

Chemical Analysis Report

NE-DIST-2022-04-06-01

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

Event Description: **Deep SCI and Sixteen SCI**
Request ID: **RQ-2022-02-28-08**
Customer: **NE-DIST**
Project ID: **SMP**

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8800 Baymeadows Way West
Suite 100
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 27-APR-2022 17:57



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: Unnamed Branch 400m downstream Barnes Farm Rd

Collection Date/Time: 04/05/2022 10:00

Field ID: G2NE1204

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317044	DEP SOP: NU-094-1	Color (true)**	370		PCU	P412034	
	EPA 180.1 Rev. 2.0	Turbidity	9.9		NTU	P412039	
	EPA 300.0 Rev. 2.1	Chloride	80		mg Cl/L	P412280	
		Sulfate	110		mg SO4/L	P412283	
	SM 2320 B-2011	Total Alkalinity	43		mg CaCO3/L	P412529	
	SM 2540 C-2011	TDS	422		mg/L	P412257	
	SM 2540 D-2011	TSS	6	I	mg/L	P412128	
	SM 4500-F- C-2011	Fluoride	0.18		mg F/L	P412530	
2317045	EPA 350.1 Rev. 2.0	Ammonia-N	0.093		mg N/L	P412374	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P412213	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.078		mg N/L	P412071	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P412310	
	SM 5310 B-2011	Organic Carbon	34		mg C/L	P412182	
2317046	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.069		mg P/L	P412019	
2317050	EPA 8321B	2,4-D	0.0020	U	ug/L	P412044	
		Acesulfame K	0.10	U	ug/L	P412075	
		2,4,5-T	0.0040	U	ug/L	P412044	
		AMPA	0.10	U	ug/L	P412075	
		Acetaminophen	0.015	I	ug/L	P412044	
		Acetamiprid	0.0020	U	ug/L	P412044	
		Endothall	0.25	U	ug/L	P412075	
		Glufosinate	0.10	U	ug/L	P412075	
		Glyphosate	0.22	I	ug/L	P412075	
		Afidopyropen	0.0020	U	ug/L	P412044	
		Sucralose	0.22		ug/L	P412075	
		Bentazon	0.0015	I	ug/L	P412044	MS
		Benzovindiflupyr	0.0020	U	ug/L	P412044	
		Carbamazepine	8.0E-04	U	ug/L	P412044	
		Clothianidin	0.023		ug/L	P412044	MS
		Dinotefuran	0.0020	U	ug/L	P412044	MS
		Diuron	0.0020	U	ug/L	P412044	
		Fenuron	0.016	U	ug/L	P412044	
		Fluridone	8.0E-04	U	ug/L	P412044	
		Imazapyr	0.096		ug/L	P412044	
		Hydrocodone	0.0020	U	ug/L	P412044	
		Ibuprofen	0.020	U	ug/L	P412044	
		Imidacloprid	0.016		ug/L	P412044	MS
		Linuron	0.0040	U	ug/L	P412044	
		Mandestrobin	0.0020	U	ug/L	P412044	
		MCPP	0.0040	U	ug/L	P412044	
		Naproxen	0.0080	UJ	ug/L	P412044	CCV
		Primidone	0.0040	U	ug/L	P412044	MS, RPD

Field ID: G2NE1204

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317050	EPA 8321B	Pyraclostrobin	0.0020	U	ug/L	P412044	
		Thiamethoxam	0.12		ug/L	P412044	MS
		Tolfenpyrad	0.0020	U	ug/L	P412044	
		Triclopyr	0.0040	U	ug/L	P412044	
2317051	EPA 200.7 Rev. 4.4	Barium	21.1		ug/L	P412113	
		Calcium	55.0		mg/L	P412113	
		Iron	2.25E+03		ug/L	P412113	
		Magnesium	16.2		mg/L	P412113	
		Manganese	56.1		ug/L	P412113	
		Potassium	2.4		mg/L	P412113	
		Sodium	40.6		mg/L	P412113	
		Zinc	12	I	ug/L	P412113	
	EPA 200.8 Rev. 5.4	Aluminum	622		ug/L	P412113	
		Antimony	0.10	I	ug/L	P412113	
		Arsenic	0.82		ug/L	P412113	
		Beryllium	0.046		ug/L	P412113	
		Boron**	53.8		ug/L	P412113	
		Cadmium	0.042	I	ug/L	P412113	
		Chromium	1.1	I	ug/L	P412113	
		Copper	0.90		ug/L	P412113	
		Lead	0.44		ug/L	P412113	
		Nickel	0.89	I	ug/L	P412113	
		Selenium	0.20	U	ug/L	P412113	
		Silver	0.010	U	ug/L	P412113	
		Thallium	0.10	U	ug/L	P412113	
		Hardness	204		mg/L	P412113	
2317052	SM 2340 B-2011	Oxybenzone**	9.3	U	ng/L	P412106	
	EPA 8270E	Acetochlor	0.23	U	ng/L	P412106	
		Octinoxate**	33	I	ng/L	P412106	
		Alachlor	0.23	U	ng/L	P412106	
		Avobenzone**	93	U	ng/L	P412106	
		Ametryn	0.56	U	ng/L	P412106	
		Atrazine	0.40	I	ng/L	P412106	
		Atrazine Desethyl	1.4	U	ng/L	P412106	
		Azinphos Methyl	1.9	U	ng/L	P412106	
		Azoxystrobin**	52		ng/L	P412106	
		Bromacil	0.47	U	ng/L	P412106	
		Butylate	0.37	U	ng/L	P412106	
		Caffeine**	8.2	I	ng/L	P412106	
		Carbophenothion	0.19	U	ng/L	P412106	
		Carfentrazone Ethyl**	0.093	U	ng/L	P412106	
		Chlorfenapyr**	0.16	U	ng/L	P412106	
		Chlorpyrifos Ethyl	0.23	U	ng/L	P412106	
		Chlorpyrifos Methyl	0.047	U	ng/L	P412106	MS
		Coumaphos**	0.47	U	ng/L	P412106	

Field ID: G2NE1204

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317052	EPA 8270E	Cyanazine	3.0	U	ng/L	P412106	
		Cyprodinil**	0.093	U	ng/L	P412106	
		Demeton	1.4	U	ng/L	P412106	
		Diazinon	0.12	U	ng/L	P412106	
		Difenoconazole**	0.56	U	ng/L	P412106	
		Dimethenamid**	0.093	U	ng/L	P412106	
		Dimethomorph**	0.16	U	ng/L	P412106	
		Disulfoton	0.47	U	ng/L	P412106	
		Dithiopyr**	0.16	U	ng/L	P412106	
		EPTC	1.2	U	ng/L	P412106	
		Ethion	0.14	U	ng/L	P412106	
		Ethoprop	0.093	U	ng/L	P412106	
		Etridiazole**	0.14	U	ng/L	P412106	
		Fenamiphos	0.47	U	ng/L	P412106	
		Fenbuconazole**	0.12	U	ng/L	P412106	
		Fipronil	0.23	U	ng/L	P412106	
		Fipronil Desulfinyll**	0.68		ng/L	P412106	
		Fipronil Sulfide	1.4		ng/L	P412106	
		Fipronil Sulfone	0.14	U	ng/L	P412106	
		Fluazifop-P-butyl**	0.093	U	ng/L	P412106	RPD
		Fludioxonil**	0.12	U	ng/L	P412106	
		Flumioxazin**	1.6	U	ng/L	P412106	
		Flutolanil**	0.093	U	ng/L	P412106	
		Fluxapyroxad**	0.093	U	ng/L	P412106	
		Fonofos	0.19	U	ng/L	P412106	
		Hexazinone	0.47	U	ng/L	P412106	
		Imazalil**	0.70	U	ng/L	P412106	
		Iprodione**	0.56	U	ng/L	P412106	
		Loratadine**	0.093	U	ng/L	P412106	
		Malathion	0.33	U	ng/L	P412106	
		Metalaxyl	7.7		ng/L	P412106	
		Metolachlor	66		ng/L	P412106	
		Metribuzin	2.3	U	ng/L	P412106	
		Mevinphos	0.98	U	ng/L	P412106	
		Molinate	0.28	U	ng/L	P412106	
		Myclobutanil**	0.23	U	ng/L	P412106	
		Naled**	1.4	U	ng/L	P412106	RPD
		Napropamide**	5.8		ng/L	P412106	
		Norflurazon	0.47	U	ng/L	P412106	
		Oxadiazon	0.79	I	ng/L	P412106	
		Oxyfluorfen**	1.4		ng/L	P412106	
		Parathion Ethyl	0.23	U	ng/L	P412106	
		Parathion Methyl	0.51	U	ng/L	P412106	
		Pendimethalin	0.93	U	ng/L	P412106	MS
		Phenytain**	3.3	U	ng/L	P412106	

Field ID: G2NE1204

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2317052	EPA 8270E	Phorate	0.49	U	ng/L	P412106	
		Prodiamine**	0.16	U	ng/L	P412106	
		Prometon	0.84	U	ng/L	P412106	
		Prometryn	0.19	U	ng/L	P412106	
		Pronamide**	0.14	U	ng/L	P412106	
		Propanil**	0.12	U	ng/L	P412106	
		Propargite**	1.4	U	ng/L	P412106	
		Propiconazole**	0.62	I	ng/L	P412106	
		Pyraflufen Ethyl**	0.23	U	ng/L	P412106	
		Pyridaben**	0.42	U	ng/L	P412106	
		Pyriproxyfen**	0.12	U	ng/L	P412106	
		Simazine	0.47	U	ng/L	P412106	
		Stirophos**	0.12	U	ng/L	P412106	
		Sulfentrazone**	64		ng/L	P412106	MS
		Tebuconazole**	0.47	U	ng/L	P412106	
		Terbufos	0.093	U	ng/L	P412106	
		Terbutylazine	0.40	U	ng/L	P412106	
		Thiobencarb**	0.56	U	ng/L	P412106	
		Triadimefon**	0.23	U	ng/L	P412106	

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 imazapyr could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P412034

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412039

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412113

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: P412113

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	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
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: P412280

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412283

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: P412374

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412213

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412071

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P412310

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P412019

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

Reference Method: EPA 8270E
Batch ID: P412106

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
Avobenzone	100	U	ng/L
Avobenzone	100	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P412106

Component	Result	Code	Units
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P412106

Component	Result	Code	Units
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
Batch ID: P412106

Component	Result	Code	Units
Phenytain	3.5	U	ng/L
Phenytain	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
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: P412044

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P412044

Component	Result	Code	Units
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	0.0040	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: EPA 8321B

Batch ID: P412075

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: SM 2320 B-2011

Batch ID: P412529

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

Reference Method: SM 2540 C-2011

Batch ID: P412257

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P412128

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500-F- C-2011
Batch ID: P412530

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P412182

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: P412034

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.3		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412113

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	105		P	80 - 120
Calcium	103		P	80 - 120
Iron	106		P	80 - 120
Magnesium	101		P	80 - 120
Manganese	105		P	80 - 120
Potassium	104		P	80 - 120
Sodium	109		P	80 - 120
Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412113

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	99.5		P	85 - 115
Arsenic	101		P	85 - 115
Beryllium	91.6		P	85 - 115
Boron	105		P	85 - 115
Cadmium	98.6		P	85 - 115
Chromium	97.4		P	85 - 115
Copper	97.7		P	85 - 115
Lead	94.5		P	85 - 115
Nickel	98.8		P	85 - 115
Selenium	100		P	85 - 115
Silver	98.1		P	85 - 115
Thallium	96.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412280

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412283

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P412374

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P412213

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P412071

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: P412310

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P412019

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

Reference Method: EPA 8270E

Batch ID: P412106

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	87.9		P	70 - 121
Alachlor	78.3		P	68 - 119
Ametryn	98.2		P	64 - 139
Atrazine	90.4		P	76 - 120
Atrazine Desethyl	49.2		P	44 - 126
Avobenzone	92.6		P	76 - 212
Azinphos Methyl	134		P	43 - 192
Azoxystrobin	91.6		P	36 - 224
Bromacil	74.4		P	52 - 121
Butylate	46.2		P	28 - 91.0
Caffeine	66.7		P	50 - 134
Carbophenothion	86.9		P	56 - 129
Carfentrazone Ethyl	81.6		P	60 - 141
Chlorfenapyr	82.4		P	56 - 115
Chlorpyrifos Ethyl	91.0		P	60 - 118
Chlorpyrifos Methyl	95.5		P	68 - 119
Coumaphos	133		P	18 - 250
Cyanazine	102		P	61 - 250
Cyprodinil	82.7		P	55 - 145
Demeton	70.9		P	30 - 159
Diazinon	83.6		P	70 - 123
Difenoconazole	145		P	49 - 204

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P412106

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dimethenamid	72.2		P	64 - 115
Dimethomorph	73.2		P	12 - 219
Disulfoton	80.1		P	44 - 125
Dithiopyr	76.6		P	64 - 115
EPTC	44.9		P	28 - 86.0
Ethion	88.1		P	33 - 125
Ethoprop	85.8		P	64 - 116
Etridiazole	46.6		P	34 - 91.0
Fenamiphos	97.7		P	12 - 127
Fenbuconazole	111		P	59 - 151
Fipronil	84.0		P	67 - 129
Fipronil Desulfinyl	83.2		P	65 - 127
Fipronil Sulfide	83.0		P	61 - 116
Fipronil Sulfone	93.7		P	55 - 117
Fluazifop-P-butyl	80.7		P	62 - 127
Fludioxonil	82.7		P	62 - 128
Flumioxazin	176		P	33 - 250
Flutolanil	80.7		P	56 - 127
Fluxapyroxad	103		P	45 - 128
Fonofos	90.2		P	62 - 111
Hexazinone	96.7		P	46 - 139
Imazalil	65.6		P	38 - 142
Iprodione	111		P	47 - 135
Loratadine	64.4		P	10 - 244
Malathion	98.1		P	61 - 139
Metalaxyl	79.4		P	10 - 119
Metolachlor	81.8		P	65 - 118
Metribuzin	87.2		P	51 - 250
Mevinphos	72.6		P	53 - 121
Molinate	59.1		P	42 - 96.0
Myclobutanil	94.1		P	55 - 128
Naled	88.0		P	10 - 98.0
Napropamide	75.7		P	49 - 121
Norflurazon	78.2		P	61 - 126
Octinoxate	103		P	30 - 159
Oxadiazon	74.1		P	59 - 116
Oxybenzone	72.6		P	61 - 139
Oxyfluorfen	91.1		P	64 - 137
Parathion Ethyl	83.1		P	70 - 112
Parathion Methyl	105		P	76 - 133
Pendimethalin	100		P	52 - 117
Phenytoin	95.6		P	10 - 199
Phorate	68.8		P	48 - 121
Prodiamine	115		P	26 - 142
Prometon	91.3		P	43 - 123
Prometryn	89.8		P	66 - 127
Pronamide	86.1		P	75 - 121
Propanil	71.5		P	45 - 150
Propargite	98.9		P	42 - 208
Propiconazole	82.4		P	60 - 125
Pyraflufen Ethyl	78.0		P	70 - 138
Pyridaben	125		P	35 - 245

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P412106

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyriproxyfen	112		P	30 - 149
Simazine	81.6		P	72 - 125
Stirophos	96.6		P	29 - 164
Sulfentrazone	100		P	21 - 139
Tebuconazole	95.3		P	10 - 115
Terbufos	103		P	60 - 123
Terbuthylazine	82.8		P	72 - 115
Thiobencarb	72.8		P	31 - 139
Triadimefon	74.2		P	65 - 116

Reference Method: EPA 8321B

Batch ID: P412044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	79.6		P	40 - 150
2,4,5-T	76.5		P	40 - 150
Acetaminophen	67.3		P	30 - 150
Acetamiprid	93.2		P	40 - 150
Afidopyropen	74.6		P	40 - 150
Bentazon	147		P	30 - 150
Benzovindiflupyr	110		P	40 - 150
Carbamazepine	104		P	40 - 150
Clothianidin	139		P	40 - 150
Dinotefuran	118		P	40 - 150
Diuron	94.9		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	103		P	40 - 150
Hydrocodone	111		P	40 - 150
Ibuprofen	67.3		P	40 - 150
Imazapyr	101		P	40 - 150
Imidacloprid	112		P	40 - 150
Linuron	84.4		P	40 - 150
Mandestrobin	105		P	40 - 150
MCPP	94.0		P	40 - 150
Naproxen	96.4		P	40 - 150
Primidone	100		P	40 - 150
Pyraclostrobin	98.1		P	40 - 150
Thiamethoxam	111		P	40 - 150
Tolfenpyrad	50.3		P	30 - 150
Triclopyr	66.2		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P412075

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	108		P	40 - 150
AMPA	131		P	40 - 150
Endothall	75.7		P	40 - 150
Glufosinate	122		P	40 - 150
Glyphosate	130		P	40 - 150
Sucralose	114		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P412529

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.8		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P412530

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P412182

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P412113

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315168	Barium	101	103	P/P	80 - 120
2315168	Calcium	101		P	80 - 120
2315168	Iron	103	104	P/P	80 - 120
2315168	Magnesium	101		P	80 - 120
2315168	Manganese	99.8	101	P/P	80 - 120
2315168	Potassium	103	105	P/P	80 - 120
2315168	Sodium	108	106	P/P	80 - 120
2315168	Zinc	95.0	96.7	P/P	80 - 120
2317004	Barium	104		P	80 - 120
2317004	Calcium	101		P	80 - 120
2317004	Iron	102		P	80 - 120
2317004	Magnesium	102		P	80 - 120
2317004	Manganese	102		P	80 - 120
2317004	Potassium	103		P	80 - 120
2317004	Sodium	102		P	80 - 120
2317004	Zinc	99.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P412113

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2315168	Aluminum	99.8	101	P/P	80 - 120
2315168	Antimony	100	101	P/P	80 - 120
2315168	Arsenic	99.0	102	P/P	80 - 120
2315168	Beryllium	91.7	93.7	P/P	80 - 120
2315168	Boron	105	106	P/P	80 - 120
2315168	Cadmium	99.4	100	P/P	80 - 120
2315168	Chromium	98.1	102	P/P	80 - 120
2315168	Copper	91.4	93.6	P/P	80 - 120
2315168	Lead	92.6	94.0	P/P	80 - 120
2315168	Nickel	94.8	97.1	P/P	80 - 120
2315168	Selenium	96.7	99.4	P/P	80 - 120
2315168	Silver	96.2	97.0	P/P	80 - 120
2315168	Thallium	96.9	99.0	P/P	80 - 120
2317004	Aluminum	102		P	80 - 120
2317004	Antimony	97.6		P	80 - 120
2317004	Arsenic	97.1		P	80 - 120
2317004	Beryllium	86.7		P	80 - 120
2317004	Boron	108		P	80 - 120
2317004	Cadmium	97.3		P	80 - 120
2317004	Chromium	95.9		P	80 - 120
2317004	Copper	96.3		P	80 - 120
2317004	Lead	93.6		P	80 - 120
2317004	Nickel	96.0		P	80 - 120
2317004	Selenium	92.3		P	80 - 120
2317004	Silver	96.5		P	80 - 120
2317004	Thallium	95.3		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P412280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317012	Chloride	98.5		P	90 - 110
2317055	Chloride	98.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317012	Sulfate	99.7		P	90 - 110
2317055	Sulfate	99.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412374

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317059	Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412213

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317058	Kjeldahl Nitrogen	103	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412071

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317045	NO2NO3-N	93.3	95.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P412310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317027	Total-P	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P412019

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316959	O-Phosphate-P	97.4	99.2	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P412106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316991	Acetochlor	109	97.8	P/P	65 - 124
2316991	Alachlor	96.6	84.2	P/P	61 - 121
2316991	Ametryn	132	100	P/P	52 - 216
2316991	Atrazine Desethyl	70.3	55.5	P/P	15 - 160
2316991	Avobenzone	119	121	P/P	76 - 212
2316991	Azinphos Methyl	205	179	P/P	40 - 292
2316991	Azoxystrobin	101	109	P/P	12 - 242
2316991	Butylate	40.8	37.0	P/P	14 - 94.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P412106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316991	Caffeine	86.8	71.0	P/P	10 - 226
2316991	Carbophenothion	94.8	87.7	P/P	49 - 122
2316991	Carfentrazone Ethyl	110	91.1	P/P	53 - 138
2316991	Chlorfenapyr	98.7	90.3	P/P	50 - 150
2316991	Chlorpyrifos Ethyl	104	91.8	P/P	52 - 122
2316991	Chlorpyrifos Methyl	118	106	F/P	66 - 117
2316991	Coumaphos	193	167	P/P	50 - 220
2316991	Cyanazine	145	189	P/P	43 - 245
2316991	Cyprodinil	129	110	P/P	50 - 150
2316991	Demeton	111	96.5	P/P	43 - 188
2316991	Diazinon	126	94.9	P/P	69 - 131
2316991	Difenoconazole	225	176	P/P	34 - 231
2316991	Dimethenamid	107	78.4	P/P	55 - 118
2316991	Dimethomorph	94.0	91.9	P/P	50 - 150
2316991	Disulfoton	114	102	P/P	38 - 141
2316991	Dithiopyr	112	93.7	P/P	42 - 116
2316991	EPTC	40.0	30.4	P/P	18 - 85.0
2316991	Ethion	97.4	89.4	P/P	10 - 131
2316991	Ethoprop	115	95.5	P/P	65 - 129
2316991	Etridiazole	60.8	54.0	P/P	50 - 150
2316991	Fenamiphos	97.6	96.4	P/P	31 - 137
2316991	Fenbuconazole	80.3	74.8	P/P	57 - 160
2316991	Fipronil	132	107	P/P	62 - 132
2316991	Fipronil Desulfanyl	105	101	P/P	57 - 131
2316991	Fipronil Sulfide	110	94.8	P/P	15 - 138
2316991	Fipronil Sulfone	128	115	P/P	21 - 134
2316991	Fluazifop-P-butyl	111	85.3	P/P	54 - 133
2316991	Fludioxonil	98.8	87.8	P/P	58 - 127
2316991	Flumioxazin	281	242	P/P	33 - 300
2316991	Flutolanil	79.3	63.0	P/P	42 - 130
2316991	Fluxapyroxad	86.0	89.9	P/P	23 - 141
2316991	Fonofos	102	117	P/P	58 - 119
2316991	Hexazinone	123	89.8	P/P	68 - 172
2316991	Imazalil	119	90.5	P/P	48 - 283
2316991	Iprodione	101	94.6	P/P	38 - 140
2316991	Loratadine	85.5	81.4	P/P	50 - 150
2316991	Malathion	118	110	P/P	40 - 137
2316991	Metolachlor	118	80.8	P/P	55 - 122
2316991	Metribuzin	111	106	P/P	38 - 187
2316991	Mevinphos	101	83.9	P/P	54 - 134
2316991	Molinate	80.2	65.4	P/P	41 - 97.0
2316991	Myclobutanil	84.7	74.7	P/P	56 - 125
2316991	Naled	104	73.5	P/P	10 - 108
2316991	Napropamide	101	81.1	P/P	50 - 150
2316991	Octinoxate	143	95.6	P/P	30 - 159
2316991	Oxadiazon	83.4	65.0	P/P	40 - 119
2316991	Oxybenzone	83.8	87.0	P/P	61 - 139
2316991	Oxyfluorfen	125	106	P/P	61 - 153
2316991	Parathion Ethyl	111	94.3	P/P	59 - 130
2316991	Parathion Methyl	135	122	P/P	65 - 155
2316991	Pendimethalin	139	132	F/P	49 - 138
2316991	Phenytol	117	95.1	P/P	50 - 200

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P412106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316991	Phorate	105	80.4	P/P	54 - 161
2316991	Prodiamine	77.6	72.0	P/P	33 - 161
2316991	Prometon	122	110	P/P	48 - 140
2316991	Prometryn	128	97.5	P/P	55 - 134
2316991	Pronamide	121	109	P/P	66 - 137
2316991	Propanil	95.0	80.3	P/P	50 - 150
2316991	Propargite	155	132	P/P	50 - 200
2316991	Propiconazole	129	96.4	P/P	36 - 150
2316991	Pyraflufen Ethyl	126	106	P/P	50 - 150
2316991	Pyridaben	156	151	P/P	50 - 200
2316991	Pyriproxyfen	160	129	P/P	10 - 165
2316991	Simazine	130	110	P/P	57 - 145
2316991	Stirophos	106	95.6	P/P	50 - 150
2316991	Sulfentrazone	159	104	F/P	34 - 140
2316991	Tebuconazole	54.9	44.5	P/P	10 - 127
2316991	Terbufos	134	117	P/P	59 - 138
2316991	Terbuthylazine	116	92.4	P/P	68 - 119
2316991	Thiobencarb	103	85.2	P/P	50 - 150
2316991	Triadimefon	108	85.1	P/P	50 - 150

Reference Method: EPA 8321B
Batch ID: P412044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316353	2,4-D	101	84.0	P/P	40 - 150
2316353	2,4,5-T	89.2	84.2	P/P	40 - 150
2316353	Acetaminophen	116	111	P/P	30 - 150
2316353	Acetamiprid	111	105	P/P	40 - 150
2316353	Afidopyropen	88.4	68.8	P/P	40 - 150
2316353	Bentazon	154	133	F/P	30 - 150
2316353	Benzovindiflupyr	122	110	P/P	40 - 150
2316353	Carbamazepine	108	110	P/P	40 - 150
2316353	Clothianidin	199	193	F/F	40 - 150
2316353	Dinotefuran	161	155	F/F	40 - 150
2316353	Diuron	89.9	75.0	P/P	40 - 150
2316353	Fenuron	142	135	P/P	40 - 150
2316353	Fluridone	105	105	P/P	40 - 150
2316353	Hydrocodone	140	123	P/P	40 - 150
2316353	Ibuprofen	53.2	44.8	P/P	40 - 150
2316353	Imidacloprid	145	174	P/F	40 - 150
2316353	Linuron	89.0	70.1	P/P	40 - 150
2316353	Mandestrobin	113	104	P/P	40 - 150
2316353	MCPP	106	113	P/P	40 - 150
2316353	Naproxen	103	127	P/P	40 - 150
2316353	Primidone	160	95.3	F/P	40 - 150
2316353	Pyraclostrobin	104	101	P/P	40 - 150
2316353	Thiamethoxam	182	180	F/F	40 - 150
2316353	Tolfenpyrad	44.0	59.1	P/P	30 - 150
2316353	Triclopyr	74.0	78.3	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P412075

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2316438	Acesulfame K	111	116	P/P	40 - 150
2316438	AMPA	110	104	P/P	40 - 150
2316438	Endothall	74.5	72.1	P/P	40 - 150
2316438	Glufosinate	94.3	87.1	P/P	40 - 150
2316438	Glyphosate	106	103	P/P	40 - 150
2316438	Sucralose	86.4	88.7	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P412530

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317855	Fluoride	98.9	97.0	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P412182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2317103	Organic Carbon	99.6	97.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P412034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317014	Color (true)	0.105	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317025	Turbidity	0.463	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412113

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315168	Barium	2.03	Spike	P	0 - 20
2315168	Calcium	0.249	Spike	P	0 - 20
2315168	Iron	1.58	Spike	P	0 - 20
2315168	Magnesium	1.80	Spike	P	0 - 20
2315168	Manganese	1.40	Spike	P	0 - 20
2315168	Potassium	1.41	Spike	P	0 - 20
2315168	Sodium	0.714	Spike	P	0 - 20
2315168	Zinc	0.962	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412113

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2315168	Aluminum	1.38	Spike	P	0 - 20
2315168	Antimony	1.22	Spike	P	0 - 20
2315168	Arsenic	2.97	Spike	P	0 - 20
2315168	Beryllium	2.22	Spike	P	0 - 20
2315168	Boron	1.44	Spike	P	0 - 20
2315168	Cadmium	0.916	Spike	P	0 - 20
2315168	Chromium	4.17	Spike	P	0 - 20
2315168	Copper	2.00	Spike	P	0 - 20
2315168	Lead	1.40	Spike	P	0 - 20
2315168	Nickel	2.38	Spike	P	0 - 20
2315168	Selenium	2.74	Spike	P	0 - 20
2315168	Silver	0.766	Spike	P	0 - 20
2315168	Thallium	2.10	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317012	Chloride	0.762	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P412283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317012	Sulfate	0.804	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P412374

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317059	Ammonia-N	0.196	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P412213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317058	Kjeldahl Nitrogen	1.63	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412071

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317045	NO2NO3-N	1.87	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P412310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317027	Total-P	1.31	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P412019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316959	O-Phosphate-P	1.66	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P412106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316991	Acetochlor	11.2	Spike	P	0 - 27
2316991	Alachlor	13.7	Spike	P	0 - 27
2316991	Ametryn	24.6	Spike	P	0 - 34
2316991	Atrazine	18.1	Spike	P	0 - 41
2316991	Atrazine Desethyl	17.5	Spike	P	0 - 38
2316991	Avobenzone	1.99	Spike	P	0 - 30
2316991	Azinphos Methyl	13.2	Spike	P	0 - 62
2316991	Azoxystrobin	4.92	Spike	P	0 - 32
2316991	Bromacil	12.6	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P412106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316991	Butylate	9.78	Spike	P	0 - 59
2316991	Caffeine	18.7	Spike	P	0 - 60
2316991	Carbophenothion	7.79	Spike	P	0 - 25
2316991	Carfentrazone Ethyl	18.5	Spike	P	0 - 26
2316991	Chlorfenapyr	8.87	Spike	P	0 - 30
2316991	Chlorpyrifos Ethyl	12.7	Spike	P	0 - 27
2316991	Chlorpyrifos Methyl	10.6	Spike	P	0 - 26
2316991	Coumaphos	14.5	Spike	P	0 - 30
2316991	Cyanazine	26.7	Spike	P	0 - 58
2316991	Cyprodinil	16.1	Spike	P	0 - 30
2316991	Demeton	13.6	Spike	P	0 - 25
2316991	Diazinon	28.2	Spike	P	0 - 29
2316991	Difenoconazole	24.4	Spike	P	0 - 25
2316991	Dimethenamid	21.1	Spike	P	0 - 30
2316991	Dimethomorph	2.28	Spike	P	0 - 30
2316991	Disulfoton	10.8	Spike	P	0 - 33
2316991	Dithiopyr	17.7	Spike	P	0 - 22
2316991	EPTC	27.4	Spike	P	0 - 38
2316991	Ethion	8.63	Spike	P	0 - 79
2316991	Ethoprop	18.3	Spike	P	0 - 23
2316991	Etridiazole	11.9	Spike	P	0 - 30
2316991	Fenamiphos	1.22	Spike	P	0 - 58
2316991	Fenbuconazole	5.73	Spike	P	0 - 37
2316991	Fipronil	20.7	Spike	P	0 - 33
2316991	Fipronil Desulfinyl	3.30	Spike	P	0 - 26
2316991	Fipronil Sulfide	15.0	Spike	P	0 - 37
2316991	Fipronil Sulfone	10.1	Spike	P	0 - 50
2316991	Fluazifop-P-butyl	26.2	Spike	F	0 - 24
2316991	Fludioxonil	11.8	Spike	P	0 - 26
2316991	Flumioxazin	14.8	Spike	P	0 - 37
2316991	Flutolanil	22.9	Spike	P	0 - 26
2316991	Fluxapyroxad	4.32	Spike	P	0 - 34
2316991	Fonofos	13.3	Spike	P	0 - 27
2316991	Hexazinone	15.3	Spike	P	0 - 36
2316991	Imazalil	27.6	Spike	P	0 - 65
2316991	Iprodione	6.89	Spike	P	0 - 33
2316991	Loratadine	4.95	Spike	P	0 - 30
2316991	Malathion	6.84	Spike	P	0 - 44
2316991	Metalaxyl	24.9	Spike	P	0 - 38
2316991	Metolachlor	23.3	Spike	P	0 - 36
2316991	Metribuzin	4.61	Spike	P	0 - 63
2316991	Mevinphos	18.1	Spike	P	0 - 26
2316991	Molinate	20.3	Spike	P	0 - 40
2316991	Myclobutanil	12.5	Spike	P	0 - 21
2316991	Naled	34.8	Spike	F	0 - 26
2316991	Napropamide	22.2	Spike	P	0 - 30
2316991	Norflurazon	9.05	Spike	P	0 - 24
2316991	Octinoxate	26.7	Spike	P	0 - 30
2316991	Oxadiazon	20.4	Spike	P	0 - 27
2316991	Oxybenzone	3.77	Spike	P	0 - 30
2316991	Oxyfluorfen	16.4	Spike	P	0 - 24

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P412106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316991	Parathion Ethyl	16.1	Spike	P	0 - 28
2316991	Parathion Methyl	10.0	Spike	P	0 - 27
2316991	Pendimethalin	5.30	Spike	P	0 - 31
2316991	Phenytoin	21.1	Spike	P	0 - 30
2316991	Phorate	26.3	Spike	P	0 - 27
2316991	Prodiamine	7.41	Spike	P	0 - 52
2316991	Prometon	10.3	Spike	P	0 - 31
2316991	Prometryn	27.0	Spike	P	0 - 28
2316991	Pronamide	10.6	Spike	P	0 - 26
2316991	Propanil	16.8	Spike	P	0 - 30
2316991	Propargite	16.6	Spike	P	0 - 30
2316991	Propiconazole	25.5	Spike	P	0 - 31
2316991	Pyraflufen Ethyl	17.4	Spike	P	0 - 30
2316991	Pyridaben	3.47	Spike	P	0 - 30
2316991	Pyriproxyfen	21.8	Spike	P	0 - 50
2316991	Simazine	17.3	Spike	P	0 - 29
2316991	Stirophos	9.92	Spike	P	0 - 30
2316991	Sulfentrazone	24.7	Spike	P	0 - 33
2316991	Tebuconazole	18.9	Spike	P	0 - 44
2316991	Terbufos	14.0	Spike	P	0 - 29
2316991	Terbuthylazine	22.4	Spike	P	0 - 27
2316991	Thiobencarb	18.6	Spike	P	0 - 30
2316991	Triadimefon	23.6	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P412044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316353	2,4-D	18.2	Spike	P	0 - 30
2316353	2,4,5-T	5.78	Spike	P	0 - 30
2316353	Acetaminophen	4.02	Spike	P	0 - 30
2316353	Acetamiprid	5.78	Spike	P	0 - 30
2316353	Afidopyropen	25.0	Spike	P	0 - 30
2316353	Bentazon	9.06	Spike	P	0 - 30
2316353	Benzovindiflupyr	9.81	Spike	P	0 - 30
2316353	Carbamazepine	2.51	Spike	P	0 - 30
2316353	Clothianidin	3.07	Spike	P	0 - 30
2316353	Dinotefuran	3.02	Spike	P	0 - 30
2316353	Diuron	18.1	Spike	P	0 - 30
2316353	Fenuron	5.25	Spike	P	0 - 30
2316353	Fluridone	0.486	Spike	P	0 - 30
2316353	Hydrocodone	13.3	Spike	P	0 - 30
2316353	Ibuprofen	17.1	Spike	P	0 - 30
2316353	Imazapyr	6.11	Spike	P	0 - 30
2316353	Imidacloprid	18.1	Spike	P	0 - 30
2316353	Linuron	23.8	Spike	P	0 - 30
2316353	Mandestrobin	8.25	Spike	P	0 - 30
2316353	MCP	7.05	Spike	P	0 - 30
2316353	Naproxen	21.2	Spike	P	0 - 30
2316353	Primidone	50.5	Spike	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P412044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316353	Pyraclostrobin	2.65	Spike	P	0 - 30
2316353	Thiamethoxam	1.41	Spike	P	0 - 30
2316353	Tolfenpyrad	29.2	Spike	P	0 - 30
2316353	Triclopyr	5.64	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P412075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316438	Acesulfame K	4.66	Spike	P	0 - 30
2316438	AMPA	5.71	Spike	P	0 - 30
2316438	Endothall	3.27	Spike	P	0 - 30
2316438	Glufosinate	8.01	Spike	P	0 - 30
2316438	Glyphosate	3.11	Spike	P	0 - 30
2316438	Sucralose	2.62	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P412529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317855	Total Alkalinity	1.10	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P412257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2316698	TDS	1.04	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P412530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317855	Fluoride	1.00	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P412182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2317103	Organic Carbon	1.15	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2317050
Field Sample ID: G2NE1204

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	96.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Carbamazepine-d10	108	P	30 - 160
EPA 8321B	Diuron-d6	70.8	P	30 - 160
EPA 8321B	Endothall-d6	87.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	72.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	63.2	P	30 - 160
EPA 8321B	Primidone-d5	152	P	30 - 160
EPA 8321B	Sucralose-d6	93.8	P	30 - 160

Lab Sample ID: 2317052
Field Sample ID: G2NE1204

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	58.0	P	20 - 200
EPA 8270E	Simazine-d10	87.4	P	71 - 140
EPA 8270E	Terbufos-d10	85.2	P	62 - 131
EPA 8270E	Terphenyl-d14	116	P	50 - 124

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A111342

Included Lab Sample IDs: 2317046

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.6	99.0	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A111348

Included Lab Sample IDs: 2317044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111350

Included Lab Sample IDs: 2317044

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111361

Included Lab Sample IDs: 2317045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A111406

Included Lab Sample IDs: 2317045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.7	98.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111413

Included Lab Sample IDs: 2317050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	116	132	P/P	60 - 160
Glufosinate	128	129	P/P	60 - 160
Glyphosate	126	121	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A111419

Included Lab Sample IDs: 2317050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	82.4	90.4	P/P	60 - 160
Endothall	68.1	75.8	P/P	60 - 160
Sucralose	90.6	92.1	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111423

Included Lab Sample IDs: 2317051

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	104	102	P/P	90 - 110
Antimony	102	101	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110
Beryllium	93.6	92.1	P/P	90 - 110
Boron	105	105	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Chromium	99.4	98.8	P/P	90 - 110
Copper	98.2	98.5	P/P	90 - 110
Lead	93.8	95.0	P/P	90 - 110
Nickel	99.3	99.3	P/P	90 - 110
Selenium	100	98.2	P/P	90 - 110
Silver	100	100	P/P	90 - 110
Thallium	92.9	92.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111428

Included Lab Sample IDs: 2317050

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.0	86.8	P/P	50 - 150
2,4,5-T	96.0	99.0	P/P	50 - 150
Acetaminophen	102	110	P/P	60 - 160
Acetamiprid	104	102	P/P	50 - 150
Afidopyropen	99.4	102	P/P	50 - 150
Bentazon	103	115	P/P	50 - 160
Benzovindiflupyr	111	110	P/P	50 - 150
Carbamazepine	109	90.9	P/P	60 - 150
Clothianidin	121	135	P/P	60 - 150
Dinotefuran	99.9	95.2	P/P	50 - 150
Diuron	104	116	P/P	60 - 160
Fenuron	87.9	98.7	P/P	60 - 150
Fluridone	101	81.5	P/P	60 - 160
Hydrocodone	107	96.8	P/P	60 - 150
Ibuprofen	85.7	134	P/P	50 - 160
Imazapyr	93.0	100	P/P	50 - 150
Imidacloprid	78.2	100	P/P	60 - 150
Linuron	80.1	91.4	P/P	60 - 150
Mandestrobin	99.6	101	P/P	50 - 150
MCPP	88.7	83.3	P/P	50 - 150
Naproxen	99.2	174*	P/F	50 - 160
Primidone	136	86.5	P/P	60 - 150
Pyraclostrobin	105	96.9	P/P	60 - 150
Thiamethoxam	102	88.6	P/P	50 - 150
Tolfenpyrad	110	94.9	P/P	60 - 150
Triclopyr	104	101	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111443

Included Lab Sample IDs: 2317044

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111443

Included Lab Sample IDs: 2317044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.1	99.3	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111471

Included Lab Sample IDs: 2317052

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzone	103		P	80 - 120
Octinoxate	99.5		P	80 - 120
Oxybenzone	103		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111476

Included Lab Sample IDs: 2317045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.3	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111481

Included Lab Sample IDs: 2317045

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111510

Included Lab Sample IDs: 2317051

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	101	P/P	90 - 110
Calcium	101	102	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	101	103	P/P	90 - 110
Manganese	99.6	98.4	P/P	90 - 110
Potassium	104	106	P/P	90 - 110
Sodium	102	104	P/P	90 - 110
Zinc	99.3	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111548

Included Lab Sample IDs: 2317045

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	97.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A111549

Included Lab Sample IDs: 2317044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.1	97.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A111549

Included Lab Sample IDs: 2317044

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111638

Included Lab Sample IDs: 2317052

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	105		P	80 - 120
Alachlor	108		P	80 - 120
Ametryn	111		P	80 - 120
Atrazine	104		P	80 - 120
Atrazine Desethyl	111		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Bromacil	106		P	80 - 120
Butylate	103		P	80 - 120
Caffeine	90.0		P	80 - 120
Carbophenothion	103		P	80 - 120
Carfentrazone Ethyl	113		P	80 - 120
Chlorfenapyr	101		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	98.4		P	80 - 120
Coumaphos	97.3		P	80 - 120
Cyanazine	116		P	80 - 120
Cyprodinil	110		P	80 - 120
Demeton	103		P	80 - 120
Diazinon	99.9		P	80 - 120
Difenoconazole	103		P	80 - 120
Dimethenamid	107		P	80 - 120
Dimethomorph	99.1		P	80 - 120
Disulfoton	94.2		P	80 - 120
Dithiopyr	107		P	80 - 120
EPTC	97.9		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	100		P	80 - 120
Etridiazole	111		P	80 - 120
Fenamiphos	106		P	80 - 120
Fenbuconazole	102		P	80 - 120
Fipronil	110		P	80 - 120
Fipronil Desulfinyl	107		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fluazifop-P-butyl	104		P	80 - 120
Fludioxonil	104		P	80 - 120
Flumioxazin	99.2		P	80 - 120
Flutolanil	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111638
Included Lab Sample IDs: 2317052

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluxapyroxad	101		P	80 - 120
Fonofos	100		P	80 - 120
Hexazinone	99.8		P	80 - 120
Imazalil	101		P	80 - 120
Iprodione	109		P	80 - 120
Loratadine	111		P	80 - 120
Malathion	94.6		P	80 - 120
Metalaxyl	107		P	80 - 120
Metolachlor	108		P	80 - 120
Metribuzin	97.7		P	80 - 120
Mevinphos	96.3		P	80 - 120
Molinate	102		P	80 - 120
Myclobutanil	111		P	80 - 120
Naled	103		P	80 - 120
Napropamide	100		P	80 - 120
Norflurazon	103		P	80 - 120
Oxadiazon	103		P	80 - 120
Oxyfluorfen	105		P	80 - 120
Parathion Ethyl	97.4		P	80 - 120
Parathion Methyl	94.8		P	80 - 120
Pendimethalin	106		P	80 - 120
Phenytoin	98.9		P	80 - 120
Phorate	102		P	80 - 120
Prodiamine	104		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	109		P	80 - 120
Pronamide	102		P	80 - 120
Propanil	100		P	80 - 120
Propargite	103		P	80 - 120
Propiconazole	112		P	80 - 120
Pyraflufen Ethyl	103		P	80 - 120
Pyridaben	100		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	108		P	80 - 120
Stirophos	96.1		P	80 - 120
Sulfentrazone	102		P	80 - 120
Tebuconazole	109		P	80 - 120
Terbufos	98.4		P	80 - 120
Terbuthylazine	102		P	80 - 120
Thiobencarb	107		P	80 - 120
Triadimefon	110		P	80 - 120

Reference Method: EPA 8270E
Run ID: A111652
Included Lab Sample IDs: 2317052

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Azoxystrobin	91.2		P	80 - 120
Fipronil Sulfide	102		P	80 - 120

Quality Assurance Report

Calibration Verification

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	101					0.105	
EPA 180.1 Rev. 2.0	Turbidity	96.3					0.463	
EPA 200.7 Rev. 4.4	Barium	105	101	103	104			2.03
	Calcium	103	101	101				0.249
	Iron	106	103	104	102			1.58
	Magnesium	101	101	102				1.80
	Manganese	105	99.8	101	102			1.40
	Potassium	104	103	105	103			1.41
	Sodium	109	108	106	102			0.714
	Zinc	102	95.0	96.7	99.9			0.962
EPA 200.8 Rev. 5.4	Aluminum	103	99.8	101	102			1.38
	Antimony	99.5	100	101	97.6			1.22
	Arsenic	101	99.0	102	97.1			2.97
	Beryllium	91.6	91.7	93.7	86.7			2.22
	Boron	105	105	106	108			1.44
	Cadmium	98.6	99.4	100	97.3			0.916
	Chromium	97.4	98.1	102	95.9			4.17
	Copper	97.7	91.4	93.6	96.3			2.00
	Lead	94.5	92.6	94.0	93.6			1.40
	Nickel	98.8	94.8	97.1	96.0			2.38
	Selenium	100	96.7	99.4	92.3			2.74
	Silver	98.1	96.2	97.0	96.5			0.766
	Thallium	96.3	96.9	99.0	95.3			2.10
EPA 300.0 Rev. 2.1	Chloride	100	98.5	98.6			0.762	
	Sulfate	101	99.7	99.8			0.804	
EPA 350.1 Rev. 2.0	Ammonia-N	99.4	102	102				0.196
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	103	105				1.63
EPA 353.2 Rev. 2.0	NO2NO3-N	102	93.3	95.8				1.87
EPA 365.1 Rev. 2.0	Total-P	101	102	103				1.31
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	97.4	99.2				1.66
EPA 8270E	Acetochlor	87.9	109	97.8				11.2
	Alachlor	78.3	96.6	84.2				13.7
	Ametryn	98.2	132	100				24.6
	Atrazine	90.4						18.1
	Atrazine Desethyl	49.2	70.3	55.5				17.5
	Avobenzone	92.6	119	121				1.99
	Azinphos Methyl	134	205	179				13.2
	Azoxystrobin	91.6	101	109				4.92
	Bromacil	74.4						12.6
	Butylate	46.2	40.8	37.0				9.78
	Caffeine	66.7	86.8	71.0				18.7
	Carbophenothion	86.9	94.8	87.7				7.79
	Carfentrazone Ethyl	81.6	110	91.1				18.5
	Chlorfenapyr	82.4	98.7	90.3				8.87
	Chlorpyrifos Ethyl	91.0	104	91.8				12.7
	Chlorpyrifos Methyl	95.5	118	106				10.6
	Coumaphos	133	193	167				14.5
	Cyanazine	102	145	189				26.7
	Cyprodinil	82.7	129	110				16.1
	Demeton	70.9	111	96.5				13.6
	Diazinon	83.6	126	94.9				28.2
	Difenoconazole	145	225	176				24.4
	Dimethenamid	72.2	107	78.4				21.1
	Dimethomorph	73.2	94.0	91.9				2.28

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Disulfoton	80.1	114	102			10.8
	Dithiopyr	76.6	112	93.7			17.7
	EPTC	44.9	40.0	30.4			27.4
	Ethion	88.1	97.4	89.4			8.63
	Ethoprop	85.8	115	95.5			18.3
	Etridiazole	46.6	60.8	54.0			11.9
	Fenamiphos	97.7	97.6	96.4			1.22
	Fenbuconazole	111	80.3	74.8			5.73
	Fipronil	84.0	132	107			20.7
	Fipronil Desulfinyl	83.2	105	101			3.30
	Fipronil Sulfide	83.0	110	94.8			15.0
	Fipronil Sulfone	93.7	128	115			10.1
	Fluazifop-P-butyl	80.7	111	85.3			26.2
	Fludioxonil	82.7	98.8	87.8			11.8
	Flumioxazin	176	281	242			14.8
	Flutolanil	80.7	79.3	63.0			22.9
	Fluxapyroxad	103	86.0	89.9			4.32
	Fonofos	90.2	102	117			13.3
	Hexazinone	96.7	123	89.8			15.3
	Imazalil	65.6	119	90.5			27.6
	Iprodione	111	101	94.6			6.89
	Loratadine	64.4	85.5	81.4			4.95
	Malathion	98.1	118	110			6.84
	Metalaxyl	79.4					24.9
	Metolachlor	81.8	118	80.8			23.3
	Metribuzin	87.2	111	106			4.61
	Mevinphos	72.6	101	83.9			18.1
	Molinate	59.1	80.2	65.4			20.3
	Myclobutanil	94.1	84.7	74.7			12.5
	Naled	88.0	104	73.5			34.8
	Napropamide	75.7	101	81.1			22.2
	Norflurazon	78.2					9.05
	Octinoxate	103	143	95.6			26.7
	Oxadiazon	74.1	83.4	65.0			20.4
	Oxybenzone	72.6	83.8	87.0			3.77
	Oxyfluorfen	91.1	125	106			16.4
	Parathion Ethyl	83.1	111	94.3			16.1
	Parathion Methyl	105	135	122			10.0
	Pendimethalin	100	139	132			5.30
	Phenytain	95.6	117	95.1			21.1
	Phorate	68.8	105	80.4			26.3
	Prodiamine	115	77.6	72.0			7.41
	Prometon	91.3	122	110			10.3
	Prometryn	89.8	128	97.5			27.0
	Pronamide	86.1	121	109			10.6
	Propanil	71.5	95.0	80.3			16.8
	Propargite	98.9	155	132			16.6
	Propiconazole	82.4	129	96.4			25.5
	Pyraflufen Ethyl	78.0	126	106			17.4
	Pyridaben	125	156	151			3.47
	Pyriproxyfen	112	160	129			21.8
	Simazine	81.6	130	110			17.3
	Stirophos	96.6	106	95.6			9.92
	Sulfentrazone	100	159	104			24.7

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Tebuconazole	95.3	54.9	44.5		18.9
	Terbufos	103	134	117		14.0
	Terbutylazine	82.8	116	92.4		22.4
	Thiobencarb	72.8	103	85.2		18.6
	Triadimefon	74.2	108	85.1		23.6
EPA 8321B	2,4-D	79.6	101	84.0		18.2
	2,4,5-T	76.5	89.2	84.2		5.78
	Acesulfame K	108	111	116		4.66
	Acetaminophen	67.3	116	111		4.02
	Acetamiprid	93.2	111	105		5.78
	Afidopyropen	74.6	88.4	68.8		25.0
	AMPA	131	110	104		5.71
	Bentazon	147	154	133		9.06
	Benzovindiflupyr	110	122	110		9.81
	Carbamazepine	104	108	110		2.51
	Clothianidin	139	199	193		3.07
	Dinotefuran	118	161	155		3.02
	Diuron	94.9	89.9	75.0		18.1
	Endothall	75.7	74.5	72.1		3.27
	Fenuron	112	142	135		5.25
	Fluridone	103	105	105		0.486
	Glufosinate	122	94.3	87.1		8.01
	Glyphosate	130	106	103		3.11
	Hydrocodone	111	140	123		13.3
	Ibuprofen	67.3	53.2	44.8		17.1
	Imazapyr	101				6.11
	Imidacloprid	112	145	174		18.1
	Linuron	84.4	89.0	70.1		23.8
	Mandestrobin	105	113	104		8.25
	MCPP	94.0	106	113		7.05
	Naproxen	96.4	103	127		21.2
	Primidone	100	160	95.3		50.5
	Pyraclostrobin	98.1	104	101		2.65
	Sucralose	114	86.4	88.7		2.62
	Thiamethoxam	111	182	180		1.41
	Tolfenpyrad	50.3	44.0	59.1		29.2
	Triclopyr	66.2	74.0	78.3		5.64
SM 2320 B-2011	Total Alkalinity	97.8			1.10	
SM 2540 C-2011	TDS				1.04	
SM 4500-F- C-2011	Fluoride	98.0	98.9	97.0		1.00
SM 5310 B-2011	Organic Carbon	100	99.6	97.4		1.15

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2317044
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2317044
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2317051
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2317051
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2317044
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2317044

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2317045
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2317045
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2317045
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2317045
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2317046
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2317052
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2317052
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2317050
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2317044
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2317051
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2317044
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2317044
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2317044
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2317045

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	04/06/2022			04/06/2022 16:00	Anna M. Plaviak	2317044
EPA 180.1 Rev. 2.0	04/06/2022			04/06/2022 14:22	Khloe J Berg	2317044
EPA 200.7 Rev. 4.4	04/06/2022	04/08/2022 10:30	Megan Whitefoot	04/13/2022 18:51	Josef B Mick	2317051
EPA 200.8 Rev. 5.4	04/06/2022	04/08/2022 10:30	Megan Whitefoot	04/11/2022 20:01	Emily M Philpot	2317051
EPA 300.0 Rev. 2.1	04/06/2022			04/12/2022 00:07	James L Waggerby	2317044
EPA 350.1 Rev. 2.0	04/06/2022			04/14/2022 13:22	Judith K. Clark	2317045
EPA 351.2 Rev. 2.0	04/06/2022	04/12/2022 09:01	Samantha L Bates	04/19/2022 11:22	Alexandra J Mattheus	2317045
EPA 353.2 Rev. 2.0	04/06/2022			04/07/2022 11:15	Beverly Y. Sanders	2317045
EPA 365.1 Rev. 2.0	04/06/2022	04/13/2022 14:10	Simonne.V. Calhoun	04/14/2022 16:24	Sarah A Nixon	2317045
EPA 365.1 Rev. 2.0 dissolved	04/06/2022			04/06/2022 15:04	Nathaniel J Jones	2317046
EPA 8270E	04/06/2022	04/11/2022 08:00	Rasheda Ghaffari	04/13/2022 19:12	Lipi Saha	2317052
	04/06/2022	04/11/2022 08:00	Rasheda Ghaffari	04/14/2022 15:18	Michael Poppell	2317052
	04/06/2022	04/11/2022 08:00	Rasheda Ghaffari	04/21/2022 23:03	Michael Poppell	2317052
EPA 8321B	04/06/2022	04/07/2022 09:00	June Rhew	04/08/2022 08:15	Juyoung Kim	2317050
	04/06/2022	04/08/2022 12:00	Manjita Shrestha	04/08/2022 17:29	Manjita Shrestha	2317050
	04/06/2022	04/08/2022 12:00	Manjita Shrestha	04/09/2022 07:56	Manjita Shrestha	2317050
SM 2320 B-2011	04/06/2022			04/18/2022 21:08	Dale L. Simmons	2317044
SM 2340 B-2011	04/06/2022			04/13/2022 18:51	Josef B Mick	2317051
SM 2540 C-2011	04/06/2022			04/07/2022 13:30	Simonne.V. Calhoun	2317044
SM 2540 D-2011	04/06/2022			04/07/2022 13:30	Simonne.V. Calhoun	2317044
SM 4500-F- C-2011	04/06/2022			04/18/2022 21:08	Dale L. Simmons	2317044
SM 5310 B-2011	04/06/2022			04/08/2022 22:31	Khloe J Berg	2317045