Chemical Analysis Report

SO-DIST-2022-12-07-02

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

Event Description: **SMP : LEE BIOLOGY**
Request ID: **RQ-2022-11-28-24**
Customer: **SO-DIST**
Project ID: **SMP**

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FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
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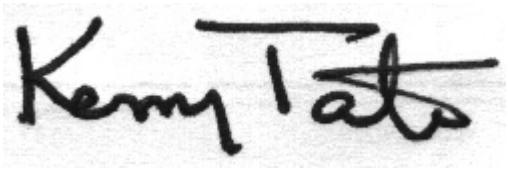
Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 29-DEC-2022 11:15



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: Hickey Creek At SR80 **Collection Date/Time: 12/06/2022 08:55**

Field ID: G3SD0231 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373561	DEP SOP: NU-094-1	Color (true)	30	A	PCU	P423227	
	EPA 180.1 Rev. 2.0	Turbidity	1.9	A	NTU	P423243	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P423672	
		Sulfate	17		mg SO4/L	P423676	
	SM 2320 B-2011	Total Alkalinity	254		mg CaCO3/L	P423496	
	SM 2540 C-2015	TDS	349		mg/L	P423650	
	SM 2540 D-2015	TSS	2	I	mg/L	P423454	
	SM 4500-F- C-2011	Fluoride	0.21		mg F/L	P423500	
2373562	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P423436	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.52	J	mg N/L	P423327	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.025		mg N/L	P423361	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P423333	
	SM 5310 B-2011	Organic Carbon	8.3		mg C/L	P423563	
2373563	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P423230	
2373570	EPA 8321B	2,4-D	0.0020	U	ug/L	P423328	
		Acesulfame K	0.10	U	ug/L	P423201	
		2,4,5-T	0.0040	U	ug/L	P423328	
		AMPA	0.10	U	ug/L	P423201	
		Acetaminophen	0.0080	U	ug/L	P423328	
		Acetamiprid	0.0020	U	ug/L	P423328	
		Endothall	0.25	U	ug/L	P423201	
		Glufosinate	0.10	U	ug/L	P423201	
		Glyphosate	0.19	I	ug/L	P423201	
		Afidopyropen	0.0020	U	ug/L	P423328	
		Bentazon	0.0051		ug/L	P423328	
		Sucralose	0.42		ug/L	P423201	
		Benzovindiflupyr	0.0020	U	ug/L	P423328	
		Carbamazepine	0.0022	I	ug/L	P423328	
		Clothianidin	0.0020	U	ug/L	P423328	
		Dinotefuran	0.0020	U	ug/L	P423328	
		Diuron	0.0020	U	ug/L	P423328	
		Fenuron	0.032	U	ug/L	P423328	
		Fluridone	9.8E-04	I	ug/L	P423328	
		Imazapyr	0.091		ug/L	P423328	
		Hydrocodone	0.0020	U	ug/L	P423328	
		Ibuprofen	0.20	U	ug/L	P423328	
		Imidacloprid	0.0023	I	ug/L	P423328	
		Linuron	0.0040	U	ug/L	P423328	
		Mandestrobin	0.0020	U	ug/L	P423328	
		MCPP	0.0040	U	ug/L	P423328	
		Naproxen	0.0080	U	ug/L	P423328	
		Primidone	0.0040	U	ug/L	P423328	
		Pyraclostrobin	0.0020	U	ug/L	P423328	

Field ID: G3SD0231 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373570	EPA 8321B	Silvex	0.0040	U	ug/L	P423328	
		Thiamethoxam	0.0020	U	ug/L	P423328	
		Tolfenpyrad	0.0020	U	ug/L	P423328	
		Triclopyr	0.0040	U	ug/L	P423328	
2373584	EPA 200.7 Rev. 4.4	Calcium	96.5		mg/L	P423264	
		Iron	210		ug/L	P423264	
		Magnesium	13.5		mg/L	P423264	
		Potassium	0.81	I	mg/L	P423264	
		Sodium	25.7		mg/L	P423264	
		Strontium	352		ug/L	P423264	
		Tin	3.0	U	ug/L	P423264	
		Titanium	0.82	I	ug/L	P423264	
		Vanadium	2.0	U	ug/L	P423264	
		Zinc	5.0	U	ug/L	P423264	
	EPA 200.8 Rev. 5.4	Aluminum	16	I	ug/L	P423264	
		Antimony	0.12	I	ug/L	P423264	
		Arsenic	1.60		ug/L	P423264	
		Barium	18.9		ug/L	P423264	
		Beryllium	0.010	U	ug/L	P423264	
		Boron	31.5		ug/L	P423264	
		Cadmium	0.020	U	ug/L	P423264	
		Chromium	0.40	U	ug/L	P423264	
		Cobalt	0.055	I	ug/L	P423264	
		Copper	0.40	U	ug/L	P423264	
		Lead	0.20	U	ug/L	P423264	
		Manganese	7.88		ug/L	P423264	
		Molybdenum	3.31		ug/L	P423264	
		Nickel	0.66	I	ug/L	P423264	
		Selenium	0.20	U	ug/L	P423264	
		Silver	0.010	U	ug/L	P423264	
		Thallium	0.10	U	ug/L	P423264	
	SM 2340 B-2011	Hardness	296		mg/L	P423264	
2373586	EPA 8270E	Oxybenzone**	9.7	U	ng/L	P423233	
		Acetochlor	0.24	U	ng/L	P423233	
		Octinoxate**	19	U	ng/L	P423233	
		Alachlor	0.24	U	ng/L	P423233	
		Avobenzone**	97	U	ng/L	P423233	
		Ametryn	0.58	U	ng/L	P423233	
		Atrazine	2.7		ng/L	P423233	
		PBDE-47**	3.9	U	ng/L	P423233	
		Atrazine Desethyl	1.4	U	ng/L	P423233	
		PBDE-99**	4.8	U	ng/L	P423233	
		Azinphos Methyl	1.9	U	ng/L	P423233	
		Tri-o-cresyl Phosphate**	5.8	U	ng/L	P423233	
		Azoxystrobin	0.48	U	ng/L	P423233	

Field ID: G3SD0231 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373586	EPA 8270E	Bromacil	0.48	U	ng/L	P423233	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P423233	
		Butylate	0.39	U	ng/L	P423233	
		Dechlorane Plus**	29	U	ng/L	P423233	
		Caffeine**	7.2	U	ng/L	P423233	
		Carbophenothion	0.19	U	ng/L	P423233	
		Carfentrazone Ethyl	0.097	U	ng/L	P423233	
		Chlorfenapyr	0.17	U	ng/L	P423233	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P423233	
		Chlorpyrifos Methyl	0.048	U	ng/L	P423233	
		Coumaphos	0.48	U	ng/L	P423233	
		Cyanazine	3.1	U	ng/L	P423233	
		Cyprodinil	0.097	U	ng/L	P423233	
		Demeton	1.4	U	ng/L	P423233	
		Diazinon	0.12	U	ng/L	P423233	
		Difenoconazole	0.58	U	ng/L	P423233	
		Dimethenamid	0.097	U	ng/L	P423233	
		Dimethomorph	0.17	UJ	ng/L	P423233	LCS, MS
		Disulfoton	0.48	U	ng/L	P423233	
		Dithiopyr	0.60	U	ng/L	P423233	
		EPTC	1.2	U	ng/L	P423233	
		Ethion	0.14	U	ng/L	P423233	
		Ethoprop	0.097	U	ng/L	P423233	
		Etridiazole	0.14	U	ng/L	P423233	
		Fenamiphos	0.48	U	ng/L	P423233	
		Fenbuconazole	0.12	U	ng/L	P423233	
		Fipronil	0.24	U	ng/L	P423233	
		Fipronil Desulfinyl**	0.12	U	ng/L	P423233	
		Fipronil Sulfide	0.17	I	ng/L	P423233	
		Fipronil Sulfone	0.21	I	ng/L	P423233	
		Fluazifop-P-butyl	0.097	U	ng/L	P423233	
		Fludioxonil	0.12	U	ng/L	P423233	
		Flumioxazin	4.3	U	ng/L	P423233	
		Flutolanil	0.097	U	ng/L	P423233	
		Fluxapyroxad	0.097	U	ng/L	P423233	
		Fonofos	0.19	U	ng/L	P423233	
		Hexazinone	0.48	U	ng/L	P423233	
		Imazalil	0.72	U	ng/L	P423233	
		Iprodione	0.58	U	ng/L	P423233	
		Loratadine**	0.34	U	ng/L	P423233	
		Malathion	0.34	U	ng/L	P423233	
		Metalaxyl	0.72	U	ng/L	P423233	
		Metolachlor	0.34	U	ng/L	P423233	
		Metribuzin	1.4	U	ng/L	P423233	

Field ID: G3SD0231 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373586	EPA 8270E	Mevinphos	1.0	U	ng/L	P423233	
		Molinate	0.29	U	ng/L	P423233	
		Myclobutanil	0.24	U	ng/L	P423233	
		Naled	1.4	U	ng/L	P423233	
		Napropamide	0.39	U	ng/L	P423233	
		Norflurazon	0.48	U	ng/L	P423233	
		Oxadiazon	0.29	U	ng/L	P423233	
		Oxyfluorfen	0.14	U	ng/L	P423233	
		Parathion Ethyl	0.24	U	ng/L	P423233	
		Parathion Methyl	0.53	U	ng/L	P423233	
		Pendimethalin	0.97	U	ng/L	P423233	
		Phenytoin**	3.4	U	ng/L	P423233	
		Phorate	0.51	U	ng/L	P423233	
		Prodiamine	0.17	U	ng/L	P423233	
		Prometon	0.87	U	ng/L	P423233	
		Prometryn	0.19	U	ng/L	P423233	
		Pronamide	0.14	U	ng/L	P423233	
		Propanil	0.12	U	ng/L	P423233	
		Propargite	1.4	U	ng/L	P423233	
		Propiconazole	0.48	U	ng/L	P423233	
		Pyraflufen Ethyl	0.24	U	ng/L	P423233	
		Pyridaben	0.43	U	ng/L	P423233	
		Pyriproxyfen	0.12	U	ng/L	P423233	
		Simazine	0.48	U	ng/L	P423233	
		Stirophos	0.12	U	ng/L	P423233	
		Sulfentrazone	2.2		ng/L	P423233	
		Tebuconazole	0.48	U	ng/L	P423233	
		Terbufos	0.097	U	ng/L	P423233	
		Terbuthylazine	0.41	U	ng/L	P423233	
		Thiobencarb	0.58	U	ng/L	P423233	
		Triadimefon	0.24	U	ng/L	P423233	

Ref. Method and Comment:
EPA 351.2 Rev. 2.0: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: ZapatoCanalAtMarklandAv **Collection Date/Time: 12/06/2022 11:45**

Field ID: G3SD0232 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373564	DEP SOP: NU-094-1	Color (true)	37		PCU	P423227	
	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P423243	
	EPA 300.0 Rev. 2.1	Chloride	170		mg Cl/L	P423672	
		Sulfate	39		mg SO4/L	P423676	
	SM 2320 B-2011	Total Alkalinity	197		mg CaCO3/L	P423496	
	SM 2540 C-2015	TDS	509		mg/L	P423650	
	SM 2540 D-2015	TSS	6	I	mg/L	P423454	
	SM 4500-F- C-2011	Fluoride	0.44		mg F/L	P423500	
2373565	EPA 350.1 Rev. 2.0	Ammonia-N	0.067		mg N/L	P423436	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.77		mg N/L	P423349	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P423361	
	EPA 365.1 Rev. 2.0	Total-P	0.16		mg P/L	P423333	
	SM 5310 B-2011	Organic Carbon	8.8		mg C/L	P423563	
2373566	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.071		mg P/L	P423230	
2373571	EPA 8321B	2,4-D	0.0026	I	ug/L	P423328	
		Acesulfame K	0.10	U	ug/L	P423201	
		2,4,5-T	0.0040	U	ug/L	P423328	
		AMPA	0.13	I	ug/L	P423201	
		Acetaminophen	0.0080	U	ug/L	P423328	
		Acetamiprid	0.0020	U	ug/L	P423328	
		Endothall	0.25	U	ug/L	P423201	
		Glufosinate	0.10	U	ug/L	P423201	
		Glyphosate	0.21	I	ug/L	P423201	
		Afidopyropen	0.0020	U	ug/L	P423328	
		Bentazon	0.047		ug/L	P423328	
		Sucralose	0.27		ug/L	P423201	
		Benzovindiflupyr	0.0020	U	ug/L	P423328	
		Carbamazepine	8.0E-04	I	ug/L	P423328	
		Clothianidin	0.0020	U	ug/L	P423328	
		Dinotefuran	0.0020	U	ug/L	P423328	
		Diuron	0.0020	U	ug/L	P423328	
		Fenuron	0.14		ug/L	P423328	
		Fluridone	0.0011	I	ug/L	P423328	
		Imazapyr	0.24		ug/L	P423328	
		Hydrocodone	0.0020	U	ug/L	P423328	
		Ibuprofen	0.20	U	ug/L	P423328	
		Imidacloprid	0.0020	U	ug/L	P423328	
		Linuron	0.0040	U	ug/L	P423328	
		Mandestrobin	0.0020	U	ug/L	P423328	
		MCPP	0.0040	U	ug/L	P423328	
		Naproxen	0.0080	U	ug/L	P423328	
		Primidone	0.0040	U	ug/L	P423328	
		Pyraclostrobin	0.0020	U	ug/L	P423328	

Field ID: G3SD0232 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373571	EPA 8321B	Silvex	0.0040	U	ug/L	P423328	
		Thiamethoxam	0.0020	U	ug/L	P423328	
		Tolfenpyrad	0.0020	U	ug/L	P423328	
		Triclopyr	0.0040	U	ug/L	P423328	
2373585	EPA 200.7 Rev. 4.4	Calcium	82.8		mg/L	P423264	
		Iron	570		ug/L	P423264	
		Magnesium	13.7		mg/L	P423264	
		Potassium	6.1		mg/L	P423264	
		Sodium	105		mg/L	P423264	
		Strontium	1.22E+03		ug/L	P423264	
		Tin	3.0	U	ug/L	P423264	
		Titanium	2.2	I	ug/L	P423264	
		Vanadium	5.0	I	ug/L	P423264	
		Zinc	5.0	U	ug/L	P423264	
	EPA 200.8 Rev. 5.4	Aluminum	107		ug/L	P423264	
		Antimony	0.28		ug/L	P423264	
		Arsenic	1.79		ug/L	P423264	
		Barium	23.2		ug/L	P423264	
		Beryllium	0.014	I	ug/L	P423264	
		Boron	228		ug/L	P423264	
		Cadmium	0.020	U	ug/L	P423264	
		Chromium	0.76	I	ug/L	P423264	
		Cobalt	0.104		ug/L	P423264	
		Copper	0.80	I	ug/L	P423264	
		Lead	0.77		ug/L	P423264	
		Manganese	16.5		ug/L	P423264	
		Molybdenum	5.69		ug/L	P423264	
		Nickel	0.52	I	ug/L	P423264	
		Selenium	0.68	I	ug/L	P423264	
		Silver	0.010	U	ug/L	P423264	
		Thallium	0.10	U	ug/L	P423264	
	SM 2340 B-2011	Hardness	263		mg/L	P423264	
2373587	EPA 8270E	Oxybenzone**	9.8	U	ng/L	P423233	
		Acetochlor	0.25	U	ng/L	P423233	
		Octinoxate**	20	U	ng/L	P423233	
		Alachlor	0.25	U	ng/L	P423233	
		Avobenzone**	98	U	ng/L	P423233	
		Ametryn	0.59	U	ng/L	P423233	
		Atrazine	1.1		ng/L	P423233	
		PBDE-47**	3.9	U	ng/L	P423233	
		Atrazine Desethyl	1.5	U	ng/L	P423233	
		PBDE-99**	4.9	U	ng/L	P423233	
		Azinphos Methyl	2.0	U	ng/L	P423233	
		Tri-o-cresyl Phosphate**	5.9	U	ng/L	P423233	
		Azoxystrobin	0.49	U	ng/L	P423233	

Field ID: G3SD0232 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373587	EPA 8270E	Bromacil	0.49	U	ng/L	P423233	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P423233	
		Butylate	0.39	U	ng/L	P423233	
		Dechlorane Plus**	30	U	ng/L	P423233	
		Caffeine**	16	I	ng/L	P423233	
		Carbophenothion	0.20	U	ng/L	P423233	
		Carfentrazone Ethyl	0.098	U	ng/L	P423233	
		Chlorfenapyr	0.17	U	ng/L	P423233	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P423233	
		Chlorpyrifos Methyl	0.049	U	ng/L	P423233	
		Coumaphos	0.49	U	ng/L	P423233	
		Cyanazine	3.2	U	ng/L	P423233	
		Cyprodinil	0.098	U	ng/L	P423233	
		Demeton	1.5	U	ng/L	P423233	
		Diazinon	0.12	U	ng/L	P423233	
		Difenoconazole	0.59	U	ng/L	P423233	
		Dimethenamid	0.098	U	ng/L	P423233	
		Dimethomorph	0.17	UJ	ng/L	P423233	LCS, MS
		Disulfoton	0.49	U	ng/L	P423233	
		Dithiopyr	0.62	U	ng/L	P423233	
		EPTC	1.2	U	ng/L	P423233	
		Ethion	0.15	U	ng/L	P423233	
		Ethoprop	0.098	U	ng/L	P423233	
		Etridiazole	0.15	U	ng/L	P423233	
		Fenamiphos	0.49	U	ng/L	P423233	
		Fenbuconazole	0.12	U	ng/L	P423233	
		Fipronil	0.25	U	ng/L	P423233	
		Fipronil Desulfinyl**	0.17	I	ng/L	P423233	
		Fipronil Sulfide	0.20	I	ng/L	P423233	
		Fipronil Sulfone	0.36	I	ng/L	P423233	
		Fluazifop-P-butyl	0.098	U	ng/L	P423233	
		Fludioxonil	0.12	U	ng/L	P423233	
		Flumioxazin	4.4	U	ng/L	P423233	
		Flutolanil	0.31	I	ng/L	P423233	
		Fluxapyroxad	0.098	U	ng/L	P423233	
		Fonofos	0.20	U	ng/L	P423233	
		Hexazinone	0.49	U	ng/L	P423233	
		Imazalil	0.74	U	ng/L	P423233	
		Iprodione	0.59	U	ng/L	P423233	
		Loratadine**	0.34	U	ng/L	P423233	
		Malathion	0.34	U	ng/L	P423233	
		Metalaxyl	0.74	U	ng/L	P423233	
		Metolachlor	0.34	U	ng/L	P423233	
		Metribuzin	1.5	U	ng/L	P423233	

Field ID: G3SD0232 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373587	EPA 8270E	Mevinphos	1.0	U	ng/L	P423233	
		Molinate	0.30	U	ng/L	P423233	
		Myclobutanil	0.25	U	ng/L	P423233	
		Naled	1.5	U	ng/L	P423233	
		Napropamide	0.39	U	ng/L	P423233	
		Norflurazon	0.49	U	ng/L	P423233	
		Oxadiazon	0.94	I	ng/L	P423233	
		Oxyfluorfen	0.15	U	ng/L	P423233	
		Parathion Ethyl	0.25	U	ng/L	P423233	
		Parathion Methyl	0.54	U	ng/L	P423233	
		Pendimethalin	0.98	U	ng/L	P423233	
		Phenytoin**	3.4	U	ng/L	P423233	
		Phorate	0.52	U	ng/L	P423233	
		Prodiamine	0.17	U	ng/L	P423233	
		Prometon	0.89	U	ng/L	P423233	
		Prometryn	0.20	U	ng/L	P423233	
		Pronamide	0.15	U	ng/L	P423233	
		Propanil	0.12	U	ng/L	P423233	
		Propargite	1.5	U	ng/L	P423233	
		Propiconazole	0.49	U	ng/L	P423233	
		Pyraflufen Ethyl	0.25	U	ng/L	P423233	
		Pyridaben	0.44	U	ng/L	P423233	
		Pyriproxyfen	0.12	U	ng/L	P423233	
		Simazine	0.49	U	ng/L	P423233	
		Stirophos	0.12	U	ng/L	P423233	
		Sulfentrazone	11		ng/L	P423233	
		Tebuconazole	0.49	U	ng/L	P423233	
		Terbufos	0.098	U	ng/L	P423233	
		Terbuthylazine	0.42	U	ng/L	P423233	
		Thiobencarb	0.59	U	ng/L	P423233	
		Triadimefon	0.25	U	ng/L	P423233	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P423227

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423243

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423264

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: P423264

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: P423672

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: P423676

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423436

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423327

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423349

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423361

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423333

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423230

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

Reference Method: EPA 8270E
Batch ID: P423233

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: P423233

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	0.62	U	ng/L
Dithiopyr	0.62	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: P423233

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	4.5	U	ng/L
Flumioxazin	4.5	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	0.35	U	ng/L
Loratadine	0.35	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	1.5	U	ng/L
Metribuzin	1.5	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: P423233

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
Phenytoin	3.5	U	ng/L
Phenytoin	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P423233

Component	Result	Code	Units
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
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: P423201

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: P423328

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	0.20	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: P423328

Component	Result	Code	Units
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P423496

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

Reference Method: SM 2540 C-2015
Batch ID: P423650

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P423454

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P423500

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P423563

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: P423227

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	104		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423243

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423264

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	107		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	98.2		P	85 - 115
Sodium	104		P	85 - 115
Strontium	102		P	85 - 115
Tin	102		P	85 - 115
Titanium	105		P	85 - 115
Vanadium	103		P	85 - 115
Zinc	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423264

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	105		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	106		P	85 - 115
Barium	105		P	85 - 115
Beryllium	98.0		P	85 - 115
Boron	104		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	95.8		P	85 - 115
Cobalt	98.6		P	85 - 115
Copper	102		P	85 - 115
Lead	96.5		P	85 - 115
Manganese	98.8		P	85 - 115
Molybdenum	102		P	85 - 115
Nickel	104		P	85 - 115
Selenium	106		P	85 - 115
Silver	102		P	85 - 115
Thallium	105		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423672

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423676

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423436

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	91.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423327

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423349

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423361

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423333

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423230

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

Reference Method: EPA 8270E
Batch ID: P423233

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	84.7		P	42 - 162
Acetochlor	97.9		P	69 - 123
Alachlor	93.6		P	65 - 118
Ametryn	96.6		P	58 - 141
Atrazine	87.9		P	73 - 118
Atrazine Desethyl	83.0		P	32 - 125
Avobenzone	114		P	40 - 203
Azinphos Methyl	105		P	36 - 197
Azoxystrobin	107		P	58 - 226
Bromacil	83.2		P	48 - 120

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P423233

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Butylate	49.7		P	27 - 85.0
Caffeine	84.7		P	40 - 137
Carbophenothion	73.9		P	54 - 132
Carfentrazone Ethyl	114		P	60 - 142
Chlorfenapyr	71.0		P	53 - 117
Chlorpyrifos Ethyl	102		P	59 - 116
Chlorpyrifos Methyl	77.0		P	66 - 119
Coumaphos	81.2		P	11 - 234
Cyanazine	242		P	61 - 248
Cyprodinil	101		P	50 - 147
Dechlorane Plus	99.1		P	47 - 182
Demeton	116		P	30 - 138
Diazinon	116		P	67 - 126
Difenoconazole	152		P	38 - 205
Dimethenamid	80.1		P	57 - 111
Dimethomorph	298		F	16 - 212
Disulfoton	85.5		P	46 - 126
Dithiopyr	99.5		P	62 - 115
EPTC	58.2		P	28 - 80.0
Ethion	64.1		P	24 - 122
Ethoprop	94.3		P	62 - 113
Etridiazole	66.7		P	28 - 92.0
Fenamiphos	105		P	57 - 128
Fenbuconazole	112		P	52 - 155
Fipronil	98.2		P	63 - 130
Fipronil Desulfinyl	107		P	61 - 130
Fipronil Sulfide	88.5		P	56 - 117
Fipronil Sulfone	101		P	52 - 118
Fluazifop-P-butyl	120		P	61 - 128
Fludioxonil	104		P	59 - 129
Flumioxazin	72.4		P	30 - 250
Flutolanil	97.4		P	53 - 127
Fluxapyroxad	82.6		P	42 - 132
Fonofos	81.2		P	61 - 110
Hexazinone	83.3		P	46 - 139
Imazalil	94.4		P	40 - 139
Iprodione	109		P	40 - 146
Loratadine	213		P	10 - 224
Malathion	99.9		P	61 - 135
Metalaxyl	99.2		P	58 - 121
Metolachlor	90.8		P	64 - 118
Metribuzin	87.4		P	45 - 245
Mevinphos	83.7		P	49 - 118
Molinate	65.9		P	42 - 92.0
Myclobutanil	104		P	55 - 127
Naled	102		P	10 - 114
Napropamide	88.2		P	39 - 121
Norflurazon	57.7		P	55 - 129
Octinoxate	91.5		P	26 - 166
Oxadiazon	81.7		P	54 - 115
Oxybenzone	88.5		P	49 - 135
Oxyfluorfen	112		P	64 - 139

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P423233

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Ethyl	89.0		P	70 - 111
Parathion Methyl	93.5		P	76 - 136
PBDE-47	82.2		P	41 - 148
PBDE-99	84.0		P	38 - 147
Pendimethalin	95.8		P	52 - 118
Phenytoin	15.6		P	10 - 162
Phorate	83.6		P	40 - 122
Prodiamine	39.3		P	26 - 141
Prometon	86.9		P	54 - 122
Prometryn	95.7		P	61 - 128
Pronamide	99.3		P	72 - 121
Propanil	86.1		P	45 - 144
Propargite	49.2		P	10 - 199
Propiconazole	62.4		P	56 - 127
Pyraflufen Ethyl	67.2		P	56 - 140
Pyridaben	118		P	26 - 211
Pyriproxyfen	82.7		P	33 - 194
Simazine	81.4		P	67 - 121
Stirophos	69.8		P	20 - 142
Sulfentrazone	83.1		P	21 - 144
Tebuconazole	44.0		P	10 - 122
Terbufos	94.7		P	60 - 129
Terbuthylazine	87.0		P	69 - 113
Thiobencarb	87.4		P	51 - 120
Tri-o-cresyl Phosphate	99.2		P	49 - 150
Triadimefon	93.1		P	56 - 114

Reference Method: EPA 8321B
Batch ID: P423201

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	63.7		P	40 - 150
AMPA	87.1		P	40 - 150
Endothall	106		P	40 - 150
Glufosinate	99.4		P	40 - 150
Glyphosate	94.5		P	40 - 150
Sucralose	128		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P423328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	95.4		P	40 - 150
2,4,5-T	83.9		P	40 - 150
Acetaminophen	81.3		P	30 - 150
Acetamiprid	87.9		P	40 - 150
Afidopyropen	73.8		P	30 - 150
Bentazon	84.1		P	30 - 150
Benzovindiflupyr	82.3		P	40 - 150
Carbamazepine	76.9		P	40 - 150
Clothianidin	88.6		P	40 - 150
Dinotefuran	99.1		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P423328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	71.8		P	40 - 150
Fenuron	93.0		P	40 - 150
Fluridone	75.4		P	40 - 150
Hydrocodone	95.5		P	40 - 150
Ibuprofen	71.0		P	40 - 150
Imazapyr	83.1		P	40 - 150
Imidacloprid	82.4		P	40 - 150
Linuron	68.0		P	40 - 150
Mandestrobin	89.8		P	40 - 150
MCPP	85.2		P	40 - 150
Naproxen	86.3		P	40 - 150
Primidone	91.4		P	40 - 150
Pyraclostrobin	77.6		P	40 - 150
Silvex	86.8		P	40 - 150
Thiamethoxam	91.9		P	40 - 150
Tolfenpyrad	59.5		P	30 - 150
Triclopyr	88.6		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P423496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.2		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P423650

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

Reference Method: SM 2540 D-2015
Batch ID: P423454

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.5		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P423500

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423563

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373204	Calcium	91.3	103	P/P	80 - 120
2373204	Iron	94.0	105	P/P	80 - 120
2373204	Magnesium	85.7	102	P/P	80 - 120
2373204	Potassium	89.4	99.4	P/P	80 - 120
2373204	Sodium	88.8	102	P/P	80 - 120
2373204	Strontium	90.3	101	P/P	80 - 120
2373204	Tin	88.8	98.7	P/P	80 - 120
2373204	Titanium	83.3	96.0	P/P	80 - 120
2373204	Vanadium	89.8	99.2	P/P	80 - 120
2373204	Zinc	88.2	98.7	P/P	80 - 120
2373507	Calcium	101		P	80 - 120
2373507	Iron	104		P	80 - 120
2373507	Magnesium	102		P	80 - 120
2373507	Potassium	101		P	80 - 120
2373507	Sodium	102		P	80 - 120
2373507	Strontium	101		P	80 - 120
2373507	Tin	95.5		P	80 - 120
2373507	Titanium	101		P	80 - 120
2373507	Vanadium	99.5		P	80 - 120
2373507	Zinc	99.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373204	Aluminum	104	105	P/P	80 - 120
2373204	Antimony	102	103	P/P	80 - 120
2373204	Arsenic	104	105	P/P	80 - 120
2373204	Barium	104	105	P/P	80 - 120
2373204	Beryllium	97.7	97.0	P/P	80 - 120
2373204	Boron	103	102	P/P	80 - 120
2373204	Cadmium	104	105	P/P	80 - 120
2373204	Chromium	94.8	98.1	P/P	80 - 120
2373204	Cobalt	98.6	97.4	P/P	80 - 120
2373204	Copper	102	119	P/P	80 - 120
2373204	Lead	98.6	97.6	P/P	80 - 120
2373204	Manganese	99.2	99.0	P/P	80 - 120
2373204	Molybdenum	102	103	P/P	80 - 120
2373204	Nickel	103	103	P/P	80 - 120
2373204	Selenium	104	104	P/P	80 - 120
2373204	Silver	103	103	P/P	80 - 120
2373204	Thallium	101	97.3	P/P	80 - 120
2373507	Aluminum	101		P	80 - 120
2373507	Antimony	105		P	80 - 120
2373507	Arsenic	106		P	80 - 120
2373507	Barium	105		P	80 - 120
2373507	Beryllium	94.9		P	80 - 120
2373507	Boron	104		P	80 - 120
2373507	Cadmium	109		P	80 - 120
2373507	Chromium	97.0		P	80 - 120
2373507	Cobalt	97.6		P	80 - 120
2373507	Copper	97.5		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373507	Lead	95.6		P	80 - 120
2373507	Manganese	99.5		P	80 - 120
2373507	Molybdenum	106		P	80 - 120
2373507	Nickel	103		P	80 - 120
2373507	Selenium	105		P	80 - 120
2373507	Silver	101		P	80 - 120
2373507	Thallium	102		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423672

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373374	Chloride	98.2		P	90 - 110
2373786	Chloride	97.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423676

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373374	Sulfate	94.0		P	90 - 110
2373786	Sulfate	98.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423436

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373325	Ammonia-N	96.0	95.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423327

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373562	Kjeldahl Nitrogen	104	115	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423349

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373565	Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423361

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373450	NO2NO3-N	99.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423333

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373562	Total-P	103	105	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423230

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373458	O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P423233

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373610	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	64.7	58.5	P/P	26 - 165
2373610	Acetochlor	98.8	91.0	P/P	67 - 124
2373610	Alachlor	85.8	80.1	P/P	60 - 120
2373610	Ametryn	110	116	P/P	54 - 216
2373610	Atrazine	98.1	92.4	P/P	66 - 128
2373610	Atrazine Desethyl	100	87.9	P/P	15 - 122
2373610	Avobenzone	76.7	69.1	P/P	37 - 178
2373610	Azinphos Methyl	95.8	91.4	P/P	40 - 292
2373610	Azoxystrobin	112	123	P/P	35 - 220
2373610	Bromacil	73.7	75.1	P/P	45 - 127
2373610	Butylate	38.4	45.1	P/P	20 - 83.0
2373610	Caffeine	81.0	80.0	P/P	10 - 194
2373610	Carbophenothion	70.3	66.5	P/P	57 - 127
2373610	Carfentrazone Ethyl	107	96.5	P/P	51 - 141
2373610	Chlorfenapyr	61.1	67.7	P/P	46 - 111
2373610	Chlorpyrifos Ethyl	107	96.5	P/P	52 - 120
2373610	Chlorpyrifos Methyl	72.8	74.8	P/P	63 - 119
2373610	Coumaphos	69.6	67.3	P/P	10 - 228
2373610	Cyanazine	232	231	P/P	59 - 241
2373610	Cyprodinil	106	99.0	P/P	47 - 146
2373610	Dechlorane Plus	67.2	61.1	P/P	50 - 150
2373610	Demeton	117	118	P/P	40 - 136
2373610	Diazinon	128	119	P/P	69 - 132
2373610	Difenoconazole	139	129	P/P	57 - 258
2373610	Dimethenamid	83.3	73.6	P/P	54 - 110
2373610	Dimethomorph	227	208	F/P	28 - 210
2373610	Disulfoton	100	92.9	P/P	43 - 133
2373610	Dithiopyr	106	94.9	P/P	39 - 116
2373610	EPTC	41.2	55.0	P/P	20 - 78.0
2373610	Ethion	49.9	51.4	P/P	17 - 119
2373610	Ethoprop	101	99.0	P/P	66 - 120
2373610	Etridiazole	55.2	61.1	P/P	28 - 96.0
2373610	Fenamiphos	96.1	93.0	P/P	41 - 126
2373610	Fenbuconazole	97.3	93.2	P/P	42 - 169
2373610	Fipronil	96.3	93.0	P/P	61 - 132
2373610	Fipronil Desulfinyl	104	99.6	P/P	56 - 132
2373610	Fipronil Sulfide	89.6	89.2	P/P	48 - 119
2373610	Fipronil Sulfone	70.8	85.9	P/P	42 - 131
2373610	Fluazifop-P-butyl	111	106	P/P	53 - 131
2373610	Fludioxonil	97.1	93.6	P/P	56 - 127
2373610	Flumioxazin	104	108	P/P	19 - 300
2373610	Flutolanil	94.5	87.9	P/P	41 - 127
2373610	Fluxapyroxad	72.9	71.4	P/P	42 - 172
2373610	Fonofos	80.2	83.1	P/P	59 - 113
2373610	Hexazinone	91.4	88.6	P/P	66 - 122
2373610	Imazalil	226	149	P/P	21 - 283

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P423233

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373610	Iprodione	103	99.1	P/P	43 - 150
2373610	Loratadine	198	194	P/P	23 - 201
2373610	Malathion	104	96.9	P/P	58 - 136
2373610	Metalaxyl	103	97.9	P/P	55 - 120
2373610	Metolachlor	81.2	85.6	P/P	57 - 121
2373610	Metribuzin	81.2	87.7	P/P	58 - 294
2373610	Mevinphos	76.8	87.3	P/P	50 - 126
2373610	Molinate	57.3	65.0	P/P	42 - 93.0
2373610	Myclobutanil	99.6	92.9	P/P	55 - 125
2373610	Naled	110	114	P/P	18 - 200
2373610	Napropamide	89.7	80.9	P/P	39 - 110
2373610	Norflurazon	76.3	61.6	P/P	48 - 128
2373610	Octinoxate	63.7	58.0	P/P	21 - 159
2373610	Oxadiazon	72.3	75.0	P/P	43 - 112
2373610	Oxybenzone	68.0	67.9	P/P	41 - 142
2373610	Oxyfluorfen	105	98.1	P/P	64 - 153
2373610	Parathion Ethyl	93.5	83.5	P/P	69 - 114
2373610	Parathion Methyl	96.8	92.2	P/P	79 - 139
2373610	PBDE-47	57.5	52.2	P/P	27 - 144
2373610	PBDE-99	59.6	53.7	P/P	18 - 150
2373610	Pendimethalin	110	102	P/P	50 - 139
2373610	Phenytoin	17.8	16.1	P/P	10 - 146
2373610	Phorate	79.3	88.3	P/P	54 - 161
2373610	Prodiamine	42.5	40.0	P/P	30 - 161
2373610	Prometon	98.4	95.0	P/P	45 - 134
2373610	Prometryn	101	94.9	P/P	45 - 137
2373610	Pronamide	86.7	91.7	P/P	65 - 133
2373610	Propanil	93.7	83.1	P/P	49 - 142
2373610	Propargite	54.2	52.3	P/P	10 - 203
2373610	Propiconazole	83.1	61.3	P/P	38 - 146
2373610	Pyraflufen Ethyl	86.7	71.4	P/P	34 - 153
2373610	Pyridaben	108	116	P/P	12 - 192
2373610	Pyriproxyfen	90.4	76.1	P/P	33 - 180
2373610	Simazine	90.9	84.2	P/P	51 - 157
2373610	Stirophos	65.5	60.1	P/P	10 - 128
2373610	Sulfentrazone	83.0	85.7	P/P	53 - 186
2373610	Tebuconazole	48.7	42.8	P/P	10 - 133
2373610	Terbufos	105	104	P/P	65 - 139
2373610	Terbuthylazine	96.0	90.6	P/P	66 - 117
2373610	Thiobencarb	88.4	78.0	P/P	51 - 119
2373610	Tri-o-cresyl Phosphate	70.1	65.2	P/P	31 - 144
2373610	Triadimefon	95.8	92.6	P/P	48 - 119

Reference Method: EPA 8321B
Batch ID: P423201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373536	Acesulfame K	46.9	52.3	P/P	40 - 150
2373536	AMPA	63.6	59.9	P/P	40 - 150
2373536	Endothall	112	109	P/P	40 - 150
2373536	Glufosinate	88.6	90.2	P/P	40 - 150
2373536	Glyphosate	86.3	71.3	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P423201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373536	Sucralose	110	108	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P423328

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373543	2,4-D	98.3	114	P/P	40 - 150
2373543	2,4,5-T	88.5	90.5	P/P	40 - 150
2373543	Acetaminophen	84.7	84.1	P/P	30 - 150
2373543	Acetamiprid	92.9	96.5	P/P	40 - 150
2373543	Afidopyropen	71.3	74.5	P/P	30 - 150
2373543	Bentazon	74.6	83.0	P/P	30 - 150
2373543	Benzovindiflupyr	81.8	79.5	P/P	40 - 150
2373543	Carbamazepine	92.1	101	P/P	40 - 150
2373543	Clothianidin	96.1	93.6	P/P	40 - 150
2373543	Dinotefuran	113	110	P/P	40 - 150
2373543	Diuron	74.6	73.8	P/P	40 - 150
2373543	Fenuron	87.3	85.8	P/P	40 - 150
2373543	Fluridone	87.8	82.7	P/P	40 - 150
2373543	Hydrocodone	101	101	P/P	40 - 150
2373543	Ibuprofen	74.2	56.3	P/P	40 - 150
2373543	Imazapyr	100	94.2	P/P	40 - 150
2373543	Imidacloprid	100	99.4	P/P	40 - 150
2373543	Linuron	73.6	62.8	P/P	40 - 150
2373543	Mandestrobin	88.8	83.8	P/P	40 - 150
2373543	MCPP	91.0	91.4	P/P	40 - 150
2373543	Naproxen	71.4	95.3	P/P	40 - 150
2373543	Primidone	96.4	89.7	P/P	40 - 150
2373543	Pyraclostrobin	82.5	80.8	P/P	40 - 150
2373543	Silvex	90.4	90.9	P/P	40 - 150
2373543	Thiamethoxam	105	103	P/P	40 - 150
2373543	Tolfenpyrad	47.0	47.2	P/P	30 - 150
2373543	Triclopyr	87.3	98.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P423500

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373693	Fluoride	101	100	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423563

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373562	Organic Carbon	99.1	99.1	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P423227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373561	Color (true)	1.14	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423243

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373561	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373204	Calcium	9.77	Spike	P	0 - 20
2373204	Iron	10.5	Spike	P	0 - 20
2373204	Magnesium	10.3	Spike	P	0 - 20
2373204	Potassium	10.7	Spike	P	0 - 20
2373204	Sodium	11.1	Spike	P	0 - 20
2373204	Strontium	10.9	Spike	P	0 - 20
2373204	Tin	10.6	Spike	P	0 - 20
2373204	Titanium	12.6	Spike	P	0 - 20
2373204	Vanadium	9.96	Spike	P	0 - 20
2373204	Zinc	10.8	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373204	Aluminum	0.812	Spike	P	0 - 20
2373204	Antimony	0.579	Spike	P	0 - 20
2373204	Arsenic	0.689	Spike	P	0 - 20
2373204	Barium	0.717	Spike	P	0 - 20
2373204	Beryllium	0.629	Spike	P	0 - 20
2373204	Boron	0.209	Spike	P	0 - 20
2373204	Cadmium	0.690	Spike	P	0 - 20
2373204	Chromium	3.27	Spike	P	0 - 20
2373204	Cobalt	1.24	Spike	P	0 - 20
2373204	Copper	1.18	Spike	P	0 - 20
2373204	Lead	0.513	Spike	P	0 - 20
2373204	Manganese	0.248	Spike	P	0 - 20
2373204	Molybdenum	1.00	Spike	P	0 - 20
2373204	Nickel	0.369	Spike	P	0 - 20
2373204	Selenium	0.00949	Spike	P	0 - 20
2373204	Silver	0.0499	Spike	P	0 - 20
2373204	Thallium	4.04	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423672

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373374	Chloride	0.459	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423676

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373374	Sulfate	0.525	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373325	Ammonia-N	0.196	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423327

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373562	Kjeldahl Nitrogen	7.77	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423349

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373565	Kjeldahl Nitrogen	2.36	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373450	NO2NO3-N	0.277	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373562	Total-P	1.57	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423230

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373458	O-Phosphate-P	0.589	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P423233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373610	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	10.1	Spike	P	0 - 37
2373610	Acetochlor	8.21	Spike	P	0 - 28
2373610	Alachlor	6.89	Spike	P	0 - 30
2373610	Ametryn	5.87	Spike	P	0 - 32
2373610	Atrazine	5.50	Spike	P	0 - 41
2373610	Atrazine Desethyl	13.3	Spike	P	0 - 36
2373610	Avobenzone	10.3	Spike	P	0 - 36
2373610	Azinphos Methyl	4.77	Spike	P	0 - 75
2373610	Azoxystrobin	8.87	Spike	P	0 - 39
2373610	Bromacil	1.87	Spike	P	0 - 33
2373610	Butylate	16.1	Spike	P	0 - 44
2373610	Caffeine	1.22	Spike	P	0 - 74
2373610	Carbophenothion	5.54	Spike	P	0 - 25
2373610	Carfentrazone Ethyl	10.3	Spike	P	0 - 27
2373610	Chlorfenapyr	10.1	Spike	P	0 - 24
2373610	Chlorpyrifos Ethyl	9.97	Spike	P	0 - 26
2373610	Chlorpyrifos Methyl	2.73	Spike	P	0 - 26
2373610	Coumaphos	3.39	Spike	P	0 - 28
2373610	Cyanazine	0.121	Spike	P	0 - 48
2373610	Cyprodinil	6.68	Spike	P	0 - 29
2373610	Dechlorane Plus	9.45	Spike	P	0 - 30
2373610	Demeton	0.770	Spike	P	0 - 33
2373610	Diazinon	7.79	Spike	P	0 - 29
2373610	Difenoconazole	7.07	Spike	P	0 - 34
2373610	Dimethenamid	12.4	Spike	P	0 - 39
2373610	Dimethomorph	8.74	Spike	P	0 - 51
2373610	Disulfoton	7.43	Spike	P	0 - 30
2373610	Dithiopyr	10.9	Spike	P	0 - 26
2373610	EPTC	28.7	Spike	P	0 - 43
2373610	Ethion	2.87	Spike	P	0 - 79
2373610	Ethoprop	1.95	Spike	P	0 - 29
2373610	Etridiazole	10.2	Spike	P	0 - 33
2373610	Fenamiphos	3.27	Spike	P	0 - 40
2373610	Fenbuconazole	4.24	Spike	P	0 - 74
2373610	Fipronil	3.49	Spike	P	0 - 29
2373610	Fipronil Desulfinyl	3.87	Spike	P	0 - 32
2373610	Fipronil Sulfide	0.538	Spike	P	0 - 30
2373610	Fipronil Sulfone	19.3	Spike	P	0 - 33
2373610	Fluazifop-P-butyl	4.16	Spike	P	0 - 38
2373610	Fludioxonil	3.63	Spike	P	0 - 29
2373610	Flumioxazin	3.82	Spike	P	0 - 51
2373610	Flutolanil	7.23	Spike	P	0 - 25
2373610	Fluxapyroxad	2.11	Spike	P	0 - 45
2373610	Fonofos	3.59	Spike	P	0 - 27
2373610	Hexazinone	3.19	Spike	P	0 - 30
2373610	Imazalil	41.2	Spike	P	0 - 100
2373610	Iprodione	4.31	Spike	P	0 - 33
2373610	Loratadine	2.08	Spike	P	0 - 56
2373610	Malathion	7.53	Spike	P	0 - 37
2373610	Metalaxyl	5.50	Spike	P	0 - 40
2373610	Metolachlor	5.11	Spike	P	0 - 29

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P423233

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373610	Metribuzin	7.66	Spike	P	0 - 45
2373610	Mevinphos	12.8	Spike	P	0 - 29
2373610	Molinate	12.5	Spike	P	0 - 33
2373610	Myclobutanil	6.92	Spike	P	0 - 26
2373610	Naled	3.56	Spike	P	0 - 37
2373610	Napropamide	10.3	Spike	P	0 - 44
2373610	Norflurazon	20.0	Spike	P	0 - 30
2373610	Octinoxate	9.43	Spike	P	0 - 45
2373610	Oxadiazon	3.66	Spike	P	0 - 28
2373610	Oxybenzone	0.226	Spike	P	0 - 46
2373610	Oxyfluorfen	6.77	Spike	P	0 - 28
2373610	Parathion Ethyl	11.3	Spike	P	0 - 31
2373610	Parathion Methyl	4.90	Spike	P	0 - 29
2373610	PBDE-47	9.68	Spike	P	0 - 36
2373610	PBDE-99	10.6	Spike	P	0 - 40
2373610	Pendimethalin	7.67	Spike	P	0 - 33
2373610	Phenytoin	9.94	Spike	P	0 - 100
2373610	Phorate	10.7	Spike	P	0 - 36
2373610	Prodiamine	6.00	Spike	P	0 - 71
2373610	Prometon	3.50	Spike	P	0 - 36
2373610	Prometryn	6.13	Spike	P	0 - 28
2373610	Pronamide	5.67	Spike	P	0 - 24
2373610	Propanil	11.9	Spike	P	0 - 28
2373610	Propargite	3.63	Spike	P	0 - 43
2373610	Propiconazole	30.2	Spike	P	0 - 33
2373610	Pyraflufen Ethyl	19.4	Spike	P	0 - 29
2373610	Pyridaben	6.31	Spike	P	0 - 30
2373610	Pyriproxyfen	17.1	Spike	P	0 - 79
2373610	Simazine	7.65	Spike	P	0 - 29
2373610	Stirophos	8.61	Spike	P	0 - 61
2373610	Sulfentrazone	3.18	Spike	P	0 - 33
2373610	Tebuconazole	12.9	Spike	P	0 - 69
2373610	Terbufos	0.256	Spike	P	0 - 29
2373610	Terbuthylazine	5.83	Spike	P	0 - 32
2373610	Thiobencarb	12.5	Spike	P	0 - 26
2373610	Tri-o-cresyl Phosphate	7.21	Spike	P	0 - 33
2373610	Triadimefon	3.39	Spike	P	0 - 28

Reference Method: EPA 8321B
Batch ID: P423201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373536	Acesulfame K	10.8	Spike	P	0 - 30
2373536	AMPA	5.05	Spike	P	0 - 30
2373536	Endothall	2.80	Spike	P	0 - 30
2373536	Glufosinate	1.76	Spike	P	0 - 30
2373536	Glyphosate	17.4	Spike	P	0 - 30
2373536	Sucralose	1.87	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P423328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373543	2,4-D	14.4	Spike	P	0 - 30
2373543	2,4,5-T	2.21	Spike	P	0 - 30
2373543	Acetaminophen	0.753	Spike	P	0 - 30
2373543	Acetamiprid	3.76	Spike	P	0 - 30
2373543	Afidopyropen	4.43	Spike	P	0 - 30
2373543	Bentazon	7.18	Spike	P	0 - 30
2373543	Benzovindiflupyr	2.78	Spike	P	0 - 30
2373543	Carbamazepine	9.17	Spike	P	0 - 30
2373543	Clothianidin	2.61	Spike	P	0 - 30
2373543	Dinotefuran	1.94	Spike	P	0 - 30
2373543	Diuron	1.04	Spike	P	0 - 30
2373543	Fenuron	1.76	Spike	P	0 - 30
2373543	Fluridone	5.53	Spike	P	0 - 30
2373543	Hydrocodone	0.297	Spike	P	0 - 30
2373543	Ibuprofen	27.4	Spike	P	0 - 30
2373543	Imazapyr	5.36	Spike	P	0 - 30
2373543	Imidacloprid	1.01	Spike	P	0 - 30
2373543	Linuron	15.8	Spike	P	0 - 30
2373543	Mandestrobin	5.81	Spike	P	0 - 30
2373543	MCPP	0.495	Spike	P	0 - 30
2373543	Naproxen	28.7	Spike	P	0 - 30
2373543	Primidone	7.17	Spike	P	0 - 30
2373543	Pyraclostrobin	2.13	Spike	P	0 - 30
2373543	Silvex	0.576	Spike	P	0 - 30
2373543	Thiamethoxam	1.69	Spike	P	0 - 30
2373543	Tolfenpyrad	0.453	Spike	P	0 - 30
2373543	Triclopyr	11.7	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P423496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373693	Total Alkalinity	0.983	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P423650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372999	TDS	5.08	Sample	P	0 - 10

Reference Method: SM 2540 D-2015
Batch ID: P423454

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372999	TSS	8.85	Sample	P	0 - 10

Quality Assurance Report
Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P423500

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373693	Fluoride	1.01	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P423563

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373562	Organic Carbon	0.0	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2373570
Field Sample ID: G3SD0231

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	111	P	30 - 160
EPA 8321B	Acetaminophen-d4	90.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	75.8	P	30 - 160
EPA 8321B	Diuron-d6	57.1	P	30 - 160
EPA 8321B	Endothall-d6	80.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	79.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	66.7	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	95.9	P	30 - 160

Lab Sample ID: 2373571
Field Sample ID: G3SD0232

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	104	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	71.9	P	30 - 160
EPA 8321B	Diuron-d6	50.3	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.8	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	95.4	P	30 - 160

Lab Sample ID: 2373586
Field Sample ID: G3SD0231

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	63.8	P	20 - 200
EPA 8270E	Simazine-d10	107	P	62 - 142
EPA 8270E	Terbufos-d10	95.5	P	58 - 132
EPA 8270E	Terphenyl-d14	114	P	52 - 137

Lab Sample ID: 2373587
Field Sample ID: G3SD0232

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	78.2	P	20 - 200
EPA 8270E	Simazine-d10	125	P	62 - 142
EPA 8270E	Terbufos-d10	117	P	58 - 132
EPA 8270E	Terphenyl-d14	76.8	P	52 - 137

Quality Assurance Report
Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A116307
Included Lab Sample IDs: 2373561, 2373564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A116309
Included Lab Sample IDs: 2373563, 2373566

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	99.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A116311
Included Lab Sample IDs: 2373561, 2373564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.0	P/P	95 - 105

Reference Method: EPA 8321B
Run ID: A116326
Included Lab Sample IDs: 2373570, 2373571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	78.8	97.6	P/P	60 - 160
Sucralose	108	82.3	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A116352
Included Lab Sample IDs: 2373562, 2373565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A116359
Included Lab Sample IDs: 2373570, 2373571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	89.2	86.1	P/P	60 - 160
Endothall	84.9	100	P/P	60 - 160
Glufosinate	91.8	95.7	P/P	60 - 160
Glyphosate	103	95.8	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A116385
Included Lab Sample IDs: 2373565

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A116388
Included Lab Sample IDs: 2373562

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A116391
Included Lab Sample IDs: 2373562

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

Reference Method: EPA 8321B
Run ID: A116397
Included Lab Sample IDs: 2373570, 2373571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.1	90.9	P/P	50 - 150
2,4,5-T	118	89.8	P/P	50 - 150
Acetaminophen	90.3	91.8	P/P	60 - 160
Acetamiprid	105	101	P/P	50 - 150
Afidopyropen	111	128	P/P	50 - 150
Bentazon	91.4	96.1	P/P	50 - 160
Benzovindiflupyr	104	101	P/P	50 - 150
Carbamazepine	99.9	105	P/P	60 - 150
Clothianidin	93.9	90.4	P/P	60 - 150
Dinotefuran	119	113	P/P	50 - 150
Diuron	98.6	100	P/P	60 - 160
Fenuron	101	99.7	P/P	60 - 150
Fluridone	98.3	112	P/P	60 - 160
Hydrocodone	102	103	P/P	60 - 150
Ibuprofen	101	112	P/P	50 - 160
Imazapyr	99.5	94.3	P/P	50 - 150
Imidacloprid	97.2	98.9	P/P	60 - 150
Linuron	82.3	93.7	P/P	60 - 150
Mandestrobin	103	98.6	P/P	50 - 150
MCPP	94.0	85.6	P/P	50 - 150
Naproxen	76.3	114	P/P	50 - 160
Primidone	99.6	98.6	P/P	60 - 150
Pyraclostrobin	102	102	P/P	60 - 150
Silvex	113	104	P/P	50 - 150
Thiamethoxam	103	99.6	P/P	50 - 150
Tolfenpyrad	103	98.1	P/P	60 - 150
Triclopyr	84.1	106	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A116398
Included Lab Sample IDs: 2373561, 2373564

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A116399
Included Lab Sample IDs: 2373562, 2373565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	94.1	94.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A116403
Included Lab Sample IDs: 2373565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.8	94.0	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A116421
Included Lab Sample IDs: 2373561, 2373564

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.8	95.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A116421
Included Lab Sample IDs: 2373561, 2373564

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

Reference Method: SM 5310 B-2011
Run ID: A116450
Included Lab Sample IDs: 2373562, 2373565

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.8	99.9	P/P	90 - 110
Organic Carbon	99.9	100	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A116506
Included Lab Sample IDs: 2373586, 2373587

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	99.6		P	80 - 120
Avobenzone	102		P	80 - 120
Dechlorane Plus	102		P	80 - 120
Octinoxate	97.9		P	80 - 120
Oxybenzone	94.7		P	80 - 120
PBDE-47	98.6		P	80 - 120
PBDE-99	101		P	80 - 120
Tri-o-cresyl Phosphate	99.0		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A116526
Included Lab Sample IDs: 2373584, 2373585

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A116526
Included Lab Sample IDs: 2373584, 2373585

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	100	99.1	P/P	90 - 110
Arsenic	102	100	P/P	90 - 110
Barium	100	99.3	P/P	90 - 110
Boron	102	103	P/P	90 - 110
Cadmium	103	102	P/P	90 - 110
Cobalt	94.3	91.9	P/P	90 - 110
Lead	96.1	96.5	P/P	90 - 110
Manganese	97.4	95.9	P/P	90 - 110
Molybdenum	101	99.7	P/P	90 - 110
Nickel	99.0	96.4	P/P	90 - 110
Selenium	105	103	P/P	90 - 110
Silver	98.0	99.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A116537
Included Lab Sample IDs: 2373584, 2373585

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	96.1	93.7	P/P	90 - 110
Chromium	92.6	93.5	P/P	90 - 110
Copper	96.3	97.1	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A116540
Included Lab Sample IDs: 2373586, 2373587

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.4		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	96.3		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	120		P	80 - 120
Azinphos Methyl	96.3		P	80 - 120
Azoxystrobin	95.4		P	80 - 120
Bromacil	98.2		P	80 - 120
Butylate	98.2		P	80 - 120
Caffeine	101		P	80 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	97.8		P	80 - 120
Chlorfenapyr	89.4		P	80 - 120
Chlorpyrifos Ethyl	111		P	80 - 120
Chlorpyrifos Methyl	99.0		P	80 - 120
Coumaphos	95.1		P	80 - 120
Cyanazine	118		P	80 - 120
Cyprodinil	100		P	80 - 120
Demeton	107		P	80 - 120
Diazinon	104		P	80 - 120
Difenoconazole	94.0		P	80 - 120
Dimethenamid	106		P	80 - 120
Dimethomorph	94.9		P	80 - 120
Disulfoton	101		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A116540
Included Lab Sample IDs: 2373586, 2373587

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dithiopyr	102		P	80 - 120
EPTC	101		P	80 - 120
Ethion	98.1		P	80 - 120
Ethoprop	94.1		P	80 - 120
Etridiazole	95.5		P	80 - 120
Fenamiphos	104		P	80 - 120
Fenbuconazole	97.8		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	104		P	80 - 120
Fipronil Sulfide	106		P	80 - 120
Fipronil Sulfone	99.3		P	80 - 120
Fluazifop-P-butyl	110		P	80 - 120
Fludioxonil	107		P	80 - 120
Flumioxazin	96.6		P	80 - 120
Flutolanil	102		P	80 - 120
Fluxapyroxad	95.8		P	80 - 120
Fonofos	91.3		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	96.9		P	80 - 120
Loratadine	95.1		P	80 - 120
Malathion	101		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	99.1		P	80 - 120
Metribuzin	94.7		P	80 - 120
Mevinphos	96.9		P	80 - 120
Molinate	97.4		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	109		P	80 - 120
Napropamide	102		P	80 - 120
Norflurazon	100		P	80 - 120
Oxadiazon	101		P	80 - 120
Oxyfluorfen	94.1		P	80 - 120
Parathion Ethyl	93.7		P	80 - 120
Parathion Methyl	96.7		P	80 - 120
Pendimethalin	96.1		P	80 - 120
Phenytoin	98.2		P	80 - 120
Phorate	92.1		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	104		P	80 - 120
Prometryn	98.5		P	80 - 120
Pronamide	99.9		P	80 - 120
Propanil	100		P	80 - 120
Propargite	93.6		P	80 - 120
Propiconazole	97.4		P	80 - 120
Pyraflufen Ethyl	107		P	80 - 120
Pyridaben	93.8		P	80 - 120
Pyriproxyfen	99.7		P	80 - 120
Simazine	103		P	80 - 120
Stirophos	103		P	80 - 120
Sulfentrazone	96.8		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A116540
Included Lab Sample IDs: 2373586, 2373587

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tebuconazole	102		P	80 - 120
Terbufos	90.2		P	80 - 120
Terbuthylazine	100		P	80 - 120
Thiobencarb	100		P	80 - 120
Triadimefon	93.9		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A116556
Included Lab Sample IDs: 2373584, 2373585

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	93.6	98.0	P/P	90 - 110
Iron	94.6	99.4	P/P	90 - 110
Magnesium	92.5	97.3	P/P	90 - 110
Potassium	91.8	97.2	P/P	90 - 110
Sodium	93.9	98.8	P/P	90 - 110
Strontium	100	102	P/P	90 - 110
Tin	98.8	100	P/P	90 - 110
Titanium	99.2	101	P/P	90 - 110
Vanadium	98.8	99.4	P/P	90 - 110
Zinc	99.6	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A116666
Included Lab Sample IDs: 2373584, 2373585

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	99.6	100	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			Precision		
						LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	104					1.14	
EPA 180.1 Rev. 2.0	Turbidity	99.2					0.0	
EPA 200.7 Rev. 4.4	Calcium	105	91.3	103	101			9.77
	Iron	107	94.0	105	104			10.5
	Magnesium	103	85.7	102	102			10.3
	Potassium	98.2	89.4	99.4	101			10.7
	Sodium	104	88.8	102	102			11.1
	Strontium	102	90.3	101	101			10.9
	Tin	102	88.8	98.7	95.5			10.6
	Titanium	105	83.3	96.0	101			12.6
	Vanadium	103	89.8	99.2	99.5			9.96
	Zinc	104	88.2	98.7	99.8			10.8
EPA 200.8 Rev. 5.4	Aluminum	105	104	105	101			0.812
	Antimony	103	102	103	105			0.579
	Arsenic	106	104	105	106			0.689
	Barium	105	104	105	105			0.717
	Beryllium	98.0	97.7	97.0	94.9			0.629
	Boron	104	103	102	104			0.209
	Cadmium	104	104	105	109			0.690
	Chromium	95.8	94.8	98.1	97.0			3.27
	Cobalt	98.6	98.6	97.4	97.6			1.24
	Copper	102	102	119	97.5			1.18
	Lead	96.5	98.6	97.6	95.6			0.513
	Manganese	98.8	99.2	99.0	99.5			0.248
	Molybdenum	102	102	103	106			1.00
	Nickel	104	103	103	103			0.369
	Selenium	106	104	104	105			0.0094
	Silver	102	103	103	101			0.0499
	Thallium	105	101	97.3	102			4.04
EPA 300.0 Rev. 2.1	Chloride	99.9	98.2	97.0			0.459	
	Sulfate	99.9	94.0	98.5			0.525	
EPA 350.1 Rev. 2.0	Ammonia-N	91.8	96.0	95.8				0.196
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	104	115				7.77
	Kjeldahl Nitrogen	98.6	101	104				2.36
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	99.0	98.5				0.277
EPA 365.1 Rev. 2.0	Total-P	104	103	105				1.57
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	102	102				0.589
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	84.7	64.7	58.5				10.1
	Acetochlor	97.9	98.8	91.0				8.21
	Alachlor	93.6	85.8	80.1				6.89
	Ametryn	96.6	110	116				5.87
	Atrazine	87.9	98.1	92.4				5.50
	Atrazine Desethyl	83.0	100	87.9				13.3
	Avobenzone	114	76.7	69.1				10.3
	Azinphos Methyl	105	95.8	91.4				4.77
	Azoxystrobin	107	112	123				8.87
	Bromacil	83.2	73.7	75.1				1.87
	Butylate	49.7	38.4	45.1				16.1
	Caffeine	84.7	81.0	80.0				1.22
	Carbophenothion	73.9	70.3	66.5				5.54
	Carfentrazone Ethyl	114	107	96.5				10.3
	Chlorfenapyr	71.0	61.1	67.7				10.1

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Chlorpyrifos Ethyl	102	107	96.5			9.97
	Chlorpyrifos Methyl	77.0	72.8	74.8			2.73
	Coumaphos	81.2	69.6	67.3			3.39
	Cyanazine	242	232	231			0.121
	Cyprodinil	101	106	99.0			6.68
	Dechlorane Plus	99.1	61.1	67.2			9.45
	Demeton	116	117	118			0.770
	Diazinon	116	128	119			7.79
	Difenoconazole	152	139	129			7.07
	Dimethenamid	80.1	83.3	73.6			12.4
	Dimethomorph	298	227	208			8.74
	Disulfoton	85.5	100	92.9			7.43
	Dithiopyr	99.5	106	94.9			10.9
	EPTC	58.2	41.2	55.0			28.7
	Ethion	64.1	49.9	51.4			2.87
	Ethoprop	94.3	101	99.0			1.95
	Etridiazole	66.7	55.2	61.1			10.2
	Fenamiphos	105	96.1	93.0			3.27
	Fenbuconazole	112	97.3	93.2			4.24
	Fipronil	98.2	96.3	93.0			3.49
	Fipronil Desulfinyl	107	104	99.6			3.87
	Fipronil Sulfide	88.5	89.6	89.2			0.538
	Fipronil Sulfone	101	70.8	85.9			19.3
	Fluazifop-P-butyl	120	111	106			4.16
	Fludioxonil	104	97.1	93.6			3.63
	Flumioxazin	72.4	104	108			3.82
	Flutolanil	97.4	94.5	87.9			7.23
	Fluxapyroxad	82.6	72.9	71.4			2.11
	Fonofos	81.2	80.2	83.1			3.59
	Hexazinone	83.3	91.4	88.6			3.19
	Imazalil	94.4	226	149			41.2
	Iprodione	109	103	99.1			4.31
	Loratadine	213	198	194			2.08
	Malathion	99.9	104	96.9			7.53
	Metalaxyl	99.2	103	97.9			5.50
	Metolachlor	90.8	81.2	85.6			5.11
	Metribuzin	87.4	81.2	87.7			7.66
	Mevinphos	83.7	76.8	87.3			12.8
	Molinate	65.9	57.3	65.0			12.5
	Myclobutanil	104	99.6	92.9			6.92
	Naled	102	110	114			3.56
	Napropamide	88.2	89.7	80.9			10.3
	Norflurazon	57.7	76.3	61.6			20.0
	Octinoxate	91.5	63.7	58.0			9.43
	Oxadiazon	81.7	72.3	75.0			3.66
	Oxybenzone	88.5	68.0	67.9			0.226
	Oxyfluorfen	112	105	98.1			6.77
	Parathion Ethyl	89.0	93.5	83.5			11.3
	Parathion Methyl	93.5	96.8	92.2			4.90
	PBDE-47	82.2	57.5	52.2			9.68
	PBDE-99	84.0	59.6	53.7			10.6
	Pendimethalin	95.8	110	102			7.67
	Phenytoin	15.6	17.8	16.1			9.94
	Phorate	83.6	79.3	88.3			10.7

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Prodiamine	39.3	42.5	40.0			6.00
	Prometon	86.9	98.4	95.0			3.50
	Prometryn	95.7	101	94.9			6.13
	Pronamide	99.3	86.7	91.7			5.67
	Propanil	86.1	93.7	83.1			11.9
	Propargite	49.2	54.2	52.3			3.63
	Propiconazole	62.4	83.1	61.3			30.2
	Pyraflufen Ethyl	67.2	86.7	71.4			19.4
	Pyridaben	118	108	116			6.31
	Pyriproxyfen	82.7	90.4	76.1			17.1
	Simazine	81.4	90.9	84.2			7.65
	Stirophos	69.8	65.5	60.1			8.61
	Sulfentrazone	83.1	83.0	85.7			3.18
	Tebuconazole	44.0	48.7	42.8			12.9
	Terbufos	94.7	105	104			0.256
	Terbuthylazine	87.0	96.0	90.6			5.83
	Thiobencarb	87.4	88.4	78.0			12.5
	Tri-o-cresyl Phosphate	99.2	70.1	65.2			7.21
	Triadimefon	93.1	95.8	92.6			3.39
EPA 8321B	2,4-D	95.4	98.3	114			14.4
	2,4,5-T	83.9	88.5	90.5			2.21
	Acesulfame K	63.7	46.9	52.3			10.8
	Acetaminophen	81.3	84.7	84.1			0.753
	Acetamiprid	87.9	92.9	96.5			3.76
	Afidopyropen	73.8	71.3	74.5			4.43
	AMPA	87.1	63.6	59.9			5.05
	Bentazon	84.1	74.6	83.0			7.18
	Benzovindiflupyr	82.3	81.8	79.5			2.78
	Carbamazepine	76.9	92.1	101			9.17
	Clothianidin	88.6	96.1	93.6			2.61
	Dinotefuran	99.1	113	110			1.94
	Diuron	71.8	74.6	73.8			1.04
	Endothall	106	112	109			2.80
	Fenuron	93.0	87.3	85.8			1.76
	Fluridone	75.4	87.8	82.7			5.53
	Glufosinate	99.4	88.6	90.2			1.76
	Glyphosate	94.5	86.3	71.3			17.4
	Hydrocodone	95.5	101	101			0.297
	Ibuprofen	71.0	74.2	56.3			27.4
	Imazapyr	83.1	100	94.2			5.36
	Imidacloprid	82.4	100	99.4			1.01
	Linuron	68.0	73.6	62.8			15.8
	Mandestrobin	89.8	88.8	83.8			5.81
	MCPP	85.2	91.0	91.4			0.495
	Naproxen	86.3	71.4	95.3			28.7
	Primidone	91.4	96.4	89.7			7.17
	Pyraclostrobin	77.6	82.5	80.8			2.13
	Silvex	86.8	90.4	90.9			0.576
	Sucralose	128	110	108			1.87
	Thiamethoxam	91.9	105	103			1.69
	Tolfenpyrad	59.5	47.0	47.2			0.453
	Triclopyr	88.6	87.3	98.2			11.7
SM 2320 B-2011	Total Alkalinity	97.2				0.983	
SM 2540 C-2015	TDS	102				5.08	

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
SM 2540 D-2015	TSS	91.5				8.85	
SM 4500-F- C-2011	Fluoride	100	101	100			1.01
SM 5310 B-2011	Organic Carbon	96.8	99.1	99.1			0.0

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2373561, 2373564
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2373561, 2373564
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2373584, 2373585
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2373584, 2373585
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2373561, 2373564
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2373561, 2373564
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2373562, 2373565
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2373562, 2373565
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2373562, 2373565
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2373562, 2373565
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2373563, 2373566
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2373586, 2373587
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2373586, 2373587
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2373570, 2373571
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2373561, 2373564
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2373584, 2373585
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2373561, 2373564
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2373561, 2373564
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2373561, 2373564
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2373562, 2373565

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	12/07/2022			12/07/2022 14:33	Chandler E Cox	2373561
	12/07/2022			12/07/2022 14:34	Chandler E Cox	2373564
EPA 180.1 Rev. 2.0	12/07/2022			12/07/2022 13:44	Khloe J Berg	2373561
	12/07/2022			12/07/2022 13:45	Khloe J Berg	2373564
EPA 200.7 Rev. 4.4	12/07/2022	12/08/2022 11:00	Vijayalakshmi Reddy	12/19/2022 16:28	Betina Topolski	2373584
	12/07/2022	12/08/2022 11:00	Vijayalakshmi Reddy	12/19/2022 16:36	Betina Topolski	2373585
EPA 200.8 Rev. 5.4	12/07/2022	12/08/2022 11:00	Vijayalakshmi Reddy	12/17/2022 00:01	Emily M Philpot	2373584
	12/07/2022	12/08/2022 11:00	Vijayalakshmi Reddy	12/17/2022 00:11	Emily M Philpot	2373585
	12/07/2022	12/08/2022 11:00	Vijayalakshmi Reddy	12/18/2022 20:01	Emily M Philpot	2373584
	12/07/2022	12/08/2022 11:00	Vijayalakshmi Reddy	12/18/2022 20:08	Emily M Philpot	2373585
	12/07/2022	12/08/2022 11:00	Vijayalakshmi Reddy	12/22/2022 17:01	Emily M Philpot	2373584
	12/07/2022	12/08/2022 11:00	Vijayalakshmi Reddy	12/22/2022 17:07	Emily M Philpot	2373585
EPA 300.0 Rev. 2.1	12/07/2022			12/15/2022 00:28	Anna M. Plaviak	2373561
	12/07/2022			12/15/2022 00:44	Anna M. Plaviak	2373564
EPA 350.1 Rev. 2.0	12/07/2022			12/13/2022 11:21	Ping Hua	2373562
	12/07/2022			12/13/2022 11:22	Ping Hua	2373565
EPA 351.2 Rev. 2.0	12/07/2022	12/09/2022 09:45	Samantha L Bates	12/12/2022 11:22	Samantha L Bates	2373562
	12/07/2022	12/12/2022 08:23	Judith K. Clark	12/13/2022 13:04	Judith K. Clark	2373565
EPA 353.2 Rev. 2.0	12/07/2022			12/09/2022 11:08	Beverly Y. Sanders	2373562
	12/07/2022			12/09/2022 11:09	Beverly Y. Sanders	2373565
EPA 365.1 Rev. 2.0	12/07/2022	12/09/2022 15:40	Adam P Silver	12/12/2022 09:48	James L Waggerby	2373565
	12/07/2022	12/09/2022 15:40	Adam P Silver	12/12/2022 13:25	Simonne.V. Calhoun	2373562
EPA 365.1 Rev. 2.0 dissolved	12/07/2022			12/07/2022 14:31	Elise M. Gillis	2373563, 2373566
EPA 8270E	12/07/2022	12/08/2022 10:00	Fe-Val Siddell	12/13/2022 18:32	Arthur Maknenko	2373586
	12/07/2022	12/08/2022 10:00	Fe-Val Siddell	12/13/2022 18:57	Arthur Maknenko	2373587
	12/07/2022	12/08/2022 10:00	Fe-Val Siddell	12/16/2022 22:19	Michael Poppell	2373586
	12/07/2022	12/08/2022 10:00	Fe-Val Siddell	12/16/2022 22:46	Michael Poppell	2373587
EPA 8321B	12/07/2022	12/08/2022 06:00	Umesh Chiluwal	12/08/2022 09:57	Umesh Chiluwal	2373570
	12/07/2022	12/08/2022 06:00	Umesh Chiluwal	12/08/2022 10:12	Umesh Chiluwal	2373571
	12/07/2022	12/08/2022 06:00	Umesh Chiluwal	12/08/2022 16:59	Umesh Chiluwal	2373570
	12/07/2022	12/08/2022 06:00	Umesh Chiluwal	12/08/2022 17:12	Umesh Chiluwal	2373571
	12/07/2022	12/09/2022 13:00	Hoor Shaik	12/13/2022 13:43	Juyoung Kim	2373570
	12/07/2022	12/09/2022 13:00	Hoor Shaik	12/13/2022 14:02	Juyoung Kim	2373571
SM 2320 B-2011	12/07/2022			12/14/2022 06:51	Dale L. Simmons	2373561
	12/07/2022			12/14/2022 07:06	Dale L. Simmons	2373564
SM 2340 B-2011	12/07/2022			12/19/2022 16:28	Betina Topolski	2373584
	12/07/2022			12/19/2022 16:36	Betina Topolski	2373585
SM 2540 C-2015	12/07/2022			12/08/2022 15:34	Yijie Li	2373561, 2373564
SM 2540 D-2015	12/07/2022			12/08/2022 15:34	Yijie Li	2373561, 2373564
SM 4500-F- C-2011	12/07/2022			12/14/2022 06:51	Dale L. Simmons	2373561

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500-F- C-2011	12/07/2022			12/14/2022 07:06	Dale L. Simmons	2373564
SM 5310 B-2011	12/07/2022			12/14/2022 15:06	Khloe J Berg	2373562
	12/07/2022			12/14/2022 18:37	Khloe J Berg	2373565