

Chemical Analysis Report

SE-DIST-2022-10-25-01

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

Event Description: **Lake Clarke**
Request ID: **RQ-2022-10-24-27**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Jordan Skaggs

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Certified by: Colin Wright, Program Administrator

Date Certified: 16-NOV-2022 14:52

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light blue rectangular background.

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: C-51 @ Forest Hill Blvd.

Collection Date/Time: 10/24/2022 11:50

Field ID: G3SE0057

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364703	DEP SOP: NU-094-1	Color (true)	39		PCU	P421385	
	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P421381	
	EPA 300.0 Rev. 2.1	Chloride	67		mg Cl/L	P422162	
		Sulfate	29		mg SO4/L	P422166	
	SM 2320 B-2011	Total Alkalinity	207		mg CaCO3/L	P421549	
	SM 2540 C-2015	TDS	384		mg/L	P421907	
	SM 2540 D-2015	TSS	4	I	mg/L	P421850	
	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P421550	
2364704	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P421681	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P421639	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P421607	
	EPA 365.1 Rev. 2.0	Total-P	0.039		mg P/L	P421507	
	SM 5310 B-2011	Organic Carbon	11		mg C/L	P421635	

Ref. Method and Comment:

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

Sample Location: Lake Clarke East of Edgewater Circle

Collection Date/Time: 10/24/2022 11:30

Field ID: G3SE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364699	DEP SOP: NU-094-1	Color (true)	88		PCU	P421385	
	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P421381	
	EPA 300.0 Rev. 2.1	Chloride	35		mg Cl/L	P422162	
		Sulfate	16		mg SO4/L	P422166	
	SM 2320 B-2011	Total Alkalinity	146		mg CaCO3/L	P421549	
	SM 2540 C-2015	TDS	239		mg/L	P421907	
	SM 2540 D-2015	TSS	6	I	mg/L	P421850	
	SM 4500-F- C-2011	Fluoride	0.12		mg F/L	P421550	
2364701	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P421681	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P421638	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P421606	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P421507	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P421635	
2364713	EPA 8321B	Acesulfame K	0.14	I	ug/L	P421330	
		2,4-D	0.044		ug/L	P421444	
		AMPA	5.1		ug/L	P421330	
		2,4,5-T	0.0040	U	ug/L	P421444	
		Acetaminophen	0.0080	U	ug/L	P421444	
		Acetamiprid	0.0020	U	ug/L	P421444	
		Endothall	0.25	U	ug/L	P421330	MS
		Glufosinate	0.10	U	ug/L	P421330	
		Glyphosate	4.0		ug/L	P421330	
		Afidopyropen	0.0020	U	ug/L	P421444	
		Sucralose	0.82		ug/L	P421330	
		Bentazon	0.15		ug/L	P421444	
		Benzovindiflupyr	0.0020	U	ug/L	P421444	
		Carbamazepine	0.0035		ug/L	P421444	
		Clothianidin	0.0036	I	ug/L	P421444	
		Dinotefuran	0.026		ug/L	P421444	
		Diuron	0.036		ug/L	P421444	
		Fenuron	0.032	U	ug/L	P421444	
		Fluridone	0.067		ug/L	P421444	
		Imazapyr	0.24		ug/L	P421444	
		Hydrocodone	0.0020	U	ug/L	P421444	
		Ibuprofen	0.20	U	ug/L	P421444	
		Imidacloprid	0.080		ug/L	P421444	MS
		Linuron	0.0040	U	ug/L	P421444	
		Mandestrobin	0.0020	U	ug/L	P421444	
		MCPP	0.0040	U	ug/L	P421444	
		Naproxen	0.0080	U	ug/L	P421444	
		Primidone	0.0040	U	ug/L	P421444	
		Pyraclostrobin	0.0020	U	ug/L	P421444	
		Silvex	0.0040	U	ug/L	P421444	
		Thiamethoxam	0.0029	I	ug/L	P421444	

Field ID: G3SE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364713	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P421444	
		Triclopyr	0.0040	U	ug/L	P421444	
2364715	EPA 200.7 Rev. 4.4	Calcium	57.9		mg/L	P421431	
		Iron	60	I	ug/L	P421431	
		Magnesium	3.08		mg/L	P421431	
		Potassium	3.2		mg/L	P421431	
		Sodium	20.9		mg/L	P421431	
		Strontium	554		ug/L	P421431	
		Tin	4.4	I	ug/L	P421431	
		Titanium	0.87	I	ug/L	P421431	
		Vanadium	3.3	I	ug/L	P421431	
		Zinc	5.0	U	ug/L	P421431	
	EPA 200.8 Rev. 5.4	Aluminum	30		ug/L	P421431	
		Antimony	0.26		ug/L	P421431	
		Arsenic	2.22		ug/L	P421431	
		Barium	16.7		ug/L	P421431	
		Beryllium	0.010	U	ug/L	P421431	
		Boron	46.7		ug/L	P421431	
		Cadmium	0.020	U	ug/L	P421431	
		Chromium	0.52	I	ug/L	P421431	MS
		Cobalt	0.062	I	ug/L	P421431	
		Copper	1.46		ug/L	P421431	
		Lead	0.20	I	ug/L	P421431	
		Manganese	6.77		ug/L	P421431	
		Molybdenum	1.0		ug/L	P421431	
		Nickel	0.50	U	ug/L	P421431	
		Selenium	0.22	I	ug/L	P421431	
		Silver	0.010	U	ug/L	P421431	
		Thallium	0.10	U	ug/L	P421431	
	SM 2340 B-2011	Hardness	157		mg/L	P421431	
2364717	EPA 8270E	Oxybenzone**	9.6	U	ng/L	P421534	
		Acetochlor	0.24	U	ng/L	P421534	
		Octinoxate**	19	U	ng/L	P421534	
		Alachlor	0.24	U	ng/L	P421534	
		Avobenzone**	96	U	ng/L	P421534	
		Ametryn	1.4	I	ng/L	P421534	
		Atrazine	38		ng/L	P421534	
		PBDE-47**	3.8	U	ng/L	P421534	
		Atrazine Desethyl	5.8		ng/L	P421534	
		PBDE-99**	4.8	U	ng/L	P421534	
		Azinphos Methyl	1.9	U	ng/L	P421534	
		Tri-o-cresyl Phosphate**	5.8	U	ng/L	P421534	
		Azoxystrobin	1.0	I	ng/L	P421534	
		Bromacil	0.48	U	ng/L	P421534	

Field ID: G3SE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364717	EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)** Butylate	12	U	ng/L	P421534	
		Dechlorane Plus**	0.38	U	ng/L	P421534	
		Caffeine**	29	U	ng/L	P421534	
		Caffeine**	29	IQ	ng/L	P422093	
		Carbophenothion	0.39	I	ng/L	P421534	
		Carfentrazone Ethyl	0.096	U	ng/L	P421534	
		Chlorfenapyr	0.22	I	ng/L	P421534	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P421534	
		Chlorpyrifos Methyl	0.048	U	ng/L	P421534	
		Coumaphos	0.51	I	ng/L	P421534	
		Cyanazine	3.1	U	ng/L	P421534	
		Cyprodinil	0.096	U	ng/L	P421534	
		Demeton	1.4	U	ng/L	P421534	
		Diazinon	0.12	U	ng/L	P421534	MS
		Difenoconazole	0.58	U	ng/L	P421534	
		Dimethenamid	0.27	I	ng/L	P421534	
		Dimethomorph	0.17	U	ng/L	P421534	
		Disulfoton	0.48	U	ng/L	P421534	
		Dithiopyr	0.60	U	ng/L	P421534	
		EPTC	1.2	U	ng/L	P421534	
		Ethion	0.14	U	ng/L	P421534	
		Ethoprop	0.096	U	ng/L	P421534	
		Etridiazole	0.14	U	ng/L	P421534	
		Fenamiphos	0.48	U	ng/L	P421534	
		Fenbuconazole	0.32	I	ng/L	P421534	
		Fipronil	0.55	I	ng/L	P421534	
		Fipronil Desulfinyl**	0.53	J	ng/L	P421534	CCV
		Fipronil Sulfide	0.63		ng/L	P421534	
		Fipronil Sulfone	1.0		ng/L	P421534	
		Fluazifop-P-butyl	0.096	U	ng/L	P421534	
		Fludioxonil	0.12	U	ng/L	P421534	
		Flumioxazin	4.3	U	ng/L	P421534	
		Flutolanil	0.59		ng/L	P421534	
		Fluxapyroxad	0.096	U	ng/L	P421534	
		Fonofos	0.19	U	ng/L	P421534	
		Hexazinone	1.7	I	ng/L	P421534	
		Imazalil	0.72	U	ng/L	P421534	
		Iprodione	0.58	U	ng/L	P421534	RPD
		Loratadine**	0.35	I	ng/L	P421534	
		Malathion	0.34	U	ng/L	P421534	
		Metalaxyl	0.72	U	ng/L	P421534	
		Metolachlor	12		ng/L	P421534	
		Metribuzin	1.4	U	ng/L	P421534	
		Mevinphos	1.0	U	ng/L	P421534	

Field ID: G3SE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364717	EPA 8270E	Molinate	0.29	U	ng/L	P421534	
		Myclobutanil	0.37	I	ng/L	P421534	
		Naled	1.4	U	ng/L	P421534	
		Napropamide	0.38	U	ng/L	P421534	
		Norflurazon	0.48	U	ng/L	P421534	
		Oxadiazon	7.4		ng/L	P421534	
		Oxyfluorfen	0.14	U	ng/L	P421534	
		Parathion Ethyl	0.24	U	ng/L	P421534	
		Parathion Methyl	0.53	U	ng/L	P421534	
		Pendimethalin	0.96	U	ng/L	P421534	
		Phenytol**	3.4	U	ng/L	P421534	
		Phorate	0.50	U	ng/L	P421534	
		Prodiamine	0.17	U	ng/L	P421534	
		Prometon	0.86	U	ng/L	P421534	
		Prometryn	0.19	U	ng/L	P421534	
		Pronamide	0.14	U	ng/L	P421534	
		Propanil	0.12	U	ng/L	P421534	
		Propargite	1.4	U	ng/L	P421534	
		Propiconazole	2.0		ng/L	P421534	
		Pyraflufen Ethyl	0.24	U	ng/L	P421534	
		Pyridaben	0.78	I	ng/L	P421534	
		Pyriproxyfen	0.12	U	ng/L	P421534	
		Simazine	0.48	U	ng/L	P421534	
		Stirophos	0.12	U	ng/L	P421534	
		Sulfentrazone	24		ng/L	P421534	
		Tebuconazole	2.4		ng/L	P421534	
		Terbufos	0.096	U	ng/L	P421534	
		Terbutylazine	0.41	U	ng/L	P421534	
		Thiobencarb	0.58	U	ng/L	P421534	
		Triadimefon	0.24	U	ng/L	P421534	

Ref. Method and Comment:

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

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

EPA 8270E: MS accuracy for sulfentrazone not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes. Sample expired for preparation for caffeine due to need for re-extraction.

Sample Location: Lake Clarke East of Wagner Circle

Collection Date/Time: 10/24/2022 11:10

Field ID: G3SE0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364700	DEP SOP: NU-094-1	Color (true)	46	A	PCU	P421385	
	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P421381	
	EPA 300.0 Rev. 2.1	Chloride	36		mg Cl/L	P422162	
		Sulfate	17		mg SO4/L	P422166	
	SM 2320 B-2011	Total Alkalinity	143		mg CaCO3/L	P421549	
	SM 2540 C-2015	TDS	245		mg/L	P421907	
	SM 2540 D-2015	TSS	7	I	mg/L	P421850	
	SM 4500-F- C-2011	Fluoride	0.12		mg F/L	P421550	
2364702	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P421681	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P421638	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.010		mg N/L	P421606	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P421507	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P421635	
2364714	EPA 8321B	Acesulfame K	0.15	I	ug/L	P421330	
		2,4-D	0.061		ug/L	P421444	
		AMPA	3.3		ug/L	P421330	
		2,4,5-T	0.0040	U	ug/L	P421444	
		Acetaminophen	0.0080	U	ug/L	P421444	
		Acetamiprid	0.0020	U	ug/L	P421444	
		Endothall	0.25	U	ug/L	P421330	MS
		Glufosinate	0.10	U	ug/L	P421330	
		Glyphosate	4.1		ug/L	P421330	
		Afidopyropen	0.0020	U	ug/L	P421444	
		Sucralose	0.88		ug/L	P421330	
		Bentazon	0.16		ug/L	P421444	
		Benzovindiflupyr	0.0020	U	ug/L	P421444	
		Carbamazepine	0.0026	I	ug/L	P421444	
		Clothianidin	0.0046	I	ug/L	P421444	
		Dinotefuran	0.030		ug/L	P421444	
		Diuron	0.028		ug/L	P421444	
		Fenuron	0.032	U	ug/L	P421444	
		Fluridone	0.065		ug/L	P421444	
		Imazapyr	0.20		ug/L	P421444	
		Hydrocodone	0.0020	U	ug/L	P421444	
		Ibuprofen	0.20	U	ug/L	P421444	
		Imidacloprid	0.070		ug/L	P421444	MS
		Linuron	0.0040	U	ug/L	P421444	
		Mandestrobin	0.0020	U	ug/L	P421444	
		MCP	0.0040	U	ug/L	P421444	
		Naproxen	0.0080	U	ug/L	P421444	
		Primidone	0.0040	U	ug/L	P421444	
		Pyraclostrobin	0.0020	U	ug/L	P421444	
		Silvex	0.0040	U	ug/L	P421444	
		Thiamethoxam	0.0030	I	ug/L	P421444	

Field ID: G3SE0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364714	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P421444	
		Triclopyr	0.0040	U	ug/L	P421444	
2364716	EPA 200.7 Rev. 4.4	Calcium	54.6		mg/L	P421431	
		Iron	57	I	ug/L	P421431	
		Magnesium	3.08		mg/L	P421431	
		Potassium	3.4		mg/L	P421431	
		Sodium	20.3		mg/L	P421431	
		Strontium	531		ug/L	P421431	
		Tin	3.3	I	ug/L	P421431	
		Titanium	0.97	I	ug/L	P421431	
		Vanadium	3.1	I	ug/L	P421431	
		Zinc	5.0	U	ug/L	P421431	
	EPA 200.8 Rev. 5.4	Aluminum	29		ug/L	P421431	
		Antimony	0.23		ug/L	P421431	
		Arsenic	2.28		ug/L	P421431	
		Barium	15.7		ug/L	P421431	
		Beryllium	0.010	U	ug/L	P421431	
		Boron	46.8		ug/L	P421431	
		Cadmium	0.020	U	ug/L	P421431	
		Chromium	0.55	I	ug/L	P421431	MS
		Cobalt	0.059	I	ug/L	P421431	
		Copper	1.51		ug/L	P421431	
		Lead	0.20	U	ug/L	P421431	
		Manganese	5.92		ug/L	P421431	
		Molybdenum	0.95		ug/L	P421431	
		Nickel	0.50	U	ug/L	P421431	
		Selenium	0.26	I	ug/L	P421431	
		Silver	0.010	U	ug/L	P421431	
		Thallium	0.10	U	ug/L	P421431	
	SM 2340 B-2011	Hardness	149		mg/L	P421431	
2364718	EPA 8270E	Oxybenzone**	9.9	U	ng/L	P421534	
		Acetochlor	0.25	U	ng/L	P421534	
		Octinoxate**	20	U	ng/L	P421534	
		Alachlor	0.25	U	ng/L	P421534	
		Avobenzone**	99	U	ng/L	P421534	
		Ametryn	1.5	I	ng/L	P421534	
		Atrazine	36		ng/L	P421534	
		PBDE-47**	3.9	U	ng/L	P421534	
		Atrazine Desethyl	8.0		ng/L	P421534	
		PBDE-99**	4.9	U	ng/L	P421534	
		Azinphos Methyl	2.0	U	ng/L	P421534	
		Tri-o-cresyl Phosphate**	5.9	U	ng/L	P421534	
		Azoxystrobin	1.3	I	ng/L	P421534	
		Bromacil	0.55	I	ng/L	P421534	

Field ID: G3SE0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364718	EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P421534	
		Butylate	0.39	U	ng/L	P421534	
		Dechlorane Plus**	30	U	ng/L	P421534	
		Caffeine**	28	IQ	ng/L	P422093	
		Carbophenothion	0.33	I	ng/L	P421534	
		Carfentrazone Ethyl	0.099	U	ng/L	P421534	
		Chlorfenapyr	0.17	U	ng/L	P421534	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P421534	
		Chlorpyrifos Methyl	0.049	U	ng/L	P421534	
		Coumaphos	0.49	U	ng/L	P421534	
		Cyanazine	3.2	U	ng/L	P421534	
		Cyprodinil	0.099	U	ng/L	P421534	
		Demeton	1.5	U	ng/L	P421534	
		Diazinon	0.12	U	ng/L	P421534	MS
		Difenoconazole	0.59	U	ng/L	P421534	
		Dimethenamid	0.29	I	ng/L	P421534	
		Dimethomorph	0.17	U	ng/L	P421534	
		Disulfoton	0.49	U	ng/L	P421534	
		Dithiopyr	0.62	U	ng/L	P421534	
		EPTC	1.2	U	ng/L	P421534	
		Ethion	0.15	U	ng/L	P421534	
		Ethoprop	0.099	U	ng/L	P421534	
		Etridiazole	0.15	U	ng/L	P421534	
		Fenamiphos	0.49	U	ng/L	P421534	
		Fenbuconazole	0.24	I	ng/L	P421534	
		Fipronil	0.53	I	ng/L	P421534	
		Fipronil Desulfinyl**	0.65	J	ng/L	P421534	CCV
		Fipronil Sulfide	0.68		ng/L	P421534	
		Fipronil Sulfone	0.99		ng/L	P421534	
		Fluazifop-P-butyl	0.099	U	ng/L	P421534	
		Fludioxonil	0.12	U	ng/L	P421534	
		Flumioxazin	4.4	U	ng/L	P421534	
		Flutolanil	0.78		ng/L	P421534	
		Fluxapyroxad	0.099	U	ng/L	P421534	
		Fonofos	0.20	U	ng/L	P421534	
		Hexazinone	1.5	I	ng/L	P421534	
		Imazalil	0.74	U	ng/L	P421534	
		Iprodione	0.59	U	ng/L	P421534	RPD
		Loratadine**	0.34	U	ng/L	P421534	
		Malathion	0.34	U	ng/L	P421534	
		Metalaxyl	0.74	U	ng/L	P421534	
		Metolachlor	12		ng/L	P421534	
		Metribuzin	1.5	U	ng/L	P421534	
		Mevinphos	1.0	U	ng/L	P421534	

Field ID: G3SE0066

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364718	EPA 8270E	Molinate	0.30	U	ng/L	P421534	
		Myclobutanil	0.33	I	ng/L	P421534	
		Naled	1.5	U	ng/L	P421534	
		Napropamide	0.39	U	ng/L	P421534	
		Norflurazon	0.49	U	ng/L	P421534	
		Oxadiazon	7.3		ng/L	P421534	
		Oxyfluorfen	0.15	U	ng/L	P421534	
		Parathion Ethyl	0.25	U	ng/L	P421534	
		Parathion Methyl	0.54	U	ng/L	P421534	
		Pendimethalin	0.99	U	ng/L	P421534	
		Phenytol**	3.4	U	ng/L	P421534	
		Phorate	0.52	U	ng/L	P421534	
		Prodiamine	0.17	U	ng/L	P421534	
		Prometon	0.89	U	ng/L	P421534	
		Prometryn	0.20	U	ng/L	P421534	
		Pronamide	0.15	U	ng/L	P421534	
		Propanil	0.12	U	ng/L	P421534	
		Propargite	1.5	U	ng/L	P421534	
		Propiconazole	1.9	I	ng/L	P421534	
		Pyraflufen Ethyl	0.25	U	ng/L	P421534	
		Pyridaben	0.66	I	ng/L	P421534	
		Pyriproxyfen	0.14	I	ng/L	P421534	
		Simazine	0.49	U	ng/L	P421534	
		Stirophos	0.12	U	ng/L	P421534	
		Sulfentrazone	37		ng/L	P421534	
		Tebuconazole	2.4		ng/L	P421534	
		Terbufos	0.099	U	ng/L	P421534	
		Terbutylazine	0.42	U	ng/L	P421534	
		Thiobencarb	0.59	U	ng/L	P421534	
		Triadimefon	0.25	U	ng/L	P421534	

Ref. Method and Comment:

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

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

EPA 8270E: MS accuracy for sulfentrazone not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes. Sample expired for preparation for caffeine due to need for re-extraction.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P421385

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P421381

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P421431

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: P421431

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: P422162

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: P422166

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421681

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421638

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421639

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421606

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421607

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421507

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

Reference Method: EPA 8270E
Batch ID: P421534

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: P421534

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P421534

Component	Result	Code	Units
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
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P421534

Component	Result	Code	Units
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiatone	0.18	U	ng/L
Prodiatone	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P421534

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

Reference Method: EPA 8270E

Batch ID: P422093

Component	Result	Code	Units
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L

Reference Method: EPA 8321B

Batch ID: P421330

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: P421444

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P421444

Component	Result	Code	Units
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: P421549

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

Reference Method: SM 2540 C-2015
Batch ID: P421907

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P421850

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P421550

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P421635

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: P421385

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	91.9		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P421381

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	99.5		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P421431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	90.8		P	85 - 115
Iron	103		P	85 - 115
Magnesium	103		P	85 - 115
Potassium	97.9		P	85 - 115
Sodium	88.9		P	85 - 115
Strontium	102		P	85 - 115
Tin	97.9		P	85 - 115
Titanium	97.2		P	85 - 115
Vanadium	97.1		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P421431

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	104		P	85 - 115
Barium	104		P	85 - 115
Beryllium	94.6		P	85 - 115
Boron	107		P	85 - 115
Cadmium	98.4		P	85 - 115
Chromium	98.9		P	85 - 115
Cobalt	100		P	85 - 115
Copper	99.2		P	85 - 115
Lead	95.4		P	85 - 115
Manganese	99.6		P	85 - 115
Molybdenum	98.4		P	85 - 115
Nickel	99.5		P	85 - 115
Selenium	99.2		P	85 - 115
Silver	101		P	85 - 115
Thallium	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P422162

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.2		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P422166

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P421681

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P421638

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P421639

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P421606

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P421607

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P421507

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

Reference Method: EPA 8270E

Batch ID: P421534

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	76.0		P	42 - 162
Acetochlor	87.7		P	69 - 123
Alachlor	80.8		P	65 - 118
Ametryn	103		P	58 - 141
Atrazine	94.7		P	73 - 118
Atrazine Desethyl	63.5		P	32 - 125
Avobenzone	88.2		P	40 - 203
Azinphos Methyl	135		P	36 - 197
Azoxystrobin	74.7		P	58 - 226
Bromacil	105		P	48 - 120

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P421534

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Butylate	54.6		P	27 - 85.0
Carbophenothion	129		P	54 - 132
Carfentrazone Ethyl	102		P	60 - 142
Chlorfenapyr	101		P	53 - 117
Chlorpyrifos Ethyl	73.9		P	59 - 116
Chlorpyrifos Methyl	82.6		P	66 - 119
Coumaphos	143		P	11 - 234
Cyanazine	184		P	61 - 248
Cyprodinil	96.6		P	50 - 147
Dechlorane Plus	82.1		P	47 - 182
Demeton	71.2		P	30 - 138
Diazinon	72.9		P	67 - 126
Difenoconazole	205		P	38 - 205
Dimethenamid	60.4		P	57 - 111
Dimethomorph	175		P	16 - 212
Disulfoton	91.2		P	46 - 126
Dithiopyr	86.0		P	62 - 115
EPTC	47.3		P	28 - 80.0
Ethion	76.0		P	24 - 122
Ethoprop	81.1		P	62 - 113
Etridiazole	66.0		P	28 - 92.0
Fenamiphos	75.4		P	57 - 128
Fenbuconazole	143		P	52 - 155
Fipronil	100		P	63 - 130
Fipronil Desulfinyl	102		P	61 - 130
Fipronil Sulfide	93.1		P	56 - 117
Fipronil Sulfone	88.1		P	52 - 118
Fluazifop-P-butyl	81.3		P	61 - 128
Fludioxonil	80.9		P	59 - 129
Flumioxazin	192		P	30 - 250
Flutolanil	73.5		P	53 - 127
Fluxapyroxad	92.8		P	42 - 132
Fonofos	70.0		P	61 - 110
Hexazinone	86.8		P	46 - 139
Imazalil	97.8		P	40 - 139
Iprodione	114		P	40 - 146
Loratadine	149		P	10 - 224
Malathion	93.1		P	61 - 135
Metalaxyl	98.4		P	58 - 121
Metolachlor	99.5		P	64 - 118
Metribuzin	88.0		P	45 - 245
Mevinphos	90.4		P	49 - 118
Molinate	58.2		P	42 - 92.0
Myclobutanil	78.3		P	55 - 127
Naled	78.0		P	10 - 114
Napropamide	75.4		P	39 - 121
Norflurazon	77.0		P	55 - 129
Octinoxate	66.1		P	26 - 166
Oxadiazon	87.4		P	54 - 115
Oxybenzone	52.8		P	49 - 135
Oxyfluorfen	120		P	64 - 139
Parathion Ethyl	91.8		P	70 - 111

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P421534

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Parathion Methyl	121		P	76 - 136
PBDE-47	73.0		P	41 - 148
PBDE-99	70.0		P	38 - 147
Pendimethalin	74.7		P	52 - 118
Phenytoin	107		P	10 - 162
Phorate	64.4		P	40 - 122
Prodiamine	34.4		P	26 - 141
Prometon	119		P	54 - 122
Prometryn	91.8		P	61 - 128
Pronamide	104		P	72 - 121
Propanil	115		P	45 - 144
Propargite	188		P	10 - 199
Propiconazole	99.5		P	56 - 127
Pyraflufen Ethyl	80.8		P	56 - 140
Pyridaben	151		P	26 - 211
Pyriproxyfen	188		P	33 - 194
Simazine	112		P	67 - 121
Stirophos	60.3		P	20 - 142
Sulfentrazone	106		P	21 - 144
Tebuconazole	112		P	10 - 122
Terbufos	74.7		P	60 - 129
Terbutylazine	88.4		P	69 - 113
Thiobencarb	101		P	51 - 120
Tri-o-cresyl Phosphate	59.1		P	49 - 150
Triadimefon	111		P	56 - 114

Reference Method: EPA 8270E

Batch ID: P422093

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Caffeine	94.6		P	40 - 137

Reference Method: EPA 8321B

Batch ID: P421330

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.9		P	40 - 150
AMPA	103		P	40 - 150
Endothall	95.0		P	40 - 150
Glufosinate	92.1		P	40 - 150
Glyphosate	94.6		P	40 - 150
Sucralose	92.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P421444

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.5		P	40 - 150
2,4,5-T	76.4		P	40 - 150
Acetaminophen	99.2		P	30 - 150
Acetamiprid	71.9		P	40 - 150
Afidopyropen	53.5		P	30 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P421444

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bentazon	104		P	30 - 150
Benzovindiflupyr	86.0		P	40 - 150
Carbamazepine	94.2		P	40 - 150
Clothianidin	92.6		P	40 - 150
Dinotefuran	115		P	40 - 150
Diuron	85.5		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	99.1		P	40 - 150
Hydrocodone	102		P	40 - 150
Ibuprofen	80.3		P	40 - 150
Imazapyr	96.6		P	40 - 150
Imidacloprid	101		P	40 - 150
Linuron	81.1		P	40 - 150
Mandestrobin	89.4		P	40 - 150
MCPP	99.6		P	40 - 150
Naproxen	61.8		P	40 - 150
Primidone	89.1		P	40 - 150
Pyraclostrobin	75.5		P	40 - 150
Silvex	69.7		P	40 - 150
Thiamethoxam	99.0		P	40 - 150
Tolfenpyrad	38.0		P	30 - 150
Triclopyr	68.8		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P421549

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.9		P	94 - 106

Reference Method: SM 2540 C-2015

Batch ID: P421907

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.4		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P421850

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	94.0		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P421550

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.1		P	96 - 104

Reference Method: SM 5310 B-2011

Batch ID: P421635

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P421431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364053	Calcium	99.2		P	80 - 120
2364053	Iron	104	115	P/P	80 - 120
2364053	Magnesium	104	104	P/P	80 - 120
2364053	Potassium	97.0	95.8	P/P	80 - 120
2364053	Sodium	96.0		P	80 - 120
2364053	Strontium	99.9	101	P/P	80 - 120
2364053	Tin	99.8	96.4	P/P	80 - 120
2364053	Titanium	100	96.6	P/P	80 - 120
2364053	Vanadium	101	96.2	P/P	80 - 120
2364053	Zinc	100	95.9	P/P	80 - 120
2364475	Calcium	99.4		P	80 - 120
2364475	Iron	97.6		P	80 - 120
2364475	Magnesium	97.1		P	80 - 120
2364475	Potassium	96.5		P	80 - 120
2364475	Sodium	95.5		P	80 - 120
2364475	Strontium	101		P	80 - 120
2364475	Tin	96.6		P	80 - 120
2364475	Titanium	92.9		P	80 - 120
2364475	Vanadium	97.4		P	80 - 120
2364475	Zinc	94.7		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P421431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364053	Aluminum	102	99.5	P/P	80 - 120
2364053	Antimony	105	104	P/P	80 - 120
2364053	Arsenic	105	104	P/P	80 - 120
2364053	Barium	106	105	P/P	80 - 120
2364053	Beryllium	95.1	94.7	P/P	80 - 120
2364053	Boron	108	106	P/P	80 - 120
2364053	Cadmium	103	100	P/P	80 - 120
2364053	Chromium	81.2	80.0	P/F	80 - 120
2364053	Cobalt	101	99.7	P/P	80 - 120
2364053	Copper	103	103	P/P	80 - 120
2364053	Lead	96.7	94.6	P/P	80 - 120
2364053	Manganese	101	98.4	P/P	80 - 120
2364053	Molybdenum	95.6	93.5	P/P	80 - 120
2364053	Nickel	86.2	86.3	P/P	80 - 120
2364053	Selenium	101	98.5	P/P	80 - 120
2364053	Silver	101	99.7	P/P	80 - 120
2364053	Thallium	101	100	P/P	80 - 120
2364475	Aluminum	100		P	80 - 120
2364475	Antimony	106		P	80 - 120
2364475	Arsenic	104		P	80 - 120
2364475	Barium	105		P	80 - 120
2364475	Beryllium	97.9		P	80 - 120
2364475	Boron	107		P	80 - 120
2364475	Cadmium	105		P	80 - 120
2364475	Chromium	101		P	80 - 120
2364475	Cobalt	101		P	80 - 120
2364475	Copper	103		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P421431

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364475	Lead	97.3		P	80 - 120
2364475	Manganese	100		P	80 - 120
2364475	Molybdenum	101		P	80 - 120
2364475	Nickel	101		P	80 - 120
2364475	Selenium	99.3		P	80 - 120
2364475	Silver	103		P	80 - 120
2364475	Thallium	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P422162

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364434	Chloride	97.7		P	90 - 110
2364737	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P422166

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364434	Sulfate	100		P	90 - 110
2364737	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2365669	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421638

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364726	Kjeldahl Nitrogen	99.3	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364735	Kjeldahl Nitrogen	100	90.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421606

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364589	NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421607

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364704	NO2NO3-N	100	100	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421507

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364704	Total-P	108	107	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P421534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364828	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	71.7	78.9	P/P	26 - 165
2364828	Acetochlor	69.9	71.1	P/P	67 - 124
2364828	Alachlor	65.5	63.1	P/P	60 - 120
2364828	Ametryn	76.2	71.2	P/P	54 - 216
2364828	Atrazine	103	101	P/P	66 - 128
2364828	Atrazine Desethyl	60.0	53.4	P/P	15 - 122
2364828	Avobenzone	85.6	94.1	P/P	37 - 178
2364828	Azinphos Methyl	147	117	P/P	40 - 292
2364828	Azoxystrobin	81.4	81.9	P/P	35 - 220
2364828	Bromacil	99.5	86.9	P/P	45 - 127
2364828	Butylate	53.5	34.7	P/P	20 - 83.0
2364828	Carbophenothion	97.3	98.8	P/P	57 - 127
2364828	Carfentrazone Ethyl	91.5	86.3	P/P	51 - 141
2364828	Chlorfenapyr	99.6	89.4	P/P	46 - 111
2364828	Chlorpyrifos Ethyl	61.1	53.6	P/P	52 - 120
2364828	Chlorpyrifos Methyl	63.3	66.1	P/P	63 - 119
2364828	Coumaphos	126	115	P/P	10 - 228
2364828	Cyanazine	177	161	P/P	59 - 241
2364828	Cyprodinil	86.7	81.6	P/P	47 - 146
2364828	Dechlorane Plus	68.4	81.2	P/P	50 - 150
2364828	Demeton	64.5	69.9	P/P	40 - 136
2364828	Diazinon	71.3	61.3	P/F	69 - 132
2364828	Difenoconazole	178	179	P/P	57 - 258
2364828	Dimethenamid	65.1	57.1	P/P	54 - 110
2364828	Dimethomorph	146	185	P/P	28 - 210
2364828	Disulfoton	80.6	72.9	P/P	43 - 133
2364828	Dithiopyr	84.7	77.6	P/P	39 - 116
2364828	EPTC	47.6	47.3	P/P	20 - 78.0
2364828	Ethion	71.6	67.1	P/P	17 - 119
2364828	Ethoprop	82.1	78.7	P/P	66 - 120
2364828	Etridiazole	74.9	62.0	P/P	28 - 96.0
2364828	Fenamiphos	79.5	64.1	P/P	41 - 126
2364828	Fenbuconazole	141	111	P/P	42 - 169
2364828	Fipronil	128	127	P/P	61 - 132
2364828	Fipronil Desulfinyl	92.3	83.9	P/P	56 - 132
2364828	Fipronil Sulfide	102	103	P/P	48 - 119
2364828	Fipronil Sulfone	111	127	P/P	42 - 131
2364828	Fluazifop-P-butyl	81.6	83.7	P/P	53 - 131
2364828	Fludioxonil	83.9	73.3	P/P	56 - 127
2364828	Flumioxazin	168	126	P/P	19 - 300
2364828	Flutolanil	80.3	62.6	P/P	41 - 127
2364828	Fluxapyroxad	92.8	89.3	P/P	42 - 172
2364828	Fonofos	70.6	59.2	P/P	59 - 113
2364828	Hexazinone	92.3	89.1	P/P	66 - 122
2364828	Imazalil	104	97.5	P/P	21 - 283
2364828	Iprodione	130	82.3	P/P	43 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P421534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364828	Loratadine	167	156	P/P	23 - 201
2364828	Malathion	102	84.3	P/P	58 - 136
2364828	Metalaxyl	96.8	82.6	P/P	55 - 120
2364828	Metolachlor	103	89.0	P/P	57 - 121
2364828	Metribuzin	97.3	101	P/P	58 - 294
2364828	Mevinphos	97.1	78.9	P/P	50 - 126
2364828	Molinate	75.1	68.0	P/P	42 - 93.0
2364828	Myclobutanil	87.5	74.8	P/P	55 - 125
2364828	Naled	89.1	72.6	P/P	18 - 200
2364828	Napropamide	96.8	75.0	P/P	39 - 110
2364828	Norflurazon	99.8	79.7	P/P	48 - 128
2364828	Octinoxate	60.3	69.1	P/P	21 - 159
2364828	Oxadiazon	92.5	72.0	P/P	43 - 112
2364828	Oxybenzone	48.2	60.1	P/P	41 - 142
2364828	Oxyfluorfen	136	130	P/P	64 - 153
2364828	Parathion Ethyl	92.2	91.2	P/P	69 - 114
2364828	Parathion Methyl	90.3	106	P/P	79 - 139
2364828	PBDE-47	70.2	77.6	P/P	27 - 144
2364828	PBDE-99	65.7	72.8	P/P	18 - 150
2364828	Pendimethalin	86.0	82.5	P/P	50 - 139
2364828	Phenytol	105	119	P/P	10 - 146
2364828	Phorate	60.4	60.8	P/P	54 - 161
2364828	Prodiamine	40.8	37.3	P/P	30 - 161
2364828	Prometon	123	134	P/P	45 - 134
2364828	Prometryn	82.7	76.3	P/P	45 - 137
2364828	Pronamide	93.8	99.2	P/P	65 - 133
2364828	Propanil	114	106	P/P	49 - 142
2364828	Propargite	190	151	P/P	10 - 203
2364828	Propiconazole	101	60.4	P/P	38 - 146
2364828	Pyraflufen Ethyl	88.4	69.1	P/P	34 - 153
2364828	Pyridaben	150	157	P/P	12 - 192
2364828	Pyriproxyfen	100	103	P/P	33 - 180
2364828	Simazine	89.2	94.4	P/P	51 - 157
2364828	Stirophos	87.3	87.3	P/P	10 - 128
2364828	Tebuconazole	109	94.2	P/P	10 - 133
2364828	Terbufos	83.2	74.5	P/P	65 - 139
2364828	Terbuthylazine	103	82.9	P/P	66 - 117
2364828	Thiobencarb	106	95.7	P/P	51 - 119
2364828	Tri-o-cresyl Phosphate	59.1	62.3	P/P	31 - 144
2364828	Triadimefon	111	97.3	P/P	48 - 119

Reference Method: EPA 8270E
Batch ID: P422093

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2368154	Caffeine	87.7	95.3	P/P	10 - 194

Reference Method: EPA 8321B
Batch ID: P421330

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364287	Acesulfame K	98.5	79.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P421330

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364287	AMPA	55.5	61.8	P/P	40 - 150
2364287	Endothall	171	172	F/F	40 - 150
2364287	Glufosinate	70.4	70.0	P/P	40 - 150
2364287	Sucralose	80.1	84.6	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P421444

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2365599	2,4-D	111	117	P/P	40 - 150
2365599	2,4,5-T	87.3	79.5	P/P	40 - 150
2365599	Acetaminophen	120	118	P/P	30 - 150
2365599	Acetamiprid	85.0	101	P/P	40 - 150
2365599	Afidopyropen	76.2	84.1	P/P	30 - 150
2365599	Bentazon	93.0	84.9	P/P	30 - 150
2365599	Benzovindiflupyr	86.6	90.8	P/P	40 - 150
2365599	Carbamazepine	91.7	95.6	P/P	40 - 150
2365599	Clothianidin	124	118	P/P	40 - 150
2365599	Dinotefuran	145	144	P/P	40 - 150
2365599	Diuron	79.3	73.2	P/P	40 - 150
2365599	Fenuron	105	104	P/P	40 - 150
2365599	Fluridone	101	99.8	P/P	40 - 150
2365599	Hydrocodone	123	124	P/P	40 - 150
2365599	Ibuprofen	95.5	89.8	P/P	40 - 150
2365599	Imazapyr	134	122	P/P	40 - 150
2365599	Imidacloprid	156	148	F/P	40 - 150
2365599	Linuron	85.0	78.1	P/P	40 - 150
2365599	Mandestrobin	88.3	89.6	P/P	40 - 150
2365599	MCPP	107	108	P/P	40 - 150
2365599	Naproxen	96.7	91.8	P/P	40 - 150
2365599	Primidone	111	98.3	P/P	40 - 150
2365599	Pyraclostrobin	88.1	89.5	P/P	40 - 150
2365599	Silvex	85.3	83.0	P/P	40 - 150
2365599	Thiamethoxam	145	141	P/P	40 - 150
2365599	Tolfenpyrad	53.3	52.8	P/P	30 - 150
2365599	Triclopyr	76.0	76.8	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P421550

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364738	Fluoride	98.1	97.3	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P421635

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364648	Organic Carbon	96.8	95.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P421385

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364700	Color (true)	0.685	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P421381

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364430	Turbidity	3.49	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P421431

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364053	Calcium	0.830	Spike	P	0 - 20
2364053	Iron	9.94	Spike	P	0 - 20
2364053	Magnesium	0.623	Spike	P	0 - 20
2364053	Potassium	0.873	Spike	P	0 - 20
2364053	Sodium	0.0307	Spike	P	0 - 20
2364053	Strontium	1.28	Spike	P	0 - 20
2364053	Tin	3.41	Spike	P	0 - 20
2364053	Titanium	3.94	Spike	P	0 - 20
2364053	Vanadium	4.36	Spike	P	0 - 20
2364053	Zinc	4.60	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P421431

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364053	Aluminum	1.95	Spike	P	0 - 20
2364053	Antimony	0.781	Spike	P	0 - 20
2364053	Arsenic	0.878	Spike	P	0 - 20
2364053	Barium	0.499	Spike	P	0 - 20
2364053	Beryllium	0.337	Spike	P	0 - 20
2364053	Boron	2.15	Spike	P	0 - 20
2364053	Cadmium	2.61	Spike	P	0 - 20
2364053	Chromium	1.18	Spike	P	0 - 20
2364053	Cobalt	1.65	Spike	P	0 - 20
2364053	Copper	0.0517	Spike	P	0 - 20
2364053	Lead	2.05	Spike	P	0 - 20
2364053	Manganese	1.81	Spike	P	0 - 20
2364053	Molybdenum	2.04	Spike	P	0 - 20
2364053	Nickel	0.0258	Spike	P	0 - 20
2364053	Selenium	2.81	Spike	P	0 - 20
2364053	Silver	1.34	Spike	P	0 - 20
2364053	Thallium	0.861	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P422162

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364434	Chloride	4.62	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P422166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364434	Sulfate	5.25	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2365669	Ammonia-N	0.117	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364726	Kjeldahl Nitrogen	3.75	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364735	Kjeldahl Nitrogen	5.92	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421606

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364589	NO2NO3-N	0.487	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P421607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364704	NO2NO3-N	0.303	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421507

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364704	Total-P	0.513	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P421534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364828	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	9.65	Spike	P	0 - 37
2364828	Acetochlor	1.80	Spike	P	0 - 28
2364828	Alachlor	3.76	Spike	P	0 - 30
2364828	Ametryn	6.78	Spike	P	0 - 32
2364828	Atrazine	2.00	Spike	P	0 - 41
2364828	Atrazine Desethyl	11.7	Spike	P	0 - 36
2364828	Avobenzone	9.48	Spike	P	0 - 36
2364828	Azinphos Methyl	22.8	Spike	P	0 - 75
2364828	Azoxystrobin	0.610	Spike	P	0 - 39
2364828	Bromacil	13.5	Spike	P	0 - 33
2364828	Butylate	42.6	Spike	P	0 - 44
2364828	Carbophenothion	1.26	Spike	P	0 - 25
2364828	Carfentrazone Ethyl	5.42	Spike	P	0 - 27
2364828	Chlorfenapyr	10.9	Spike	P	0 - 24
2364828	Chlorpyrifos Ethyl	13.2	Spike	P	0 - 26
2364828	Chlorpyrifos Methyl	4.41	Spike	P	0 - 26
2364828	Coumaphos	9.66	Spike	P	0 - 28
2364828	Cyanazine	9.54	Spike	P	0 - 48
2364828	Cyprodinil	6.01	Spike	P	0 - 29
2364828	Dechlorane Plus	17.1	Spike	P	0 - 30
2364828	Demeton	7.93	Spike	P	0 - 33
2364828	Diazinon	15.2	Spike	P	0 - 29
2364828	Difenoconazole	0.331	Spike	P	0 - 34
2364828	Dimethenamid	13.2	Spike	P	0 - 39
2364828	Dimethomorph	20.7	Spike	P	0 - 51
2364828	Disulfoton	9.93	Spike	P	0 - 30
2364828	Dithiopyr	8.77	Spike	P	0 - 26
2364828	EPTC	0.727	Spike	P	0 - 43
2364828	Ethion	6.47	Spike	P	0 - 79
2364828	Ethoprop	4.22	Spike	P	0 - 29
2364828	Etridiazole	18.9	Spike	P	0 - 33
2364828	Fenamiphos	21.4	Spike	P	0 - 40
2364828	Fenbuconazole	23.6	Spike	P	0 - 74
2364828	Fipronil	0.307	Spike	P	0 - 29
2364828	Fipronil Desulfinyl	9.49	Spike	P	0 - 32
2364828	Fipronil Sulfide	0.851	Spike	P	0 - 30
2364828	Fipronil Sulfone	10.0	Spike	P	0 - 33
2364828	Fluazifop-P-butyl	2.54	Spike	P	0 - 38
2364828	Fludioxonil	13.5	Spike	P	0 - 29
2364828	Flumioxazin	28.9	Spike	P	0 - 51
2364828	Flutolanil	24.7	Spike	P	0 - 25
2364828	Fluxapyroxad	3.79	Spike	P	0 - 45
2364828	Fonofos	17.5	Spike	P	0 - 27
2364828	Hexazinone	1.77	Spike	P	0 - 30
2364828	Imazalil	6.87	Spike	P	0 - 100
2364828	Iprodione	38.6	Spike	F	0 - 33
2364828	Loratadine	6.84	Spike	P	0 - 56
2364828	Malathion	18.6	Spike	P	0 - 37
2364828	Metalaxyl	15.8	Spike	P	0 - 40
2364828	Metolachlor	14.6	Spike	P	0 - 29
2364828	Metribuzin	2.64	Spike	P	0 - 45

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P421534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364828	Mevinphos	20.7	Spike	P	0 - 29
2364828	Molinate	9.80	Spike	P	0 - 33
2364828	Myclobutanil	15.7	Spike	P	0 - 26
2364828	Naled	20.5	Spike	P	0 - 37
2364828	Napropamide	25.4	Spike	P	0 - 44
2364828	Norflurazon	22.4	Spike	P	0 - 30
2364828	Octinoxate	13.6	Spike	P	0 - 45
2364828	Oxadiazon	20.1	Spike	P	0 - 28
2364828	Oxybenzone	21.8	Spike	P	0 - 46
2364828	Oxyfluorfen	4.46	Spike	P	0 - 28
2364828	Parathion Ethyl	1.04	Spike	P	0 - 31
2364828	Parathion Methyl	16.2	Spike	P	0 - 29
2364828	PBDE-47	10.1	Spike	P	0 - 36
2364828	PBDE-99	10.3	Spike	P	0 - 40
2364828	Pendimethalin	4.14	Spike	P	0 - 33
2364828	Phenytoin	13.0	Spike	P	0 - 100
2364828	Phorate	0.683	Spike	P	0 - 36
2364828	Prodiamine	9.06	Spike	P	0 - 71
2364828	Prometon	8.44	Spike	P	0 - 36
2364828	Prometryn	8.09	Spike	P	0 - 28
2364828	Pronamide	4.54	Spike	P	0 - 24
2364828	Propanil	6.82	Spike	P	0 - 28
2364828	Propargite	22.8	Spike	P	0 - 43
2364828	Propiconazole	27.3	Spike	P	0 - 33
2364828	Pyraflufen Ethyl	24.5	Spike	P	0 - 29
2364828	Pyridaben	4.44	Spike	P	0 - 30
2364828	Pyriproxyfen	2.61	Spike	P	0 - 79
2364828	Simazine	5.66	Spike	P	0 - 29
2364828	Stirophos	0.00358	Spike	P	0 - 61
2364828	Sulfentrazone	12.7	Spike	P	0 - 33
2364828	Tebuconazole	12.9	Spike	P	0 - 69
2364828	Terbufos	11.0	Spike	P	0 - 29
2364828	Terbuthylazine	22.0	Spike	P	0 - 32
2364828	Thiobencarb	10.3	Spike	P	0 - 26
2364828	Tri-o-cresyl Phosphate	5.31	Spike	P	0 - 33
2364828	Triadimefon	13.5	Spike	P	0 - 28

Reference Method: EPA 8270E
Batch ID: P422093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2368154	Caffeine	8.06	Spike	P	0 - 74

Reference Method: EPA 8321B
Batch ID: P421330

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364287	Acesulfame K	21.7	Spike	P	0 - 30
2364287	AMPA	7.39	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P421330

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364287	Endothall	0.471	Spike	P	0 - 30
2364287	Glufosinate	0.658	Spike	P	0 - 30
2364287	Glyphosate	2.68	Spike	P	0 - 30
2364287	Sucralose	0.696	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P421444

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2365599	2,4-D	5.23	Spike	P	0 - 30
2365599	2,4,5-T	9.38	Spike	P	0 - 30
2365599	Acetaminophen	2.13	Spike	P	0 - 30
2365599	Acetamiprid	17.4	Spike	P	0 - 30
2365599	Afidopyropen	9.86	Spike	P	0 - 30
2365599	Bentazon	4.91	Spike	P	0 - 30
2365599	Benzovindiflupyr	4.72	Spike	P	0 - 30
2365599	Carbamazepine	3.77	Spike	P	0 - 30
2365599	Clothianidin	4.94	Spike	P	0 - 30
2365599	Dinotefuran	1.18	Spike	P	0 - 30
2365599	Diuron	6.36	Spike	P	0 - 30
2365599	Fenuron	1.25	Spike	P	0 - 30
2365599	Fluridone	0.869	Spike	P	0 - 30
2365599	Hydrocodone	0.769	Spike	P	0 - 30
2365599	Ibuprofen	6.14	Spike	P	0 - 30
2365599	Imazapyr	5.38	Spike	P	0 - 30
2365599	Imidacloprid	5.15	Spike	P	0 - 30
2365599	Linuron	8.47	Spike	P	0 - 30
2365599	Mandestrobin	1.44	Spike	P	0 - 30
2365599	MCPP	0.987	Spike	P	0 - 30
2365599	Naproxen	5.26	Spike	P	0 - 30
2365599	Primidone	12.5	Spike	P	0 - 30
2365599	Pyraclostrobin	1.67	Spike	P	0 - 30
2365599	Silvex	2.80	Spike	P	0 - 30
2365599	Thiamethoxam	3.37	Spike	P	0 - 30
2365599	Tolfenpyrad	0.982	Spike	P	0 - 30
2365599	Triclopyr	1.14	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P421549

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364738	Total Alkalinity	2.82	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015

Batch ID: P421907

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364122	TDS	7.28	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P421550

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364738	Fluoride	0.490	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P421635

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364648	Organic Carbon	1.06	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2364713
Field Sample ID: G3SE0065

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	119	P	30 - 160
EPA 8321B	Acetaminophen-d4	121	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.1	P	30 - 160
EPA 8321B	Diuron-d6	65.0	P	30 - 160
EPA 8321B	Endothall-d6	143	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.1	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	90.2	P	30 - 160

Lab Sample ID: 2364714
Field Sample ID: G3SE0066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	118	P	30 - 160
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.6	P	30 - 160
EPA 8321B	Diuron-d6	66.8	P	30 - 160
EPA 8321B	Endothall-d6	142	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	94.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.4	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	90.4	P	30 - 160

Lab Sample ID: 2364717
Field Sample ID: G3SE0065

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	76.7	P	20 - 200
EPA 8270E	Simazine-d10	99.9	P	62 - 142
EPA 8270E	Terbufos-d10	93.4	P	58 - 132
EPA 8270E	Terphenyl-d14	71.5	P	52 - 137

Lab Sample ID: 2364718
Field Sample ID: G3SE0066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	71.0	P	20 - 200
EPA 8270E	Simazine-d10	88.3	P	62 - 142
EPA 8270E	Terbufos-d10	82.8	P	58 - 132
EPA 8270E	Terphenyl-d14	63.5	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A115505

Included Lab Sample IDs: 2364699, 2364700, 2364703

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

Reference Method: DEP SOP: NU-094-1

Run ID: A115506

Included Lab Sample IDs: 2364699, 2364700, 2364703

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	94.8	94.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A115529

Included Lab Sample IDs: 2364713, 2364714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	96.2	113	P/P	60 - 160
Endothall	108	119	P/P	60 - 160
Glufosinate	75.4	91.7	P/P	60 - 160
Glyphosate	97.0	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A115569

Included Lab Sample IDs: 2364713, 2364714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	102	100	P/P	60 - 160
Sucralose	94.6	93.2	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A115574

Included Lab Sample IDs: 2364699, 2364700, 2364703

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	96.1	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A115574

Included Lab Sample IDs: 2364699, 2364700, 2364703

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A115584

Included Lab Sample IDs: 2364715, 2364716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	103	P/P	90 - 110
Antimony	103	104	P/P	90 - 110
Arsenic	104	104	P/P	90 - 110
Barium	101	102	P/P	90 - 110
Beryllium	100	99.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A115584

Included Lab Sample IDs: 2364715, 2364716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	106	105	P/P	90 - 110
Cadmium	104	105	P/P	90 - 110
Chromium	98.5	98.8	P/P	90 - 110
Cobalt	101	99.4	P/P	90 - 110
Copper	100	99.9	P/P	90 - 110
Lead	95.3	95.5	P/P	90 - 110
Manganese	97.9	99.3	P/P	90 - 110
Molybdenum	101	101	P/P	90 - 110
Nickel	100	99.0	P/P	90 - 110
Selenium	102	101	P/P	90 - 110
Silver	101	102	P/P	90 - 110
Thallium	101	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115597

Included Lab Sample IDs: 2364701, 2364702, 2364704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	100	P/P	90 - 110
NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A115600

Included Lab Sample IDs: 2364702

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.4	99.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A115603

Included Lab Sample IDs: 2364701, 2364704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.0	99.8	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A115617

Included Lab Sample IDs: 2364701, 2364702, 2364704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.6	98.6	P/P	90 - 110
Organic Carbon	98.6	99.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A115634

Included Lab Sample IDs: 2364713, 2364714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	90.6	103	P/P	50 - 150
2,4-D	99.4	90.6	P/P	50 - 150
2,4,5-T	110	112	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A115634

Included Lab Sample IDs: 2364713, 2364714

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	121	110	P/P	50 - 150
Acetaminophen	108	110	P/P	60 - 160
Acetaminophen	109	108	P/P	60 - 160
Acetamiprid	101	105	P/P	50 - 150
Acetamiprid	103	101	P/P	50 - 150
Afidopyropen	107	112	P/P	50 - 150
Afidopyropen	117	107	P/P	50 - 150
Bentazon	114	117	P/P	50 - 160
Benzovindiflupyr	102	109	P/P	50 - 150
Benzovindiflupyr	108	102	P/P	50 - 150
Carbamazepine	110	111	P/P	60 - 150
Carbamazepine	111	115	P/P	60 - 150
Clothianidin	100	115	P/P	60 - 150
Clothianidin	107	100	P/P	60 - 150
Dinotefuran	117	120	P/P	50 - 150
Dinotefuran	120	120	P/P	50 - 150
Diuron	109	109	P/P	60 - 160
Diuron	109	105	P/P	60 - 160
Fenuron	105	105	P/P	60 - 150
Fenuron	108	105	P/P	60 - 150
Fluridone	110	111	P/P	60 - 160
Fluridone	111	112	P/P	60 - 160
Hydrocodone	109	110	P/P	60 - 150
Hydrocodone	114	109	P/P	60 - 150
Ibuprofen	114	86.5	P/P	50 - 160
Ibuprofen	86.5	94.9	P/P	50 - 160
Imazapyr	109	108	P/P	50 - 150
Imazapyr	110	109	P/P	50 - 150
Imidacloprid	103	98.0	P/P	60 - 150
Imidacloprid	98.0	102	P/P	60 - 150
Linuron	103	104	P/P	60 - 150
Linuron	104	109	P/P	60 - 150
Mandestrobin	104	107	P/P	50 - 150
Mandestrobin	104	104	P/P	50 - 150
MCPP	103	116	P/P	50 - 150
MCPP	116	107	P/P	50 - 150
Naproxen	122	90.9	P/P	50 - 160
Naproxen	90.9	74.4	P/P	50 - 160
Primidone	100	105	P/P	60 - 150
Primidone	99.3	100	P/P	60 - 150
Pyraclostrobin	105	106	P/P	60 - 150
Pyraclostrobin	106	106	P/P	60 - 150
Silvex	101	98.9	P/P	50 - 150
Silvex	98.9	99.2	P/P	50 - 150
Thiamethoxam	104	107	P/P	50 - 150
Thiamethoxam	108	104	P/P	50 - 150
Tolfenpyrad	104	105	P/P	60 - 150
Tolfenpyrad	105	104	P/P	60 - 150
Triclopyr	115	106	P/P	50 - 150
Triclopyr	98.7	115	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A115637

Included Lab Sample IDs: 2364701, 2364702, 2364704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.9	99.3	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A115646

Included Lab Sample IDs: 2364717, 2364718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	96.8		P	80 - 120
Avobenzone	92.5		P	80 - 120
Dechlorane Plus	98.4		P	80 - 120
Octinoxate	103		P	80 - 120
Oxybenzone	97.6		P	80 - 120
PBDE-47	97.9		P	80 - 120
PBDE-99	101		P	80 - 120
Tri-o-cresyl Phosphate	99.9		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A115698

Included Lab Sample IDs: 2364701, 2364702, 2364704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	104	P/P	90 - 110
Kjeldahl Nitrogen	107	107	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A115784

Included Lab Sample IDs: 2364717, 2364718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	104		P	80 - 120
Alachlor	97.8		P	80 - 120
Ametryn	94.6		P	80 - 120
Atrazine Desethyl	116		P	80 - 120
Azinphos Methyl	87.4		P	80 - 120
Azoxystrobin	91.4		P	80 - 120
Bromacil	99.5		P	80 - 120
Butylate	109		P	80 - 120
Carbophenothion	83.3		P	80 - 120
Carfentrazone Ethyl	84.4		P	80 - 120
Chlorfenapyr	99.8		P	80 - 120
Chlorpyrifos Ethyl	88.1		P	80 - 120
Chlorpyrifos Methyl	114		P	80 - 120
Coumaphos	91.1		P	80 - 120
Cyanazine	89.5		P	80 - 120
Cyprodinil	103		P	80 - 120
Diazinon	97.5		P	80 - 120
Difenoconazole	99.2		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	111		P	80 - 120
Dithiopyr	105		P	80 - 120
EPTC	97.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A115784

Included Lab Sample IDs: 2364717, 2364718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethion	99.3		P	80 - 120
Ethoprop	96.7		P	80 - 120
Etridiazole	103		P	80 - 120
Fenamiphos	89.8		P	80 - 120
Fenbuconazole	91.8		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	129*		F	80 - 120
Fipronil Sulfide	100		P	80 - 120
Fipronil Sulfone	104		P	80 - 120
Fluazifop-P-butyl	95.5		P	80 - 120
Fludioxonil	88.6		P	80 - 120
Flumioxazin	92.2		P	80 - 120
Flutolanil	94.2		P	80 - 120
Fluxapyroxad	97.7		P	80 - 120
Fonofos	93.6		P	80 - 120
Hexazinone	98.4		P	80 - 120
Imazalil	89.7		P	80 - 120
Iprodione	87.8		P	80 - 120
Loratadine	84.1		P	80 - 120
Malathion	96.1		P	80 - 120
Metalaxyl	95.0		P	80 - 120
Metolachlor	99.2		P	80 - 120
Metribuzin	99.9		P	80 - 120
Mevinphos	99.4		P	80 - 120
Molinate	104		P	80 - 120
Myclobutanil	106		P	80 - 120
Naled	105		P	80 - 120
Napropamide	105		P	80 - 120
Norflurazon	99.4		P	80 - 120
Oxadiazon	109		P	80 - 120
Oxyfluorfen	101		P	80 - 120
Parathion Ethyl	105		P	80 - 120
Parathion Methyl	112		P	80 - 120
Pendimethalin	98.9		P	80 - 120
Phenytoin	91.5		P	80 - 120
Phorate	95.4		P	80 - 120
Prodiamine	97.3		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	87.4		P	80 - 120
Pronamide	99.5		P	80 - 120
Propanil	98.2		P	80 - 120
Propargite	87.5		P	80 - 120
Propiconazole	107		P	80 - 120
Pyraflufen Ethyl	99.3		P	80 - 120
Pyridaben	93.1		P	80 - 120
Pyriproxyfen	86.6		P	80 - 120
Simazine	89.6		P	80 - 120
Stirophos	95.5		P	80 - 120
Sulfentrazone	97.1		P	80 - 120
Terbufos	94.6		P	80 - 120
Terbutylazine	99.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A115784

Included Lab Sample IDs: 2364717, 2364718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thiobencarb	92.2		P	80 - 120
Triadimefon	96.3		P	80 - 120

Reference Method: EPA 8270E

Run ID: A115786

Included Lab Sample IDs: 2364717, 2364718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	99.8		P	80 - 120
Demeton	113		P	80 - 120
Dimethomorph	120		P	80 - 120
Tebuconazole	93.8		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A115800

Included Lab Sample IDs: 2364699, 2364700, 2364703

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.5	95.6	P/P	90 - 110
Sulfate	103	98.7	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115816

Included Lab Sample IDs: 2364715, 2364716

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	102	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Potassium	99.0	99.9	P/P	90 - 110
Sodium	100	99.4	P/P	90 - 110
Strontium	105	102	P/P	90 - 110
Tin	103	104	P/P	90 - 110
Titanium	101	105	P/P	90 - 110
Vanadium	103	100	P/P	90 - 110
Zinc	104	110	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A115891

Included Lab Sample IDs: 2364717, 2364718

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Caffeine	89.8		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			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	91.9					0.685	
EPA 180.1 Rev. 2.0	Turbidity	99.5					3.49	
EPA 200.7 Rev. 4.4	Calcium	90.8		99.2	99.4			0.830
	Iron	103		104	115	97.6		9.94
	Magnesium	103		104	104	97.1		0.623
	Potassium	97.9		97.0	95.8	96.5		0.873
	Sodium	88.9		96.0	95.5			0.0307
	Strontium	102		101	99.9	101		1.28
	Tin	97.9		99.8	96.4	96.6		3.41
	Titanium	97.2		100	96.6	92.9		3.94
	Vanadium	97.1		101	96.2	97.4		4.36
	Zinc	100		100	95.9	94.7		4.60
EPA 200.8 Rev. 5.4	Aluminum	100		102	99.5	100		1.95
	Antimony	103		105	104	106		0.781
	Arsenic	104		105	104	104		0.878
	Barium	104		106	105	105		0.499
	Beryllium	94.6		95.1	94.7	97.9		0.337
	Boron	107		108	106	107		2.15
	Cadmium	98.4		103	100	105		2.61
	Chromium	98.9		81.2	80.0	101		1.18
	Cobalt	100		101	99.7	101		1.65
	Copper	99.2		103	103	103		0.0517
	Lead	95.4		96.7	94.6	97.3		2.05
	Manganese	99.6		101	98.4	100		1.81
	Molybdenum	98.4		95.6	93.5	101		2.04
	Nickel	99.5		86.2	86.3	101		0.0258
	Selenium	99.2		101	98.5	99.3		2.81
	Silver	101		101	99.7	103		1.34
	Thallium	100		101	100	103		0.861
EPA 300.0 Rev. 2.1	Chloride	96.2		97.7	99.1		4.62	
	Sulfate	101		100	101		5.25	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4		101	101			0.117
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		99.3	107			3.75
	Kjeldahl Nitrogen	104		100	90.4			5.92
EPA 353.2 Rev. 2.0	NO2NO3-N	103		103	102			0.487
	NO2NO3-N	102		100	100			0.303
EPA 365.1 Rev. 2.0	Total-P	103		108	107			0.513
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	76.0		71.7	78.9			9.65
	Acetochlor	87.7		69.9	71.1			1.80
	Alachlor	80.8		65.5	63.1			3.76
	Ametryn	103		76.2	71.2			6.78
	Atrazine	94.7		103	101			2.00
	Atrazine Desethyl	63.5		60.0	53.4			11.7
	Avobenzone	88.2		85.6	94.1			9.48
	Azinphos Methyl	135		147	117			22.8
	Azoxystrobin	74.7		81.4	81.9			0.610
	Bromacil	105		99.5	86.9			13.5
	Butylate	54.6		53.5	34.7			42.6
	Caffeine	94.6		87.7	95.3			8.06
	Carbophenothion	129		97.3	98.8			1.26
	Carfentrazone Ethyl	102		91.5	86.3			5.42
	Chlorfenapyr	101		99.6	89.4			10.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Chlorpyrifos Ethyl	73.9	61.1	53.6			13.2
	Chlorpyrifos Methyl	82.6	63.3	66.1			4.41
	Coumaphos	143	126	115			9.66
	Cyanazine	184	177	161			9.54
	Cyprodinil	96.6	86.7	81.6			6.01
	Dechlorane Plus	82.1	68.4	81.2			17.1
	Demeton	71.2	64.5	69.9			7.93
	Diazinon	72.9	71.3	61.3			15.2
	Difenoconazole	205	178	179			0.331
	Dimethenamid	60.4	65.1	57.1			13.2
	Dimethomorph	175	146	185			20.7
	Disulfoton	91.2	80.6	72.9			9.93
	Dithiopyr	86.0	84.7	77.6			8.77
	EPTC	47.3	47.6	47.3			0.727
	Ethion	76.0	71.6	67.1			6.47
	Ethoprop	81.1	82.1	78.7			4.22
	Etridiazole	66.0	74.9	62.0			18.9
	Fenamiphos	75.4	79.5	64.1			21.4
	Fenbuconazole	143	141	111			23.6
	Fipronil	100	128	127			0.307
	Fipronil Desulfinyl	102	92.3	83.9			9.49
	Fipronil Sulfide	93.1	102	103			0.851
	Fipronil Sulfone	88.1	111	127			10.0
	Fluazifop-P-butyl	81.3	81.6	83.7			2.54
	Fludioxonil	80.9	83.9	73.3			13.5
	Flumioxazin	192	168	126			28.9
	Flutolanil	73.5	80.3	62.6			24.7
	Fluxapyroxad	92.8	92.8	89.3			3.79
	Fonofos	70.0	70.6	59.2			17.5
	Hexazinone	86.8	92.3	89.1			1.77
	Imazalil	97.8	104	97.5			6.87
	Iprodione	114	130	82.3			38.6
	Loratadine	149	167	156			6.84
	Malathion	93.1	102	84.3			18.6
	Metalaxyl	98.4	96.8	82.6			15.8
	Metolachlor	99.5	103	89.0			14.6
	Metribuzin	88.0	97.3	101			2.64
	Mevinphos	90.4	97.1	78.9			20.7
	Molinate	58.2	75.1	68.0			9.80
	Myclobutanil	78.3	87.5	74.8			15.7
	Naled	78.0	89.1	72.6			20.5
	Napropamide	75.4	96.8	75.0			25.4
	Norflurazon	77.0	99.8	79.7			22.4
	Octinoxate	66.1	60.3	69.1			13.6
	Oxadiazon	87.4	92.5	72.0			20.1
	Oxybenzone	52.8	48.2	60.1			21.8
	Oxyfluorfen	120	136	130			4.46
	Parathion Ethyl	91.8	92.2	91.2			1.04
	Parathion Methyl	121	90.3	106			16.2
	PBDE-47	73.0	70.2	77.6			10.1
	PBDE-99	70.0	65.7	72.8			10.3
	Pendimethalin	74.7	86.0	82.5			4.14
	Phenytol	107	105	119			13.0
	Phorate	64.4	60.4	60.8			0.683

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Prodiamine	34.4	40.8	37.3			9.06
	Prometon	119	123	134			8.44
	Prometryn	91.8	82.7	76.3			8.09
	Pronamide	104	93.8	99.2			4.54
	Propanil	115	114	106			6.82
	Propargite	188	190	151			22.8
	Propiconazole	99.5	101	60.4			27.3
	Pyraflufen Ethyl	80.8	88.4	69.1			24.5
	Pyridaben	151	150	157			4.44
	Pyriproxyfen	188	100	103			2.61
	Simazine	112	89.2	94.4			5.66
	Stirophos	60.3	87.3	87.3			0.0035
	Sulfentrazone	106					12.7
	Tebuconazole	112	109	94.2			12.9
	Terbufos	74.7	83.2	74.5			11.0
	Terbuthylazine	88.4	103	82.9			22.0
	Thiobencarb	101	106	95.7			10.3
	Tri-o-cresyl Phosphate	59.1	59.1	62.3			5.31
	Triadimefon	111	111	97.3			13.5
EPA 8321B	2,4-D	81.5	111	117			5.23
	2,4,5-T	76.4	87.3	79.5			9.38
	Acesulfame K	95.9	98.5	79.2			21.7
	Acetaminophen	99.2	120	118			2.13
	Acetamiprid	71.9	85.0	101			17.4
	Afidopyropen	53.5	76.2	84.1			9.86
	AMPA	103	55.5	61.8			7.39
	Bentazon	104	93.0	84.9			4.91
	Benzovindiflupyr	86.0	86.6	90.8			4.72
	Carbamazepine	94.2	91.7	95.6			3.77
	Clothianidin	92.6	124	118			4.94
	Dinotefuran	115	145	144			1.18
	Diuron	85.5	79.3	73.2			6.36
	Endothall	95.0	171	172			0.471
	Fenuron	112	105	104			1.25
	Fluridone	99.1	101	99.8			0.869
	Glufosinate	92.1	70.4	70.0			0.658
	Glyphosate	94.6					2.68
	Hydrocodone	102	123	124			0.769
	Ibuprofen	80.3	95.5	89.8			6.14
	Imazapyr	96.6	134	122			5.38
	Imidacloprid	101	156	148			5.15
	Linuron	81.1	85.0	78.1			8.47
	Mandestrobin	89.4	88.3	89.6			1.44
	MCPP	99.6	107	108			0.987
	Naproxen	61.8	96.7	91.8			5.26
	Primidone	89.1	111	98.3			12.5
	Pyraclostrobin	75.5	88.1	89.5			1.67
	Silvex	69.7	85.3	83.0			2.80
	Sucralose	92.5	80.1	84.6			0.696
	Thiamethoxam	99.0	145	141			3.37
	Tolfenpyrad	38.0	53.3	52.8			0.982
	Triclopyr	68.8	76.0	76.8			1.14
SM 2320 B-2011	Total Alkalinity	96.9				2.82	
SM 2540 C-2015	TDS	97.4				7.28	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 2540 D-2015	TSS	94.0				
SM 4500-F- C-2011	Fluoride	97.1	98.1	97.3		0.490
SM 5310 B-2011	Organic Carbon	97.4	96.8	95.1		1.06

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2364699, 2364700, 2364703
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2364699, 2364700, 2364703
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2364715, 2364716
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2364715, 2364716
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2364699, 2364700, 2364703
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2364699, 2364700, 2364703
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2364701, 2364702, 2364704
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2364701, 2364702, 2364704
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2364701, 2364702, 2364704
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2364701, 2364702, 2364704
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2364717, 2364718
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2364717, 2364718
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2364713, 2364714
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2364699, 2364700, 2364703
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2364715, 2364716
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2364699, 2364700, 2364703
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2364699, 2364700, 2364703
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2364699, 2364700, 2364703
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2364701, 2364702, 2364704

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	10/25/2022			10/25/2022 14:53	Chandler E Cox	2364699
	10/25/2022			10/25/2022 14:54	Chandler E Cox	2364700
	10/25/2022			10/25/2022 14:55	Chandler E Cox	2364703
EPA 180.1 Rev. 2.0	10/25/2022			10/25/2022 14:13	Anna M. Plaviak	2364699
	10/25/2022			10/25/2022 14:14	Anna M. Plaviak	2364700
	10/25/2022			10/25/2022 14:15	Anna M. Plaviak	2364703
EPA 200.7 Rev. 4.4	10/25/2022	10/26/2022 11:30	George D Taylor	11/09/2022 00:39	McKinley C Carter	2364715
	10/25/2022	10/26/2022 11:30	George D Taylor	11/09/2022 00:47	McKinley C Carter	2364716
EPA 200.8 Rev. 5.4	10/25/2022	10/26/2022 11:30	George D Taylor	10/28/2022 01:56	Megan Whitefoot	2364715
	10/25/2022	10/26/2022 11:30	George D Taylor	10/28/2022 02:05	Megan Whitefoot	2364716
EPA 300.0 Rev. 2.1	10/25/2022			11/08/2022 21:55	Anna M. Plaviak	2364699
	10/25/2022			11/08/2022 22:10	Anna M. Plaviak	2364700
	10/25/2022			11/08/2022 22:25	Anna M. Plaviak	2364703
EPA 350.1 Rev. 2.0	10/25/2022			10/31/2022 12:15	Ping Hua	2364701
	10/25/2022			10/31/2022 12:17	Ping Hua	2364702
	10/25/2022			10/31/2022 12:18	Ping Hua	2364704
EPA 351.2 Rev. 2.0	10/25/2022	10/31/2022 14:05	Samantha L Bates	11/02/2022 19:53	Samantha L Bates	2364701
	10/25/2022	10/31/2022 14:05	Samantha L Bates	11/02/2022 19:54	Samantha L Bates	2364702
	10/25/2022	10/31/2022 14:05	Samantha L Bates	11/02/2022 20:22	Samantha L Bates	2364704
EPA 353.2 Rev. 2.0	10/25/2022			10/28/2022 10:43	Beverly Y. Sanders	2364701
	10/25/2022			10/28/2022 10:44	Beverly Y. Sanders	2364702
	10/25/2022			10/28/2022 10:52	Beverly Y. Sanders	2364704
EPA 365.1 Rev. 2.0	10/25/2022	10/26/2022 13:59	Adam P Silver	10/28/2022 11:02	James L Waggeberby	2364702
	10/25/2022	10/26/2022 13:59	Adam P Silver	10/28/2022 14:15	James L Waggeberby	2364704
	10/25/2022	10/26/2022 13:59	Adam P Silver	10/28/2022 14:16	James L Waggeberby	2364701
EPA 8270E	10/25/2022	10/28/2022 08:00	Fe-Val Siddell	10/31/2022 19:52	Arthur Maknenko	2364717
	10/25/2022	10/28/2022 08:00	Fe-Val Siddell	10/31/2022 20:12	Arthur Maknenko	2364718
	10/25/2022	10/28/2022 08:00	Fe-Val Siddell	11/03/2022 21:58	Michael Poppell	2364717
	10/25/2022	10/28/2022 08:00	Fe-Val Siddell	11/03/2022 22:26	Michael Poppell	2364718
	10/25/2022	10/28/2022 08:00	Fe-Val Siddell	11/04/2022 21:56	Michael Poppell	2364717
	10/25/2022	10/28/2022 08:00	Fe-Val Siddell	11/04/2022 22:52	Michael Poppell	2364718
	10/25/2022	11/09/2022 12:30	Fe-Val Siddell	11/11/2022 20:21	Michael Poppell	2364717
	10/25/2022	11/09/2022 12:30	Fe-Val Siddell	11/11/2022 20:48	Michael Poppell	2364718
EPA 8321B	10/25/2022	10/25/2022 12:00	Umesh Chiluwal	10/25/2022 15:35	Umesh Chiluwal	2364713
	10/25/2022	10/25/2022 12:00	Umesh Chiluwal	10/25/2022 15:48	Umesh Chiluwal	2364714
	10/25/2022	10/25/2022 12:00	Umesh Chiluwal	10/26/2022 14:20	Umesh Chiluwal	2364713
	10/25/2022	10/25/2022 12:00	Umesh Chiluwal	10/26/2022 14:35	Umesh Chiluwal	2364714
	10/25/2022	10/28/2022 09:30	June Rhew	10/28/2022 17:59	Juyoung Kim	2364713
	10/25/2022	10/28/2022 09:30	June Rhew	10/28/2022 18:41	Juyoung Kim	2364714
	10/25/2022	10/28/2022 09:30	June Rhew	10/31/2022 11:06	Juyoung Kim	2364713

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	10/25/2022	10/28/2022 09:30	June Rhew	10/31/2022 11:26	Juyoung Kim	2364714
SM 2320 B-2011	10/25/2022			10/26/2022 21:29	Dale L. Simmons	2364699
	10/25/2022			10/26/2022 21:41	Dale L. Simmons	2364700
	10/25/2022			10/26/2022 21:54	Dale L. Simmons	2364703
SM 2340 B-2011	10/25/2022	10/25/2022		11/09/2022 00:39	McKinley C Carter	2364715
	10/25/2022			11/09/2022 00:47	McKinley C Carter	2364716
SM 2540 C-2015	10/25/2022	10/25/2022		10/26/2022 15:26	Yijie Li	2364699, 2364700, 2364703
SM 2540 D-2015	10/25/2022			10/26/2022 15:26	Yijie Li	2364699, 2364700, 2364703
SM 4500-F- C-2011	10/25/2022			10/26/2022 21:29	Dale L. Simmons	2364699
	10/25/2022			10/26/2022 21:41	Dale L. Simmons	2364700
	10/25/2022			10/26/2022 21:54	Dale L. Simmons	2364703
SM 5310 B-2011	10/25/2022	10/25/2022		10/27/2022 16:50	Khloe J Berg	2364701
	10/25/2022			10/27/2022 18:49	Khloe J Berg	2364702
	10/25/2022			10/27/2022 19:03	Khloe J Berg	2364704