiopyr	78.6		P	64 - 115
EPTC	47.2		P	28 - 86.0
Ethion	76.6		P	33 - 125
Ethoprop	68.3		P	64 - 116
Etridiazole	45.1		P	34 - 91.0
Fenamiphos	76.0		P	12 - 127
Fenbuconazole	76.8		P	59 - 151
Fipronil	71.5		P	67 - 129
Fipronil Desulfinyl	84.8		P	65 - 127
Fipronil Sulfide	73.4		P	61 - 116
Fipronil Sulfone	60.5		P	55 - 117
Fluazifop-P-butyl	75.0		P	62 - 127
Fludioxonil	65.0		P	62 - 128
Flumioxazin	81.0		P	33 - 250
Flutolanil	71.9		P	56 - 127
Fluxapyroxad	71.8		P	45 - 128
Fonofos	66.3		P	62 - 111
Hexazinone	79.0		P	46 - 139
Imazalil	32.9		F	38 - 142
Iprodione	84.5		P	47 - 135
Loratadine	71.1		P	10 - 244
Malathion	79.0		P	61 - 139
Metaxyl	71.1		P	10 - 119
Metolachlor	69.2		P	65 - 118
Metribuzin	71.0		P	51 - 250
Mevinphos	63.1		P	53 - 121
Molinate	57.1		P	42 - 96.0
Myclobutanil	67.6		P	55 - 128
Naled	75.9		P	10 - 98.0
Napropamide	65.9		P	49 - 121
Norflurazon	67.2		P	61 - 126
Octinoxate	56.3		P	30 - 159
Oxadiazon	61.0		P	59 - 116
Oxybenzone	59.1		P	59 - 147
Oxyfluorfen	83.9		P	64 - 137
Parathion Ethyl	77.2		P	70 - 112
Parathion Methyl	88.4		P	76 - 133
PBDE-47	61.3		P	50 - 150
PBDE-99	61.2		P	50 - 150
Pendimethalin	57.7		P	52 - 117
Phenytol	55.3		P	10 - 199

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P418990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	58.0		P	48 - 121
Prodiamine	32.2		P	26 - 142
Prometon	66.0		P	43 - 123
Prometryn	73.4		P	66 - 127
Pronamide	86.4		P	75 - 121
Propanil	73.1		P	45 - 150
Propargite	71.1		P	42 - 208
Propiconazole	67.5		P	60 - 125
Pyraflufen Ethyl	70.7		P	70 - 138
Pyridaben	72.1		P	35 - 245
Pyriproxyfen	68.3		P	30 - 149
Simazine	76.5		P	72 - 125
Stirophos	81.0		P	29 - 164
Sulfentrazone	76.7		P	21 - 139
Tebuconazole	63.4		P	10 - 115
Terbufos	77.4		P	60 - 123
Terbuthylazine	75.6		P	72 - 115
Thiobencarb	63.6		P	31 - 139
Tri-o-cresyl Phosphate	65.0		P	50 - 150
Triadimefon	66.9		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: P419091

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	70.6		P	40 - 150
2,4,5-T	65.1		P	40 - 150
Acetaminophen	89.9		P	30 - 150
Acetamiprid	84.3		P	40 - 150
Afidopyropen	45.3		P	30 - 150
Bentazon	105		P	30 - 150
Benzovindiflupyr	101		P	40 - 150
Carbamazepine	74.8		P	40 - 150
Clothianidin	81.4		P	40 - 150
Dinotefuran	87.1		P	40 - 150
Diuron	88.7		P	40 - 150
Fenuron	109		P	40 - 150
Fluridone	95.9		P	40 - 150
Hydrocodone	89.5		P	40 - 150
Ibuprofen	59.6		P	40 - 150
Imazapyr	79.6		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P419091

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imidacloprid	99.9		P	40 - 150
Linuron	102		P	40 - 150
Mandestrobin	99.6		P	40 - 150
MCPP	83.0		P	40 - 150
Naproxen	115		P	40 - 150
Primidone	116		P	40 - 150
Pyraclostrobin	89.3		P	40 - 150
Silvex	59.6		P	40 - 150
Thiamethoxam	108		P	40 - 150
Tolfenpyrad	41.5		P	30 - 150
Triclopyr	60.1		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P419411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.4		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P419389

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

Reference Method: SM 5310 B-2011

Batch ID: P419188

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		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: P419144

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353616	Ammonia-N	98.2	98.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353975	Kjeldahl Nitrogen	95.8	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353677	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419249

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353855	Total-P	109	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P419024

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353529	O-Phosphate-P	91.9	93.1	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P418990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353329	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	77.6	104	P/P	50 - 150
2353329	Acetochlor	66.0	124	P/P	65 - 124
2353329	Alachlor	62.8	87.0	P/P	61 - 121
2353329	Ametryn	63.6	82.0	P/P	52 - 216
2353329	Atrazine	83.7	124	P/P	68 - 133
2353329	Atrazine Desethyl	51.2	65.6	P/P	15 - 160
2353329	Avobenzone	64.2	98.6	P/P	59 - 206
2353329	Azinphos Methyl	73.8	109	P/P	40 - 292
2353329	Azoxystrobin	75.7	113	P/P	12 - 242
2353329	Bromacil	64.2	79.9	P/P	54 - 167
2353329	Butylate	31.1	46.4	P/P	14 - 94.0
2353329	Caffeine	85.2	89.2	P/P	10 - 226
2353329	Carbophenothion	59.2	85.9	P/P	49 - 122
2353329	Carfentrazone Ethyl	61.6	85.2	P/P	53 - 138
2353329	Chlorfenapyr	84.3	109	P/P	50 - 150
2353329	Chlorpyrifos Ethyl	89.8	112	P/P	52 - 122
2353329	Chlorpyrifos Methyl	88.9	115	P/P	66 - 117
2353329	Coumaphos	60.5	85.8	P/P	50 - 220
2353329	Cyanazine	71.2	105	P/P	43 - 245
2353329	Cyprodinil	68.6	92.2	P/P	50 - 150
2353329	Dechlorane Plus	80.9	112	P/P	50 - 150
2353329	Demeton	56.3	80.1	P/P	43 - 188
2353329	Diazinon	77.2	122	P/P	69 - 131
2353329	Difenoconazole	74.4	104	P/P	34 - 231
2353329	Dimethenamid	55.0	77.2	F/P	55 - 118
2353329	Dimethomorph	70.9	98.0	P/P	50 - 150
2353329	Disulfoton	65.4	87.2	P/P	38 - 141
2353329	Dithiopyr	63.5	85.1	P/P	42 - 116

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P418990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353329	EPTC	24.9	36.0	P/P	18 - 85.0
2353329	Ethion	51.0	74.9	P/P	10 - 131
2353329	Ethoprop	70.0	83.9	P/P	65 - 129
2353329	Etridiazole	35.4	52.1	F/P	50 - 150
2353329	Fenamiphos	60.4	82.4	P/P	31 - 137
2353329	Fenbuconazole	92.0	129	P/P	57 - 160
2353329	Fipronil	67.7	89.3	P/P	62 - 132
2353329	Fipronil Desulfinyl	67.2	90.9	P/P	57 - 131
2353329	Fipronil Sulfide	52.4	66.3	P/P	15 - 138
2353329	Fipronil Sulfone	47.2	61.7	P/P	21 - 134
2353329	Fluazifop-P-butyl	57.5	84.5	P/P	54 - 133
2353329	Fludioxonil	65.1	97.6	P/P	58 - 127
2353329	Flumioxazin	94.0	124	P/P	33 - 300
2353329	Flutolanil	53.8	89.3	P/P	42 - 130
2353329	Fluxapyroxad	52.7	74.9	P/P	23 - 141
2353329	Fonofos	58.9	80.8	P/P	58 - 119
2353329	Hexazinone	73.1	100	P/P	68 - 172
2353329	Imazalil	21.3	66.1	F/P	48 - 283
2353329	Iprodione	62.4	82.4	P/P	38 - 140
2353329	Loratadine	63.8	97.4	P/P	50 - 150
2353329	Malathion	65.4	90.8	P/P	40 - 137
2353329	Metalaxyl	58.6	83.4	P/P	21 - 129
2353329	Metolachlor	58.1	91.3	P/P	55 - 122
2353329	Metribuzin	63.1	98.2	P/P	38 - 187
2353329	Mevinphos	76.9	85.0	P/P	54 - 134
2353329	Molinate	46.0	66.6	P/P	41 - 97.0
2353329	Myclobutanil	66.5	91.4	P/P	56 - 125
2353329	Naled	62.2	86.3	P/P	10 - 108
2353329	Napropamide	55.2	71.6	P/P	50 - 150
2353329	Norflurazon	52.7	62.7	P/P	32 - 122
2353329	Octinoxate	75.8	98.5	P/P	25 - 150
2353329	Oxadiazon	46.5	65.6	P/P	40 - 119
2353329	Oxybenzone	70.0	90.0	P/P	59 - 147
2353329	Oxyfluorfen	90.0	119	P/P	61 - 153
2353329	Parathion Ethyl	68.1	92.8	P/P	59 - 130
2353329	Parathion Methyl	82.8	111	P/P	65 - 155
2353329	PBDE-47	73.6	94.6	P/P	50 - 150
2353329	PBDE-99	70.7	93.8	P/P	50 - 150
2353329	Pendimethalin	54.1	73.3	P/P	49 - 138
2353329	Phenytoin	56.8	72.1	P/P	50 - 200
2353329	Phorate	63.4	72.0	P/P	54 - 161
2353329	Prodiamine	48.0	65.3	P/P	33 - 161
2353329	Prometon	55.4	78.1	P/P	48 - 140
2353329	Prometryn	61.6	85.8	P/P	55 - 134
2353329	Pronamide	74.0	91.2	P/P	66 - 137
2353329	Propanil	61.2	82.4	P/P	50 - 150
2353329	Propargite	94.4	140	P/P	50 - 200
2353329	Propiconazole	54.1	68.7	P/P	36 - 150
2353329	Pyraflufen Ethyl	69.9	115	P/P	50 - 150
2353329	Pyridaben	62.0	88.8	P/P	50 - 200
2353329	Pyriproxyfen	48.9	74.1	P/P	10 - 165
2353329	Simazine	62.9	78.3	P/P	57 - 145

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P418990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353329	Stirophos	51.9	69.4	P/P	50 - 150
2353329	Sulfentrazone	59.1	74.9	P/P	34 - 140
2353329	Tebuconazole	39.8	52.8	P/P	10 - 127
2353329	Terbufos	79.4	97.8	P/P	59 - 138
2353329	Terbuthylazine	65.8	93.3	F/P	68 - 119
2353329	Thiobencarb	53.1	70.2	P/P	50 - 150
2353329	Tri-o-cresyl Phosphate	73.3	93.8	P/P	50 - 150
2353329	Triadimefon	53.4	67.7	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: P419091

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353620	2,4-D	71.7	66.0	P/P	40 - 150
2353620	2,4,5-T	64.5	68.3	P/P	40 - 150
2353620	Acetaminophen	80.1	90.7	P/P	30 - 150
2353620	Acetamiprid	56.4	54.3	P/P	40 - 150
2353620	Afidopyropen	39.6	33.7	P/P	30 - 150
2353620	Bentazon	107	107	P/P	30 - 150
2353620	Benzovindiflupyr	93.6	91.6	P/P	40 - 150
2353620	Carbamazepine	88.5	93.3	P/P	40 - 150
2353620	Clothianidin	87.5	83.3	P/P	40 - 150
2353620	Dinotefuran	91.7	96.9	P/P	40 - 150
2353620	Diuron	84.1	84.6	P/P	40 - 150
2353620	Fenuron	96.2	87.2	P/P	40 - 150
2353620	Fluridone	83.4	106	P/P	40 - 150
2353620	Hydrocodone	87.9	118	P/P	40 - 150
2353620	Ibuprofen	62.6	55.4	P/P	40 - 150
2353620	Imazapyr	67.6	78.3	P/P	40 - 150
2353620	Imidacloprid	95.6	107	P/P	40 - 150
2353620	Linuron	86.4	110	P/P	40 - 150
2353620	Mandestrobin	97.6	99.8	P/P	40 - 150
2353620	MCPPE	70.8	75.1	P/P	40 - 150
2353620	Naproxen	64.6	87.4	P/P	40 - 150
2353620	Primidone	79.2	97.3	P/P	40 - 150
2353620	Pyraclostrobin	93.8	101	P/P	40 - 150
2353620	Silvex	66.0	64.8	P/P	40 - 150
2353620	Thiamethoxam	77.7	115	P/P	40 - 150
2353620	Tolfenpyrad	59.1	63.6	P/P	30 - 150
2353620	Triclopyr	57.3	66.9	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P419389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353650	Fluoride	99.9	98.0	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P419188

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353844	Organic Carbon	99.8	101	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P419023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353672	Color (true)	0.366	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353547	Turbidity	14.7	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: P419144

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353616	Ammonia-N	0.347	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P419174

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353975	Kjeldahl Nitrogen	3.49	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353677	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419249

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353855	Total-P	1.37	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P419024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353529	O-Phosphate-P	1.30	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P418990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353329	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	29.3	Spike	P	0 - 30
2353329	Acetochlor	54.2	Spike	F	0 - 27

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P418990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353329	Alachlor	32.4	Spike	F	0 - 27
2353329	Ametryn	25.2	Spike	P	0 - 34
2353329	Atrazine	25.4	Spike	P	0 - 41
2353329	Atrazine Desethyl	24.6	Spike	P	0 - 38
2353329	Avobenzone	42.1	Spike	F	0 - 30
2353329	Azinphos Methyl	38.9	Spike	P	0 - 62
2353329	Azoxystrobin	28.3	Spike	P	0 - 32
2353329	Bromacil	21.8	Spike	P	0 - 30
2353329	Butylate	39.5	Spike	P	0 - 59
2353329	Caffeine	4.54	Spike	P	0 - 60
2353329	Carbophenothion	36.8	Spike	F	0 - 25
2353329	Carfentrazone Ethyl	32.1	Spike	F	0 - 26
2353329	Chlorfenapyr	25.3	Spike	P	0 - 30
2353329	Chlorpyrifos Ethyl	22.4	Spike	P	0 - 27
2353329	Chlorpyrifos Methyl	26.0	Spike	F	0 - 26
2353329	Coumaphos	34.7	Spike	F	0 - 30
2353329	Cyanazine	38.1	Spike	P	0 - 58
2353329	Cyprodinil	29.3	Spike	P	0 - 30
2353329	Dechlorane Plus	32.2	Spike	F	0 - 30
2353329	Demeton	34.8	Spike	F	0 - 25
2353329	Diazinon	44.9	Spike	F	0 - 29
2353329	Difenoconazole	33.5	Spike	F	0 - 25
2353329	Dimethenamid	33.7	Spike	F	0 - 30
2353329	Dimethomorph	32.1	Spike	F	0 - 30
2353329	Disulfoton	28.6	Spike	P	0 - 33
2353329	Dithiopyr	27.3	Spike	F	0 - 22
2353329	EPTC	36.5	Spike	P	0 - 38
2353329	Ethion	37.9	Spike	P	0 - 79
2353329	Ethoprop	18.1	Spike	P	0 - 23
2353329	Etridiazole	38.2	Spike	F	0 - 30
2353329	Fenamiphos	30.9	Spike	P	0 - 58
2353329	Fenbuconazole	33.4	Spike	P	0 - 37
2353329	Fipronil	27.5	Spike	P	0 - 33
2353329	Fipronil Desulfanyl	29.9	Spike	F	0 - 26
2353329	Fipronil Sulfide	23.4	Spike	P	0 - 37
2353329	Fipronil Sulfone	26.6	Spike	P	0 - 50
2353329	Fluazifop-P-butyl	38.1	Spike	F	0 - 24
2353329	Fludioxonil	39.9	Spike	F	0 - 26
2353329	Flumioxazin	27.2	Spike	P	0 - 37
2353329	Flutolanil	28.3	Spike	F	0 - 26
2353329	Fluxapyroxad	30.6	Spike	P	0 - 34
2353329	Fonofos	31.3	Spike	F	0 - 27
2353329	Hexazinone	31.2	Spike	P	0 - 36
2353329	Imazalil	102	Spike	F	0 - 65
2353329	Iprodione	27.6	Spike	P	0 - 33
2353329	Loratadine	41.6	Spike	F	0 - 30
2353329	Malathion	32.5	Spike	P	0 - 44
2353329	Metalaxyl	34.9	Spike	P	0 - 38
2353329	Metolachlor	31.2	Spike	P	0 - 36
2353329	Metribuzin	43.5	Spike	P	0 - 63
2353329	Mevinphos	9.97	Spike	P	0 - 26

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P418990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353329	Molinate	36.6	Spike	P	0 - 40
2353329	Myclobutanil	31.6	Spike	F	0 - 21
2353329	Naled	32.5	Spike	F	0 - 26
2353329	Napropamide	25.9	Spike	P	0 - 30
2353329	Norflurazon	17.4	Spike	P	0 - 24
2353329	Octinoxate	26.0	Spike	P	0 - 30
2353329	Oxadiazon	34.1	Spike	F	0 - 27
2353329	Oxybenzone	25.0	Spike	P	0 - 30
2353329	Oxyfluorfen	27.8	Spike	F	0 - 24
2353329	Parathion Ethyl	30.6	Spike	F	0 - 28
2353329	Parathion Methyl	29.3	Spike	F	0 - 27
2353329	PBDE-47	24.9	Spike	P	0 - 30
2353329	PBDE-99	28.2	Spike	P	0 - 30
2353329	Pendimethalin	30.1	Spike	P	0 - 31
2353329	Phenytoin	23.8	Spike	P	0 - 30
2353329	Phorate	12.8	Spike	P	0 - 27
2353329	Prodiamine	30.6	Spike	P	0 - 52
2353329	Prometon	34.1	Spike	F	0 - 31
2353329	Prometryn	32.9	Spike	F	0 - 28
2353329	Pronamide	20.8	Spike	P	0 - 26
2353329	Propanil	29.6	Spike	P	0 - 30
2353329	Propargite	39.1	Spike	F	0 - 30
2353329	Propiconazole	23.8	Spike	P	0 - 31
2353329	Pyraflufen Ethyl	48.7	Spike	F	0 - 30
2353329	Pyridaben	35.6	Spike	F	0 - 30
2353329	Pyriproxyfen	41.1	Spike	P	0 - 50
2353329	Simazine	21.8	Spike	P	0 - 29
2353329	Stirophos	28.9	Spike	P	0 - 30
2353329	Sulfentrazone	23.5	Spike	P	0 - 33
2353329	Tebuconazole	24.7	Spike	P	0 - 44
2353329	Terbufos	20.7	Spike	P	0 - 29
2353329	Terbutylazine	34.6	Spike	F	0 - 27
2353329	Thiobencarb	27.7	Spike	P	0 - 30
2353329	Tri-o-cresyl Phosphate	24.6	Spike	P	0 - 30
2353329	Triadimefon	23.5	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: P419091

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353620	2,4-D	8.28	Spike	P	0 - 30
2353620	2,4,5-T	5.75	Spike	P	0 - 30
2353620	Acetaminophen	12.4	Spike	P	0 - 30
2353620	Acetamiprid	3.84	Spike	P	0 - 30
2353620	Afidopyropen	16.1	Spike	P	0 - 30
2353620	Bentazon	0.0786	Spike	P	0 - 30
2353620	Benzovindiflupyr	2.20	Spike	P	0 - 30
2353620	Carbamazepine	4.77	Spike	P	0 - 30
2353620	Clothianidin	4.86	Spike	P	0 - 30
2353620	Dinotefuran	5.51	Spike	P	0 - 30
2353620	Diuron	0.445	Spike	P	0 - 30
2353620	Fenuron	9.79	Spike	P	0 - 30
2353620	Fluridone	23.5	Spike	P	0 - 30
2353620	Hydrocodone	29.2	Spike	P	0 - 30
2353620	Ibuprofen	12.2	Spike	P	0 - 30
2353620	Imazapyr	12.4	Spike	P	0 - 30
2353620	Imidacloprid	9.49	Spike	P	0 - 30
2353620	Linuron	23.9	Spike	P	0 - 30
2353620	Mandestrobin	2.22	Spike	P	0 - 30
2353620	MCP	5.91	Spike	P	0 - 30
2353620	Naproxen	30.0	Spike	P	0 - 30
2353620	Primidone	20.5	Spike	P	0 - 30
2353620	Pyraclostrobin	7.29	Spike	P	0 - 30
2353620	Silvex	1.78	Spike	P	0 - 30
2353620	Thiamethoxam	38.8	Spike	F	0 - 30
2353620	Tolfenpyrad	7.47	Spike	P	0 - 30
2353620	Triclopyr	15.6	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P419411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353959	Total Alkalinity	0.145	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011

Batch ID: P419430

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353615	TDS	5.88	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P419389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353650	Fluoride	1.45	Spike	P	0 - 1.6

Quality Assurance Report

Precision

Reference Method: SM 5310 B-2011
Batch ID: P419188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353844	Organic Carbon	1.08	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2353695
Field Sample ID: G1CE0124

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	47.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	101	P	30 - 160
EPA 8321B	Diuron-d6	115	P	30 - 160
EPA 8321B	Endothall-d6	79.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	100	P	30 - 160
EPA 8321B	Ibuprofen-d3	116	P	30 - 160
EPA 8321B	Primidone-d5	55.4	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2353697
Field Sample ID: G1CE0124

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	67.0	P	20 - 200
EPA 8270E	Simazine-d10	93.3	P	71 - 140
EPA 8270E	Terbufos-d10	97.1	P	62 - 131
EPA 8270E	Terphenyl-d14	79.9	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114489

Included Lab Sample IDs: 2353690

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: A114494

Included Lab Sample IDs: 2353690

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.6	91.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A114496

Included Lab Sample IDs: 2353692

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.4	97.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114549

Included Lab Sample IDs: 2353691

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

Reference Method: EPA 8321B

Run ID: A114565

Included Lab Sample IDs: 2353695

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: 2353695

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: SM 5310 B-2011

Run ID: A114572

Included Lab Sample IDs: 2353691

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A114588

Included Lab Sample IDs: 2353696

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	103	P/P	90 - 110
Iron	106	105	P/P	90 - 110
Magnesium	105	105	P/P	90 - 110
Potassium	106	104	P/P	90 - 110
Sodium	105	103	P/P	90 - 110
Strontium	103	102	P/P	90 - 110
Tin	105	102	P/P	90 - 110
Titanium	102	99.4	P/P	90 - 110
Vanadium	101	98.5	P/P	90 - 110
Zinc	105	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114593

Included Lab Sample IDs: 2353696

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	100	P/P	90 - 110
Antimony	99.0	99.8	P/P	90 - 110
Arsenic	105	104	P/P	90 - 110
Barium	100	102	P/P	90 - 110
Beryllium	98.7	99.3	P/P	90 - 110
Boron	97.1	101	P/P	90 - 110
Cadmium	101	103	P/P	90 - 110
Chromium	101	103	P/P	90 - 110
Cobalt	102	101	P/P	90 - 110
Copper	105	103	P/P	90 - 110
Lead	93.8	94.7	P/P	90 - 110
Manganese	101	104	P/P	90 - 110
Molybdenum	100	100	P/P	90 - 110
Nickel	105	103	P/P	90 - 110
Selenium	102	103	P/P	90 - 110
Silver	98.7	99.0	P/P	90 - 110
Thallium	103	105	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114597

Included Lab Sample IDs: 2353697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.6		P	80 - 120
Avobenzone	95.8		P	80 - 120
Dechlorane Plus	97.3		P	80 - 120
Octinoxate	96.9		P	80 - 120
Oxybenzone	93.7		P	80 - 120
PBDE-47	96.8		P	80 - 120
PBDE-99	98.1		P	80 - 120
Tri-o-cresyl Phosphate	98.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114598
Included Lab Sample IDs: 2353697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	99.6		P	80 - 120
Ametryn	107		P	80 - 120
Atrazine	99.1		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	114		P	80 - 120
Azoxystrobin	98.0		P	80 - 120
Bromacil	107		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	89.3		P	80 - 120
Carbophenothion	107		P	80 - 120
Carfentrazone Ethyl	105		P	80 - 120
Chlorfenapyr	108		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	102		P	80 - 120
Coumaphos	110		P	80 - 120
Cyanazine	105		P	80 - 120
Cyprodinil	106		P	80 - 120
Demeton	104		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	106		P	80 - 120
Dimethenamid	106		P	80 - 120
Dimethomorph	99.1		P	80 - 120
Disulfoton	99.7		P	80 - 120
Dithiopyr	107		P	80 - 120
EPTC	99.7		P	80 - 120
Ethion	106		P	80 - 120
Ethoprop	102		P	80 - 120
Etridiazole	98.0		P	80 - 120
Fenamiphos	97.2		P	80 - 120
Fenbuconazole	105		P	80 - 120
Fipronil	99.6		P	80 - 120
Fipronil Desulfinyl	107		P	80 - 120
Fipronil Sulfide	106		P	80 - 120
Fipronil Sulfone	104		P	80 - 120
Fluazifop-P-butyl	106		P	80 - 120
Fludioxonil	98.4		P	80 - 120
Flumioxazin	107		P	80 - 120
Flutolanil	97.6		P	80 - 120
Fluxapyroxad	108		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	99.9		P	80 - 120
Imazalil	101		P	80 - 120
Iprodione	105		P	80 - 120
Loratadine	95.1		P	80 - 120
Malathion	104		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	99.7		P	80 - 120
Mevinphos	99.0		P	80 - 120
Molinate	99.0		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E
 Run ID: A114598
 Included Lab Sample IDs: 2353697

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Myclobutanil	104		P	80 - 120
Naled	118		P	80 - 120
Napropamide	98.7		P	80 - 120
Norflurazon	102		P	80 - 120
Oxadiazon	100		P	80 - 120
Oxyfluorfen	109		P	80 - 120
Parathion Ethyl	98.1		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	92.3		P	80 - 120
Phenytol	105		P	80 - 120
Phorate	99.7		P	80 - 120
Prodiamine	112		P	80 - 120
Prometon	97.3		P	80 - 120
Prometryn	103		P	80 - 120
Pronamide	95.3		P	80 - 120
Propanil	94.4		P	80 - 120
Propargite	104		P	80 - 120
Propiconazole	106		P	80 - 120
Pyraflufen Ethyl	99.3		P	80 - 120
Pyridaben	106		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	93.9		P	80 - 120
Stiophos	109		P	80 - 120
Sulfentrazone	112		P	80 - 120
Tebuconazole	105		P	80 - 120
Terbufos	102		P	80 - 120
Terbutylazine	101		P	80 - 120
Thiobencarb	98.4		P	80 - 120
Triadimefon	100		P	80 - 120

Reference Method: EPA 8321B
 Run ID: A114605
 Included Lab Sample IDs: 2353695

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	120	110	P/P	50 - 150
2,4,5-T	133	116	P/P	50 - 150
Acetaminophen	102	63.5	P/P	60 - 160
Acetamiprid	90.4	89.4	P/P	50 - 150
Afidopyropen	147	119	P/P	50 - 150
Bentazon	114	94.6	P/P	50 - 160
Benzovindiflupyr	126	91.9	P/P	50 - 150
Carbamazepine	123	112	P/P	60 - 150
Clothianidin	104	93.8	P/P	60 - 150
Dinotefuran	108	74.5	P/P	50 - 150
Diuron	139	114	P/P	60 - 160
Fenuron	112	88.7	P/P	60 - 150
Fluridone	125	101	P/P	60 - 160
Hydrocodone	108	79.8	P/P	60 - 150
Ibuprofen	115	99.9	P/P	50 - 160
Imazapyr	96.7	83.4	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A114605
Included Lab Sample IDs: 2353695

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imidacloprid	138	84.3	P/P	60 - 150
Linuron	140	110	P/P	60 - 150
Mandestrobin	127	104	P/P	50 - 150
MCPP	118	105	P/P	50 - 150
Naproxen	144	138	P/P	50 - 160
Primidone	108	101	P/P	60 - 150
Pyraclostrobin	124	101	P/P	60 - 150
Silvex	108	100	P/P	50 - 150
Thiamethoxam	117	77.0	P/P	50 - 150
Tolfenpyrad	124	101	P/P	60 - 150
Triclopyr	120	89.9	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A114607
Included Lab Sample IDs: 2353691

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114624
Included Lab Sample IDs: 2353691

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A114650
Included Lab Sample IDs: 2353691

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	100	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A114660
Included Lab Sample IDs: 2353690

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

Reference Method: SM 2320 B-2011
Run ID: A114670
Included Lab Sample IDs: 2353690

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.8	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A114789

Included Lab Sample IDs: 2353690

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	101	P/P	90 - 110
Sulfate	100	101	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)	95.8				0.366	
EPA 180.1 Rev. 2.0	Turbidity	96.4				14.7	
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	96.0	98.2	98.8			0.347
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.9	95.8	102			3.49
EPA 353.2 Rev. 2.0	NO2NO3-N	100	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	106	109	107			1.37
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.6	91.9	93.1			1.30
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	59.7	77.6	104			29.3
	Acetochlor	73.7	66.0	124			54.2
	Alachlor	68.6	62.8	87.0			32.4
	Ametryn	76.5	63.6	82.0			25.2
	Atrazine	79.0	83.7	124			25.4
	Atrazine Desethyl	52.1	51.2	65.6			24.6
	Avobenzone	62.2	64.2	98.6			42.1
	Azinphos Methyl	90.2	73.8	109			38.9
	Azoxystrobin	79.5	75.7	113			28.3
	Bromacil	71.4	64.2	79.9			21.8
	Butylate	52.7	31.1	46.4			39.5
	Caffeine	61.3	85.2	89.2			4.54
	Carbophenothion	74.5	59.2	85.9			36.8
	Carfentrazone Ethyl	82.5	61.6	85.2			32.1
	Chlorfenapyr	76.0	84.3	109			25.3
	Chlorpyrifos Ethyl	74.5	89.8	112			22.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Chlorpyrifos Methyl	74.8	88.9	115			26.0
	Coumaphos	80.1	60.5	85.8			34.7
	Cyanazine	83.7	71.2	105			38.1
	Cyprodinil	66.4	68.6	92.2			29.3
	Dechlorane Plus	64.9	80.9	112			32.2
	Demeton	60.6	56.3	80.1			34.8
	Diazinon	71.3	77.2	122			44.9
	Difenoconazole	84.9	74.4	104			33.5
	Dimethenamid	64.6	55.0	77.2			33.7
	Dimethomorph	70.3	70.9	98.0			32.1
	Disulfoton	68.9	65.4	87.2			28.6
	Dithiopyr	78.6	63.5	85.1			27.3
	EPTC	47.2	24.9	36.0			36.5
	Ethion	76.6	51.0	74.9			37.9
	Ethoprop	68.3	70.0	83.9			18.1
	Etridiazole	45.1	35.4	52.1			38.2
	Fenamiphos	76.0	60.4	82.4			30.9
	Fenbuconazole	76.8	92.0	129			33.4
	Fipronil	71.5	67.7	89.3			27.5
	Fipronil Desulfinyl	84.8	67.2	90.9			29.9
	Fipronil Sulfide	73.4	52.4	66.3			23.4
	Fipronil Sulfone	60.5	47.2	61.7			26.6
	Fluazifop-P-butyl	75.0	57.5	84.5			38.1
	Fludioxonil	65.0	65.1	97.6			39.9
	Flumioxazin	81.0	94.0	124			27.2
	Flutolanil	71.9	53.8	89.3			28.3
	Fluxapyroxad	71.8	52.7	74.9			30.6
	Fonofos	66.3	58.9	80.8			31.3
	Hexazinone	79.0	73.1	100			31.2
	Imazalil	32.9	21.3	66.1			102
	Iprodione	84.5	62.4	82.4			27.6
	Loratadine	71.1	63.8	97.4			41.6
	Malathion	79.0	65.4	90.8			32.5
	Metalaxyl	71.1	58.6	83.4			34.9
	Metolachlor	69.2	58.1	91.3			31.2
	Metribuzin	71.0	63.1	98.2			43.5
	Mevinphos	63.1	76.9	85.0			9.97
	Molinate	57.1	46.0	66.6			36.6
	Myclobutanil	67.6	66.5	91.4			31.6
	Naled	75.9	62.2	86.3			32.5
	Napropamide	65.9	55.2	71.6			25.9
	Norflurazon	67.2	52.7	62.7			17.4
	Octinoxate	56.3	75.8	98.5			26.0
	Oxadiazon	61.0	46.5	65.6			34.1
	Oxybenzone	59.1	70.0	90.0			25.0
	Oxyfluorfen	83.9	90.0	119			27.8
	Parathion Ethyl	77.2	68.1	92.8			30.6
	Parathion Methyl	88.4	82.8	111			29.3
	PBDE-47	61.3	73.6	94.6			24.9
	PBDE-99	61.2	70.7	93.8			28.2
	Pendimethalin	57.7	54.1	73.3			30.1
	Phenytoin	55.3	56.8	72.1			23.8
	Phorate	58.0	63.4	72.0			12.8
	Prodiamine	32.2	48.0	65.3			30.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Prometon	66.0	55.4	78.1			34.1
	Prometryn	73.4	61.6	85.8			32.9
	Pronamide	86.4	74.0	91.2			20.8
	Propanil	73.1	61.2	82.4			29.6
	Propargite	71.1	94.4	140			39.1
	Propiconazole	67.5	54.1	68.7			23.8
	Pyraflufen Ethyl	70.7	69.9	115			48.7
	Pyridaben	72.1	62.0	88.8			35.6
	Pyriproxyfen	68.3	48.9	74.1			41.1
	Simazine	76.5	62.9	78.3			21.8
	Stirophos	81.0	51.9	69.4			28.9
	Sulfentrazone	76.7	59.1	74.9			23.5
	Tebuconazole	63.4	39.8	52.8			24.7
	Terbufos	77.4	79.4	97.8			20.7
	Terbuthylazine	75.6	65.8	93.3			34.6
	Thiobencarb	63.6	53.1	70.2			27.7
	Tri-o-cresyl Phosphate	65.0	73.3	93.8			24.6
	Triadimefon	66.9	53.4	67.7			23.5
EPA 8321B	2,4-D	70.6	71.7	66.0			8.28
	2,4,5-T	65.1	64.5	68.3			5.75
	Acesulfame K	112	111	111			0.483
	Acetaminophen	89.9	80.1	90.7			12.4
	Acetamiprid	84.3	56.4	54.3			3.84
	Afidopyropen	45.3	39.6	33.7			16.1
	AMPA	103	101	105			3.86
	Bentazon	105	107	107			0.0786
	Benzovindiflupyr	101	93.6	91.6			2.20
	Carbamazepine	74.8	88.5	93.3			4.77
	Clothianidin	81.4	87.5	83.3			4.86
	Dinotefuran	87.1	91.7	96.9			5.51
	Diuron	88.7	84.1	84.6			0.445
	Endothall	99.2	91.4	91.8			0.349
	Fenuron	109	96.2	87.2			9.79
	Fluridone	95.9	83.4	106			23.5
	Glufosinate	85.2	71.2	73.3			2.88
	Glyphosate	112	93.0	95.9			3.06
	Hydrocodone	89.5	87.9	118			29.2
	Ibuprofen	59.6	62.6	55.4			12.2
	Imazapyr	79.6	67.6	78.3			12.4
	Imidacloprid	99.9	95.6	107			9.49
	Linuron	102	86.4	110			23.9
	Mandestrobin	99.6	97.6	99.8			2.22
	MCPP	83.0	70.8	75.1			5.91
	Naproxen	115	64.6	87.4			30.0
	Primidone	116	79.2	97.3			20.5
	Pyraclostrobin	89.3	93.8	101			7.29
	Silvex	59.6	66.0	64.8			1.78
	Sucralose	102	98.2	101			2.04
	Thiamethoxam	108	77.7	115			38.8
	Tolfenpyrad	41.5	59.1	63.6			7.47
	Triclopyr	60.1	57.3	66.9			15.6
SM 2320 B-2011	Total Alkalinity	98.4				0.145	
SM 2540 C-2011	TDS					5.88	
SM 4500-F- C-2011	Fluoride	102	99.9	98.0			1.45

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 5310 B-2011	Organic Carbon	95.0	99.8 101			1.08

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2353690
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2353690
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2353696
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2353696
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2353690
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2353690
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2353691
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2353691
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2353691
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2353691
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2353692
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2353697
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2353697
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2353695
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2353690
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2353696
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2353690
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2353690
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2353690
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2353691

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	09/01/2022			09/01/2022 15:53	Anna M. Plaviak	2353690
EPA 180.1 Rev. 2.0	09/01/2022			09/01/2022 13:45	Chandler E Cox	2353690
EPA 200.7 Rev. 4.4	09/01/2022	09/07/2022 09:55	Megan Whitefoot	09/07/2022 18:32	McKinley C Carter	2353696
EPA 200.8 Rev. 5.4	09/01/2022	09/07/2022 09:55	Megan Whitefoot	09/07/2022 17:22	Megan Whitefoot	2353696
EPA 300.0 Rev. 2.1	09/01/2022			09/14/2022 17:52	Anna M. Plaviak	2353690
EPA 350.1 Rev. 2.0	09/01/2022			09/06/2022 12:43	Ping Hua	2353691
EPA 351.2 Rev. 2.0	09/01/2022	09/07/2022 13:36	Samantha L Bates	09/08/2022 14:34	Samantha L Bates	2353691
EPA 353.2 Rev. 2.0	09/01/2022			09/08/2022 11:03	Beverly Y. Sanders	2353691
EPA 365.1 Rev. 2.0	09/01/2022	09/08/2022 16:33	Adam P Silver	09/09/2022 14:20	James L Waggerby	2353691
EPA 365.1 Rev. 2.0 dissolved	09/01/2022			09/01/2022 16:16	Elise M. Gillis	2353692
EPA 8270E	09/01/2022	09/01/2022 14:00	Rasheda Ghaffari	09/06/2022 03:28	Michael Poppell	2353697
	09/01/2022	09/01/2022 14:00	Rasheda Ghaffari	09/06/2022 17:51	Lipi Saha	2353697
EPA 8321B	09/01/2022	09/06/2022 09:30	June Rhew	09/08/2022 15:59	Juyoung Kim	2353695
	09/01/2022	09/06/2022 12:30	Umesh Chiluwal	09/06/2022 15:45	Umesh Chiluwal	2353695
	09/01/2022	09/06/2022 12:30	Umesh Chiluwal	09/07/2022 01:40	Umesh Chiluwal	2353695
SM 2320 B-2011	09/01/2022			09/12/2022 00:40	Dale L. Simmons	2353690
SM 2340 B-2011	09/01/2022			09/07/2022 18:32	McKinley C Carter	2353696
SM 2540 C-2011	09/01/2022			09/02/2022 16:08	Yijie Li	2353690
SM 2540 D-2011	09/01/2022			09/02/2022 16:08	Yijie Li	2353690
SM 4500-F- C-2011	09/01/2022			09/09/2022 14:56	Dale L. Simmons	2353690
SM 5310 B-2011	09/01/2022			09/06/2022 23:16	Khloe J Berg	2353691