Chemical Analysis Report

SO-DIST-2022-12-13-02

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

Event Description: **SMP : DeSoto Biology**
Request ID: **RQ-2022-11-28-26**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
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FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
Attn: William Mullen

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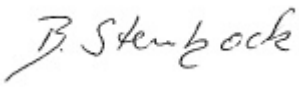
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 05-JAN-2023 12:31



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: HOG BAY @ CR 763 **Collection Date/Time: 12/12/2022 10:15**

Field ID: G3SD0096 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374537	DEP SOP: NU-094-1	Color (true)	77	A	PCU	P423471	
	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P423467	
	EPA 300.0 Rev. 2.1	Chloride	100		mg Cl/L	P423713	
		Sulfate	100		mg SO4/L	P423716	
	SM 2320 B-2011	Total Alkalinity	108		mg CaCO3/L	P423927	
	SM 2540 C-2015	TDS	451		mg/L	P423892	
	SM 2540 D-2015	TSS	4	I	mg/L	P423785	
	SM 4500-F- C-2011	Fluoride	0.28		mg F/L	P423931	
2374538	EPA 350.1 Rev. 2.0	Ammonia-N	0.083		mg N/L	P423784	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P423519	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.70		mg N/L	P423524	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P423482	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P423645	
2374539	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.12		mg P/L	P423463	
2374546	EPA 8321B	2,4-D	0.0098		ug/L	P423422	
		Acesulfame K	0.10	U	ug/L	P423367	
		2,4,5-T	0.0040	U	ug/L	P423422	
		AMPA	1.1		ug/L	P423367	
		Acetaminophen	0.0080	U	ug/L	P423422	
		Acetamiprid	0.0020	U	ug/L	P423422	
		Endothall	0.25	U	ug/L	P423367	
		Glufosinate	0.10	U	ug/L	P423367	
		Glyphosate	0.64		ug/L	P423367	
		Afidopyropen	0.0020	U	ug/L	P423422	
		Bentazon	8.0E-04	U	ug/L	P423422	
		Sucralose	0.37		ug/L	P423367	
		Benzovindiflupyr	0.0020	U	ug/L	P423422	
		Carbamazepine	0.0039		ug/L	P423422	
		Clothianidin	0.76		ug/L	P423422	
		Dinotefuran	0.0020	U	ug/L	P423422	
		Diuron	0.013		ug/L	P423422	
		Fenuron	0.032	U	ug/L	P423422	
		Fluridone	8.0E-04	U	ug/L	P423422	
		Imazapyr	0.0042	I	ug/L	P423422	
		Hydrocodone	0.0020	U	ug/L	P423422	
		Ibuprofen	0.20	U	ug/L	P423422	
		Imidacloprid	0.52		ug/L	P423422	
		Linuron	0.0040	U	ug/L	P423422	
		Mandestrobin	0.0020	U	ug/L	P423422	
		MCPP	0.0040	U	ug/L	P423422	
		Naproxen	0.0080	U	ug/L	P423422	
		Primidone	0.0061	I	ug/L	P423422	
		Pyraclostrobin	0.0020	U	ug/L	P423422	

Field ID: G3SD0096 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374546	EPA 8321B	Silvex	0.0040	U	ug/L	P423422	
		Thiamethoxam	1.1		ug/L	P423422	
		Tolfenpyrad	0.0020	U	ug/L	P423422	
		Triclopyr	0.0040	U	ug/L	P423422	
2374548	EPA 200.7 Rev. 4.4	Calcium	70.6		mg/L	P423497	
		Iron	270		ug/L	P423497	
		Magnesium	17.6		mg/L	P423497	
		Potassium	10.5		mg/L	P423497	
		Sodium	50.2		mg/L	P423497	
		Strontium	5.01E+03		ug/L	P423497	
		Tin	3.0	U	ug/L	P423497	
		Titanium	1.1	I	ug/L	P423497	
		Vanadium	6.0	I	ug/L	P423497	
		Zinc	5.0	U	ug/L	P423497	
	EPA 200.8 Rev. 5.4	Aluminum	45		ug/L	P423497	
		Antimony	1.19		ug/L	P423497	
		Arsenic	1.16		ug/L	P423497	
		Barium	35.8		ug/L	P423497	
		Beryllium	0.017	I	ug/L	P423497	
		Boron	76.6		ug/L	P423497	
		Cadmium	0.020	U	ug/L	P423497	
		Chromium	0.71	I	ug/L	P423497	
		Cobalt	0.180		ug/L	P423497	
		Copper	1.66		ug/L	P423497	
		Lead	0.20	U	ug/L	P423497	
		Manganese	19.3		ug/L	P423497	
		Molybdenum	5.47		ug/L	P423497	
		Nickel	2.4		ug/L	P423497	
		Selenium	0.57	I	ug/L	P423497	
		Silver	0.013	I	ug/L	P423497	
		Thallium	0.10	U	ug/L	P423497	
	SM 2340 B-2011	Hardness	249		mg/L	P423497	
2374550	EPA 8270E	Oxybenzone**	9.7	U	ng/L	P423428	
		Acetochlor	0.24	U	ng/L	P423428	
		Octinoxate**	19	U	ng/L	P423428	
		Alachlor	0.24	U	ng/L	P423428	
		Avobenzone**	97	U	ng/L	P423428	
		Ametryn	0.58	U	ng/L	P423428	
		Atrazine	0.34	I	ng/L	P423428	
		PBDE-47**	3.9	U	ng/L	P423428	
		Atrazine Desethyl	1.5	U	ng/L	P423428	
		PBDE-99**	4.9	U	ng/L	P423428	
		Azinphos Methyl	1.9	U	ng/L	P423428	
		Tri-o-cresyl Phosphate**	5.8	U	ng/L	P423428	
		Azoxystrobin	1.1	I	ng/L	P423428	

Field ID: G3SD0096 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374550	EPA 8270E	Bromacil	490		ng/L	P423428	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P423428	
		Butylate	0.39	U	ng/L	P423428	
		Dechlorane Plus**	29	U	ng/L	P423428	
		Caffeine**	7.3	U	ng/L	P423428	
		Carbophenothion	0.19	U	ng/L	P423428	
		Carfentrazone Ethyl	0.097	UJ	ng/L	P423428	LCS
		Chlorfenapyr	0.17	U	ng/L	P423428	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P423428	
		Chlorpyrifos Methyl	0.049	U	ng/L	P423428	
		Coumaphos	0.49	U	ng/L	P423428	
		Cyanazine	3.2	U	ng/L	P423428	
		Cyprodinil	0.097	U	ng/L	P423428	
		Demeton	1.5	U	ng/L	P423428	
		Diazinon	0.12	U	ng/L	P423428	
		Difenoconazole	0.58	U	ng/L	P423428	
		Dimethenamid	0.097	U	ng/L	P423428	
		Dimethomorph	0.17	U	ng/L	P423428	
		Disulfoton	0.49	U	ng/L	P423428	
		Dithiopyr	0.61	U	ng/L	P423428	
		EPTC	1.2	U	ng/L	P423428	
		Ethion	0.15	U	ng/L	P423428	
		Ethoprop	0.097	U	ng/L	P423428	
		Etridiazole	0.15	U	ng/L	P423428	
		Fenamiphos	0.49	U	ng/L	P423428	
		Fenbuconazole	0.15	I	ng/L	P423428	
		Fipronil	0.24	U	ng/L	P423428	
		Fipronil Desulfinyl**	0.12	U	ng/L	P423428	
		Fipronil Sulfide	0.15	U	ng/L	P423428	
		Fipronil Sulfone	0.15	U	ng/L	P423428	
		Fluazifop-P-butyl	0.097	U	ng/L	P423428	
		Fludioxonil	0.12	U	ng/L	P423428	
		Flumioxazin	4.4	U	ng/L	P423428	
		Flutolanil	0.14	I	ng/L	P423428	
		Fluxapyroxad	0.097	U	ng/L	P423428	
		Fonofos	0.19	U	ng/L	P423428	
		Hexazinone	9.0		ng/L	P423428	
		Imazalil	0.73	U	ng/L	P423428	
		Iprodione	0.58	UJ	ng/L	P423428	LCS, MS
		Loratadine**	0.34	U	ng/L	P423428	
		Malathion	0.34	U	ng/L	P423428	MS, RPD
		Metalaxyl	31		ng/L	P423428	
		Metolachlor	0.34	U	ng/L	P423428	MS
		Metribuzin	1.5	U	ng/L	P423428	

Field ID: G3SD0096 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374550	EPA 8270E	Mevinphos	1.0	U	ng/L	P423428	
		Molinate	0.29	U	ng/L	P423428	
		Myclobutanil	0.24	U	ng/L	P423428	
		Naled	1.5	UJ	ng/L	P423428	LCS
		Napropamide	0.39	U	ng/L	P423428	MS, RPD
		Norflurazon	2.5E+03		ng/L	P423428	
		Oxadiazon	0.29	U	ng/L	P423428	
		Oxyfluorfen	0.15	U	ng/L	P423428	
		Parathion Ethyl	0.24	U	ng/L	P423428	
		Parathion Methyl	0.53	U	ng/L	P423428	
		Pendimethalin	0.97	U	ng/L	P423428	
		Phenytoin**	3.4	U	ng/L	P423428	
		Phorate	0.51	U	ng/L	P423428	
		Prodiamine	0.17	U	ng/L	P423428	
		Prometon	0.87	U	ng/L	P423428	
		Prometryn	0.19	U	ng/L	P423428	
		Pronamide	0.15	U	ng/L	P423428	
		Propanil	0.12	U	ng/L	P423428	
		Propargite	1.5	U	ng/L	P423428	
		Propiconazole	0.49	U	ng/L	P423428	
		Pyraflufen Ethyl	0.24	U	ng/L	P423428	
		Pyridaben	0.44	UJ	ng/L	P423428	CCV
		Pyriproxyfen	0.12	U	ng/L	P423428	
		Simazine	0.49	U	ng/L	P423428	
		Stirophos	0.12	U	ng/L	P423428	
		Sulfentrazone	0.49	U	ng/L	P423428	
		Tebuconazole	0.49	U	ng/L	P423428	
		Terbufos	0.097	U	ng/L	P423428	
		Terbuthylazine	0.41	U	ng/L	P423428	
		Thiobencarb	0.58	U	ng/L	P423428	RPD
		Triadimefon	0.24	U	ng/L	P423428	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: JoshuaCreek@AirportAve **Collection Date/Time: 12/12/2022 13:30**

Field ID: G3SD0184 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374534	DEP SOP: NU-094-1	Color (true)	92		PCU	P423471	
	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P423467	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P423713	
		Sulfate	150		mg SO4/L	P423716	
	SM 2320 B-2011	Total Alkalinity	58		mg CaCO3/L	P423927	
	SM 2540 C-2015	TDS	488		mg/L	P423892	
	SM 2540 D-2015	TSS	4	I	mg/L	P423785	
	SM 4500-F- C-2011	Fluoride	0.33		mg F/L	P423931	
2374535	EPA 350.1 Rev. 2.0	Ammonia-N	0.045		mg N/L	P423784	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.87		mg N/L	P423519	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.42		mg N/L	P423524	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P423482	
	SM 5310 B-2011	Organic Carbon	16		mg C/L	P423645	
2374536	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.14		mg P/L	P423463	
2374545	EPA 8321B	2,4-D	0.052		ug/L	P423422	
		Acesulfame K	0.10	U	ug/L	P423367	
		2,4,5-T	0.0040	U	ug/L	P423422	
		AMPA	0.59		ug/L	P423367	
		Acetaminophen	0.0090	I	ug/L	P423422	
		Acetamiprid	0.0020	U	ug/L	P423422	
		Endothall	0.25	U	ug/L	P423367	
		Glufosinate	0.10	U	ug/L	P423367	
		Glyphosate	0.59		ug/L	P423367	
		Afidopyropen	0.0020	U	ug/L	P423422	
		Bentazon	8.0E-04	U	ug/L	P423422	
		Sucralose	0.017	I	ug/L	P423367	
		Benzovindiflupyr	0.0035	I	ug/L	P423422	
		Carbamazepine	8.0E-04	U	ug/L	P423422	
		Clothianidin	0.26		ug/L	P423422	
		Dinotefuran	0.0020	U	ug/L	P423422	
		Diuron	0.0046	I	ug/L	P423422	
		Fenuron	0.032	U	ug/L	P423422	
		Fluridone	8.0E-04	U	ug/L	P423422	
		Imazapyr	0.011	I	ug/L	P423422	
		Hydrocodone	0.0020	U	ug/L	P423422	
		Ibuprofen	0.20	U	ug/L	P423422	
		Imidacloprid	0.45		ug/L	P423422	
		Linuron	0.0040	U	ug/L	P423422	
		Mandestrobin	0.0020	U	ug/L	P423422	
		MCPP	0.0040	U	ug/L	P423422	
		Naproxen	0.0080	U	ug/L	P423422	
		Primidone	0.0040	U	ug/L	P423422	
		Pyraclostrobin	0.0020	U	ug/L	P423422	

Field ID: G3SD0184 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374545	EPA 8321B	Silvex	0.0040	U	ug/L	P423422	
		Thiamethoxam	0.65		ug/L	P423422	
		Tolfenpyrad	0.0020	U	ug/L	P423422	
		Triclopyr	0.0040	U	ug/L	P423422	
2374547	EPA 200.7 Rev. 4.4	Calcium	57.6		mg/L	P423497	
		Iron	400		ug/L	P423497	
		Magnesium	25.3		mg/L	P423497	
		Potassium	10.3		mg/L	P423497	
		Sodium	56.0		mg/L	P423497	
		Strontium	5.81E+03		ug/L	P423497	
		Tin	3.0	U	ug/L	P423497	
		Titanium	5.0		ug/L	P423497	
		Vanadium	4.3	I	ug/L	P423497	
		Zinc	5.0	U	ug/L	P423497	
	EPA 200.8 Rev. 5.4	Aluminum	112		ug/L	P423497	
		Antimony	0.21		ug/L	P423497	
		Arsenic	0.63		ug/L	P423497	
		Barium	35.9		ug/L	P423497	
		Beryllium	0.018	I	ug/L	P423497	
		Boron	53.9		ug/L	P423497	
		Cadmium	0.058	I	ug/L	P423497	
		Chromium	0.79	I	ug/L	P423497	
		Cobalt	0.165		ug/L	P423497	
		Copper	0.86		ug/L	P423497	
		Lead	0.20	U	ug/L	P423497	
		Manganese	26.6		ug/L	P423497	
		Molybdenum	0.39	I	ug/L	P423497	
		Nickel	0.91	I	ug/L	P423497	
		Selenium	0.21	I	ug/L	P423497	
		Silver	0.010	U	ug/L	P423497	
		Thallium	0.10	U	ug/L	P423497	
	SM 2340 B-2011	Hardness	248		mg/L	P423497	
2374549	EPA 8270E	Oxybenzone**	9.8	U	ng/L	P423428	
		Acetochlor	0.25	U	ng/L	P423428	
		Octinoxate**	20	U	ng/L	P423428	
		Alachlor	0.25	U	ng/L	P423428	
		Avobenzone**	98	U	ng/L	P423428	
		Ametryn	0.59	U	ng/L	P423428	
		Atrazine	0.25	U	ng/L	P423428	
		PBDE-47**	3.9	U	ng/L	P423428	
		Atrazine Desethyl	1.5	U	ng/L	P423428	
		PBDE-99**	4.9	U	ng/L	P423428	
		Azinphos Methyl	2.0	U	ng/L	P423428	
		Tri-o-cresyl Phosphate**	5.9	U	ng/L	P423428	
		Azoxystrobin	1.4	I	ng/L	P423428	

Field ID: G3SD0184 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374549	EPA 8270E	Bromacil	170		ng/L	P423428	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P423428	
		Butylate	0.39	U	ng/L	P423428	
		Dechlorane Plus**	29	U	ng/L	P423428	
		Caffeine**	7.4	U	ng/L	P423428	
		Carbophenothion	0.20	U	ng/L	P423428	
		Carfentrazone Ethyl	0.098	UJ	ng/L	P423428	LCS
		Chlorfenapyr	0.17	U	ng/L	P423428	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P423428	
		Chlorpyrifos Methyl	0.049	U	ng/L	P423428	
		Coumaphos	0.49	U	ng/L	P423428	
		Cyanazine	3.2	U	ng/L	P423428	
		Cyprodinil	0.098	U	ng/L	P423428	
		Demeton	1.5	U	ng/L	P423428	
		Diazinon	0.12	U	ng/L	P423428	
		Difenoconazole	0.59	U	ng/L	P423428	
		Dimethenamid	0.098	U	ng/L	P423428	
		Dimethomorph	0.17	U	ng/L	P423428	
		Disulfoton	0.49	U	ng/L	P423428	
		Dithiopyr	0.61	U	ng/L	P423428	
		EPTC	1.2	U	ng/L	P423428	
		Ethion	0.15	U	ng/L	P423428	
		Ethoprop	0.098	U	ng/L	P423428	
		Etridiazole	0.15	U	ng/L	P423428	
		Fenamiphos	0.49	U	ng/L	P423428	
		Fenbuconazole	0.80		ng/L	P423428	
		Fipronil	0.25	U	ng/L	P423428	
		Fipronil Desulfinyl**	0.12	U	ng/L	P423428	
		Fipronil Sulfide	0.15	U	ng/L	P423428	
		Fipronil Sulfone	0.15	U	ng/L	P423428	
		Fluazifop-P-butyl	0.098	U	ng/L	P423428	
		Fludioxonil	0.12	U	ng/L	P423428	
		Flumioxazin	4.4	U	ng/L	P423428	
		Flutolanil	2.4		ng/L	P423428	
		Fluxapyroxad	0.098	U	ng/L	P423428	
		Fonofos	0.20	U	ng/L	P423428	
		Hexazinone	38		ng/L	P423428	
		Imazalil	0.74	U	ng/L	P423428	
		Iprodione	0.59	UJ	ng/L	P423428	LCS, MS
		Loratadine**	0.34	U	ng/L	P423428	
		Malathion	0.34	U	ng/L	P423428	MS, RPD
		Metalaxyl	30		ng/L	P423428	
		Metolachlor	8.1		ng/L	P423428	MS
		Metribuzin	1.5	U	ng/L	P423428	

Field ID: G3SD0184 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2374549	EPA 8270E	Mevinphos	1.0	U	ng/L	P423428	
		Molinate	0.29	U	ng/L	P423428	
		Myclobutanil	0.25	U	ng/L	P423428	
		Naled	1.5	UJ	ng/L	P423428	LCS
		Napropamide	0.39	U	ng/L	P423428	MS, RPD
		Norflurazon	410		ng/L	P423428	
		Oxadiazon	0.29	U	ng/L	P423428	
		Oxyfluorfen	0.15	U	ng/L	P423428	
		Parathion Ethyl	0.25	U	ng/L	P423428	
		Parathion Methyl	0.54	U	ng/L	P423428	
		Pendimethalin	0.98	U	ng/L	P423428	
		Phenytoin**	3.4	U	ng/L	P423428	
		Phorate	0.52	U	ng/L	P423428	
		Prodiamine	0.17	U	ng/L	P423428	
		Prometon	0.88	U	ng/L	P423428	
		Prometryn	0.20	U	ng/L	P423428	
		Pronamide	0.15	U	ng/L	P423428	
		Propanil	0.12	U	ng/L	P423428	
		Propargite	1.5	U	ng/L	P423428	
		Propiconazole	0.49	U	ng/L	P423428	
		Pyraflufen Ethyl	0.25	U	ng/L	P423428	
		Pyridaben	0.44	UJ	ng/L	P423428	CCV
		Pyriproxyfen	0.12	U	ng/L	P423428	
		Simazine	0.49	U	ng/L	P423428	
		Stirophos	0.12	U	ng/L	P423428	
		Sulfentrazone	0.49	U	ng/L	P423428	
		Tebuconazole	0.75	I	ng/L	P423428	
		Terbufos	0.098	U	ng/L	P423428	
		Terbuthylazine	0.42	U	ng/L	P423428	
		Thiobencarb	0.59	U	ng/L	P423428	RPD
		Triadimefon	0.25	U	ng/L	P423428	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
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: P423471

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423467

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423497

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: P423497

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: P423713

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: P423716

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423784

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423519

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423524

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423482

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423463

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

Reference Method: EPA 8270E
Batch ID: P423428

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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P423428

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P423428

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P423428

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P423428

Component	Result	Code	Units
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: P423367

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: P423422

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
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P423927

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P423927

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

Reference Method: SM 2540 C-2015
Batch ID: P423892

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P423785

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P423931

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P423645

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: P423471

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423467

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423497

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	96.4		P	85 - 115
Iron	99.3		P	85 - 115
Magnesium	95.6		P	85 - 115
Potassium	90.8		P	85 - 115
Sodium	92.5		P	85 - 115
Strontium	94.6		P	85 - 115
Tin	91.7		P	85 - 115
Titanium	92.8		P	85 - 115
Vanadium	91.4		P	85 - 115
Zinc	89.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423497

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	96.1		P	85 - 115
Arsenic	104		P	85 - 115
Barium	100		P	85 - 115
Beryllium	97.3		P	85 - 115
Boron	103		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	95.3		P	85 - 115
Cobalt	98.4		P	85 - 115
Copper	100		P	85 - 115
Lead	94.9		P	85 - 115
Manganese	95.0		P	85 - 115
Molybdenum	98.5		P	85 - 115
Nickel	102		P	85 - 115
Selenium	103		P	85 - 115
Silver	101		P	85 - 115
Thallium	95.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423713

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.5		P	90 - 110

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423716

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423784

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423519

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423524

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423482

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423463

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

Reference Method: EPA 8270E
Batch ID: P423428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	85.2		P	42 - 162
Acetochlor	117		P	69 - 123
Alachlor	73.1		P	65 - 118
Ametryn	59.9		P	58 - 141
Atrazine	102		P	73 - 118
Atrazine Desethyl	79.3		P	32 - 125
Avobenzone	96.2		P	40 - 203
Azinphos Methyl	172		P	36 - 197
Azoxystrobin	109		P	58 - 226
Bromacil	78.1		P	48 - 120
Butylate	54.0		P	27 - 85.0
Caffeine	74.5		P	40 - 137
Carbophenothion	99.7		P	54 - 132
Carfentrazone Ethyl	161		F	60 - 142
Chlorfenapyr	64.2		P	53 - 117
Chlorpyrifos Ethyl	95.1		P	59 - 116

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P423428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	86.3		P	66 - 119
Coumaphos	233		P	11 - 234
Cyanazine	129		P	61 - 248
Cyprodinil	70.9		P	50 - 147
Dechlorane Plus	93.6		P	47 - 182
Demeton	79.0		P	30 - 138
Diazinon	93.2		P	67 - 126
Difenoconazole	163		P	38 - 205
Dimethenamid	62.9		P	57 - 111
Dimethomorph	114		P	16 - 212
Disulfoton	83.5		P	46 - 126
Dithiopyr	98.2		P	62 - 115
EPTC	62.9		P	28 - 80.0
Ethion	38.4		P	24 - 122
Ethoprop	90.2		P	62 - 113
Etridiazole	47.1		P	28 - 92.0
Fenamiphos	99.9		P	57 - 128
Fenbuconazole	124		P	52 - 155
Fipronil	95.1		P	63 - 130
Fipronil Desulfinyl	96.4		P	61 - 130
Fipronil Sulfide	85.1		P	56 - 117
Fipronil Sulfone	102		P	52 - 118
Fluazifop-P-butyl	122		P	61 - 128
Fludioxonil	98.0		P	59 - 129
Flumioxazin	229		P	30 - 250
Flutolanil	110		P	53 - 127
Fluxapyroxad	122		P	42 - 132
Fonofos	85.6		P	61 - 110
Hexazinone	93.6		P	46 - 139
Imazalil	101		P	40 - 139
Iprodione	394		F	40 - 146
Loratadine	213		P	10 - 224
Malathion	109		P	61 - 135
Metalaxyl	91.7		P	58 - 121
Metolachlor	69.8		P	64 - 118
Metribuzin	91.8		P	45 - 245
Mevinphos	75.4		P	49 - 118
Molinate	78.3		P	42 - 92.0
Myclobutanil	73.4		P	55 - 127
Naled	119		F	10 - 114
Napropamide	64.8		P	39 - 121
Norflurazon	84.5		P	55 - 129
Octinoxate	78.5		P	26 - 166
Oxadiazon	98.5		P	54 - 115
Oxybenzone	76.7		P	49 - 135
Oxyfluorfen	81.4		P	64 - 139
Parathion Ethyl	92.5		P	70 - 111
Parathion Methyl	122		P	76 - 136
PBDE-47	74.9		P	41 - 148
PBDE-99	77.1		P	38 - 147
Pendimethalin	85.9		P	52 - 118
Phenytoin	52.5		P	10 - 162

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P423428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	80.6		P	40 - 122
Prodiamine	63.9		P	26 - 141
Prometon	76.4		P	54 - 122
Prometryn	65.5		P	61 - 128
Pronamide	81.8		P	72 - 121
Propanil	104		P	45 - 144
Propargite	192		P	10 - 199
Propiconazole	107		P	56 - 127
Pyraflufen Ethyl	58.2		P	56 - 140
Pyridaben	96.8		P	26 - 211
Pyriproxyfen	102		P	33 - 194
Simazine	87.9		P	67 - 121
Stirophos	88.0		P	20 - 142
Sulfentrazone	93.1		P	21 - 144
Tebuconazole	106		P	10 - 122
Terbufos	94.0		P	60 - 129
Terbuthylazine	104		P	69 - 113
Thiobencarb	82.3		P	51 - 120
Tri-o-cresyl Phosphate	81.8		P	49 - 150
Triadimefon	82.3		P	56 - 114

Reference Method: EPA 8321B
Batch ID: P423367

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	97.0		P	40 - 150
AMPA	90.7		P	40 - 150
Endothall	101		P	40 - 150
Glufosinate	96.9		P	40 - 150
Glyphosate	96.7		P	40 - 150
Sucralose	94.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P423422

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	77.3		P	40 - 150
2,4,5-T	78.5		P	40 - 150
Acetaminophen	103		P	30 - 150
Acetamiprid	81.2		P	40 - 150
Afidopyropen	60.1		P	30 - 150
Bentazon	102		P	30 - 150
Benzovindiflupyr	92.9		P	40 - 150
Carbamazepine	95.3		P	40 - 150
Clothianidin	106		P	40 - 150
Dinotefuran	105		P	40 - 150
Diuron	92.2		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	99.2		P	40 - 150
Hydrocodone	105		P	40 - 150
Ibuprofen	66.5		P	40 - 150
Imazapyr	89.6		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P423422

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imidacloprid	114		P	40 - 150
Linuron	84.8		P	40 - 150
Mandestrobin	94.8		P	40 - 150
MCPP	90.0		P	40 - 150
Naproxen	63.5		P	40 - 150
Primidone	103		P	40 - 150
Pyraclostrobin	89.5		P	40 - 150
Silvex	78.9		P	40 - 150
Thiamethoxam	101		P	40 - 150
Tolfenpyrad	42.6		P	30 - 150
Triclopyr	90.0		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P423927

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.6		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P423892

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.7		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P423785

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	101		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P423931

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

Reference Method: SM 5310 B-2011
Batch ID: P423645

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.2		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423497

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374625	Calcium	108	103	P/P	80 - 120
2374625	Iron	109	106	P/P	80 - 120
2374625	Magnesium	105	101	P/P	80 - 120
2374625	Potassium	101	98.8	P/P	80 - 120
2374625	Sodium	105		P	80 - 120
2374625	Strontium	106	103	P/P	80 - 120
2374625	Tin	104	103	P/P	80 - 120
2374625	Titanium	108	105	P/P	80 - 120
2374625	Vanadium	106	104	P/P	80 - 120
2374625	Zinc	105	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423497

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374625	Aluminum	105	104	P/P	80 - 120
2374625	Antimony	98.6	98.9	P/P	80 - 120
2374625	Arsenic	106	104	P/P	80 - 120
2374625	Barium	103	102	P/P	80 - 120
2374625	Beryllium	95.5	96.5	P/P	80 - 120
2374625	Boron	110	110	P/P	80 - 120
2374625	Cadmium	102	103	P/P	80 - 120
2374625	Chromium	99.1	98.7	P/P	80 - 120
2374625	Cobalt	98.8	98.9	P/P	80 - 120
2374625	Copper	104	104	P/P	80 - 120
2374625	Lead	97.1	97.3	P/P	80 - 120
2374625	Manganese	98.3	97.9	P/P	80 - 120
2374625	Molybdenum	102	101	P/P	80 - 120
2374625	Nickel	104	104	P/P	80 - 120
2374625	Selenium	103	101	P/P	80 - 120
2374625	Silver	105	105	P/P	80 - 120
2374625	Thallium	98.3	99.4	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374495	Chloride	99.1		P	90 - 110
2374676	Chloride	96.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423716

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374495	Sulfate	99.7		P	90 - 110
2374676	Sulfate	94.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423784

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374305	Ammonia-N	99.2	102	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423519

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374504	Kjeldahl Nitrogen	108	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423524

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374614	NO2NO3-N	95.2	95.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374615	Total-P	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374508	O-Phosphate-P	97.2	98.4	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P423428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374334	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	109	90.8	P/P	26 - 165
2374334	Acetochlor	114	119	P/P	67 - 124
2374334	Alachlor	78.3	64.5	P/P	60 - 120
2374334	Ametryn	68.1	84.3	P/P	54 - 216
2374334	Atrazine	102	106	P/P	66 - 128
2374334	Atrazine Desethyl	69.7	52.7	P/P	15 - 122
2374334	Avobenzone	123	95.0	P/P	37 - 178
2374334	Azinphos Methyl	114	121	P/P	40 - 292
2374334	Azoxystrobin	111	125	P/P	35 - 220
2374334	Bromacil	90.3	86.6	P/P	45 - 127
2374334	Butylate	59.5	64.0	P/P	20 - 83.0
2374334	Caffeine	71.1	109	P/P	10 - 194
2374334	Carbophenothion	66.4	64.9	P/P	57 - 127
2374334	Carfentrazone Ethyl	108	128	P/P	51 - 141
2374334	Chlorfenapyr	51.7	53.1	P/P	46 - 111
2374334	Chlorpyrifos Ethyl	112	117	P/P	52 - 120
2374334	Chlorpyrifos Methyl	71.0	68.8	P/P	63 - 119
2374334	Coumaphos	144	162	P/P	10 - 228
2374334	Cyanazine	145	146	P/P	59 - 241
2374334	Cyprodinil	64.9	58.1	P/P	47 - 146
2374334	Dechlorane Plus	113	104	P/P	50 - 150
2374334	Demeton	73.1	74.1	P/P	40 - 136
2374334	Diazinon	88.5	78.7	P/P	69 - 132
2374334	Difenoconazole	159	121	P/P	57 - 258
2374334	Dimethenamid	66.4	58.4	P/P	54 - 110
2374334	Dimethomorph	127	138	P/P	28 - 210
2374334	Disulfoton	86.7	71.6	P/P	43 - 133
2374334	Dithiopyr	89.8	105	P/P	39 - 116

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P423428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374334	EPTC	40.2	50.3	P/P	20 - 78.0
2374334	Ethion	38.2	48.7	P/P	17 - 119
2374334	Ethoprop	107	99.6	P/P	66 - 120
2374334	Etridiazole	43.5	41.9	P/P	28 - 96.0
2374334	Fenamiphos	94.2	102	P/P	41 - 126
2374334	Fenbuconazole	96.4	76.7	P/P	42 - 169
2374334	Fipronil	109	122	P/P	61 - 132
2374334	Fipronil Desulfinyl	72.6	77.3	P/P	56 - 132
2374334	Fipronil Sulfide	79.2	107	P/P	48 - 119
2374334	Fipronil Sulfone	71.3	81.6	P/P	42 - 131
2374334	Fluazifop-P-butyl	67.9	82.3	P/P	53 - 131
2374334	Fludioxonil	84.5	96.5	P/P	56 - 127
2374334	Flumioxazin	172	196	P/P	19 - 300
2374334	Flutolanil	102	117	P/P	41 - 127
2374334	Fluxapyroxad	85.0	62.5	P/P	42 - 172
2374334	Fonofos	82.3	79.2	P/P	59 - 113
2374334	Hexazinone	104	97.5	P/P	66 - 122
2374334	Imazalil	82.6	104	P/P	21 - 283
2374334	Iprodione	263	297	F/F	43 - 150
2374334	Loratadine	185	151	P/P	23 - 201
2374334	Malathion	104	46.2	P/F	58 - 136
2374334	Metalaxyl	88.7	108	P/P	55 - 120
2374334	Metolachlor	66.2	54.7	P/F	57 - 121
2374334	Metribuzin	105	112	P/P	58 - 294
2374334	Mevinphos	113	95.6	P/P	50 - 126
2374334	Molinate	82.1	89.1	P/P	42 - 93.0
2374334	Myclobutanil	64.2	60.7	P/P	55 - 125
2374334	Naled	134	115	P/P	18 - 200
2374334	Napropamide	47.7	23.0	P/F	39 - 110
2374334	Norflurazon	71.0	69.1	P/P	48 - 128
2374334	Octinoxate	108	99.9	P/P	21 - 159
2374334	Oxadiazon	80.2	106	P/P	43 - 112
2374334	Oxybenzone	109	111	P/P	41 - 142
2374334	Oxyfluorfen	68.0	76.1	P/P	64 - 153
2374334	Parathion Ethyl	93.7	93.2	P/P	69 - 114
2374334	Parathion Methyl	121	132	P/P	79 - 139
2374334	PBDE-47	99.2	74.5	P/P	27 - 144
2374334	PBDE-99	94.8	70.9	P/P	18 - 150
2374334	Pendimethalin	117	136	P/P	50 - 139
2374334	Phenytoin	71.6	58.2	P/P	10 - 146
2374334	Phorate	73.6	93.8	P/P	54 - 161
2374334	Prodiamine	74.1	103	P/P	30 - 161
2374334	Prometon	70.0	68.8	P/P	45 - 134
2374334	Prometryn	59.1	55.4	P/P	45 - 137
2374334	Pronamide	80.0	73.4	P/P	65 - 133
2374334	Propanil	110	126	P/P	49 - 142
2374334	Propargite	167	152	P/P	10 - 203
2374334	Propiconazole	92.4	113	P/P	38 - 146
2374334	Pyraflufen Ethyl	54.4	68.6	P/P	34 - 153
2374334	Pyridaben	114	113	P/P	12 - 192
2374334	Pyriproxyfen	52.5	61.6	P/P	33 - 180
2374334	Simazine	88.1	99.5	P/P	51 - 157

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P423428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374334	Stirophos	73.7	99.3	P/P	10 - 128
2374334	Sulfentrazone	126	106	P/P	53 - 186
2374334	Tebuconazole	68.9	51.4	P/P	10 - 133
2374334	Terbufos	96.2	94.8	P/P	65 - 139
2374334	Terbuthylazine	89.1	96.4	P/P	66 - 117
2374334	Thiobencarb	84.9	54.7	P/P	51 - 119
2374334	Tri-o-cresyl Phosphate	103	94.1	P/P	31 - 144
2374334	Triadimefon	109	98.7	P/P	48 - 119

Reference Method: EPA 8321B
Batch ID: P423367

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374117	Acesulfame K	65.5	58.1	P/P	40 - 150
2374117	AMPA	78.4	77.8	P/P	40 - 150
2374117	Endothall	107	106	P/P	40 - 150
2374117	Glufosinate	97.2	97.3	P/P	40 - 150
2374117	Glyphosate	97.3	103	P/P	40 - 150
2374117	Sucralose	83.2	101	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P423422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374876	2,4-D	82.5	83.5	P/P	40 - 150
2374876	2,4,5-T	82.2	84.3	P/P	40 - 150
2374876	Acetaminophen	102	98.7	P/P	30 - 150
2374876	Acetamiprid	85.4	87.4	P/P	40 - 150
2374876	Afidopyropen	72.9	70.9	P/P	30 - 150
2374876	Bentazon	88.8	96.2	P/P	30 - 150
2374876	Benzovindiflupyr	85.5	84.3	P/P	40 - 150
2374876	Carbamazepine	90.5	89.1	P/P	40 - 150
2374876	Clothianidin	98.7	98.6	P/P	40 - 150
2374876	Dinotefuran	97.3	97.8	P/P	40 - 150
2374876	Diuron	80.2	78.1	P/P	40 - 150
2374876	Fenuron	99.8	102	P/P	40 - 150
2374876	Fluridone	91.0	90.2	P/P	40 - 150
2374876	Hydrocodone	95.4	93.5	P/P	40 - 150
2374876	Ibuprofen	68.8	67.1	P/P	40 - 150
2374876	Imazapyr	91.3	87.5	P/P	40 - 150
2374876	Imidacloprid	109	116	P/P	40 - 150
2374876	Linuron	82.3	78.3	P/P	40 - 150
2374876	Mandestrobin	88.4	84.1	P/P	40 - 150
2374876	MCPP	95.7	93.6	P/P	40 - 150
2374876	Naproxen	84.8	96.4	P/P	40 - 150
2374876	Primidone	89.5	92.1	P/P	40 - 150
2374876	Pyraclostrobin	63.3	76.6	P/P	40 - 150
2374876	Silvex	80.0	84.4	P/P	40 - 150
2374876	Thiamethoxam	96.4	96.9	P/P	40 - 150
2374876	Tolfenpyrad	37.6	47.7	P/P	30 - 150
2374876	Triclopyr	91.5	88.0	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P423931

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374629	Fluoride	98.1	97.5	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423645

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374424	Organic Carbon	96.8	97.6	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P423471

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374537	Color (true)	0.912	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374474	Turbidity	3.14	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P423497

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374625	Calcium	3.24	Spike	P	0 - 20
2374625	Iron	2.30	Spike	P	0 - 20
2374625	Magnesium	2.74	Spike	P	0 - 20
2374625	Potassium	2.08	Spike	P	0 - 20
2374625	Sodium	3.26	Spike	P	0 - 20
2374625	Strontium	2.92	Spike	P	0 - 20
2374625	Tin	0.827	Spike	P	0 - 20
2374625	Titanium	2.54	Spike	P	0 - 20
2374625	Vanadium	2.00	Spike	P	0 - 20
2374625	Zinc	1.17	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P423497

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374625	Aluminum	0.920	Spike	P	0 - 20
2374625	Antimony	0.302	Spike	P	0 - 20
2374625	Arsenic	2.00	Spike	P	0 - 20
2374625	Barium	0.370	Spike	P	0 - 20
2374625	Beryllium	0.996	Spike	P	0 - 20
2374625	Boron	0.307	Spike	P	0 - 20
2374625	Cadmium	1.35	Spike	P	0 - 20
2374625	Chromium	0.432	Spike	P	0 - 20
2374625	Cobalt	0.111	Spike	P	0 - 20
2374625	Copper	0.188	Spike	P	0 - 20
2374625	Lead	0.141	Spike	P	0 - 20
2374625	Manganese	0.297	Spike	P	0 - 20
2374625	Molybdenum	0.561	Spike	P	0 - 20
2374625	Nickel	0.460	Spike	P	0 - 20
2374625	Selenium	1.88	Spike	P	0 - 20
2374625	Silver	0.291	Spike	P	0 - 20
2374625	Thallium	1.12	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374495	Chloride	0.182	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P423716

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374495	Sulfate	0.227	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423784

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374305	Ammonia-N	2.30	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374504	Kjeldahl Nitrogen	0.758	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374614	NO2NO3-N	0.381	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374615	Total-P	1.06	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374508	O-Phosphate-P	1.05	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P423428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374334	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	18.1	Spike	P	0 - 37
2374334	Acetochlor	4.80	Spike	P	0 - 28

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P423428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374334	Alachlor	19.3	Spike	P	0 - 30
2374334	Ametryn	21.2	Spike	P	0 - 32
2374334	Atrazine	4.00	Spike	P	0 - 41
2374334	Atrazine Desethyl	27.6	Spike	P	0 - 36
2374334	Avobenzone	25.5	Spike	P	0 - 36
2374334	Azinphos Methyl	5.32	Spike	P	0 - 75
2374334	Azoxystrobin	11.8	Spike	P	0 - 39
2374334	Bromacil	4.14	Spike	P	0 - 33
2374334	Butylate	7.32	Spike	P	0 - 44
2374334	Caffeine	40.8	Spike	P	0 - 74
2374334	Carbophenothion	2.16	Spike	P	0 - 25
2374334	Carfentrazone Ethyl	16.5	Spike	P	0 - 27
2374334	Chlorfenapyr	2.67	Spike	P	0 - 24
2374334	Chlorpyrifos Ethyl	3.78	Spike	P	0 - 26
2374334	Chlorpyrifos Methyl	3.13	Spike	P	0 - 26
2374334	Coumaphos	11.8	Spike	P	0 - 28
2374334	Cyanazine	0.708	Spike	P	0 - 48
2374334	Cyprodinil	11.0	Spike	P	0 - 29
2374334	Dechlorane Plus	8.28	Spike	P	0 - 30
2374334	Demeton	1.23	Spike	P	0 - 33
2374334	Diazinon	11.8	Spike	P	0 - 29
2374334	Difenoconazole	27.3	Spike	P	0 - 34
2374334	Dimethenamid	12.8	Spike	P	0 - 39
2374334	Dimethomorph	8.13	Spike	P	0 - 51
2374334	Disulfoton	19.1	Spike	P	0 - 30
2374334	Dithiopyr	15.6	Spike	P	0 - 26
2374334	EPTC	22.3	Spike	P	0 - 43
2374334	Ethion	24.0	Spike	P	0 - 79
2374334	Ethoprop	7.60	Spike	P	0 - 29
2374334	Etridiazole	3.84	Spike	P	0 - 33
2374334	Fenamiphos	7.63	Spike	P	0 - 40
2374334	Fenbuconazole	22.8	Spike	P	0 - 74
2374334	Fipronil	10.7	Spike	P	0 - 29
2374334	Fipronil Desulfinyl	6.27	Spike	P	0 - 32
2374334	Fipronil Sulfide	29.9	Spike	P	0 - 30
2374334	Fipronil Sulfone	13.5	Spike	P	0 - 33
2374334	Fluazifop-P-butyl	19.1	Spike	P	0 - 38
2374334	Fludioxonil	13.3	Spike	P	0 - 29
2374334	Flumioxazin	13.0	Spike	P	0 - 51
2374334	Flutolanil	13.8	Spike	P	0 - 25
2374334	Fluxapyroxad	30.6	Spike	P	0 - 45
2374334	Fonofos	3.88	Spike	P	0 - 27
2374334	Hexazinone	4.72	Spike	P	0 - 30
2374334	Imazalil	23.2	Spike	P	0 - 100
2374334	Iprodione	12.1	Spike	P	0 - 33
2374334	Loratadine	20.6	Spike	P	0 - 56
2374334	Malathion	76.7	Spike	F	0 - 37
2374334	Metalaxyl	19.3	Spike	P	0 - 40
2374334	Metolachlor	19.0	Spike	P	0 - 29
2374334	Metribuzin	6.43	Spike	P	0 - 45
2374334	Mevinphos	16.9	Spike	P	0 - 29

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P423428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374334	Molinate	8.21	Spike	P	0 - 33
2374334	Myclobutanil	5.73	Spike	P	0 - 26
2374334	Naled	15.3	Spike	P	0 - 37
2374334	Napropamide	69.9	Spike	F	0 - 44
2374334	Norflurazon	2.72	Spike	P	0 - 30
2374334	Octinoxate	7.55	Spike	P	0 - 45
2374334	Oxadiazon	24.2	Spike	P	0 - 28
2374334	Oxybenzone	0.990	Spike	P	0 - 46
2374334	Oxyfluorfen	11.2	Spike	P	0 - 28
2374334	Parathion Ethyl	0.477	Spike	P	0 - 31
2374334	Parathion Methyl	9.15	Spike	P	0 - 29
2374334	PBDE-47	28.4	Spike	P	0 - 36
2374334	PBDE-99	28.8	Spike	P	0 - 40
2374334	Pendimethalin	15.1	Spike	P	0 - 33
2374334	Phenytoin	20.6	Spike	P	0 - 100
2374334	Phorate	24.1	Spike	P	0 - 36
2374334	Prodiamine	32.3	Spike	P	0 - 71
2374334	Prometon	1.70	Spike	P	0 - 36
2374334	Prometryn	6.45	Spike	P	0 - 28
2374334	Pronamide	8.71	Spike	P	0 - 24
2374334	Propanil	14.1	Spike	P	0 - 28
2374334	Propargite	9.23	Spike	P	0 - 43
2374334	Propiconazole	20.0	Spike	P	0 - 33
2374334	Pyraflufen Ethyl	23.1	Spike	P	0 - 29
2374334	Pyridaben	0.687	Spike	P	0 - 30
2374334	Pyriproxyfen	16.0	Spike	P	0 - 79
2374334	Simazine	12.1	Spike	P	0 - 29
2374334	Stirophos	29.6	Spike	P	0 - 61
2374334	Sulfentrazone	15.2	Spike	P	0 - 33
2374334	Tebuconazole	29.0	Spike	P	0 - 69
2374334	Terbufos	1.43	Spike	P	0 - 29
2374334	Terbuthylazine	7.82	Spike	P	0 - 32
2374334	Thiobencarb	43.1	Spike	F	0 - 26
2374334	Tri-o-cresyl Phosphate	8.96	Spike	P	0 - 33
2374334	Triadimefon	10.3	Spike	P	0 - 28

Reference Method: EPA 8321B
Batch ID: P423367

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374117	Acesulfame K	11.8	Spike	P	0 - 30
2374117	AMPA	0.815	Spike	P	0 - 30
2374117	Endothall	0.813	Spike	P	0 - 30
2374117	Glufosinate	0.0448	Spike	P	0 - 30
2374117	Glyphosate	5.56	Spike	P	0 - 30
2374117	Sucralose	18.4	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P423422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374876	2,4-D	1.19	Spike	P	0 - 30
2374876	2,4,5-T	2.56	Spike	P	0 - 30
2374876	Acetaminophen	3.18	Spike	P	0 - 30
2374876	Acetamiprid	2.25	Spike	P	0 - 30
2374876	Afidopyropen	2.76	Spike	P	0 - 30
2374876	Bentazon	6.09	Spike	P	0 - 30
2374876	Benzovindiflupyr	1.41	Spike	P	0 - 30
2374876	Carbamazepine	1.56	Spike	P	0 - 30
2374876	Clothianidin	0.0828	Spike	P	0 - 30
2374876	Dinotefuran	0.464	Spike	P	0 - 30
2374876	Diuron	2.62	Spike	P	0 - 30
2374876	Fenuron	2.23	Spike	P	0 - 30
2374876	Fluridone	0.911	Spike	P	0 - 30
2374876	Hydrocodone	2.02	Spike	P	0 - 30
2374876	Ibuprofen	2.57	Spike	P	0 - 30
2374876	Imazapyr	4.20	Spike	P	0 - 30
2374876	Imidacloprid	6.24	Spike	P	0 - 30
2374876	Linuron	4.90	Spike	P	0 - 30
2374876	Mandestrobin	4.93	Spike	P	0 - 30
2374876	MCPP	2.28	Spike	P	0 - 30
2374876	Naproxen	12.8	Spike	P	0 - 30
2374876	Primidone	2.92	Spike	P	0 - 30
2374876	Pyraclostrobin	19.1	Spike	P	0 - 30
2374876	Silvex	5.31	Spike	P	0 - 30
2374876	Thiamethoxam	0.476	Spike	P	0 - 30
2374876	Tolfenpyrad	23.9	Spike	P	0 - 30
2374876	Triclopyr	3.96	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P423927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374629	Total Alkalinity	1.30	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P423892

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374477	TDS	5.39	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P423931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374629	Fluoride	0.472	Spike	P	0 - 1.6

Quality Assurance Report
Precision

Reference Method: SM 5310 B-2011
Batch ID: P423645

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374424	Organic Carbon	0.471	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2374545
Field Sample ID: G3SD0184

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	103	P	30 - 160
EPA 8321B	Acetaminophen-d4	122	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.1	P	30 - 160
EPA 8321B	Diuron-d6	69.5	P	30 - 160
EPA 8321B	Endothall-d6	109	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	83.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.8	P	30 - 160
EPA 8321B	Primidone-d5	125	P	30 - 160
EPA 8321B	Sucralose-d6	85.1	P	30 - 160

Lab Sample ID: 2374546
Field Sample ID: G3SD0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	107	P	30 - 160
EPA 8321B	Acetaminophen-d4	117	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.4	P	30 - 160
EPA 8321B	Diuron-d6	66.6	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	79.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.0	P	30 - 160
EPA 8321B	Primidone-d5	124	P	30 - 160
EPA 8321B	Sucralose-d6	85.2	P	30 - 160

Lab Sample ID: 2374549
Field Sample ID: G3SD0184

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	59.3	P	20 - 200
EPA 8270E	Simazine-d10	121	P	62 - 142
EPA 8270E	Terbufos-d10	121	P	58 - 132
EPA 8270E	Terphenyl-d14	87.1	P	52 - 137

Lab Sample ID: 2374550
Field Sample ID: G3SD0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	57.1	P	20 - 200
EPA 8270E	Simazine-d10	105	P	62 - 142
EPA 8270E	Terbufos-d10	94.7	P	58 - 132
EPA 8270E	Terphenyl-d14	97.9	P	52 - 137

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A116398
Included Lab Sample IDs: 2374534, 2374537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	104	P/P	90 - 110
Sulfate	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A116409
Included Lab Sample IDs: 2374536, 2374539

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	98.5	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A116410
Included Lab Sample IDs: 2374534, 2374537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1
Run ID: A116411
Included Lab Sample IDs: 2374534, 2374537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.1	98.1	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A116420
Included Lab Sample IDs: 2374545, 2374546

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	107	105	P/P	60 - 160
Acesulfame K	99.1	107	P/P	60 - 160
Sucralose	78.5	72.6	P/P	60 - 160
Sucralose	98.0	78.5	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A116422
Included Lab Sample IDs: 2374545, 2374546

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	102	102	P/P	60 - 160
AMPA	102	95.6	P/P	60 - 160
Endothall	118	99.9	P/P	60 - 160
Endothall	99.9	103	P/P	60 - 160
Glufosinate	109	94.1	P/P	60 - 160
Glufosinate	94.1	95.6	P/P	60 - 160
Glyphosate	107	104	P/P	60 - 160
Glyphosate	112	107	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A116429
Included Lab Sample IDs: 2374535, 2374538

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.5	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A116444
Included Lab Sample IDs: 2374535, 2374538

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A116454
Included Lab Sample IDs: 2374547, 2374548

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	99.3	P/P	90 - 110
Antimony	94.4	90.0	P/P	90 - 110
Arsenic	102	99.2	P/P	90 - 110
Barium	97.8	95.4	P/P	90 - 110
Beryllium	97.0	95.0	P/P	90 - 110
Boron	103	103	P/P	90 - 110
Cadmium	98.8	96.1	P/P	90 - 110
Chromium	95.0	91.2	P/P	90 - 110
Cobalt	94.7	91.5	P/P	90 - 110
Copper	98.8	95.5	P/P	90 - 110
Lead	96.0	95.9	P/P	90 - 110
Manganese	94.9	91.1	P/P	90 - 110
Molybdenum	98.1	96.6	P/P	90 - 110
Nickel	97.8	94.9	P/P	90 - 110
Selenium	101	100	P/P	90 - 110
Silver	97.7	97.3	P/P	90 - 110
Thallium	96.9	95.8	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A116473
Included Lab Sample IDs: 2374545, 2374546

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.7	91.2	P/P	50 - 150
2,4,5-T	111	109	P/P	50 - 150
Acetaminophen	107	105	P/P	60 - 160
Acetamiprid	109	108	P/P	50 - 150
Afidopyropen	109	90.5	P/P	50 - 150
Bentazon	111	111	P/P	50 - 160
Benzovindiflupyr	110	109	P/P	50 - 150
Carbamazepine	111	110	P/P	60 - 150
Clothianidin	110	106	P/P	60 - 150
Dinotefuran	103	109	P/P	50 - 150
Diuron	118	120	P/P	60 - 160
Fenuron	109	106	P/P	60 - 150
Fluridone	114	111	P/P	60 - 160
Hydrocodone	104	103	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A116473
Included Lab Sample IDs: 2374545, 2374546

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	108	87.3	P/P	50 - 160
Imazapyr	91.3	94.4	P/P	50 - 150
Imidacloprid	104	103	P/P	60 - 150
Linuron	108	119	P/P	60 - 150
Mandestrobin	106	108	P/P	50 - 150
MCPP	104	97.3	P/P	50 - 150
Naproxen	88.8	140	P/P	50 - 160
Primidone	98.4	101	P/P	60 - 150
Pyraclostrobin	109	109	P/P	60 - 150
Silvex	99.2	100	P/P	50 - 150
Thiamethoxam	104	105	P/P	50 - 150
Thiamethoxam	98.7	102	P/P	50 - 150
Tolfenpyrad	105	106	P/P	60 - 150
Triclopyr	112	115	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A116476
Included Lab Sample IDs: 2374535, 2374538

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.2	98.8	P/P	90 - 110
Kjeldahl Nitrogen	98.8	94.4	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A116493
Included Lab Sample IDs: 2374535, 2374538

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A116524
Included Lab Sample IDs: 2374547, 2374548

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	107	P/P	90 - 110
Iron	102	109	P/P	90 - 110
Magnesium	101	107	P/P	90 - 110
Potassium	98.2	105	P/P	90 - 110
Sodium	99.6	106	P/P	90 - 110
Strontium	98.2	100	P/P	90 - 110
Tin	101	101	P/P	90 - 110
Titanium	99.3	101	P/P	90 - 110
Vanadium	97.7	100	P/P	90 - 110
Zinc	99.0	98.9	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A116534
Included Lab Sample IDs: 2374549, 2374550

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	101		P	80 - 120
Avobenzone	97.5		P	80 - 120
Dechlorane Plus	98.5		P	80 - 120
Octinoxate	103		P	80 - 120
Oxybenzone	102		P	80 - 120
PBDE-47	102		P	80 - 120
PBDE-99	103		P	80 - 120
Tri-o-cresyl Phosphate	103		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A116577
Included Lab Sample IDs: 2374535, 2374538

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

Reference Method: SM 2320 B-2011
Run ID: A116645
Included Lab Sample IDs: 2374534, 2374537

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.3	94.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A116645
Included Lab Sample IDs: 2374534, 2374537

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

Reference Method: EPA 8270E
Run ID: A116647
Included Lab Sample IDs: 2374549, 2374550

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.0		P	80 - 120
Alachlor	98.3		P	80 - 120
Ametryn	97.4		P	80 - 120
Atrazine	98.5		P	80 - 120
Atrazine Desethyl	105		P	80 - 120
Azinphos Methyl	104		P	80 - 120
Azoxystrobin	98.1		P	80 - 120
Butylate	103		P	80 - 120
Caffeine	94.6		P	80 - 120
Carbophenothion	112		P	80 - 120
Carfentrazone Ethyl	108		P	80 - 120
Chlorfenapyr	90.6		P	80 - 120
Chlorpyrifos Ethyl	90.5		P	80 - 120
Chlorpyrifos Methyl	91.5		P	80 - 120
Coumaphos	80.2		P	80 - 120
Cyanazine	103		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A116647
Included Lab Sample IDs: 2374549, 2374550

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cyprodinil	97.6		P	80 - 120
Demeton	95.6		P	80 - 120
Diazinon	112		P	80 - 120
Difenoconazole	94.4		P	80 - 120
Dimethenamid	93.2		P	80 - 120
Dimethomorph	105		P	80 - 120
Disulfoton	95.7		P	80 - 120
Dithiopyr	86.9		P	80 - 120
EPTC	96.9		P	80 - 120
Ethion	110		P	80 - 120
Ethoprop	108		P	80 - 120
Etridiazole	98.4		P	80 - 120
Fenamiphos	103		P	80 - 120
Fenbuconazole	83.9		P	80 - 120
Fipronil	106		P	80 - 120
Fipronil Desulfinyl	93.1		P	80 - 120
Fipronil Sulfide	101		P	80 - 120
Fipronil Sulfone	82.6		P	80 - 120
Fluazifop-P-butyl	85.1		P	80 - 120
Fludioxonil	89.9		P	80 - 120
Flumioxazin	102		P	80 - 120
Flutolanil	97.9		P	80 - 120
Fluxapyroxad	85.9		P	80 - 120
Fonofos	110		P	80 - 120
Hexazinone	103		P	80 - 120
Imazalil	115		P	80 - 120
Iprodione	118		P	80 - 120
Loratadine	87.7		P	80 - 120
Malathion	96.9		P	80 - 120
Metalaxyl	93.7		P	80 - 120
Metolachlor	93.9		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	105		P	80 - 120
Myclobutanil	98.3		P	80 - 120
Naled	92.4		P	80 - 120
Napropamide	93.8		P	80 - 120
Oxadiazon	116		P	80 - 120
Oxyfluorfen	107		P	80 - 120
Parathion Ethyl	98.2		P	80 - 120
Parathion Methyl	93.4		P	80 - 120
Pendimethalin	106		P	80 - 120
Phenytoin	107		P	80 - 120
Phorate	91.6		P	80 - 120
Prodiamine	96.4		P	80 - 120
Prometon	98.5		P	80 - 120
Prometryn	94.1		P	80 - 120
Pronamide	90.6		P	80 - 120
Propanil	90.8		P	80 - 120
Propargite	117		P	80 - 120
Propiconazole	88.6		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A116647
Included Lab Sample IDs: 2374549, 2374550

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraflufen Ethyl	107		P	80 - 120
Pyridaben	77.1*		F	80 - 120
Pyriproxyfen	92.1		P	80 - 120
Simazine	100		P	80 - 120
Stirophos	96.0		P	80 - 120
Sulfentrazone	92.8		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	105		P	80 - 120
Terbuthylazine	101		P	80 - 120
Thiobencarb	87.9		P	80 - 120
Triadimefon	106		P	80 - 120

Reference Method: EPA 8270E
Run ID: A116664
Included Lab Sample IDs: 2374549, 2374550

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromacil	95.7		P	80 - 120
Norflurazon	110		P	80 - 120

* 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)	101				0.912	
EPA 180.1 Rev. 2.0	Turbidity	100				3.14	
EPA 200.7 Rev. 4.4	Calcium	96.4	108	103			3.24
	Iron	99.3	109	106			2.30
	Magnesium	95.6	105	101			2.74
	Potassium	90.8	101	98.8			2.08
	Sodium	92.5	105				3.26
	Strontium	94.6	106	103			2.92
	Tin	91.7	104	103			0.827
	Titanium	92.8	108	105			2.54
	Vanadium	91.4	106	104			2.00
	Zinc	89.7	105	103			1.17
EPA 200.8 Rev. 5.4	Aluminum	101	105	104			0.920
	Antimony	96.1	98.6	98.9			0.302
	Arsenic	104	106	104			2.00
	Barium	100	103	102			0.370
	Beryllium	97.3	95.5	96.5			0.996
	Boron	103	110	110			0.307
	Cadmium	101	102	103			1.35
	Chromium	95.3	99.1	98.7			0.432
	Cobalt	98.4	98.8	98.9			0.111
	Copper	100	104	104			0.188
	Lead	94.9	97.1	97.3			0.141
	Manganese	95.0	98.3	97.9			0.297
	Molybdenum	98.5	102	101			0.561
	Nickel	102	104	104			0.460
	Selenium	103	103	101			1.88
	Silver	101	105	105			0.291
	Thallium	95.2	98.3	99.4			1.12
EPA 300.0 Rev. 2.1	Chloride	98.5	99.1	96.0		0.182	
	Sulfate	97.9	99.7	94.7		0.227	
EPA 350.1 Rev. 2.0	Ammonia-N	96.4	99.2	102			2.30
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	108	106			0.758
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	95.2	95.8			0.381
EPA 365.1 Rev. 2.0	Total-P	101	105	104			1.06
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.1	97.2	98.4			1.05
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	85.2	109	90.8			18.1
	Acetochlor	117	114	119			4.80
	Alachlor	73.1	78.3	64.5			19.3
	Ametryn	59.9	68.1	84.3			21.2
	Atrazine	102	102	106			4.00
	Atrazine Desethyl	79.3	69.7	52.7			27.6
	Avobenzone	96.2	123	95.0			25.5
	Azinphos Methyl	172	114	121			5.32
	Azoxystrobin	109	111	125			11.8
	Bromacil	78.1	90.3	86.6			4.14
	Butylate	54.0	59.5	64.0			7.32
	Caffeine	74.5	71.1	109			40.8
	Carbophenothion	99.7	66.4	64.9			2.16
	Carfentrazone Ethyl	161	108	128			16.5
	Chlorfenapyr	64.2	51.7	53.1			2.67
	Chlorpyrifos Ethyl	95.1	112	117			3.78

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Chlorpyrifos Methyl	86.3	71.0	68.8			3.13
	Coumaphos	233	144	162			11.8
	Cyanazine	129	145	146			0.708
	Cyprodinil	70.9	64.9	58.1			11.0
	Dechlorane Plus	93.6	113	104			8.28
	Demeton	79.0	73.1	74.1			1.23
	Diazinon	93.2	88.5	78.7			11.8
	Difenoconazole	163	159	121			27.3
	Dimethenamid	62.9	66.4	58.4			12.8
	Dimethomorph	114	127	138			8.13
	Disulfoton	83.5	86.7	71.6			19.1
	Dithiopyr	98.2	89.8	105			15.6
	EPTC	62.9	40.2	50.3			22.3
	Ethion	38.4	38.2	48.7			24.0
	Ethoprop	90.2	107	99.6			7.60
	Etridiazole	47.1	43.5	41.9			3.84
	Fenamiphos	99.9	94.2	102			7.63
	Fenbuconazole	124	96.4	76.7			22.8
	Fipronil	95.1	109	122			10.7
	Fipronil Desulfinyl	96.4	72.6	77.3			6.27
	Fipronil Sulfide	85.1	79.2	107			29.9
	Fipronil Sulfone	102	71.3	81.6			13.5
	Fluazifop-P-butyl	122	67.9	82.3			19.1
	Fludioxonil	98.0	84.5	96.5			13.3
	Flumioxazin	229	172	196			13.0
	Flutolanil	110	102	117			13.8
	Fluxapyroxad	122	85.0	62.5			30.6
	Fonofos	85.6	82.3	79.2			3.88
	Hexazinone	93.6	104	97.5			4.72
	Imazalil	101	82.6	104			23.2
	Iprodione	394	263	297			12.1
	Loratadine	213	185	151			20.6
	Malathion	109	104	46.2			76.7
	Metalaxyl	91.7	88.7	108			19.3
	Metolachlor	69.8	66.2	54.7			19.0
	Metribuzin	91.8	105	112			6.43
	Mevinphos	75.4	113	95.6			16.9
	Molinate	78.3	82.1	89.1			8.21
	Myclobutanil	73.4	64.2	60.7			5.73
	Naled	119	134	115			15.3
	Napropamide	64.8	47.7	23.0			69.9
	Norflurazon	84.5	71.0	69.1			2.72
	Octinoxate	78.5	108	99.9			7.55
	Oxadiazon	98.5	80.2	106			24.2
	Oxybenzone	76.7	109	111			0.990
	Oxyfluorfen	81.4	68.0	76.1			11.2
	Parathion Ethyl	92.5	93.7	93.2			0.477
	Parathion Methyl	122	121	132			9.15
	PBDE-47	74.9	99.2	74.5			28.4
	PBDE-99	77.1	94.8	70.9			28.8
	Pendimethalin	85.9	117	136			15.1
	Phenytoin	52.5	71.6	58.2			20.6
	Phorate	80.6	73.6	93.8			24.1
	Prodiamine	63.9	74.1	103			32.3

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Prometon	76.4	70.0	68.8			1.70
	Prometryn	65.5	59.1	55.4			6.45
	Pronamide	81.8	80.0	73.4			8.71
	Propanil	104	110	126			14.1
	Propargite	192	167	152			9.23
	Propiconazole	107	92.4	113			20.0
	Pyraflufen Ethyl	58.2	54.4	68.6			23.1
	Pyridaben	96.8	114	113			0.687
	Pyriproxyfen	102	52.5	61.6			16.0
	Simazine	87.9	88.1	99.5			12.1
	Stirophos	88.0	73.7	99.3			29.6
	Sulfentrazone	93.1	126	106			15.2
	Tebuconazole	106	68.9	51.4			29.0
	Terbufos	94.0	96.2	94.8			1.43
	Terbuthylazine	104	89.1	96.4			7.82
	Thiobencarb	82.3	84.9	54.7			43.1
	Tri-o-cresyl Phosphate	81.8	103	94.1			8.96
	Triadimefon	82.3	109	98.7			10.3
EPA 8321B	2,4-D	77.3	82.5	83.5			1.19
	2,4,5-T	78.5	82.2	84.3			2.56
	Acesulfame K	97.0	65.5	58.1			11.8
	Acetaminophen	103	98.7	102			3.18
	Acetamiprid	81.2	87.4	85.4			2.25
	Afidopyropen	60.1	70.9	72.9			2.76
	AMPA	90.7	78.4	77.8			0.815
	Bentazon	102	88.8	96.2			6.09
	Benzovindiflupyr	92.9	85.5	84.3			1.41
	Carbamazepine	95.3	89.1	90.5			1.56
	Clothianidin	106	98.6	98.7			0.0828
	Dinotefuran	105	97.8	97.3			0.464
	Diuron	92.2	78.1	80.2			2.62
	Endothall	101	107	106			0.813
	Fenuron	112	102	99.8			2.23
	Fluridone	99.2	91.0	90.2			0.911
	Glufosinate	96.9	97.2	97.3			0.0448
	Glyphosate	96.7	97.3	103			5.56
	Hydrocodone	105	93.5	95.4			2.02
	Ibuprofen	66.5	68.8	67.1			2.57
	Imazapyr	89.6	91.3	87.5			4.20
	Imidacloprid	114	116	109			6.24
	Linuron	84.8	78.3	82.3			4.90
	Mandestrobin	94.8	88.4	84.1			4.93
	MCPP	90.0	95.7	93.6			2.28
	Naproxen	63.5	84.8	96.4			12.8
	Primidone	103	92.1	89.5			2.92
	Pyraclostrobin	89.5	63.3	76.6			19.1
	Silvex	78.9	80.0	84.4			5.31
	Sucralose	94.9	83.2	101			18.4
	Thiamethoxam	101	96.9	96.4			0.476
	Tolfenpyrad	42.6	37.6	47.7			23.9
	Triclopyr	90.0	91.5	88.0			3.96
SM 2320 B-2011	Total Alkalinity	97.6				1.30	
SM 2540 C-2015	TDS	96.7				5.39	
SM 2540 D-2015	TSS	101					

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
SM 4500-F- C-2011	Fluoride	101	98.1	97.5			0.472
SM 5310 B-2011	Organic Carbon	99.2	96.8	97.6			0.471

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2374534, 2374537
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2374534, 2374537
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2374547, 2374548
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2374547, 2374548
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2374534, 2374537
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2374534, 2374537
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2374535, 2374538
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2374535, 2374538
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2374535, 2374538
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2374535, 2374538
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2374536, 2374539
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2374549, 2374550
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2374549, 2374550
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2374545, 2374546
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2374534, 2374537
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2374547, 2374548
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2374534, 2374537
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2374534, 2374537
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2374534, 2374537
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2374535, 2374538

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	12/13/2022			12/13/2022 14:28	Alexis Price	2374534
	12/13/2022			12/13/2022 14:29	Alexis Price	2374537
EPA 180.1 Rev. 2.0	12/13/2022			12/13/2022 14:21	Chandler E Cox	2374534
	12/13/2022			12/13/2022 14:24	Chandler E Cox	2374537
EPA 200.7 Rev. 4.4	12/13/2022	12/14/2022 10:40	George D Taylor	12/16/2022 15:39	Betina Topolski	2374547
	12/13/2022	12/14/2022 10:40	George D Taylor	12/16/2022 15:48	Betina Topolski	2374548
EPA 200.8 Rev. 5.4	12/13/2022	12/14/2022 10:40	George D Taylor	12/15/2022 03:03	Emily M Philpot	2374547
	12/13/2022	12/14/2022 10:40	George D Taylor	12/15/2022 03:12	Emily M Philpot	2374548
EPA 300.0 Rev. 2.1	12/13/2022			12/17/2022 01:29	Anna M. Plaviak	2374534
	12/13/2022			12/17/2022 01:45	Anna M. Plaviak	2374537
EPA 350.1 Rev. 2.0	12/13/2022			12/20/2022 15:33	Judith K. Clark	2374535
	12/13/2022			12/20/2022 15:34	Judith K. Clark	2374538
EPA 351.2 Rev. 2.0	12/13/2022	12/14/2022 13:18	Simonne.V. Calhoun	12/15/2022 13:43	Samantha L Bates	2374535
	12/13/2022	12/14/2022 13:18	Simonne.V. Calhoun	12/15/2022 13:47	Samantha L Bates	2374538
EPA 353.2 Rev. 2.0	12/13/2022			12/14/2022 10:02	Beverly Y. Sanders	2374535
	12/13/2022			12/14/2022 10:08	Beverly Y. Sanders	2374538
EPA 365.1 Rev. 2.0	12/13/2022	12/14/2022 13:07	Adam P Silver	12/14/2022 16:13	James L Waggerby	2374535
	12/13/2022	12/14/2022 13:07	Adam P Silver	12/14/2022 16:14	James L Waggerby	2374538
EPA 365.1 Rev. 2.0 dissolved	12/13/2022			12/13/2022 14:50	Elise M. Gillis	2374536, 2374539
EPA 8270E	12/13/2022	12/13/2022 12:30	Fe-Val Siddell	12/16/2022 20:27	Arthur Maknenko	2374549
	12/13/2022	12/13/2022 12:30	Fe-Val Siddell	12/16/2022 20:52	Arthur Maknenko	2374550
	12/13/2022	12/13/2022 12:30	Fe-Val Siddell	12/17/2022 19:24	Michael Poppell	2374549
	12/13/2022	12/13/2022 12:30	Fe-Val Siddell	12/17/2022 19:53	Michael Poppell	2374550
	12/13/2022	12/13/2022 12:30	Fe-Val Siddell	12/26/2022 19:33	Michael Poppell	2374549
	12/13/2022	12/13/2022 12:30	Fe-Val Siddell	12/26/2022 19:59	Michael Poppell	2374549
	12/13/2022	12/13/2022 12:30	Fe-Val Siddell	12/26/2022 20:25	Michael Poppell	2374550
EPA 8321B	12/13/2022	12/13/2022 13:15	Manjita Shrestha	12/13/2022 15:31	Manjita Shrestha	2374545
	12/13/2022	12/13/2022 13:15	Manjita Shrestha	12/13/2022 16:01	Manjita Shrestha	2374546
	12/13/2022	12/13/2022 13:15	Manjita Shrestha	12/13/2022 23:59	Manjita Shrestha	2374545
	12/13/2022	12/13/2022 13:15	Manjita Shrestha	12/14/2022 00:25	Manjita Shrestha	2374546
	12/13/2022	12/14/2022 09:30	June Rhew	12/15/2022 07:33	Juyoung Kim	2374545
	12/13/2022	12/14/2022 09:30	June Rhew	12/15/2022 07:54	Juyoung Kim	2374546
	12/13/2022	12/14/2022 09:30	June Rhew	12/15/2022 15:01	Juyoung Kim	2374546
SM 2320 B-2011	12/13/2022			12/22/2022 07:46	Dale L. Simmons	2374534
	12/13/2022			12/22/2022 08:01	Dale L. Simmons	2374537
SM 2340 B-2011	12/13/2022			12/16/2022 15:39	Betina Topolski	2374547
	12/13/2022			12/16/2022 15:48	Betina Topolski	2374548
SM 2540 C-2015	12/13/2022			12/15/2022 16:01	Yijie Li	2374534, 2374537
SM 2540 D-2015	12/13/2022			12/15/2022 16:01	Yijie Li	2374534, 2374537
SM 4500-F- C-2011	12/13/2022			12/22/2022 07:46	Dale L. Simmons	2374534

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	12/13/2022			12/22/2022 08:01	Dale L. Simmons	2374537
SM 5310 B-2011	12/13/2022			12/16/2022 06:10	Khloe J Berg	2374535
	12/13/2022			12/16/2022 06:52	Khloe J Berg	2374538