

Chemical Analysis Report

SW-DIST-2022-04-28-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **SMP Run 17**
Request ID: **RQ-2022-05-02-14**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 24-MAY-2022 10:08

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Snug Harbor- TP428

Collection Date/Time: 04/27/2022 09:20

Field ID: G1SW0099

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2322678	EPA 8321B	2,4-D	0.0020	U	ug/L	P413095	
		Acesulfame K	0.10	UJ	ug/L	P413044	LCS
		AMPA	10	U	ug/L	P413044	
		2,4,5-T	0.0040	U	ug/L	P413095	
		Acetaminophen	0.0080	U	ug/L	P413095	
		Endothall	0.25	U	ug/L	P413044	
		Acetamiprid	0.0020	U	ug/L	P413095	MS
		Glufosinate	10	U	ug/L	P413044	
		Glyphosate	10	U	ug/L	P413044	
		Afidopyropen	0.0020	U	ug/L	P413095	
		Sucralose	1.0		ug/L	P413044	
		Bentazon	0.0017	I	ug/L	P413095	
		Benzovindiflupyr	0.0020	U	ug/L	P413095	
		Carbamazepine	8.0E-04	U	ug/L	P413095	
		Clothianidin	0.0020	U	ug/L	P413095	
		Dinotefuran	0.0020	U	ug/L	P413095	
		Diuron	0.0020	U	ug/L	P413095	
		Fenuron	0.032	U	ug/L	P413095	
		Fluridone	0.0029	I	ug/L	P413095	
		Imazapyr	0.0040	U	ug/L	P413095	
		Hydrocodone	0.0020	U	ug/L	P413095	
		Ibuprofen	0.020	U	ug/L	P413095	
		Imidacloprid	0.0020	U	ug/L	P413095	
		Linuron	0.0040	U	ug/L	P413095	
		Mandestrobin	0.0020	U	ug/L	P413095	
		MCPP	0.0040	U	ug/L	P413095	
		Naproxen	0.0080	U	ug/L	P413095	
		Primidone	0.0045	I	ug/L	P413095	
		Pyraclostrobin	0.0020	U	ug/L	P413095	
		Silvex	0.0040	U	ug/L	P413095	
		Thiamethoxam	0.0020	U	ug/L	P413095	MS
		Tolfenpyrad	0.0020	U	ug/L	P413095	
		Triclopyr	0.0040	U	ug/L	P413095	

Ref. Method and Comment:

EPA 8321B: MDL for some parameters elevated due to matrix interference. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Snug Harbor near Getaway

Collection Date/Time: 04/27/2022 09:50

Field ID: G1SW0109

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2322660	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P413078	
	SM 2320 B-2011	Total Alkalinity	125		mg CaCO3/L	P413539	
	SM 2540 D-2011	TSS	8	I	mg/L	P413426	
	SM 4500-F- C-2011	Fluoride	1.0		mg F/L	P413546	
2322661	EPA 350.1 Rev. 2.0	Ammonia-N	0.043		mg N/L	P413280	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P413443	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P413136	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P413235	
	SM 5310 B-2011	Organic Carbon	6.0		mg C/L	P413569	

Ref. Method and Comment:

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

Sample Location: PP Ditch#1 @ 71st St

Collection Date/Time: 04/27/2022 10:40

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2322662	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P413078	
	SM 2320 B-2011	Total Alkalinity	177		mg CaCO3/L	P413539	
	SM 2540 D-2011	TSS	7	I	mg/L	P413475	
	SM 4500-F- C-2011	Fluoride	0.49		mg F/L	P413546	
2322663	EPA 350.1 Rev. 2.0	Ammonia-N	0.22		mg N/L	P413280	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.97		mg N/L	P413443	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.062		mg N/L	P413136	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P413235	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P413420	
2322676	EPA 8321B	Aldicarb	0.20	U	ug/L	P413091	
		Aldicarb Sulfone	0.020	U	ug/L	P413091	
		Aldicarb Sulfoxide	0.020	U	ug/L	P413091	
		Carbaryl	0.020	U	ug/L	P413091	
		Carbofuran	0.020	U	ug/L	P413091	
		3-Hydroxycarbofuran	0.020	U	ug/L	P413091	
		Methiocarb	0.020	U	ug/L	P413091	
		Methomyl	0.020	U	ug/L	P413091	
		Oxamyl	0.020	U	ug/L	P413091	
		Propoxur	0.020	U	ug/L	P413091	
2322677		2,4-D	0.033		ug/L	P413095	
		Acesulfame K	0.13	I J	ug/L	P413044	LCS
		2,4,5-T	0.0040	U	ug/L	P413095	
		AMPA	1.0	U	ug/L	P413044	
		Acetaminophen	0.0080	U	ug/L	P413095	
		Endothall	0.25	U	ug/L	P413044	
		Acetamiprid	0.020	U	ug/L	P413095	MS
		Glufosinate	1.0	U	ug/L	P413044	
		Glyphosate	1.8	I	ug/L	P413044	
		Afidopyropen	0.020	U	ug/L	P413095	
		Bentazon	0.025		ug/L	P413095	
		Sucralose	5.0		ug/L	P413044	
		Benzovindiflupyr	0.020	U	ug/L	P413095	
		Carbamazepine	0.0035		ug/L	P413095	
		Clothianidin	0.020	U	ug/L	P413095	
		Dinotefuran	0.020	U	ug/L	P413095	
		Diuron	0.15		ug/L	P413095	
		Fenuron	0.32	U	ug/L	P413095	
		Fluridone	0.20		ug/L	P413095	
		Imazapyr	0.032		ug/L	P413095	
		Hydrocodone	0.0020	U	ug/L	P413095	
		Ibuprofen	0.020	U	ug/L	P413095	
		Imidacloprid	0.020	U	ug/L	P413095	
		Linuron	0.040	U	ug/L	P413095	
		Mandestrobin	0.020	U	ug/L	P413095	

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2322677	EPA 8321B	MCP	0.0043	I	ug/L	P413095	
		Naproxen	0.0080	U	ug/L	P413095	
		Primidone	0.023		ug/L	P413095	
		Pyraclostrobin	0.020	U	ug/L	P413095	
		Silvex	0.0040	U	ug/L	P413095	
		Thiamethoxam	0.020	U	ug/L	P413095	MS
		Tolfenpyrad	0.020	U	ug/L	P413095	
		Triclopyr	0.0040	U	ug/L	P413095	
2322683	EPA 8270E	Aldrin	0.67	U	ng/L	P412949	
		Alpha-BHC	0.10	U	ng/L	P412949	
		Alpha-Chlordane	0.21	U	ng/L	P412949	
		PCB-1016	2.1	U	ng/L	P412949	
		Beta-BHC	0.10	U	ng/L	P412949	
		PCB-1221	2.1	U	ng/L	P412949	
		Beta-Cyfluthrin**	1.3	U	ng/L	P412949	
		PCB-1232	2.1	U	ng/L	P412949	
		Bifenthrin**	0.52	U	ng/L	P412949	
		PCB-1242	2.1	U	ng/L	P412949	
		PCB-1248	2.1	U	ng/L	P412949	
		Chlorothalonil	1.3	U	ng/L	P412949	
		PCB-1254	2.1	U	ng/L	P412949	
		Cis-Nonachlor**	0.21	U	ng/L	P412949	
		PCB-1260	2.1	U	ng/L	P412949	
		Cypermethrin	1.6	U	ng/L	P412949	
		Dacthal**	0.16	U	ng/L	P412949	
		DDD-p,p'	0.26	U	ng/L	P412949	
		DDE-p,p'	0.21	U	ng/L	P412949	
		DDT-p,p'	0.26	U	ng/L	P412949	
		Delta-BHC	0.41	U	ng/L	P412949	
		Deltamethrin**	1.3	U	ng/L	P412949	
		Dichlobenil**	0.63	I	ng/L	P412949	
		Dicofol	1.3	U	ng/L	P412949	
		Dieldrin	0.41	U	ng/L	P412949	
		Endosulfan I	0.41	U	ng/L	P412949	
		Endosulfan II	0.41	U	ng/L	P412949	
		Endosulfan Sulfate	0.31	U	ng/L	P412949	
		Endrin	0.41	U	ng/L	P412949	
		Endrin Aldehyde	0.78	U	ng/L	P412949	
		Endrin Ketone	0.41	U	ng/L	P412949	
		Esfenvalerate**	0.78	U	ng/L	P412949	
		Ethalfuralin**	0.16	U	ng/L	P412949	
		Fenpropathrin**	0.26	U	ng/L	P412949	
		Gamma-BHC	0.13	U	ng/L	P412949	
		Gamma-Chlordane	0.21	U	ng/L	P412949	
		Heptachlor	0.21	U	ng/L	P412949	

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2322683	EPA 8270E	Heptachlor Epoxide	0.26	U	ng/L	P412949	
		Hexachlorobenzene**	1.0	U	ng/L	P412949	
		Kepone**	5.2	U	ng/L	P412949	
		Lambda-Cyhalothrin**	0.78	U	ng/L	P412949	
		Methoprene**	0.78	U	ng/L	P412949	
		Methoxychlor	0.31	U	ng/L	P412949	
		MGK-264**	0.21	U	ng/L	P412949	
		Mirex	0.72	U	ng/L	P412949	
		Oxychlordane**	0.31	U	ng/L	P412949	
		Permethrin	1.7	U	ng/L	P412949	
		Phenothrin**	0.93	U	ng/L	P412949	
		Piperonyl Butoxide**	0.59	I	ng/L	P412949	
		Prallethrin**	2.1	U	ng/L	P412949	
		Tau-Fluvalinate**	0.26	U	ng/L	P412949	
		Tetramethrin**	0.78	U	ng/L	P412949	
		Trans-Nonachlor**	0.21	U	ng/L	P412949	
		Triclosan Methyl**	0.16	U	ng/L	P412949	
		Trifluralin	0.21	U	ng/L	P412949	
		Chlordane	2.6	U	ng/L	P412949	
		Toxaphene	16	U	ng/L	P412949	
2322684	EPA 8270E	Oxybenzone**	11	U	ng/L	P413158	
		Acetochlor	0.27	U	ng/L	P413158	
		Octinoxate**	22	U	ng/L	P413158	
		Alachlor	0.27	U	ng/L	P413158	
		Avobenzone**	110	U	ng/L	P413158	
		Ametryn	0.65	U	ng/L	P413158	
		Atrazine	71		ng/L	P413158	
		Atrazine Desethyl	6.5	I	ng/L	P413158	
		Azinphos Methyl	2.2	U	ng/L	P413158	
		Azoxystrobin**	0.54	U	ng/L	P413158	
		Bromacil	0.54	U	ng/L	P413158	
		Butylate	0.43	U	ng/L	P413158	
		Caffeine**	48		ng/L	P413158	
		Carbophenothion	0.22	U	ng/L	P413158	
		Carfentrazone Ethyl**	0.11	U	ng/L	P413158	
		Chlorfenapyr**	0.19	U	ng/L	P413158	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P413158	
		Chlorpyrifos Methyl	0.054	U	ng/L	P413158	
		Coumaphos**	0.54	U	ng/L	P413158	
		Cyanazine	3.5	U	ng/L	P413158	
		Cyprodinil**	0.11	U	ng/L	P413158	
		Demeton	1.6	U	ng/L	P413158	
		Diazinon	0.14	U	ng/L	P413158	
		Difenoconazole**	0.65	U	ng/L	P413158	
		Dimethenamid**	0.11	U	ng/L	P413158	

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2322684	EPA 8270E	Dimethomorph**	0.19	U	ng/L	P413158	
		Disulfoton	0.54	U	ng/L	P413158	
		Dithiopyr**	0.19	U	ng/L	P413158	
		EPTC	1.4	U	ng/L	P413158	
		Ethion	0.16	U	ng/L	P413158	
		Ethoprop	0.11	U	ng/L	P413158	
		Etridiazole**	0.16	U	ng/L	P413158	
		Fenamiphos	0.54	U	ng/L	P413158	
		Fenbuconazole**	0.14	U	ng/L	P413158	
		Fipronil	0.67	I	ng/L	P413158	
		Fipronil Desulfinyl**	2.3		ng/L	P413158	
		Fipronil Sulfide	1.4		ng/L	P413158	
		Fipronil Sulfone	2.7		ng/L	P413158	
		Fluazifop-P-butyl**	0.11	U	ng/L	P413158	
		Fludioxonil**	0.14	U	ng/L	P413158	
		Flumioxazin**	1.9	U	ng/L	P413158	
		Flutolanil**	0.11	U	ng/L	P413158	
		Fluxapyroxad**	0.24	I	ng/L	P413158	
		Fonofos	0.22	U	ng/L	P413158	
		Hexazinone	0.54	U	ng/L	P413158	
		Imazalil**	0.82	U	ng/L	P413158	
		Iprodione**	0.65	U	ng/L	P413158	
		Loratadine**	0.19	I	ng/L	P413158	
		Malathion	0.38	U	ng/L	P413158	
		Metalaxyl	0.82	U	ng/L	P413158	
		Metolachlor	0.38	U	ng/L	P413158	
		Metribuzin	2.7	U	ng/L	P413158	
		Mevinphos	1.1	U	ng/L	P413158	
		Molinate	0.33	U	ng/L	P413158	
		Myclobutanil**	0.27	U	ng/L	P413158	
		Naled**	1.6	U	ng/L	P413158	
		Napropamide**	0.43	U	ng/L	P413158	
		Norflurazon	0.54	U	ng/L	P413158	
		Oxadiazon	2.4		ng/L	P413158	
		Oxyfluorfen**	0.16	U	ng/L	P413158	
		Parathion Ethyl	0.27	U	ng/L	P413158	
		Parathion Methyl	0.60	U	ng/L	P413158	
		Pendimethalin	1.1	U	ng/L	P413158	
		Phenytol**	3.8	U	ng/L	P413158	
		Phorate	0.57	U	ng/L	P413158	
		Prodiamine**	0.19	U	ng/L	P413158	
		Prometon	0.98	U	ng/L	P413158	
		Prometryn	0.22	U	ng/L	P413158	
		Pronamide**	0.16	U	ng/L	P413158	
		Propanil**	0.14	U	ng/L	P413158	

Field ID: G5SW0134

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2322684	EPA 8270E	Propargite**	1.6	U	ng/L	P413158	
		Propiconazole**	2.8		ng/L	P413158	
		Pyraflufen Ethyl**	0.27	U	ng/L	P413158	
		Pyridaben**	0.49	U	ng/L	P413158	
		Pyriproxyfen**	0.14	U	ng/L	P413158	
		Simazine	1.6	I	ng/L	P413158	
		Stirophos**	0.14	U	ng/L	P413158	
		Sulfentrazone**	10		ng/L	P413158	
		Tebuconazole**	0.72	I	ng/L	P413158	
		Terbufos	0.11	U	ng/L	P413158	
		Terbuthylazine	0.46	U	ng/L	P413158	
		Thiobencarb**	0.65	U	ng/L	P413158	
		Triadimefon**	0.27	U	ng/L	P413158	
2322687	EPA 200.7 Rev. 4.4	Calcium	163		mg/L	P413316	
		Iron	160	I	ug/L	P413316	
		Magnesium	277		mg/L	P413316	
		Strontium	2.17E+03		ug/L	P413316	
		Tin	60	U	ug/L	P413316	
		Titanium	3.2	I	ug/L	P413316	
		Vanadium	6.0	U	ug/L	P413316	
		Zinc	15	U	ug/L	P413316	
	EPA 200.8 Rev. 5.4	Aluminum	50	U	ug/L	P413316	
		Antimony	0.29	I	ug/L	P413316	
		Arsenic	1.99		ug/L	P413316	
		Beryllium	0.10	U	ug/L	P413316	
		Cadmium	0.080	U	ug/L	P413316	
		Chromium	1.6	U	ug/L	P413316	
		Cobalt	0.24	I	ug/L	P413316	
		Copper	1.6	U	ug/L	P413316	
		Lead	0.80	U	ug/L	P413316	
		Manganese	25.2		ug/L	P413316	
		Molybdenum	4.8		ug/L	P413316	
		Nickel	2.0	U	ug/L	P413316	
		Selenium	0.80	U	ug/L	P413316	
		Silver	0.040	U	ug/L	P413610	
		Thallium	0.40	U	ug/L	P413316	

Ref. Method and Comment:

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

EPA 8321B: MDL for some parameters elevated due to matrix interference.

EPA 8321B: MDL for some parameters elevated due to matrix interference. Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: MS accuracy for dieldrin not assessed due to high content of this parameter in the sample spiked.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable because of high analyte concentration in the QC sample.

Sample Location: St Joe Tidal by Westchester Blvd

Collection Date/Time: 04/27/2022 11:15

Field ID: G5SW0169

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2322679	EPA 8321B	2,4-D	0.0069	I	ug/L	P413095	
		Acesulfame K	0.10	UJ	ug/L	P413044	LCS
		2,4,5-T	0.0040	U	ug/L	P413095	
		AMPA	1.0	U	ug/L	P413044	
		Acetaminophen	0.0080	U	ug/L	P413095	
		Endothall	11		ug/L	P413044	
		Acetamiprid	0.020	U	ug/L	P413095	MS
		Glufosinate	1.0	U	ug/L	P413044	
		Glyphosate	1.0	U	ug/L	P413044	
		Afidopyropen	0.020	U	ug/L	P413095	
		Bentazon	0.010		ug/L	P413095	
		Sucralose	33		ug/L	P413045	
		Benzovindiflupyr	0.020	U	ug/L	P413095	
		Carbamazepine	0.036		ug/L	P413095	
		Clothianidin	0.020	U	ug/L	P413095	
		Dinotefuran	0.063	I	ug/L	P413095	
		Diuron	0.038	I	ug/L	P413095	
		Fenuron	0.32	U	ug/L	P413095	
		Fluridone	0.017	I	ug/L	P413095	
		Imazapyr	0.018		ug/L	P413095	
		Hydrocodone	0.0020	U	ug/L	P413095	
		Ibuprofen	0.020	U	ug/L	P413095	
		Imidacloprid	0.10		ug/L	P413095	
		Linuron	0.040	U	ug/L	P413095	
		Mandestrobin	0.020	U	ug/L	P413095	
		MCPP	0.0040	U	ug/L	P413095	
		Naproxen	0.0080	U	ug/L	P413095	
		Primidone	0.13		ug/L	P413095	
		Pyraclostrobin	0.020	U	ug/L	P413095	
		Silvex	0.0040	U	ug/L	P413095	
		Thiamethoxam	0.020	U	ug/L	P413095	MS
		Tolfenpyrad	0.020	U	ug/L	P413095	
		Triclopyr	0.0040	U	ug/L	P413095	

Ref. Method and Comment:

EPA 8321B: MDL for some parameters elevated due to matrix interference.

EPA 8321B: MDL for some parameters elevated due to matrix interference. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: St Joe Tidal @ 54th Ave

Collection Date/Time: 04/27/2022 11:05

Field ID: G5SW0170

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2322680	EPA 8321B	2,4-D	0.0068	I	ug/L	P413095	
		Acesulfame K	0.10	UJ	ug/L	P413044	LCS
		2,4,5-T	0.0040	U	ug/L	P413095	
		AMPA	1.0	U	ug/L	P413044	
		Acetaminophen	0.0080	U	ug/L	P413095	
		Endothall	9.8		ug/L	P413044	
		Acetamiprid	0.020	U	ug/L	P413095	MS
		Glufosinate	1.0	U	ug/L	P413044	
		Glyphosate	1.0	U	ug/L	P413044	
		Afidopyropen	0.020	U	ug/L	P413095	
		Bentazon	0.015		ug/L	P413095	
		Sucralose	4.1		ug/L	P413044	
		Benzovindiflupyr	0.020	U	ug/L	P413095	
		Carbamazepine	0.0044		ug/L	P413095	
		Clothianidin	0.020	U	ug/L	P413095	
		Dinotefuran	0.020	U	ug/L	P413095	
		Diuron	0.040	I	ug/L	P413095	
		Fenuron	0.32	U	ug/L	P413095	
		Fluridone	0.030	I	ug/L	P413095	
		Imazapyr	0.021		ug/L	P413095	
		Hydrocodone	0.0020	U	ug/L	P413095	
		Ibuprofen	0.020	U	ug/L	P413095	
		Imidacloprid	0.020	U	ug/L	P413095	
		Linuron	0.040	U	ug/L	P413095	
		Mandestrobin	0.020	U	ug/L	P413095	
		MCPP	0.0040	U	ug/L	P413095	
		Naproxen	0.0080	U	ug/L	P413095	
		Primidone	0.019		ug/L	P413095	
		Pyraclostrobin	0.020	U	ug/L	P413095	
		Silvex	0.0040	U	ug/L	P413095	
		Thiamethoxam	0.020	U	ug/L	P413095	MS
		Tolfenpyrad	0.020	U	ug/L	P413095	
		Triclopyr	0.0040	U	ug/L	P413095	

Ref. Method and Comment:

EPA 8321B: MDL for some parameters elevated due to matrix interference.

EPA 8321B: MDL for some parameters elevated due to matrix interference. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P413078

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P413316

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	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: P413316

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	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: P413610

Component	Result	Code	Units
Silver	0.010	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413280

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413443

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413136

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413235

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

Reference Method: EPA 8270E
Batch ID: P412949

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
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	1.2	U	ng/L
Chlorothalonil	1.2	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P412949

Component	Result	Code	Units
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
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	0.70	U	ng/L
Mirex	0.70	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P412949

Component	Result	Code	Units
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

Reference Method: EPA 8270E

Batch ID: P413158

Component	Result	Code	Units
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P413158

Component	Result	Code	Units
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
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P413158

Component	Result	Code	Units
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
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
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
Proflumicarb	0.18	U	ng/L
Proflumicarb	0.18	U	ng/L
Prometon	0.90	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P413158

Component	Result	Code	Units
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8276

Batch ID: P412949

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P413044

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P413044

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P413045

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P413091

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
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P413095

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	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P413095

Component	Result	Code	Units
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P413539

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

Reference Method: SM 2540 D-2011
Batch ID: P413426

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P413475

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P413546

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P413420

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2011
Batch ID: P413569

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P413078

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.6		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P413316

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	99.7		P	85 - 115
Iron	100		P	85 - 115
Magnesium	100		P	85 - 115
Strontium	98.9		P	85 - 115
Tin	96.7		P	85 - 115
Titanium	98.2		P	85 - 115
Vanadium	91.5		P	85 - 115
Zinc	95.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P413316

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.3		P	85 - 115
Antimony	97.7		P	85 - 115
Arsenic	98.0		P	85 - 115
Beryllium	92.6		P	85 - 115
Cadmium	98.1		P	85 - 115
Chromium	94.7		P	85 - 115
Cobalt	96.3		P	85 - 115
Copper	94.8		P	85 - 115
Lead	96.8		P	85 - 115
Manganese	96.8		P	85 - 115
Molybdenum	97.8		P	85 - 115
Nickel	96.0		P	85 - 115
Selenium	96.1		P	85 - 115
Thallium	99.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P413610

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	96.7		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413280

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413443

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.5		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P413136

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P413235

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

Reference Method: EPA 8270E

Batch ID: P412949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.3		P	10 - 93.0
Alpha-BHC	86.6		P	75 - 106
Alpha-Chlordane	90.4		P	50 - 109
Beta-BHC	107		P	36 - 138
Beta-Cyfluthrin	99.5		P	23 - 167
Bifenthrin	85.7		P	11 - 123
Chlorothalonil	106		P	27 - 190
Cis-Nonachlor	78.8		P	40 - 111
Cypermethrin	92.0		P	25 - 155
Dacthal	85.8		P	72 - 119
DDD-p,p'	76.8		P	47 - 108
DDE-p,p'	80.0		P	48 - 107
DDT-p,p'	86.2		P	49 - 111
Delta-BHC	95.0		P	54 - 138
Deltamethrin	96.0		P	22 - 189
Dichlobenil	73.6		P	32 - 113
Dicofol	74.3		P	50 - 108
Dieldrin	85.3		P	56 - 110
Endosulfan I	79.6		P	60 - 105
Endosulfan II	72.9		P	50 - 120
Endosulfan Sulfate	89.1		P	55 - 121
Endrin	74.6		P	31 - 119
Endrin Aldehyde	73.8		P	36 - 116
Endrin Ketone	84.7		P	69 - 177
Esfenvalerate	89.0		P	10 - 179
Ethalfuralin	73.3		P	49 - 99.0
Fenpropathrin	92.6		P	35 - 119
Gamma-BHC	89.2		P	69 - 120
Gamma-Chlordane	74.7		P	45 - 107
Heptachlor	68.3		P	41 - 100
Heptachlor Epoxide	80.4		P	58 - 106
Hexachlorobenzene	78.8		P	39 - 100
Kepone	47.9		P	10 - 191
Lambda-Cyhalothrin	87.4		P	21 - 206
Methoprene	74.4		P	10 - 129
Methoxychlor	85.5		P	61 - 111
MGK-264	68.4		P	20 - 123
Mirex	71.4		P	10 - 182
Oxychlordane	71.9		P	39 - 110
PCB-1016	94.9		P	49 - 111

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P412949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1260	87.1		P	42 - 116
Permethrin	99.9		P	26 - 152
Phenothrin	77.9		P	10 - 109
Piperonyl Butoxide	88.2		P	19 - 147
Prallethrin	61.5		P	14 - 109
Tau-Fluvalinate	87.3		P	16 - 134
Tetramethrin	86.4		P	10 - 125
Trans-Nonachlor	76.9		P	45 - 107
Triclosan Methyl	90.1		P	60 - 110
Trifluralin	78.5		P	44 - 101

Reference Method: EPA 8270E

Batch ID: P413158

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	107		P	70 - 121
Alachlor	97.1		P	68 - 119
Ametryn	79.1		P	64 - 139
Atrazine	113		P	76 - 120
Atrazine Desethyl	77.6		P	44 - 126
Avobenzone	108		P	59 - 206
Azinphos Methyl	104		P	43 - 192
Azoxystrobin	104		P	36 - 224
Bromacil	77.1		P	52 - 121
Butylate	39.4		P	28 - 91.0
Caffeine	88.2		P	50 - 134
Carbophenothion	112		P	56 - 129
Carfentrazone Ethyl	109		P	60 - 141
Chlorfenapyr	103		P	56 - 115
Chlorpyrifos Ethyl	103		P	60 - 118
Chlorpyrifos Methyl	109		P	68 - 119
Coumaphos	97.8		P	18 - 250
Cyanazine	97.7		P	61 - 250
Cyprodinil	122		P	55 - 145
Demeton	92.8		P	30 - 159
Diazinon	119		P	70 - 123
Difenoconazole	147		P	49 - 204
Dimethenamid	89.5		P	64 - 115
Dimethomorph	97.3		P	12 - 219
Disulfoton	111		P	44 - 125
Dithiopyr	97.3		P	64 - 115
EPTC	43.9		P	28 - 86.0
Ethion	82.8		P	33 - 125
Ethoprop	103		P	64 - 116
Etridiazole	53.3		P	34 - 91.0
Fenamiphos	109		P	12 - 127
Fenbuconazole	86.7		P	59 - 151
Fipronil	116		P	67 - 129
Fipronil Desulfinyl	110		P	65 - 127
Fipronil Sulfide	107		P	61 - 116
Fipronil Sulfone	104		P	55 - 117
Fluazifop-P-butyl	123		P	62 - 127

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P413158

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fludioxonil	103		P	62 - 128
Flumioxazin	136		P	33 - 250
Flutolanil	78.8		P	56 - 127
Fluxapyroxad	88.5		P	45 - 128
Fonofos	102		P	62 - 111
Hexazinone	94.7		P	46 - 139
Imazalil	133		P	38 - 142
Iprodione	98.5		P	47 - 135
Loratadine	84.5		P	10 - 244
Malathion	96.9		P	61 - 139
Metalaxyl	95.1		P	10 - 119
Metolachlor	86.1		P	65 - 118
Metribuzin	89.0		P	51 - 250
Mevinphos	92.3		P	53 - 121
Molinate	75.2		P	42 - 96.0
Myclobutanil	93.0		P	55 - 128
Naled	95.7		P	10 - 98.0
Napropamide	78.2		P	49 - 121
Norflurazon	87.6		P	61 - 126
Octinoxate	70.4		P	25 - 150
Oxadiazon	81.7		P	59 - 116
Oxybenzone	77.6		P	59 - 147
Oxyfluorfen	128		P	64 - 137
Parathion Ethyl	96.8		P	70 - 112
Parathion Methyl	124		P	76 - 133
Pendimethalin	92.9		P	52 - 117
Phenytoin	39.1		P	10 - 199
Phorate	102		P	48 - 121
Prodiamine	49.5		P	26 - 142
Prometon	90.9		P	43 - 123
Prometryn	82.1		P	66 - 127
Pronamide	105		P	75 - 121
Propanil	90.9		P	45 - 150
Propargite	62.1		P	42 - 208
Propiconazole	92.0		P	60 - 125
Pyraflufen Ethyl	98.5		P	70 - 138
Pyridaben	89.3		P	35 - 245
Pyriproxyfen	85.2		P	30 - 149
Simazine	82.4		P	72 - 125
Stirophos	66.6		P	29 - 164
Sulfentrazone	66.0		P	21 - 139
Tebuconazole	54.4		P	10 - 115
Terbufos	111		P	60 - 123
Terbutylazine	87.0		P	72 - 115
Thiobencarb	74.4		P	31 - 139
Triadimefon	102		P	65 - 116

Reference Method: EPA 8276

Batch ID: P412949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	72.9		P	61 - 118

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8276
Batch ID: P412949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	66.5		P	51 - 122

Reference Method: EPA 8321B
Batch ID: P413044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	158		F	40 - 150
AMPA	104		P	40 - 150
Endothall	96.8		P	40 - 150
Glufosinate	97.5		P	40 - 150
Glyphosate	102		P	40 - 150
Sucralose	119		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P413045

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	117		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P413091

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	62.6		P	40 - 150
Aldicarb	53.7		P	30 - 150
Aldicarb Sulfone	94.0		P	40 - 150
Aldicarb Sulfoxide	94.1		P	40 - 150
Carbaryl	56.2		P	40 - 150
Carbofuran	61.9		P	40 - 150
Methiocarb	60.4		P	40 - 150
Methomyl	87.6		P	40 - 150
Oxamyl	92.8		P	40 - 150
Propoxur	62.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P413095

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	62.8		P	40 - 150
2,4,5-T	59.7		P	40 - 150
Acetaminophen	74.9		P	30 - 150
Acetamiprid	64.6		P	40 - 150
Afidopyropen	55.1		P	40 - 150
Bentazon	74.4		P	30 - 150
Benzovindiflupyr	76.1		P	40 - 150
Carbamazepine	75.0		P	40 - 150
Clothianidin	98.9		P	40 - 150
Dinotefuran	109		P	40 - 150
Diuron	78.5		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	81.7		P	40 - 150
Hydrocodone	82.5		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P413095

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ibuprofen	75.1		P	40 - 150
Imazapyr	82.1		P	40 - 150
Imidacloprid	79.0		P	40 - 150
Linuron	71.8		P	40 - 150
Mandestrobin	74.0		P	40 - 150
MCPP	96.0		P	40 - 150
Naproxen	58.2		P	40 - 150
Primidone	99.9		P	40 - 150
Pyraclostrobin	67.7		P	40 - 150
Silvex	63.6		P	40 - 150
Thiamethoxam	87.6		P	40 - 150
Tolfenpyrad	45.2		P	30 - 150
Triclopyr	58.8		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P413539

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.9		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P413546

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.8		P	93 - 104

Reference Method: SM 5310 B-2011

Batch ID: P413420

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Reference Method: SM 5310 B-2011

Batch ID: P413569

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P413316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322630	Iron	104	103	P/P	70 - 130
2322630	Tin	89.5	88.3	P/P	70 - 130
2322630	Titanium	105	99.9	P/P	70 - 130
2322630	Vanadium	99.0	98.8	P/P	70 - 130
2322630	Zinc	98.2	99.0	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P413316

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322630	Aluminum	99.3	101	P/P	70 - 130
2322630	Antimony	97.6	97.0	P/P	70 - 130
2322630	Arsenic	110	109	P/P	70 - 130
2322630	Beryllium	101	97.7	P/P	70 - 130
2322630	Cadmium	93.9	91.9	P/P	70 - 130
2322630	Chromium	94.9	93.3	P/P	70 - 130
2322630	Cobalt	108	106	P/P	70 - 130
2322630	Copper	103	102	P/P	70 - 130
2322630	Lead	101	99.9	P/P	70 - 130
2322630	Manganese	93.9	92.0	P/P	70 - 130
2322630	Molybdenum	108	108	P/P	70 - 130
2322630	Nickel	111	109	P/P	70 - 130
2322630	Selenium	101	101	P/P	70 - 130
2322630	Thallium	102	103	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P413610

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322687	Silver	89.7	88.6	P/P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P413280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322299	Ammonia-N	108	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P413443

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322280	Kjeldahl Nitrogen	91.7	98.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P413136

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322611	NO2NO3-N	94.4	93.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413235

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322661	Total-P	92.8	96.0	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P412949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322194	PCB-1016	82.5	84.6	P/P	46 - 110
2322194	PCB-1260	83.7	88.1	P/P	42 - 111
2322373	Aldrin	46.0	51.5	P/P	10 - 89.0
2322373	Alpha-BHC	74.5	79.1	P/P	71 - 105
2322373	Alpha-Chlordane	69.1	73.1	P/P	43 - 107
2322373	Beta-BHC	87.0	93.4	P/P	57 - 152
2322373	Beta-Cyfluthrin	91.9	96.5	P/P	29 - 186
2322373	Bifenthrin	74.1	70.3	P/P	19 - 119
2322373	Chlorothalonil	115	116	P/P	10 - 245
2322373	Cis-Nonachlor	66.8	61.2	P/P	36 - 110
2322373	Cypermethrin	85.8	92.2	P/P	24 - 169
2322373	Dacthal	71.8	82.4	P/P	62 - 115
2322373	DDD-p,p'	66.3	68.0	P/P	36 - 109
2322373	DDE-p,p'	64.0	69.0	P/P	30 - 114
2322373	DDT-p,p'	63.0	72.6	P/P	42 - 108
2322373	Delta-BHC	87.8	94.9	P/P	60 - 164
2322373	Deltamethrin	98.4	97.2	P/P	10 - 210
2322373	Dichlobenil	86.4	94.1	P/P	23 - 108
2322373	Dicofol	61.1	63.6	P/P	44 - 109
2322373	Endosulfan I	64.8	73.7	P/P	52 - 105
2322373	Endosulfan II	62.7	71.6	P/P	35 - 127
2322373	Endosulfan Sulfate	72.5	88.4	P/P	39 - 130
2322373	Endrin	65.1	70.0	P/P	30 - 116
2322373	Endrin Aldehyde	60.1	53.1	P/P	20 - 110
2322373	Endrin Ketone	72.6	81.4	P/P	48 - 134
2322373	Esfenvalerate	89.4	90.9	P/P	10 - 199
2322373	Ethalfuralin	68.9	60.8	P/P	48 - 95.0
2322373	Fenpropathrin	98.6	87.0	P/P	37 - 121
2322373	Gamma-BHC	78.5	77.3	P/P	61 - 126
2322373	Gamma-Chlordane	64.6	70.0	P/P	39 - 105
2322373	Heptachlor	55.3	61.4	P/P	38 - 96.0
2322373	Heptachlor Epoxide	57.3	67.1	P/P	42 - 114
2322373	Hexachlorobenzene	72.4	74.0	P/P	39 - 93.0
2322373	Kepone	51.1	49.4	P/P	10 - 215
2322373	Lambda-Cyhalothrin	82.4	85.0	P/P	10 - 204
2322373	Methoprene	59.8	63.2	P/P	17 - 108
2322373	Methoxychlor	67.9	79.8	P/P	56 - 115
2322373	MGK-264	60.1	71.0	P/P	35 - 120
2322373	Mirex	60.2	62.3	P/P	10 - 178
2322373	Oxychlordane	59.8	66.2	P/P	47 - 91.0
2322373	Permethrin	91.7	89.1	P/P	27 - 170
2322373	Phenothrin	71.3	69.8	P/P	10 - 133
2322373	Piperonyl Butoxide	84.1	101	P/P	23 - 150
2322373	Prallethrin	53.9	59.4	P/P	21 - 113
2322373	Tau-Fluvalinate	87.4	85.3	P/P	16 - 158
2322373	Tetramethrin	81.6	101	P/P	22 - 132

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P412949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322373	Trans-Nonachlor	58.8	66.6	P/P	43 - 102
2322373	Triclosan Methyl	65.5	79.6	P/P	49 - 109
2322373	Trifluralin	66.5	69.6	P/P	48 - 93.0

Reference Method: EPA 8270E
Batch ID: P413158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322917	Acetochlor	98.8	88.0	P/P	65 - 124
2322917	Alachlor	110	102	P/P	61 - 121
2322917	Ametryn	91.3	91.3	P/P	52 - 216
2322917	Atrazine	116	116	P/P	68 - 133
2322917	Atrazine Desethyl	108	77.5	P/P	15 - 160
2322917	Avobenzone	114	111	P/P	59 - 206
2322917	Azinphos Methyl	114	103	P/P	40 - 292
2322917	Azoxystrobin	100	101	P/P	12 - 242
2322917	Bromacil	73.5	87.6	P/P	54 - 167
2322917	Butylate	35.6	45.3	P/P	14 - 94.0
2322917	Caffeine	12.9	20.6	P/P	10 - 226
2322917	Carbophenothion	105	94.5	P/P	49 - 122
2322917	Carfentrazone Ethyl	112	98.9	P/P	53 - 138
2322917	Chlorfenapyr	97.5	85.9	P/P	50 - 150
2322917	Chlorpyrifos Ethyl	94.6	86.5	P/P	52 - 122
2322917	Chlorpyrifos Methyl	115	111	P/P	66 - 117
2322917	Coumaphos	79.2	94.2	P/P	50 - 220
2322917	Cyanazine	97.8	98.5	P/P	43 - 245
2322917	Cyprodinil	114	104	P/P	50 - 150
2322917	Demeton	96.3	86.2	P/P	43 - 188
2322917	Diazinon	117	125	P/P	69 - 131
2322917	Difenoconazole	152	135	P/P	34 - 231
2322917	Dimethenamid	97.2	85.4	P/P	55 - 118
2322917	Dimethomorph	97.5	111	P/P	50 - 150
2322917	Disulfoton	111	101	P/P	38 - 141
2322917	Dithiopyr	105	96.4	P/P	42 - 116
2322917	EPTC	59.8	67.8	P/P	18 - 85.0
2322917	Ethion	86.9	64.3	P/P	10 - 131
2322917	Ethoprop	95.6	97.4	P/P	65 - 129
2322917	Etridiazole	65.3	69.2	P/P	50 - 150
2322917	Fenamiphos	65.4	79.1	P/P	31 - 137
2322917	Fenbuconazole	89.3	93.6	P/P	57 - 160
2322917	Fipronil	120	109	P/P	62 - 132
2322917	Fipronil Desulfinyl	127	118	P/P	57 - 131
2322917	Fipronil Sulfide	97.7	92.2	P/P	15 - 138
2322917	Fipronil Sulfone	113	98.9	P/P	21 - 134
2322917	Fluazifop-P-butyl	111	103	P/P	54 - 133
2322917	Fludioxonil	105	100	P/P	58 - 127
2322917	Flumioxazin	169	151	P/P	33 - 300
2322917	Flutolanil	79.9	78.4	P/P	42 - 130
2322917	Fluxapyroxad	90.7	83.5	P/P	23 - 141
2322917	Fonofos	99.4	108	P/P	58 - 119
2322917	Hexazinone	99.9	90.4	P/P	68 - 172
2322917	Imazalil	84.9	84.1	P/P	48 - 283

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P413158

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322917	Iprodione	100	106	P/P	38 - 140
2322917	Loratadine	85.7	90.0	P/P	50 - 150
2322917	Malathion	87.4	89.3	P/P	40 - 137
2322917	Metalaxyl	100	98.7	P/P	21 - 129
2322917	Metolachlor	93.2	89.5	P/P	55 - 122
2322917	Metribuzin	85.6	95.2	P/P	38 - 187
2322917	Mevinphos	95.1	89.0	P/P	54 - 134
2322917	Molinate	67.2	72.8	P/P	41 - 97.0
2322917	Myclobutanil	104	92.3	P/P	56 - 125
2322917	Naled	106	106	P/P	10 - 108
2322917	Napropamide	88.8	76.7	P/P	50 - 150
2322917	Norflurazon	87.7	85.0	P/P	32 - 122
2322917	Octinoxate	78.4	79.2	P/P	25 - 150
2322917	Oxadiazon	81.6	76.2	P/P	40 - 119
2322917	Oxybenzone	83.6	86.2	P/P	59 - 147
2322917	Oxyfluorfen	146	136	P/P	61 - 153
2322917	Parathion Ethyl	79.3	82.3	P/P	59 - 130
2322917	Parathion Methyl	115	120	P/P	65 - 155
2322917	Pendimethalin	96.3	95.0	P/P	49 - 138
2322917	Phenytoin	54.2	51.8	P/P	50 - 200
2322917	Phorate	91.6	85.9	P/P	54 - 161
2322917	Prodiamine	75.2	65.7	P/P	33 - 161
2322917	Prometon	62.9	72.8	P/P	48 - 140
2322917	Prometryn	87.7	87.0	P/P	55 - 134
2322917	Pronamide	120	109	P/P	66 - 137
2322917	Propanil	106	94.3	P/P	50 - 150
2322917	Propargite	69.8	57.5	P/P	50 - 200
2322917	Propiconazole	86.3	83.6	P/P	36 - 150
2322917	Pyraflufen Ethyl	89.2	91.6	P/P	50 - 150
2322917	Pyridaben	78.5	80.8	P/P	50 - 200
2322917	Pyriproxyfen	82.7	75.0	P/P	10 - 165
2322917	Simazine	78.9	83.9	P/P	57 - 145
2322917	Stirophos	69.7	56.5	P/P	50 - 150
2322917	Sulfentrazone	99.1	93.3	P/P	34 - 140
2322917	Tebuconazole	63.3	50.3	P/P	10 - 127
2322917	Terbufos	120	119	P/P	59 - 138
2322917	Terbuthylazine	86.4	82.1	P/P	68 - 119
2322917	Thiobencarb	78.0	79.2	P/P	50 - 150
2322917	Triadimefon	104	106	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P412949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322194	Chlordane	69.2	78.5	P/P	55 - 128
2322194	Toxaphene	67.2	69.1	P/P	57 - 211

Reference Method: EPA 8321B
Batch ID: P413044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322557	Acesulfame K	133	138	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P413044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322557	AMPA	89.6	90.5	P/P	40 - 150
2322557	Endothall	93.7	95.9	P/P	40 - 150
2322557	Glufosinate	98.2	97.6	P/P	40 - 150
2322557	Glyphosate	97.7	104	P/P	40 - 150
2322557	Sucralose	123	128	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P413045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322881	Sucralose	112	128	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P413091

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322134	3-Hydroxycarbofuran	57.4	53.3	P/P	40 - 150
2322134	Aldicarb	46.1	39.9	P/P	30 - 150
2322134	Aldicarb Sulfone	83.9	85.2	P/P	40 - 150
2322134	Aldicarb Sulfoxide	47.2	47.0	P/P	40 - 150
2322134	Carbaryl	51.8	50.6	P/P	40 - 150
2322134	Carbofuran	54.2	55.9	P/P	40 - 150
2322134	Methiocarb	45.6	47.5	P/P	40 - 150
2322134	Methomyl	58.6	56.5	P/P	40 - 150
2322134	Oxamyl	70.9	68.5	P/P	40 - 150
2322134	Propoxur	50.3	51.5	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P413095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322558	2,4-D	69.3	82.5	P/P	40 - 150
2322558	2,4,5-T	77.0	79.7	P/P	40 - 150
2322558	Acetaminophen	128	140	P/P	30 - 150
2322558	Acetamiprid	29.9	30.5	F/F	40 - 150
2322558	Afidopyropen	43.3	40.0	P/P	40 - 150
2322558	Bentazon	30.9	30.0	P/P	30 - 150
2322558	Benzovindiflupyr	52.8	53.1	P/P	40 - 150
2322558	Carbamazepine	55.7	54.2	P/P	40 - 150
2322558	Clothianidin	54.8	54.6	P/P	40 - 150
2322558	Dinotefuran	92.2	97.5	P/P	40 - 150
2322558	Diuron	43.7	41.9	P/P	40 - 150
2322558	Fenuron	49.1	51.3	P/P	40 - 150
2322558	Fluridone	52.9	52.6	P/P	40 - 150
2322558	Hydrocodone	49.4	50.5	P/P	40 - 150
2322558	Ibuprofen	57.8	55.7	P/P	40 - 150
2322558	Imazapyr	51.1	52.8	P/P	40 - 150
2322558	Imidacloprid	45.6	43.2	P/P	40 - 150
2322558	Linuron	49.6	50.8	P/P	40 - 150
2322558	Mandestrobin	56.9	58.2	P/P	40 - 150
2322558	MCPP	107	122	P/P	40 - 150
2322558	Naproxen	54.1	54.0	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P413095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322558	Primidone	56.7	57.9	P/P	40 - 150
2322558	Pyraclostrobin	61.5	63.3	P/P	40 - 150
2322558	Silvex	79.4	86.6	P/P	40 - 150
2322558	Thiamethoxam	39.3	38.3	F/F	40 - 150
2322558	Tolfenpyrad	46.2	46.9	P/P	30 - 150
2322558	Triclopyr	68.9	74.7	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P413546

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322011	Fluoride	100	100	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P413420

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322653	Organic Carbon	91.2	97.8	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P413569

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322296	Organic Carbon	90.8	91.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P413078

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322739	Turbidity	3.96	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P413316

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322630	Calcium	1.02	Spike	P	0 - 20
2322630	Iron	0.465	Spike	P	0 - 20
2322630	Magnesium	1.19	Spike	P	0 - 20
2322630	Strontium	1.11	Spike	P	0 - 20
2322630	Tin	1.31	Spike	P	0 - 20
2322630	Titanium	4.20	Spike	P	0 - 20
2322630	Vanadium	0.187	Spike	P	0 - 20
2322630	Zinc	0.794	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P413316

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322630	Aluminum	1.29	Spike	P	0 - 20
2322630	Antimony	0.554	Spike	P	0 - 20
2322630	Arsenic	1.37	Spike	P	0 - 20
2322630	Beryllium	3.29	Spike	P	0 - 20
2322630	Cadmium	2.08	Spike	P	0 - 20
2322630	Chromium	1.73	Spike	P	0 - 20
2322630	Cobalt	1.87	Spike	P	0 - 20
2322630	Copper	1.58	Spike	P	0 - 20
2322630	Lead	0.605	Spike	P	0 - 20
2322630	Manganese	1.64	Spike	P	0 - 20
2322630	Molybdenum	0.249	Spike	P	0 - 20
2322630	Nickel	2.06	Spike	P	0 - 20
2322630	Selenium	0.350	Spike	P	0 - 20
2322630	Thallium	0.583	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P413610

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322687	Silver	1.29	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P413280

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322299	Ammonia-N	0.303	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413443

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322280	Kjeldahl Nitrogen	5.95	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413136

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322611	NO2NO3-N	1.07	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413235

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322661	Total-P	3.02	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P412949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322194	PCB-1016	2.46	Spike	P	0 - 32
2322194	PCB-1260	5.12	Spike	P	0 - 31
2322373	Aldrin	11.2	Spike	P	0 - 37
2322373	Alpha-BHC	5.91	Spike	P	0 - 16
2322373	Alpha-Chlordane	5.70	Spike	P	0 - 28
2322373	Beta-BHC	7.02	Spike	P	0 - 32
2322373	Beta-Cyfluthrin	4.89	Spike	P	0 - 41
2322373	Bifenthrin	5.19	Spike	P	0 - 36
2322373	Chlorothalonil	1.18	Spike	P	0 - 54
2322373	Cis-Nonachlor	8.83	Spike	P	0 - 33
2322373	Cypermethrin	7.12	Spike	P	0 - 38
2322373	Dacthal	13.6	Spike	P	0 - 23
2322373	DDD-p,p'	2.43	Spike	P	0 - 35
2322373	DDE-p,p'	7.53	Spike	P	0 - 27
2322373	DDT-p,p'	14.2	Spike	P	0 - 31
2322373	Delta-BHC	7.76	Spike	P	0 - 30
2322373	Deltamethrin	1.22	Spike	P	0 - 76
2322373	Dichlobenil	8.48	Spike	P	0 - 33
2322373	Dicofol	4.04	Spike	P	0 - 24
2322373	Dieldrin	12.2	Spike	P	0 - 35
2322373	Endosulfan I	12.9	Spike	P	0 - 25
2322373	Endosulfan II	13.2	Spike	P	0 - 31
2322373	Endosulfan Sulfate	19.7	Spike	P	0 - 38
2322373	Endrin	7.21	Spike	P	0 - 53
2322373	Endrin Aldehyde	12.3	Spike	P	0 - 81
2322373	Endrin Ketone	11.4	Spike	P	0 - 33
2322373	Esfenvalerate	1.72	Spike	P	0 - 46
2322373	Ethalfuralin	12.5	Spike	P	0 - 22
2322373	Fenpropathrin	12.5	Spike	P	0 - 29
2322373	Gamma-BHC	1.49	Spike	P	0 - 17

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P412949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322373	Gamma-Chlordane	7.99	Spike	P	0 - 28
2322373	Heptachlor	10.4	Spike	P	0 - 28
2322373	Heptachlor Epoxide	10.3	Spike	P	0 - 23
2322373	Hexachlorobenzene	2.27	Spike	P	0 - 22
2322373	Kepone	3.56	Spike	P	0 - 61
2322373	Lambda-Cyhalothrin	3.13	Spike	P	0 - 52
2322373	Methoprene	5.55	Spike	P	0 - 38
2322373	Methoxychlor	16.1	Spike	P	0 - 29
2322373	MGK-264	16.6	Spike	P	0 - 41
2322373	Mirex	3.35	Spike	P	0 - 39
2322373	Oxychlordane	10.2	Spike	P	0 - 33
2322373	Permethrin	2.90	Spike	P	0 - 39
2322373	Phenothrin	2.20	Spike	P	0 - 52
2322373	Piperonyl Butoxide	18.2	Spike	P	0 - 91
2322373	Prallethrin	9.80	Spike	P	0 - 34
2322373	Tau-Fluvalinate	2.44	Spike	P	0 - 41
2322373	Tetramethrin	20.8	Spike	P	0 - 43
2322373	Trans-Nonachlor	12.4	Spike	P	0 - 31
2322373	Triclosan Methyl	19.4	Spike	P	0 - 24
2322373	Trifluralin	4.57	Spike	P	0 - 23

Reference Method: EPA 8270E
Batch ID: P413158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322917	Acetochlor	11.5	Spike	P	0 - 27
2322917	Alachlor	7.77	Spike	P	0 - 27
2322917	Ametryn	0.0780	Spike	P	0 - 34
2322917	Atrazine	0.258	Spike	P	0 - 41
2322917	Atrazine Desethyl	32.4	Spike	P	0 - 38
2322917	Avobenzene	2.85	Spike	P	0 - 30
2322917	Azinphos Methyl	10.7	Spike	P	0 - 62
2322917	Azoxystrobin	0.935	Spike	P	0 - 32
2322917	Bromacil	17.4	Spike	P	0 - 30
2322917	Butylate	24.0	Spike	P	0 - 59
2322917	Caffeine	46.2	Spike	P	0 - 60
2322917	Carbophenothion	10.6	Spike	P	0 - 25
2322917	Carfentrazone Ethyl	12.6	Spike	P	0 - 26
2322917	Chlorfenapyr	12.7	Spike	P	0 - 30
2322917	Chlorpyrifos Ethyl	8.98	Spike	P	0 - 27
2322917	Chlorpyrifos Methyl	2.83	Spike	P	0 - 26
2322917	Coumaphos	17.2	Spike	P	0 - 30
2322917	Cyanazine	0.705	Spike	P	0 - 58
2322917	Cyprodinil	9.25	Spike	P	0 - 30
2322917	Demeton	11.1	Spike	P	0 - 25
2322917	Diazinon	6.66	Spike	P	0 - 29
2322917	Difenoconazole	11.8	Spike	P	0 - 25
2322917	Dimethenamid	12.8	Spike	P	0 - 30
2322917	Dimethomorph	13.0	Spike	P	0 - 30
2322917	Disulfoton	9.67	Spike	P	0 - 33

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P413158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322917	Dithiopyr	8.75	Spike	P	0 - 22
2322917	EPTC	12.5	Spike	P	0 - 38
2322917	Ethion	29.9	Spike	P	0 - 79
2322917	Ethoprop	1.88	Spike	P	0 - 23
2322917	Etridiazole	5.76	Spike	P	0 - 30
2322917	Fenamiphos	19.1	Spike	P	0 - 58
2322917	Fenbuconazole	4.72	Spike	P	0 - 37
2322917	Fipronil	9.52	Spike	P	0 - 33
2322917	Fipronil Desulfinyf	7.43	Spike	P	0 - 26
2322917	Fipronil Sulfide	5.81	Spike	P	0 - 37
2322917	Fipronil Sulfone	13.0	Spike	P	0 - 50
2322917	Fluazifop-P-butyl	7.21	Spike	P	0 - 24
2322917	Fludioxonil	4.20	Spike	P	0 - 26
2322917	Flumioxazin	11.8	Spike	P	0 - 37
2322917	Flutolanil	1.83	Spike	P	0 - 26
2322917	Fluxapyroxad	8.31	Spike	P	0 - 34
2322917	Fonofos	8.56	Spike	P	0 - 27
2322917	Hexazinone	10.0	Spike	P	0 - 36
2322917	Imazalil	0.905	Spike	P	0 - 65
2322917	Iprodione	5.04	Spike	P	0 - 33
2322917	Loratadine	4.67	Spike	P	0 - 30
2322917	Malathion	2.10	Spike	P	0 - 44
2322917	Metalaxyl	1.27	Spike	P	0 - 38
2322917	Metolachlor	4.06	Spike	P	0 - 36
2322917	Metribuzin	10.6	Spike	P	0 - 63
2322917	Mevinphos	6.61	Spike	P	0 - 26
2322917	Molinate	8.06	Spike	P	0 - 40
2322917	Myclobutanil	11.5	Spike	P	0 - 21
2322917	Naled	0.494	Spike	P	0 - 26
2322917	Napropamide	14.6	Spike	P	0 - 30
2322917	Norflurazon	3.11	Spike	P	0 - 24
2322917	Octinoxate	1.06	Spike	P	0 - 30
2322917	Oxadiazon	6.90	Spike	P	0 - 27
2322917	Oxybenzone	3.15	Spike	P	0 - 30
2322917	Oxyfluorfen	6.77	Spike	P	0 - 24
2322917	Parathion Ethyl	3.72	Spike	P	0 - 28
2322917	Parathion Methyl	4.75	Spike	P	0 - 27
2322917	Pendimethalin	1.43	Spike	P	0 - 31
2322917	Phenytol	4.38	Spike	P	0 - 30
2322917	Phorate	6.50	Spike	P	0 - 27
2322917	Prodiamine	13.5	Spike	P	0 - 52
2322917	Prometon	14.5	Spike	P	0 - 31
2322917	Prometryn	0.769	Spike	P	0 - 28
2322917	Pronamide	9.67	Spike	P	0 - 26
2322917	Propanil	12.1	Spike	P	0 - 30
2322917	Propargite	19.3	Spike	P	0 - 30
2322917	Propiconazole	3.23	Spike	P	0 - 31
2322917	Pyraflufen Ethyl	2.60	Spike	P	0 - 30
2322917	Pyridaben	2.87	Spike	P	0 - 30
2322917	Pyriproxyfen	9.80	Spike	P	0 - 50
2322917	Simazine	6.12	Spike	P	0 - 29

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P413158

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322917	Stirophos	21.0	Spike	P	0 - 30
2322917	Sulfentrazone	5.95	Spike	P	0 - 33
2322917	Tebuconazole	22.9	Spike	P	0 - 44
2322917	Terbufos	0.615	Spike	P	0 - 29
2322917	Terbutylazine	4.99	Spike	P	0 - 27
2322917	Thiobencarb	1.51	Spike	P	0 - 30
2322917	Triadimefon	2.56	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P412949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322194	Chlordane	12.5	Spike	P	0 - 25
2322194	Toxaphene	2.82	Spike	P	0 - 24

Reference Method: EPA 8321B
Batch ID: P413044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322557	Acesulfame K	3.58	Spike	P	0 - 30
2322557	AMPA	1.07	Spike	P	0 - 30
2322557	Endothall	2.25	Spike	P	0 - 30
2322557	Glufosinate	0.650	Spike	P	0 - 30
2322557	Glyphosate	5.81	Spike	P	0 - 30
2322557	Sucralose	3.76	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P413045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322881	Sucralose	12.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P413091

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322134	3-Hydroxycarbofuran	7.49	Spike	P	0 - 30
2322134	Aldicarb	14.4	Spike	P	0 - 30
2322134	Aldicarb Sulfone	1.59	Spike	P	0 - 30
2322134	Aldicarb Sulfoxide	0.269	Spike	P	0 - 30
2322134	Carbaryl	2.31	Spike	P	0 - 30
2322134	Carbofuran	3.05	Spike	P	0 - 30
2322134	Methiocarb	4.12	Spike	P	0 - 30
2322134	Methomyl	3.65	Spike	P	0 - 30
2322134	Oxamyl	3.47	Spike	P	0 - 30
2322134	Propoxur	2.54	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P413095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322558	2,4-D	17.3	Spike	P	0 - 30
2322558	2,4,5-T	3.35	Spike	P	0 - 30
2322558	Acetaminophen	9.46	Spike	P	0 - 30
2322558	Acetamiprid	2.01	Spike	P	0 - 30
2322558	Afidopyropen	7.83	Spike	P	0 - 30
2322558	Bentazon	2.99	Spike	P	0 - 30
2322558	Benzovindiflupyr	0.544	Spike	P	0 - 30
2322558	Carbamazepine	2.63	Spike	P	0 - 30
2322558	Clothianidin	0.249	Spike	P	0 - 30
2322558	Dinotefuran	5.33	Spike	P	0 - 30
2322558	Diuron	4.31	Spike	P	0 - 30
2322558	Fenuron	4.48	Spike	P	0 - 30
2322558	Fluridone	0.415	Spike	P	0 - 30
2322558	Hydrocodone	2.19	Spike	P	0 - 30
2322558	Ibuprofen	3.66	Spike	P	0 - 30
2322558	Imazapyr	2.49	Spike	P	0 - 30
2322558	Imidacloprid	5.25	Spike	P	0 - 30
2322558	Linuron	2.51	Spike	P	0 - 30
2322558	Mandestrobin	2.19	Spike	P	0 - 30
2322558	MCP	13.0	Spike	P	0 - 30
2322558	Naproxen	0.333	Spike	P	0 - 30
2322558	Primidone	2.22	Spike	P	0 - 30
2322558	Pyraclostrobin	2.85	Spike	P	0 - 30
2322558	Silvex	8.72	Spike	P	0 - 30
2322558	Thiamethoxam	2.59	Spike	P	0 - 30
2322558	Tolfenpyrad	1.70	Spike	P	0 - 30
2322558	Triclopyr	8.20	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P413539

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322011	Total Alkalinity	0.697	Sample	P	0 - 5.2

Reference Method: SM 4500-F- C-2011
Batch ID: P413546

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322011	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P413420

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322653	Organic Carbon	4.12	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P413569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2322296	Organic Carbon	0.777	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2322676
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	86.1	P	30 - 160

Lab Sample ID: 2322677
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	114	P	30 - 160
EPA 8321B	Carbamazepine-d10	34.7	P	30 - 160
EPA 8321B	Diuron-d6	74.3	P	30 - 160
EPA 8321B	Endothall-d6	93.5	P	30 - 160
EPA 8321B	Endothall-d6	93.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	78.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	78.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	54.1	P	30 - 160
EPA 8321B	Primidone-d5	60.0	P	30 - 160
EPA 8321B	Sucralose-d6	82.7	P	30 - 160

Lab Sample ID: 2322678
Field Sample ID: G1SW0099

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	86.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	112	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.3	P	30 - 160
EPA 8321B	Diuron-d6	38.3	P	30 - 160
EPA 8321B	Endothall-d6	87.7	P	30 - 160
EPA 8321B	Endothall-d6	87.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	57.1	P	30 - 160
EPA 8321B	Primidone-d5	77.3	P	30 - 160
EPA 8321B	Sucralose-d6	74.0	P	30 - 160

Lab Sample ID: 2322679
Field Sample ID: G5SW0169

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	112	P	30 - 160
EPA 8321B	Carbamazepine-d10	38.8	P	30 - 160
EPA 8321B	Diuron-d6	75.8	P	30 - 160
EPA 8321B	Endothall-d6	94.6	P	30 - 160
EPA 8321B	Endothall-d6	94.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	59.3	P	30 - 160
EPA 8321B	Primidone-d5	60.1	P	30 - 160
EPA 8321B	Sucralose-d6	79.7	P	30 - 160
EPA 8321B	Sucralose-d6	83.6	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2322680
Field Sample ID: G5SW0170

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	91.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	122	P	30 - 160
EPA 8321B	Carbamazepine-d10	42.1	P	30 - 160
EPA 8321B	Diuron-d6	81.8	P	30 - 160
EPA 8321B	Endothall-d6	96.3	P	30 - 160
EPA 8321B	Endothall-d6	96.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	57.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	57.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.9	P	30 - 160
EPA 8321B	Primidone-d5	71.6	P	30 - 160
EPA 8321B	Sucralose-d6	81.9	P	30 - 160

Lab Sample ID: 2322683
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	80.8	P	38 - 115
EPA 8270E	Decachlorobiphenyl	85.2	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	63.8	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	66.2	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	61.3	P	30 - 97.0
EPA 8276	PCNB	73.2	P	45 - 119

Lab Sample ID: 2322684
Field Sample ID: G5SW0134

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	51.4	P	20 - 200
EPA 8270E	Simazine-d10	81.7	P	71 - 140
EPA 8270E	Terbufos-d10	82.3	P	62 - 131
EPA 8270E	Terphenyl-d14	65.8	P	50 - 124

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111781

Included Lab Sample IDs: 2322660, 2322662

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111804

Included Lab Sample IDs: 2322661, 2322663

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

Reference Method: EPA 8321B

Run ID: A111859

Included Lab Sample IDs: 2322677, 2322678, 2322679, 2322680

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	156	152	P/P	60 - 160
Sucralose	120	121	P/P	60 - 160
Sucralose	121	120	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A111874

Included Lab Sample IDs: 2322677, 2322678, 2322679, 2322680

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	94.3	P/P	60 - 160
AMPA	94.3	97.5	P/P	60 - 160
AMPA	97.5	93.3	P/P	60 - 160
Endothall	97.6	96.4	P/P	60 - 160
Glufosinate	101	86.3	P/P	60 - 160
Glufosinate	86.3	92.6	P/P	60 - 160
Glufosinate	92.6	88.3	P/P	60 - 160
Glyphosate	87.9	88.2	P/P	60 - 160
Glyphosate	89.8	87.9	P/P	60 - 160
Glyphosate	98.1	89.8	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111875

Included Lab Sample IDs: 2322661, 2322663

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	98.4	P/P	90 - 110
Ammonia-N	98.6	96.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111915

Included Lab Sample IDs: 2322663

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111918

Included Lab Sample IDs: 2322687

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.8	98.9	P/P	90 - 110
Antimony	98.0	97.6	P/P	90 - 110
Arsenic	100	99.7	P/P	90 - 110
Beryllium	96.3	95.9	P/P	90 - 110
Cadmium	96.9	96.8	P/P	90 - 110
Chromium	95.9	95.1	P/P	90 - 110
Cobalt	100	99.4	P/P	90 - 110
Copper	101	100	P/P	90 - 110
Lead	96.7	95.8	P/P	90 - 110
Manganese	96.9	96.6	P/P	90 - 110
Molybdenum	98.0	97.0	P/P	90 - 110
Nickel	103	102	P/P	90 - 110
Selenium	97.0	97.4	P/P	90 - 110
Thallium	96.3	95.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A111932

Included Lab Sample IDs: 2322676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	101	103	P/P	60 - 150
Aldicarb	99.1	106	P/P	60 - 150
Aldicarb Sulfone	101	99.7	P/P	50 - 150
Aldicarb Sulfoxide	97.6	96.6	P/P	50 - 150
Carbaryl	101	98.7	P/P	60 - 150
Carbofuran	99.2	100	P/P	50 - 150
Methiocarb	101	101	P/P	50 - 150
Methomyl	104	104	P/P	50 - 150
Oxamyl	103	101	P/P	50 - 150
Propoxur	103	101	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A111934

Included Lab Sample IDs: 2322683

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	103		P	80 - 120
Alpha-BHC	97.2		P	80 - 120
Alpha-Chlordane	105		P	80 - 120
Beta-BHC	97.8		P	80 - 120
Beta-Cyfluthrin	105		P	80 - 120
Bifenthrin	105		P	80 - 120
Chlorothalonil	95.7		P	80 - 120
Cis-Nonachlor	103		P	80 - 120
Cypermethrin	107		P	80 - 120
Dacthal	99.3		P	80 - 120
DDD-p,p'	108		P	80 - 120
DDE-p,p'	100		P	80 - 120
DDT-p,p'	96.3		P	80 - 120
Delta-BHC	94.9		P	80 - 120
Deltamethrin	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A111934
Included Lab Sample IDs: 2322683

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dichlobenil	101		P	80 - 120
Dicofol	98.2		P	80 - 120
Dieldrin	102		P	80 - 120
Endosulfan I	97.7		P	80 - 120
Endosulfan II	113		P	80 - 120
Endosulfan Sulfate	114		P	80 - 120
Endrin	109		P	80 - 120
Endrin Aldehyde	99.5		P	80 - 120
Endrin Ketone	100		P	80 - 120
Esfenvalerate	112		P	80 - 120
Ethalfuralin	97.5		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	95.2		P	80 - 120
Gamma-Chlordane	101		P	80 - 120
Heptachlor	101		P	80 - 120
Heptachlor Epoxide	95.5		P	80 - 120
Hexachlorobenzene	99.3		P	80 - 120
Kepone	117		P	80 - 120
Lambda-Cyhalothrin	101		P	80 - 120
Methoprene	97.2		P	80 - 120
Methoxychlor	96.0		P	80 - 120
MGK-264	105		P	80 - 120
Mirex	105		P	80 - 120
Oxychlordane	92.6		P	80 - 120
Permethrin	109		P	80 - 120
Phenothrin	107		P	80 - 120
Piperonyl Butoxide	104		P	80 - 120
Prallethrin	99.2		P	80 - 120
Tau-Fluvalinate	107		P	80 - 120
Tetramethrin	106		P	80 - 120
Trans-Nonachlor	96.2		P	80 - 120
Triclosan Methyl	96.1		P	80 - 120
Trifluralin	93.0		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A111937
Included Lab Sample IDs: 2322663

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.8	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A111941
Included Lab Sample IDs: 2322677, 2322678, 2322679, 2322680

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	80.9	84.9	P/P	50 - 150
2,4,5-T	88.5	104	P/P	50 - 150
Acetaminophen	104	103	P/P	60 - 160
Acetamiprid	103	105	P/P	50 - 150
Acetamiprid	107	107	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A111941

Included Lab Sample IDs: 2322677, 2322678, 2322679, 2322680

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Afidopyropen	82.9	103	P/P	50 - 150
Afidopyropen	87.9	84.2	P/P	50 - 150
Bentazon	106	106	P/P	50 - 160
Benzovindiflupyr	103	100	P/P	50 - 150
Benzovindiflupyr	96.3	104	P/P	50 - 150
Carbamazepine	109	108	P/P	60 - 150
Clothianidin	103	106	P/P	60 - 150
Clothianidin	107	105	P/P	60 - 150
Dinotefuran	106	106	P/P	50 - 150
Dinotefuran	106	107	P/P	50 - 150
Diuron	105	108	P/P	60 - 160
Diuron	106	108	P/P	60 - 160
Fenuron	107	110	P/P	60 - 150
Fenuron	109	110	P/P	60 - 150
Fluridone	101	109	P/P	60 - 160
Fluridone	105	103	P/P	60 - 160
Hydrocodone	98.4	101	P/P	60 - 150
Ibuprofen	104	112	P/P	50 - 160
Imazapyr	95.2	101	P/P	50 - 150
Imidacloprid	109	114	P/P	60 - 150
Imidacloprid	110	115	P/P	60 - 150
Linuron	107	103	P/P	60 - 150
Linuron	97.1	109	P/P	60 - 150
Mandestrobin	102	97.3	P/P	50 - 150
Mandestrobin	97.8	109	P/P	50 - 150
MCPP	100	102	P/P	50 - 150
Naproxen	103	99.5	P/P	50 - 160
Primidone	103	104	P/P	60 - 150
Pyraclostrobin	87.5	101	P/P	60 - 150
Pyraclostrobin	93.8	90.3	P/P	60 - 150
Silvex	92.8	95.7	P/P	50 - 150
Thiamethoxam	109	109	P/P	50 - 150
Thiamethoxam	111	119	P/P	50 - 150
Tolfenpyrad	85.3	98.3	P/P	60 - 150
Tolfenpyrad	91.0	86.7	P/P	60 - 150
Triclopyr	92.0	92.1	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111944

Included Lab Sample IDs: 2322661

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111951

Included Lab Sample IDs: 2322687

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	95.9	98.2	P/P	90 - 110
Iron	98.4	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111951

Included Lab Sample IDs: 2322687

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Magnesium	97.6	99.9	P/P	90 - 110
Strontium	99.0	99.2	P/P	90 - 110
Tin	98.8	95.3	P/P	90 - 110
Titanium	99.9	95.3	P/P	90 - 110
Vanadium	99.7	97.2	P/P	90 - 110
Zinc	98.8	95.6	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A111980

Included Lab Sample IDs: 2322683

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	97.4		P	80 - 120
PCB-1260	98.7		P	80 - 120

Reference Method: EPA 8276

Run ID: A111981

Included Lab Sample IDs: 2322683

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	102		P	80 - 120
Toxaphene	98.5		P	80 - 120

Reference Method: SM 2320 B-2011

Run ID: A111984

Included Lab Sample IDs: 2322660, 2322662

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.5	97.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A111984

Included Lab Sample IDs: 2322660, 2322662

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

Reference Method: SM 5310 B-2011

Run ID: A111986

Included Lab Sample IDs: 2322661

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.4	94.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A112015

Included Lab Sample IDs: 2322661, 2322663

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.9	97.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A112034
Included Lab Sample IDs: 2322684

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzene	99.5		P	80 - 120
Octinoxate	90.4		P	80 - 120
Oxybenzone	101		P	80 - 120

Reference Method: EPA 8270E
Run ID: A112072
Included Lab Sample IDs: 2322684

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	111		P	80 - 120
Alachlor	113		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	110		P	80 - 120
Azoxystrobin	96.8		P	80 - 120
Bromacil	106		P	80 - 120
Butylate	115		P	80 - 120
Caffeine	93.2		P	80 - 120
Carbophenothion	102		P	80 - 120
Carfentrazone Ethyl	110		P	80 - 120
Chlorfenapyr	109		P	80 - 120
Chlorpyrifos Ethyl	99.8		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Coumaphos	101		P	80 - 120
Cyanazine	114		P	80 - 120
Cyprodinil	113		P	80 - 120
Demeton	104		P	80 - 120
Diazinon	118		P	80 - 120
Difenoconazole	109		P	80 - 120
Dimethenamid	107		P	80 - 120
Dimethomorph	93.4		P	80 - 120
Disulfoton	107		P	80 - 120
Dithiopyr	108		P	80 - 120
EPTC	94.3		P	80 - 120
Ethion	105		P	80 - 120
Ethoprop	101		P	80 - 120
Etridiazole	112		P	80 - 120
Fenamiphos	110		P	80 - 120
Fenbuconazole	110		P	80 - 120
Fipronil	120		P	80 - 120
Fipronil Desulfinyl	105		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	99.5		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	120		P	80 - 120
Flumioxazin	85.2		P	80 - 120
Flutolanil	115		P	80 - 120
Fluxapyroxad	104		P	80 - 120
Fonofos	111		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	118		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A112072
Included Lab Sample IDs: 2322684

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iprodione	113		P	80 - 120
Loratadine	82.6		P	80 - 120
Malathion	103		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	117		P	80 - 120
Metribuzin	98.9		P	80 - 120
Mevinphos	111		P	80 - 120
Molinate	93.3		P	80 - 120
Myclobutanil	109		P	80 - 120
Naled	98.9		P	80 - 120
Napropamide	113		P	80 - 120
Norflurazon	115		P	80 - 120
Oxadiazon	116		P	80 - 120
Oxyfluorfen	118		P	80 - 120
Parathion Ethyl	94.7		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	117		P	80 - 120
Phenytoin	114		P	80 - 120
Phorate	99.3		P	80 - 120
Prodiamine	119		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	103		P	80 - 120
Pronamide	112		P	80 - 120
Propanil	106		P	80 - 120
Propargite	117		P	80 - 120
Propiconazole	120		P	80 - 120
Pyraflufen Ethyl	118		P	80 - 120
Pyridaben	103		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	104		P	80 - 120
Stirophos	94.5		P	80 - 120
Sulfentrazone	108		P	80 - 120
Tebuconazole	112		P	80 - 120
Terbufos	109		P	80 - 120
Terbuthylazine	120		P	80 - 120
Thiobencarb	112		P	80 - 120
Triadimefon	119		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A112074
Included Lab Sample IDs: 2322687

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	96.1	99.5	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A112130
Included Lab Sample IDs: 2322684

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	98.4		P	80 - 120

Quality Assurance Report

Calibration Verification

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity	95.6				3.96	
EPA 200.7 Rev. 4.4	Calcium	99.7					1.02
	Iron	100	104	103			0.465
	Magnesium	100					1.19
	Strontium	98.9					1.11
	Tin	96.7	89.5	88.3			1.31
	Titanium	98.2	105	99.9			4.20
	Vanadium	91.5	99.0	98.8			0.187
	Zinc	95.9	98.2	99.0			0.794
EPA 200.8 Rev. 5.4	Aluminum	98.3	99.3	101			1.29
	Antimony	97.7	97.6	97.0			0.554
	Arsenic	98.0	110	109			1.37
	Beryllium	92.6	101	97.7			3.29
	Cadmium	98.1	93.9	91.9			2.08
	Chromium	94.7	94.9	93.3			1.73
	Cobalt	96.3	108	106			1.87
	Copper	94.8	103	102			1.58
	Lead	96.8	101	99.9			0.605
	Manganese	96.8	93.9	92.0			1.64
	Molybdenum	97.8	108	108			0.249
	Nickel	96.0	111	109			2.06
	Selenium	96.1	101	101			0.350
	Silver	96.7	89.7	88.6			1.29
	Thallium	99.4	102	103			0.583
EPA 350.1 Rev. 2.0	Ammonia-N	98.4	108	107			0.303
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	96.5	91.7	98.0			5.95
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	94.4	93.4			1.07
EPA 365.1 Rev. 2.0	Total-P	100	92.8	96.0			3.02
EPA 8270E	Acetochlor	107	98.8	88.0			11.5
	Alachlor	97.1	110	102			7.77
	Aldrin	52.3	46.0	51.5			11.2
	Alpha-BHC	86.6	74.5	79.1			5.91
	Alpha-Chlordane	90.4	69.1	73.1			5.70
	Ametryn	79.1	91.3	91.3			0.0780
	Atrazine	113	116	116			0.258
	Atrazine Desethyl	77.6	108	77.5			32.4
	Avobenzone	108	114	111			2.85
	Azinphos Methyl	104	114	103			10.7
	Azoxystrobin	104	100	101			0.935
	Beta-BHC	107	87.0	93.4			7.02
	Beta-Cyfluthrin	99.5	91.9	96.5			4.89
	Bifenthrin	85.7	74.1	70.3			5.19
	Bromacil	77.1	73.5	87.6			17.4
	Butylate	39.4	35.6	45.3			24.0
	Caffeine	88.2	12.9	20.6			46.2
	Carbophenothion	112	105	94.5			10.6
	Carfentrazone Ethyl	109	112	98.9			12.6
	Chlorfenapyr	103	97.5	85.9			12.7
	Chlorothalonil	106	115	116			1.18
	Chlorpyrifos Ethyl	103	94.6	86.5			8.98
	Chlorpyrifos Methyl	109	115	111			2.83
	Cis-Nonachlor	78.8	66.8	61.2			8.83
	Coumaphos	97.8	79.2	94.2			17.2
	Cyanazine	97.7	97.8	98.5			0.705

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Cypermethrin	92.0	85.8	92.2		7.12
	Cyprodinil	122	114	104		9.25
	Dacthal	85.8	71.8	82.4		13.6
	DDD-p,p'	76.8	66.3	68.0		2.43
	DDE-p,p'	80.0	64.0	69.0		7.53
	DDT-p,p'	86.2	63.0	72.6		14.2
	Delta-BHC	95.0	87.8	94.9		7.76
	Deltamethrin	96.0	98.4	97.2		1.22
	Demeton	92.8	96.3	86.2		11.1
	Diazinon	119	117	125		6.66
	Dichlobenil	73.6	86.4	94.1		8.48
	Dicofol	74.3	61.1	63.6		4.04
	Dieldrin	85.3				12.2
	Difenoconazole	147	152	135		11.8
	Dimethenamid	89.5	97.2	85.4		12.8
	Dimethomorph	97.3	97.5	111		13.0
	Disulfoton	111	111	101		9.67
	Dithiopyr	97.3	105	96.4		8.75
	Endosulfan I	79.6	64.8	73.7		12.9
	Endosulfan II	72.9	62.7	71.6		13.2
	Endosulfan Sulfate	89.1	72.5	88.4		19.7
	Endrin	74.6	65.1	70.0		7.21
	Endrin Aldehyde	73.8	60.1	53.1		12.3
	Endrin Ketone	84.7	72.6	81.4		11.4
	EPTC	43.9	59.8	67.8		12.5
	Esfenvalerate	89.0	89.4	90.9		1.72
	Ethalfuralin	73.3	68.9	60.8		12.5
	Ethion	82.8	86.9	64.3		29.9
	Ethoprop	103	95.6	97.4		1.88
	Etridiazole	53.3	65.3	69.2		5.76
	Fenamiphos	109	65.4	79.1		19.1
	Fenbuconazole	86.7	89.3	93.6		4.72
	Fenpropathrin	92.6	98.6	87.0		12.5
	Fipronil	116	120	109		9.52
	Fipronil Desulfinyl	110	127	118		7.43
	Fipronil Sulfide	107	97.7	92.2		5.81
	Fipronil Sulfone	104	113	98.9		13.0
	Fluazifop-P-butyl	123	111	103		7.21
	Fludioxonil	103	105	100		4.20
	Flumioxazin	136	169	151		11.8
	Flutolanil	78.8	79.9	78.4		1.83
	Fluxapyroxad	88.5	90.7	83.5		8.31
	Fonofos	102	99.4	108		8.56
	Gamma-BHC	89.2	78.5	77.3		1.49
	Gamma-Chlordane	74.7	64.6	70.0		7.99
	Heptachlor	68.3	55.3	61.4		10.4
	Heptachlor Epoxide	80.4	57.3	67.1		10.3
	Hexachlorobenzene	78.8	72.4	74.0		2.27
	Hexazinone	94.7	99.9	90.4		10.0
	Imazalil	133	84.9	84.1		0.905
	Iprodione	98.5	100	106		5.04
	Kepone	47.9	51.1	49.4		3.56
	Lambda-Cyhalothrin	87.4	82.4	85.0		3.13
	Loratadine	84.5	85.7	90.0		4.67

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Malathion	96.9	87.4	89.3		2.10
	Metalaxyl	95.1	100	98.7		1.27
	Methoprene	74.4	59.8	63.2		5.55
	Methoxychlor	85.5	67.9	79.8		16.1
	Metolachlor	86.1	93.2	89.5		4.06
	Metribuzin	89.0	85.6	95.2		10.6
	Mevinphos	92.3	95.1	89.0		6.61
	MGK-264	68.4	60.1	71.0		16.6
	Mirex	71.4	60.2	62.3		3.35
	Molinate	75.2	67.2	72.8		8.06
	Myclobutanil	93.0	104	92.3		11.5
	Naled	95.7	106	106		0.494
	Napropamide	78.2	88.8	76.7		14.6
	Norflurazon	87.6	87.7	85.0		3.11
	Octinoxate	70.4	78.4	79.2		1.06
	Oxadiazon	81.7	81.6	76.2		6.90
	Oxybenzone	77.6	83.6	86.2		3.15
	Oxychlordane	71.9	59.8	66.2		10.2
	Oxyfluorfen	128	146	136		6.77
	Parathion Ethyl	96.8	79.3	82.3		3.72
	Parathion Methyl	124	115	120		4.75
	PCB-1016	94.9	82.5	84.6		2.46
	PCB-1260	87.1	83.7	88.1		5.12
	Pendimethalin	92.9	96.3	95.0		1.43
	Permethrin	99.9	91.7	89.1		2.90
	Phenothrin	77.9	71.3	69.8		2.20
	Phenytol	39.1	54.2	51.8		4.38
	Phorate	102	91.6	85.9		6.50
	Piperonyl Butoxide	88.2	84.1	101		18.2
	Prallethrin	61.5	53.9	59.4		9.80
	Prodiamine	49.5	75.2	65.7		13.5
	Prometon	90.9	62.9	72.8		14.5
	Prometryn	82.1	87.7	87.0		0.769
	Pronamide	105	120	109		9.67
	Propanil	90.9	106	94.3		12.1
	Propargite	62.1	69.8	57.5		19.3
	Propiconazole	92.0	86.3	83.6		3.23
	Pyraflufen Ethyl	98.5	89.2	91.6		2.60
	Pyridaben	89.3	78.5	80.8		2.87
	Pyriproxyfen	85.2	82.7	75.0		9.80
	Simazine	82.4	78.9	83.9		6.12
	Stirophos	66.6	69.7	56.5		21.0
	Sulfentrazone	66.0	99.1	93.3		5.95
	Tau-Fluvalinate	87.3	87.4	85.3		2.44
	Tebuconazole	54.4	63.3	50.3		22.9
	Terbufos	111	120	119		0.615
	Terbuthylazine	87.0	86.4	82.1		4.99
	Tetramethrin	86.4	81.6	101		20.8
	Thiobencarb	74.4	78.0	79.2		1.51
	Trans-Nonachlor	76.9	58.8	66.6		12.4
	Triadimefon	102	104	106		2.56
	Triclosan Methyl	90.1	65.5	79.6		19.4
	Trifluralin	78.5	66.5	69.6		4.57
EPA 8276	Chlordane	72.9	69.2	78.5		12.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8276	Toxaphene	66.5	67.2	69.1			2.82
EPA 8321B	2,4-D	62.8	69.3	82.5			17.3
	2,4,5-T	59.7	77.0	79.7			3.35
	3-Hydroxycarbofuran	62.6	57.4	53.3			7.49
	Acesulfame K	158	133	138			3.58
	Acetaminophen	74.9	128	140			9.46
	Acetamiprid	64.6	29.9	30.5			2.01
	Afidopyropen	55.1	43.3	40.0			7.83
	Aldicarb	53.7	46.1	39.9			14.4
	Aldicarb Sulfone	94.0	83.9	85.2			1.59
	Aldicarb Sulfoxide	94.1	47.2	47.0			0.269
	AMPA	104	89.6	90.5			1.07
	Bentazon	74.4	30.9	30.0			2.99
	Benzovindiflupyr	76.1	52.8	53.1			0.544
	Carbamazepine	75.0	55.7	54.2			2.63
	Carbaryl	56.2	51.8	50.6			2.31
	Carbofuran	61.9	54.2	55.9			3.05
	Clothianidin	98.9	54.8	54.6			0.249
	Dinotefuran	109	92.2	97.5			5.33
	Diuron	78.5	43.7	41.9			4.31
	Endothall	96.8	93.7	95.9			2.25
	Fenuron	101	49.1	51.3			4.48
	Fluridone	81.7	52.9	52.6			0.415
	Glufosinate	97.5	98.2	97.6			0.650
	Glyphosate	102	97.7	104			5.81
	Hydrocodone	82.5	49.4	50.5			2.19
	Ibuprofen	75.1	57.8	55.7			3.66
	Imazapyr	82.1	51.1	52.8			2.49
	Imidacloprid	79.0	45.6	43.2			5.25
	Linuron	71.8	49.6	50.8			2.51
	Mandestrobin	74.0	56.9	58.2			2.19
	MCPP	96.0	107	122			13.0
	Methiocarb	60.4	45.6	47.5			4.12
	Methomyl	87.6	58.6	56.5			3.65
	Naproxen	58.2	54.1	54.0			0.333
	Oxamyl	92.8	70.9	68.5			3.47
	Primidone	99.9	56.7	57.9			2.22
	Propoxur	62.4	50.3	51.5			2.54
	Pyraclostrobin	67.7	61.5	63.3			2.85
	Silvex	63.6	79.4	86.6			8.72
	Sucralose	119	123	128			3.76
	Sucralose	117	112	128			12.9
	Thiamethoxam	87.6	39.3	38.3			2.59
	Tolfenpyrad	45.2	46.2	46.9			1.70
	Triclopyr	58.8	68.9	74.7			8.20
SM 2320 B-2011	Total Alkalinity	98.9				0.697	
SM 4500-F- C-2011	Fluoride	98.8	100	100			0.0
SM 5310 B-2011	Organic Carbon	95.3	91.2	97.8			4.12
	Organic Carbon	95.8	90.8	91.6			0.777

Reference Method Descriptions

Method	Description	Associated Samples
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Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2322660, 2322662
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2322687
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2322687
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2322661, 2322663
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2322661, 2322663
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2322661, 2322663
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2322661, 2322663
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2322684
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2322683
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2322684
EPA 8270E	PCBs in water matrices by GC/MS/MS	2322683
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2322683
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2322676
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2322677, 2322678, 2322679, 2322680
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2322660, 2322662
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2322660, 2322662
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2322660, 2322662
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2322661, 2322663

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/28/2022			04/28/2022 13:45	Khloe J Berg	2322660
	04/28/2022			04/28/2022 13:46	Khloe J Berg	2322662
EPA 200.7 Rev. 4.4	04/28/2022	05/04/2022 09:45	Megan Whitefoot	05/05/2022 15:41	Josef B Mick	2322687
	04/28/2022	05/04/2022 09:45	Megan Whitefoot	05/05/2022 15:49	Josef B Mick	2322687
EPA 200.8 Rev. 5.4	04/28/2022	05/04/2022 09:45	Megan Whitefoot	05/04/2022 20:05	Alexander Thompson	2322687
	04/28/2022	05/04/2022 09:45	Megan Whitefoot	05/04/2022 20:44	Alexander Thompson	2322687
	04/28/2022	05/10/2022 09:55	Megan Whitefoot	05/10/2022 15:15	Alexander Thompson	2322687
EPA 350.1 Rev. 2.0	04/28/2022			05/03/2022 12:17	Ping Hua	2322661
	04/28/2022			05/03/2022 13:01	Ping Hua	2322663
EPA 351.2 Rev. 2.0	04/28/2022	05/06/2022 09:53	Samantha L Bates	05/09/2022 16:47	Samantha L Bates	2322661
	04/28/2022	05/06/2022 09:53	Samantha L Bates	05/09/2022 16:49	Samantha L Bates	2322663
EPA 353.2 Rev. 2.0	04/28/2022			04/29/2022 10:25	Beverly Y. Sanders	2322661
	04/28/2022			04/29/2022 10:27	Beverly Y. Sanders	2322663
EPA 365.1 Rev. 2.0	04/28/2022	05/03/2022 16:15	Simonne.V. Calhoun	05/04/2022 14:35	Sarah A Nixon	2322663
	04/28/2022	05/03/2022 16:15	Simonne.V. Calhoun	05/05/2022 15:14	James L Waggeberby	2322661
EPA 8270E	04/28/2022	04/29/2022 08:00	Fe-Val Siddell	05/04/2022 03:12	Michael Poppell	2322683
	04/28/2022	04/29/2022 08:00	Fe-Val Siddell	05/07/2022 02:53	Arthur Maknenko	2322683
	04/28/2022	05/03/2022 08:00	Fe-Val Siddell	05/05/2022 22:46	Lipi Saha	2322684
	04/28/2022	05/03/2022 08:00	Fe-Val Siddell	05/06/2022 16:29	Vandana T. Nagar	2322684
	04/28/2022	05/03/2022 08:00	Fe-Val Siddell	05/06/2022 19:00	Vandana T. Nagar	2322684
EPA 8276	04/28/2022	04/29/2022 08:00	Fe-Val Siddell	05/03/2022 15:23	Julie Wi	2322683
EPA 8321B	04/28/2022	04/29/2022 10:30	June Rhew	05/03/2022 04:29	Juyoung Kim	2322677
	04/28/2022	04/29/2022 10:30	June Rhew	05/03/2022 04:47	Juyoung Kim	2322678
	04/28/2022	04/29/2022 10:30	June Rhew	05/03/2022 05:05	Juyoung Kim	2322679
	04/28/2022	04/29/2022 10:30	June Rhew	05/03/2022 05:23	Juyoung Kim	2322680
	04/28/2022	04/29/2022 10:30	June Rhew	05/03/2022 09:52	Juyoung Kim	2322677
	04/28/2022	04/29/2022 10:30	June Rhew	05/03/2022 10:10	Juyoung Kim	2322679
	04/28/2022	04/29/2022 10:30	June Rhew	05/03/2022 10:28	Juyoung Kim	2322680
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/29/2022 16:44	Manjita Shrestha	2322677
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/29/2022 16:59	Manjita Shrestha	2322678
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/29/2022 17:14	Manjita Shrestha	2322679
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/29/2022 17:29	Manjita Shrestha	2322680
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/30/2022 08:39	Manjita Shrestha	2322677
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/30/2022 08:52	Manjita Shrestha	2322678
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/30/2022 09:05	Manjita Shrestha	2322679
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/30/2022 09:18	Manjita Shrestha	2322680
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/30/2022 11:54	Manjita Shrestha	2322677
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/30/2022 12:20	Manjita Shrestha	2322679
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/30/2022 12:46	Manjita Shrestha	2322680
	04/28/2022	04/29/2022 12:30	Manjita Shrestha	04/30/2022 15:22	Manjita Shrestha	2322678

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	04/28/2022	04/29/2022 12:30	Manjita Shrestha	05/02/2022 09:11	Manjita Shrestha	2322679
	04/28/2022	05/03/2022 09:15	June Rhew	05/06/2022 12:55	Juyoung Kim	2322676
SM 2320 B-2011	04/28/2022			05/03/2022 07:31	Dale L. Simmons	2322662
	04/28/2022			05/03/2022 08:52	Dale L. Simmons	2322660
SM 2540 D-2011	04/28/2022			04/29/2022 15:42	Yijie Li	2322660, 2322662
SM 4500-F- C-2011	04/28/2022			05/03/2022 04:46	Dale L. Simmons	2322662
	04/28/2022			05/03/2022 05:17	Dale L. Simmons	2322660
SM 5310 B-2011	04/28/2022			05/04/2022 09:36	Judith K. Clark	2322663
	04/28/2022			05/07/2022 05:16	Judith K. Clark	2322661