

Chemical Analysis Report

SO-DIST-2022-08-25-01

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

Event Description: **2022 SMP: Lake Denton LVI**
Request ID: **RQ-2022-08-22-40**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
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Certified by: Colin Wright, Program Administrator

Date Certified: 15-SEP-2022 08:38



Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Lake Denton

Collection Date/Time: 08/24/2022 10:35

Field ID: G4SD0180

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352507	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P419357	
	EPA 180.1 Rev. 2.0	Turbidity	0.45	I	NTU	P418702	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P419468	
		Sulfate	43		mg SO4/L	P419471	
	SM 2320 B-2011	Total Alkalinity	42	A	mg CaCO3/L	P419032	
	SM 2540 C-2011	TDS	158	A	mg/L	P419261	
	SM 2540 D-2011	TSS	2	UA	mg/L	P419200	
2352508	SM 4500-F- C-2011	Fluoride	0.23		mg F/L	P419391	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P418887	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P418909	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.3		mg N/L	P419052	
	EPA 365.1 Rev. 2.0	Total-P	0.002	I	mg P/L	P419132	
2352509	SM 5310 B-2011	Organic Carbon	1.5		mg C/L	P419161	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P418697	
2352513	EPA 8321B	2,4-D	0.0039	I	ug/L	P418690	
		Acesulfame K	0.10	U	ug/L	P418641	
		2,4,5-T	0.0040	U	ug/L	P418690	
		AMPA	0.10	U	ug/L	P418641	
		Acetaminophen	0.0080	U	ug/L	P418690	
		Acetamiprid	0.0020	U	ug/L	P418690	
		Endothall	0.25	U	ug/L	P418641	MS
		Glufosinate	0.10	U	ug/L	P418641	
		Glyphosate	0.10	U	ug/L	P418641	
		Afidopyrophen	0.0020	U	ug/L	P418690	
		Bentazon	8.0E-04	U	ug/L	P418690	
		Sucralose	0.026	I	ug/L	P418641	
		Benzovindiflupyr	0.0020	U	ug/L	P418690	
		Carbamazepine	8.0E-04	U	ug/L	P418690	
		Clothianidin	0.0020	U	ug/L	P418690	
		Dinotefuran	0.0020	U	ug/L	P418690	
		Diuron	0.0020	U	ug/L	P418690	
		Fenuron	0.032	U	ug/L	P418690	
		Fluridone	8.0E-04	U	ug/L	P418690	
		Imazapyr	0.0040	U	ug/L	P418690	
		Hydrocodone	0.0020	U	ug/L	P418690	
		Ibuprofen	0.080	U	ug/L	P418690	
		Imidacloprid	0.020		ug/L	P418690	
		Linuron	0.0040	U	ug/L	P418690	
		Mandestrobin	0.0020	U	ug/L	P418690	
		MCPD	0.0040	U	ug/L	P418690	
		Naproxen	0.0080	U	ug/L	P418690	
		Primidone	0.0040	U	ug/L	P418690	
		Pyraclostrobin	0.0020	U	ug/L	P418690	

Field ID: G4SD0180

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352513	EPA 8321B	Silvex	0.0040	U	ug/L	P418690	
		Thiamethoxam	0.0020	U	ug/L	P418690	
		Tolfenpyrad	0.0020	U	ug/L	P418690	
		Triclopyr	0.0040	U	ug/L	P418690	
2352515	EPA 200.7 Rev. 4.4	Calcium	24.1		mg/L	P418827	
		Iron	30	U	ug/L	P418827	
		Magnesium	9.71		mg/L	P418827	
		Potassium	19.5		mg/L	P418827	
		Sodium	4.9		mg/L	P418827	
		Strontium	87.9		ug/L	P418827	
		Tin	3.6	I	ug/L	P418827	
		Titanium	0.75	U	ug/L	P418827	
		Vanadium	2.0	U	ug/L	P418827	
		Zinc	5.0	U	ug/L	P418827	
	EPA 200.8 Rev. 5.4	Aluminum	159		ug/L	P418827	
		Antimony	0.11	I	ug/L	P418827	
		Arsenic	0.90		ug/L	P418827	
		Barium	32.5		ug/L	P418827	
		Beryllium	0.010	U	ug/L	P418827	
		Boron	52.7		ug/L	P418827	
		Cadmium	0.020	U	ug/L	P418827	
		Chromium	0.40	U	ug/L	P418827	
		Cobalt	0.020	U	ug/L	P418827	
		Copper	0.88		ug/L	P418827	
		Lead	0.20	U	ug/L	P418827	
		Manganese	6.30		ug/L	P418827	
		Molybdenum	0.35	I	ug/L	P418827	
		Nickel	0.50	U	ug/L	P418827	
		Selenium	0.20	U	ug/L	P418827	
		Silver	0.010	U	ug/L	P418827	
		Thallium	0.10	U	ug/L	P418827	
	SM 2340 B-2011	Hardness	100		mg/L	P418827	
2352516	EPA 8270E	Oxybenzone**	9.8	U	ng/L	P418774	
		Acetochlor	0.25	U	ng/L	P418774	
		Octinoxate**	20	U	ng/L	P418774	
		Alachlor	0.25	U	ng/L	P418774	
		Avobenzone**	98	U	ng/L	P418774	
		Ametryn	0.59	U	ng/L	P418774	
		Atrazine	0.43	I	ng/L	P418774	
		PBDE-47**	3.9	U	ng/L	P418774	
		Atrazine Desethyl	1.5	U	ng/L	P418774	
		PBDE-99**	4.9	U	ng/L	P418774	
		Azinphos Methyl	2.0	U	ng/L	P418774	
		Tri-o-cresyl Phosphate**	5.9	U	ng/L	P418774	
		Azoxystrobin	0.49	U	ng/L	P418774	

Field ID: G4SD0180

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352516	EPA 8270E	Bromacil	8.5		ng/L	P418774	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P418774	
		Butylate	0.39	U	ng/L	P418774	
		Dechlorane Plus**	29	U	ng/L	P418774	
		Caffeine**	7.4	U	ng/L	P418774	
		Carbophenothion	0.20	U	ng/L	P418774	
		Carfentrazone Ethyl	0.098	U	ng/L	P418774	
		Chlorfenapyr	0.17	U	ng/L	P418774	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P418774	
		Chlorpyrifos Methyl	0.049	U	ng/L	P418774	
		Coumaphos	0.49	U	ng/L	P418774	
		Cyanazine	3.2	U	ng/L	P418774	
		Cyprodinil	0.098	U	ng/L	P418774	
		Demeton	1.5	U	ng/L	P418774	
		Diazinon	0.12	U	ng/L	P418774	
		Difenoconazole	0.59	U	ng/L	P418774	
		Dimethenamid	0.098	U	ng/L	P418774	
		Dimethomorph	0.17	U	ng/L	P418774	
		Disulfoton	0.49	U	ng/L	P418774	
		Dithiopyr	0.25	IV	ng/L	P418774	
		EPTC	1.2	U	ng/L	P418774	
		Ethion	0.15	U	ng/L	P418774	
		Ethoprop	0.098	U	ng/L	P418774	
		Etridiazole	0.15	U	ng/L	P418774	
		Fenamiphos	0.49	U	ng/L	P418774	
		Fenbuconazole	0.12	U	ng/L	P418774	
		Fipronil	0.25	U	ng/L	P418774	
		Fipronil Desulfinyl**	0.12	U	ng/L	P418774	
		Fipronil Sulfide	0.15	U	ng/L	P418774	
		Fipronil Sulfone	0.15	U	ng/L	P418774	
		Fluazifop-P-butyl	0.098	U	ng/L	P418774	
		Fludioxonil	0.12	U	ng/L	P418774	
		Flumioxazin	1.7	U	ng/L	P418774	
		Flutolanil	0.098	U	ng/L	P418774	
		Fluxapyroxad	0.098	U	ng/L	P418774	
		Fonofos	0.20	U	ng/L	P418774	
		Hexazinone	0.49	U	ng/L	P418774	
		Imazalil	0.74	U	ng/L	P418774	
		Iprodione	0.59	U	ng/L	P418774	
		Loratadine**	0.098	UJ	ng/L	P418774	MS
		Malathion	0.34	U	ng/L	P418774	
		Metalaxyl	5.3		ng/L	P418774	
		Metolachlor	0.34	U	ng/L	P418774	
		Metribuzin	2.5	U	ng/L	P418774	

Field ID: G4SD0180

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352516	EPA 8270E	Mevinphos	1.0	U	ng/L	P418774	
		Molinate	0.29	U	ng/L	P418774	
		Myclobutanil	0.25	U	ng/L	P418774	
		Naled	1.5	U	ng/L	P418774	
		Napropamide	0.39	U	ng/L	P418774	
		Norflurazon	2.2		ng/L	P418774	
		Oxadiazon	0.29	U	ng/L	P418774	
		Oxyfluorfen	0.15	U	ng/L	P418774	
		Parathion Ethyl	0.25	U	ng/L	P418774	
		Parathion Methyl	0.54	U	ng/L	P418774	
		Pendimethalin	0.98	U	ng/L	P418774	
		Phenytoin**	3.4	UJ	ng/L	P418774	MS
		Phorate	0.52	U	ng/L	P418774	
		Prodiamine	0.17	UJ	ng/L	P418774	MS
		Prometon	0.88	U	ng/L	P418774	
		Prometryn	0.20	U	ng/L	P418774	
		Pronamide	0.15	U	ng/L	P418774	
		Propanil	0.12	U	ng/L	P418774	
		Propargite	1.5	U	ng/L	P418774	
		Propiconazole	0.49	U	ng/L	P418774	
		Pyraflufen Ethyl	0.25	U	ng/L	P418774	
		Pyridaben	0.44	U	ng/L	P418774	
		Pyriproxyfen	0.12	U	ng/L	P418774	
		Simazine	0.49	U	ng/L	P418774	
		Stirophos	0.12	U	ng/L	P418774	
		Sulfentrazone	0.49	U	ng/L	P418774	
		Tebuconazole	0.49	U	ng/L	P418774	
		Terbufos	0.098	U	ng/L	P418774	
		Terbutylazine	0.42	U	ng/L	P418774	
		Thiobencarb	0.59	U	ng/L	P418774	
		Triadimefon	0.25	U	ng/L	P418774	

Ref. Method and Comment:

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

EPA 8270E: MS accuracy for bromacil not assessed due to high content of this parameter in the sample spiked. V - Due to the presence of dithiopyr in a Method Blank and the sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: FB

Collection Date/Time: 08/24/2022 13:50

Field ID: FB_08242022

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352510	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P419357	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P418702	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P419468	
		Sulfate	0.20	U	mg SO4/L	P419471	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P419032	
	SM 2540 C-2011	TDS	15	U	mg/L	P419261	
	SM 2540 D-2011	TSS	2	U	mg/L	P419200	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P419391	
2352511	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P418697	
2352514	EPA 8321B	2,4-D	0.0020	U	ug/L	P418690	
		Acesulfame K	0.10	U	ug/L	P418641	
		2,4,5-T	0.0040	U	ug/L	P418690	
		AMPA	0.10	U	ug/L	P418641	
		Acetaminophen	0.0080	U	ug/L	P418690	
		Acetamiprid	0.0020	U	ug/L	P418690	
		Endothall	0.25	U	ug/L	P418641	MS
		Glufosinate	0.10	U	ug/L	P418641	
		Glyphosate	0.10	U	ug/L	P418641	
		Afidopyropen	0.0020	U	ug/L	P418690	
		Bentazon	8.0E-04	U	ug/L	P418690	
		Sucralose	0.010	U	ug/L	P418641	
		Benzovindiflupyr	0.0020	U	ug/L	P418690	
		Carbamazepine	8.0E-04	U	ug/L	P418690	
		Clothianidin	0.0020	U	ug/L	P418690	
		Dinotefuran	0.0020	U	ug/L	P418690	
		Diuron	0.0020	U	ug/L	P418690	
		Fenuron	0.032	U	ug/L	P418690	
		Fluridone	8.0E-04	U	ug/L	P418690	
		Imazapyr	0.0040	U	ug/L	P418690	
		Hydrocodone	0.0020	U	ug/L	P418690	
		Ibuprofen	0.080	U	ug/L	P418690	
		Imidacloprid	0.0020	U	ug/L	P418690	
		Linuron	0.0040	U	ug/L	P418690	
		Mandestrobin	0.0020	U	ug/L	P418690	
		MCP	0.0040	U	ug/L	P418690	
		Naproxen	0.0080	U	ug/L	P418690	
		Primidone	0.0040	U	ug/L	P418690	
		Pyraclostrobin	0.0020	U	ug/L	P418690	
		Silvex	0.0040	U	ug/L	P418690	
		Thiamethoxam	0.0020	U	ug/L	P418690	
		Tolfenpyrad	0.0020	U	ug/L	P418690	
		Triclopyr	0.0040	U	ug/L	P418690	
2352527	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P418887	

Field ID: FB_08242022

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2352527	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P418823	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P419052	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P419132	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P419161	

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P419357

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418702

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418827

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419468

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419471

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418887

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418823

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418909

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419132

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418697

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

Reference Method: EPA 8270E
Batch ID: P418774

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P418774

Component	Result	Code	Units
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
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.31	I	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418774

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418774

Component	Result	Code	Units
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
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiatone	0.18	U	ng/L
Prodiatone	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P418774

Component	Result	Code	Units
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B

Batch ID: P418641

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: P418690

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P418690

Component	Result	Code	Units
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P419032

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

Reference Method: SM 2540 C-2011
Batch ID: P419261

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P419200

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P419391

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P419161

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: P419357

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.2		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.8		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418827

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	111		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	107		P	85 - 115
Sodium	102		P	85 - 115
Strontium	105		P	85 - 115
Tin	110		P	85 - 115
Titanium	108		P	85 - 115
Vanadium	107		P	85 - 115
Zinc	109		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.6		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	99.9		P	85 - 115
Barium	103		P	85 - 115
Beryllium	100		P	85 - 115
Boron	101		P	85 - 115
Cadmium	97.5		P	85 - 115
Chromium	98.3		P	85 - 115
Cobalt	97.0		P	85 - 115
Copper	95.4		P	85 - 115
Lead	98.4		P	85 - 115
Manganese	98.3		P	85 - 115
Molybdenum	102		P	85 - 115
Nickel	98.6		P	85 - 115
Selenium	95.5		P	85 - 115
Silver	97.0		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419468

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419471

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: P418887

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.6		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418823

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418909

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419132

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418697

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

Reference Method: EPA 8270E
Batch ID: P418774

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	91.2		P	50 - 150
Acetochlor	108		P	70 - 121
Alachlor	102		P	68 - 119
Ametryn	105		P	64 - 139
Atrazine	97.8		P	76 - 120
Atrazine Desethyl	67.9		P	44 - 126
Avobenzone	86.3		P	76 - 212
Azinphos Methyl	138		P	43 - 192
Azoxystrobin	111		P	36 - 224
Bromacil	84.7		P	52 - 121

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P418774

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Butylate	57.6		P	28 - 91.0
Caffeine	92.7		P	50 - 134
Carbophenothion	86.7		P	56 - 129
Carfentrazone Ethyl	108		P	60 - 141
Chlorfenapyr	88.0		P	56 - 115
Chlorpyrifos Ethyl	99.9		P	60 - 118
Chlorpyrifos Methyl	105		P	68 - 119
Coumaphos	90.8		P	18 - 250
Cyanazine	109		P	61 - 250
Cyprodinil	101		P	55 - 145
Dechlorane Plus	112		P	50 - 150
Demeton	90.3		P	30 - 159
Diazinon	111		P	70 - 123
Difenoconazole	115		P	49 - 204
Dimethenamid	83.1		P	64 - 115
Dimethomorph	121		P	12 - 219
Disulfoton	98.4		P	44 - 125
Dithiopyr	94.8		P	64 - 115
EPTC	56.3		P	28 - 86.0
Ethion	81.8		P	33 - 125
Ethoprop	99.1		P	64 - 116
Etridiazole	54.7		P	34 - 91.0
Fenamiphos	97.8		P	12 - 127
Fenbuconazole	98.4		P	59 - 151
Fipronil	99.3		P	67 - 129
Fipronil Desulfinyl	101		P	65 - 127
Fipronil Sulfide	87.9		P	61 - 116
Fipronil Sulfone	74.9		P	55 - 117
Fluazifop-P-butyl	101		P	62 - 127
Fludioxonil	87.0		P	62 - 128
Flumioxazin	127		P	33 - 250
Flutolanil	114		P	56 - 127
Fluxapyroxad	95.0		P	45 - 128
Fonofos	97.9		P	62 - 111
Hexazinone	98.3		P	46 - 139
Imazalil	85.6		P	38 - 142
Iprodione	103		P	47 - 135
Loratadine	131		P	10 - 244
Malathion	104		P	61 - 139
Metalaxyl	87.4		P	10 - 119
Metolachlor	102		P	65 - 118
Metribuzin	96.5		P	51 - 250
Mevinphos	99.6		P	53 - 121
Molinate	64.2		P	42 - 96.0
Myclobutanil	99.0		P	55 - 128
Naled	64.0		P	10 - 98.0
Napropamide	86.3		P	49 - 121
Norflurazon	95.2		P	61 - 126
Octinoxate	74.8		P	30 - 159
Oxadiazon	90.5		P	59 - 116
Oxybenzone	72.9		P	61 - 139
Oxyfluorfen	109		P	64 - 137

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P418774

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	96.7		P	70 - 112
Parathion Methyl	128		P	76 - 133
PBDE-47	80.7		P	50 - 150
PBDE-99	84.5		P	50 - 150
Pendimethalin	106		P	52 - 117
Phenytol	28.1		P	10 - 199
Phorate	89.3		P	48 - 121
Prodiamine	35.1		P	26 - 142
Prometon	77.9		P	43 - 123
Prometryn	97.7		P	66 - 127
Pronamide	98.9		P	75 - 121
Propanil	103		P	45 - 150
Propargite	63.1		P	42 - 208
Propiconazole	79.4		P	60 - 125
Pyraflufen Ethyl	86.0		P	70 - 138
Pyridaben	97.6		P	35 - 245
Pyriproxyfen	89.1		P	30 - 149
Simazine	91.6		P	72 - 125
Stirophos	65.8		P	29 - 164
Sulfentrazone	81.3		P	21 - 139
Tebuconazole	57.1		P	10 - 115
Terbufos	109		P	60 - 123
Terbutylazine	90.9		P	72 - 115
Thiobencarb	85.6		P	31 - 139
Tri-o-cresyl Phosphate	77.2		P	50 - 150
Triadimefon	79.0		P	65 - 116

Reference Method: EPA 8321B

Batch ID: P418641

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	117		P	40 - 150
AMPA	112		P	40 - 150
Endothall	103		P	40 - 150
Glufosinate	117		P	40 - 150
Glyphosate	107		P	40 - 150
Sucralose	115		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P418690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.1		P	40 - 150
2,4,5-T	63.4		P	40 - 150
Acetaminophen	95.3		P	30 - 150
Acetamiprid	82.0		P	40 - 150
Afidopyropen	76.6		P	30 - 150
Bentazon	83.8		P	30 - 150
Benzovindiflupyr	96.5		P	40 - 150
Carbamazepine	85.0		P	40 - 150
Clothianidin	111		P	40 - 150
Dinotefuran	93.1		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P418690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	100		P	40 - 150
Fenuron	97.4		P	40 - 150
Fluridone	91.2		P	40 - 150
Hydrocodone	87.3		P	40 - 150
Ibuprofen	89.4		P	40 - 150
Imazapyr	93.3		P	40 - 150
Imidacloprid	80.6		P	40 - 150
Linuron	95.1		P	40 - 150
Mandestrobin	89.4		P	40 - 150
MCPP	84.6		P	40 - 150
Naproxen	101		P	40 - 150
Primidone	83.4		P	40 - 150
Pyraclostrobin	83.0		P	40 - 150
Silvex	70.6		P	40 - 150
Thiamethoxam	102		P	40 - 150
Tolfenpyrad	41.0		P	30 - 150
Triclopyr	71.3		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P419032

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P419391

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P419161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P418827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351697	Calcium	105		P	80 - 120
2351697	Iron	112	115	P/P	80 - 120
2351697	Magnesium	105		P	80 - 120
2351697	Potassium	108	110	P/P	80 - 120
2351697	Sodium	103		P	80 - 120
2351697	Strontium	106	103	P/P	80 - 120
2351697	Tin	113	109	P/P	80 - 120
2351697	Titanium	108	107	P/P	80 - 120
2351697	Vanadium	110	108	P/P	80 - 120
2351697	Zinc	110	109	P/P	80 - 120
2351698	Calcium	116		P	80 - 120
2351698	Iron	116		P	80 - 120
2351698	Magnesium	112		P	80 - 120
2351698	Potassium	113		P	80 - 120
2351698	Sodium	110		P	80 - 120
2351698	Strontium	108		P	80 - 120
2351698	Tin	113		P	80 - 120
2351698	Titanium	112		P	80 - 120
2351698	Vanadium	112		P	80 - 120
2351698	Zinc	112		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P418827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351697	Aluminum	101	99.7	P/P	80 - 120
2351697	Antimony	105	104	P/P	80 - 120
2351697	Arsenic	104	101	P/P	80 - 120
2351697	Barium	103	101	P/P	80 - 120
2351697	Beryllium	100	103	P/P	80 - 120
2351697	Boron	100	99.8	P/P	80 - 120
2351697	Cadmium	101	100	P/P	80 - 120
2351697	Chromium	102	101	P/P	80 - 120
2351697	Cobalt	99.6	98.5	P/P	80 - 120
2351697	Copper	97.5	96.5	P/P	80 - 120
2351697	Lead	102	100	P/P	80 - 120
2351697	Manganese	99.8	97.3	P/P	80 - 120
2351697	Molybdenum	109	107	P/P	80 - 120
2351697	Nickel	99.8	98.6	P/P	80 - 120
2351697	Selenium	99.4	97.6	P/P	80 - 120
2351697	Silver	96.8	95.7	P/P	80 - 120
2351697	Thallium	105	103	P/P	80 - 120
2351698	Aluminum	104		P	80 - 120
2351698	Antimony	108		P	80 - 120
2351698	Arsenic	107		P	80 - 120
2351698	Barium	109		P	80 - 120
2351698	Beryllium	107		P	80 - 120
2351698	Boron	114		P	80 - 120
2351698	Cadmium	104		P	80 - 120
2351698	Chromium	105		P	80 - 120
2351698	Cobalt	101		P	80 - 120
2351698	Copper	98.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351698	Lead	107		P	80 - 120
2351698	Manganese	107		P	80 - 120
2351698	Molybdenum	113		P	80 - 120
2351698	Nickel	102		P	80 - 120
2351698	Selenium	98.9		P	80 - 120
2351698	Silver	100		P	80 - 120
2351698	Thallium	108		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419468

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352704	Chloride	96.6		P	90 - 110
2352758	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419471

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352704	Sulfate	93.3		P	90 - 110
2352758	Sulfate	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352508	Ammonia-N	99.4	98.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418823

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352296	Kjeldahl Nitrogen	100	96.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418909

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352225	Kjeldahl Nitrogen	100	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352375	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2353499	Total-P	101	105	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P418697

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352277	O-Phosphate-P	101	100	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P418774

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352516	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	86.6	84.7	P/P	50 - 150
2352516	Acetochlor	88.6	95.8	P/P	65 - 124
2352516	Alachlor	83.9	86.4	P/P	61 - 121
2352516	Ametryn	73.5	94.8	P/P	52 - 216
2352516	Atrazine	80.9	90.0	P/P	68 - 133
2352516	Atrazine Desethyl	62.5	63.1	P/P	15 - 160
2352516	Avobenzone	86.7	81.4	P/P	59 - 206
2352516	Azinphos Methyl	106	112	P/P	40 - 292
2352516	Azoxystrobin	96.3	110	P/P	12 - 242
2352516	Butylate	56.2	61.0	P/P	14 - 94.0
2352516	Caffeine	87.0	98.0	P/P	10 - 226
2352516	Carbophenothion	73.5	82.8	P/P	49 - 122
2352516	Carfentrazone Ethyl	91.1	99.0	P/P	53 - 138
2352516	Chlorfenapyr	72.6	81.7	P/P	50 - 150
2352516	Chlorpyrifos Ethyl	92.2	93.8	P/P	52 - 122
2352516	Chlorpyrifos Methyl	89.3	99.9	P/P	66 - 117
2352516	Coumaphos	75.7	83.0	P/P	50 - 220
2352516	Cyanazine	95.5	104	P/P	43 - 245
2352516	Cyprodinil	90.3	101	P/P	50 - 150
2352516	Dechlorane Plus	95.0	108	P/P	50 - 150
2352516	Demeton	80.9	95.5	P/P	43 - 188
2352516	Diazinon	99.1	111	P/P	69 - 131
2352516	Difenoconazole	109	127	P/P	34 - 231
2352516	Dimethenamid	72.2	78.5	P/P	55 - 118
2352516	Dimethomorph	103	118	P/P	50 - 150
2352516	Disulfoton	83.1	95.8	P/P	38 - 141
2352516	Dithiopyr	74.5	80.9	P/P	42 - 116
2352516	EPTC	56.2	63.5	P/P	18 - 85.0
2352516	Ethion	68.9	76.2	P/P	10 - 131
2352516	Ethoprop	88.3	97.2	P/P	65 - 129
2352516	Etridiazole	52.6	58.0	P/P	50 - 150
2352516	Fenamiphos	79.3	82.3	P/P	31 - 137
2352516	Fenbuconazole	84.3	93.5	P/P	57 - 160
2352516	Fipronil	83.5	94.2	P/P	62 - 132
2352516	Fipronil Desulfinyl	84.2	95.6	P/P	57 - 131
2352516	Fipronil Sulfide	71.9	81.9	P/P	15 - 138
2352516	Fipronil Sulfone	66.6	82.3	P/P	21 - 134
2352516	Fluazifop-P-butyl	89.3	99.0	P/P	54 - 133
2352516	Fludioxonil	71.9	81.6	P/P	58 - 127
2352516	Flumioxazin	102	107	P/P	33 - 300
2352516	Flutolanil	99.6	109	P/P	42 - 130
2352516	Fluxapyroxad	80.0	84.2	P/P	23 - 141
2352516	Fonofos	85.2	96.4	P/P	58 - 119
2352516	Hexazinone	82.2	87.6	P/P	68 - 172
2352516	Imazalil	73.2	87.0	P/P	48 - 283
2352516	Iprodione	78.5	90.4	P/P	38 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P418774

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352516	Loratadine	126	155	P/F	50 - 150
2352516	Malathion	90.5	96.5	P/P	40 - 137
2352516	Metalaxyl	74.9	85.9	P/P	21 - 129
2352516	Metolachlor	91.9	100	P/P	55 - 122
2352516	Metribuzin	77.4	87.1	P/P	38 - 187
2352516	Mevinphos	80.7	97.1	P/P	54 - 134
2352516	Molinate	60.4	61.6	P/P	41 - 97.0
2352516	Myclobutanil	80.4	91.8	P/P	56 - 125
2352516	Naled	50.5	61.2	P/P	10 - 108
2352516	Napropamide	71.3	78.4	P/P	50 - 150
2352516	Norflurazon	88.6	80.1	P/P	32 - 122
2352516	Octinoxate	77.3	69.1	P/P	25 - 150
2352516	Oxadiazon	84.2	91.9	P/P	40 - 119
2352516	Oxybenzone	74.5	66.3	P/P	59 - 147
2352516	Oxyfluorfen	96.5	101	P/P	61 - 153
2352516	Parathion Ethyl	77.3	94.7	P/P	59 - 130
2352516	Parathion Methyl	105	129	P/P	65 - 155
2352516	PBDE-47	80.1	74.0	P/P	50 - 150
2352516	PBDE-99	79.2	76.7	P/P	50 - 150
2352516	Pendimethalin	94.8	102	P/P	49 - 138
2352516	Phenytoin	21.9	17.4	F/F	50 - 200
2352516	Phorate	72.1	90.2	P/P	54 - 161
2352516	Prodiamine	30.0	32.4	F/F	33 - 161
2352516	Prometon	54.8	51.9	P/P	48 - 140
2352516	Prometryn	83.5	88.5	P/P	55 - 134
2352516	Pronamide	101	104	P/P	66 - 137
2352516	Propanil	82.8	91.2	P/P	50 - 150
2352516	Propargite	61.5	54.8	P/P	50 - 200
2352516	Propiconazole	75.0	68.7	P/P	36 - 150
2352516	Pyraflufen Ethyl	74.8	69.9	P/P	50 - 150
2352516	Pyridaben	83.0	92.8	P/P	50 - 200
2352516	Pyriproxyfen	77.7	79.5	P/P	10 - 165
2352516	Simazine	100	113	P/P	57 - 145
2352516	Stirophos	53.1	63.2	P/P	50 - 150
2352516	Sulfentrazone	61.1	68.7	P/P	34 - 140
2352516	Tebuconazole	46.1	44.4	P/P	10 - 127
2352516	Terbufos	98.1	111	P/P	59 - 138
2352516	Terbutylazine	80.0	84.7	P/P	68 - 119
2352516	Thiobencarb	78.2	81.9	P/P	50 - 150
2352516	Tri-o-cresyl Phosphate	77.8	70.7	P/P	50 - 150
2352516	Triadimefon	74.3	81.3	P/P	50 - 150

Reference Method: EPA 8321B
Batch ID: P418641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352247	Acesulfame K	84.1	83.2	P/P	40 - 150
2352247	AMPA	98.2	98.8	P/P	40 - 150
2352247	Endothall	171	174	F/F	40 - 150
2352247	Glufosinate	123	103	P/P	40 - 150
2352247	Glyphosate	119	120	P/P	40 - 150
2352247	Sucralose	110	110	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P418690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351931	2,4-D	82.2	80.4	P/P	40 - 150
2351931	2,4,5-T	72.7	74.7	P/P	40 - 150
2351931	Acetaminophen	102	104	P/P	30 - 150
2351931	Acetamiprid	86.8	94.8	P/P	40 - 150
2351931	Afidopyropen	70.6	82.2	P/P	30 - 150
2351931	Bentazon	86.0	102	P/P	30 - 150
2351931	Benzovindiflupyr	94.5	100	P/P	40 - 150
2351931	Carbamazepine	101	111	P/P	40 - 150
2351931	Clothianidin	102	106	P/P	40 - 150
2351931	Dinotefuran	101	102	P/P	40 - 150
2351931	Diuron	106	94.5	P/P	40 - 150
2351931	Fenuron	92.6	99.7	P/P	40 - 150
2351931	Fluridone	85.3	84.2	P/P	40 - 150
2351931	Hydrocodone	96.9	104	P/P	40 - 150
2351931	Ibuprofen	72.0	76.1	P/P	40 - 150
2351931	Imazapyr	96.2	92.4	P/P	40 - 150
2351931	Imidacloprid	88.4	97.0	P/P	40 - 150
2351931	Linuron	83.5	96.5	P/P	40 - 150
2351931	Mandestrobin	88.7	108	P/P	40 - 150
2351931	MCCP	89.5	94.8	P/P	40 - 150
2351931	Naproxen	98.0	90.2	P/P	40 - 150
2351931	Primidone	85.8	82.5	P/P	40 - 150
2351931	Pyraclostrobin	87.9	94.0	P/P	40 - 150
2351931	Silvex	74.8	81.8	P/P	40 - 150
2351931	Thiamethoxam	80.6	106	P/P	40 - 150
2351931	Tolfenpyrad	51.3	40.3	P/P	30 - 150
2351931	Triclopyr	74.5	75.8	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P419391

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352507	Fluoride	97.9	98.7	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P419161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2352547	Organic Carbon	95.2	95.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P419357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352444	Color (true)	1.63	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P418702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352318	Turbidity	8.61	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P418827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351697	Calcium	4.94	Spike	P	0 - 20
2351697	Iron	1.99	Spike	P	0 - 20
2351697	Magnesium	0.545	Spike	P	0 - 20
2351697	Potassium	0.862	Spike	P	0 - 20
2351697	Sodium	3.79	Spike	P	0 - 20
2351697	Strontium	2.42	Spike	P	0 - 20
2351697	Tin	3.64	Spike	P	0 - 20
2351697	Titanium	1.18	Spike	P	0 - 20
2351697	Vanadium	2.02	Spike	P	0 - 20
2351697	Zinc	1.63	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P418827

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351697	Aluminum	0.899	Spike	P	0 - 20
2351697	Antimony	1.25	Spike	P	0 - 20
2351697	Arsenic	2.31	Spike	P	0 - 20
2351697	Barium	1.48	Spike	P	0 - 20
2351697	Beryllium	2.58	Spike	P	0 - 20
2351697	Boron	0.182	Spike	P	0 - 20
2351697	Cadmium	0.673	Spike	P	0 - 20
2351697	Chromium	1.61	Spike	P	0 - 20
2351697	Cobalt	1.13	Spike	P	0 - 20
2351697	Copper	1.00	Spike	P	0 - 20
2351697	Lead	1.61	Spike	P	0 - 20
2351697	Manganese	1.51	Spike	P	0 - 20
2351697	Molybdenum	1.87	Spike	P	0 - 20
2351697	Nickel	1.22	Spike	P	0 - 20
2351697	Selenium	1.80	Spike	P	0 - 20
2351697	Silver	1.19	Spike	P	0 - 20
2351697	Thallium	1.19	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352704	Chloride	0.0217	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P419471

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352704	Sulfate	0.0618	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P418887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352508	Ammonia-N	0.491	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418823

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352296	Kjeldahl Nitrogen	1.70	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P418909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352225	Kjeldahl Nitrogen	1.82	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P419052

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352375	NO2NO3-N	0.304	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2353499	Total-P	1.03	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P418697

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352277	O-Phosphate-P	0.661	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P418774

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352516	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	2.20	Spike	P	0 - 30
2352516	Acetochlor	7.80	Spike	P	0 - 27
2352516	Alachlor	2.94	Spike	P	0 - 27
2352516	Ametryn	25.3	Spike	P	0 - 34
2352516	Atrazine	9.46	Spike	P	0 - 41
2352516	Atrazine Desethyl	0.907	Spike	P	0 - 38
2352516	Avobenzone	6.29	Spike	P	0 - 30
2352516	Azinphos Methyl	6.14	Spike	P	0 - 62
2352516	Azoxystrobin	13.4	Spike	P	0 - 32
2352516	Bromacil	6.45	Spike	P	0 - 30
2352516	Butylate	8.20	Spike	P	0 - 59
2352516	Caffeine	12.0	Spike	P	0 - 60
2352516	Carbophenothion	11.9	Spike	P	0 - 25
2352516	Carfentrazone Ethyl	8.31	Spike	P	0 - 26
2352516	Chlorfenapyr	11.8	Spike	P	0 - 30
2352516	Chlorpyrifos Ethyl	1.69	Spike	P	0 - 27
2352516	Chlorpyrifos Methyl	11.2	Spike	P	0 - 26
2352516	Coumaphos	9.16	Spike	P	0 - 30
2352516	Cyanazine	8.63	Spike	P	0 - 58
2352516	Cyprodinil	11.4	Spike	P	0 - 30
2352516	Dechlorane Plus	13.2	Spike	P	0 - 30
2352516	Demeton	16.5	Spike	P	0 - 25
2352516	Diazinon	11.0	Spike	P	0 - 29
2352516	Difenoconazole	14.9	Spike	P	0 - 25
2352516	Dimethenamid	8.33	Spike	P	0 - 30
2352516	Dimethomorph	13.4	Spike	P	0 - 30
2352516	Disulfoton	14.2	Spike	P	0 - 33
2352516	Dithiopyr	7.58	Spike	P	0 - 22
2352516	EPTC	12.2	Spike	P	0 - 38
2352516	Ethion	10.0	Spike	P	0 - 79
2352516	Ethoprop	9.64	Spike	P	0 - 23
2352516	Etridiazole	9.78	Spike	P	0 - 30
2352516	Fenamiphos	3.62	Spike	P	0 - 58
2352516	Fenbuconazole	10.4	Spike	P	0 - 37
2352516	Fipronil	12.0	Spike	P	0 - 33
2352516	Fipronil Desulfanyl	12.7	Spike	P	0 - 26
2352516	Fipronil Sulfide	12.9	Spike	P	0 - 37
2352516	Fipronil Sulfone	21.1	Spike	P	0 - 50
2352516	Fluazifop-P-butyl	10.3	Spike	P	0 - 24
2352516	Fludioxonil	12.6	Spike	P	0 - 26
2352516	Flumioxazin	4.71	Spike	P	0 - 37
2352516	Flutolanil	9.08	Spike	P	0 - 26
2352516	Fluxapyroxad	5.13	Spike	P	0 - 34
2352516	Fonofos	12.4	Spike	P	0 - 27
2352516	Hexazinone	6.36	Spike	P	0 - 36
2352516	Imazalil	17.3	Spike	P	0 - 65
2352516	Iprodione	14.1	Spike	P	0 - 33
2352516	Loratadine	20.9	Spike	P	0 - 30
2352516	Malathion	6.44	Spike	P	0 - 44
2352516	Metalaxyl	9.65	Spike	P	0 - 38
2352516	Metolachlor	8.92	Spike	P	0 - 36

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P418774

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352516	Metribuzin	11.8	Spike	P	0 - 63
2352516	Mevinphos	18.5	Spike	P	0 - 26
2352516	Molinate	1.89	Spike	P	0 - 40
2352516	Myclobutanil	13.2	Spike	P	0 - 21
2352516	Naled	19.1	Spike	P	0 - 26
2352516	Napropamide	9.58	Spike	P	0 - 30
2352516	Norflurazon	8.29	Spike	P	0 - 24
2352516	Octinoxate	11.2	Spike	P	0 - 30
2352516	Oxadiazon	8.83	Spike	P	0 - 27
2352516	Oxybenzone	11.7	Spike	P	0 - 30
2352516	Oxyfluorfen	4.82	Spike	P	0 - 24
2352516	Parathion Ethyl	20.3	Spike	P	0 - 28
2352516	Parathion Methyl	20.5	Spike	P	0 - 27
2352516	PBDE-47	7.89	Spike	P	0 - 30
2352516	PBDE-99	3.16	Spike	P	0 - 30
2352516	Pendimethalin	7.66	Spike	P	0 - 31
2352516	Phenytoin	22.6	Spike	P	0 - 30
2352516	Phorate	22.3	Spike	P	0 - 27
2352516	Prodiamine	7.57	Spike	P	0 - 52
2352516	Prometon	5.46	Spike	P	0 - 31
2352516	Prometryn	5.84	Spike	P	0 - 28
2352516	Pronamide	3.03	Spike	P	0 - 26
2352516	Propanil	9.69	Spike	P	0 - 30
2352516	Propargite	11.6	Spike	P	0 - 30
2352516	Propiconazole	8.67	Spike	P	0 - 31
2352516	Pyraflufen Ethyl	6.76	Spike	P	0 - 30
2352516	Pyridaben	11.2	Spike	P	0 - 30
2352516	Pyriproxyfen	2.40	Spike	P	0 - 50
2352516	Simazine	12.3	Spike	P	0 - 29
2352516	Stirophos	17.4	Spike	P	0 - 30
2352516	Sulfentrazone	11.6	Spike	P	0 - 33
2352516	Tebuconazole	3.75	Spike	P	0 - 44
2352516	Terbufos	12.7	Spike	P	0 - 29
2352516	Terbuthylazine	5.81	Spike	P	0 - 27
2352516	Thiobencarb	4.61	Spike	P	0 - 30
2352516	Tri-o-cresyl Phosphate	9.48	Spike	P	0 - 30
2352516	Triadimefon	9.00	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P418641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352247	Acesulfame K	0.987	Spike	P	0 - 30
2352247	AMPA	0.614	Spike	P	0 - 30
2352247	Endothall	1.59	Spike	P	0 - 30
2352247	Glufosinate	17.2	Spike	P	0 - 30
2352247	Glyphosate	1.40	Spike	P	0 - 30
2352247	Sucralose	0.450	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P418690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351931	2,4-D	2.26	Spike	P	0 - 30
2351931	2,4,5-T	2.73	Spike	P	0 - 30
2351931	Acetaminophen	1.37	Spike	P	0 - 30
2351931	Acetamiprid	8.71	Spike	P	0 - 30
2351931	Afidopyropen	15.2	Spike	P	0 - 30
2351931	Bentazon	17.3	Spike	P	0 - 30
2351931	Benzovindiflupyr	5.90	Spike	P	0 - 30
2351931	Carbamazepine	10.2	Spike	P	0 - 30
2351931	Clothianidin	3.37	Spike	P	0 - 30
2351931	Dinotefuran	0.756	Spike	P	0 - 30
2351931	Diuron	11.2	Spike	P	0 - 30
2351931	Fenuron	7.36	Spike	P	0 - 30
2351931	Fluridone	1.28	Spike	P	0 - 30
2351931	Hydrocodone	6.77	Spike	P	0 - 30
2351931	Ibuprofen	5.56	Spike	P	0 - 30
2351931	Imazapyr	4.11	Spike	P	0 - 30
2351931	Imidacloprid	9.21	Spike	P	0 - 30
2351931	Linuron	14.4	Spike	P	0 - 30
2351931	Mandestrobin	19.3	Spike	P	0 - 30
2351931	MCP	5.71	Spike	P	0 - 30
2351931	Naproxen	8.25	Spike	P	0 - 30
2351931	Primidone	3.92	Spike	P	0 - 30
2351931	Pyraclostrobin	6.78	Spike	P	0 - 30
2351931	Silvex	8.98	Spike	P	0 - 30
2351931	Thiamethoxam	27.6	Spike	P	0 - 30
2351931	Tolfenpyrad	23.9	Spike	P	0 - 30
2351931	Triclopyr	1.68	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P419032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352507	Total Alkalinity	1.94	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P419261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352507	TDS	3.15	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P419391

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352507	Fluoride	0.509	Spike	P	0 - 1.6

Quality Assurance Report

Precision

Reference Method: SM 5310 B-2011
Batch ID: P419161

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2352547	Organic Carbon	0.285	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2352513
Field Sample ID: G4SD0180

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	68.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.5	P	30 - 160
EPA 8321B	Diuron-d6	78.3	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	94.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	55.9	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	121	P	30 - 160

Lab Sample ID: 2352514
Field Sample ID: FB_08242022

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	84.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.4	P	30 - 160
EPA 8321B	Diuron-d6	99.0	P	30 - 160
EPA 8321B	Endothall-d6	114	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	111	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.5	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	123	P	30 - 160

Lab Sample ID: 2352516
Field Sample ID: G4SD0180

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	50.6	P	20 - 200
EPA 8270E	Simazine-d10	87.0	P	71 - 140
EPA 8270E	Terbufos-d10	84.8	P	62 - 131
EPA 8270E	Terphenyl-d14	81.7	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A114347

Included Lab Sample IDs: 2352509, 2352511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.1	97.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114350

Included Lab Sample IDs: 2352507, 2352510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.5	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A114368

Included Lab Sample IDs: 2352513, 2352514

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	113	113	P/P	60 - 160
Sucralose	114	113	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A114374

Included Lab Sample IDs: 2352513, 2352514

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	112	P/P	60 - 160
Endothall	94.3	113	P/P	60 - 160
Glufosinate	129	130	P/P	60 - 160
Glyphosate	104	108	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A114437

Included Lab Sample IDs: 2352508, 2352527

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.1	96.3	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A114447

Included Lab Sample IDs: 2352513, 2352514

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.5	107	P/P	50 - 150
2,4,5-T	86.8	96.2	P/P	50 - 150
Acetaminophen	113	109	P/P	60 - 160
Acetamiprid	97.8	105	P/P	50 - 150
Afidopyropen	107	99.2	P/P	50 - 150
Bentazon	92.1	82.8	P/P	50 - 160
Benzovindiflupyr	111	94.4	P/P	50 - 150
Carbamazepine	124	115	P/P	60 - 150
Clothianidin	124	126	P/P	60 - 150
Dinotefuran	112	102	P/P	50 - 150
Diuron	105	113	P/P	60 - 160
Fenuron	100	104	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A114447

Included Lab Sample IDs: 2352513, 2352514

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	109	86.5	P/P	60 - 160
Hydrocodone	111	99.5	P/P	60 - 150
Ibuprofen	133	126	P/P	50 - 160
Imazapyr	93.1	77.2	P/P	50 - 150
Imidacloprid	96.5	122	P/P	60 - 150
Linuron	92.3	110	P/P	60 - 150
Mandestrobin	103	116	P/P	50 - 150
MCCP	117	106	P/P	50 - 150
Naproxen	68.7	68.6	P/P	50 - 160
Primidone	122	113	P/P	60 - 150
Pyraclostrobin	110	111	P/P	60 - 150
Silvex	86.8	98.7	P/P	50 - 150
Thiamethoxam	114	113	P/P	50 - 150
Tolfenpyrad	108	105	P/P	60 - 150
Triclopyr	102	97.1	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A114475

Included Lab Sample IDs: 2352516

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.7		P	80 - 120
Alachlor	93.3		P	80 - 120
Ametryn	91.3		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	93.7		P	80 - 120
Azinphos Methyl	120		P	80 - 120
Azoxystrobin	94.9		P	80 - 120
Bromacil	99.1		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	92.6		P	80 - 120
Carbophenothion	106		P	80 - 120
Carfentrazone Ethyl	98.3		P	80 - 120
Chlorfenapyr	117		P	80 - 120
Chlorpyrifos Ethyl	99.7		P	80 - 120
Chlorpyrifos Methyl	107		P	80 - 120
Coumaphos	111		P	80 - 120
Cyanazine	87.8		P	80 - 120
Cyprodinil	97.5		P	80 - 120
Demeton	105		P	80 - 120
Diazinon	95.1		P	80 - 120
Difenoconazole	97.9		P	80 - 120
Dimethenamid	97.5		P	80 - 120
Dimethomorph	95.5		P	80 - 120
Disulfoton	96.9		P	80 - 120
Dithiopyr	90.0		P	80 - 120
EPTC	103		P	80 - 120
Ethion	98.3		P	80 - 120
Ethoprop	104		P	80 - 120
Etridiazole	91.8		P	80 - 120
Fenamiphos	95.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A114475
Included Lab Sample IDs: 2352516

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenbuconazole	97.9		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	100		P	80 - 120
Fipronil Sulfide	89.6		P	80 - 120
Fipronil Sulfone	98.7		P	80 - 120
Fluazifop-P-butyl	99.7		P	80 - 120
Fludioxonil	99.3		P	80 - 120
Flumioxazin	102		P	80 - 120
Flutolanil	107		P	80 - 120
Fluxapyroxad	108		P	80 - 120
Fonofos	99.7		P	80 - 120
Hexazinone	99.4		P	80 - 120
Imazalil	94.4		P	80 - 120
Iprodione	107		P	80 - 120
Loratadine	99.1		P	80 - 120
Malathion	101		P	80 - 120
Metaxyl	93.3		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	93.5		P	80 - 120
Mevinphos	119		P	80 - 120
Molinate	99.1		P	80 - 120
Myclobutanil	103		P	80 - 120
Naled	103		P	80 - 120
Napropamide	90.1		P	80 - 120
Norflurazon	106		P	80 - 120
Oxadiazon	99.0		P	80 - 120
Oxyfluorfen	91.1		P	80 - 120
Parathion Ethyl	95.8		P	80 - 120
Parathion Methyl	110		P	80 - 120
Pendimethalin	87.9		P	80 - 120
Phenytoin	99.7		P	80 - 120
Phorate	108		P	80 - 120
Prodiamine	87.2		P	80 - 120
Prometon	94.8		P	80 - 120
Prometryn	98.6		P	80 - 120
Pronamide	100		P	80 - 120
Propanil	96.6		P	80 - 120
Propargite	92.4		P	80 - 120
Propiconazole	95.0		P	80 - 120
Pyraflufen Ethyl	97.7		P	80 - 120
Pyridaben	95.9		P	80 - 120
Pyriproxyfen	99.1		P	80 - 120
Simazine	102		P	80 - 120
Stirophos	109		P	80 - 120
Sulfentrazone	102		P	80 - 120
Tebuconazole	97.5		P	80 - 120
Terbufos	100		P	80 - 120
Terbuthylazine	100		P	80 - 120
Thiobencarb	94.5		P	80 - 120
Triadimefon	92.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A114482

Included Lab Sample IDs: 2352527

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.1	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A114500

Included Lab Sample IDs: 2352508

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

Reference Method: SM 2320 B-2011

Run ID: A114506

Included Lab Sample IDs: 2352507, 2352510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	105	102	P/P	90 - 110
Total Alkalinity	99.2	105	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A114509

Included Lab Sample IDs: 2352516

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	90.3		P	80 - 120
Avobenzene	95.5		P	80 - 120
Dechlorane Plus	91.8		P	80 - 120
Octinoxate	94.7		P	80 - 120
Oxybenzone	97.0		P	80 - 120
PBDE-47	91.8		P	80 - 120
PBDE-99	92.4		P	80 - 120
Tri-o-cresyl Phosphate	93.6		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A114510

Included Lab Sample IDs: 2352508, 2352527

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A114555

Included Lab Sample IDs: 2352508, 2352527

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.3	95.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114566

Included Lab Sample IDs: 2352515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.0	96.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114566

Included Lab Sample IDs: 2352515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	98.2	99.7	P/P	90 - 110
Arsenic	98.2	99.6	P/P	90 - 110
Barium	96.0	95.4	P/P	90 - 110
Boron	95.0	96.9	P/P	90 - 110
Cadmium	101	102	P/P	90 - 110
Chromium	97.1	98.1	P/P	90 - 110
Cobalt	95.2	95.4	P/P	90 - 110
Manganese	97.7	98.0	P/P	90 - 110
Nickel	96.0	96.2	P/P	90 - 110
Selenium	96.3	96.7	P/P	90 - 110
Silver	95.1	95.2	P/P	90 - 110
Thallium	100	99.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114593

Included Lab Sample IDs: 2352515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	99.6	96.4	P/P	90 - 110
Copper	105	102	P/P	90 - 110
Lead	94.4	94.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A114600

Included Lab Sample IDs: 2352507, 2352510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.7	100	P/P	90 - 110
Sulfate	99.9	100	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A114636

Included Lab Sample IDs: 2352507, 2352510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.9	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A114650

Included Lab Sample IDs: 2352508, 2352527

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A114659

Included Lab Sample IDs: 2352515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Molybdenum	96.4	96.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A114660

Included Lab Sample IDs: 2352507, 2352510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A114713

Included Lab Sample IDs: 2352515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	106	107	P/P	90 - 110
Iron	107	109	P/P	90 - 110
Magnesium	107	109	P/P	90 - 110
Potassium	104	105	P/P	90 - 110
Sodium	103	103	P/P	90 - 110
Strontium	100	99.6	P/P	90 - 110
Tin	107	104	P/P	90 - 110
Titanium	103	101	P/P	90 - 110
Vanadium	103	102	P/P	90 - 110
Zinc	104	103	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)	98.2					1.63	
EPA 180.1 Rev. 2.0	Turbidity	95.8					8.61	
EPA 200.7 Rev. 4.4	Calcium	106	105	116				4.94
	Iron	111	112	115	116			1.99
	Magnesium	103	105	112				0.545
	Potassium	107	108	110	113			0.862
	Sodium	102	103	110				3.79
	Strontium	105	106	103	108			2.42
	Tin	110	113	109	113			3.64
	Titanium	108	108	107	112			1.18
	Vanadium	107	110	108	112			2.02
	Zinc	109	110	109	112			1.63
EPA 200.8 Rev. 5.4	Aluminum	98.6	101	99.7	104			0.899
	Antimony	102	105	104	108			1.25
	Arsenic	99.9	104	101	107			2.31
	Barium	103	103	101	109			1.48
	Beryllium	100	100	103	107			2.58
	Boron	101	100	99.8	114			0.182
	Cadmium	97.5	101	100	104			0.673
	Chromium	98.3	102	101	105			1.61
	Cobalt	97.0	99.6	98.5	101			1.13
	Copper	95.4	97.5	96.5	98.8			1.00
	Lead	98.4	102	100	107			1.61
	Manganese	98.3	99.8	97.3	107			1.51
	Molybdenum	102	109	107	113			1.87
	Nickel	98.6	99.8	98.6	102			1.22
	Selenium	95.5	99.4	97.6	98.9			1.80
	Silver	97.0	96.8	95.7	100			1.19
	Thallium	100	105	103	108			1.19
EPA 300.0 Rev. 2.1	Chloride	99.2	96.6	97.6			0.0217	
	Sulfate	97.8	93.3	95.6			0.0618	
EPA 350.1 Rev. 2.0	Ammonia-N	94.6	99.4	98.8				0.491
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	100	96.9				1.70
	Kjeldahl Nitrogen	107	100	102				1.82
EPA 353.2 Rev. 2.0	NO2NO3-N	103	102	102				0.304
EPA 365.1 Rev. 2.0	Total-P	102	101	105				1.03
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	101	100				0.661
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	91.2	86.6	84.7				2.20
	Acetochlor	108	88.6	95.8				7.80
	Alachlor	102	83.9	86.4				2.94
	Ametryn	105	73.5	94.8				25.3
	Atrazine	97.8	80.9	90.0				9.46
	Atrazine Desethyl	67.9	62.5	63.1				0.907
	Avobenzone	86.3	86.7	81.4				6.29
	Azinphos Methyl	138	106	112				6.14
	Azoxystrobin	111	96.3	110				13.4
	Bromacil	84.7						6.45
	Butylate	57.6	56.2	61.0				8.20
	Caffeine	92.7	87.0	98.0				12.0
	Carbophenothion	86.7	73.5	82.8				11.9
	Carfentrazone Ethyl	108	91.1	99.0				8.31
	Chlorfenapyr	88.0	72.6	81.7				11.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Chlorpyrifos Ethyl	99.9	92.2	93.8			1.69
	Chlorpyrifos Methyl	105	89.3	99.9			11.2
	Coumaphos	90.8	75.7	83.0			9.16
	Cyanazine	109	95.5	104			8.63
	Cyprodinil	101	90.3	101			11.4
	Dechlorane Plus	112	95.0	108			13.2
	Demeton	90.3	80.9	95.5			16.5
	Diazinon	111	99.1	111			11.0
	Difenoconazole	115	109	127			14.9
	Dimethenamid	83.1	72.2	78.5			8.33
	Dimethomorph	121	103	118			13.4
	Disulfoton	98.4	83.1	95.8			14.2
	Dithiopyr	94.8	74.5	80.9			7.58
	EPTC	56.3	56.2	63.5			12.2
	Ethion	81.8	68.9	76.2			10.0
	Ethoprop	99.1	88.3	97.2			9.64
	Etridiazole	54.7	52.6	58.0			9.78
	Fenamiphos	97.8	79.3	82.3			3.62
	Fenbuconazole	98.4	84.3	93.5			10.4
	Fipronil	99.3	83.5	94.2			12.0
	Fipronil Desulfinyl	101	84.2	95.6			12.7
	Fipronil Sulfide	87.9	71.9	81.9			12.9
	Fipronil Sulfone	74.9	66.6	82.3			21.1
	Fluazifop-P-butyl	101	89.3	99.0			10.3
	Fludioxonil	87.0	71.9	81.6			12.6
	Flumioxazin	127	102	107			4.71
	Flutolanil	114	99.6	109			9.08
	Fluxapyroxad	95.0	80.0	84.2			5.13
	Fonofos	97.9	85.2	96.4			12.4
	Hexazinone	98.3	82.2	87.6			6.36
	Imazalil	85.6	73.2	87.0			17.3
	Iprodione	103	78.5	90.4			14.1
	Loratadine	131	126	155			20.9
	Malathion	104	90.5	96.5			6.44
	Metalaxyl	87.4	74.9	85.9			9.65
	Metolachlor	102	91.9	100			8.92
	Metribuzin	96.5	77.4	87.1			11.8
	Mevinphos	99.6	80.7	97.1			18.5
	Molinate	64.2	60.4	61.6			1.89
	Myclobutanil	99.0	80.4	91.8			13.2
	Naled	64.0	50.5	61.2			19.1
	Napropamide	86.3	71.3	78.4			9.58
	Norflurazon	95.2	88.6	80.1			8.29
	Octinoxate	74.8	77.3	69.1			11.2
	Oxadiazon	90.5	84.2	91.9			8.83
	Oxybenzone	72.9	74.5	66.3			11.7
	Oxyfluorfen	109	96.5	101			4.82
	Parathion Ethyl	96.7	77.3	94.7			20.3
	Parathion Methyl	128	105	129			20.5
	PBDE-47	80.7	80.1	74.0			7.89
	PBDE-99	84.5	79.2	76.7			3.16
	Pendimethalin	106	94.8	102			7.66
	Phenytol	28.1	21.9	17.4			22.6
	Phorate	89.3	72.1	90.2			22.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Prodiamine	35.1	30.0	32.4			7.57
	Prometon	77.9	54.8	51.9			5.46
	Prometryn	97.7	83.5	88.5			5.84
	Pronamide	98.9	101	104			3.03
	Propanil	103	82.8	91.2			9.69
	Propargite	63.1	61.5	54.8			11.6
	Propiconazole	79.4	75.0	68.7			8.67
	Pyraflufen Ethyl	86.0	74.8	69.9			6.76
	Pyridaben	97.6	83.0	92.8			11.2
	Pyriproxyfen	89.1	77.7	79.5			2.40
	Simazine	91.6	100	113			12.3
	Stiropfos	65.8	53.1	63.2			17.4
	Sulfentrazone	81.3	61.1	68.7			11.6
	Tebuconazole	57.1	46.1	44.4			3.75
	Terbufos	109	98.1	111			12.7
	Terbuthylazine	90.9	80.0	84.7			5.81
	Thiobencarb	85.6	78.2	81.9			4.61
	Tri-o-cresyl Phosphate	77.2	77.8	70.7			9.48
	Triadimefon	79.0	74.3	81.3			9.00
EPA 8321B	2,4-D	81.1	82.2	80.4			2.26
	2,4,5-T	63.4	72.7	74.7			2.73
	Acesulfame K	117	83.2	84.1			0.987
	Acetaminophen	95.3	102	104			1.37
	Acetamiprid	82.0	86.8	94.8			8.71
	Afidopyropen	76.6	70.6	82.2			15.2
	AMPA	112	98.2	98.8			0.614
	Bentazon	83.8	86.0	102			17.3
	Benzovindiflupyr	96.5	94.5	100			5.90
	Carbamazepine	85.0	101	111			10.2
	Clothianidin	111	102	106			3.37
	Dinotefuran	93.1	101	102			0.756
	Diuron	100	106	94.5			11.2
	Endothall	103	171	174			1.59
	Fenuron	97.4	92.6	99.7			7.36
	Fluridone	91.2	85.3	84.2			1.28
	Glufosinate	117	123	103			17.2
	Glyphosate	107	119	120			1.40
	Hydrocodone	87.3	96.9	104			6.77
	Ibuprofen	89.4	72.0	76.1			5.56
	Imazapyr	93.3	96.2	92.4			4.11
	Imidacloprid	80.6	88.4	97.0			9.21
	Linuron	95.1	83.5	96.5			14.4
	Mandestrobin	89.4	88.7	108			19.3
	MCPP	84.6	89.5	94.8			5.71
	Naproxen	101	98.0	90.2			8.25
	Primidone	83.4	85.8	82.5			3.92
	Pyraclostrobin	83.0	87.9	94.0			6.78
	Silvex	70.6	74.8	81.8			8.98
	Sucralose	115	110	110			0.450
	Thiamethoxam	102	80.6	106			27.6
	Tolfenpyrad	41.0	51.3	40.3			23.9
	Triclopyr	71.3	74.5	75.8			1.68
SM 2320 B-2011	Total Alkalinity	101				1.94	
SM 2540 C-2011	TDS					3.15	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 4500-F- C-2011	Fluoride	101	97.9	98.7		0.509
SM 5310 B-2011	Organic Carbon	97.0	95.2	95.6		0.285

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2352507, 2352510
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2352507, 2352510
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2352515
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2352515
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2352507, 2352510
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2352507, 2352510
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2352508, 2352527
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2352508, 2352527
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2352508, 2352527
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2352508, 2352527
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2352509, 2352511
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2352516
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2352516
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2352513, 2352514
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2352507, 2352510
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2352515
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2352507, 2352510
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2352507, 2352510
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2352507, 2352510
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2352508, 2352527

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	08/25/2022			08/25/2022 15:37	Anna M. Plaviak	2352507
	08/25/2022			08/25/2022 15:38	Anna M. Plaviak	2352510
EPA 180.1 Rev. 2.0	08/25/2022			08/25/2022 14:40	Chandler E Cox	2352507
	08/25/2022			08/25/2022 14:41	Chandler E Cox	2352510
EPA 200.7 Rev. 4.4	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/14/2022 03:45	McKinley C Carter	2352515
EPA 200.8 Rev. 5.4	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/06/2022 19:21	Emily M Philpot	2352515
	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/08/2022 01:14	Megan Whitefoot	2352515
	08/25/2022	08/30/2022 10:20	Megan Whitefoot	09/09/2022 19:57	Emily M Philpot	2352515
	08/25/2022			09/09/2022 18:09	Anna M. Plaviak	2352507
EPA 300.0 Rev. 2.1	08/25/2022			09/09/2022 18:24	Anna M. Plaviak	2352510
	08/25/2022			08/30/2022 15:14	Judith K. Clark	2352508
EPA 350.1 Rev. 2.0	08/25/2022			08/30/2022 15:17	Judith K. Clark	2352527
	08/25/2022	08/30/2022 14:31	Samantha L Bates	09/01/2022 11:26	Alexandra J Mattheus	2352527
EPA 351.2 Rev. 2.0	08/25/2022	08/31/2022 14:32	Samantha L Bates	09/01/2022 14:07	Alexandra J Mattheus	2352508
	08/25/2022			09/02/2022 10:21	Judith K. Clark	2352508
EPA 353.2 Rev. 2.0	08/25/2022			09/02/2022 10:30	Judith K. Clark	2352527
	08/25/2022	09/07/2022 16:10	Simonne.V. Calhoun	09/09/2022 13:19	James L Waggeberby	2352527
EPA 365.1 Rev. 2.0	08/25/2022	09/07/2022 16:10	Simonne.V. Calhoun	09/09/2022 13:21	James L Waggeberby	2352508
	08/25/2022			08/25/2022 14:42	Elise M. Gillis	2352509
EPA 365.1 Rev. 2.0 dissolved	08/25/2022			08/25/2022 14:43	Elise M. Gillis	2352511
	08/25/2022	08/30/2022 08:00	Fe-Val Siddell	08/31/2022 18:54	Michael Poppell	2352516
EPA 8270E	08/25/2022	08/30/2022 08:00	Fe-Val Siddell	09/01/2022 16:23	Lipi Saha	2352516
	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 13:37	Umesh Chiluwal	2352513
EPA 8321B	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 13:50	Umesh Chiluwal	2352514
	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 22:11	Umesh Chiluwal	2352513
	08/25/2022	08/26/2022 10:00	Umesh Chiluwal	08/26/2022 22:26	Umesh Chiluwal	2352514
	08/25/2022	08/30/2022 09:30	June Rhew	08/31/2022 01:00	Juyoung Kim	2352513
	08/25/2022	08/30/2022 09:30	June Rhew	08/31/2022 01:21	Juyoung Kim	2352514
	08/25/2022			09/01/2022 16:36	Dale L. Simmons	2352507
SM 2320 B-2011	08/25/2022			09/01/2022 19:01	Dale L. Simmons	2352510
SM 2340 B-2011	08/25/2022			09/14/2022 03:45	McKinley C Carter	2352515
SM 2540 C-2011	08/25/2022			08/30/2022 14:29	Yijie Li	2352507, 2352510
SM 2540 D-2011	08/25/2022			08/30/2022 14:29	Yijie Li	2352507, 2352510
SM 4500-F- C-2011	08/25/2022			09/09/2022 19:24	Dale L. Simmons	2352507
	08/25/2022			09/09/2022 20:29	Dale L. Simmons	2352510
SM 5310 B-2011	08/25/2022			09/02/2022 20:56	Khloe J Berg	2352508
	08/25/2022			09/02/2022 21:13	Khloe J Berg	2352527