Chemical Analysis Report

NW-DIST-2023-08-23-02

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

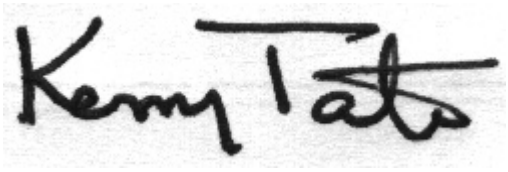
Event Description: **Bioassessment**
Request ID: **RQ-2023-08-21-23**
Customer: **NW-DIST**
Project ID: **SMP**

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
Colin Wright, Ph.D.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 14-SEP-2023 11:00



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: Long Branch **Collection Date/Time: 08/22/2023 10:25**

Field ID: G4NW0051 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2432991	DEP SOP: NU-094-1	Color (true)	61		PCU	P434245	
	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P434247	
	EPA 300.0 Rev. 2.1	Chloride	3.8		mg Cl/L	P434331	
		Sulfate	0.34	I	mg SO4/L	P434333	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P434512	
	SM 2540 C-2015	TDS	39		mg/L	P434620	
	SM 2540 D-2015	TSS	14		mg/L	P434617	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P434515	
2432992	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P434577	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52		mg N/L	P434726	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P434742	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P434521	
	SM 5310 B-2011	Organic Carbon	8.7		mg C/L	P434449	
2432993	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P434237	
2432997	EPA 8321B	2,4-D	0.0078	I	ug/L	P434430	
		Acesulfame K	0.10	U	ug/L	P434207	
		2,4,5-T	0.0040	U	ug/L	P434430	
		AMPA	0.10	U	ug/L	P434207	
		Acetaminophen	0.0080	U	ug/L	P434430	
		Endothall	0.25	U	ug/L	P434207	
		Acetamiprid	0.0020	U	ug/L	P434430	MS, RPD
		Glufosinate	0.10	U	ug/L	P434207	
		Glyphosate	0.10	U	ug/L	P434207	
		Afidopyropen	0.0020	U	ug/L	P434430	
		Bentazon	8.0E-04	U	ug/L	P434430	
		Sucralose	0.010	U	ug/L	P434207	
		Benzovindiflupyr	0.0020	U	ug/L	P434430	
		Carbamazepine	8.0E-04	U	ug/L	P434430	
		Clothianidin	0.0020	U	ug/L	P434430	
		Dinotefuran	0.0020	U	ug/L	P434430	
		Diuron	0.0020	U	ug/L	P434430	
		Fenuron	0.032	U	ug/L	P434430	
		Fluridone	8.0E-04	U	ug/L	P434430	
		Imazapyr	0.028		ug/L	P434430	
		Hydrocodone	0.0020	U	ug/L	P434430	
		Ibuprofen	0.080	U	ug/L	P434430	
		Imidacloprid	0.0020	U	ug/L	P434430	
		Linuron	0.0040	U	ug/L	P434430	
		Mandestrobin	0.0020	U	ug/L	P434430	
		MCPP	0.0020	U	ug/L	P434430	
		Naproxen	0.0080	U	ug/L	P434430	
		Primidone	0.0040	U	ug/L	P434430	
		Pyraclostrobin	0.0020	U	ug/L	P434430	

Field ID: G4NW0051 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2432997	EPA 8321B	Silvex	0.0040	U	ug/L	P434430	
		Thiamethoxam	0.0020	U	ug/L	P434430	
		Tolfenpyrad	0.0020	U	ug/L	P434430	
		Triclopyr	0.0040	U	ug/L	P434430	
2432998	EPA 200.7 Rev. 4.4	Calcium	0.53		mg/L	P434294	
		Iron	1.85E+03		ug/L	P434294	
		Magnesium	0.35		mg/L	P434294	
		Potassium	0.30	U	mg/L	P434294	
		Sodium	1.8	I	mg/L	P434294	
		Strontium	4.6	I	ug/L	P434294	
		Tin	3.0	U	ug/L	P434294	
		Titanium	2.4	I	ug/L	P434294	
		Vanadium	2.0	U	ug/L	P434294	
		Zinc	5.0	U	ug/L	P434294	
	EPA 200.8 Rev. 5.4	Aluminum	443		ug/L	P434294	
		Antimony	0.050	U	ug/L	P434294	
		Arsenic	0.53		ug/L	P434294	
		Barium	22.2		ug/L	P434294	
		Beryllium	0.225		ug/L	P434294	
		Boron	9.0		ug/L	P434294	
		Cadmium	0.020	U	ug/L	P434294	
		Chromium	0.59	I	ug/L	P434294	
		Cobalt	1.39		ug/L	P434294	
		Copper	0.40	U	ug/L	P434294	
		Lead	0.46		ug/L	P434294	
		Manganese	16.7		ug/L	P434294	
		Molybdenum	0.15	U	ug/L	P434294	
		Nickel	1.5	I	ug/L	P434294	
		Selenium	0.20	U	ug/L	P434294	
		Silver	0.010	U	ug/L	P434294	
		Thallium	0.10	U	ug/L	P434294	
	SM 2340 B-2011	Hardness	2.7		mg/L	P434294	
2432999	EPA 8270E	Oxybenzone**	11	U	ng/L	P434176	
		Acetochlor	0.21	U	ng/L	P434176	
		Octinoxate**	160	U	ng/L	P434176	
		Alachlor	0.42	U	ng/L	P434176	
		Avobenzone**	110	U	ng/L	P434176	
		Ametryn	1.2	U	ng/L	P434176	
		Atrazine	3.0		ng/L	P434176	
		PBDE-47**	4.2	U	ng/L	P434176	
		Atrazine Desethyl	7.0		ng/L	P434176	
		PBDE-99**	5.3	U	ng/L	P434176	
		Azinphos Methyl	3.2	U	ng/L	P434176	
		Tri-o-cresyl Phosphate**	6.3	U	ng/L	P434176	
		Azoxystrobin	3.8	J	ng/L	P434176	

Field ID: G4NW0051 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2432999	EPA 8270E	Bromacil	4.2		ng/L	P434176	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P434176	
		Butylate	0.21	U	ng/L	P434176	
		Dechlorane Plus**	32	U	ng/L	P434176	
		Caffeine**	9.5	I J	ng/L	P434176	LCS
		Dechlorane 602**	5.3	U	ng/L	P434176	
		Carbophenothion	0.53	U	ng/L	P434176	
		Dechlorane 603**	4.2	U	ng/L	P434176	
		Carfentrazone Ethyl	0.16	U	ng/L	P434176	
		Hexabromobenzene**	6.3	U	ng/L	P434176	
		Chlorfenapyr	0.32	U	ng/L	P434176	
		PBB-153**	8.4	U	ng/L	P434176	
		Chlorpyrifos Ethyl	0.32	U	ng/L	P434176	
		Pentabromotoluene**	3.2	U	ng/L	P434176	
		Chlorpyrifos Methyl	0.11	U	ng/L	P434176	
		Tris(2-chloroethyl) phosphate (TCEP)**	74	U	ng/L	P434176	
		Coumaphos	1.1	U	ng/L	P434176	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	16	U	ng/L	P434176	
		Cyanazine	5.3	U	ng/L	P434176	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.6	U	ng/L	P434176	
		Cyprodinil	0.21	U	ng/L	P434176	
		Tetradecachloro-m-terphenyl**	7.9	UJ	ng/L	P434176	LCS
		Demeton	3.7	U	ng/L	P434176	
		Diazinon	0.13	U	ng/L	P434176	
		Difenoconazole	6.4		ng/L	P434176	
		Dimethenamid	0.11	U	ng/L	P434176	
		Dimethomorph	4.6	J	ng/L	P434176	LCS, MS
		Disulfoton	0.63	U	ng/L	P434176	
		Dithiopyr	1.1	U	ng/L	P434176	
		EPTC	0.53	U	ng/L	P434176	
		Ethion	0.63	I	ng/L	P434176	
		Ethoprop	0.35	I	ng/L	P434176	
		Etridiazole	0.11	U	ng/L	P434176	
		Fenamiphos	0.47	U	ng/L	P434176	
		Fenbuconazole	2.0	I	ng/L	P434176	
		Fipronil	1.5		ng/L	P434176	
		Fipronil Desulfinyl**	1.0		ng/L	P434176	
		Fipronil Sulfide	0.98		ng/L	P434176	
		Fipronil Sulfone	1.0		ng/L	P434176	
		Fluazifop-P-butyl	0.11	U	ng/L	P434176	
		Fludioxonil	0.67		ng/L	P434176	
		Flumioxazin	10	I	ng/L	P434176	
		Flutolanil	0.11	U	ng/L	P434176	
		Fluxapyroxad	0.81	I	ng/L	P434176	

Field ID: G4NW0051 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2432999	EPA 8270E	Fonofos	0.16	U	ng/L	P434176	
		Hexazinone	3.5		ng/L	P434176	
		Imazalil	0.68	U	ng/L	P434176	
		Iprodione	1.5	I	ng/L	P434176	
		Loratadine**	0.32	U	ng/L	P434176	
		Malathion	0.37	U	ng/L	P434176	
		Metalaxyl	0.53	U	ng/L	P434176	
		Metolachlor	5.5		ng/L	P434176	
		Metribuzin	0.42	U	ng/L	P434176	
		Mevinphos	1.1	U	ng/L	P434176	
		Molinate	0.26	U	ng/L	P434176	
		Myclobutanil	1.8	I	ng/L	P434176	
		Naled	2.6	U	ng/L	P434176	
		Napropamide	0.74	U	ng/L	P434176	
		Norflurazon	1.1	U	ng/L	P434176	
		Oxadiazon	0.37	U	ng/L	P434176	
		Oxyfluorfen	0.21	U	ng/L	P434176	
		Parathion Ethyl	0.16	U	ng/L	P434176	
		Parathion Methyl	0.21	U	ng/L	P434176	
		Pendimethalin	4.0		ng/L	P434176	
		Phenytoin**	5.6	U	ng/L	P434176	
		Phorate	0.26	U	ng/L	P434176	
		Prodiamine	0.21	U	ng/L	P434176	
		Prometon	3.2	U	ng/L	P434176	
		Prometryn	0.37	U	ng/L	P434176	
		Pronamide	1.1		ng/L	P434176	
		Propanil	0.11	U	ng/L	P434176	
		Propargite	0.84	U	ng/L	P434176	
		Propiconazole	1.9	I	ng/L	P434176	
		Pyraflufen Ethyl	0.32	U	ng/L	P434176	
		Pyridaben	1.5	U	ng/L	P434176	
		Pyriproxyfen	0.26	U	ng/L	P434176	
		Simazine	2.0		ng/L	P434176	
		Stirophos	0.73	I	ng/L	P434176	
		Sulfentrazone	1.5	U	ng/L	P434176	
		Tebuconazole	1.9	I	ng/L	P434176	
		Terbufos	0.21	U	ng/L	P434176	
		Terbuthylazine	1.5		ng/L	P434176	
		Thiobencarb	0.53	U	ng/L	P434176	
		Triadimefon	0.16	U	ng/L	P434176	

Field ID: G4NW0051 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 200.8 Rev. 5.4: The beryllium result was confirmed in the undigested sample on 08/29/2023.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes. Estimation for azoxystrobin due to internal standard recovery exceeding control limits.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P434245

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434247

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434294

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: P434294

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: P434331

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: P434333

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434577

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434726

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434742

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434521

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434237

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

Reference Method: EPA 8270E
Batch ID: P434176

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	0.20	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azinphos Methyl	3.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434176

Component	Result	Code	Units
Azoxystrobin	0.40	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.20	U	ng/L
Butylate	0.20	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Demeton	3.5	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	0.30	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Etridiazole	0.10	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434176

Component	Result	Code	Units
Fenamiphos	0.45	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Napropamide	0.70	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434176

Component	Result	Code	Units
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Octinoxate	150	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	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	0.75	U	ng/L
Pendimethalin	0.75	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L
Phenytoin	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Stirophos	0.40	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P434176

Component	Result	Code	Units
Sulfentrazone	1.4	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbufos	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L

Reference Method: EPA 8321B
Batch ID: P434207

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: P434430

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P434430

Component	Result	Code	Units
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	0.0020	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: P434512

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

Reference Method: SM 2540 C-2015
Batch ID: P434620

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P434617

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P434515

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P434449

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: P434245

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434247

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434294

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	105		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	102		P	85 - 115
Sodium	101		P	85 - 115
Strontium	99.7		P	85 - 115
Tin	98.7		P	85 - 115
Titanium	98.9		P	85 - 115
Vanadium	99.5		P	85 - 115
Zinc	99.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434294

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.5		P	85 - 115
Antimony	99.9		P	85 - 115
Arsenic	97.9		P	85 - 115
Barium	103		P	85 - 115
Beryllium	94.9		P	85 - 115
Boron	101		P	85 - 115
Cadmium	99.0		P	85 - 115
Chromium	95.3		P	85 - 115
Cobalt	100		P	85 - 115
Copper	98.9		P	85 - 115
Lead	100		P	85 - 115
Manganese	96.0		P	85 - 115
Molybdenum	96.9		P	85 - 115
Nickel	97.6		P	85 - 115
Selenium	99.8		P	85 - 115
Silver	110		P	80 - 120
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434331

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434333

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434577

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434726

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434742

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434521

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: P434237

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

Reference Method: EPA 8270E
Batch ID: P434176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	52.1		P	42 - 162
Acetochlor	79.1		P	69 - 123
Alachlor	82.6		P	65 - 118
Ametryn	119		P	58 - 141
Atrazine	98.9		P	73 - 118
Atrazine Desethyl	96.0		P	32 - 125
Avobenzone	91.0		P	40 - 203
Azinphos Methyl	147		P	36 - 197
Azoxystrobin	114		P	58 - 226
Bromacil	96.5		P	48 - 120
Butylate	59.0		P	27 - 85.0
Caffeine	180		F	40 - 137
Carbophenothion	95.8		P	54 - 132
Carfentrazone Ethyl	104		P	60 - 142
Chlorfenapyr	91.7		P	53 - 117
Chlorpyrifos Ethyl	78.1		P	59 - 116

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P434176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	105		P	66 - 119
Coumaphos	147		P	11 - 234
Cyanazine	117		P	61 - 248
Cyprodinil	87.0		P	50 - 147
Dechlorane 602	53.7		P	50 - 150
Dechlorane 603	69.5		P	50 - 150
Dechlorane Plus	65.8		P	47 - 182
Demeton	69.4		P	30 - 138
Diazinon	92.3		P	67 - 126
Difenoconazole	142		P	38 - 205
Dimethenamid	87.0		P	57 - 111
Dimethomorph	258		F	16 - 212
Disulfoton	95.0		P	46 - 126
Dithiopyr	81.4		P	62 - 115
EPTC	54.6		P	28 - 80.0
Ethion	58.0		P	24 - 122
Ethoprop	97.1		P	62 - 113
Etridiazole	54.2		P	28 - 92.0
Fenamiphos	95.7		P	57 - 128
Fenbuconazole	107		P	52 - 155
Fipronil	92.4		P	63 - 130
Fipronil Desulfinyl	80.5		P	61 - 130
Fipronil Sulfide	92.3		P	56 - 117
Fipronil Sulfone	80.9		P	52 - 118
Fluazifop-P-butyl	92.2		P	61 - 128
Fludioxonil	91.5		P	59 - 129
Flumioxazin	140		P	30 - 250
Flutolanil	80.3		P	53 - 127
Fluxapyroxad	81.7		P	42 - 132
Fonofos	101		P	61 - 110
Hexabromobenzene	53.6		P	50 - 150
Hexazinone	94.0		P	46 - 139
Imazalil	78.8		P	40 - 139
Iprodione	96.0		P	40 - 146
Loratadine	158		P	10 - 224
Malathion	96.1		P	61 - 135
Metalaxyl	76.3		P	58 - 121
Metolachlor	111		P	64 - 118
Metribuzin	103		P	45 - 245
Mevinphos	94.7		P	49 - 118
Molinate	59.6		P	42 - 92.0
Myclobutanil	106		P	55 - 127
Naled	52.3		P	10 - 114
Napropamide	81.9		P	39 - 121
Norflurazon	87.8		P	55 - 129
Octinoxate	71.2		P	26 - 166
Oxadiazon	80.4		P	54 - 115
Oxybenzone	69.1		P	49 - 135
Oxyfluorfen	105		P	64 - 139
Parathion Ethyl	96.6		P	70 - 111
Parathion Methyl	97.0		P	76 - 136
PBB-153	59.1		P	50 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P434176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBDE-47	53.7		P	41 - 148
PBDE-99	52.9		P	38 - 147
Pendimethalin	104		P	52 - 118
Pentabromotoluene	55.6		P	50 - 150
Phenytoin	40.4		P	10 - 162
Phorate	95.4		P	40 - 122
Prodiamine	48.0		P	26 - 141
Prometon	95.7		P	54 - 122
Prometryn	91.3		P	61 - 128
Pronamide	101		P	72 - 121
Propanil	117		P	45 - 144
Propargite	74.8		P	10 - 199
Propiconazole	93.7		P	56 - 127
Pyraflufen Ethyl	98.0		P	56 - 140
Pyridaben	120		P	26 - 211
Pyriproxyfen	86.6		P	33 - 194
Simazine	114		P	67 - 121
Stirophos	56.4		P	20 - 142
Sulfentrazone	78.8		P	21 - 144
Tebuconazole	70.2		P	10 - 122
Terbufos	97.3		P	60 - 129
Terbuthylazine	76.8		P	69 - 113
Tetradecachloro-m-terphenyl	54.3		F	70 - 200
Thiobencarb	92.1		P	51 - 120
Tri-o-cresyl Phosphate	68.1		P	49 - 150
Triadimefon	80.1		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	70.9		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	65.3		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	71.8		P	70 - 180

Reference Method: EPA 8321B
Batch ID: P434207

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	117		P	40 - 150
AMPA	129		P	40 - 150
Endothall	92.7		P	40 - 150
Glufosinate	96.1		P	40 - 150
Glyphosate	71.8		P	40 - 150
Sucralose	123		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P434430

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	71.2		P	40 - 150
2,4,5-T	79.6		P	40 - 150
Acetaminophen	89.5		P	30 - 150
Acetamiprid	106		P	40 - 150
Afidopyropen	74.7		P	30 - 150
Bentazon	111		P	30 - 150
Benzovindiflupyr	96.1		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P434430

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	93.2		P	40 - 150
Clothianidin	102		P	40 - 150
Dinotefuran	96.4		P	40 - 150
Diuron	84.8		P	40 - 150
Fenuron	106		P	40 - 150
Fluridone	89.6		P	40 - 150
Hydrocodone	110		P	40 - 150
Ibuprofen	78.7		P	40 - 150
Imazapyr	77.2		P	40 - 150
Imidacloprid	89.3		P	40 - 150
Linuron	78.2		P	40 - 150
Mandestrobin	105		P	40 - 150
MCPP	87.5		P	40 - 150
Naproxen	55.3		P	40 - 150
Primidone	94.4		P	40 - 150
Pyraclostrobin	95.2		P	40 - 150
Silvex	80.9		P	40 - 150
Thiamethoxam	104		P	40 - 150
Tolfenpyrad	60.0		P	30 - 150
Triclopyr	84.0		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P434512

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.0		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P434620

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	94.4		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P434617

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	93.9		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P434515

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.7		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P434449

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.2		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432739	Calcium	103		P	80 - 120
2432739	Iron	106	102	P/P	80 - 120
2432739	Magnesium	106	101	P/P	80 - 120
2432739	Potassium	109	104	P/P	80 - 120
2432739	Sodium	101		P	80 - 120
2432739	Strontium	101	97.5	P/P	80 - 120
2432739	Tin	102	98.2	P/P	80 - 120
2432739	Titanium	100	97.4	P/P	80 - 120
2432739	Vanadium	101	99.2	P/P	80 - 120
2432739	Zinc	100	98.2	P/P	80 - 120
2433112	Calcium	97.5		P	80 - 120
2433112	Iron	108		P	80 - 120
2433112	Magnesium	106		P	80 - 120
2433112	Potassium	110		P	80 - 120
2433112	Sodium	107		P	80 - 120
2433112	Strontium	104		P	80 - 120
2433112	Tin	102		P	80 - 120
2433112	Titanium	104		P	80 - 120
2433112	Vanadium	107		P	80 - 120
2433112	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432739	Aluminum	97.9	98.3	P/P	80 - 120
2432739	Antimony	99.4	100	P/P	80 - 120
2432739	Arsenic	98.8	98.2	P/P	80 - 120
2432739	Barium	103	104	P/P	80 - 120
2432739	Beryllium	95.0	94.5	P/P	80 - 120
2432739	Boron	103	100	P/P	80 - 120
2432739	Cadmium	102	99.3	P/P	80 - 120
2432739	Chromium	99.4	99.6	P/P	80 - 120
2432739	Cobalt	101	101	P/P	80 - 120
2432739	Copper	99.7	101	P/P	80 - 120
2432739	Lead	101	100	P/P	80 - 120
2432739	Manganese	95.9	96.7	P/P	80 - 120
2432739	Molybdenum	98.4	97.4	P/P	80 - 120
2432739	Nickel	99.7	99.3	P/P	80 - 120
2432739	Selenium	100	97.9	P/P	80 - 120
2432739	Silver	114	116	P/P	80 - 120
2432739	Thallium	101	101	P/P	80 - 120
2433112	Aluminum	97.6		P	80 - 120
2433112	Antimony	102		P	80 - 120
2433112	Arsenic	97.4		P	80 - 120
2433112	Barium	103		P	80 - 120
2433112	Beryllium	94.7		P	80 - 120
2433112	Boron	103		P	80 - 120
2433112	Cadmium	101		P	80 - 120
2433112	Chromium	95.4		P	80 - 120
2433112	Cobalt	99.0		P	80 - 120
2433112	Copper	94.8		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433112	Lead	101		P	80 - 120
2433112	Manganese	97.1		P	80 - 120
2433112	Molybdenum	99.2		P	80 - 120
2433112	Nickel	96.5		P	80 - 120
2433112	Selenium	99.4		P	80 - 120
2433112	Silver	116		P	80 - 120
2433112	Thallium	102		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434331

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432696	Chloride	101		P	90 - 110
2433094	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434333

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432696	Sulfate	97.9		P	90 - 110
2433094	Sulfate	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434577

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432992	Ammonia-N	97.6	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434742

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432875	NO2NO3-N	101		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434521

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433806	Total-P	109	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434237

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433072	O-Phosphate-P	97.9	98.0	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P434176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431920	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	64.5	75.5	P/P	26 - 165
2431920	Acetochlor	81.1	80.5	P/P	67 - 124

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P434176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431920	Alachlor	70.6	72.1	P/P	60 - 120
2431920	Ametryn	140	128	P/P	54 - 216
2431920	Atrazine	94.9	87.3	P/P	66 - 128
2431920	Atrazine Desethyl	100	93.2	P/P	15 - 122
2431920	Avobenzone	117	121	P/P	37 - 178
2431920	Azinphos Methyl	135	134	P/P	40 - 292
2431920	Azoxystrobin	114	102	P/P	35 - 220
2431920	Bromacil	102	94.6	P/P	45 - 127
2431920	Butylate	40.4	48.4	P/P	20 - 83.0
2431920	Caffeine	134	113	P/P	10 - 194
2431920	Carbophenothion	89.8	94.6	P/P	57 - 127
2431920	Carfentrazone Ethyl	98.9	98.3	P/P	51 - 141
2431920	Chlorfenapyr	73.4	74.6	P/P	46 - 111
2431920	Chlorpyrifos Ethyl	76.7	72.4	P/P	52 - 120
2431920	Chlorpyrifos Methyl	99.5	102	P/P	63 - 119
2431920	Coumaphos	136	134	P/P	10 - 228
2431920	Cyanazine	109	119	P/P	59 - 241
2431920	Cyprodinil	77.8	68.7	P/P	47 - 146
2431920	Dechlorane 602	55.7	71.7	P/P	50 - 150
2431920	Dechlorane 603	82.5	93.2	P/P	50 - 150
2431920	Dechlorane Plus	78.2	81.6	P/P	50 - 150
2431920	Demeton	67.8	66.5	P/P	40 - 136
2431920	Diazinon	95.3	84.4	P/P	69 - 132
2431920	Difenoconazole	126	128	P/P	57 - 258
2431920	Dimethenamid	90.6	88.4	P/P	54 - 110
2431920	Dimethomorph	211	211	F/F	28 - 210
2431920	Disulfoton	93.5	98.6	P/P	43 - 133
2431920	Dithiopyr	85.8	89.1	P/P	39 - 116
2431920	EPTC	38.7	45.5	P/P	20 - 78.0
2431920	Ethion	42.0	58.3	P/P	17 - 119
2431920	Ethoprop	90.1	91.7	P/P	66 - 120
2431920	Etridiazole	49.0	51.2	P/P	28 - 96.0
2431920	Fenamiphos	78.6	74.5	P/P	41 - 126
2431920	Fenbuconazole	80.8	76.6	P/P	42 - 169
2431920	Fipronil	92.2	90.9	P/P	61 - 132
2431920	Fipronil Desulfinyl	81.1	81.3	P/P	56 - 132
2431920	Fipronil Sulfide	90.5	87.3	P/P	48 - 119
2431920	Fipronil Sulfone	88.2	82.5	P/P	42 - 131
2431920	Fluazifop-P-butyl	83.1	82.5	P/P	53 - 131
2431920	Fludioxonil	89.3	87.7	P/P	56 - 127
2431920	Flumioxazin	143	144	P/P	19 - 300
2431920	Flutolanil	84.9	75.8	P/P	41 - 127
2431920	Fluxapyroxad	74.4	83.1	P/P	42 - 172
2431920	Fonofos	90.1	83.0	P/P	59 - 113
2431920	Hexabromobenzene	58.9	70.3	P/P	50 - 150
2431920	Hexazinone	89.8	90.3	P/P	66 - 122
2431920	Imazalil	75.9	73.1	P/P	21 - 283
2431920	Iprodione	74.7	73.6	P/P	43 - 150
2431920	Loratadine	149	136	P/P	23 - 201
2431920	Malathion	86.3	84.1	P/P	58 - 136
2431920	Metalaxyl	87.8	83.0	P/P	55 - 120
2431920	Metolachlor	92.1	95.5	P/P	57 - 121

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P434176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431920	Metribuzin	100	105	P/P	58 - 294
2431920	Mevinphos	89.2	82.2	P/P	50 - 126
2431920	Molinate	48.4	52.3	P/P	42 - 93.0
2431920	Myclobutanil	92.6	91.3	P/P	55 - 125
2431920	Naled	39.6	40.2	P/P	18 - 200
2431920	Napropamide	77.1	73.9	P/P	39 - 110
2431920	Norflurazon	83.2	83.0	P/P	48 - 128
2431920	Octinoxate	97.8	99.6	P/P	21 - 159
2431920	Oxadiazon	76.6	74.9	P/P	43 - 112
2431920	Oxybenzone	104	101	P/P	41 - 142
2431920	Oxyfluorfen	93.6	99.4	P/P	64 - 153
2431920	Parathion Ethyl	83.5	90.1	P/P	69 - 114
2431920	Parathion Methyl	92.3	85.7	P/P	79 - 139
2431920	PBB-153	61.9	76.9	P/P	50 - 150
2431920	PBDE-47	69.5	81.6	P/P	27 - 144
2431920	PBDE-99	59.8	71.7	P/P	18 - 150
2431920	Pendimethalin	97.3	93.0	P/P	50 - 139
2431920	Pentabromotoluene	80.3	83.2	P/P	50 - 150
2431920	Phenytoin	55.0	73.9	P/P	10 - 146
2431920	Phorate	87.1	96.2	P/P	54 - 161
2431920	Prodiamine	35.4	31.8	P/P	30 - 161
2431920	Prometon	94.8	88.8	P/P	45 - 134
2431920	Prometryn	94.4	97.3	P/P	45 - 137
2431920	Pronamide	100	105	P/P	65 - 133
2431920	Propanil	120	116	P/P	49 - 142
2431920	Propargite	73.9	80.5	P/P	10 - 203
2431920	Propiconazole	71.8	75.9	P/P	38 - 146
2431920	Pyraflufen Ethyl	84.1	85.9	P/P	34 - 153
2431920	Pyridaben	94.4	105	P/P	12 - 192
2431920	Pyriproxyfen	61.4	86.1	P/P	33 - 180
2431920	Simazine	102	102	P/P	51 - 157
2431920	Stirophos	45.1	51.0	P/P	10 - 128
2431920	Sulfentrazone	111	111	P/P	53 - 186
2431920	Tebuconazole	57.9	71.1	P/P	10 - 133
2431920	Terbufos	103	102	P/P	65 - 139
2431920	Terbuthylazine	80.3	74.7	P/P	66 - 117
2431920	Tetradecachloro-m-terphenyl	88.3	93.0	P/P	70 - 200
2431920	Thiobencarb	89.2	84.6	P/P	51 - 119
2431920	Tri-o-cresyl Phosphate	87.1	96.0	P/P	31 - 144
2431920	Triadimefon	80.4	81.9	P/P	48 - 119
2431920	Tris(1-chloro-2-propyl) phosphate (TCPP)	113	112	P/P	50 - 150
2431920	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	96.9	96.2	P/P	50 - 150
2431920	Tris(2-chloroethyl) phosphate (TCEP)	91.5	94.3	P/P	70 - 180

Reference Method: EPA 8321B
Batch ID: P434207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432732	Acesulfame K	122	126	P/P	40 - 150
2432732	AMPA	101	106	P/P	40 - 150
2432732	Endothall	90.8	93.2	P/P	40 - 150
2432732	Glufosinate	87.8	82.4	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P434207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432732	Glyphosate	68.9	66.1	P/P	40 - 150
2432732	Sucralose	125	123	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P434430

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2432763	2,4-D	108	107	P/P	40 - 150
2432763	2,4,5-T	116	123	P/P	40 - 150
2432763	Acetaminophen	117	115	P/P	30 - 150
2432763	Acetamiprid	30.9	52.2	F/P	40 - 150
2432763	Afidopyropen	42.5	54.7	P/P	30 - 150
2432763	Bentazon	61.3	61.5	P/P	30 - 150
2432763	Benzovindiflupyr	97.0	93.2	P/P	40 - 150
2432763	Carbamazepine	70.9	66.1	P/P	40 - 150
2432763	Clothianidin	97.0	99.9	P/P	40 - 150
2432763	Dinotefuran	70.8	69.2	P/P	40 - 150
2432763	Diuron	56.8	57.4	P/P	40 - 150
2432763	Fenuron	53.1	53.9	P/P	40 - 150
2432763	Fluridone	69.7	66.4	P/P	40 - 150
2432763	Hydrocodone	70.8	72.5	P/P	40 - 150
2432763	Ibuprofen	79.8	71.2	P/P	40 - 150
2432763	Imazapyr	69.2	68.8	P/P	40 - 150
2432763	Imidacloprid	119	114	P/P	40 - 150
2432763	Linuron	63.0	69.1	P/P	40 - 150
2432763	Mandestrobin	103	96.6	P/P	40 - 150
2432763	MCPP	127	120	P/P	40 - 150
2432763	Naproxen	88.4	84.3	P/P	40 - 150
2432763	Primidone	80.5	81.8	P/P	40 - 150
2432763	Pyraclostrobin	94.6	92.1	P/P	40 - 150
2432763	Silvex	122	123	P/P	40 - 150
2432763	Thiamethoxam	86.9	86.1	P/P	40 - 150
2432763	Tolfenpyrad	60.4	56.0	P/P	30 - 150
2432763	Triclopyr	125	124	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P434515

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433094	Fluoride	99.0	97.8	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P434449

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2433274	Organic Carbon	96.6	95.0	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P434245

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432874	Color (true)	0.384	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432692	Turbidity	2.55	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432739	Calcium	3.69	Spike	P	0 - 20
2432739	Iron	3.27	Spike	P	0 - 20
2432739	Magnesium	3.20	Spike	P	0 - 20
2432739	Potassium	4.09	Spike	P	0 - 20
2432739	Sodium	4.25	Spike	P	0 - 20
2432739	Strontium	3.89	Spike	P	0 - 20
2432739	Tin	3.58	Spike	P	0 - 20
2432739	Titanium	2.66	Spike	P	0 - 20
2432739	Vanadium	2.16	Spike	P	0 - 20
2432739	Zinc	2.23	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432739	Aluminum	0.351	Spike	P	0 - 20
2432739	Antimony	0.895	Spike	P	0 - 20
2432739	Arsenic	0.608	Spike	P	0 - 20
2432739	Barium	1.04	Spike	P	0 - 20
2432739	Beryllium	0.464	Spike	P	0 - 20
2432739	Boron	2.59	Spike	P	0 - 20
2432739	Cadmium	2.23	Spike	P	0 - 20
2432739	Chromium	0.195	Spike	P	0 - 20
2432739	Cobalt	0.0812	Spike	P	0 - 20
2432739	Copper	1.15	Spike	P	0 - 20
2432739	Lead	0.714	Spike	P	0 - 20
2432739	Manganese	0.515	Spike	P	0 - 20
2432739	Molybdenum	0.967	Spike	P	0 - 20
2432739	Nickel	0.453	Spike	P	0 - 20
2432739	Selenium	2.41	Spike	P	0 - 20
2432739	Silver	1.01	Spike	P	0 - 20
2432739	Thallium	0.778	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434331

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432696	Chloride	0.355	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434577

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432992	Ammonia-N	1.90	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433078	Kjeldahl Nitrogen	0.596	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432875	NO2NO3-N	0.362	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434521

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433806	Total-P	0.507	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434237

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433072	O-Phosphate-P	0.0526	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P434176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431920	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	15.8	Spike	P	0 - 37
2431920	Acetochlor	0.758	Spike	P	0 - 28
2431920	Alachlor	2.20	Spike	P	0 - 30
2431920	Ametryn	8.67	Spike	P	0 - 32
2431920	Atrazine	5.70	Spike	P	0 - 41
2431920	Atrazine Desethyl	7.41	Spike	P	0 - 36
2431920	Avobenzone	2.76	Spike	P	0 - 36
2431920	Azinphos Methyl	0.581	Spike	P	0 - 75
2431920	Azoxystrobin	11.3	Spike	P	0 - 39

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P434176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431920	Bromacil	7.90	Spike	P	0 - 33
2431920	Butylate	18.1	Spike	P	0 - 44
2431920	Caffeine	15.4	Spike	P	0 - 74
2431920	Carbophenothion	5.23	Spike	P	0 - 25
2431920	Carfentrazone Ethyl	0.602	Spike	P	0 - 27
2431920	Chlorfenapyr	1.61	Spike	P	0 - 24
2431920	Chlorpyrifos Ethyl	5.80	Spike	P	0 - 26
2431920	Chlorpyrifos Methyl	2.37	Spike	P	0 - 26
2431920	Coumaphos	1.64	Spike	P	0 - 28
2431920	Cyanazine	9.22	Spike	P	0 - 48
2431920	Cyprodinil	12.5	Spike	P	0 - 29
2431920	Dechlorane 602	25.1	Spike	P	0 - 30
2431920	Dechlorane 603	12.2	Spike	P	0 - 30
2431920	Dechlorane Plus	4.21	Spike	P	0 - 30
2431920	Demeton	1.99	Spike	P	0 - 33
2431920	Diazinon	12.1	Spike	P	0 - 29
2431920	Difenoconazole	1.63	Spike	P	0 - 34
2431920	Dimethenamid	2.43	Spike	P	0 - 39
2431920	Dimethomorph	0.0575	Spike	P	0 - 51
2431920	Disulfoton	5.28	Spike	P	0 - 30
2431920	Dithiopyr	3.82	Spike	P	0 - 26
2431920	EPTC	16.1	Spike	P	0 - 43
2431920	Ethion	32.3	Spike	P	0 - 79
2431920	Ethoprop	1.74	Spike	P	0 - 29
2431920	Etridiazole	4.27	Spike	P	0 - 33
2431920	Fenamiphos	5.37	Spike	P	0 - 40
2431920	Fenbuconazole	5.31	Spike	P	0 - 74
2431920	Fipronil	1.48	Spike	P	0 - 29
2431920	Fipronil Desulfinyl	0.285	Spike	P	0 - 32
2431920	Fipronil Sulfide	3.59	Spike	P	0 - 30
2431920	Fipronil Sulfone	6.75	Spike	P	0 - 33
2431920	Fluazifop-P-butyl	0.744	Spike	P	0 - 38
2431920	Fludioxonil	1.78	Spike	P	0 - 29
2431920	Flumioxazin	0.583	Spike	P	0 - 51
2431920	Flutolanil	11.4	Spike	P	0 - 25
2431920	Fluxapyroxad	11.0	Spike	P	0 - 45
2431920	Fonofos	8.19	Spike	P	0 - 27
2431920	Hexabromobenzene	17.6	Spike	P	0 - 30
2431920	Hexazinone	0.596	Spike	P	0 - 30
2431920	Imazalil	3.77	Spike	P	0 - 100
2431920	Iprodione	1.49	Spike	P	0 - 33
2431920	Loratadine	9.12	Spike	P	0 - 56
2431920	Malathion	2.52	Spike	P	0 - 37
2431920	Metalaxyl	5.57	Spike	P	0 - 40
2431920	Metolachlor	3.33	Spike	P	0 - 29
2431920	Metribuzin	3.98	Spike	P	0 - 45
2431920	Mevinphos	8.26	Spike	P	0 - 29
2431920	Molinate	7.83	Spike	P	0 - 33
2431920	Myclobutanil	1.38	Spike	P	0 - 26
2431920	Naled	1.51	Spike	P	0 - 37
2431920	Napropamide	4.21	Spike	P	0 - 44

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P434176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431920	Norflurazon	0.246	Spike	P	0 - 30
2431920	Octinoxate	1.78	Spike	P	0 - 45
2431920	Oxadiazon	2.26	Spike	P	0 - 28
2431920	Oxybenzone	3.12	Spike	P	0 - 46
2431920	Oxyfluorfen	6.04	Spike	P	0 - 28
2431920	Parathion Ethyl	7.67	Spike	P	0 - 31
2431920	Parathion Methyl	7.52	Spike	P	0 - 29
2431920	PBB-153	21.6	Spike	P	0 - 30
2431920	PBDE-47	16.0	Spike	P	0 - 36
2431920	PBDE-99	18.0	Spike	P	0 - 40
2431920	Pendimethalin	4.52	Spike	P	0 - 33
2431920	Pentabromotoluene	3.57	Spike	P	0 - 30
2431920	Phenytoin	29.2	Spike	P	0 - 100
2431920	Phorate	10.0	Spike	P	0 - 36
2431920	Prodiamine	10.7	Spike	P	0 - 71
2431920	Prometon	6.55	Spike	P	0 - 36
2431920	Prometryn	3.01	Spike	P	0 - 28
2431920	Pronamide	5.12	Spike	P	0 - 24
2431920	Propanil	3.64	Spike	P	0 - 28
2431920	Propargite	8.62	Spike	P	0 - 43
2431920	Propiconazole	5.57	Spike	P	0 - 33
2431920	Pyraflufen Ethyl	2.22	Spike	P	0 - 29
2431920	Pyridaben	5.99	Spike	P	0 - 30
2431920	Pyriproxyfen	33.5	Spike	P	0 - 79
2431920	Simazine	0.454	Spike	P	0 - 29
2431920	Stirophos	12.2	Spike	P	0 - 61
2431920	Sulfentrazone	0.178	Spike	P	0 - 33
2431920	Tebuconazole	20.4	Spike	P	0 - 69
2431920	Terbufos	0.307	Spike	P	0 - 29
2431920	Terbuthylazine	7.31	Spike	P	0 - 32
2431920	Tetradecachloro-m-terphenyl	5.18	Spike	P	0 - 30
2431920	Thiobencarb	5.30	Spike	P	0 - 26
2431920	Tri-o-cresyl Phosphate	9.74	Spike	P	0 - 33
2431920	Triadimefon	1.87	Spike	P	0 - 28
2431920	Tris(1-chloro-2-propyl) phosphate (TCPP)	1.15	Spike	P	0 - 30
2431920	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	0.682	Spike	P	0 - 30
2431920	Tris(2-chloroethyl) phosphate (TCEP)	3.02	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P434207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432732	Acesulfame K	3.26	Spike	P	0 - 30
2432732	AMPA	4.72	Spike	P	0 - 30
2432732	Endothall	2.60	Spike	P	0 - 30
2432732	Glufosinate	6.29	Spike	P	0 - 30
2432732	Glyphosate	4.11	Spike	P	0 - 30
2432732	Sucralose	1.79	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P434430

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432763	2,4-D	1.44	Spike	P	0 - 30
2432763	2,4,5-T	5.74	Spike	P	0 - 30
2432763	Acetaminophen	1.10	Spike	P	0 - 30
2432763	Acetamiprid	51.2	Spike	F	0 - 30
2432763	Afidopyropen	25.2	Spike	P	0 - 30
2432763	Bentazon	0.269	Spike	P	0 - 30
2432763	Benzovindiflupyr	3.92	Spike	P	0 - 30
2432763	Carbamazepine	7.00	Spike	P	0 - 30
2432763	Clothianidin	3.01	Spike	P	0 - 30
2432763	Dinotefuran	2.31	Spike	P	0 - 30
2432763	Diuron	1.18	Spike	P	0 - 30
2432763	Fenuron	1.61	Spike	P	0 - 30
2432763	Fluridone	4.83	Spike	P	0 - 30
2432763	Hydrocodone	2.39	Spike	P	0 - 30
2432763	Ibuprofen	11.3	Spike	P	0 - 30
2432763	Imazapyr	0.579	Spike	P	0 - 30
2432763	Imidacloprid	4.62	Spike	P	0 - 30
2432763	Linuron	9.16	Spike	P	0 - 30
2432763	Mandestrobin	5.94	Spike	P	0 - 30
2432763	MCPP	5.99	Spike	P	0 - 30
2432763	Naproxen	4.80	Spike	P	0 - 30
2432763	Primidone	1.61	Spike	P	0 - 30
2432763	Pyraclostrobin	2.72	Spike	P	0 - 30
2432763	Silvex	0.987	Spike	P	0 - 30
2432763	Thiamethoxam	0.908	Spike	P	0 - 30
2432763	Tolfenpyrad	7.54	Spike	P	0 - 30
2432763	Triclopyr	0.682	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P434512

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433094	Total Alkalinity	2.46	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P434620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2432702	TDS	1.44	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P434515

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433094	Fluoride	1.03	Spike	P	0 - 1.9

Quality Assurance Report
Precision

Reference Method: SM 5310 B-2011
Batch ID: P434449

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2433274	Organic Carbon	0.946	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2432997
Field Sample ID: G4NW0051

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	73.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.4	P	30 - 160
EPA 8321B	Diuron-d6	33.4	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	56.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	49.9	P	30 - 160
EPA 8321B	Primidone-d5	72.3	P	30 - 160
EPA 8321B	Sucralose-d6	134	P	30 - 160

Lab Sample ID: 2432999
Field Sample ID: G4NW0051

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	80.7	P	20 - 200
EPA 8270E	Simazine-d10	98.1	P	62 - 142
EPA 8270E	Terbufos-d10	90.5	P	58 - 132
EPA 8270E	Terphenyl-d14	78.0	P	52 - 137

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A121182
Included Lab Sample IDs: 2432991

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.9	97.3	P/P	90 - 110
Sulfate	97.9	95.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A121203
Included Lab Sample IDs: 2432993

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	98.5	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1
Run ID: A121205
Included Lab Sample IDs: 2432991

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A121206
Included Lab Sample IDs: 2432991

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A121267
Included Lab Sample IDs: 2432998

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	97.7	101	P/P	90 - 110
Iron	100	103	P/P	90 - 110
Magnesium	99.8	103	P/P	90 - 110
Potassium	97.4	99.3	P/P	90 - 110
Sodium	97.4	99.1	P/P	90 - 110
Strontium	96.9	97.4	P/P	90 - 110
Tin	96.6	96.9	P/P	90 - 110
Titanium	96.6	95.9	P/P	90 - 110
Vanadium	96.4	96.5	P/P	90 - 110
Zinc	98.0	97.6	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A121277
Included Lab Sample IDs: 2432997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	105	P/P	60 - 160
Endothall	93.9	93.5	P/P	60 - 160
Glufosinate	102	99.0	P/P	60 - 160
Glyphosate	98.4	94.2	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-2011
Run ID: A121294
Included Lab Sample IDs: 2432992

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	96.4	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A121296
Included Lab Sample IDs: 2432999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	90.0		P	80 - 120
Avobenzone	94.4		P	80 - 120
Dechlorane 602	97.6		P	80 - 120
Dechlorane 603	90.6		P	80 - 120
Dechlorane Plus	92.1		P	80 - 120
Hexabromobenzene	86.7		P	80 - 120
Octinoxate	93.3		P	80 - 120
Oxybenzone	95.0		P	80 - 120
PBB-153	86.9		P	80 - 120
PBDE-47	87.1		P	80 - 120
PBDE-99	89.9		P	80 - 120
Pentabromotoluene	93.3		P	80 - 120
Tetradecachloro-m-terphenyl	94.4		P	80 - 120
Tri-o-cresyl Phosphate	93.1		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	88.4		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	94.7		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	91.2		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A121319
Included Lab Sample IDs: 2432998

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.0	96.8	P/P	90 - 110
Antimony	96.6	94.5	P/P	90 - 110
Arsenic	97.3	94.4	P/P	90 - 110
Barium	98.9	96.7	P/P	90 - 110
Beryllium	94.6	93.1	P/P	90 - 110
Boron	94.9	97.4	P/P	90 - 110
Cadmium	97.8	97.3	P/P	90 - 110
Chromium	94.7	91.8	P/P	90 - 110
Cobalt	98.6	95.2	P/P	90 - 110
Copper	96.2	93.3	P/P	90 - 110
Lead	97.5	95.1	P/P	90 - 110
Manganese	95.7	94.4	P/P	90 - 110
Molybdenum	96.0	95.2	P/P	90 - 110
Nickel	96.3	92.8	P/P	90 - 110
Selenium	99.3	96.8	P/P	90 - 110
Silver	99.3	98.4	P/P	90 - 110
Thallium	95.0	93.9	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A121328
Included Lab Sample IDs: 2432991

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.6	98.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A121328
Included Lab Sample IDs: 2432991

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

Reference Method: EPA 8321B
Run ID: A121350
Included Lab Sample IDs: 2432997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.2	87.8	P/P	50 - 150
2,4,5-T	81.9	85.7	P/P	50 - 150
Acetaminophen	102	102	P/P	60 - 160
Acetamiprid	120	125	P/P	50 - 150
Afidopyropen	106	104	P/P	50 - 150
Bentazon	125	142	P/P	50 - 160
Benzovindiflupyr	116	113	P/P	50 - 150
Carbamazepine	118	117	P/P	60 - 150
Clothianidin	109	113	P/P	60 - 150
Dinotefuran	111	108	P/P	50 - 150
Diuron	115	111	P/P	60 - 160
Fenuron	114	117	P/P	60 - 150
Fluridone	109	110	P/P	60 - 160
Hydrocodone	132	130	P/P	60 - 150
Ibuprofen	118	122	P/P	50 - 160
Imazapyr	92.3	93.0	P/P	50 - 150
Imidacloprid	101	104	P/P	60 - 150
Linuron	105	100	P/P	60 - 150
Mandestrobin	125	123	P/P	50 - 150
MCPP	92.1	85.3	P/P	50 - 150
Naproxen	93.0	111	P/P	50 - 160
Primidone	109	108	P/P	60 - 150
Pyraclostrobin	124	120	P/P	60 - 150
Silvex	80.7	89.4	P/P	50 - 150
Thiamethoxam	120	125	P/P	50 - 150
Tolfenpyrad	111	105	P/P	60 - 150
Triclopyr	87.1	84.9	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A121360
Included Lab Sample IDs: 2432992

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.9	100	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A121374
Included Lab Sample IDs: 2432999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	89.3		P	80 - 120
Alachlor	85.8		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine	102		P	80 - 120
Atrazine Desethyl	98.3		P	80 - 120
Azinphos Methyl	96.2		P	80 - 120
Azoxystrobin	98.4		P	80 - 120
Bromacil	96.4		P	80 - 120
Butylate	104		P	80 - 120
Caffeine	96.0		P	80 - 120
Carbophenothion	100		P	80 - 120
Carfentrazone Ethyl	99.9		P	80 - 120
Chlorfenapyr	89.3		P	80 - 120
Chlorpyrifos Ethyl	89.5		P	80 - 120
Chlorpyrifos Methyl	97.9		P	80 - 120
Coumaphos	99.2		P	80 - 120
Cyanazine	102		P	80 - 120
Cyprodinil	90.7		P	80 - 120
Demeton	102		P	80 - 120
Diazinon	103		P	80 - 120
Difenoconazole	100		P	80 - 120
Dimethenamid	95.8		P	80 - 120
Dimethomorph	108		P	80 - 120
Disulfoton	102		P	80 - 120
Dithiopyr	107		P	80 - 120
EPTC	103		P	80 - 120
Ethion	88.7		P	80 - 120
Ethoprop	109		P	80 - 120
Etridiazole	101		P	80 - 120
Fenamiphos	99.1		P	80 - 120
Fenbuconazole	84.9		P	80 - 120
Fipronil	86.3		P	80 - 120
Fipronil Desulfinyl	100		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	95.9		P	80 - 120
Fluazifop-P-butyl	93.5		P	80 - 120
Fludioxonil	105		P	80 - 120
Flumioxazin	95.9		P	80 - 120
Flutolanil	97.2		P	80 - 120
Fluxapyroxad	96.1		P	80 - 120
Fonofos	100		P	80 - 120
Hexazinone	99.4		P	80 - 120
Imazalil	99.2		P	80 - 120
Iprodione	80.7		P	80 - 120
Loratadine	89.3		P	80 - 120
Malathion	85.7		P	80 - 120
Metalaxyl	92.0		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	100		P	80 - 120
Mevinphos	90.3		P	80 - 120
Molinate	87.6		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A121374
Included Lab Sample IDs: 2432999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Myclobutanil	95.2		P	80 - 120
Naled	97.1		P	80 - 120
Napropamide	102		P	80 - 120
Norflurazon	102		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	87.5		P	80 - 120
Parathion Methyl	85.6		P	80 - 120
Pendimethalin	109		P	80 - 120
Phenytoin	98.3		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	97.1		P	80 - 120
Prometon	92.8		P	80 - 120
Prometryn	92.2		P	80 - 120
Pronamide	108		P	80 - 120
Propanil	90.5		P	80 - 120
Propargite	98.6		P	80 - 120
Propiconazole	84.1		P	80 - 120
Pyraflufen Ethyl	102		P	80 - 120
Pyridaben	99.8		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	120		P	80 - 120
Stirophos	84.5		P	80 - 120
Sulfentrazone	98.2		P	80 - 120
Tebuconazole	102		P	80 - 120
Terbufos	92.2		P	80 - 120
Terbuthylazine	89.5		P	80 - 120
Thiobencarb	106		P	80 - 120
Triadimefon	95.0		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A121424
Included Lab Sample IDs: 2432992

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A121431
Included Lab Sample IDs: 2432992

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	97.5	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A121437
Included Lab Sample IDs: 2432999

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Ethyl	95.3		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A121448
Included Lab Sample IDs: 2432992

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

Reference Method: EPA 8321B
Run ID: P121278
Included Lab Sample IDs: 2432997

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	131	136	P/P	60 - 160
Sucralose	128	129	P/P	60 - 160

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision		
						LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	102					0.384	
EPA 180.1 Rev. 2.0	Turbidity	101					2.55	
EPA 200.7 Rev. 4.4	Calcium	103	103	97.5				3.69
	Iron	105	106	102	108			3.27
	Magnesium	105	106	101	106			3.20
	Potassium	102	109	104	110			4.09
	Sodium	101	101	107				4.25
	Strontium	99.7	101	97.5	104			3.89
	Tin	98.7	102	98.2	102			3.58
	Titanium	98.9	100	97.4	104			2.66
	Vanadium	99.5	101	99.2	107			2.16
	Zinc	99.8	100	98.2	102			2.23
EPA 200.8 Rev. 5.4	Aluminum	98.5	97.9	98.3	97.6			0.351
	Antimony	99.9	99.4	100	102			0.895
	Arsenic	97.9	98.8	98.2	97.4			0.608
	Barium	103	103	104	103			1.04
	Beryllium	94.9	95.0	94.5	94.7			0.464
	Boron	101	103	100	103			2.59
	Cadmium	99.0	102	99.3	101			2.23
	Chromium	95.3	99.4	99.6	95.4			0.195
	Cobalt	100	101	101	99.0			0.0812
	Copper	98.9	99.7	101	94.8			1.15
	Lead	100	101	100	101			0.714
	Manganese	96.0	95.9	96.7	97.1			0.515
	Molybdenum	96.9	98.4	97.4	99.2			0.967
	Nickel	97.6	99.7	99.3	96.5			0.453
	Selenium	99.8	100	97.9	99.4			2.41
	Silver	110	114	116	116			1.01
	Thallium	101	101	101	102			0.778
EPA 300.0 Rev. 2.1	Chloride	100	101	103			0.355	
	Sulfate	97.4	97.9	98.9				
EPA 350.1 Rev. 2.0	Ammonia-N	98.2	97.6	99.8				1.90
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	110						0.596
EPA 353.2 Rev. 2.0	NO2NO3-N	102	101					0.362
EPA 365.1 Rev. 2.0	Total-P	106	109	108				0.507
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.8	97.9	98.0				0.0526
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	52.1	64.5	75.5				15.8
	Acetochlor	79.1	81.1	80.5				0.758
	Alachlor	82.6	70.6	72.1				2.20
	Ametryn	119	140	128				8.67
	Atrazine	98.9	94.9	87.3				5.70
	Atrazine Desethyl	96.0	100	93.2				7.41
	Avobenzone	91.0	117	121				2.76
	Azinphos Methyl	147	135	134				0.581
	Azoxystrobin	114	114	102				11.3
	Bromacil	96.5	102	94.6				7.90
	Butylate	59.0	40.4	48.4				18.1
	Caffeine	180	134	113				15.4
	Carbophenothion	95.8	89.8	94.6				5.23
	Carfentrazone Ethyl	104	98.9	98.3				0.602
	Chlorfenapyr	91.7	73.4	74.6				1.61
	Chlorpyrifos Ethyl	78.1	76.7	72.4				5.80

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Chlorpyrifos Methyl	105	99.5	102			2.37
	Coumaphos	147	136	134			1.64
	Cyanazine	117	109	119			9.22
	Cyprodinil	87.0	77.8	68.7			12.5
	Dechlorane 602	53.7	55.7	71.7			25.1
	Dechlorane 603	69.5	82.5	93.2			12.2
	Dechlorane Plus	65.8	78.2	81.6			4.21
	Demeton	69.4	67.8	66.5			1.99
	Diazinon	92.3	95.3	84.4			12.1
	Difenoconazole	142	126	128			1.63
	Dimethenamid	87.0	90.6	88.4			2.43
	Dimethomorph	258	211	211			0.0575
	Disulfoton	95.0	93.5	98.6			5.28
	Dithiopyr	81.4	85.8	89.1			3.82
	EPTC	54.6	38.7	45.5			16.1
	Ethion	58.0	42.0	58.3			32.3
	Ethoprop	97.1	90.1	91.7			1.74
	Etridiazole	54.2	49.0	51.2			4.27
	Fenamiphos	95.7	78.6	74.5			5.37
	Fenbuconazole	107	80.8	76.6			5.31
	Fipronil	92.4	92.2	90.9			1.48
	Fipronil Desulfinyl	80.5	81.1	81.3			0.285
	Fipronil Sulfide	92.3	90.5	87.3			3.59
	Fipronil Sulfone	80.9	88.2	82.5			6.75
	Fluazifop-P-butyl	92.2	83.1	82.5			0.744
	Fludioxonil	91.5	89.3	87.7			1.78
	Flumioxazin	140	143	144			0.583
	Flutolanil	80.3	84.9	75.8			11.4
	Fluxapyroxad	81.7	74.4	83.1			11.0
	Fonofos	101	90.1	83.0			8.19
	Hexabromobenzene	53.6	58.9	70.3			17.6
	Hexazinone	94.0	89.8	90.3			0.596
	Imazalil	78.8	75.9	73.1			3.77
	Iprodione	96.0	74.7	73.6			1.49
	Loratadine	158	149	136			9.12
	Malathion	96.1	86.3	84.1			2.52
	Metalaxyl	76.3	87.8	83.0			5.57
	Metolachlor	111	92.1	95.5			3.33
	Metribuzin	103	100	105			3.98
	Mevinphos	94.7	89.2	82.2			8.26
	Molinate	59.6	48.4	52.3			7.83
	Myclobutanil	106	92.6	91.3			1.38
	Naled	52.3	39.6	40.2			1.51
	Napropamide	81.9	77.1	73.9			4.21
	Norflurazon	87.8	83.2	83.0			0.246
	Octinoxate	71.2	97.8	99.6			1.78
	Oxadiazon	80.4	76.6	74.9			2.26
	Oxybenzone	69.1	104	101			3.12
	Oxyfluorfen	105	93.6	99.4			6.04
	Parathion Ethyl	96.6	83.5	90.1			7.67
	Parathion Methyl	97.0	92.3	85.7			7.52
	PBB-153	59.1	61.9	76.9			21.6
	PBDE-47	53.7	69.5	81.6			16.0
	PBDE-99	52.9	59.8	71.7			18.0

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Pendimethalin	104	97.3	93.0			4.52
	Pentabromotoluene	55.6	80.3	83.2			3.57
	Phenytoin	40.4	55.0	73.9			29.2
	Phorate	95.4	87.1	96.2			10.0
	Prodiamine	48.0	35.4	31.8			10.7
	Prometon	95.7	94.8	88.8			6.55
	Prometryn	91.3	94.4	97.3			3.01
	Pronamide	101	100	105			5.12
	Propanil	117	120	116			3.64
	Propargite	74.8	73.9	80.5			8.62
	Propiconazole	93.7	71.8	75.9			5.57
	Pyraflufen Ethyl	98.0	84.1	85.9			2.22
	Pyridaben	120	94.4	105			5.99
	Pyriproxyfen	86.6	61.4	86.1			33.5
	Simazine	114	102	102			0.454
	Stirophos	56.4	45.1	51.0			12.2
	Sulfentrazone	78.8	111	111			0.178
	Tebuconazole	70.2	57.9	71.1			20.4
	Terbufos	97.3	103	102			0.307
	Terbuthylazine	76.8	80.3	74.7			7.31
	Tetradecachloro-m-terphenyl	54.3	88.3	93.0			5.18
	Thiobencarb	92.1	89.2	84.6			5.30
	Tri-o-cresyl Phosphate	68.1	87.1	96.0			9.74
	Triadimefon	80.1	80.4	81.9			1.87
	Tris(1-chloro-2-propyl) phosphate (TCPP)	70.9	113	112			1.15
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	65.3	96.9	96.2			0.682
	Tris(2-chloroethyl) phosphate (TCEP)	71.8	91.5	94.3			3.02
EPA 8321B	2,4-D	71.2	108	107			1.44
	2,4,5-T	79.6	116	123			5.74
	Acesulfame K	117	122	126			3.26
	Acetaminophen	89.5	117	115			1.10
	Acetamiprid	106	30.9	52.2			51.2
	Afidopyropen	74.7	42.5	54.7			25.2
	AMPA	129	101	106			4.72
	Bentazon	111	61.3	61.5			0.269
	Benzovindiflupyr	96.1	97.0	93.2			3.92
	Carbamazepine	93.2	70.9	66.1			7.00
	Clothianidin	102	97.0	99.9			3.01
	Dinotefuran	96.4	70.8	69.2			2.31
	Diuron	84.8	56.8	57.4			1.18
	Endothall	92.7	90.8	93.2			2.60
	Fenuron	106	53.1	53.9			1.61
	Fluridone	89.6	69.7	66.4			4.83
	Glufosinate	96.1	87.8	82.4			6.29
	Glyphosate	71.8	68.9	66.1			4.11
	Hydrocodone	110	70.8	72.5			2.39
	Ibuprofen	78.7	79.8	71.2			11.3
	Imazapyr	77.2	69.2	68.8			0.579
	Imidacloprid	89.3	119	114			4.62
	Linuron	78.2	63.0	69.1			9.16
	Mandestrobin	105	103	96.6			5.94

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	MCPP	87.5	127	120			5.99
	Naproxen	55.3	88.4	84.3			4.80
	Primidone	94.4	80.5	81.8			1.61
	Pyraclostrobin	95.2	94.6	92.1			2.72
	Silvex	80.9	122	123			0.987
	Sucralose	123	125	123			1.79
	Thiamethoxam	104	86.9	86.1			0.908
	Tolfenpyrad	60.0	60.4	56.0			7.54
	Triclopyr	84.0	125	124			0.682
SM 2320 B-2011	Total Alkalinity	97.0				2.46	
SM 2540 C-2015	TDS	94.4				1.44	
SM 2540 D-2015	TSS	93.9					
SM 4500-F- C-2011	Fluoride	97.7	99.0	97.8			1.03
SM 5310 B-2011	Organic Carbon	94.2	96.6	95.0			0.946

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2432991
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2432991
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2432998
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2432998
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2432991
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2432991
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2432992
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2432992
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2432992
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2432992
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2432993
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2432999
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2432999
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2432997
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2432991
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2432998
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2432991
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2432991
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2432991
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2432992

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	08/23/2023			08/23/2023 15:48	Alexis Price	2432991
EPA 180.1 Rev. 2.0	08/23/2023			08/23/2023 13:56	Alexis Price	2432991
EPA 200.7 Rev. 4.4	08/23/2023	08/24/2023 13:25	George D Taylor	08/25/2023 14:30	Samatha Luckman	2432998
EPA 200.8 Rev. 5.4	08/23/2023	08/24/2023 13:25	George D Taylor	08/29/2023 17:55	Conrad Hartmann	2432998
EPA 300.0 Rev. 2.1	08/23/2023			08/25/2023 01:20	James L Waggerby	2432991
EPA 350.1 Rev. 2.0	08/23/2023			09/05/2023 12:14	Ping Hua	2432992
EPA 351.2 Rev. 2.0	08/23/2023	09/08/2023 12:21	Simonne.V. Calhoun	09/11/2023 10:25	Samantha L Bates	2432992
EPA 353.2 Rev. 2.0	08/23/2023			09/07/2023 13:53	Anna M. Plaviak	2432992
EPA 365.1 Rev. 2.0	08/23/2023	09/01/2023 15:30	Adam P Silver	09/08/2023 13:20	James L Waggerby	2432992
EPA 365.1 Rev. 2.0 dissolved	08/23/2023			08/23/2023 14:31	Elise M. Gillis	2432993
EPA 8270E	08/23/2023	08/23/2023 14:00	Rasheda Ghaffari	08/25/2023 18:02	Vandana T. Nagar	2432999
	08/23/2023	08/23/2023 14:00	Rasheda Ghaffari	08/28/2023 21:15	Arthur Maknenko	2432999
	08/23/2023	08/23/2023 14:00	Rasheda Ghaffari	08/29/2023 18:53	Vandana T. Nagar	2432999
EPA 8321B	08/23/2023	08/25/2023 06:00	Hana Lee	08/25/2023 09:49	Tae K Lee	2432997
	08/23/2023	08/25/2023 06:00	Hana Lee	08/25/2023 20:26	Tae K Lee	2432997
	08/23/2023	08/29/2023 09:00	Hoor Shaik	09/02/2023 08:57	Juyoung Kim	2432997
SM 2320 B-2011	08/23/2023			08/29/2023 23:49	Dale L. Simmons	2432991
SM 2340 B-2011	08/23/2023			08/25/2023 14:30	Samatha Luckman	2432998
SM 2540 C-2015	08/23/2023			08/25/2023 15:21	Yijie Li	2432991
SM 2540 D-2015	08/23/2023			08/25/2023 15:21	Yijie Li	2432991
SM 4500-F- C-2011	08/23/2023			08/29/2023 23:49	Dale L. Simmons	2432991
SM 5310 B-2011	08/23/2023			08/28/2023 14:22	Elise M. Gillis	2432992