

Chemical Analysis Report

CEN-DIST-2022-01-27-01

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

Event Description: **Bass Slough - SCI**
Request ID: **RQ-2022-01-24-20**
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: 18-FEB-2022 12:00



NON-CONFORMANCE REPORT INCLUDED

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;

MS – Recovery for the batch matrix spike (MS) was outside existing control limits;

CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;

SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;

RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;

RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;

SMP – Sample - used precision derived from replicate analyses of a sample;

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

A - Value reported is the mean of two or more determinations.

B - Results based on colony counts outside the acceptable range.

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J - Estimated value and/or the analysis did not meet established quality control criteria.

K - Actual value is known to be less than value given.

L - Actual value is known to be greater than value given.

N - Presumptive evidence of presence of material.

O - Sampled, but analysis lost or not performed.

Q - Sample held beyond normal holding time.

T - Value reported is less than the criterion of detection.

U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.

V - Analyte was detected in both sample and method blank.

X - Too few individuals to calculate SCI value.

Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.

Z - Colonies were too numerous to count (TNTC).

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

Sample Location: Bass Slough 10m N of Neptune Rd

Collection Date/Time: 01/26/2022 11:41

Field ID: G4CE0219

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2302028	DEP SOP: NU-094-1	Color (true)**	36		PCU	P409065	
	EPA 180.1 Rev. 2.0	Turbidity	4.7		NTU	P409103	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P409418	
		Sulfate	8.9		mg SO4/L	P409421	
	SM 2320 B-2011	Total Alkalinity	49		mg CaCO3/L	P409175	
	SM 2540 C-2011	TDS	112	A	mg/L	P409661	
	SM 2540 D-2011	TSS	3	IA	mg/L	P409663	
	SM 4500 F-C-2011	Fluoride	0.092	I	mg F/L	P409177	
2302029	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P409472	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P409233	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.046		mg N/L	P409210	
	EPA 365.1 Rev. 2.0	Total-P	0.087		mg P/L	P409101	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P409962	
2302030	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.050		mg P/L	P409087	
2302033	EPA 8321B	2,4-D	0.028		ug/L	P409048	
		Acesulfame K	0.32	I	ug/L	P409043	
		2,4,5-T	0.0040	U	ug/L	P409048	
		AMPA	0.49		ug/L	P409043	
		Acetaminophen	0.0080	U	ug/L	P409048	
		Acetamiprid	0.0020	U	ug/L	P409048	
		Endothall	0.25	U	ug/L	P409043	MS
		Glufosinate	0.10	U	ug/L	P409043	
		Glyphosate	1.7		ug/L	P409043	
		Afidopyropen	0.0020	U	ug/L	P409048	
		Bentazon	0.040		ug/L	P409048	
		Sucralose	0.82		ug/L	P409043	
		Benzovindiflupyr	0.0020	U	ug/L	P409048	
		Carbamazepine	0.0013	I	ug/L	P409048	
		Clothianidin	0.0020	U	ug/L	P409048	
		Dinotefuran	0.0021	I	ug/L	P409048	
		Diuron	0.0083		ug/L	P409048	
		Fenuron	0.016	U	ug/L	P409048	
		Fluridone	0.024		ug/L	P409048	
		Imazapyr	0.67		ug/L	P409048	
		Hydrocodone	0.0020	U	ug/L	P409048	
		Ibuprofen	0.020	U	ug/L	P409048	
		Imidacloprid	0.0039	I	ug/L	P409048	
		Linuron	0.0040	U	ug/L	P409048	
		Mandestrobin	0.0020	U	ug/L	P409048	
		MCPP	0.0042	I	ug/L	P409048	
		Naproxen	0.0080	U	ug/L	P409048	
		Primidone	0.0040	U	ug/L	P409048	
		Pyraclostrobin	0.0020	U	ug/L	P409048	

Field ID: G4CE0219

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2302033	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P409048	
		Tolfenpyrad	0.0020	U	ug/L	P409048	
		Triclopyr	0.0040	U	ug/L	P409048	
2302034	EPA 200.7 Rev. 4.4	Barium	15.8		ug/L	P409205	
		Calcium	20.4		mg/L	P409205	
		Iron	350		ug/L	P409205	
		Magnesium	3.28		mg/L	P409205	
		Manganese	8.8		ug/L	P409205	
		Potassium	2.2		mg/L	P409205	
		Sodium	13.5		mg/L	P409205	
		Zinc	5.0	U	ug/L	P409205	
	EPA 200.8 Rev. 5.4	Aluminum	103		ug/L	P409205	
		Antimony	0.20	I	ug/L	P409205	
		Arsenic	0.52		ug/L	P409205	
		Boron**	30.9		ug/L	P409205	
		Cadmium	0.020	U	ug/L	P409205	
		Chromium	0.58	I	ug/L	P409205	
		Copper	1.83		ug/L	P409205	
		Lead	0.20	I	ug/L	P409205	
		Nickel	0.50	U	ug/L	P409205	
		Selenium	0.20	U	ug/L	P409205	
		Silver	0.010	U	ug/L	P409205	
		Thallium	0.10	U	ug/L	P409205	
	SM 2340B	Hardness	64.4		mg/L	P409205	
2302035	EPA 8270E	Acetochlor	0.24	U	ng/L	P409108	
		Alachlor	0.24	U	ng/L	P409108	
		Ametryn	0.57	U	ng/L	P409108	
		Atrazine	170		ng/L	P409108	
		Atrazine Desethyl	26		ng/L	P409108	
		Azinphos Methyl	1.9	U	ng/L	P409108	
		Azoxystrobin**	2.5		ng/L	P409108	
		Bromacil	3.6		ng/L	P409108	
		Butylate	0.38	U	ng/L	P409108	
		Caffeine**	59		ng/L	P409108	
		Carbophenothion	0.19	U	ng/L	P409108	
		Carfentrazone Ethyl**	0.095	U	ng/L	P409108	
		Chlorfenapyr**	0.17	U	ng/L	P409108	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P409108	
		Chlorpyrifos Methyl	0.047	U	ng/L	P409108	
		Coumaphos**	0.47	U	ng/L	P409108	
		Cyanazine	3.1	U	ng/L	P409108	
		Cyprodinil**	0.095	U	ng/L	P409108	
		Demeton	1.4	U	ng/L	P409108	
		Diazinon	0.12	U	ng/L	P409108	
		Difenoconazole**	0.57	U	ng/L	P409108	

Field ID: G4CE0219

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2302035	EPA 8270E	Dimethenamid**	0.095	U	ng/L	P409108	
		Dimethomorph**	0.17	U	ng/L	P409108	
		Disulfoton	0.47	U	ng/L	P409108	
		Dithiopyr**	0.48	I	ng/L	P409108	
		EPTC	1.2	U	ng/L	P409108	
		Ethion	0.14	U	ng/L	P409108	
		Ethoprop	0.095	U	ng/L	P409108	
		Etridiazole**	0.14	U	ng/L	P409108	
		Fenamiphos	0.47	U	ng/L	P409108	
		Fenbuconazole**	0.12	U	ng/L	P409108	
		Fipronil	1.3		ng/L	P409108	
		Fipronil DesulfinyI**	1.2		ng/L	P409108	
		Fipronil Sulfide	0.55	I	ng/L	P409108	
		Fipronil Sulfone	1.2		ng/L	P409108	
		Fluazifop-P-butyl**	0.095	U	ng/L	P409108	
		Fludioxonil**	0.12	U	ng/L	P409108	
		Flumioxazin**	2.3	I	ng/L	P409108	
		Flutolanil**	0.095	U	ng/L	P409108	
		Fluxapyroxad**	3.7		ng/L	P409108	
		Fonofos	0.19	U	ng/L	P409108	
		Hexazinone	0.47	U	ng/L	P409108	
		Imazalil**	0.71	U	ng/L	P409108	
		Iprodione**	0.57	U	ng/L	P409108	
		Loratadine**	0.095	U	ng/L	P409108	
		Malathion	0.33	U	ng/L	P409108	
		Metalaxyl	0.71	U	ng/L	P409108	
		Metolachlor	1.1	I	ng/L	P409108	
		Metribuzin	2.4	U	ng/L	P409108	
		Mevinphos	1.0	U	ng/L	P409108	
		Molinate	0.28	U	ng/L	P409108	
		Myclobutanil**	0.24	I	ng/L	P409108	
		Naled**	1.4	UJ	ng/L	P409108	LCS, MS
		Napropamide**	0.38	U	ng/L	P409108	
		Norflurazon	0.92	I	ng/L	P409108	
		Oxadiazon	0.91	I	ng/L	P409108	
		Oxyfluorfen**	0.14	U	ng/L	P409108	
		Parathion Ethyl	0.24	U	ng/L	P409108	
		Parathion Methyl	0.52	U	ng/L	P409108	
		Pendimethalin	0.95	U	ng/L	P409108	
		Phenytain**	3.3	U	ng/L	P409108	
		Phorate	0.50	U	ng/L	P409108	
		Prodiamine**	0.17	U	ng/L	P409108	
		Prometon	0.85	U	ng/L	P409108	RPD
		Prometryn	0.19	U	ng/L	P409108	
		Pronamide**	0.14	U	ng/L	P409108	

Field ID: G4CE0219

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2302035	EPA 8270E	Propanil**	0.12	U	ng/L	P409108	
		Propargite**	1.4	U	ng/L	P409108	
		Propiconazole**	1.0	I	ng/L	P409108	
		Pyraflufen Ethyl**	0.24	U	ng/L	P409108	
		Pyridaben**	0.43	U	ng/L	P409108	
		Pyriproxyfen**	0.12	U	ng/L	P409108	
		Simazine	8.5		ng/L	P409108	
		Stirophos**	0.12	U	ng/L	P409108	
		Sulfentrazone**	52		ng/L	P409108	
		Tebuconazole**	0.89	I	ng/L	P409108	
		Terbufos	0.095	U	ng/L	P409108	
		Terbutylazine	0.40	U	ng/L	P409108	
		Thiobencarb**	0.57	U	ng/L	P409108	
		Triadimefon**	0.24	U	ng/L	P409108	

Ref. Method and Comment:

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

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: MS accuracy for Flutolanil not assessed due to high content of this parameter in the sample spiked. The bottle with intact cap was used.

Refer to the Lab Analysis Report for an explanation of QC Codes.

Non-Conformance Report

NCR ID: 9233

Event(s)

CEN-DIST-2022-01-27-01

Job(s)

TLH-2022-01-27-23

Sample(s)

2302035

Test(s)

NCR Type: SHIPPING/RECEIVING

NCR Category: Receiving

Observation: Sample received with broken cap.

Resolution: Additional container logged in.

Authorized by/Date: Kyle Klug 1/28/2022

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

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P409065

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409103

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409205

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409205

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	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: P409418

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409421

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409472

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409233

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409210

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409101

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409087

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

Reference Method: EPA 8270E
Batch ID: P409108

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P409108

Component	Result	Code	Units
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
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	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P409108

Component	Result	Code	Units
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
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P409108

Component	Result	Code	Units
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B

Batch ID: P409043

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: P409048

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P409048

Component	Result	Code	Units
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P409175

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

Reference Method: SM 2540 C-2011

Batch ID: P409661

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P409663

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P409177

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P409962

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: P409065

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.4		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	106		P	85 - 115
Calcium	104		P	85 - 115
Iron	106		P	85 - 115
Magnesium	106		P	85 - 115
Manganese	105		P	85 - 115
Potassium	103		P	85 - 115
Sodium	104		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409205

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	102		P	85 - 115
Boron	100		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	101		P	85 - 115
Copper	102		P	85 - 115
Lead	100		P	85 - 115
Nickel	103		P	85 - 115
Selenium	101		P	85 - 115
Silver	105		P	85 - 115
Thallium	107		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409418

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409421

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409472

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P409233

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.6		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P409210

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: P409101

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: P409087

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.2		P	90 - 110

Reference Method: EPA 8270E

Batch ID: P409108

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	114		P	70 - 121
Alachlor	103		P	68 - 119
Ametryn	112		P	64 - 139
Atrazine	106		P	76 - 120
Atrazine Desethyl	86.6		P	44 - 126
Azinphos Methyl	72.2		P	43 - 192
Azoxystrobin	109		P	36 - 224
Bromacil	109		P	52 - 121
Butylate	66.8		P	28 - 91.0
Caffeine	85.8		P	50 - 134
Carbophenothion	111		P	56 - 129
Carfentrazone Ethyl	125		P	60 - 141
Chlorfenapyr	103		P	56 - 115
Chlorpyrifos Ethyl	113		P	60 - 118
Chlorpyrifos Methyl	110		P	68 - 119
Coumaphos	171		P	18 - 250
Cyanazine	133		P	61 - 250
Cyprodinil	140		P	55 - 145
Demeton	96.8		P	30 - 159
Diazinon	106		P	70 - 123
Difenoconazole	108		P	49 - 204
Dimethenamid	91.0		P	64 - 115
Dimethomorph	111		P	12 - 219
Disulfoton	89.0		P	44 - 125
Dithiopyr	104		P	64 - 115
EPTC	61.1		P	28 - 86.0
Ethion	103		P	33 - 125
Ethoprop	85.4		P	64 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P409108

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Etridiazole	69.1		P	34 - 91.0
Fenamiphos	126		P	12 - 127
Fenbuconazole	145		P	59 - 151
Fipronil	110		P	67 - 129
Fipronil Desulfinyl	111		P	65 - 127
Fipronil Sulfide	95.7		P	61 - 116
Fipronil Sulfone	105		P	55 - 117
Fluazifop-P-butyl	97.3		P	62 - 127
Fludioxonil	111		P	62 - 128
Flumioxazin	248		P	33 - 250
Flutolanil	104		P	56 - 127
Fluxapyroxad	127		P	45 - 128
Fonofos	85.7		P	62 - 111
Hexazinone	114		P	46 - 139
Imazalil	88.8		P	38 - 142
Iprodione	70.6		P	47 - 135
Loratadine	87.4		P	10 - 244
Malathion	128		P	61 - 139
Metalaxyl	99.7		P	10 - 119
Metolachlor	111		P	65 - 118
Metribuzin	111		P	51 - 250
Mevinphos	89.0		P	53 - 121
Molinate	76.1		P	42 - 96.0
Myclobutanil	109		P	55 - 128
Naled	119		F	10 - 98.0
Napropamide	103		P	49 - 121
Norflurazon	119		P	61 - 126
Oxadiazon	92.9		P	59 - 116
Oxyfluorfen	117		P	64 - 137
Parathion Ethyl	106		P	70 - 112
Parathion Methyl	120		P	76 - 133
Pendimethalin	79.5		P	52 - 117
Phenytoin	113		P	10 - 199
Phorate	98.5		P	48 - 121
Prodiamine	98.2		P	26 - 142
Prometon	105		P	43 - 123
Prometryn	94.7		P	66 - 127
Pronamide	121		P	75 - 121
Propanil	118		P	45 - 150
Propargite	163		P	42 - 208
Propiconazole	99.8		P	60 - 125
Pyraflufen Ethyl	124		P	70 - 138
Pyridaben	159		P	35 - 245
Pyriproxyfen	61.7		P	30 - 149
Simazine	123		P	72 - 125
Stirophos	84.7		P	29 - 164
Sulfentrazone	136		P	21 - 139
Tebuconazole	78.7		P	10 - 115
Terbufos	102		P	60 - 123
Terbutylazine	101		P	72 - 115
Thiobencarb	112		P	31 - 139
Triadimefon	98.3		P	65 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P409043

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	99.1		P	40 - 150
AMPA	91.4		P	40 - 150
Endothall	136		P	40 - 150
Glufosinate	97.9		P	40 - 150
Glyphosate	91.2		P	40 - 150
Sucralose	91.7		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P409048

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	89.2		P	30 - 160
2,4,5-T	75.5		P	30 - 160
Acetaminophen	96.0		P	30 - 160
Acetamiprid	98.2		P	30 - 160
Afidopyropen	71.9		P	30 - 160
Bentazon	105		P	30 - 160
Benzovindiflupyr	93.1		P	30 - 160
Carbamazepine	99.5		P	30 - 160
Clothianidin	106		P	30 - 160
Dinotefuran	105		P	30 - 160
Diuron	92.4		P	30 - 160
Fenuron	111		P	30 - 160
Fluridone	97.5		P	30 - 160
Hydrocodone	115		P	30 - 160
Ibuprofen	79.1		P	30 - 160
Imazapyr	149		P	30 - 160
Imidacloprid	91.8		P	30 - 160
Linuron	84.1		P	30 - 160
Mandestrobin	99.1		P	30 - 160
MCPP	108		P	30 - 160
Naproxen	98.5		P	30 - 160
Primidone	99.4		P	30 - 160
Pyraclostrobin	92.4		P	30 - 160
Thiamethoxam	96.0		P	30 - 160
Tolfenpyrad	52.0		P	30 - 160
Triclopyr	75.5		P	30 - 160

Reference Method: SM 2320 B-2011

Batch ID: P409175

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.1		P	94 - 106

Reference Method: SM 4500 F-C-2011

Batch ID: P409177

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	93 - 104

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P409962

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P409205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2302002	Barium	106	105	P/P	80 - 120
2302002	Calcium	103		P	80 - 120
2302002	Iron	111	106	P/P	80 - 120
2302002	Magnesium	110	104	P/P	80 - 120
2302002	Manganese	106	105	P/P	80 - 120
2302002	Potassium	108	105	P/P	80 - 120
2302002	Sodium	106	101	P/P	80 - 120
2302002	Zinc	105	104	P/P	80 - 120
2302107	Barium	107		P	80 - 120
2302107	Calcium	102		P	80 - 120
2302107	Iron	108		P	80 - 120
2302107	Magnesium	106		P	80 - 120
2302107	Manganese	105		P	80 - 120
2302107	Potassium	103		P	80 - 120
2302107	Sodium	98.4		P	80 - 120
2302107	Zinc	108		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P409205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2302002	Aluminum	102	99.8	P/P	80 - 120
2302002	Antimony	103	102	P/P	80 - 120
2302002	Arsenic	98.3	97.9	P/P	80 - 120
2302002	Boron	100	97.5	P/P	80 - 120
2302002	Cadmium	103	101	P/P	80 - 120
2302002	Chromium	103	102	P/P	80 - 120
2302002	Copper	99.4	98.4	P/P	80 - 120
2302002	Lead	98.0	98.0	P/P	80 - 120
2302002	Nickel	106	100	P/P	80 - 120
2302002	Selenium	96.3	95.3	P/P	80 - 120
2302002	Silver	103	103	P/P	80 - 120
2302002	Thallium	107	107	P/P	80 - 120
2302107	Aluminum	101		P	80 - 120
2302107	Antimony	104		P	80 - 120
2302107	Arsenic	100		P	80 - 120
2302107	Boron	101		P	80 - 120
2302107	Cadmium	102		P	80 - 120
2302107	Chromium	101		P	80 - 120
2302107	Copper	101		P	80 - 120
2302107	Lead	102		P	80 - 120
2302107	Nickel	101		P	80 - 120
2302107	Selenium	99.1		P	80 - 120
2302107	Silver	104		P	80 - 120
2302107	Thallium	109		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P409418

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301865	Chloride	97.1		P	90 - 110
2302092	Chloride	98.2		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409421

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301865	Sulfate	94.9		P	90 - 110
2302092	Sulfate	94.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409472

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301998	Ammonia-N	95.6	95.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409233

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301867	Kjeldahl Nitrogen	95.7	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2302012	NO2NO3-N	98.4	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2302012	Total-P	108	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409087

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2302030	O-Phosphate-P	98.2	99.7	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P409108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301326	Acetochlor	106	107	P/P	65 - 124
2301326	Alachlor	96.4	98.2	P/P	61 - 121
2301326	Ametryn	152	138	P/P	52 - 216
2301326	Atrazine	102	99.3	P/P	68 - 133
2301326	Atrazine Desethyl	58.1	62.5	P/P	15 - 160
2301326	Azinphos Methyl	72.1	78.8	P/P	40 - 292
2301326	Azoxystrobin	98.6	105	P/P	12 - 242
2301326	Bromacil	101	99.7	P/P	54 - 167
2301326	Butylate	39.5	47.7	P/P	14 - 94.0
2301326	Caffeine	115	126	P/P	10 - 226
2301326	Carbophenothion	101	106	P/P	49 - 122
2301326	Carfentrazone Ethyl	121	118	P/P	53 - 138
2301326	Chlorfenapyr	85.7	91.5	P/P	50 - 150
2301326	Chlorpyrifos Ethyl	105	109	P/P	52 - 122
2301326	Chlorpyrifos Methyl	106	109	P/P	66 - 117

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P409108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301326	Coumaphos	185	200	P/P	50 - 220
2301326	Cyanazine	120	128	P/P	43 - 245
2301326	Cyprodinil	121	128	P/P	50 - 150
2301326	Demeton	86.5	97.8	P/P	43 - 188
2301326	Diazinon	104	103	P/P	69 - 131
2301326	Difenoconazole	84.6	86.6	P/P	34 - 231
2301326	Dimethenamid	99.1	98.2	P/P	55 - 118
2301326	Dimethomorph	102	102	P/P	50 - 150
2301326	Disulfoton	93.8	104	P/P	38 - 141
2301326	Dithiopyr	101	96.5	P/P	42 - 116
2301326	EPTC	31.3	37.2	P/P	18 - 85.0
2301326	Ethion	93.8	85.9	P/P	10 - 131
2301326	Ethoprop	100	104	P/P	65 - 129
2301326	Etridiazole	52.0	56.1	P/P	50 - 150
2301326	Fenamiphos	89.1	80.6	P/P	31 - 137
2301326	Fenbuconazole	147	144	P/P	57 - 160
2301326	Fipronil	109	109	P/P	62 - 132
2301326	Fipronil Desulfinyl	106	101	P/P	57 - 131
2301326	Fipronil Sulfide	98.3	96.3	P/P	15 - 138
2301326	Fipronil Sulfone	101	100	P/P	21 - 134
2301326	Fluazifop-P-butyl	97.6	96.4	P/P	54 - 133
2301326	Fludioxonil	93.0	95.1	P/P	58 - 127
2301326	Flumioxazin	269	295	P/P	33 - 300
2301326	Fluxapyroxad	99.3	70.5	P/P	23 - 141
2301326	Fonofos	87.1	95.9	P/P	58 - 119
2301326	Hexazinone	106	106	P/P	68 - 172
2301326	Imazalil	104	89.3	P/P	48 - 283
2301326	Iprodione	61.7	60.6	P/P	38 - 140
2301326	Loratadine	75.7	76.6	P/P	50 - 150
2301326	Malathion	115	116	P/P	40 - 137
2301326	Metalaxyl	97.8	90.6	P/P	21 - 129
2301326	Metolachlor	102	98.6	P/P	55 - 122
2301326	Metribuzin	113	107	P/P	38 - 187
2301326	Mevinphos	99.9	108	P/P	54 - 134
2301326	Molinate	69.9	79.7	P/P	41 - 97.0
2301326	Myclobutanil	103	102	P/P	56 - 125
2301326	Naled	105	110	P/F	10 - 108
2301326	Napropamide	95.0	93.1	P/P	50 - 150
2301326	Norflurazon	122	116	P/P	32 - 122
2301326	Oxadiazon	83.8	80.1	P/P	40 - 119
2301326	Oxyfluorfen	126	121	P/P	61 - 153
2301326	Parathion Ethyl	92.2	97.1	P/P	59 - 130
2301326	Parathion Methyl	109	118	P/P	65 - 155
2301326	Pendimethalin	86.2	87.3	P/P	49 - 138
2301326	Phenytoin	114	108	P/P	50 - 200
2301326	Phorate	116	107	P/P	54 - 161
2301326	Prodiamine	129	126	P/P	33 - 161
2301326	Prometon	104	72.1	P/P	48 - 140
2301326	Prometryn	93.8	85.0	P/P	55 - 134
2301326	Pronamide	116	110	P/P	66 - 137
2301326	Propanil	112	115	P/P	50 - 150
2301326	Propargite	151	144	P/P	50 - 200

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P409108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301326	Propiconazole	131	128	P/P	36 - 150
2301326	Pyraflufen Ethyl	132	118	P/P	50 - 150
2301326	Pyridaben	174	194	P/P	50 - 200
2301326	Pyriproxyfen	55.1	47.2	P/P	10 - 165
2301326	Simazine	105	111	P/P	57 - 145
2301326	Stirophos	98.3	98.9	P/P	50 - 150
2301326	Sulfentrazone	103	89.4	P/P	34 - 140
2301326	Tebuconazole	75.1	46.2	P/P	10 - 127
2301326	Terbufos	118	121	P/P	59 - 138
2301326	Terbuthylazine	99.0	94.1	P/P	68 - 119
2301326	Thiobencarb	102	105	P/P	50 - 150
2301326	Triadimefon	80.7	78.1	P/P	50 - 150

Reference Method: EPA 8321B

Batch ID: P409043

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301661	Acesulfame K	100	84.0	P/P	40 - 150
2301661	AMPA	94.5	88.6	P/P	40 - 150
2301661	Endothall	159	164	F/F	40 - 150
2301661	Glufosinate	99.0	82.7	P/P	40 - 150
2301661	Glyphosate	90.4	80.7	P/P	40 - 150
2301661	Sucralose	91.2	96.4	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P409048

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301732	2,4-D	148	149	P/P	30 - 160
2301732	2,4,5-T	102	114	P/P	30 - 160
2301732	Acetaminophen	125	134	P/P	30 - 160
2301732	Acetamiprid	106	90.2	P/P	30 - 160
2301732	Afidopyropen	58.6	51.0	P/P	30 - 160
2301732	Benzovindiflupyr	92.0	94.0	P/P	30 - 160
2301732	Clothianidin	150	150	P/P	30 - 160
2301732	Dinotefuran	146	146	P/P	30 - 160
2301732	Diuron	88.9	84.5	P/P	30 - 160
2301732	Fenuron	89.8	92.5	P/P	30 - 160
2301732	Fluridone	106	102	P/P	30 - 160
2301732	Hydrocodone	120	120	P/P	30 - 160
2301732	Ibuprofen	71.8	77.6	P/P	30 - 160
2301732	Linuron	76.3	78.5	P/P	30 - 160
2301732	Mandestrobin	97.2	98.3	P/P	30 - 160
2301732	MCCP	138	142	P/P	30 - 160
2301732	Naproxen	89.4	106	P/P	30 - 160
2301732	Primidone	133	121	P/P	30 - 160
2301732	Pyraclostrobin	94.0	97.3	P/P	30 - 160
2301732	Thiamethoxam	159	159	P/P	30 - 160
2301732	Tolfenpyrad	54.7	58.9	P/P	30 - 160
2301732	Triclopyr	110	120	P/P	30 - 160

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P409177

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301997	Fluoride	98.4	97.8	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P409962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300930	Organic Carbon	99.5		P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P409065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2302128	Color (true)	1.73	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2302040	Turbidity	5.26	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2302002	Barium	0.755	Spike	P	0 - 20
2302002	Calcium	3.68	Spike	P	0 - 20
2302002	Iron	3.92	Spike	P	0 - 20
2302002	Magnesium	3.98	Spike	P	0 - 20
2302002	Manganese	0.794	Spike	P	0 - 20
2302002	Potassium	3.38	Spike	P	0 - 20
2302002	Sodium	3.42	Spike	P	0 - 20
2302002	Zinc	1.05	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2302002	Aluminum	1.73	Spike	P	0 - 20
2302002	Antimony	1.20	Spike	P	0 - 20
2302002	Arsenic	0.374	Spike	P	0 - 20
2302002	Boron	2.41	Spike	P	0 - 20
2302002	Cadmium	2.02	Spike	P	0 - 20
2302002	Chromium	1.01	Spike	P	0 - 20
2302002	Copper	1.01	Spike	P	0 - 20
2302002	Lead	0.0354	Spike	P	0 - 20
2302002	Nickel	5.52	Spike	P	0 - 20
2302002	Selenium	1.08	Spike	P	0 - 20
2302002	Silver	0.236	Spike	P	0 - 20
2302002	Thallium	0.0833	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409418

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301865	Chloride	0.229	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301865	Sulfate	0.698	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409472

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301998	Ammonia-N	0.189	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301867	Kjeldahl Nitrogen	5.89	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2302012	NO2NO3-N	0.454	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2302012	Total-P	1.03	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409087

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2302030	O-Phosphate-P	1.01	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P409108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301326	Acetochlor	0.610	Spike	P	0 - 27
2301326	Alachlor	1.81	Spike	P	0 - 27
2301326	Ametryn	9.74	Spike	P	0 - 34
2301326	Atrazine	2.28	Spike	P	0 - 41
2301326	Atrazine Desethyl	7.37	Spike	P	0 - 38
2301326	Azinphos Methyl	8.81	Spike	P	0 - 62
2301326	Azoxystrobin	4.63	Spike	P	0 - 32
2301326	Bromacil	0.941	Spike	P	0 - 30
2301326	Butylate	18.8	Spike	P	0 - 59

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P409108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301326	Caffeine	9.40	Spike	P	0 - 60
2301326	Carbophenothion	5.19	Spike	P	0 - 25
2301326	Carfentrazone Ethyl	1.99	Spike	P	0 - 26
2301326	Chlorfenapyr	6.61	Spike	P	0 - 30
2301326	Chlorpyrifos Ethyl	3.36	Spike	P	0 - 27
2301326	Chlorpyrifos Methyl	2.68	Spike	P	0 - 26
2301326	Coumaphos	7.69	Spike	P	0 - 30
2301326	Cyanazine	6.37	Spike	P	0 - 58
2301326	Cyprodinil	4.93	Spike	P	0 - 30
2301326	Demeton	12.3	Spike	P	0 - 25
2301326	Diazinon	1.30	Spike	P	0 - 29
2301326	Difenoconazole	2.37	Spike	P	0 - 25
2301326	Dimethenamid	0.933	Spike	P	0 - 30
2301326	Dimethomorph	0.377	Spike	P	0 - 30
2301326	Disulfoton	10.2	Spike	P	0 - 33
2301326	Dithiopyr	4.75	Spike	P	0 - 22
2301326	EPTC	17.4	Spike	P	0 - 38
2301326	Ethion	8.77	Spike	P	0 - 79
2301326	Ethoprop	3.96	Spike	P	0 - 23
2301326	Etridiazole	7.49	Spike	P	0 - 30
2301326	Fenamiphos	10.0	Spike	P	0 - 58
2301326	Fenbuconazole	1.92	Spike	P	0 - 37
2301326	Fipronil	0.0491	Spike	P	0 - 33
2301326	Fipronil Desulfinyl	5.02	Spike	P	0 - 26
2301326	Fipronil Sulfide	2.00	Spike	P	0 - 37
2301326	Fipronil Sulfone	0.798	Spike	P	0 - 50
2301326	Fluazifop-P-butyl	1.19	Spike	P	0 - 24
2301326	Fludioxonil	2.29	Spike	P	0 - 26
2301326	Flumioxazin	9.19	Spike	P	0 - 37
2301326	Flutolanil	1.33	Spike	P	0 - 26
2301326	Fluxapyroxad	22.8	Spike	P	0 - 34
2301326	Fonofos	9.70	Spike	P	0 - 27
2301326	Hexazinone	0.171	Spike	P	0 - 36
2301326	Imazalil	15.4	Spike	P	0 - 65
2301326	Iprodione	1.75	Spike	P	0 - 33
2301326	Loratadine	1.15	Spike	P	0 - 30
2301326	Malathion	0.886	Spike	P	0 - 44
2301326	Metalaxyl	7.66	Spike	P	0 - 38
2301326	Metolachlor	2.58	Spike	P	0 - 36
2301326	Metribuzin	5.90	Spike	P	0 - 63
2301326	Mevinphos	8.21	Spike	P	0 - 26
2301326	Molinate	13.1	Spike	P	0 - 40
2301326	Myclobutanil	1.01	Spike	P	0 - 21
2301326	Naled	4.89	Spike	P	0 - 26
2301326	Napropamide	1.98	Spike	P	0 - 30
2301326	Norflurazon	4.46	Spike	P	0 - 24
2301326	Oxadiazon	4.62	Spike	P	0 - 27
2301326	Oxyfluorfen	4.15	Spike	P	0 - 24
2301326	Parathion Ethyl	5.16	Spike	P	0 - 28
2301326	Parathion Methyl	7.69	Spike	P	0 - 27
2301326	Pendimethalin	1.21	Spike	P	0 - 31

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P409108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301326	Phenytoin	5.16	Spike	P	0 - 30
2301326	Phorate	7.64	Spike	P	0 - 27
2301326	Prodiamine	2.78	Spike	P	0 - 52
2301326	Prometon	35.9	Spike	F	0 - 31
2301326	Prometryn	9.79	Spike	P	0 - 28
2301326	Pronamide	4.89	Spike	P	0 - 26
2301326	Propanil	2.58	Spike	P	0 - 30
2301326	Propargite	5.18	Spike	P	0 - 30
2301326	Propiconazole	2.40	Spike	P	0 - 31
2301326	Pyraflufen Ethyl	11.7	Spike	P	0 - 30
2301326	Pyridaben	11.3	Spike	P	0 - 30
2301326	Pyriproxyfen	14.5	Spike	P	0 - 50
2301326	Simazine	5.21	Spike	P	0 - 29
2301326	Stirophos	0.613	Spike	P	0 - 30
2301326	Sulfentrazone	14.5	Spike	P	0 - 33
2301326	Tebuconazole	33.5	Spike	P	0 - 44
2301326	Terbufos	2.59	Spike	P	0 - 29
2301326	Terbuthylazine	5.05	Spike	P	0 - 27
2301326	Thiobencarb	3.56	Spike	P	0 - 30
2301326	Triadimefon	3.26	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P409043

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301661	Acesulfame K	17.0	Spike	P	0 - 30
2301661	AMPA	6.47	Spike	P	0 - 30
2301661	Endothall	3.00	Spike	P	0 - 30
2301661	Glufosinate	17.9	Spike	P	0 - 30
2301661	Glyphosate	11.2	Spike	P	0 - 30
2301661	Sucralose	5.18	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P409048

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301732	2,4-D	0.393	Spike	P	0 - 30
2301732	2,4,5-T	11.7	Spike	P	0 - 30
2301732	Acetaminophen	7.07	Spike	P	0 - 30
2301732	Acetamiprid	15.9	Spike	P	0 - 30
2301732	Afidopyropen	14.0	Spike	P	0 - 30
2301732	Bentazon	1.54	Spike	P	0 - 30
2301732	Benzovindiflupyr	2.22	Spike	P	0 - 30
2301732	Carbamazepine	1.98	Spike	P	0 - 30
2301732	Clothianidin	0.548	Spike	P	0 - 30
2301732	Dinotefuran	0.243	Spike	P	0 - 30
2301732	Diuron	5.16	Spike	P	0 - 30
2301732	Fenuron	2.99	Spike	P	0 - 30
2301732	Fluridone	2.46	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P409048

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301732	Hydrocodone	0.721	Spike	P	0 - 30
2301732	Ibuprofen	7.74	Spike	P	0 - 30
2301732	Imazapyr	5.54	Spike	P	0 - 30
2301732	Imidacloprid	1.01	Spike	P	0 - 30
2301732	Linuron	2.84	Spike	P	0 - 30
2301732	Mandestrobin	1.10	Spike	P	0 - 30
2301732	MCPP	2.78	Spike	P	0 - 30
2301732	Naproxen	16.5	Spike	P	0 - 30
2301732	Primidone	5.78	Spike	P	0 - 30
2301732	Pyraclostrobin	3.49	Spike	P	0 - 30
2301732	Thiamethoxam	0.436	Spike	P	0 - 30
2301732	Tolfenpyrad	7.51	Spike	P	0 - 30
2301732	Triclopyr	8.70	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
 Batch ID: P409175

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301997	Total Alkalinity	2.01	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
 Batch ID: P409661

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2302028	TDS	5.36	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P409177

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301997	Fluoride	0.480	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
 Batch ID: P409962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300930	Organic Carbon	0.771	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2302033
Field Sample ID: G4CE0219

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	99.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	103	P	30 - 160
EPA 8321B	Diuron-d6	72.7	P	30 - 160
EPA 8321B	Endothall-d6	122	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.0	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	118	P	30 - 160

Lab Sample ID: 2302035
Field Sample ID: G4CE0219

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	75.0	P	20 - 200
EPA 8270E	Simazine-d10	130	P	71 - 140
EPA 8270E	Terbufos-d10	115	P	62 - 131

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A110070

Included Lab Sample IDs: 2302028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.7	99.9	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A110080

Included Lab Sample IDs: 2302030

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A110086

Included Lab Sample IDs: 2302028

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

Reference Method: SM 2320 B-2011

Run ID: A110117

Included Lab Sample IDs: 2302028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.4	97.7	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A110117

Included Lab Sample IDs: 2302028

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A110125

Included Lab Sample IDs: 2302029

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

Reference Method: EPA 8321B

Run ID: A110148

Included Lab Sample IDs: 2302033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	83.4	77.0	P/P	50 - 150
2,4,5-T	83.0	72.4	P/P	50 - 150
Acetaminophen	122	118	P/P	60 - 160
Acetamiprid	110	107	P/P	50 - 150
Afidopyropen	96.6	99.1	P/P	50 - 150
Bentazon	97.4	79.2	P/P	50 - 160
Benzovindiflupyr	108	108	P/P	50 - 160
Carbamazepine	104	107	P/P	60 - 150
Clothianidin	111	119	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A110148
Included Lab Sample IDs: 2302033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dinotefuran	118	121	P/P	50 - 150
Diuron	121	117	P/P	60 - 160
Fenuron	115	118	P/P	60 - 150
Fluridone	116	108	P/P	60 - 160
Hydrocodone	112	109	P/P	60 - 150
Ibuprofen	69.4	75.6	P/P	50 - 160
Imazapyr	136	137	P/P	50 - 160
Imidacloprid	103	101	P/P	60 - 150
Linuron	114	113	P/P	60 - 150
Mandestrobin	116	114	P/P	50 - 150
MCPP	84.0	84.2	P/P	50 - 150
Naproxen	65.4	97.7	P/P	50 - 160
Primidone	104	86.3	P/P	60 - 150
Pyraclostrobin	112	111	P/P	60 - 150
Thiamethoxam	112	108	P/P	50 - 150
Tolfenpyrad	98.4	99.3	P/P	60 - 150
Triclopyr	73.7	82.5	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A110153
Included Lab Sample IDs: 2302033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	97.0	92.5	P/P	60 - 160
Glufosinate	102	100	P/P	60 - 160
Glyphosate	93.6	89.9	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A110154
Included Lab Sample IDs: 2302028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.4	99.8	P/P	90 - 110
Sulfate	99.1	99.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A110160
Included Lab Sample IDs: 2302034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	102	P/P	90 - 110
Antimony	104	104	P/P	90 - 110
Arsenic	101	100	P/P	90 - 110
Boron	103	103	P/P	90 - 110
Cadmium	102	103	P/P	90 - 110
Chromium	99.6	100	P/P	90 - 110
Copper	98.3	99.4	P/P	90 - 110
Lead	97.5	97.5	P/P	90 - 110
Nickel	98.5	99.9	P/P	90 - 110
Selenium	101	100	P/P	90 - 110
Silver	104	105	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A110160

Included Lab Sample IDs: 2302034

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

Reference Method: EPA 8321B

Run ID: A110183

Included Lab Sample IDs: 2302033

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	102	80.9	P/P	60 - 160
Endothall	139	125	P/P	60 - 160
Sucralose	97.7	104	P/P	60 - 160

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A110187

Included Lab Sample IDs: 2302034

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	101	105	P/P	90 - 110
Calcium	101	99.5	P/P	90 - 110
Iron	102	99.8	P/P	90 - 110
Magnesium	101	99.1	P/P	90 - 110
Manganese	103	104	P/P	90 - 110
Potassium	97.4	96.2	P/P	90 - 110
Sodium	99.5	97.9	P/P	90 - 110
Zinc	101	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A110198

Included Lab Sample IDs: 2302029

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A110218

Included Lab Sample IDs: 2302029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.1	97.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A110252

Included Lab Sample IDs: 2302029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	94.8	94.7	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A110253

Included Lab Sample IDs: 2302035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A110253
 Included Lab Sample IDs: 2302035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	101		P	80 - 120
Atrazine Desethyl	111		P	80 - 120
Azinphos Methyl	108		P	80 - 120
Bromacil	99.7		P	80 - 120
Butylate	107		P	80 - 120
Caffeine	90.6		P	80 - 120
Carbophenothion	81.1		P	80 - 120
Carfentrazone Ethyl	93.5		P	80 - 120
Chlorfenapyr	106		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Coumaphos	94.9		P	80 - 120
Cyanazine	107		P	80 - 120
Cyprodinil	102		P	80 - 120
Demeton	103		P	80 - 120
Diazinon	100		P	80 - 120
Difenoconazole	104		P	80 - 120
Dimethenamid	101		P	80 - 120
Dimethomorph	105		P	80 - 120
Disulfoton	100		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	102		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	100		P	80 - 120
Etridiazole	99.6		P	80 - 120
Fenamiphos	100		P	80 - 120
Fenbuconazole	94.1		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	97.4		P	80 - 120
Fipronil Sulfide	105		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	90.7		P	80 - 120
Flumioxazin	98.7		P	80 - 120
Flutolanil	98.5		P	80 - 120
Fluxapyroxad	95.7		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	95.3		P	80 - 120
Iprodione	101		P	80 - 120
Loratadine	113		P	80 - 120
Malathion	88.5		P	80 - 120
Metalaxyl	104		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	105		P	80 - 120
Molinate	102		P	80 - 120
Myclobutanil	102		P	80 - 120
Naled	106		P	80 - 120
Napropamide	103		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A110253
Included Lab Sample IDs: 2302035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Norflurazon	95.1		P	80 - 120
Oxadiazon	103		P	80 - 120
Oxyfluorfen	103		P	80 - 120
Parathion Ethyl	103		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	105		P	80 - 120
Phenytoin	96.6		P	80 - 120
Phorate	106		P	80 - 120
Prodiamine	106		P	80 - 120
Prometon	106		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	102		P	80 - 120
Propanil	98.6		P	80 - 120
Propargite	99.5		P	80 - 120
Propiconazole	97.4		P	80 - 120
Pyraflufen Ethyl	96.9		P	80 - 120
Pyridaben	102		P	80 - 120
Pyriproxyfen	114		P	80 - 120
Simazine	104		P	80 - 120
Stirophos	89.0		P	80 - 120
Sulfentrazone	96.1		P	80 - 120
Tebuconazole	99.0		P	80 - 120
Terbufos	97.4		P	80 - 120
Terbutylazine	103		P	80 - 120
Thiobencarb	104		P	80 - 120
Triadimefon	102		P	80 - 120

Reference Method: EPA 8270E
Run ID: A110298
Included Lab Sample IDs: 2302035

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ametryn	97.3		P	80 - 120
Atrazine	99.4		P	80 - 120
Azoxystrobin	102		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A110458
Included Lab Sample IDs: 2302029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	96.0	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)	98.4					1.73	
EPA 180.1 Rev. 2.0	Turbidity						5.26	
EPA 200.7 Rev. 4.4	Barium	106	106	105	107			0.755
	Calcium	104	103	102				3.68
	Iron	106	111	106	108			3.92
	Magnesium	106	110	104	106			3.98
	Manganese	105	106	105	105			0.794
	Potassium	103	108	105	103			3.38
	Sodium	104	106	101	98.4			3.42
	Zinc	104	105	104	108			1.05
EPA 200.8 Rev. 5.4	Aluminum	103	102	99.8	101			1.73
	Antimony	103	103	102	104			1.20
	Arsenic	102	98.3	97.9	100			0.374
	Boron	100	100	97.5	101			2.41
	Cadmium	101	103	101	102			2.02
	Chromium	101	103	102	101			1.01
	Copper	102	99.4	98.4	101			1.01
	Lead	100	98.0	98.0	102			0.0354
	Nickel	103	106	100	101			5.52
	Selenium	101	96.3	95.3	99.1			1.08
	Silver	105	103	103	104			0.236
	Thallium	107	107	107	109			0.0833
EPA 300.0 Rev. 2.1	Chloride	98.9	97.1	98.2			0.229	
	Sulfate	97.8	94.9	94.8			0.698	
EPA 350.1 Rev. 2.0	Ammonia-N	100	95.6	95.8				0.189
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.6	95.7	103				5.89
EPA 353.2 Rev. 2.0	NO2NO3-N	100	98.4	98.9				0.454
EPA 365.1 Rev. 2.0	Total-P	106	108	106				1.03
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2	98.2	99.7				1.01
EPA 8270E	Acetochlor	114	106	107				0.610
	Alachlor	103	96.4	98.2				1.81
	Ametryn	112	152	138				9.74
	Atrazine	106	102	99.3				2.28
	Atrazine Desethyl	86.6	58.1	62.5				7.37
	Azinphos Methyl	72.2	72.1	78.8				8.81
	Azoxystrobin	109	98.6	105				4.63
	Bromacil	109	101	99.7				0.941
	Butylate	66.8	39.5	47.7				18.8
	Caffeine	85.8	115	126				9.40
	Carbophenothion	111	101	106				5.19
	Carfentrazone Ethyl	125	121	118				1.99
	Chlorfenapyr	103	85.7	91.5				6.61
	Chlorpyrifos Ethyl	113	105	109				3.36
	Chlorpyrifos Methyl	110	106	109				2.68
	Coumaphos	171	185	200				7.69
	Cyanazine	133	120	128				6.37
	Cyprodinil	140	121	128				4.93
	Demeton	96.8	86.5	97.8				12.3
	Diazinon	106	104	103				1.30
	Difenoconazole	108	84.6	86.6				2.37
	Dimethenamid	91.0	99.1	98.2				0.933
	Dimethomorph	111	102	102				0.377
	Disulfoton	89.0	93.8	104				10.2
	Dithiopyr	104	101	96.5				4.75

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	EPTC	61.1	31.3	37.2			17.4
	Ethion	103	93.8	85.9			8.77
	Ethoprop	85.4	100	104			3.96
	Etridiazole	69.1	52.0	56.1			7.49
	Fenamiphos	126	89.1	80.6			10.0
	Fenbuconazole	145	147	144			1.92
	Fipronil	110	109	109			0.0491
	Fipronil Desulfinyl	111	106	101			5.02
	Fipronil Sulfide	95.7	98.3	96.3			2.00
	Fipronil Sulfone	105	101	100			0.798
	Fluazifop-P-butyl	97.3	97.6	96.4			1.19
	Fludioxonil	111	93.0	95.1			2.29
	Flumioxazin	248	269	295			9.19
	Flutolanil	104					1.33
	Fluxapyroxad	127	99.3	70.5			22.8
	Fonofos	85.7	87.1	95.9			9.70
	Hexazinone	114	106	106			0.171
	Imazalil	88.8	104	89.3			15.4
	Iprodione	70.6	61.7	60.6			1.75
	Loratadine	87.4	75.7	76.6			1.15
	Malathion	128	115	116			0.886
	Metalaxyl	99.7	97.8	90.6			7.66
	Metolachlor	111	102	98.6			2.58
	Metribuzin	111	113	107			5.90
	Mevinphos	89.0	99.9	108			8.21
	Molinate	76.1	69.9	79.7			13.1
	Myclobutanil	109	103	102			1.01
	Naled	119	105	110			4.89
	Napropamide	103	95.0	93.1			1.98
	Norflurazon	119	122	116			4.46
	Oxadiazon	92.9	83.8	80.1			4.62
	Oxyfluorfen	117	126	121			4.15
	Parathion Ethyl	106	92.2	97.1			5.16
	Parathion Methyl	120	109	118			7.69
	Pendimethalin	79.5	86.2	87.3			1.21
	Phenytol	113	114	108			5.16
	Phorate	98.5	116	107			7.64
	Prodiamine	98.2	129	126			2.78
	Prometon	105	104	72.1			35.9
	Prometryn	94.7	93.8	85.0			9.79
	Pronamide	121	116	110			4.89
	Propanil	118	112	115			2.58
	Propargite	163	151	144			5.18
	Propiconazole	99.8	131	128			2.40
	Pyraflufen Ethyl	124	132	118			11.7
	Pyridaben	159	174	194			11.3
	Pyriproxyfen	61.7	55.1	47.2			14.5
	Simazine	123	105	111			5.21
	Stirophos	84.7	98.3	98.9			0.613
	Sulfentrazone	136	103	89.4			14.5
	Tebuconazole	78.7	75.1	46.2			33.5
	Terbufos	102	118	121			2.59
	Terbuthylazine	101	99.0	94.1			5.05
	Thiobencarb	112	102	105			3.56

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Triadimefon	98.3	80.7	78.1			3.26
EPA 8321B	2,4-D	89.2	148	149			0.393
	2,4,5-T	75.5	102	114			11.7
	Acesulfame K	99.1	100	84.0			17.0
	Acetaminophen	96.0	125	134			7.07
	Acetamiprid	98.2	106	90.2			15.9
	Afidopyropen	71.9	58.6	51.0			14.0
	AMPA	91.4	94.5	88.6			6.47
	Bentazon	105					1.54
	Benzovindiflupyr	93.1	92.0	94.0			2.22
	Carbamazepine	99.5					1.98
	Clothianidin	106	150	150			0.548
	Dinotefuran	105	146	146			0.243
	Diuron	92.4	88.9	84.5			5.16
	Endothall	136	159	164			3.00
	Fenuron	111	89.8	92.5			2.99
	Fluridone	97.5	106	102			2.46
	Glufosinate	97.9	99.0	82.7			17.9
	Glyphosate	91.2	90.4	80.7			11.2
	Hydrocodone	115	120	120			0.721
	Ibuprofen	79.1	71.8	77.6			7.74
	Imazapyr	149					5.54
	Imidacloprid	91.8					1.01
	Linuron	84.1	76.3	78.5			2.84
	Mandestrobin	99.1	97.2	98.3			1.10
	MCPP	108	138	142			2.78
	Naproxen	98.5	89.4	106			16.5
	Primidone	99.4	133	121			5.78
	Pyraclostrobin	92.4	94.0	97.3			3.49
	Sucralose	91.7	91.2	96.4			5.18
	Thiamethoxam	96.0	159	159			0.436
	Tolfenpyrad	52.0	54.7	58.9			7.51
	Triclopyr	75.5	110	120			8.70
SM 2320 B-2011	Total Alkalinity	97.1				2.01	
SM 2540 C-2011	TDS					5.36	
SM 4500 F-C-2011	Fluoride	97.8	98.4	97.8			0.480
SM 5310 B-2011	Organic Carbon	94.3	99.5				0.771

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2302028
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2302028
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2302034
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2302034
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2302028
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2302028
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2302029
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2302029
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2302029
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2302029

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2302030
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2302035
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2302033
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2302028
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2302034
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2302028
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2302028
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2302028
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2302029

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	01/27/2022			01/27/2022 11:32	Samantha L Bates	2302028
EPA 180.1 Rev. 2.0	01/27/2022			01/27/2022 15:28	Khloe J Berg	2302028
EPA 200.7 Rev. 4.4	01/27/2022	02/01/2022 10:00	Vijayalakshmi Reddy	02/02/2022 13:19	Josef B Mick	2302034
EPA 200.8 Rev. 5.4	01/27/2022	02/01/2022 10:00	Vijayalakshmi Reddy	02/01/2022 17:13	Alexander Thompson	2302034
EPA 300.0 Rev. 2.1	01/27/2022			02/03/2022 22:20	James L Waggeberby	2302028
EPA 350.1 Rev. 2.0	01/27/2022			02/04/2022 14:44	Ping Hua	2302029
EPA 351.2 Rev. 2.0	01/27/2022	02/02/2022 09:46	Samantha L Bates	02/03/2022 15:23	Alexandra J Mattheus	2302029
EPA 353.2 Rev. 2.0	01/27/2022			01/31/2022 10:57	Beverly Y. Sanders	2302029
EPA 365.1 Rev. 2.0	01/27/2022	01/28/2022 14:50	Simonne.V. Calhoun	02/01/2022 14:06	Sarah A Nixon	2302029
EPA 365.1 Rev. 2.0 dissolved	01/27/2022			01/27/2022 14:10	James L Waggeberby	2302030
EPA 8270E	01/27/2022	01/31/2022 08:00	Rasheda Ghaffari	02/02/2022 21:51	Michael Poppell	2302035
	01/27/2022	01/31/2022 08:00	Rasheda Ghaffari	02/02/2022 18:08	Michael Poppell	2302035
	01/27/2022	01/31/2022 08:00	Rasheda Ghaffari	02/07/2022 18:33	Michael Poppell	2302035
EPA 8321B	01/27/2022	01/28/2022 14:00	Hoor Shaik	01/31/2022 18:57	Juyoung Kim	2302033
	01/27/2022	01/31/2022 09:00	Manjita Shrestha	01/31/2022 16:26	Manjita Shrestha	2302033
	01/27/2022	01/31/2022 09:00	Manjita Shrestha	02/01/2022 00:38	Manjita Shrestha	2302033
SM 2320 B-2011	01/27/2022			01/28/2022 19:04	Dale L. Simmons	2302028
SM 2340B	01/27/2022			02/02/2022 13:19	Josef B Mick	2302034
SM 2540 C-2011	01/27/2022			02/01/2022 14:37	Yijie Li	2302028
SM 2540 D-2011	01/27/2022			02/01/2022 14:37	Yijie Li	2302028
SM 4500 F-C-2011	01/27/2022			01/28/2022 19:04	Dale L. Simmons	2302028
SM 5310 B-2011	01/27/2022			02/17/2022 06:59	Nathaniel J Jones	2302029