

Chemical Analysis Report

NW-DIST-2023-02-10-01

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

Event Description: **NW Run**
Request ID: **RQ-2023-02-06-38**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 02-MAR-2023 17:59



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: Brushy Creek upstream of Arthur Brown Rd. Collection Date/Time: 02/09/2023 13:11

Field ID: G5NW0002

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386818	EPA 200.7 Rev. 4.4	Calcium	1.87		mg/L	P425970	
		Iron	690		ug/L	P425970	
		Magnesium	0.89		mg/L	P425970	
		Potassium	0.72	I	mg/L	P425970	
		Sodium	2.8		mg/L	P425970	
		Strontium	10.2		ug/L	P425970	
		Tin	3.0	U	ug/L	P425970	
		Titanium	16.6		ug/L	P425970	
		Vanadium	2.0	U	ug/L	P425970	
		Zinc	5.0	U	ug/L	P425970	
	EPA 200.8 Rev. 5.4	Aluminum	368		ug/L	P425970	
		Antimony	0.050	U	ug/L	P425970	
		Arsenic	0.33		ug/L	P425970	
		Barium	26.0		ug/L	P425970	
		Beryllium	0.065		ug/L	P425970	
		Boron	11.5		ug/L	P425970	
		Cadmium	0.020	U	ug/L	P425970	
		Chromium	0.57	I	ug/L	P425970	
		Cobalt	0.484		ug/L	P425970	
		Copper	0.57	I	ug/L	P425970	
		Lead	0.46		ug/L	P425970	
		Manganese	34.8		ug/L	P425970	
		Molybdenum	0.15	U	ug/L	P425970	
		Nickel	0.51	I	ug/L	P425970	
		Selenium	0.20	U	ug/L	P425970	
		Silver	0.010	U	ug/L	P426231	
		Thallium	0.10	U	ug/L	P425970	
	SM 2340 B-2011	Hardness	8.4		mg/L	P425970	

Sample Location: Little Pine Barren Creek above CR99

Collection Date/Time: 02/09/2023 12:50

Field ID: G4NW0420

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386800	DEP SOP: NU-094-1	Color (true)	31		PCU	P425667	
	EPA 180.1 Rev. 2.0	Turbidity	6.0		NTU	P425673	
	EPA 300.0 Rev. 2.1	Chloride	6.2		mg Cl/L	P426336	
		Sulfate	0.73		mg SO4/L	P426339	
	SM 2320 B-2011	Total Alkalinity	3.6		mg CaCO3/L	P426049	
	SM 2540 C-2015	TDS	37		mg/L	P426311	
	SM 2540 D-2015	TSS	6	I	mg/L	P426113	
2386802	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P426053	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P426177	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.30		mg N/L	P425913	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.87		mg N/L	P425943	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P425930	
2386816	SM 5310 B-2011	Organic Carbon	2.5		mg C/L	P426022	
	EPA 200.7 Rev. 4.4	Calcium	2.11		mg/L	P425970	
		Iron	1.36E+03		ug/L	P425970	
		Magnesium	1.83		mg/L	P425970	
		Potassium	1.2	I	mg/L	P425970	
		Sodium	4.7		mg/L	P425970	
		Strontium	23.5		ug/L	P425970	
		Tin	3.0	U	ug/L	P425970	
		Titanium	4.4		ug/L	P425970	
		Vanadium	2.0	U	ug/L	P425970	
		Zinc	5.0	U	ug/L	P425970	
	EPA 200.8 Rev. 5.4	Aluminum	139		ug/L	P425970	
		Antimony	0.050	U	ug/L	P425970	
		Arsenic	0.36		ug/L	P425970	
		Barium	59.5		ug/L	P425970	
		Beryllium	0.047		ug/L	P425970	
		Boron	10.4		ug/L	P425970	
		Cadmium	0.020	U	ug/L	P425970	
		Chromium	0.40	U	ug/L	P425970	
		Cobalt	0.439		ug/L	P425970	
		Copper	0.40	U	ug/L	P425970	
		Lead	0.21	I	ug/L	P425970	
		Manganese	50.8		ug/L	P425970	
		Molybdenum	0.15	U	ug/L	P425970	
		Nickel	0.50	U	ug/L	P425970	
		Selenium	0.20	U	ug/L	P425970	
		Silver	0.010	U	ug/L	P426231	
		Thallium	0.10	U	ug/L	P425970	
	SM 2340 B-2011	Hardness	12.8		mg/L	P425970	

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: Wiggins Branch below Highway 29

Collection Date/Time: 02/09/2023 12:15

Field ID: G4NW0163

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386801	DEP SOP: NU-094-1	Color (true)	36		PCU	P425667	
	EPA 180.1 Rev. 2.0	Turbidity	3.9		NTU	P425673	
	EPA 300.0 Rev. 2.1	Chloride	3.6		mg Cl/L	P426336	
		Sulfate	1.5		mg SO4/L	P426339	
	SM 2320 B-2011	Total Alkalinity	2.5	I	mg CaCO3/L	P426049	
	SM 2540 C-2015	TDS	26		mg/L	P426311	
	SM 2540 D-2015	TSS	5	I	mg/L	P426113	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P426053	
2386803	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P426177	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P425913	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.016		mg N/L	P425943	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P425930	
	SM 5310 B-2011	Organic Carbon	5.6		mg C/L	P426022	
2386817	EPA 200.7 Rev. 4.4	Calcium	1.55		mg/L	P425970	
		Iron	650		ug/L	P425970	
		Magnesium	0.74		mg/L	P425970	
		Potassium	0.31	I	mg/L	P425970	
		Sodium	2.3		mg/L	P425970	
		Strontium	5.7	I	ug/L	P425970	
		Tin	3.0	U	ug/L	P425970	
		Titanium	3.5		ug/L	P425970	
		Vanadium	2.0	U	ug/L	P425970	
		Zinc	5.0	U	ug/L	P425970	
	EPA 200.8 Rev. 5.4	Aluminum	137		ug/L	P425970	
		Antimony	0.050	U	ug/L	P425970	
		Arsenic	0.31		ug/L	P425970	
		Barium	10.0		ug/L	P425970	
		Beryllium	0.051		ug/L	P425970	
		Boron	9.2		ug/L	P425970	
		Cadmium	0.020	U	ug/L	P425970	
		Chromium	0.40	U	ug/L	P425970	
		Cobalt	0.281		ug/L	P425970	
		Copper	0.40	U	ug/L	P425970	
		Lead	0.20	U	ug/L	P425970	
		Manganese	18.9		ug/L	P425970	
		Molybdenum	0.15	U	ug/L	P425970	
		Nickel	0.50	U	ug/L	P425970	
		Selenium	0.20	U	ug/L	P425970	
		Silver	0.010	U	ug/L	P426231	
		Thallium	0.10	U	ug/L	P425970	
		Hardness	6.9		mg/L	P425970	

Ref. Method and Comment:

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

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386798	DEP SOP: NU-094-1	Color (true)	31	A	PCU	P425667	
	EPA 180.1 Rev. 2.0	Turbidity	7.9		NTU	P425673	
	EPA 300.0 Rev. 2.1	Chloride	4.6		mg Cl/L	P426336	
		Sulfate	1.4		mg SO4/L	P426339	
	SM 2320 B-2011	Total Alkalinity	2.7		mg CaCO3/L	P426049	
	SM 2540 C-2015	TDS	29		mg/L	P426311	
	SM 2540 D-2015	TSS	10		mg/L	P426113	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P426053	
2386799	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P426177	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P425912	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.49		mg N/L	P425943	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P425930	
	SM 5310 B-2011	Organic Carbon	3.0		mg C/L	P426022	
2386812	EPA 8321B	Aldicarb	0.020	U	ug/L	P425593	
		Aldicarb Sulfone	0.0020	U	ug/L	P425593	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P425593	
		Carbaryl	0.0020	U	ug/L	P425593	
		Carbofuran	0.0020	U	ug/L	P425593	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P425593	
		Methiocarb	0.0020	U	ug/L	P425593	
		Methomyl	0.0020	U	ug/L	P425593	
		Oxamyl	0.0020	U	ug/L	P425593	
		Propoxur	0.0020	U	ug/L	P425593	
2386813	2,4-D	0.0026	I	ug/L	P425700		
	Acesulfame K	0.10	U	ug/L	P425585		
	2,4,5-T	0.0040	U	ug/L	P425700		
	AMPA	0.10	U	ug/L	P425585		
	Acetaminophen	0.0080	U	ug/L	P425700		
	Acetamiprid	0.0020	U	ug/L	P425700		
	Endothall	0.25	U	ug/L	P425585	MS	
	Glufosinate	0.10	U	ug/L	P425585		
	Glyphosate	0.10	U	ug/L	P425585		
	Afidopyrophen	0.0020	U	ug/L	P425700		
	Bentazon	8.0E-04	U	ug/L	P425700		
	Sucralose	0.098		ug/L	P425585		
	Benzovindiflupyr	0.0020	U	ug/L	P425700		
	Carbamazepine	8.0E-04	U	ug/L	P425700		
	Clothianidin	0.0020	U	ug/L	P425700		
	Dinotefuran	0.0020	U	ug/L	P425700		
	Diuron	0.0020	U	ug/L	P425700		
	Fenuron	0.032	U	ug/L	P425700		
	Fluridone	8.0E-04	U	ug/L	P425700		
	Imazapyr	0.014	I	ug/L	P425700		
	Hydrocodone	0.0020	U	ug/L	P425700		

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386813	EPA 8321B	Ibuprofen	0.080	U	ug/L	P425700	
		Imidacloprid	0.0026	I	ug/L	P425700	
		Linuron	0.0040	U	ug/L	P425700	
		Mandestrobin	0.0020	U	ug/L	P425700	
		MCP	0.0020	U	ug/L	P425700	
		Naproxen	0.0080	U	ug/L	P425700	
		Primidone	0.0040	U	ug/L	P425700	
		Pyraclostrobin	0.0020	U	ug/L	P425700	
		Silvex	0.0040	U	ug/L	P425700	
		Thiamethoxam	0.0020	U	ug/L	P425700	
		Tolfenpyrad	0.0020	U	ug/L	P425700	
		Triclopyr	0.0040	U	ug/L	P425700	
2386814	EPA 8270E	Aldrin	0.69	U	ng/L	P425594	
		Alpha-BHC	0.11	U	ng/L	P425594	
		Alpha-Chlordane	0.21	U	ng/L	P425594	MS
		PCB-1016	2.1	U	ng/L	P425594	
		Beta-BHC	0.11	U	ng/L	P425594	
		PCB-1221	2.1	U	ng/L	P425594	
		Beta-Cyfluthrin	1.3	U	ng/L	P425594	
		PCB-1232	2.1	U	ng/L	P425594	
		Bifenthrin	0.53	U	ng/L	P425594	
		PCB-1242	2.1	U	ng/L	P425594	
		PCB-1248	2.1	U	ng/L	P425594	
		Chlorothalonil	3.8	U	ng/L	P425594	
		PCB-1254	2.1	U	ng/L	P425594	
		Cis-Nonachlor	0.21	U	ng/L	P425594	
		PCB-1260	2.1	U	ng/L	P425594	
		Cypermethrin	1.6	U	ng/L	P425594	
		Dacthal	0.16	U	ng/L	P425594	
		DDD-p,p'	0.27	U	ng/L	P425594	MS
		DDE-p,p'	0.21	U	ng/L	P425594	MS
		DDT-p,p'	0.27	U	ng/L	P425594	
		Delta-BHC	0.43	U	ng/L	P425594	
		Deltamethrin	1.3	U	ng/L	P425594	
		Dichlobenil	0.27	U	ng/L	P425594	
		Dicofol	1.3	U	ng/L	P425594	
		Dieldrin	0.43	U	ng/L	P425594	
		Endosulfan I	0.43	U	ng/L	P425594	
		Endosulfan II	0.43	U	ng/L	P425594	
		Endosulfan Sulfate	0.32	U	ng/L	P425594	
		Endrin	0.43	U	ng/L	P425594	MS
		Endrin Aldehyde	0.80	U	ng/L	P425594	
		Endrin Ketone	0.43	U	ng/L	P425594	
		Esfenvalerate	0.80	U	ng/L	P425594	
		Ethalfuralin	0.16	U	ng/L	P425594	

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386814	EPA 8270E	Fenpropathrin	0.27	U	ng/L	P425594	
		Gamma-BHC	0.13	U	ng/L	P425594	
		Gamma-Chlordane	0.21	U	ng/L	P425594	
		Heptachlor	0.21	U	ng/L	P425594	
		Heptachlor Epoxide	0.27	U	ng/L	P425594	
		Hexachlorobenzene**	1.1	U	ng/L	P425594	
		Kepone	5.3	U	ng/L	P425594	
		Lambda-Cyhalothrin	0.80	U	ng/L	P425594	
		Methoprene	0.80	U	ng/L	P425594	MS
		Methoxychlor	0.32	U	ng/L	P425594	
		MGK-264	0.21	U	ng/L	P425594	
		Mirex	0.37	U	ng/L	P425594	
		Oxychlordane	0.32	U	ng/L	P425594	
		Permethrin	1.7	U	ng/L	P425594	
		Phenothrin	0.96	U	ng/L	P425594	
		Piperonyl Butoxide	0.26	I	ng/L	P425594	
		Prallethrin	2.1	U	ng/L	P425594	MS
		Tau-Fluvalinate	0.27	U	ng/L	P425594	
		Tetramethrin	0.80	U	ng/L	P425594	
		Trans-Nonachlor	0.21	U	ng/L	P425594	
		Triclosan Methyl	0.16	U	ng/L	P425594	
		Trifluralin	0.21	U	ng/L	P425594	
		Chlordane	2.1	U	ng/L	P425594	
		Toxaphene	16	U	ng/L	P425594	
2386815	EPA 8270E	Oxybenzone**	9.9	U	ng/L	P425781	
		Acetochlor	0.25	U	ng/L	P425781	
		Octinoxate**	44	I	ng/L	P425781	
		Alachlor	0.25	U	ng/L	P425781	MS
		Avobenzone**	99	U	ng/L	P425781	
		Ametryn	0.59	U	ng/L	P425781	
		Atrazine	1.5		ng/L	P425781	
		PBDE-47**	4.0	UJ	ng/L	P425781	CCV
		Atrazine Desethyl	1.8	I	ng/L	P425781	
		PBDE-99**	4.9	U	ng/L	P425781	
		Azinphos Methyl	2.0	U	ng/L	P425781	
		Tri-o-cresyl Phosphate**	5.9	UJ	ng/L	P425781	CCV
		Azoxystrobin	0.49	U	ng/L	P425781	
		Bromacil	0.49	U	ng/L	P425781	
		2-Ethylhexyl	12	U	ng/L	P425781	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.40	U	ng/L	P425781	
		Dechlorane Plus**	30	U	ng/L	P425781	
		Caffeine**	21	I	ng/L	P425781	
		Carbophenothion	0.20	U	ng/L	P425781	
		Carfentrazone Ethyl	0.099	U	ng/L	P425781	RPD

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386815	EPA 8270E	Chlorfenapyr	0.17	U	ng/L	P425781	RPD
		Chlorpyrifos Ethyl	0.25	U	ng/L	P425781	
		Chlorpyrifos Methyl	0.049	U	ng/L	P425781	MS
		Coumaphos	0.49	U	ng/L	P425781	
		Cyanazine	3.2	U	ng/L	P425781	
		Cyprodinil	0.099	U	ng/L	P425781	RPD
		Demeton	1.5	U	ng/L	P425781	
		Diazinon	0.12	U	ng/L	P425781	
		Difenoconazole	0.59	U	ng/L	P425781	
		Dimethenamid	0.099	U	ng/L	P425781	
		Dimethomorph	0.17	U	ng/L	P425781	RPD
		Disulfoton	0.49	U	ng/L	P425781	
		Dithiopyr	0.62	U	ng/L	P425781	RPD
		EPTC	1.2	U	ng/L	P425781	
		Ethion	0.15	U	ng/L	P425781	
		Ethoprop	0.099	U	ng/L	P425781	
		Etridiazole	0.15	U	ng/L	P425781	
		Fenamiphos	0.49	U	ng/L	P425781	
		Fenbuconazole	0.12	U	ng/L	P425781	
		Fipronil	0.25	U	ng/L	P425781	MS, RPD
		Fipronil Desulfinyl**	0.12	U	ng/L	P425781	MS, RPD
		Fipronil Sulfide	0.15	U	ng/L	P425781	MS, RPD
		Fipronil Sulfone	0.15	U	ng/L	P425781	MS, RPD
		Fluazifop-P-butyl	0.099	U	ng/L	P425781	
		Fludioxonil	0.12	U	ng/L	P425781	
		Flumioxazin	4.5	U	ng/L	P425781	
		Flutolanil	0.099	U	ng/L	P425781	RPD
		Fluxapyroxad	0.16	I	ng/L	P425781	
		Fonofos	0.20	U	ng/L	P425781	
		Hexazinone	0.73	I	ng/L	P425781	
		Imazalil	0.74	U	ng/L	P425781	
		Iprodione	0.59	U	ng/L	P425781	
		Loratadine**	0.35	U	ng/L	P425781	
		Malathion	0.35	U	ng/L	P425781	
		Metalaxyl	0.74	U	ng/L	P425781	
		Metolachlor	1.5		ng/L	P425781	
		Metribuzin	1.5	U	ng/L	P425781	
		Mevinphos	1.0	U	ng/L	P425781	
		Molinate	0.30	U	ng/L	P425781	
		Myclobutanil	0.25	U	ng/L	P425781	MS, RPD
		Naled	1.5	UJ	ng/L	P425781	LCS
		Napropamide	0.40	U	ng/L	P425781	
		Norflurazon	0.49	U	ng/L	P425781	MS, RPD
		Oxadiazon	0.30	U	ng/L	P425781	RPD
		Oxyfluorfen	0.15	U	ng/L	P425781	RPD

Field ID: G4NW0421

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2386815	EPA 8270E	Parathion Ethyl	0.25	U	ng/L	P425781	
		Parathion Methyl	0.54	U	ng/L	P425781	
		Pendimethalin	0.99	U	ng/L	P425781	
		Phenytoin**	3.5	U	ng/L	P425781	
		Phorate	0.52	U	ng/L	P425781	
		Prodiamine	0.17	U	ng/L	P425781	
		Prometon	0.89	U	ng/L	P425781	
		Prometryn	0.20	U	ng/L	P425781	RPD
		Pronamide	0.15	U	ng/L	P425781	
		Propanil	0.12	U	ng/L	P425781	
		Propargite	1.5	U	ng/L	P425781	
		Propiconazole	0.49	U	ng/L	P425781	RPD
		Pyraflufen Ethyl	0.25	U	ng/L	P425781	RPD
		Pyridaben	0.45	U	ng/L	P425781	RPD
		Pyriproxyfen	0.12	U	ng/L	P425781	
		Simazine	0.49	U	ng/L	P425781	
		Stirophos	0.12	U	ng/L	P425781	
		Sulfentrazone	0.49	U	ng/L	P425781	
		Tebuconazole	0.49	U	ng/L	P425781	
		Terbufos	0.099	U	ng/L	P425781	
		Terbuthylazine	0.42	U	ng/L	P425781	
		Thiobencarb	0.59	U	ng/L	P425781	RPD
		Triadimefon	0.25	U	ng/L	P425781	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries and relative percent difference are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked 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: P425667

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425673

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P425970

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: P425970

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
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426231

Component	Result	Code	Units
Silver	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426336

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426339

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426177

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425912

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425913

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425943

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425930

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

Reference Method: EPA 8270E
Batch ID: P425594

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425594

Component	Result	Code	Units
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425594

Component	Result	Code	Units
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425781

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425781

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425781

Component	Result	Code	Units
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425781

Component	Result	Code	Units
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
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 8276

Batch ID: P425594

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P425585

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: P425593

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P425593

Component	Result	Code	Units
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B

Batch ID: P425700

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	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: P426049

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

Reference Method: SM 2540 C-2015

Batch ID: P426311

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P426113

Component	Result	Code	Units
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Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P426113

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P426053

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P426022

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: P425667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425673

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P425970

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Iron	102		P	85 - 115
Magnesium	100		P	85 - 115
Potassium	95.2		P	85 - 115
Sodium	98.5		P	85 - 115
Strontium	99.6		P	85 - 115
Tin	104		P	85 - 115
Titanium	103		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	107		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P425970

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	99.9		P	85 - 115
Barium	101		P	85 - 115
Beryllium	97.5		P	85 - 115
Boron	98.6		P	85 - 115
Cadmium	99.2		P	85 - 115
Chromium	102		P	85 - 115
Cobalt	102		P	85 - 115
Copper	99.9		P	85 - 115
Lead	100		P	85 - 115
Manganese	98.9		P	85 - 115
Molybdenum	98.9		P	85 - 115
Nickel	103		P	85 - 115
Selenium	99.4		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426231

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	97.5		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426336

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426339

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426177

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425912

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425913

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425943

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: P425930

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

Reference Method: EPA 8270E
Batch ID: P425594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	61.7		P	10 - 92.0
Alpha-BHC	90.2		P	75 - 107
Alpha-Chlordane	105		P	50 - 108
Beta-BHC	114		P	36 - 138
Beta-Cyfluthrin	88.2		P	20 - 161
Bifenthrin	72.8		P	10 - 119
Chlorothalonil	120		P	26 - 186
Cis-Nonachlor	74.4		P	42 - 119
Cypermethrin	59.0		P	22 - 150
Dacthal	92.3		P	72 - 119

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P425594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
DDD-p,p'	99.8		P	45 - 107
DDE-p,p'	102		P	48 - 106
DDT-p,p'	75.8		P	48 - 110
Delta-BHC	111		P	54 - 140
Deltamethrin	79.8		P	22 - 189
Dichlobenil	88.5		P	36 - 117
Dicofol	87.2		P	46 - 155
Dieldrin	103		P	54 - 110
Endosulfan I	91.8		P	59 - 105
Endosulfan II	115		P	51 - 118
Endosulfan Sulfate	114		P	57 - 121
Endrin	106		P	10 - 120
Endrin Aldehyde	71.7		P	34 - 118
Endrin Ketone	75.2		P	69 - 177
Esfenvalerate	98.1		P	23 - 168
Ethalfuralin	82.5		P	49 - 99.0
Fenpropathrin	73.8		P	34 - 117
Gamma-BHC	84.7		P	72 - 117
Gamma-Chlordane	75.9		P	43 - 106
Heptachlor	80.0		P	41 - 98.0
Heptachlor Epoxide	92.4		P	57 - 106
Hexachlorobenzene	85.4		P	36 - 99.0
Kepone	183		P	16 - 215
Lambda-Cyhalothrin	72.2		P	21 - 177
Methoprene	96.8		P	10 - 119
Methoxychlor	88.5		P	60 - 112
MGK-264	92.9		P	26 - 122
Mirex	63.5		P	10 - 169
Oxychlordane	89.8		P	43 - 105
PCB-1016	90.0		P	48 - 112
PCB-1260	83.9		P	44 - 118
Permethrin	118		P	24 - 148
Phenothrin	65.3		P	10 - 106
Piperonyl Butoxide	116		P	10 - 139
Prallethrin	109		P	17 - 109
Tau-Fluvalinate	81.5		P	13 - 131
Tetramethrin	112		P	10 - 132
Trans-Nonachlor	88.9		P	44 - 106
Triclosan Methyl	86.2		P	59 - 109
Trifluralin	85.9		P	44 - 101

Reference Method: EPA 8270E
Batch ID: P425781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	66.0		P	42 - 162
Acetochlor	85.2		P	69 - 123
Alachlor	87.0		P	65 - 118
Ametryn	135		P	58 - 141
Atrazine	90.6		P	73 - 118
Atrazine Desethyl	54.8		P	32 - 125
Avobenzone	74.2		P	40 - 203

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P425781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Azinphos Methyl	127		P	36 - 197
Azoxystrobin	114		P	58 - 226
Bromacil	88.8		P	48 - 120
Butylate	44.9		P	27 - 85.0
Caffeine	75.3		P	40 - 137
Carbophenothion	93.9		P	54 - 132
Carfentrazone Ethyl	104		P	60 - 142
Chlorfenapyr	88.6		P	53 - 117
Chlorpyrifos Ethyl	81.3		P	59 - 116
Chlorpyrifos Methyl	80.4		P	66 - 119
Coumaphos	98.3		P	11 - 234
Cyanazine	105		P	61 - 248
Cyprodinil	84.9		P	50 - 147
Dechlorane Plus	67.9		P	47 - 182
Demeton	76.4		P	30 - 138
Diazinon	103		P	67 - 126
Difenoconazole	108		P	38 - 205
Dimethenamid	78.2		P	57 - 111
Dimethomorph	133		P	16 - 212
Disulfoton	86.4		P	46 - 126
Dithiopyr	73.0		P	62 - 115
EPTC	49.1		P	28 - 80.0
Ethion	73.0		P	24 - 122
Ethoprop	91.9		P	62 - 113
Etridiazole	53.3		P	28 - 92.0
Fenamiphos	107		P	57 - 128
Fenbuconazole	91.5		P	52 - 155
Fipronil	73.9		P	63 - 130
Fipronil Desulfinyl	73.7		P	61 - 130
Fipronil Sulfide	68.0		P	56 - 117
Fipronil Sulfone	67.7		P	52 - 118
Fluazifop-P-butyl	111		P	61 - 128
Fludioxonil	81.0		P	59 - 129
Flumioxazin	142		P	30 - 250
Flutolanil	109		P	53 - 127
Fluxapyroxad	79.5		P	42 - 132
Fonofos	88.7		P	61 - 110
Hexazinone	96.0		P	46 - 139
Imazalil	68.0		P	40 - 139
Iprodione	115		P	40 - 146
Loratadine	152		P	10 - 224
Malathion	113		P	61 - 135
Metalaxyl	76.0		P	58 - 121
Metolachlor	86.0		P	64 - 118
Metribuzin	97.1		P	45 - 245
Mevinphos	79.9		P	49 - 118
Molinate	59.8		P	42 - 92.0
Myclobutanil	86.1		P	55 - 127
Naled	115		F	10 - 114
Napropamide	97.6		P	39 - 121
Norflurazon	69.1		P	55 - 129
Octinoxate	86.6		P	26 - 166

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P425781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxadiazon	76.7		P	54 - 115
Oxybenzone	50.1		P	49 - 135
Oxyfluorfen	114		P	64 - 139
Parathion Ethyl	105		P	70 - 111
Parathion Methyl	111		P	76 - 136
PBDE-47	59.6		P	41 - 148
PBDE-99	63.9		P	38 - 147
Pendimethalin	94.1		P	52 - 118
Phenytol	43.7		P	10 - 162
Phorate	73.0		P	40 - 122
Prodiamine	32.5		P	26 - 141
Prometon	69.6		P	54 - 122
Prometryn	82.3		P	61 - 128
Pronamide	104		P	72 - 121
Propanil	102		P	45 - 144
Propargite	83.8		P	10 - 199
Propiconazole	80.7		P	56 - 127
Pyraflufen Ethyl	74.7		P	56 - 140
Pyridaben	71.9		P	26 - 211
Pyriproxyfen	85.8		P	33 - 194
Simazine	87.1		P	67 - 121
Stirophos	90.9		P	20 - 142
Sulfentrazone	72.2		P	21 - 144
Tebuconazole	57.6		P	10 - 122
Terbufos	96.7		P	60 - 129
Terbuthylazine	89.1		P	69 - 113
Thiobencarb	101		P	51 - 120
Tri-o-cresyl Phosphate	57.7		P	49 - 150
Triadimefon	83.0		P	56 - 114

Reference Method: EPA 8276

Batch ID: P425594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	110		P	53 - 126
Toxaphene	128		P	56 - 211

Reference Method: EPA 8321B

Batch ID: P425585

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	96.2		P	40 - 150
AMPA	99.0		P	40 - 150
Endothall	98.4		P	40 - 150
Glufosinate	99.2		P	40 - 150
Glyphosate	98.5		P	40 - 150
Sucralose	96.7		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P425593

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

Reference Method: EPA 8321B

Batch ID: P425593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	99.3		P	40 - 150
Aldicarb	49.5		P	30 - 150
Aldicarb Sulfone	105		P	40 - 150
Aldicarb Sulfoxide	110		P	40 - 150
Carbaryl	75.1		P	40 - 150
Carbofuran	97.0		P	40 - 150
Methiocarb	63.7		P	40 - 150
Methomyl	107		P	40 - 150
Oxamyl	118		P	40 - 150
Propoxur	73.8		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P425700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	84.5		P	40 - 150
2,4,5-T	72.1		P	40 - 150
Acetaminophen	87.3		P	30 - 150
Acetamiprid	85.7		P	40 - 150
Afidopyropen	73.1		P	30 - 150
Bentazon	106		P	30 - 150
Benzovindiflupyr	80.5		P	40 - 150
Carbamazepine	82.0		P	40 - 150
Clothianidin	91.5		P	40 - 150
Dinotefuran	95.5		P	40 - 150
Diuron	72.3		P	40 - 150
Fenuron	91.7		P	40 - 150
Fluridone	79.0		P	40 - 150
Hydrocodone	75.8		P	40 - 150
Ibuprofen	84.7		P	40 - 150
Imazapyr	80.8		P	40 - 150
Imidacloprid	84.6		P	40 - 150
Linuron	69.1		P	40 - 150
Mandestrobin	85.9		P	40 - 150
MCPP	88.3		P	40 - 150
Naproxen	66.2		P	40 - 150
Primidone	77.7		P	40 - 150
Pyraclostrobin	75.3		P	40 - 150
Silvex	76.8		P	40 - 150
Thiamethoxam	84.6		P	40 - 150
Tolfenpyrad	51.6		P	30 - 150
Triclopyr	68.8		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P426049

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.0		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P426311

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

Reference Method: SM 2540 D-2015
Batch ID: P426113

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	91.9		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P426053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.5		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426022

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.7		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P425970

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386597	Calcium	97.2		P	80 - 120
2386597	Iron	101	99.1	P/P	80 - 120
2386597	Magnesium	97.0		P	80 - 120
2386597	Potassium	92.6	91.5	P/P	80 - 120
2386597	Sodium	98.3		P	80 - 120
2386597	Strontium	97.5	97.9	P/P	80 - 120
2386597	Tin	102	101	P/P	80 - 120
2386597	Titanium	101	102	P/P	80 - 120
2386597	Vanadium	101	101	P/P	80 - 120
2386597	Zinc	104	104	P/P	80 - 120
2387854	Calcium	103		P	80 - 120
2387854	Iron	102		P	80 - 120
2387854	Magnesium	101		P	80 - 120
2387854	Potassium	101		P	80 - 120
2387854	Sodium	101		P	80 - 120
2387854	Strontium	98.5		P	80 - 120
2387854	Tin	101		P	80 - 120
2387854	Titanium	100		P	80 - 120
2387854	Vanadium	101		P	80 - 120
2387854	Zinc	108		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P425970

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386597	Aluminum	98.6	98.5	P/P	80 - 120
2386597	Antimony	103	103	P/P	80 - 120
2386597	Arsenic	99.4	98.7	P/P	80 - 120
2386597	Barium	101	100	P/P	80 - 120
2386597	Beryllium	97.3	97.4	P/P	80 - 120
2386597	Boron	101	102	P/P	80 - 120
2386597	Cadmium	101	100	P/P	80 - 120
2386597	Chromium	103	103	P/P	80 - 120
2386597	Cobalt	99.9	98.9	P/P	80 - 120
2386597	Copper	95.6	95.3	P/P	80 - 120
2386597	Lead	101	99.6	P/P	80 - 120
2386597	Manganese	102	101	P/P	80 - 120
2386597	Molybdenum	101	99.6	P/P	80 - 120
2386597	Nickel	100	101	P/P	80 - 120
2386597	Selenium	93.6	93.3	P/P	80 - 120
2386597	Thallium	103	102	P/P	80 - 120
2387854	Aluminum	98.6		P	80 - 120
2387854	Antimony	103		P	80 - 120
2387854	Arsenic	99.5		P	80 - 120
2387854	Barium	101		P	80 - 120
2387854	Beryllium	94.7		P	80 - 120
2387854	Boron	103		P	80 - 120
2387854	Cadmium	100		P	80 - 120
2387854	Chromium	101		P	80 - 120
2387854	Cobalt	99.0		P	80 - 120
2387854	Copper	97.5		P	80 - 120
2387854	Lead	101		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P425970

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2387854	Manganese	99.1		P	80 - 120
2387854	Molybdenum	99.5		P	80 - 120
2387854	Nickel	99.7		P	80 - 120
2387854	Selenium	97.5		P	80 - 120
2387854	Thallium	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426231

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386816	Silver	98.3	98.3	P/P	80 - 120
2387854	Silver	98.7		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386877	Chloride	104		P	90 - 110
2387009	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386877	Sulfate	94.3		P	90 - 110
2387009	Sulfate	109		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426177

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386613	Ammonia-N	96.6	95.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425913

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386921	Kjeldahl Nitrogen	92.3	114	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425943

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386770	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386781	Total-P	104	103	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P425594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386475	Aldrin	53.2	59.6	P/P	20 - 82.0
2386475	Alpha-BHC	87.2	87.6	P/P	71 - 109
2386475	Alpha-Chlordane	108	113	F/F	42 - 106
2386475	Beta-BHC	130	134	P/P	69 - 180
2386475	Beta-Cyfluthrin	130	139	P/P	18 - 175
2386475	Bifenthrin	70.5	78.6	P/P	21 - 128
2386475	Chlorothalonil	111	122	P/P	10 - 300
2386475	Cis-Nonachlor	72.1	78.5	P/P	34 - 106
2386475	Cypermethrin	76.2	84.2	P/P	22 - 158
2386475	Dacthal	90.3	87.4	P/P	54 - 116
2386475	DDD-p,p'	118	114	F/F	34 - 107
2386475	DDE-p,p'	117	118	F/F	33 - 110
2386475	DDT-p,p'	76.6	78.1	P/P	50 - 122
2386475	Delta-BHC	129	131	P/P	77 - 193
2386475	Deltamethrin	139	117	P/P	10 - 195
2386475	Dichlobenil	70.0	63.7	P/P	25 - 113
2386475	Dicofol	84.1	90.6	P/P	38 - 247
2386475	Dieldrin	112	116	P/P	45 - 118
2386475	Endosulfan I	81.9	81.9	P/P	51 - 106
2386475	Endosulfan II	107	108	P/P	37 - 122
2386475	Endosulfan Sulfate	125	115	P/P	43 - 132
2386475	Endrin	116	120	F/F	29 - 101
2386475	Endrin Aldehyde	71.1	71.9	P/P	19 - 110
2386475	Endrin Ketone	80.3	83.1	P/P	60 - 140
2386475	Esfenvalerate	144	158	P/P	26 - 199
2386475	Ethalfuralin	84.5	84.9	P/P	45 - 99.0
2386475	Fenpropathrin	82.5	81.9	P/P	35 - 120
2386475	Gamma-BHC	76.8	78.8	P/P	63 - 128
2386475	Gamma-Chlordane	75.2	82.7	P/P	40 - 104
2386475	Heptachlor	68.2	72.7	P/P	36 - 97.0
2386475	Heptachlor Epoxide	81.3	79.9	P/P	49 - 184
2386475	Hexachlorobenzene	80.7	81.2	P/P	39 - 96.0
2386475	Kepone	180	182	P/P	10 - 217
2386475	Lambda-Cyhalothrin	94.6	100	P/P	21 - 193
2386475	Methoprene	116	122	F/F	20 - 106
2386475	Methoxychlor	86.4	93.0	P/P	53 - 118
2386475	MGK-264	76.4	82.6	P/P	40 - 118
2386475	Mirex	76.1	74.6	P/P	26 - 92.0
2386475	Oxychlordane	77.8	80.1	P/P	44 - 99.0
2386475	Permethrin	127	151	P/P	33 - 182
2386475	Phenothrin	84.6	93.8	P/P	10 - 129
2386475	Piperonyl Butoxide	109	109	P/P	10 - 211
2386475	Prallethrin	107	120	P/F	24 - 113
2386475	Tau-Fluvalinate	132	144	P/P	14 - 149
2386475	Tetramethrin	113	120	P/P	17 - 151
2386475	Trans-Nonachlor	80.1	84.1	P/P	42 - 102
2386475	Triclosan Methyl	83.5	86.1	P/P	48 - 108
2386475	Trifluralin	83.5	85.1	P/P	47 - 96.0
2386481	PCB-1016	85.6	88.5	P/P	46 - 111
2386481	PCB-1260	80.4	81.5	P/P	45 - 114

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P425781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386831	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	55.6	50.5	P/P	26 - 165
2386831	Acetochlor	74.5	69.4	P/P	67 - 124
2386831	Alachlor	71.5	55.3	P/F	60 - 120
2386831	Ametryn	105	122	P/P	54 - 216
2386831	Atrazine	86.7	74.8	P/P	66 - 128
2386831	Atrazine Desethyl	47.4	48.2	P/P	15 - 122
2386831	Avobenzone	64.6	62.2	P/P	37 - 178
2386831	Azinphos Methyl	119	64.9	P/P	40 - 292
2386831	Azoxystrobin	102	87.3	P/P	35 - 220
2386831	Bromacil	80.1	58.5	P/P	45 - 127
2386831	Butylate	32.4	36.7	P/P	20 - 83.0
2386831	Caffeine	85.2	83.4	P/P	10 - 194
2386831	Carbophenothion	76.3	62.5	P/P	57 - 127
2386831	Carfentrazone Ethyl	85.4	51.6	P/P	51 - 141
2386831	Chlorfenapyr	82.8	55.2	P/P	46 - 111
2386831	Chlorpyrifos Ethyl	108	93.4	P/P	52 - 120
2386831	Chlorpyrifos Methyl	68.7	61.6	P/F	63 - 119
2386831	Coumaphos	63.6	48.2	P/P	10 - 228
2386831	Cyanazine	84.8	71.8	P/P	59 - 241
2386831	Cyprodinil	92.1	51.7	P/P	47 - 146
2386831	Dechlorane Plus	55.1	54.5	P/P	50 - 150
2386831	Demeton	71.8	58.2	P/P	40 - 136
2386831	Diazinon	107	87.3	P/P	69 - 132
2386831	Difenoconazole	174	135	P/P	57 - 258
2386831	Dimethenamid	68.4	60.7	P/P	54 - 110
2386831	Dimethomorph	138	73.3	P/P	28 - 210
2386831	Disulfoton	67.3	61.2	P/P	43 - 133
2386831	Dithiopyr	64.8	40.1	P/P	39 - 116
2386831	EPTC	24.8	25.5	P/P	20 - 78.0
2386831	Ethion	55.2	34.5	P/P	17 - 119
2386831	Ethoprop	80.4	67.9	P/P	66 - 120
2386831	Etridiazole	43.5	39.8	P/P	28 - 96.0
2386831	Fenamiphos	82.4	56.1	P/P	41 - 126
2386831	Fenbuconazole	67.7	65.6	P/P	42 - 169
2386831	Fipronil	71.4	33.7	P/F	61 - 132
2386831	Fipronil Desulfinyl	59.8	33.1	P/F	56 - 132
2386831	Fipronil Sulfide	63.5	34.8	P/F	48 - 119
2386831	Fipronil Sulfone	64.3	35.9	P/F	42 - 131
2386831	Fluazifop-P-butyl	81.1	66.7	P/P	53 - 131
2386831	Fludioxonil	71.1	58.5	P/P	56 - 127
2386831	Flumioxazin	70.7	53.0	P/P	19 - 300
2386831	Flutolanil	74.3	51.9	P/P	41 - 127
2386831	Fluxapyroxad	62.0	45.0	P/P	42 - 172
2386831	Fonofos	77.7	60.9	P/P	59 - 113
2386831	Hexazinone	101	83.0	P/P	66 - 122
2386831	Imazalil	104	63.5	P/P	21 - 283
2386831	Iprodione	71.5	55.9	P/P	43 - 150
2386831	Loratadine	138	84.1	P/P	23 - 201
2386831	Malathion	79.1	58.3	P/P	58 - 136
2386831	Metalaxyl	76.3	55.6	P/P	55 - 120
2386831	Metolachlor	87.5	65.4	P/P	57 - 121
2386831	Metribuzin	108	68.5	P/P	58 - 294

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P425781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386831	Mevinphos	80.6	66.4	P/P	50 - 126
2386831	Molinate	59.0	43.3	P/P	42 - 93.0
2386831	Myclobutanil	80.5	48.9	P/F	55 - 125
2386831	Naled	88.2	69.2	P/P	18 - 200
2386831	Napropamide	50.6	41.5	P/P	39 - 110
2386831	Norflurazon	73.1	46.9	P/F	48 - 128
2386831	Octinoxate	95.9	145	P/P	21 - 159
2386831	Oxadiazon	59.4	43.8	P/P	43 - 112
2386831	Oxybenzone	47.6	41.7	P/P	41 - 142
2386831	Oxyfluorfen	101	68.8	P/P	64 - 153
2386831	Parathion Ethyl	70.8	69.6	P/P	69 - 114
2386831	Parathion Methyl	86.2	93.2	P/P	79 - 139
2386831	PBDE-47	50.2	43.8	P/P	27 - 144
2386831	PBDE-99	54.0	47.7	P/P	18 - 150
2386831	Pendimethalin	87.3	70.3	P/P	50 - 139
2386831	Phenytoin	28.1	26.8	P/P	10 - 146
2386831	Phorate	72.3	62.2	P/P	54 - 161
2386831	Prodiamine	134	81.3	P/P	30 - 161
2386831	Prometon	60.0	56.4	P/P	45 - 134
2386831	Prometryn	70.3	49.8	P/P	45 - 137
2386831	Pronamide	98.8	83.0	P/P	65 - 133
2386831	Propanil	102	93.7	P/P	49 - 142
2386831	Propargite	49.4	32.6	P/P	10 - 203
2386831	Propiconazole	63.7	40.9	P/P	38 - 146
2386831	Pyraflufen Ethyl	69.6	40.6	P/P	34 - 153
2386831	Pyridaben	74.8	31.4	P/P	12 - 192
2386831	Pyriproxyfen	84.3	51.4	P/P	33 - 180
2386831	Simazine	81.3	78.7	P/P	51 - 157
2386831	Stirophos	61.5	38.3	P/P	10 - 128
2386831	Sulfentrazone	66.6	81.1	P/P	53 - 186
2386831	Tebuconazole	40.5	21.8	P/P	10 - 133
2386831	Terbufos	104	91.3	P/P	65 - 139
2386831	Terbuthylazine	82.6	69.2	P/P	66 - 117
2386831	Thiobencarb	87.7	57.7	P/P	51 - 119
2386831	Tri-o-cresyl Phosphate	49.0	42.7	P/P	31 - 144
2386831	Triadimefon	87.2	69.0	P/P	48 - 119

Reference Method: EPA 8276
Batch ID: P425594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386481	Chlordane	108	115	P/P	53 - 126
2386481	Toxaphene	120	136	P/P	56 - 211

Reference Method: EPA 8321B
Batch ID: P425585

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386143	Acesulfame K	77.6	79.3	P/P	40 - 150
2386143	AMPA	95.2	101	P/P	40 - 150
2386143	Endothall	153	152	F/F	40 - 150
2386143	Glufosinate	117	116	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P425585

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386143	Glyphosate	126	133	P/P	40 - 150
2386143	Sucralose	62.3	65.5	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P425593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386372	3-Hydroxycarbofuran	131	125	P/P	40 - 150
2386372	Aldicarb	60.5	58.5	P/P	30 - 150
2386372	Aldicarb Sulfone	108	110	P/P	40 - 150
2386372	Aldicarb Sulfoxide	76.9	73.3	P/P	40 - 150
2386372	Carbaryl	73.0	73.9	P/P	40 - 150
2386372	Carbofuran	86.0	83.1	P/P	40 - 150
2386372	Methiocarb	76.5	57.3	P/P	40 - 150
2386372	Methomyl	107	95.5	P/P	40 - 150
2386372	Oxamyl	124	112	P/P	40 - 150
2386372	Propoxur	63.4	60.4	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P425700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386373	2,4-D	99.3	104	P/P	40 - 150
2386373	2,4,5-T	86.0	86.9	P/P	40 - 150
2386373	Acetaminophen	101	106	P/P	30 - 150
2386373	Acetamiprid	102	95.7	P/P	40 - 150
2386373	Afidopyropen	60.6	77.7	P/P	30 - 150
2386373	Benzovindiflupyr	82.2	86.0	P/P	40 - 150
2386373	Carbamazepine	91.7	89.8	P/P	40 - 150
2386373	Clothianidin	99.0	106	P/P	40 - 150
2386373	Dinotefuran	106	114	P/P	40 - 150
2386373	Diuron	74.1	81.6	P/P	40 - 150
2386373	Fenuron	89.2	91.5	P/P	40 - 150
2386373	Fluridone	60.4	81.7	P/P	40 - 150
2386373	Hydrocodone	99.1	82.9	P/P	40 - 150
2386373	Ibuprofen	96.2	97.5	P/P	40 - 150
2386373	Imidacloprid	122	126	P/P	40 - 150
2386373	Linuron	72.5	70.7	P/P	40 - 150
2386373	Mandestrobin	90.6	88.9	P/P	40 - 150
2386373	MCP	104	104	P/P	40 - 150
2386373	Naproxen	85.9	96.2	P/P	40 - 150
2386373	Primidone	94.1	85.5	P/P	40 - 150
2386373	Pyraclostrobin	84.2	87.7	P/P	40 - 150
2386373	Silvex	85.7	98.7	P/P	40 - 150
2386373	Thiamethoxam	98.2	108	P/P	40 - 150
2386373	Tolfenpyrad	50.5	53.7	P/P	30 - 150
2386373	Triclopyr	85.0	82.7	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P426053

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

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P426053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386771	Fluoride	100	98.9	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386772	Organic Carbon	92.0	93.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P425667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386798	Color (true)	1.36	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386743	Turbidity	6.97	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P425970

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386597	Calcium	0.345	Spike	P	0 - 20
2386597	Iron	1.46	Spike	P	0 - 20
2386597	Magnesium	1.68	Spike	P	0 - 20
2386597	Potassium	1.03	Spike	P	0 - 20
2386597	Sodium	0.0337	Spike	P	0 - 20
2386597	Strontium	0.329	Spike	P	0 - 20
2386597	Tin	0.777	Spike	P	0 - 20
2386597	Titanium	0.149	Spike	P	0 - 20
2386597	Vanadium	0.323	Spike	P	0 - 20
2386597	Zinc	0.263	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P425970

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386597	Aluminum	0.0930	Spike	P	0 - 20
2386597	Antimony	0.0664	Spike	P	0 - 20
2386597	Arsenic	0.691	Spike	P	0 - 20
2386597	Barium	0.754	Spike	P	0 - 20
2386597	Beryllium	0.0848	Spike	P	0 - 20
2386597	Boron	0.569	Spike	P	0 - 20
2386597	Cadmium	1.32	Spike	P	0 - 20
2386597	Chromium	0.149	Spike	P	0 - 20
2386597	Cobalt	0.978	Spike	P	0 - 20
2386597	Copper	0.405	Spike	P	0 - 20
2386597	Lead	1.28	Spike	P	0 - 20
2386597	Manganese	0.952	Spike	P	0 - 20
2386597	Molybdenum	1.09	Spike	P	0 - 20
2386597	Nickel	0.696	Spike	P	0 - 20
2386597	Selenium	0.358	Spike	P	0 - 20
2386597	Thallium	0.876	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P426231

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386816	Silver	0.0528	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386877	Chloride	1.94	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386877	Sulfate	3.03	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426177

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386613	Ammonia-N	0.630	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425913

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386921	Kjeldahl Nitrogen	12.6	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386770	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386781	Total-P	0.746	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P425594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386475	Aldrin	11.4	Spike	P	0 - 41
2386475	Alpha-BHC	0.461	Spike	P	0 - 25

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P425594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386475	Alpha-Chlordane	4.46	Spike	P	0 - 33
2386475	Beta-BHC	2.85	Spike	P	0 - 36
2386475	Beta-Cyfluthrin	6.38	Spike	P	0 - 42
2386475	Bifenthrin	11.0	Spike	P	0 - 53
2386475	Chlorothalonil	9.51	Spike	P	0 - 71
2386475	Cis-Nonachlor	8.53	Spike	P	0 - 29
2386475	Cypermethrin	9.98	Spike	P	0 - 40
2386475	Dacthal	3.35	Spike	P	0 - 26
2386475	DDD-p,p'	3.48	Spike	P	0 - 39
2386475	DDE-p,p'	0.886	Spike	P	0 - 33
2386475	DDT-p,p'	1.89	Spike	P	0 - 40
2386475	Delta-BHC	1.25	Spike	P	0 - 37
2386475	Deltamethrin	16.9	Spike	P	0 - 100
2386475	Dichlobenil	9.41	Spike	P	0 - 40
2386475	Dicofol	7.41	Spike	P	0 - 31
2386475	Dieldrin	3.27	Spike	P	0 - 27
2386475	Endosulfan I	0.0825	Spike	P	0 - 23
2386475	Endosulfan II	0.549	Spike	P	0 - 28
2386475	Endosulfan Sulfate	7.79	Spike	P	0 - 38
2386475	Endrin	3.18	Spike	P	0 - 63
2386475	Endrin Aldehyde	1.21	Spike	P	0 - 60
2386475	Endrin Ketone	3.33	Spike	P	0 - 37
2386475	Esfenvalerate	9.47	Spike	P	0 - 52
2386475	Ethalfuralin	0.493	Spike	P	0 - 23
2386475	Fenpropathrin	0.707	Spike	P	0 - 32
2386475	Gamma-BHC	2.48	Spike	P	0 - 17
2386475	Gamma-Chlordane	9.53	Spike	P	0 - 40
2386475	Heptachlor	6.31	Spike	P	0 - 29
2386475	Heptachlor Epoxide	1.75	Spike	P	0 - 25
2386475	Hexachlorobenzene	0.594	Spike	P	0 - 36
2386475	Kepone	0.742	Spike	P	0 - 93
2386475	Lambda-Cyhalothrin	5.83	Spike	P	0 - 55
2386475	Methoprene	4.60	Spike	P	0 - 53
2386475	Methoxychlor	7.33	Spike	P	0 - 29
2386475	MGK-264	7.79	Spike	P	0 - 35
2386475	Mirex	1.97	Spike	P	0 - 46
2386475	Oxychlordane	2.95	Spike	P	0 - 29
2386475	Permethrin	17.4	Spike	P	0 - 44
2386475	Phenothrin	10.3	Spike	P	0 - 56
2386475	Piperonyl Butoxide	0.774	Spike	P	0 - 100
2386475	Prallethrin	11.3	Spike	P	0 - 42
2386475	Tau-Fluvalinate	8.42	Spike	P	0 - 54
2386475	Tetramethrin	5.67	Spike	P	0 - 51
2386475	Trans-Nonachlor	4.84	Spike	P	0 - 37
2386475	Triclosan Methyl	3.04	Spike	P	0 - 31
2386475	Trifluralin	1.86	Spike	P	0 - 30
2386481	PCB-1016	3.27	Spike	P	0 - 32
2386481	PCB-1260	1.38	Spike	P	0 - 31

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P425781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386831	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	9.55	Spike	P	0 - 37
2386831	Acetochlor	7.12	Spike	P	0 - 28
2386831	Alachlor	25.5	Spike	P	0 - 30
2386831	Ametryn	15.4	Spike	P	0 - 32
2386831	Atrazine	14.8	Spike	P	0 - 41
2386831	Atrazine Desethyl	1.77	Spike	P	0 - 36
2386831	Avobenzone	3.75	Spike	P	0 - 36
2386831	Azinphos Methyl	59.0	Spike	P	0 - 75
2386831	Azoxystrobin	15.5	Spike	P	0 - 39
2386831	Bromacil	31.1	Spike	P	0 - 33
2386831	Butylate	12.4	Spike	P	0 - 44
2386831	Caffeine	2.03	Spike	P	0 - 74
2386831	Carbophenothion	19.8	Spike	P	0 - 25
2386831	Carfentrazone Ethyl	49.4	Spike	F	0 - 27
2386831	Chlorfenapyr	39.9	Spike	F	0 - 24
2386831	Chlorpyrifos Ethyl	14.7	Spike	P	0 - 26
2386831	Chlorpyrifos Methyl	11.0	Spike	P	0 - 26
2386831	Coumaphos	27.7	Spike	P	0 - 28
2386831	Cyanazine	16.5	Spike	P	0 - 48
2386831	Cyprodinil	56.1	Spike	F	0 - 29
2386831	Dechlorane Plus	1.08	Spike	P	0 - 30
2386831	Demeton	21.0	Spike	P	0 - 33
2386831	Diazinon	19.9	Spike	P	0 - 29
2386831	Difenoconazole	25.3	Spike	P	0 - 34
2386831	Dimethenamid	12.0	Spike	P	0 - 39
2386831	Dimethomorph	61.2	Spike	F	0 - 51
2386831	Disulfoton	9.53	Spike	P	0 - 30
2386831	Dithiopyr	47.1	Spike	F	0 - 26
2386831	EPTC	2.87	Spike	P	0 - 43
2386831	Ethion	46.1	Spike	P	0 - 79
2386831	Ethoprop	16.8	Spike	P	0 - 29
2386831	Etridiazole	9.08	Spike	P	0 - 33
2386831	Fenamiphos	38.0	Spike	P	0 - 40
2386831	Fenbuconazole	3.12	Spike	P	0 - 74
2386831	Fipronil	71.6	Spike	F	0 - 29
2386831	Fipronil Desulfanyl	57.5	Spike	F	0 - 32
2386831	Fipronil Sulfide	58.4	Spike	F	0 - 30
2386831	Fipronil Sulfone	56.6	Spike	F	0 - 33
2386831	Fluazifop-P-butyl	19.5	Spike	P	0 - 38
2386831	Fludioxonil	19.4	Spike	P	0 - 29
2386831	Flumioxazin	28.6	Spike	P	0 - 51
2386831	Flutolanil	35.5	Spike	F	0 - 25
2386831	Fluxapyroxad	31.9	Spike	P	0 - 45
2386831	Fonofos	24.2	Spike	P	0 - 27
2386831	Hexazinone	19.8	Spike	P	0 - 30
2386831	Imazalil	48.2	Spike	P	0 - 100
2386831	Iprodione	24.5	Spike	P	0 - 33
2386831	Loratadine	48.4	Spike	P	0 - 56
2386831	Malathion	30.3	Spike	P	0 - 37
2386831	Metalaxyl	31.4	Spike	P	0 - 40
2386831	Metolachlor	28.9	Spike	P	0 - 29

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P425781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386831	Metribuzin	44.5	Spike	P	0 - 45
2386831	Mevinphos	19.4	Spike	P	0 - 29
2386831	Molinate	30.8	Spike	P	0 - 33
2386831	Myclobutanil	48.8	Spike	F	0 - 26
2386831	Naled	24.1	Spike	P	0 - 37
2386831	Napropamide	19.7	Spike	P	0 - 44
2386831	Norflurazon	43.7	Spike	F	0 - 30
2386831	Octinoxate	41.0	Spike	P	0 - 45
2386831	Oxadiazon	30.3	Spike	F	0 - 28
2386831	Oxybenzone	13.3	Spike	P	0 - 46
2386831	Oxyfluorfen	38.1	Spike	F	0 - 28
2386831	Parathion Ethyl	1.77	Spike	P	0 - 31
2386831	Parathion Methyl	7.81	Spike	P	0 - 29
2386831	PBDE-47	13.6	Spike	P	0 - 36
2386831	PBDE-99	12.3	Spike	P	0 - 40
2386831	Pendimethalin	21.6	Spike	P	0 - 33
2386831	Phenytoin	4.89	Spike	P	0 - 100
2386831	Phorate	15.0	Spike	P	0 - 36
2386831	Prodiamine	48.6	Spike	P	0 - 71
2386831	Prometon	6.08	Spike	P	0 - 36
2386831	Prometryn	34.3	Spike	F	0 - 28
2386831	Pronamide	17.3	Spike	P	0 - 24
2386831	Propanil	8.55	Spike	P	0 - 28
2386831	Propargite	40.9	Spike	P	0 - 43
2386831	Propiconazole	43.6	Spike	F	0 - 33
2386831	Pyraflufen Ethyl	52.8	Spike	F	0 - 29
2386831	Pyridaben	81.8	Spike	F	0 - 30
2386831	Pyriproxyfen	48.4	Spike	P	0 - 79
2386831	Simazine	3.32	Spike	P	0 - 29
2386831	Stirophos	46.6	Spike	P	0 - 61
2386831	Sulfentrazone	19.6	Spike	P	0 - 33
2386831	Tebuconazole	59.9	Spike	P	0 - 69
2386831	Terbufos	12.8	Spike	P	0 - 29
2386831	Terbuthylazine	17.5	Spike	P	0 - 32
2386831	Thiobencarb	41.2	Spike	F	0 - 26
2386831	Tri-o-cresyl Phosphate	13.8	Spike	P	0 - 33
2386831	Triadimefon	23.3	Spike	P	0 - 28

Reference Method: EPA 8276

Batch ID: P425594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386481	Chlordane	6.27	Spike	P	0 - 25
2386481	Toxaphene	12.3	Spike	P	0 - 26

Reference Method: EPA 8321B

Batch ID: P425585

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P425585

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386143	Acesulfame K	2.19	Spike	P	0 - 30
2386143	AMPA	5.09	Spike	P	0 - 30
2386143	Endothall	1.24	Spike	P	0 - 30
2386143	Glufosinate	0.483	Spike	P	0 - 30
2386143	Glyphosate	5.44	Spike	P	0 - 30
2386143	Sucralose	4.88	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P425593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386372	3-Hydroxycarbofuran	4.19	Spike	P	0 - 30
2386372	Aldicarb	3.43	Spike	P	0 - 30
2386372	Aldicarb Sulfone	1.66	Spike	P	0 - 30
2386372	Aldicarb Sulfoxide	4.69	Spike	P	0 - 30
2386372	Carbaryl	1.28	Spike	P	0 - 30
2386372	Carbofuran	3.34	Spike	P	0 - 30
2386372	Methiocarb	28.6	Spike	P	0 - 30
2386372	Methomyl	11.3	Spike	P	0 - 30
2386372	Oxamyl	10.1	Spike	P	0 - 30
2386372	Propoxur	4.76	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P425700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386373	2,4-D	4.46	Spike	P	0 - 30
2386373	2,4,5-T	1.08	Spike	P	0 - 30
2386373	Acetaminophen	4.87	Spike	P	0 - 30
2386373	Acetamiprid	5.90	Spike	P	0 - 30
2386373	Afidopyropen	24.7	Spike	P	0 - 30
2386373	Bentazon	1.35	Spike	P	0 - 30
2386373	Benzovindiflupyr	4.56	Spike	P	0 - 30
2386373	Carbamazepine	2.12	Spike	P	0 - 30
2386373	Clothianidin	7.24	Spike	P	0 - 30
2386373	Dinotefuran	6.79	Spike	P	0 - 30
2386373	Diuron	8.93	Spike	P	0 - 30
2386373	Fenuron	2.56	Spike	P	0 - 30
2386373	Fluridone	14.1	Spike	P	0 - 30
2386373	Hydrocodone	17.9	Spike	P	0 - 30
2386373	Ibuprofen	1.35	Spike	P	0 - 30
2386373	Imazapyr	3.17	Spike	P	0 - 30
2386373	Imidacloprid	2.75	Spike	P	0 - 30
2386373	Linuron	2.54	Spike	P	0 - 30
2386373	Mandestrobin	1.97	Spike	P	0 - 30
2386373	MCPP	0.137	Spike	P	0 - 30
2386373	Naproxen	11.4	Spike	P	0 - 30
2386373	Primidone	9.64	Spike	P	0 - 30
2386373	Pyraclostrobin	4.08	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P425700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386373	Silvex	14.1	Spike	P	0 - 30
2386373	Thiamethoxam	9.83	Spike	P	0 - 30
2386373	Tolfenpyrad	6.14	Spike	P	0 - 30
2386373	Triclopyr	2.79	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P426049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386771	Total Alkalinity	0.0992	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015
Batch ID: P426311

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386420	TDS	1.78	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P426053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386771	Fluoride	0.974	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P426022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386772	Organic Carbon	1.30	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2386812
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	65.1	P	30 - 160

Lab Sample ID: 2386813
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	121	P	30 - 160
EPA 8321B	Acetaminophen-d4	101	P	30 - 160
EPA 8321B	Carbamazepine-d10	102	P	30 - 160
EPA 8321B	Diuron-d6	70.1	P	30 - 160
EPA 8321B	Endothall-d6	89.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	105	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.4	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	99.1	P	30 - 160

Lab Sample ID: 2386814
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	74.8	P	29 - 130
EPA 8270E	Decachlorobiphenyl	64.4	P	30 - 118
EPA 8270E	Tetrachloro-m-xylene	74.9	P	29 - 104
EPA 8270E	Tetrachloro-m-xylene	70.8	P	30 - 97.0
EPA 8276	Decachlorobiphenyl	59.2	P	30 - 101
EPA 8276	PCNB	90.7	P	48 - 121

Lab Sample ID: 2386815
Field Sample ID: G4NW0421

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	60.8	P	20 - 200
EPA 8270E	Simazine-d10	78.6	P	62 - 142
EPA 8270E	Terbufos-d10	66.6	P	58 - 132
EPA 8270E	Terphenyl-d14	85.0	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A117384

Included Lab Sample IDs: 2386798, 2386800, 2386801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.5	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A117388

Included Lab Sample IDs: 2386798, 2386800, 2386801

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

Reference Method: EPA 8321B

Run ID: A117416

Included Lab Sample IDs: 2386813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	99.2	P/P	60 - 160
Sucralose	105	103	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A117424

Included Lab Sample IDs: 2386812

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	101	117	P/P	60 - 150
Aldicarb	83.7	95.7	P/P	60 - 150
Aldicarb Sulfone	114	118	P/P	50 - 150
Aldicarb Sulfoxide	110	117	P/P	50 - 150
Carbaryl	111	109	P/P	60 - 150
Carbofuran	137	133	P/P	50 - 150
Methiocarb	90.7	92.2	P/P	50 - 150
Methomyl	104	115	P/P	50 - 150
Oxamyl	118	132	P/P	50 - 150
Propoxur	110	116	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A117425

Included Lab Sample IDs: 2386813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	108	P/P	60 - 160
Endothall	89.4	89.8	P/P	60 - 160
Glufosinate	88.1	94.1	P/P	60 - 160
Glyphosate	104	97.2	P/P	60 - 160

Reference Method: EPA 8270E

Run ID: A117438

Included Lab Sample IDs: 2386814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	98.7		P	80 - 120
PCB-1260	94.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A117459
Included Lab Sample IDs: 2386813

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.1	122	P/P	50 - 150
2,4,5-T	115	103	P/P	50 - 150
Acetaminophen	103	105	P/P	60 - 160
Acetamiprid	105	103	P/P	50 - 150
Afidopyropen	114	87.6	P/P	50 - 150
Bentazon	121	137	P/P	50 - 160
Benzovindiflupyr	101	107	P/P	50 - 150
Carbamazepine	119	148	P/P	60 - 150
Clothianidin	105	109	P/P	60 - 150
Dinotefuran	104	104	P/P	50 - 150
Diuron	104	121	P/P	60 - 160
Fenuron	103	100	P/P	60 - 150
Fluridone	121	104	P/P	60 - 160
Hydrocodone	95.1	100	P/P	60 - 150
Ibuprofen	144	119	P/P	50 - 160
Imazapyr	100	96.2	P/P	50 - 150
Imidacloprid	99.0	105	P/P	60 - 150
Linuron	105	101	P/P	60 - 150
Mandestrobin	101	105	P/P	50 - 150
MCPP	115	102	P/P	50 - 150
Naproxen	144	99.4	P/P	50 - 160
Primidone	94.7	98.1	P/P	60 - 150
Pyraclostrobin	111	107	P/P	60 - 150
Silvex	90.0	97.2	P/P	50 - 150
Thiamethoxam	110	104	P/P	50 - 150
Tolfenpyrad	101	104	P/P	60 - 150
Triclopyr	102	97.0	P/P	50 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A117480
Included Lab Sample IDs: 2386799, 2386802, 2386803

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

Reference Method: SM 5310 B-2011
Run ID: A117520
Included Lab Sample IDs: 2386799, 2386802, 2386803

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	92.3	96.7	P/P	90 - 110
Organic Carbon	96.5	96.8	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A117530
Included Lab Sample IDs: 2386798, 2386800, 2386801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.5	95.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A117530

Included Lab Sample IDs: 2386798, 2386800, 2386801

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

Reference Method: EPA 8270E

Run ID: A117532

Included Lab Sample IDs: 2386814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	105		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	105		P	80 - 120
Beta-Cyfluthrin	102		P	80 - 120
Bifenthrin	101		P	80 - 120
Chlorothalonil	93.2		P	80 - 120
Cis-Nonachlor	96.6		P	80 - 120
Cypermethrin	97.4		P	80 - 120
Dacthal	103		P	80 - 120
DDD-p,p'	95.7		P	80 - 120
DDE-p,p'	103		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	98.9		P	80 - 120
Deltamethrin	99.2		P	80 - 120
Dichlobenil	101		P	80 - 120
Dicofol	99.7		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	101		P	80 - 120
Endosulfan II	95.9		P	80 - 120
Endosulfan Sulfate	100		P	80 - 120
Endrin	105		P	80 - 120
Endrin Aldehyde	96.4		P	80 - 120
Endrin Ketone	93.7		P	80 - 120
Esfenvalerate	96.1		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	104		P	80 - 120
Gamma-BHC	105		P	80 - 120
Gamma-Chlordane	98.2		P	80 - 120
Heptachlor	102		P	80 - 120
Heptachlor Epoxide	105		P	80 - 120
Hexachlorobenzene	98.4		P	80 - 120
Kepone	87.2		P	80 - 120
Lambda-Cyhalothrin	106		P	80 - 120
Methoprene	100		P	80 - 120
Methoxychlor	101		P	80 - 120
MGK-264	98.9		P	80 - 120
Mirex	104		P	80 - 120
Oxychlordane	106		P	80 - 120
Permethrin	104		P	80 - 120
Phenothrin	103		P	80 - 120
Piperonyl Butoxide	85.6		P	80 - 120
Prallethrin	97.0		P	80 - 120
Tau-Fluvalinate	98.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117532
Included Lab Sample IDs: 2386814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tetramethrin	91.5		P	80 - 120
Trans-Nonachlor	103		P	80 - 120
Triclosan Methyl	97.4		P	80 - 120
Trifluralin	106		P	80 - 120

Reference Method: EPA 8270E
Run ID: A117553
Included Lab Sample IDs: 2386815

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	102		P	80 - 120
Avobenzone	113		P	80 - 120
Dechlorane Plus	104		P	80 - 120
Octinoxate	82.5		P	80 - 120
Oxybenzone	90.9		P	80 - 120
PBDE-47	68.1*		F	80 - 120
PBDE-99	105		P	80 - 120
Tri-o-cresyl Phosphate	71.4*		F	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A117557
Included Lab Sample IDs: 2386816, 2386817, 2386818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.8	99.0	P/P	90 - 110
Antimony	102	103	P/P	90 - 110
Arsenic	98.8	98.3	P/P	90 - 110
Barium	99.2	100	P/P	90 - 110
Beryllium	98.6	96.4	P/P	90 - 110
Boron	97.6	96.8	P/P	90 - 110
Cadmium	99.3	99.3	P/P	90 - 110
Chromium	101	99.9	P/P	90 - 110
Cobalt	98.9	97.3	P/P	90 - 110
Copper	96.8	96.1	P/P	90 - 110
Lead	99.7	99.9	P/P	90 - 110
Manganese	101	100	P/P	90 - 110
Molybdenum	98.0	98.2	P/P	90 - 110
Nickel	98.5	97.0	P/P	90 - 110
Selenium	99.5	98.9	P/P	90 - 110
Thallium	102	102	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A117561
Included Lab Sample IDs: 2386814

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	103		P	80 - 120
Toxaphene	111		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117566

Included Lab Sample IDs: 2386799, 2386802, 2386803

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.8	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A117570

Included Lab Sample IDs: 2386799, 2386802, 2386803

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A117607

Included Lab Sample IDs: 2386798, 2386800, 2386801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	105	P/P	90 - 110
Sulfate	105	108	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A117613

Included Lab Sample IDs: 2386816, 2386817, 2386818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	98.5	P/P	90 - 110
Iron	99.7	98.4	P/P	90 - 110
Magnesium	100	98.5	P/P	90 - 110
Potassium	98.4	97.0	P/P	90 - 110
Sodium	99.4	97.3	P/P	90 - 110
Strontium	99.9	100	P/P	90 - 110
Tin	102	99.5	P/P	90 - 110
Titanium	99.9	98.4	P/P	90 - 110
Vanadium	100	98.9	P/P	90 - 110
Zinc	106	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A117625

Included Lab Sample IDs: 2386799, 2386802, 2386803

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	97.5	P/P	90 - 110
Kjeldahl Nitrogen	97.5	106	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A117640

Included Lab Sample IDs: 2386816, 2386817, 2386818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	95.6	96.7	P/P	90 - 110
Silver	97.2	95.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117679
Included Lab Sample IDs: 2386815

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	88.7		P	80 - 120
Ametryn	91.2		P	80 - 120
Atrazine	95.7		P	80 - 120
Atrazine Desethyl	105		P	80 - 120
Azinphos Methyl	86.2		P	80 - 120
Azoxystrobin	104		P	80 - 120
Bromacil	94.9		P	80 - 120
Butylate	85.9		P	80 - 120
Caffeine	110		P	80 - 120
Carbophenothion	95.5		P	80 - 120
Carfentrazone Ethyl	105		P	80 - 120
Chlorfenapyr	106		P	80 - 120
Chlorpyrifos Ethyl	94.6		P	80 - 120
Chlorpyrifos Methyl	106		P	80 - 120
Coumaphos	98.2		P	80 - 120
Cyanazine	97.0		P	80 - 120
Cyprodinil	110		P	80 - 120
Demeton	98.2		P	80 - 120
Diazinon	93.8		P	80 - 120
Difenoconazole	96.9		P	80 - 120
Dimethenamid	115		P	80 - 120
Dimethomorph	80.3		P	80 - 120
Disulfoton	92.7		P	80 - 120
Dithiopyr	82.8		P	80 - 120
EPTC	102		P	80 - 120
Ethion	95.4		P	80 - 120
Ethoprop	99.0		P	80 - 120
Etridiazole	104		P	80 - 120
Fenamiphos	106		P	80 - 120
Fenbuconazole	89.2		P	80 - 120
Fipronil	95.7		P	80 - 120
Fipronil Desulfinyl	93.9		P	80 - 120
Fipronil Sulfide	99.8		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	97.4		P	80 - 120
Flumioxazin	83.9		P	80 - 120
Flutolanil	111		P	80 - 120
Fluxapyroxad	92.1		P	80 - 120
Fonofos	89.3		P	80 - 120
Hexazinone	97.5		P	80 - 120
Imazalil	110		P	80 - 120
Iprodione	83.0		P	80 - 120
Loratadine	82.9		P	80 - 120
Malathion	95.9		P	80 - 120
Metalaxyl	93.6		P	80 - 120
Metolachlor	92.8		P	80 - 120
Metribuzin	96.0		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	82.6		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117679
Included Lab Sample IDs: 2386815

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Myclobutanil	101		P	80 - 120
Naled	103		P	80 - 120
Napropamide	103		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	99.9		P	80 - 120
Oxyfluorfen	109		P	80 - 120
Parathion Ethyl	98.4		P	80 - 120
Parathion Methyl	97.6		P	80 - 120
Pendimethalin	97.1		P	80 - 120
Phenytol	86.1		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	87.1		P	80 - 120
Prometon	83.0		P	80 - 120
Prometryn	84.9		P	80 - 120
Pronamide	94.0		P	80 - 120
Propanil	103		P	80 - 120
Propargite	91.1		P	80 - 120
Propiconazole	105		P	80 - 120
Pyraflufen Ethyl	96.0		P	80 - 120
Pyridaben	98.8		P	80 - 120
Pyriproxyfen	95.1		P	80 - 120
Simazine	102		P	80 - 120
Stirophos	91.8		P	80 - 120
Sulfentrazone	105		P	80 - 120
Tebuconazole	89.0		P	80 - 120
Terbufos	94.1		P	80 - 120
Terbuthylazine	96.4		P	80 - 120
Thiobencarb	100		P	80 - 120
Triadimefon	111		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 SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	100				1.36	
EPA 180.1 Rev. 2.0	Turbidity	101				6.97	
EPA 200.7 Rev. 4.4	Calcium	100	97.2	103			0.345
	Iron	102	101	99.1	102		1.46
	Magnesium	100	97.0	101			1.68
	Potassium	95.2	92.6	91.5	101		1.03
	Sodium	98.5	98.3	101			0.0337
	Strontium	99.6	97.5	97.9	98.5		0.329
	Tin	104	102	101	101		0.777
	Titanium	103	101	102	100		0.149
	Vanadium	101	101	101	101		0.323
	Zinc	107	104	104	108		0.263
EPA 200.8 Rev. 5.4	Aluminum	100	98.6	98.5	98.6		0.0930
	Antimony	101	103	103	103		0.0664
	Arsenic	99.9	99.4	98.7	99.5		0.691
	Barium	101	101	100	101		0.754
	Beryllium	97.5	97.3	97.4	94.7		0.0848
	Boron	98.6	101	102	103		0.569
	Cadmium	99.2	101	100	100		1.32
	Chromium	102	103	103	101		0.149
	Cobalt	102	99.0	99.9	98.9		0.978
	Copper	99.9	95.6	95.3	97.5		0.405
	Lead	100	101	99.6	101		1.28
	Manganese	98.9	102	101	99.1		0.952
	Molybdenum	98.9	101	99.6	99.5		1.09
	Nickel	103	100	101	99.7		0.696
	Selenium	99.4	93.6	93.3	97.5		0.358
	Silver	97.5	98.3	98.3	98.7		0.0528
	Thallium	102	103	102	104		0.876
EPA 300.0 Rev. 2.1	Chloride	101	104	105		1.94	
	Sulfate	105	94.3	109		3.03	
EPA 350.1 Rev. 2.0	Ammonia-N	95.0	96.6	95.8			0.630
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104					
	Kjeldahl Nitrogen	103	92.3	114			12.6
EPA 353.2 Rev. 2.0	NO2NO3-N	102	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	102	104	103			0.746
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	66.0	55.6	50.5			9.55
	Acetochlor	85.2	69.4	74.5			7.12
	Alachlor	87.0	71.5	55.3			25.5
	Aldrin	61.7	53.2	59.6			11.4
	Alpha-BHC	90.2	87.2	87.6			0.461
	Alpha-Chlordane	105	108	113			4.46
	Ametryn	135	122	105			15.4
	Atrazine	90.6	74.8	86.7			14.8
	Atrazine Desethyl	54.8	48.2	47.4			1.77
	Avobenzone	74.2	64.6	62.2			3.75
	Azinphos Methyl	127	64.9	119			59.0
	Azoxystrobin	114	87.3	102			15.5
	Beta-BHC	114	130	134			2.85
	Beta-Cyfluthrin	88.2	130	139			6.38
	Bifenthrin	72.8	70.5	78.6			11.0
	Bromacil	88.8	58.5	80.1			31.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Butylate	44.9	36.7	32.4			12.4
	Caffeine	75.3	83.4	85.2			2.03
	Carbophenothion	93.9	76.3	62.5			19.8
	Carfentrazone Ethyl	104	85.4	51.6			49.4
	Chlorfenapyr	88.6	82.8	55.2			39.9
	Chlorothalonil	120	111	122			9.51
	Chlorpyrifos Ethyl	81.3	108	93.4			14.7
	Chlorpyrifos Methyl	80.4	68.7	61.6			11.0
	Cis-Nonachlor	74.4	72.1	78.5			8.53
	Coumaphos	98.3	63.6	48.2			27.7
	Cyanazine	105	71.8	84.8			16.5
	Cypermethrin	59.0	76.2	84.2			9.98
	Cyprodinil	84.9	92.1	51.7			56.1
	Dacthal	92.3	90.3	87.4			3.35
	DDD-p,p'	99.8	118	114			3.48
	DDE-p,p'	102	117	118			0.886
	DDT-p,p'	75.8	76.6	78.1			1.89
	Dechlorane Plus	67.9	55.1	54.5			1.08
	Delta-BHC	111	129	131			1.25
	Deltamethrin	79.8	139	117			16.9
	Demeton	76.4	58.2	71.8			21.0
	Diazinon	103	107	87.3			19.9
	Dichlobenil	88.5	70.0	63.7			9.41
	Dicofol	87.2	84.1	90.6			7.41
	Dieldrin	103	112	116			3.27
	Difenoconazole	108	174	135			25.3
	Dimethenamid	78.2	60.7	68.4			12.0
	Dimethomorph	133	138	73.3			61.2
	Disulfoton	86.4	67.3	61.2			9.53
	Dithiopyr	73.0	64.8	40.1			47.1
	Endosulfan I	91.8	81.9	81.9			0.0825
	Endosulfan II	115	107	108			0.549
	Endosulfan Sulfate	114	125	115			7.79
	Endrin	106	116	120			3.18
	Endrin Aldehyde	71.7	71.1	71.9			1.21
	Endrin Ketone	75.2	80.3	83.1			3.33
	EPTC	49.1	25.5	24.8			2.87
	Esfenvalerate	98.1	144	158			9.47
	Ethalfuralin	82.5	84.5	84.9			0.493
	Ethion	73.0	34.5	55.2			46.1
	Ethoprop	91.9	67.9	80.4			16.8
	Etridiazole	53.3	39.8	43.5			9.08
	Fenamiphos	107	56.1	82.4			38.0
	Fenbuconazole	91.5	67.7	65.6			3.12
	Fenpropathrin	73.8	82.5	81.9			0.707
	Fipronil	73.9	71.4	33.7			71.6
	Fipronil Desulfinyl	73.7	59.8	33.1			57.5
	Fipronil Sulfide	68.0	63.5	34.8			58.4
	Fipronil Sulfone	67.7	64.3	35.9			56.6
	Fluazifop-P-butyl	111	66.7	81.1			19.5
	Fludioxonil	81.0	58.5	71.1			19.4
	Flumioxazin	142	70.7	53.0			28.6
	Flutolanil	109	74.3	51.9			35.5
	Fluxapyroxad	79.5	45.0	62.0			31.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Fonofos	88.7	77.7	60.9		24.2
	Gamma-BHC	84.7	76.8	78.8		2.48
	Gamma-Chlordane	75.9	75.2	82.7		9.53
	Heptachlor	80.0	68.2	72.7		6.31
	Heptachlor Epoxide	92.4	81.3	79.9		1.75
	Hexachlorobenzene	85.4	80.7	81.2		0.594
	Hexazinone	96.0	83.0	101		19.8
	Imazalil	68.0	63.5	104		48.2
	Iprodione	115	55.9	71.5		24.5
	Kepone	183	180	182		0.742
	Lambda-Cyhalothrin	72.2	94.6	100		5.83
	Loratadine	152	84.1	138		48.4
	Malathion	113	79.1	58.3		30.3
	Metalaxyl	76.0	76.3	55.6		31.4
	Methoprene	96.8	116	122		4.60
	Methoxychlor	88.5	86.4	93.0		7.33
	Metolachlor	86.0	87.5	65.4		28.9
	Metribuzin	97.1	68.5	108		44.5
	Mevinphos	79.9	66.4	80.6		19.4
	MGK-264	92.9	76.4	82.6		7.79
	Mirex	63.5	76.1	74.6		1.97
	Molinate	59.8	43.3	59.0		30.8
	Myclobutanil	86.1	80.5	48.9		48.8
	Naled	115	69.2	88.2		24.1
	Napropamide	97.6	41.5	50.6		19.7
	Norflurazon	69.1	73.1	46.9		43.7
	Octinoxate	86.6	95.9	145		41.0
	Oxadiazon	76.7	59.4	43.8		30.3
	Oxybenzone	50.1	47.6	41.7		13.3
	Oxychlordane	89.8	77.8	80.1		2.95
	Oxyfluorfen	114	101	68.8		38.1
	Parathion Ethyl	105	69.6	70.8		1.77
	Parathion Methyl	111	93.2	86.2		7.81
	PBDE-47	59.6	50.2	43.8		13.6
	PBDE-99	63.9	54.0	47.7		12.3
	PCB-1016	90.0	85.6	88.5		3.27
	PCB-1260	83.9	80.4	81.5		1.38
	Pendimethalin	94.1	70.3	87.3		21.6
	Permethrin	118	127	151		17.4
	Phenothrin	65.3	84.6	93.8		10.3
	Phenytoin	43.7	26.8	28.1		4.89
	Phorate	73.0	72.3	62.2		15.0
	Piperonyl Butoxide	116	109	109		0.774
	Prallethrin	109	107	120		11.3
	Prodiamine	32.5	134	81.3		48.6
	Prometon	69.6	56.4	60.0		6.08
	Prometryn	82.3	70.3	49.8		34.3
	Pronamide	104	98.8	83.0		17.3
	Propanil	102	93.7	102		8.55
	Propargite	83.8	32.6	49.4		40.9
	Propiconazole	80.7	63.7	40.9		43.6
	Pyraflufen Ethyl	74.7	69.6	40.6		52.8
	Pyridaben	71.9	74.8	31.4		81.8
	Pyriproxyfen	85.8	51.4	84.3		48.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Simazine	87.1	78.7	81.3		3.32
	Stirophos	90.9	38.3	61.5		46.6
	Sulfentrazone	72.2	81.1	66.6		19.6
	Tau-Fluvalinate	81.5	132	144		8.42
	Tebuconazole	57.6	21.8	40.5		59.9
	Terbufos	96.7	104	91.3		12.8
	Terbutylazine	89.1	82.6	69.2		17.5
	Tetramethrin	112	113	120		5.67
	Thiobencarb	101	87.7	57.7		41.2
	Trans-Nonachlor	88.9	80.1	84.1		4.84
	Tri-o-cresyl Phosphate	57.7	49.0	42.7		13.8
	Triadimefon	83.0	87.2	69.0		23.3
	Triclosan Methyl	86.2	83.5	86.1		3.04
	Trifluralin	85.9	83.5	85.1		1.86
EPA 8276	Chlordane	110	108	115		6.27
	Toxaphene	128	120	136		12.3
EPA 8321B	2,4-D	84.5	104	99.3		4.46
	2,4,5-T	72.1	86.9	86.0		1.08
	3-Hydroxycarbofuran	99.3	131	125		4.19
	Acesulfame K	96.2	77.6	79.3		2.19
	Acetaminophen	87.3	101	106		4.87
	Acetamiprid	85.7	102	95.7		5.90
	Afidopyropen	73.1	60.6	77.7		24.7
	Aldicarb	49.5	60.5	58.5		3.43
	Aldicarb Sulfone	105	108	110		1.66
	Aldicarb Sulfoxide	110	76.9	73.3		4.69
	AMPA	99.0	95.2	101		5.09
	Bentazon	106				1.35
	Benzovindiflupyr	80.5	86.0	82.2		4.56
	Carbamazepine	82.0	91.7	89.8		2.12
	Carbaryl	75.1	73.0	73.9		1.28
	Carbofuran	97.0	86.0	83.1		3.34
	Clothianidin	91.5	99.0	106		7.24
	Dinotefuran	95.5	106	114		6.79
	Diuron	72.3	74.1	81.6		8.93
	Endothall	98.4	153	152		1.24
	Fenuron	91.7	89.2	91.5		2.56
	Fluridone	79.0	81.7	60.4		14.1
	Glufosinate	99.2	117	116		0.483
	Glyphosate	98.5	126	133		5.44
	Hydrocodone	75.8	99.1	82.9		17.9
	Ibuprofen	84.7	97.5	96.2		1.35
	Imazapyr	80.8				3.17
	Imidacloprid	84.6	122	126		2.75
	Linuron	69.1	70.7	72.5		2.54
	Mandestrobin	85.9	88.9	90.6		1.97
	MCPP	88.3	104	104		0.137
	Methiocarb	63.7	76.5	57.3		28.6
	Methomyl	107	107	95.5		11.3
	Naproxen	66.2	96.2	85.9		11.4
	Oxamyl	118	124	112		10.1
	Primidone	77.7	94.1	85.5		9.64
	Propoxur	73.8	63.4	60.4		4.76
	Pyraclostrobin	75.3	87.7	84.2		4.08

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Silvex	76.8	98.7	85.7		14.1
	Sucralose	96.7	62.3	65.5		4.88
	Thiamethoxam	84.6	98.2	108		9.83
	Tolfenpyrad	51.6	53.7	50.5		6.14
	Triclopyr	68.8	82.7	85.0		2.79
SM 2320 B-2011	Total Alkalinity	97.0			0.0992	
SM 2540 C-2015	TDS	95.8			1.78	
SM 2540 D-2015	TSS	91.9				
SM 4500-F- C-2011	Fluoride	98.5	100	98.9		0.974
SM 5310 B-2011	Organic Carbon	96.7	92.0	93.3		1.30

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2386798, 2386800, 2386801
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2386798, 2386800, 2386801
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2386816, 2386817, 2386818
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2386816, 2386817, 2386818
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2386798, 2386800, 2386801
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2386798, 2386800, 2386801
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2386799, 2386802, 2386803
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2386799, 2386802, 2386803
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2386799, 2386802, 2386803
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2386799, 2386802, 2386803
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2386815
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2386814
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2386815
EPA 8270E	PCBs in water matrices by GC/MS/MS	2386814
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2386814
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2386812
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2386813
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2386798, 2386800, 2386801
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2386816, 2386817, 2386818
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2386798, 2386800, 2386801
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2386798, 2386800, 2386801
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2386798, 2386800, 2386801
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2386799, 2386802, 2386803

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	02/10/2023			02/10/2023 14:36	Alexis Price	2386798, 2386800
	02/10/2023			02/10/2023 14:37	Alexis Price	2386801
EPA 180.1 Rev. 2.0	02/10/2023			02/10/2023 14:27	Khloe J Berg	2386798
	02/10/2023			02/10/2023 14:28	Khloe J Berg	2386800
	02/10/2023			02/10/2023 14:29	Khloe J Berg	2386801
EPA 200.7 Rev. 4.4	02/10/2023	02/17/2023 10:50	George D Taylor	02/22/2023 13:39	McKinley C Carter	2386816
	02/10/2023	02/17/2023 10:50	George D Taylor	02/22/2023 13:45	McKinley C Carter	2386817
	02/10/2023	02/17/2023 10:50	George D Taylor	02/22/2023 13:49	McKinley C Carter	2386818
EPA 200.8 Rev. 5.4	02/10/2023	02/17/2023 10:50	George D Taylor	02/20/2023 17:48	Conrad Hartmann	2386816
	02/10/2023	02/17/2023 10:50	George D Taylor	02/20/2023 17:57	Conrad Hartmann	2386817
	02/10/2023	02/17/2023 10:50	George D Taylor	02/20/2023 18:06	Conrad Hartmann	2386818
	02/10/2023	02/22/2023 13:20	George D Taylor	02/23/2023 13:48	Conrad Hartmann	2386816
	02/10/2023	02/22/2023 13:20	George D Taylor	02/23/2023 14:22	Conrad Hartmann	2386817
EPA 300.0 Rev. 2.1	02/10/2023	02/22/2023 13:20	George D Taylor	02/23/2023 14:28	Conrad Hartmann	2386818
	02/10/2023			02/23/2023 22:31	Anna M. Plaviak	2386798
	02/10/2023			02/23/2023 22:46	Anna M. Plaviak	2386800
EPA 350.1 Rev. 2.0	02/10/2023			02/23/2023 23:01	Anna M. Plaviak	2386801
	02/10/2023			02/21/2023 13:20	Ping Hua	2386799
	02/10/2023			02/21/2023 13:22	Ping Hua	2386802
EPA 351.2 Rev. 2.0	02/10/2023			02/21/2023 13:23	Ping Hua	2386803
	02/10/2023	02/16/2023 11:30	Simonne.V. Calhoun	02/23/2023 11:29	Judith K. Clark	2386799
	02/10/2023	02/16/2023 11:30	Simonne.V. Calhoun	02/23/2023 11:37	Judith K. Clark	2386802
EPA 353.2 Rev. 2.0	02/10/2023	02/16/2023 11:30	Simonne.V. Calhoun	02/23/2023 11:38	Judith K. Clark	2386803
	02/10/2023			02/16/2023 10:20	Beverly Y. Sanders	2386799
	02/10/2023			02/16/2023 11:40	Beverly Y. Sanders	2386802
EPA 365.1 Rev. 2.0	02/10/2023			02/16/2023 11:41	Beverly Y. Sanders	2386803
	02/10/2023	02/16/2023 16:29	Adam P Silver	02/21/2023 11:43	Simonne.V. Calhoun	2386799
	02/10/2023	02/16/2023 16:29	Adam P Silver	02/21/2023 11:44	Simonne.V. Calhoun	2386802
EPA 8270E	02/10/2023	02/16/2023 16:29	Adam P Silver	02/21/2023 11:45	Simonne.V. Calhoun	2386803
	02/10/2023	02/13/2023 08:00	Fe-Val Siddell	02/15/2023 01:40	Vandana T. Nagar	2386814
	02/10/2023	02/13/2023 08:00	Fe-Val Siddell	02/17/2023 21:42	Vandana T. Nagar	2386814
EPA 8276	02/10/2023	02/15/2023 09:30	Rasheda Ghaffari	02/20/2023 18:07	Arthur Maknenko	2386815
	02/10/2023	02/15/2023 09:30	Rasheda Ghaffari	02/20/2023 19:24	Michael Poppell	2386815
	02/10/2023	02/13/2023 08:00	Fe-Val Siddell	02/17/2023 13:32	Lipi Saha	2386814
EPA 8321B	02/10/2023	02/13/2023 09:30	June Rhew	02/13/2023 19:58	Juyoung Kim	2386812
	02/10/2023	02/13/2023 10:00	Manjita Shrestha	02/13/2023 17:41	Manjita Shrestha	2386813
	02/10/2023	02/13/2023 10:00	Manjita Shrestha	02/14/2023 00:45	Manjita Shrestha	2386813
SM 2320 B-2011	02/10/2023	02/14/2023 12:00	June Rhew	02/15/2023 01:51	Juyoung Kim	2386813
	02/10/2023			02/17/2023 11:08	Chandler E Cox	2386798
	02/10/2023			02/17/2023 11:18	Chandler E Cox	2386800

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-2011	02/10/2023			02/17/2023 11:29	Chandler E Cox	2386801
SM 2340 B-2011	02/10/2023			02/22/2023 13:39	McKinley C Carter	2386816
	02/10/2023			02/22/2023 13:45	McKinley C Carter	2386817
	02/10/2023			02/22/2023 13:49	McKinley C Carter	2386818
SM 2540 C-2015	02/10/2023			02/14/2023 15:41	Yijie Li	2386798, 2386800, 2386801
SM 2540 D-2015	02/10/2023			02/14/2023 15:41	Yijie Li	2386798, 2386800, 2386801
SM 4500-F- C-2011	02/10/2023			02/17/2023 11:08	Chandler E Cox	2386798
	02/10/2023			02/17/2023 11:18	Chandler E Cox	2386800
	02/10/2023			02/17/2023 11:29	Chandler E Cox	2386801
SM 5310 B-2011	02/10/2023			02/16/2023 19:28	Elise M. Gillis	2386799
	02/10/2023			02/17/2023 00:57	Elise M. Gillis	2386802
	02/10/2023			02/17/2023 01:14	Elise M. Gillis	2386803