

Chemical Analysis Report

NW-DIST-2022-06-22-01

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

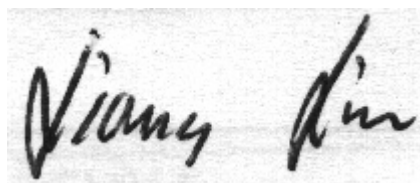
Event Description: **Laurel Hill East**
Request ID: **RQ-2022-06-20-42**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 13-JUL-2022 15:04

A handwritten signature in black ink, appearing to read "Liang Lin", 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: East Branch Pine Log Creek above Bear Bay
Flats Road**

Collection Date/Time: 06/21/2022 11:30

Field ID: G4NW0208

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336077	DEP SOP: NU-094-1	Color (true)	100	A	PCU	P415558	
	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P415589	
	EPA 300.0 Rev. 2.1	Chloride	3.4		mg Cl/L	P415942	
		Sulfate	0.32	I	mg SO4/L	P415947	
	SM 2320 B-2011	Total Alkalinity	10		mg CaCO3/L	P415768	
	SM 2540 C-2011	TDS	39		mg/L	P415902	
	SM 2540 D-2011	TSS	12		mg/L	P415891	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P415772	
2336078	EPA 350.1 Rev. 2.0	Ammonia-N	0.047		mg N/L	P415677	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P415791	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P416227	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P415814	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P415705	

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: Gum Creek

Collection Date/Time: 06/21/2022 10:25

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336075	DEP SOP: NU-094-1	Color (true)	46		PCU	P415558	
	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P415589	
	EPA 300.0 Rev. 2.1	Chloride	3.5		mg Cl/L	P415942	
		Sulfate	0.74		mg SO4/L	P415947	
	SM 2320 B-2011	Total Alkalinity	2.2	I	mg CaCO3/L	P415768	
	SM 2540 C-2011	TDS	15	U	mg/L	P415902	
	SM 2540 D-2011	TSS	3	I	mg/L	P415891	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P415772	
2336076	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P415677	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P415791	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.57		mg N/L	P416227	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P415848	
	SM 5310 B-2011	Organic Carbon	3.7		mg C/L	P415705	
2336088	EPA 8321B	Aldicarb	0.020	UJ	ug/L	P415664	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P415664	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P415664	
		Carbaryl	0.0020	U	ug/L	P415664	
		Carbofuran	0.0020	U	ug/L	P415664	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P415664	
		Methiocarb	0.0020	U	ug/L	P415664	
		Methomyl	0.0020	U	ug/L	P415664	
		Oxamyl	0.0020	U	ug/L	P415664	
		Propoxur	0.0020	U	ug/L	P415664	
2336089		2,4-D	0.0020	U	ug/L	P415542	
		Acesulfame K	0.10	U	ug/L	P415517	
		AMPA	0.10	U	ug/L	P415517	
		2,4,5-T	0.0040	U	ug/L	P415542	MS, RPD
		Acetaminophen	0.0080	U	ug/L	P415542	
		Acetamiprid	0.0020	U	ug/L	P415542	
		Endothall	0.25	U	ug/L	P415517	
		Glufosinate	0.10	U	ug/L	P415517	
		Glyphosate	0.10	U	ug/L	P415517	
		Afidopyropen	0.0020	U	ug/L	P415542	
		Bentazon	8.0E-04	U	ug/L	P415542	
		Sucralose	0.19		ug/L	P415517	
		Benzovindiflupyr	0.0020	U	ug/L	P415542	
		Carbamazepine	8.0E-04	U	ug/L	P415542	
		Clothianidin	0.0020	U	ug/L	P415542	
		Dinotefuran	0.0020	U	ug/L	P415542	
		Diuron	0.0020	U	ug/L	P415542	
		Fenuron	0.032	U	ug/L	P415542	
		Fluridone	8.0E-04	U	ug/L	P415542	
		Imazapyr	0.18		ug/L	P415542	
Hydrocodone	0.0020	U	ug/L	P415542			

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336089	EPA 8321B	Ibuprofen	0.080	U	ug/L	P415542	
		Imidacloprid	0.0085		ug/L	P415542	MS
		Linuron	0.0040	U	ug/L	P415542	
		Mandestrobin	0.0020	U	ug/L	P415542	
		MCP	0.0040	U	ug/L	P415542	
		Naproxen	0.0080	U	ug/L	P415542	MS, RPD
		Primidone	0.0040	U	ug/L	P415542	
		Pyraclostrobin	0.0020	U	ug/L	P415542	
		Silvex	0.0040	U	ug/L	P415542	
		Thiamethoxam	0.0020	U	ug/L	P415542	MS
		Tolfenpyrad	0.0020	U	ug/L	P415542	
		Triclopyr	0.0040	U	ug/L	P415542	MS
2336091	EPA 8270E	Aldrin	0.68	U	ng/L	P415631	
		Alpha-BHC	0.10	U	ng/L	P415631	
		Alpha-Chlordane	0.21	U	ng/L	P415631	
		PCB-1016	2.1	U	ng/L	P415631	
		Beta-BHC	0.10	U	ng/L	P415631	
		PCB-1221	2.1	U	ng/L	P415631	
		Beta-Cyfluthrin**	1.3	U	ng/L	P415631	
		PCB-1232	2.1	U	ng/L	P415631	
		Bifenthrin**	0.52	U	ng/L	P415631	
		PCB-1242	2.1	U	ng/L	P415631	
		PCB-1248	2.1	U	ng/L	P415631	
		Chlorothalonil	1.3	I	ng/L	P415631	
		PCB-1254	2.1	U	ng/L	P415631	
		Cis-Nonachlor**	0.21	U	ng/L	P415631	
		PCB-1260	2.1	U	ng/L	P415631	
		Cypermethrin	1.6	U	ng/L	P415631	
		Dacthal**	0.16	U	ng/L	P415631	
		DDD-p,p'	0.26	U	ng/L	P415631	
		DDE-p,p'	0.21	U	ng/L	P415631	
		DDT-p,p'	0.26	U	ng/L	P415631	
		Delta-BHC	0.42	U	ng/L	P415631	
		Deltamethrin**	1.3	U	ng/L	P415631	
		Dichlobenil**	0.26	U	ng/L	P415631	
		Dicofol	1.3	U	ng/L	P415631	
		Dieldrin	0.42	U	ng/L	P415631	
		Endosulfan I	0.42	U	ng/L	P415631	
		Endosulfan II	0.42	U	ng/L	P415631	
		Endosulfan Sulfate	0.31	U	ng/L	P415631	
		Endrin	0.42	U	ng/L	P415631	
		Endrin Aldehyde	0.78	U	ng/L	P415631	
		Endrin Ketone	0.42	U	ng/L	P415631	
		Esfenvalerate**	0.78	U	ng/L	P415631	
		Ethalfuralin**	0.16	U	ng/L	P415631	

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336091	EPA 8270E	Fenpropathrin**	0.26	U	ng/L	P415631	
		Gamma-BHC	0.13	U	ng/L	P415631	
		Gamma-Chlordane	0.21	U	ng/L	P415631	
		Heptachlor	0.21	U	ng/L	P415631	
		Heptachlor Epoxide	0.26	U	ng/L	P415631	
		Hexachlorobenzene**	1.0	U	ng/L	P415631	
		Kepone**	5.2	U	ng/L	P415631	
		Lambda-Cyhalothrin**	0.78	U	ng/L	P415631	
		Methoprene**	0.78	U	ng/L	P415631	
		Methoxychlor	0.31	U	ng/L	P415631	
		MGK-264**	0.21	U	ng/L	P415631	
		Mirex	0.73	U	ng/L	P415631	
		Oxychlordane**	0.31	U	ng/L	P415631	
		Permethrin	1.7	U	ng/L	P415631	
		Phenothrin**	0.94	U	ng/L	P415631	
		Piperonyl Butoxide**	0.16	U	ng/L	P415631	
		Prallethrin**	2.1	U	ng/L	P415631	
		Tau-Fluvalinate**	0.26	U	ng/L	P415631	
		Tetramethrin**	0.78	U	ng/L	P415631	
		Trans-Nonachlor**	0.21	U	ng/L	P415631	
		Triclosan Methyl**	0.16	U	ng/L	P415631	
		Trifluralin	0.21	U	ng/L	P415631	
2336092	EPA 8270E	Chlordane	2.6	U	ng/L	P415631	
		Toxaphene	16	U	ng/L	P415631	
		Oxybenzone**	9.8	U	ng/L	P415527	
		Acetochlor	0.24	U	ng/L	P415527	
		Octinoxate**	20	U	ng/L	P415527	
		Alachlor	0.24	U	ng/L	P415527	
		Avobenzone**	98	U	ng/L	P415527	
		Ametryn	0.59	U	ng/L	P415527	
		Atrazine	1.3		ng/L	P415527	
		PBDE-47**	3.9	U	ng/L	P415527	
		Atrazine Desethyl	1.5	UJ	ng/L	P415527	LCS
		PBDE-99**	4.9	U	ng/L	P415527	
		Azinphos Methyl	2.0	U	ng/L	P415527	RPD
		Tri-o-cresyl Phosphate**	5.9	U	ng/L	P415527	
		Azoxystrobin**	0.49	U	ng/L	P415527	
		Bromacil	0.49	U	ng/L	P415527	MS
		2-Ethylhexyl	12	U	ng/L	P415527	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.39	U	ng/L	P415527	
		Caffeine**	11	I	ng/L	P415527	
		Carbophenothion	0.20	U	ng/L	P415527	
		Carfentrazone Ethyl**	0.098	U	ng/L	P415527	
		Chlorfenapyr**	0.17	U	ng/L	P415527	

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336092	EPA 8270E	Chlorpyrifos Ethyl	0.24	U	ng/L	P415527	
		Chlorpyrifos Methyl	0.049	U	ng/L	P415527	MS
		Coumaphos**	0.49	U	ng/L	P415527	
		Cyanazine	3.2	U	ng/L	P415527	
		Cyprodinil**	0.098	U	ng/L	P415527	
		Demeton	1.5	U	ng/L	P415527	
		Diazinon	0.12	U	ng/L	P415527	
		Difenoconazole**	0.59	U	ng/L	P415527	
		Dimethenamid**	0.098	U	ng/L	P415527	
		Dimethomorph**	0.17	U	ng/L	P415527	
		Disulfoton	0.49	U	ng/L	P415527	
		Dithiopyr**	0.17	U	ng/L	P415527	
		EPTC	1.2	U	ng/L	P415527	
		Ethion	0.15	U	ng/L	P415527	
		Ethoprop	0.098	U	ng/L	P415527	
		Etridiazole**	0.15	U	ng/L	P415527	MS
		Fenamiphos	0.49	U	ng/L	P415527	
		Fenbuconazole**	0.12	U	ng/L	P415527	
		Fipronil	0.24	U	ng/L	P415527	
		Fipronil Desulfinyl**	0.12	U	ng/L	P415527	
		Fipronil Sulfide	0.15	U	ng/L	P415527	
		Fipronil Sulfone	0.15	U	ng/L	P415527	
		Fluazifop-P-butyl**	0.098	U	ng/L	P415527	
		Fludioxonil**	0.12	U	ng/L	P415527	
		Flumioxazin**	1.7	U	ng/L	P415527	
		Flutolanil**	0.098	U	ng/L	P415527	
		Fluxapyroxad**	0.16	I	ng/L	P415527	RPD
		Fonofos	0.20	U	ng/L	P415527	
		Hexazinone	0.49	U	ng/L	P415527	
		Imazalil**	0.73	U	ng/L	P415527	
		Iprodione**	0.59	U	ng/L	P415527	
		Loratadine**	0.098	U	ng/L	P415527	RPD
		Malathion	0.34	U	ng/L	P415527	
		Metalaxyl	0.73	U	ng/L	P415527	
		Metolachlor	4.6		ng/L	P415527	
		Metribuzin	2.4	U	ng/L	P415527	
		Mevinphos	1.0	U	ng/L	P415527	
		Molinate	0.29	U	ng/L	P415527	
		Myclobutanil**	0.24	U	ng/L	P415527	
		Naled**	1.5	U	ng/L	P415527	
		Napropamide**	0.39	U	ng/L	P415527	MS
		Norflurazon	0.49	U	ng/L	P415527	
		Oxadiazon	0.35	I	ng/L	P415527	
		Oxyfluorfen**	0.15	U	ng/L	P415527	
		Parathion Ethyl	0.24	U	ng/L	P415527	

Field ID: G4NW0382

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336092	EPA 8270E	Parathion Methyl	0.54	U	ng/L	P415527	MS, RPD
		Pendimethalin	0.98	U	ng/L	P415527	
		Phenytol**	3.4	U	ng/L	P415527	
		Phorate	0.51	U	ng/L	P415527	
		Prodiamine**	0.17	U	ng/L	P415527	
		Prometon	0.88	U	ng/L	P415527	
		Prometryn	0.20	U	ng/L	P415527	
		Pronamide**	0.15	U	ng/L	P415527	
		Propanil**	0.12	U	ng/L	P415527	
		Propargite**	1.5	U	ng/L	P415527	
		Propiconazole**	0.49	U	ng/L	P415527	
		Pyraflufen Ethyl**	0.24	U	ng/L	P415527	
		Pyridaben**	0.44	U	ng/L	P415527	
		Pyriproxyfen**	0.12	U	ng/L	P415527	
		Simazine	0.49	U	ng/L	P415527	
		Stirophos**	0.12	U	ng/L	P415527	MS
		Sulfentrazone**	0.49	U	ng/L	P415527	
		Tebuconazole**	0.49	U	ng/L	P415527	
		Terbufos	0.098	U	ng/L	P415527	
		Terbutylazine	0.41	U	ng/L	P415527	
		Thiobencarb**	0.59	U	ng/L	P415527	
		Triadimefon**	0.24	U	ng/L	P415527	

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: Refer to the Lab Analysis Report for an explanation of QC Codes.

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

EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Pond Creek upstream of Bob Sikes Hwy

Collection Date/Time: 06/21/2022 12:00

Field ID: G4NW0522

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336093	EPA 200.7 Rev. 4.4	Calcium	7.17		mg/L	P415596	
		Iron	1.49E+03		ug/L	P415596	
		Magnesium	2.14		mg/L	P415596	
		Potassium	1.3		mg/L	P415596	
		Sodium	3.2		mg/L	P415596	
		Strontium	21.6		ug/L	P415596	
		Tin	3.0	U	ug/L	P415596	
		Titanium	1.1	I	ug/L	P415596	
		Vanadium	2.0	U	ug/L	P415596	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P415596	
		Aluminum	61		ug/L	P415596	
		Antimony	0.050	U	ug/L	P415596	
		Arsenic	1.14		ug/L	P415596	
		Barium	23.9		ug/L	P415596	
		Beryllium	0.010	U	ug/L	P415596	
		Boron	18.2		ug/L	P415596	
		Cadmium	0.020	U	ug/L	P415596	
		Chromium	0.40	U	ug/L	P415596	
		Cobalt	0.156		ug/L	P415596	
		Copper	0.40	U	ug/L	P415596	
		Lead	0.20	U	ug/L	P415596	
		Manganese	77.0		ug/L	P415596	
		Molybdenum	0.15	U	ug/L	P415596	
		Nickel	0.50	U	ug/L	P415596	
		Selenium	0.20	U	ug/L	P415596	
		Silver	0.010	U	ug/L	P415596	
		Thallium	0.10	U	ug/L	P415596	
	SM 2340 B-2011	Hardness	26.7		mg/L	P415596	

Sample Location: Horsehead Creek upstream of Millside Rd

Collection Date/Time: 06/21/2022 13:00

Field ID: G4NW0515

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336094	EPA 200.7 Rev. 4.4	Calcium	3.39		mg/L	P415596	
		Iron	1.19E+03		ug/L	P415596	
		Magnesium	1.28		mg/L	P415596	
		Potassium	0.61	I	mg/L	P415596	
		Sodium	1.9	I	mg/L	P415596	
		Strontium	23.2		ug/L	P415596	
		Tin	3.0	U	ug/L	P415596	
		Titanium	1.8	I	ug/L	P415596	
		Vanadium	2.0	U	ug/L	P415596	
		Zinc	5.0	U	ug/L	P415596	
	EPA 200.8 Rev. 5.4	Aluminum	96		ug/L	P415596	
		Antimony	0.050	U	ug/L	P415596	
		Arsenic	0.61		ug/L	P415596	
		Barium	33.4		ug/L	P415596	
		Beryllium	0.025	I	ug/L	P415596	
		Boron	8.0		ug/L	P415596	
		Cadmium	0.020	U	ug/L	P415596	
		Chromium	0.40	U	ug/L	P415596	
		Cobalt	0.183		ug/L	P415596	
		Copper	0.40	U	ug/L	P415596	
		Lead	0.20	U	ug/L	P415596	
		Manganese	41.0		ug/L	P415596	
		Molybdenum	0.15	U	ug/L	P415596	
		Nickel	0.50	U	ug/L	P415596	
		Selenium	0.20	U	ug/L	P415596	
		Silver	0.010	U	ug/L	P415596	
		Thallium	0.10	U	ug/L	P415596	
	SM 2340 B-2011	Hardness	13.7		mg/L	P415596	

Sample Location: Horsehead Creek

Collection Date/Time: 06/21/2022 12:40

Field ID: G4NW0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336095	EPA 200.7 Rev. 4.4	Calcium	3.98		mg/L	P415596	
		Iron	1.77E+03		ug/L	P415596	
		Magnesium	0.99		mg/L	P415596	
		Potassium	0.65	I	mg/L	P415596	
		Sodium	2.1		mg/L	P415596	
		Strontium	13.1		ug/L	P415596	
		Tin	3.0	U	ug/L	P415596	
		Titanium	1.6	I	ug/L	P415596	
		Vanadium	2.0	U	ug/L	P415596	
		Zinc	5.0	U	ug/L	P415596	
	EPA 200.8 Rev. 5.4	Aluminum	128		ug/L	P415596	
		Antimony	0.050	U	ug/L	P415596	
		Arsenic	0.93		ug/L	P415596	
		Barium	19.4		ug/L	P415596	
		Beryllium	0.018	I	ug/L	P415596	
		Boron	8.2		ug/L	P415596	
		Cadmium	0.020	U	ug/L	P415596	
		Chromium	0.40	U	ug/L	P415596	
		Cobalt	0.194		ug/L	P415596	
		Copper	0.40	U	ug/L	P415596	
		Lead	0.20	I	ug/L	P415596	
		Manganese	46.5		ug/L	P415596	
		Molybdenum	0.15	U	ug/L	P415596	
		Nickel	0.50	U	ug/L	P415596	
		Selenium	0.20	U	ug/L	P415596	
		Silver	0.010	U	ug/L	P415596	
		Thallium	0.10	U	ug/L	P415596	
	SM 2340 B-2011	Hardness	14.0		mg/L	P415596	

Sample Location: Pond Creek upstream of Steele Mill Creek Rd Collection Date/Time: 06/21/2022 13:30

Field ID: G4NW0062

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336096	EPA 200.7 Rev. 4.4	Calcium	4.24		mg/L	P415596	
		Iron	1.20E+03		ug/L	P415596	
		Magnesium	1.52		mg/L	P415596	
		Potassium	1.0	I	mg/L	P415596	
		Sodium	2.3		mg/L	P415596	
		Strontium	16.1		ug/L	P415596	
		Tin	3.0	U	ug/L	P415596	
		Titanium	1.2	I	ug/L	P415596	
		Vanadium	2.0	U	ug/L	P415596	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P415596	
		Aluminum	82		ug/L	P415596	
		Antimony	0.050	U	ug/L	P415596	
		Arsenic	0.76		ug/L	P415596	
		Barium	27.9		ug/L	P415596	
		Beryllium	0.012	I	ug/L	P415596	
		Boron	11.4		ug/L	P415596	
		Cadmium	0.020	U	ug/L	P415596	
		Chromium	0.40	U	ug/L	P415596	
		Cobalt	0.131		ug/L	P415596	
		Copper	0.40	U	ug/L	P415596	
		Lead	0.20	U	ug/L	P415596	
		Manganese	41.4		ug/L	P415596	
		Molybdenum	0.15	U	ug/L	P415596	
		Nickel	0.50	U	ug/L	P415596	
		Selenium	0.20	U	ug/L	P415596	
		Silver	0.010	U	ug/L	P415596	
		Thallium	0.10	U	ug/L	P415596	
	SM 2340 B-2011	Hardness	16.8		mg/L	P415596	

Sample Location: Shoal River above Laird Road

Collection Date/Time: 06/21/2022 14:30

Field ID: G4NW0375

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2336090	EPA 8321B	2,4-D	0.0020	U	ug/L	P415542	
		Acesulfame K	0.10	U	ug/L	P415517	
		AMPA	0.10	U	ug/L	P415517	
		2,4,5-T	0.0040	U	ug/L	P415542	MS, RPD
		Acetaminophen	0.020	I	ug/L	P415542	
		Acetamiprid	0.0020	U	ug/L	P415542	
		Endothall	0.25	U	ug/L	P415517	
		Glufosinate	0.10	U	ug/L	P415517	
		Glyphosate	0.10	U	ug/L	P415517	
		Afidopyropen	0.0020	U	ug/L	P415542	
		Bentazon	0.0028	I	ug/L	P415542	
		Sucralose	0.15		ug/L	P415517	
		Benzovindiflupyr	0.0020	U	ug/L	P415542	
		Carbamazepine	8.0E-04	U	ug/L	P415542	
		Clothianidin	0.0020	U	ug/L	P415542	
		Dinotefuran	0.0020	U	ug/L	P415542	
		Diuron	0.0020	U	ug/L	P415542	
		Fenuron	0.032	U	ug/L	P415542	
		Fluridone	8.0E-04	U	ug/L	P415542	
		Imazapyr	0.030		ug/L	P415542	
		Hydrocodone	0.0020	U	ug/L	P415542	
		Ibuprofen	0.080	U	ug/L	P415542	
		Imidacloprid	0.0070	I	ug/L	P415542	MS
		Linuron	0.0040	U	ug/L	P415542	
		Mandestrobin	0.0020	U	ug/L	P415542	
		MCPP	0.0040	U	ug/L	P415542	
		Naproxen	0.0080	U	ug/L	P415542	MS, RPD
		Primidone	0.0040	U	ug/L	P415542	
		Pyraclostrobin	0.0020	U	ug/L	P415542	
		Silvex	0.0040	U	ug/L	P415542	
		Thiamethoxam	0.0020	U	ug/L	P415542	MS
		Tolfenpyrad	0.0020	U	ug/L	P415542	
		Triclopyr	0.0040	U	ug/L	P415542	MS

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P415558

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415589

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415596

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415596

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415942

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415947

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415677

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415791

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416227

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415814

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415848

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

Reference Method: EPA 8270E
Batch ID: P415527

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P415527

Component	Result	Code	Units
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P415527

Component	Result	Code	Units
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
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
Metaxyl	0.75	U	ng/L
Metaxyl	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P415527

Component	Result	Code	Units
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiatone	0.18	U	ng/L
Prodiatone	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P415527

Component	Result	Code	Units
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8270E
Batch ID: P415631

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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P415631

Component	Result	Code	Units
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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P415631

Component	Result	Code	Units
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 8276

Batch ID: P415631

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: P415517

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B

Batch ID: P415542

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
Afidopypropen	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P415542

Component	Result	Code	Units
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P415664

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: SM 2320 B-2011

Batch ID: P415768

Component	Result	Code	Units
Total Alkalinity	1.0	U	mg CaCO3/L

Reference Method: SM 2540 C-2011

Batch ID: P415902

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P415891

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P415772

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P415705

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P415558

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415589

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.3		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415596

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	104		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	105		P	85 - 115
Sodium	103		P	85 - 115
Strontium	103		P	85 - 115
Tin	106		P	85 - 115
Titanium	104		P	85 - 115
Vanadium	95.3		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415596

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.5		P	85 - 115
Antimony	99.1		P	85 - 115
Arsenic	99.5		P	85 - 115
Barium	104		P	85 - 115
Beryllium	99.1		P	85 - 115
Boron	98.8		P	85 - 115
Cadmium	97.7		P	85 - 115
Chromium	96.9		P	85 - 115
Cobalt	101		P	85 - 115
Copper	97.9		P	85 - 115
Lead	96.9		P	85 - 115
Manganese	98.1		P	85 - 115
Molybdenum	99.7		P	85 - 115
Nickel	98.7		P	85 - 115
Selenium	98.0		P	85 - 115
Silver	99.3		P	85 - 115
Thallium	99.7		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415942

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.6		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415947

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415677

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415791

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416227

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415814

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415848

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

Reference Method: EPA 8270E
Batch ID: P415527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	98.3		P	50 - 150
Acetochlor	84.5		P	70 - 121
Alachlor	77.1		P	68 - 119
Ametryn	90.5		P	64 - 139
Atrazine	78.6		P	76 - 120
Atrazine Desethyl	42.0		F	44 - 126
Avobenzone	109		P	76 - 212
Azinphos Methyl	95.9		P	43 - 192
Azoxystrobin	85.9		P	36 - 224
Bromacil	65.7		P	52 - 121
Butylate	45.1		P	28 - 91.0
Caffeine	83.6		P	50 - 134
Carbophenothion	93.5		P	56 - 129
Carfentrazone Ethyl	108		P	60 - 141
Chlorfenapyr	67.5		P	56 - 115
Chlorpyrifos Ethyl	61.4		P	60 - 118

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P415527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	75.7		P	68 - 119
Coumaphos	174		P	18 - 250
Cyanazine	77.6		P	61 - 250
Cyprodinil	72.9		P	55 - 145
Demeton	63.4		P	30 - 159
Diazinon	116		P	70 - 123
Difenoconazole	91.7		P	49 - 204
Dimethenamid	72.4		P	64 - 115
Dimethomorph	92.3		P	12 - 219
Disulfoton	83.1		P	44 - 125
Dithiopyr	89.5		P	64 - 115
EPTC	47.6		P	28 - 86.0
Ethion	55.2		P	33 - 125
Ethoprop	87.8		P	64 - 116
Etridiazole	49.7		P	34 - 91.0
Fenamiphos	81.4		P	12 - 127
Fenbuconazole	135		P	59 - 151
Fipronil	85.5		P	67 - 129
Fipronil Desulfinyl	93.8		P	65 - 127
Fipronil Sulfide	89.6		P	61 - 116
Fipronil Sulfone	86.1		P	55 - 117
Fluazifop-P-butyl	85.6		P	62 - 127
Fludioxonil	82.4		P	62 - 128
Flumioxazin	214		P	33 - 250
Flutolanil	77.6		P	56 - 127
Fluxapyroxad	66.4		P	45 - 128
Fonofos	74.6		P	62 - 111
Hexazinone	85.6		P	46 - 139
Imazalil	72.6		P	38 - 142
Iprodione	84.0		P	47 - 135
Loratadine	98.0		P	10 - 244
Malathion	96.5		P	61 - 139
Metaxyl	77.7		P	10 - 119
Metolachlor	89.5		P	65 - 118
Metribuzin	78.1		P	51 - 250
Mevinphos	68.0		P	53 - 121
Molinate	60.3		P	42 - 96.0
Myclobutanil	82.9		P	55 - 128
Naled	69.8		P	10 - 98.0
Napropamide	61.8		P	49 - 121
Norflurazon	114		P	61 - 126
Octinoxate	89.3		P	30 - 159
Oxadiazon	85.0		P	59 - 116
Oxybenzone	84.1		P	61 - 139
Oxyfluorfen	97.9		P	64 - 137
Parathion Ethyl	86.1		P	70 - 112
Parathion Methyl	98.9		P	76 - 133
PBDE-47	88.6		P	50 - 150
PBDE-99	82.2		P	50 - 150
Pendimethalin	80.0		P	52 - 117
Phenytoin	45.9		P	10 - 199
Phorate	81.6		P	48 - 121

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P415527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prodiamine	76.6		P	26 - 142
Prometon	69.4		P	43 - 123
Prometryn	80.1		P	66 - 127
Pronamide	102		P	75 - 121
Propanil	65.2		P	45 - 150
Propargite	149		P	42 - 208
Propiconazole	114		P	60 - 125
Pyraflufen Ethyl	111		P	70 - 138
Pyridaben	150		P	35 - 245
Pyriproxyfen	93.6		P	30 - 149
Simazine	74.0		P	72 - 125
Stirophos	71.4		P	29 - 164
Sulfentrazone	118		P	21 - 139
Tebuconazole	110		P	10 - 115
Terbufos	84.8		P	60 - 123
Terbuthylazine	90.2		P	72 - 115
Thiobencarb	75.2		P	31 - 139
Tri-o-cresyl Phosphate	95.0		P	50 - 150
Triadimefon	66.5		P	65 - 116

Reference Method: EPA 8270E
Batch ID: P415631

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	56.4		P	10 - 93.0
Alpha-BHC	100		P	75 - 106
Alpha-Chlordane	76.9		P	50 - 109
Beta-BHC	108		P	36 - 138
Beta-Cyfluthrin	62.6		P	23 - 167
Bifenthrin	48.9		P	11 - 123
Chlorothalonil	64.9		P	27 - 190
Cis-Nonachlor	69.8		P	40 - 111
Cypermethrin	59.1		P	25 - 155
Dacthal	96.4		P	72 - 119
DDD-p,p'	76.9		P	47 - 108
DDE-p,p'	80.5		P	48 - 107
DDT-p,p'	74.3		P	49 - 111
Delta-BHC	110		P	54 - 138
Deltamethrin	60.3		P	22 - 189
Dichlobenil	101		P	32 - 113
Dicofol	82.0		P	50 - 108
Dieldrin	87.4		P	56 - 110
Endosulfan I	81.0		P	60 - 105
Endosulfan II	86.0		P	50 - 120
Endosulfan Sulfate	98.5		P	55 - 121
Endrin	75.3		P	31 - 119
Endrin Aldehyde	94.6		P	36 - 116
Endrin Ketone	104		P	69 - 177
Esfenvalerate	58.3		P	10 - 179
Ethalfuralin	83.1		P	49 - 99.0
Fenpropathrin	65.7		P	35 - 119
Gamma-BHC	103		P	69 - 120

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P415631

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-Chlordane	72.6		P	45 - 107
Heptachlor	63.1		P	41 - 100
Heptachlor Epoxide	83.2		P	58 - 106
Hexachlorobenzene	69.1		P	39 - 100
Kepone	73.3		P	10 - 191
Lambda-Cyhalothrin	54.3		P	21 - 206
Methoprene	58.1		P	10 - 129
Methoxychlor	85.3		P	61 - 111
MGK-264	103		P	20 - 123
Mirex	54.2		P	10 - 182
Oxychlordane	75.4		P	39 - 110
PCB-1016	97.8		P	49 - 111
PCB-1260	96.1		P	42 - 116
Permethrin	60.6		P	26 - 152
Phenothrin	51.0		P	10 - 109
Piperonyl Butoxide	102		P	19 - 147
Prallethrin	95.6		P	14 - 109
Tau-Fluvalinate	49.7		P	16 - 134
Tetramethrin	99.7		P	10 - 125
Trans-Nonachlor	72.5		P	45 - 107
Triclosan Methyl	82.4		P	60 - 110
Trifluralin	72.9		P	44 - 101

Reference Method: EPA 8276

Batch ID: P415631

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	94.2		P	61 - 118
Toxaphene	122		P	51 - 122

Reference Method: EPA 8321B

Batch ID: P415517

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	86.3		P	40 - 150
AMPA	107		P	40 - 150
Endothall	105		P	40 - 150
Glufosinate	117		P	40 - 150
Glyphosate	101		P	40 - 150
Sucralose	97.2		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P415542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	62.0		P	40 - 150
2,4,5-T	40.5		P	40 - 150
Acetaminophen	75.5		P	30 - 150
Acetamiprid	70.1		P	40 - 150
Afidopyropen	56.4		P	30 - 150
Bentazon	72.6		P	30 - 150
Benzovindiflupyr	80.1		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P415542

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	82.6		P	40 - 150
Clothianidin	89.5		P	40 - 150
Dinotefuran	87.8		P	40 - 150
Diuron	75.1		P	40 - 150
Fenuron	85.8		P	40 - 150
Fluridone	81.5		P	40 - 150
Hydrocodone	79.6		P	40 - 150
Ibuprofen	67.0		P	40 - 150
Imazapyr	82.4		P	40 - 150
Imidacloprid	94.6		P	40 - 150
Linuron	80.9		P	40 - 150
Mandestrobin	79.8		P	40 - 150
MCPPP	74.9		P	40 - 150
Naproxen	62.5		P	40 - 150
Primidone	94.8		P	40 - 150
Pyraclostrobin	66.0		P	40 - 150
Silvex	45.1		P	40 - 150
Thiamethoxam	86.5		P	40 - 150
Tolfenpyrad	37.2		P	30 - 150
Triclopyr	46.9		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P415664

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	71.9		P	40 - 150
Aldicarb	60.4		P	30 - 150
Aldicarb Sulfone	85.5		P	40 - 150
Aldicarb Sulfoxide	83.8		P	40 - 150
Carbaryl	75.0		P	40 - 150
Carbofuran	82.1		P	40 - 150
Methiocarb	72.1		P	40 - 150
Methomyl	74.3		P	40 - 150
Oxamyl	81.7		P	40 - 150
Propoxur	68.6		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P415768

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P415772

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

Reference Method: SM 5310 B-2011

Batch ID: P415705

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

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P415705

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P415596

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336052	Calcium	104		P	80 - 120
2336052	Iron	105		P	80 - 120
2336052	Magnesium	107		P	80 - 120
2336052	Potassium	106		P	80 - 120
2336052	Sodium	105		P	80 - 120
2336052	Strontium	103		P	80 - 120
2336052	Tin	106		P	80 - 120
2336052	Titanium	102		P	80 - 120
2336052	Vanadium	95.3		P	80 - 120
2336052	Zinc	100		P	80 - 120
2336176	Calcium	100		P	80 - 120
2336176	Iron	107	105	P/P	80 - 120
2336176	Magnesium	107	106	P/P	80 - 120
2336176	Potassium	107	105	P/P	80 - 120
2336176	Sodium	106	106	P/P	80 - 120
2336176	Strontium	104	103	P/P	80 - 120
2336176	Tin	104	105	P/P	80 - 120
2336176	Titanium	106	105	P/P	80 - 120
2336176	Vanadium	95.8	95.3	P/P	80 - 120
2336176	Zinc	102	101	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P415596

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336052	Aluminum	97.8		P	80 - 120
2336052	Antimony	99.4		P	80 - 120
2336052	Arsenic	99.5		P	80 - 120
2336052	Barium	103		P	80 - 120
2336052	Beryllium	98.2		P	80 - 120
2336052	Boron	102		P	80 - 120
2336052	Cadmium	100		P	80 - 120
2336052	Chromium	98.7		P	80 - 120
2336052	Cobalt	99.4		P	80 - 120
2336052	Copper	96.3		P	80 - 120
2336052	Lead	97.0		P	80 - 120
2336052	Manganese	97.7		P	80 - 120
2336052	Molybdenum	100		P	80 - 120
2336052	Nickel	97.9		P	80 - 120
2336052	Selenium	96.4		P	80 - 120
2336052	Silver	99.0		P	80 - 120
2336052	Thallium	102		P	80 - 120
2336176	Aluminum	98.1	101	P/P	80 - 120
2336176	Antimony	99.5	100	P/P	80 - 120
2336176	Arsenic	99.5	100	P/P	80 - 120
2336176	Barium	103	103	P/P	80 - 120
2336176	Beryllium	96.8	99.7	P/P	80 - 120
2336176	Boron	99.4	104	P/P	80 - 120
2336176	Cadmium	98.6	99.5	P/P	80 - 120
2336176	Chromium	98.0	98.4	P/P	80 - 120
2336176	Cobalt	100	99.9	P/P	80 - 120
2336176	Copper	98.0	98.4	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415596

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336176	Lead	97.4	98.5	P/P	80 - 120
2336176	Manganese	100	99.2	P/P	80 - 120
2336176	Molybdenum	100	101	P/P	80 - 120
2336176	Nickel	99.3	99.1	P/P	80 - 120
2336176	Selenium	96.7	97.1	P/P	80 - 120
2336176	Silver	100	93.9	P/P	80 - 120
2336176	Thallium	101	104	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415942

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336037	Chloride	98.2		P	90 - 110
2336038	Chloride	95.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336037	Sulfate	98.3		P	90 - 110
2336038	Sulfate	96.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336076	Ammonia-N	98.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415791

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336078	Kjeldahl Nitrogen	108	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416227

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336040	NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336164	Total-P	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415848

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335983	Total-P	104	104	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P415527

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335685	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	74.5	79.6	P/P	50 - 150
2335685	Acetochlor	76.6	87.2	P/P	65 - 124
2335685	Alachlor	65.9	80.8	P/P	61 - 121
2335685	Ametryn	88.5	62.8	P/P	52 - 216
2335685	Atrazine Desethyl	42.0	40.0	P/P	15 - 160
2335685	Avobenzone	89.5	94.0	P/P	59 - 206
2335685	Azinphos Methyl	59.4	137	P/P	40 - 292
2335685	Azoxystrobin	83.2	97.0	P/P	12 - 242
2335685	Bromacil	51.6	50.7	F/F	54 - 167
2335685	Butylate	40.3	36.2	P/P	14 - 94.0
2335685	Caffeine	88.7	83.3	P/P	10 - 226
2335685	Carbophenothion	99.4	97.4	P/P	49 - 122
2335685	Carfentrazone Ethyl	102	110	P/P	53 - 138
2335685	Chlorfenapyr	62.8	55.4	P/P	50 - 150
2335685	Chlorpyrifos Ethyl	52.4	56.8	P/P	52 - 122
2335685	Chlorpyrifos Methyl	65.2	67.1	F/P	66 - 117
2335685	Coumaphos	159	145	P/P	50 - 220
2335685	Cyanazine	65.3	71.6	P/P	43 - 245
2335685	Cyprodinil	64.1	69.7	P/P	50 - 150
2335685	Demeton	64.4	57.2	P/P	43 - 188
2335685	Diazinon	114	100	P/P	69 - 131
2335685	Difenoconazole	193	203	P/P	34 - 231
2335685	Dimethenamid	66.6	71.0	P/P	55 - 118
2335685	Dimethomorph	102	82.0	P/P	50 - 150
2335685	Disulfoton	73.2	69.5	P/P	38 - 141
2335685	Dithiopyr	84.6	81.0	P/P	42 - 116
2335685	EPTC	37.9	33.8	P/P	18 - 85.0
2335685	Ethion	44.4	53.2	P/P	10 - 131
2335685	Ethoprop	74.2	76.4	P/P	65 - 129
2335685	Etridiazole	57.2	46.7	P/F	50 - 150
2335685	Fenamiphos	81.8	70.5	P/P	31 - 137
2335685	Fenbuconazole	127	127	P/P	57 - 160
2335685	Fipronil	75.1	84.9	P/P	62 - 132
2335685	Fipronil Desulfinyl	99.3	85.5	P/P	57 - 131
2335685	Fluazifop-P-butyl	75.5	72.6	P/P	54 - 133
2335685	Fludioxonil	71.5	78.0	P/P	58 - 127
2335685	Flumioxazin	128	157	P/P	33 - 300
2335685	Flutolanil	65.0	74.7	P/P	42 - 130
2335685	Fluxapyroxad	43.3	65.2	P/P	23 - 141
2335685	Fonofos	72.3	59.8	P/P	58 - 119
2335685	Hexazinone	68.1	76.6	P/P	68 - 172
2335685	Imazalil	66.8	59.3	P/P	48 - 283
2335685	Iprodione	133	134	P/P	38 - 140
2335685	Loratadine	127	78.3	P/P	50 - 150
2335685	Malathion	79.6	86.5	P/P	40 - 137
2335685	Metalaxyl	68.4	67.4	P/P	21 - 129
2335685	Metolachlor	77.6	80.9	P/P	55 - 122
2335685	Metribuzin	68.3	76.6	P/P	38 - 187
2335685	Mevinphos	54.9	59.0	P/P	54 - 134
2335685	Molinate	54.2	48.1	P/P	41 - 97.0
2335685	Myclobutanil	71.1	81.3	P/P	56 - 125
2335685	Naled	60.5	74.0	P/P	10 - 108

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P415527

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335685	Napropamide	45.2	58.8	F/P	50 - 150
2335685	Norflurazon	104	99.3	P/P	32 - 122
2335685	Octinoxate	69.9	74.1	P/P	25 - 150
2335685	Oxadiazon	74.4	65.5	P/P	40 - 119
2335685	Oxybenzone	76.5	75.8	P/P	59 - 147
2335685	Oxyfluorfen	95.3	98.2	P/P	61 - 153
2335685	Parathion Ethyl	70.6	73.0	P/P	59 - 130
2335685	Parathion Methyl	95.4	94.1	P/P	65 - 155
2335685	PBDE-47	63.6	76.2	P/P	50 - 150
2335685	PBDE-99	58.0	73.6	P/P	50 - 150
2335685	Pendimethalin	74.8	77.3	P/P	49 - 138
2335685	Phenytoin	17.3	54.9	F/P	50 - 200
2335685	Phorate	65.6	57.6	P/P	54 - 161
2335685	Prodiamine	80.6	85.1	P/P	33 - 161
2335685	Prometon	70.5	75.3	P/P	48 - 140
2335685	Prometryn	72.5	67.4	P/P	55 - 134
2335685	Pronamide	95.6	96.3	P/P	66 - 137
2335685	Propanil	54.2	66.3	P/P	50 - 150
2335685	Propargite	132	164	P/P	50 - 200
2335685	Propiconazole	106	92.1	P/P	36 - 150
2335685	Pyraflufen Ethyl	119	120	P/P	50 - 150
2335685	Pyridaben	155	160	P/P	50 - 200
2335685	Pyriproxyfen	70.0	62.8	P/P	10 - 165
2335685	Simazine	59.2	58.7	P/P	57 - 145
2335685	Stirophos	49.9	56.3	F/P	50 - 150
2335685	Sulfentrazone	114	118	P/P	34 - 140
2335685	Tebuconazole	93.4	108	P/P	10 - 127
2335685	Terbufos	90.3	79.3	P/P	59 - 138
2335685	Terbuthylazine	80.6	81.1	P/P	68 - 119
2335685	Thiobencarb	63.6	73.6	P/P	50 - 150
2335685	Tri-o-cresyl Phosphate	73.5	76.2	P/P	50 - 150
2335685	Triadimefon	64.6	65.4	P/P	50 - 150

Reference Method: EPA 8270E

Batch ID: P415631

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335766	Aldrin	62.9	71.8	P/P	10 - 89.0
2335766	Alpha-BHC	102	101	P/P	71 - 105
2335766	Alpha-Chlordane	86.3	96.3	P/P	43 - 107
2335766	Beta-BHC	106	103	P/P	57 - 152
2335766	Beta-Cyfluthrin	79.5	91.0	P/P	29 - 186
2335766	Bifenthrin	61.4	81.7	P/P	19 - 119
2335766	Chlorothalonil	84.0	85.9	P/P	10 - 245
2335766	Cis-Nonachlor	80.5	87.2	P/P	36 - 110
2335766	Cypermethrin	70.8	84.2	P/P	24 - 169
2335766	Dacthal	104	107	P/P	62 - 115
2335766	DDD-p,p'	90.9	98.6	P/P	36 - 109
2335766	DDE-p,p'	87.8	95.5	P/P	30 - 114
2335766	DDT-p,p'	81.8	89.3	P/P	42 - 108
2335766	Delta-BHC	120	113	P/P	60 - 164
2335766	Deltamethrin	72.7	87.1	P/P	10 - 210

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P415631

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335766	Dichlobenil	107	97.2	P/P	23 - 108
2335766	Dicofol	85.7	91.6	P/P	44 - 109
2335766	Dieldrin	97.3	105	P/P	37 - 119
2335766	Endosulfan I	94.9	99.1	P/P	52 - 105
2335766	Endosulfan II	90.7	97.9	P/P	35 - 127
2335766	Endosulfan Sulfate	110	105	P/P	39 - 130
2335766	Endrin	85.4	88.4	P/P	30 - 116
2335766	Endrin Aldehyde	95.2	92.5	P/P	20 - 110
2335766	Endrin Ketone	109	106	P/P	48 - 134
2335766	Esfenvalerate	72.0	85.7	P/P	10 - 199
2335766	Ethalfuralin	88.1	89.7	P/P	48 - 95.0
2335766	Fenpropathrin	84.4	88.5	P/P	37 - 121
2335766	Gamma-BHC	109	99.6	P/P	61 - 126
2335766	Gamma-Chlordane	82.2	93.6	P/P	39 - 105
2335766	Heptachlor	71.0	76.4	P/P	38 - 96.0
2335766	Heptachlor Epoxide	89.9	96.3	P/P	42 - 114
2335766	Hexachlorobenzene	79.2	85.3	P/P	39 - 93.0
2335766	Kepone	72.9	62.1	P/P	10 - 215
2335766	Lambda-Cyhalothrin	69.3	85.8	P/P	10 - 204
2335766	Methoprene	70.8	92.4	P/P	17 - 108
2335766	Methoxychlor	93.5	96.4	P/P	56 - 115
2335766	MGK-264	107	112	P/P	35 - 120
2335766	Mirex	60.3	73.6	P/P	10 - 178
2335766	Oxychlordane	83.9	90.8	P/P	47 - 91.0
2335766	Permethrin	71.8	85.7	P/P	27 - 170
2335766	Phenothrin	63.6	80.0	P/P	10 - 133
2335766	Piperonyl Butoxide	109	108	P/P	23 - 150
2335766	Prallethrin	104	105	P/P	21 - 113
2335766	Tau-Fluvalinate	62.5	79.8	P/P	16 - 158
2335766	Tetramethrin	118	115	P/P	22 - 132
2335766	Trans-Nonachlor	81.2	90.2	P/P	43 - 102
2335766	Triclosan Methyl	93.7	101	P/P	49 - 109
2335766	Trifluralin	81.2	84.7	P/P	48 - 93.0
2335788	PCB-1016	92.7	93.9	P/P	46 - 110
2335788	PCB-1260	94.2	101	P/P	42 - 111

Reference Method: EPA 8276

Batch ID: P415631

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335788	Chlordane	85.0	93.1	P/P	55 - 128
2335788	Toxaphene	119	131	P/P	57 - 211

Reference Method: EPA 8321B

Batch ID: P415517

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335341	Acesulfame K	80.6	79.9	P/P	40 - 150
2335341	AMPA	104	100	P/P	40 - 150
2335341	Endothall	108	112	P/P	40 - 150
2335341	Glufosinate	94.8	97.4	P/P	40 - 150
2335341	Glyphosate	87.7	94.8	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P415517

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335341	Sucralose	94.0	96.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P415542

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2335680	2,4-D	80.4	55.2	P/P	40 - 150
2335680	2,4,5-T	43.1	29.3	P/F	40 - 150
2335680	Acetaminophen	96.2	93.8	P/P	30 - 150
2335680	Acetamiprid	93.2	83.2	P/P	40 - 150
2335680	Afidopyropen	84.1	66.4	P/P	30 - 150
2335680	Benzovindiflupyr	94.2	87.7	P/P	40 - 150
2335680	Carbamazepine	92.8	94.4	P/P	40 - 150
2335680	Clothianidin	112	108	P/P	40 - 150
2335680	Dinotefuran	137	129	P/P	40 - 150
2335680	Diuron	83.2	77.9	P/P	40 - 150
2335680	Fenuron	82.5	76.4	P/P	40 - 150
2335680	Hydrocodone	99.1	91.1	P/P	40 - 150
2335680	Ibuprofen	49.7	47.8	P/P	40 - 150
2335680	Imidacloprid	158	137	F/P	40 - 150
2335680	Linuron	75.2	82.1	P/P	40 - 150
2335680	Mandestrobin	79.6	75.5	P/P	40 - 150
2335680	MCCP	66.6	59.3	P/P	40 - 150
2335680	Naproxen	27.6	58.0	F/P	40 - 150
2335680	Primidone	92.5	93.2	P/P	40 - 150
2335680	Pyraclostrobin	86.0	79.5	P/P	40 - 150
2335680	Silvex	52.5	42.6	P/P	40 - 150
2335680	Thiamethoxam	150	142	F/P	40 - 150
2335680	Tolfenpyrad	51.6	50.3	P/P	30 - 150
2335680	Triclopyr	44.5	35.1	P/F	40 - 150

Reference Method: EPA 8321B
Batch ID: P415664

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336088	3-Hydroxycarbofuran	85.1	89.0	P/P	40 - 150
2336088	Aldicarb	53.1	73.7	P/P	30 - 150
2336088	Aldicarb Sulfone	95.1	98.2	P/P	40 - 150
2336088	Aldicarb Sulfoxide	49.6	53.5	P/P	40 - 150
2336088	Carbaryl	73.0	80.5	P/P	40 - 150
2336088	Carbofuran	78.1	82.0	P/P	40 - 150
2336088	Methiocarb	75.0	78.4	P/P	40 - 150
2336088	Methomyl	77.8	84.0	P/P	40 - 150
2336088	Oxamyl	86.1	88.0	P/P	40 - 150
2336088	Propoxur	72.2	66.9	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P415772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336312	Fluoride	101	101	P/P	94 - 104

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P415705

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2336040	Organic Carbon	96.0	97.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P415558

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336077	Color (true)	0.169	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P415589

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336106	Turbidity	4.88	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P415596

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336176	Calcium	0.0830	Spike	P	0 - 20
2336176	Iron	1.74	Spike	P	0 - 20
2336176	Magnesium	1.14	Spike	P	0 - 20
2336176	Potassium	1.70	Spike	P	0 - 20
2336176	Sodium	0.301	Spike	P	0 - 20
2336176	Strontium	1.03	Spike	P	0 - 20
2336176	Tin	0.498	Spike	P	0 - 20
2336176	Titanium	0.568	Spike	P	0 - 20
2336176	Vanadium	0.540	Spike	P	0 - 20
2336176	Zinc	1.04	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P415596

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336176	Aluminum	2.64	Spike	P	0 - 20
2336176	Antimony	0.786	Spike	P	0 - 20
2336176	Arsenic	0.990	Spike	P	0 - 20
2336176	Barium	0.369	Spike	P	0 - 20
2336176	Beryllium	2.94	Spike	P	0 - 20
2336176	Boron	3.81	Spike	P	0 - 20
2336176	Cadmium	0.970	Spike	P	0 - 20
2336176	Chromium	0.434	Spike	P	0 - 20
2336176	Cobalt	0.277	Spike	P	0 - 20
2336176	Copper	0.437	Spike	P	0 - 20
2336176	Lead	1.17	Spike	P	0 - 20
2336176	Manganese	0.522	Spike	P	0 - 20
2336176	Molybdenum	1.06	Spike	P	0 - 20
2336176	Nickel	0.266	Spike	P	0 - 20
2336176	Selenium	0.408	Spike	P	0 - 20
2336176	Silver	6.40	Spike	P	0 - 20
2336176	Thallium	2.25	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415942

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336037	Chloride	0.461	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P415947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336037	Sulfate	0.155	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P415677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336076	Ammonia-N	1.97	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P415791

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336078	Kjeldahl Nitrogen	2.26	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416227

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336040	NO2NO3-N	0.323	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336164	Total-P	0.372	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P415848

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335983	Total-P	0.0426	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P415527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335685	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	6.63	Spike	P	0 - 30
2335685	Acetochlor	12.9	Spike	P	0 - 27

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P415527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335685	Alachlor	20.4	Spike	P	0 - 27
2335685	Ametryn	27.2	Spike	P	0 - 34
2335685	Atrazine	3.59	Spike	P	0 - 41
2335685	Atrazine Desethyl	4.88	Spike	P	0 - 38
2335685	Avobenzone	4.93	Spike	P	0 - 30
2335685	Azinphos Methyl	79.3	Spike	F	0 - 62
2335685	Azoxystrobin	15.4	Spike	P	0 - 32
2335685	Bromacil	1.81	Spike	P	0 - 30
2335685	Butylate	10.9	Spike	P	0 - 59
2335685	Caffeine	6.08	Spike	P	0 - 60
2335685	Carbophenothion	1.95	Spike	P	0 - 25
2335685	Carfentrazone Ethyl	6.99	Spike	P	0 - 26
2335685	Chlorfenapyr	12.5	Spike	P	0 - 30
2335685	Chlorpyrifos Ethyl	8.08	Spike	P	0 - 27
2335685	Chlorpyrifos Methyl	2.87	Spike	P	0 - 26
2335685	Coumaphos	9.59	Spike	P	0 - 30
2335685	Cyanazine	9.18	Spike	P	0 - 58
2335685	Cyprodinil	8.36	Spike	P	0 - 30
2335685	Demeton	11.9	Spike	P	0 - 25
2335685	Diazinon	12.4	Spike	P	0 - 29
2335685	Difenoconazole	4.70	Spike	P	0 - 25
2335685	Dimethenamid	6.31	Spike	P	0 - 30
2335685	Dimethomorph	21.4	Spike	P	0 - 30
2335685	Disulfoton	5.13	Spike	P	0 - 33
2335685	Dithiopyr	4.33	Spike	P	0 - 22
2335685	EPTC	11.4	Spike	P	0 - 38
2335685	Ethion	18.1	Spike	P	0 - 79
2335685	Ethoprop	3.01	Spike	P	0 - 23
2335685	Etridiazole	20.1	Spike	P	0 - 30
2335685	Fenamiphos	14.8	Spike	P	0 - 58
2335685	Fenbuconazole	0.0177	Spike	P	0 - 37
2335685	Fipronil	10.2	Spike	P	0 - 33
2335685	Fipronil Desulfinyl	9.62	Spike	P	0 - 26
2335685	Fipronil Sulfide	12.6	Spike	P	0 - 37
2335685	Fipronil Sulfone	2.00	Spike	P	0 - 50
2335685	Fluazifop-P-butyl	3.83	Spike	P	0 - 24
2335685	Fludioxonil	8.74	Spike	P	0 - 26
2335685	Flumioxazin	17.3	Spike	P	0 - 37
2335685	Flutolanil	13.9	Spike	P	0 - 26
2335685	Fluxapyroxad	40.4	Spike	F	0 - 34
2335685	Fonofos	19.0	Spike	P	0 - 27
2335685	Hexazinone	10.8	Spike	P	0 - 36
2335685	Imazalil	11.9	Spike	P	0 - 65
2335685	Iprodione	0.832	Spike	P	0 - 33
2335685	Loratadine	47.7	Spike	F	0 - 30
2335685	Malathion	8.24	Spike	P	0 - 44
2335685	Metalaxyl	1.42	Spike	P	0 - 38
2335685	Metolachlor	4.08	Spike	P	0 - 36
2335685	Metribuzin	11.5	Spike	P	0 - 63
2335685	Mevinphos	7.12	Spike	P	0 - 26
2335685	Molinate	11.8	Spike	P	0 - 40

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P415527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335685	Myclobutanil	12.4	Spike	P	0 - 21
2335685	Naled	20.1	Spike	P	0 - 26
2335685	Napropamide	26.1	Spike	P	0 - 30
2335685	Norflurazon	4.93	Spike	P	0 - 24
2335685	Octinoxate	5.76	Spike	P	0 - 30
2335685	Oxadiazon	8.32	Spike	P	0 - 27
2335685	Oxybenzone	0.920	Spike	P	0 - 30
2335685	Oxyfluorfen	3.01	Spike	P	0 - 24
2335685	Parathion Ethyl	3.40	Spike	P	0 - 28
2335685	Parathion Methyl	1.43	Spike	P	0 - 27
2335685	PBDE-47	18.0	Spike	P	0 - 30
2335685	PBDE-99	23.7	Spike	P	0 - 30
2335685	Pendimethalin	3.29	Spike	P	0 - 31
2335685	Phenytoin	104	Spike	F	0 - 30
2335685	Phorate	13.1	Spike	P	0 - 27
2335685	Prodiamine	5.34	Spike	P	0 - 52
2335685	Prometon	6.56	Spike	P	0 - 31
2335685	Prometryn	7.35	Spike	P	0 - 28
2335685	Pronamide	0.709	Spike	P	0 - 26
2335685	Propanil	20.1	Spike	P	0 - 30
2335685	Propargite	21.6	Spike	P	0 - 30
2335685	Propiconazole	8.18	Spike	P	0 - 31
2335685	Pyraflufen Ethyl	0.376	Spike	P	0 - 30
2335685	Pyridaben	2.89	Spike	P	0 - 30
2335685	Pyriproxyfen	10.7	Spike	P	0 - 50
2335685	Simazine	0.874	Spike	P	0 - 29
2335685	Stirophos	12.0	Spike	P	0 - 30
2335685	Sulfentrazone	2.59	Spike	P	0 - 33
2335685	Tebuconazole	11.9	Spike	P	0 - 44
2335685	Terbufos	13.0	Spike	P	0 - 29
2335685	Terbutylazine	0.639	Spike	P	0 - 27
2335685	Thiobencarb	14.6	Spike	P	0 - 30
2335685	Tri-o-cresyl Phosphate	3.66	Spike	P	0 - 30
2335685	Triadimefon	1.23	Spike	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P415631

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335766	Aldrin	13.2	Spike	P	0 - 37
2335766	Alpha-BHC	0.612	Spike	P	0 - 16
2335766	Alpha-Chlordane	11.0	Spike	P	0 - 28
2335766	Beta-BHC	3.53	Spike	P	0 - 32
2335766	Beta-Cyfluthrin	13.5	Spike	P	0 - 41
2335766	Bifenthrin	28.4	Spike	P	0 - 36
2335766	Chlorothalonil	2.28	Spike	P	0 - 54
2335766	Cis-Nonachlor	7.93	Spike	P	0 - 33
2335766	Cypermethrin	17.3	Spike	P	0 - 38
2335766	Dacthal	2.11	Spike	P	0 - 23
2335766	DDD-p,p'	8.20	Spike	P	0 - 35

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P415631

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335766	DDE-p,p'	8.40	Spike	P	0 - 27
2335766	DDT-p,p'	8.83	Spike	P	0 - 31
2335766	Delta-BHC	5.78	Spike	P	0 - 30
2335766	Deltamethrin	18.0	Spike	P	0 - 76
2335766	Dichlobenil	9.40	Spike	P	0 - 33
2335766	Dicofol	6.61	Spike	P	0 - 24
2335766	Dieldrin	7.74	Spike	P	0 - 35
2335766	Endosulfan I	4.40	Spike	P	0 - 25
2335766	Endosulfan II	7.66	Spike	P	0 - 31
2335766	Endosulfan Sulfate	4.38	Spike	P	0 - 38
2335766	Endrin	3.53	Spike	P	0 - 53
2335766	Endrin Aldehyde	2.90	Spike	P	0 - 81
2335766	Endrin Ketone	2.78	Spike	P	0 - 33
2335766	Esfenvalerate	17.4	Spike	P	0 - 46
2335766	Ethalfuralin	1.82	Spike	P	0 - 22
2335766	Fenpropathrin	4.74	Spike	P	0 - 29
2335766	Gamma-BHC	8.58	Spike	P	0 - 17
2335766	Gamma-Chlordane	13.0	Spike	P	0 - 28
2335766	Heptachlor	7.31	Spike	P	0 - 28
2335766	Heptachlor Epoxide	6.91	Spike	P	0 - 23
2335766	Hexachlorobenzene	7.32	Spike	P	0 - 22
2335766	Kepone	15.9	Spike	P	0 - 61
2335766	Lambda-Cyhalothrin	21.2	Spike	P	0 - 52
2335766	Methoprene	26.4	Spike	P	0 - 38
2335766	Methoxychlor	3.09	Spike	P	0 - 29
2335766	MGK-264	4.40	Spike	P	0 - 41
2335766	Mirex	19.8	Spike	P	0 - 39
2335766	Oxychlordane	7.97	Spike	P	0 - 33
2335766	Permethrin	17.6	Spike	P	0 - 39
2335766	Phenothrin	22.8	Spike	P	0 - 52
2335766	Piperonyl Butoxide	0.956	Spike	P	0 - 91
2335766	Prallethrin	0.666	Spike	P	0 - 34
2335766	Tau-Fluvalinate	24.3	Spike	P	0 - 41
2335766	Tetramethrin	2.25	Spike	P	0 - 43
2335766	Trans-Nonachlor	10.5	Spike	P	0 - 31
2335766	Triclosan Methyl	7.22	Spike	P	0 - 24
2335766	Trifluralin	4.24	Spike	P	0 - 23
2335788	PCB-1016	1.31	Spike	P	0 - 32
2335788	PCB-1260	6.43	Spike	P	0 - 31

Reference Method: EPA 8276
Batch ID: P415631

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335788	Chlordane	8.34	Spike	P	0 - 25
2335788	Toxaphene	9.72	Spike	P	0 - 24

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P415517

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335341	Acesulfame K	0.916	Spike	P	0 - 30
2335341	AMPA	3.24	Spike	P	0 - 30
2335341	Endothall	3.05	Spike	P	0 - 30
2335341	Glufosinate	2.62	Spike	P	0 - 30
2335341	Glyphosate	7.05	Spike	P	0 - 30
2335341	Sucralose	2.98	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P415542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335680	2,4-D	19.8	Spike	P	0 - 30
2335680	2,4,5-T	38.2	Spike	F	0 - 30
2335680	Acetaminophen	2.51	Spike	P	0 - 30
2335680	Acetamiprid	11.4	Spike	P	0 - 30
2335680	Afidopyropen	23.5	Spike	P	0 - 30
2335680	Bentazon	5.57	Spike	P	0 - 30
2335680	Benzovindiflupyr	7.18	Spike	P	0 - 30
2335680	Carbamazepine	1.75	Spike	P	0 - 30
2335680	Clothianidin	4.11	Spike	P	0 - 30
2335680	Dinotefuran	5.75	Spike	P	0 - 30
2335680	Diuron	5.60	Spike	P	0 - 30
2335680	Fenuron	7.69	Spike	P	0 - 30
2335680	Fluridone	1.26	Spike	P	0 - 30
2335680	Hydrocodone	8.37	Spike	P	0 - 30
2335680	Ibuprofen	3.99	Spike	P	0 - 30
2335680	Imazapyr	3.68	Spike	P	0 - 30
2335680	Imidacloprid	13.8	Spike	P	0 - 30
2335680	Linuron	8.74	Spike	P	0 - 30
2335680	Mandestrobin	5.25	Spike	P	0 - 30
2335680	MCPP	11.6	Spike	P	0 - 30
2335680	Naproxen	71.1	Spike	F	0 - 30
2335680	Primidone	0.743	Spike	P	0 - 30
2335680	Pyraclostrobin	7.85	Spike	P	0 - 30
2335680	Silvex	20.8	Spike	P	0 - 30
2335680	Thiamethoxam	5.99	Spike	P	0 - 30
2335680	Tolfenpyrad	2.45	Spike	P	0 - 30
2335680	Triclopyr	23.5	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P415664

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336088	3-Hydroxycarbofuran	4.49	Spike	P	0 - 30
2336088	Aldicarb	32.5	Spike	F	0 - 30
2336088	Aldicarb Sulfone	3.21	Spike	P	0 - 30
2336088	Aldicarb Sulfoxide	7.56	Spike	P	0 - 30
2336088	Carbaryl	9.70	Spike	P	0 - 30
2336088	Carbofuran	4.77	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P415664

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336088	Methiocarb	4.43	Spike	P	0 - 30
2336088	Methomyl	7.61	Spike	P	0 - 30
2336088	Oxamyl	2.17	Spike	P	0 - 30
2336088	Propoxur	7.52	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P415768

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336312	Total Alkalinity	0.00338	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011

Batch ID: P415902

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2335661	TDS	2.39	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P415772

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336312	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011

Batch ID: P415705

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2336040	Organic Carbon	1.54	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2336088
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	81.8	P	30 - 160

Lab Sample ID: 2336089
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	81.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	101	P	30 - 160
EPA 8321B	Carbamazepine-d10	110	P	30 - 160
EPA 8321B	Diuron-d6	71.0	P	30 - 160
EPA 8321B	Endothall-d6	49.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	82.9	P	30 - 160
EPA 8321B	Primidone-d5	114	P	30 - 160
EPA 8321B	Sucralose-d6	97.2	P	30 - 160

Lab Sample ID: 2336090
Field Sample ID: G4NW0375

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	67.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	101	P	30 - 160
EPA 8321B	Diuron-d6	65.5	P	30 - 160
EPA 8321B	Endothall-d6	64.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	98.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	66.4	P	30 - 160
EPA 8321B	Primidone-d5	90.1	P	30 - 160
EPA 8321B	Sucralose-d6	94.8	P	30 - 160

Lab Sample ID: 2336091
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	110	P	38 - 115
EPA 8270E	Decachlorobiphenyl	107	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	87.0	P	29 - 98.0
EPA 8270E	Tetrachloro-m-xylene	73.0	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	90.0	P	30 - 97.0
EPA 8276	PCNB	103	P	45 - 119

Lab Sample ID: 2336092
Field Sample ID: G4NW0382

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	42.7	P	20 - 200
EPA 8270E	Simazine-d10	96.8	P	71 - 140
EPA 8270E	Terbufos-d10	113	P	62 - 131
EPA 8270E	Terphenyl-d14	86.2	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A112982

Included Lab Sample IDs: 2336075, 2336077

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A112991

Included Lab Sample IDs: 2336075, 2336077

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

Reference Method: EPA 8321B

Run ID: A113016

Included Lab Sample IDs: 2336089, 2336090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	101	104	P/P	60 - 160
Endothall	81.9	80.6	P/P	60 - 160
Glufosinate	89.6	92.2	P/P	60 - 160
Glyphosate	98.7	102	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A113018

Included Lab Sample IDs: 2336076, 2336078

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	98.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A113034

Included Lab Sample IDs: 2336089, 2336090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	100	99.8	P/P	50 - 150
2,4,5-T	99.1	112	P/P	50 - 150
Acetaminophen	96.6	98.6	P/P	60 - 160
Acetamiprid	100	105	P/P	50 - 150
Afidopyropen	100	89.6	P/P	50 - 150
Bentazon	93.8	94.5	P/P	50 - 160
Benzovindiflupyr	108	107	P/P	50 - 150
Carbamazepine	99.0	101	P/P	60 - 150
Clothianidin	126	108	P/P	60 - 150
Dinotefuran	105	102	P/P	50 - 150
Diuron	99.3	98.0	P/P	60 - 160
Fenuron	100	98.2	P/P	60 - 150
Fluridone	106	110	P/P	60 - 160
Hydrocodone	97.4	104	P/P	60 - 150
Ibuprofen	71.4	80.5	P/P	50 - 160
Imazapyr	85.5	85.2	P/P	50 - 150
Imidacloprid	94.2	101	P/P	60 - 150
Linuron	105	86.8	P/P	60 - 150
Mandestrobin	96.0	99.2	P/P	50 - 150
MCPP	110	109	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A113034

Included Lab Sample IDs: 2336089, 2336090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naproxen	112	89.2	P/P	50 - 160
Primidone	116	96.2	P/P	60 - 150
Pyraclostrobin	101	101	P/P	60 - 150
Silvex	90.4	96.7	P/P	50 - 150
Thiamethoxam	95.3	98.9	P/P	50 - 150
Tolfenpyrad	98.4	101	P/P	60 - 150
Triclopyr	100	103	P/P	50 - 150

Reference Method: SM 5310 B-2011

Run ID: A113036

Included Lab Sample IDs: 2336076, 2336078

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.2	98.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A113044

Included Lab Sample IDs: 2336089, 2336090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.7	75.6	P/P	60 - 160
Sucralose	96.3	94.9	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A113067

Included Lab Sample IDs: 2336075, 2336077

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.8	101	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A113067

Included Lab Sample IDs: 2336075, 2336077

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113130

Included Lab Sample IDs: 2336093, 2336094, 2336095, 2336096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.8	97.5	P/P	90 - 110
Antimony	97.8	99.0	P/P	90 - 110
Arsenic	98.7	98.7	P/P	90 - 110
Barium	99.1	99.3	P/P	90 - 110
Boron	96.4	95.8	P/P	90 - 110
Cadmium	98.2	98.7	P/P	90 - 110
Chromium	96.3	96.9	P/P	90 - 110
Cobalt	98.7	98.7	P/P	90 - 110
Copper	96.7	95.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113130

Included Lab Sample IDs: 2336093, 2336094, 2336095, 2336096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	95.1	96.0	P/P	90 - 110
Manganese	96.8	97.5	P/P	90 - 110
Molybdenum	97.4	98.2	P/P	90 - 110
Nickel	97.7	98.0	P/P	90 - 110
Selenium	97.5	97.8	P/P	90 - 110
Silver	99.8	101	P/P	90 - 110
Thallium	98.1	98.0	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A113131

Included Lab Sample IDs: 2336092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.9		P	80 - 120
Alachlor	97.4		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine Desethyl	98.3		P	80 - 120
Azinphos Methyl	90.9		P	80 - 120
Azoxystrobin	94.7		P	80 - 120
Bromacil	97.9		P	80 - 120
Butylate	102		P	80 - 120
Caffeine	97.8		P	80 - 120
Carbophenothion	88.5		P	80 - 120
Carfentrazone Ethyl	89.1		P	80 - 120
Chlorfenapyr	96.7		P	80 - 120
Chlorpyrifos Ethyl	81.2		P	80 - 120
Chlorpyrifos Methyl	88.8		P	80 - 120
Coumaphos	98.2		P	80 - 120
Cyanazine	91.0		P	80 - 120
Cyprodinil	92.5		P	80 - 120
Demeton	95.5		P	80 - 120
Diazinon	102		P	80 - 120
Difenoconazole	87.9		P	80 - 120
Dimethenamid	98.1		P	80 - 120
Dimethomorph	97.4		P	80 - 120
Disulfoton	87.8		P	80 - 120
Dithiopyr	98.8		P	80 - 120
EPTC	99.7		P	80 - 120
Ethion	80.7		P	80 - 120
Ethoprop	88.9		P	80 - 120
Etridiazole	99.0		P	80 - 120
Fenamiphos	86.3		P	80 - 120
Fenbuconazole	87.7		P	80 - 120
Fipronil	98.2		P	80 - 120
Fipronil Desulfinyl	103		P	80 - 120
Fipronil Sulfide	102		P	80 - 120
Fipronil Sulfone	104		P	80 - 120
Fluazifop-P-butyl	100		P	80 - 120
Fludioxonil	96.6		P	80 - 120
Flumioxazin	85.2		P	80 - 120
Flutolanil	91.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A113131
Included Lab Sample IDs: 2336092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fonofos	104		P	80 - 120
Hexazinone	100		P	80 - 120
Imazalil	92.1		P	80 - 120
Iprodione	92.9		P	80 - 120
Loratadine	107		P	80 - 120
Malathion	96.0		P	80 - 120
Metaxyl	95.1		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	99.1		P	80 - 120
Mevinphos	94.1		P	80 - 120
Molinate	104		P	80 - 120
Myclobutanil	99.5		P	80 - 120
Naled	97.9		P	80 - 120
Napropamide	95.0		P	80 - 120
Norflurazon	93.7		P	80 - 120
Oxadiazon	107		P	80 - 120
Oxyfluorfen	94.3		P	80 - 120
Parathion Ethyl	94.1		P	80 - 120
Parathion Methyl	96.6		P	80 - 120
Pendimethalin	95.8		P	80 - 120
Phenytoin	87.7		P	80 - 120
Phorate	93.6		P	80 - 120
Prodiamine	103		P	80 - 120
Prometon	95.2		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	101		P	80 - 120
Propanil	91.8		P	80 - 120
Propargite	94.1		P	80 - 120
Propiconazole	91.4		P	80 - 120
Pyraflufen Ethyl	97.2		P	80 - 120
Pyridaben	88.5		P	80 - 120
Pyriproxyfen	93.2		P	80 - 120
Simazine	98.1		P	80 - 120
Stirophos	94.7		P	80 - 120
Sulfentrazone	98.5		P	80 - 120
Tebuconazole	87.7		P	80 - 120
Terbufos	93.1		P	80 - 120
Terbuthylazine	93.3		P	80 - 120
Thiobencarb	86.7		P	80 - 120
Triadimefon	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A113148
Included Lab Sample IDs: 2336093, 2336094, 2336095, 2336096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	96.6	98.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A113154
Included Lab Sample IDs: 2336088

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	99.8	98.6	P/P	60 - 150
Aldicarb	87.8	93.8	P/P	60 - 150
Aldicarb Sulfone	103	105	P/P	50 - 150
Aldicarb Sulfoxide	103	103	P/P	50 - 150
Carbaryl	116	113	P/P	60 - 150
Carbofuran	103	109	P/P	50 - 150
Methiocarb	110	111	P/P	50 - 150
Methomyl	97.3	100	P/P	50 - 150
Oxamyl	101	101	P/P	50 - 150
Propoxur	109	101	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A113156
Included Lab Sample IDs: 2336075, 2336077

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.4	100	P/P	90 - 110
Sulfate	99.6	100	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A113174
Included Lab Sample IDs: 2336093, 2336094, 2336095, 2336096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.5	99.2	P/P	90 - 110
Iron	100	100	P/P	90 - 110
Magnesium	100	99.9	P/P	90 - 110
Potassium	101	102	P/P	90 - 110
Sodium	99.5	100	P/P	90 - 110
Strontium	100	99.4	P/P	90 - 110
Tin	99.7	98.4	P/P	90 - 110
Titanium	98.5	97.3	P/P	90 - 110
Vanadium	98.6	98.4	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A113176
Included Lab Sample IDs: 2336092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	94.7		P	80 - 120
Avobenzone	96.3		P	80 - 120
Octinoxate	94.8		P	80 - 120
Oxybenzone	101		P	80 - 120
PBDE-47	95.6		P	80 - 120
PBDE-99	94.2		P	80 - 120
Tri-o-cresyl Phosphate	98.2		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113179

Included Lab Sample IDs: 2336076, 2336078

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.4	104	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A113188

Included Lab Sample IDs: 2336091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	102		P	80 - 120
Alpha-BHC	98.8		P	80 - 120
Alpha-Chlordane	101		P	80 - 120
Beta-BHC	97.6		P	80 - 120
Beta-Cyfluthrin	93.4		P	80 - 120
Bifenthrin	94.3		P	80 - 120
Chlorothalonil	93.6		P	80 - 120
Cis-Nonachlor	99.2		P	80 - 120
Cypermethrin	85.5		P	80 - 120
Dacthal	97.8		P	80 - 120
DDD-p,p'	97.5		P	80 - 120
DDE-p,p'	102		P	80 - 120
DDT-p,p'	98.9		P	80 - 120
Delta-BHC	96.6		P	80 - 120
Deltamethrin	92.3		P	80 - 120
Dichlobenil	99.0		P	80 - 120
Dicofol	104		P	80 - 120
Dieldrin	110		P	80 - 120
Endosulfan I	99.5		P	80 - 120
Endosulfan II	101		P	80 - 120
Endosulfan Sulfate	95.6		P	80 - 120
Endrin	98.3		P	80 - 120
Endrin Aldehyde	95.1		P	80 - 120
Endrin Ketone	98.1		P	80 - 120
Esfenvalerate	94.8		P	80 - 120
Ethalfuralin	99.0		P	80 - 120
Fenpropathrin	96.4		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	99.9		P	80 - 120
Heptachlor	97.6		P	80 - 120
Heptachlor Epoxide	103		P	80 - 120
Hexachlorobenzene	99.7		P	80 - 120
Kepone	102		P	80 - 120
Lambda-Cyhalothrin	95.2		P	80 - 120
Methoprene	107		P	80 - 120
Methoxychlor	97.9		P	80 - 120
MGK-264	103		P	80 - 120
Mirex	92.7		P	80 - 120
Oxychlordane	101		P	80 - 120
Permethrin	90.6		P	80 - 120
Phenothrin	94.2		P	80 - 120
Piperonyl Butoxide	88.9		P	80 - 120
Prallethrin	106		P	80 - 120
Tau-Fluvalinate	94.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A113188
Included Lab Sample IDs: 2336091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tetramethrin	96.1		P	80 - 120
Trans-Nonachlor	102		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	96.4		P	80 - 120

Reference Method: EPA 8270E
Run ID: A113203
Included Lab Sample IDs: 2336091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	92.8		P	80 - 120
PCB-1260	93.8		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A113208
Included Lab Sample IDs: 2336078

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A113217
Included Lab Sample IDs: 2336093, 2336094, 2336095, 2336096

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Zinc	97.7	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A113243
Included Lab Sample IDs: 2336076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	103	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A113265
Included Lab Sample IDs: 2336092

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	99.8		P	80 - 120
Fluxapyroxad	98.5		P	80 - 120

Reference Method: EPA 8276
Run ID: A113296
Included Lab Sample IDs: 2336091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.8		P	80 - 120
Toxaphene	107		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113310

Included Lab Sample IDs: 2336076, 2336078

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	104	P/P	90 - 110

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	101					0.169	
EPA 180.1 Rev. 2.0	Turbidity	96.3					4.88	
EPA 200.7 Rev. 4.4	Calcium	101	104	100				0.0830
	Iron	104	105	107	105			1.74
	Magnesium	105	107	107	106			1.14
	Potassium	105	106	107	105			1.70
	Sodium	103	105	106	106			0.301
	Strontium	103	103	104	103			1.03
	Tin	106	106	104	105			0.498
	Titanium	104	102	106	105			0.568
	Vanadium	95.3	95.3	95.8	95.3			0.540
	Zinc	102	100	102	101			1.04
EPA 200.8 Rev. 5.4	Aluminum	97.5	98.1	101	97.8			2.64
	Antimony	99.1	99.5	100	99.4			0.786
	Arsenic	99.5	99.5	100	99.5			0.990
	Barium	104	103	103	103			0.369
	Beryllium	99.1	96.8	99.7	98.2			2.94
	Boron	98.8	99.4	104	102			3.81
	Cadmium	97.7	98.6	99.5	100			0.970
	Chromium	96.9	98.0	98.4	98.7			0.434
	Cobalt	101	100	99.9	99.4			0.277
	Copper	97.9	98.0	98.4	96.3			0.437
	Lead	96.9	97.4	98.5	97.0			1.17
	Manganese	98.1	100	99.2	97.7			0.522
	Molybdenum	99.7	100	101	100			1.06
	Nickel	98.7	99.3	99.1	97.9			0.266
	Selenium	98.0	96.7	97.1	96.4			0.408
	Silver	99.3	100	93.9	99.0			6.40
	Thallium	99.7	101	104	102			2.25
EPA 300.0 Rev. 2.1	Chloride	97.6	98.2	95.7			0.461	
	Sulfate	97.5	98.3	96.8			0.155	
EPA 350.1 Rev. 2.0	Ammonia-N	95.8	98.8	101				1.97
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108	108	104				2.26
EPA 353.2 Rev. 2.0	NO2NO3-N	101	104	104				0.323
EPA 365.1 Rev. 2.0	Total-P	107	105	105				0.372
	Total-P	101	104	104				0.0426
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	98.3	74.5	79.6				6.63
	Acetochlor	84.5	76.6	87.2				12.9
	Alachlor	77.1	65.9	80.8				20.4
	Aldrin	56.4	62.9	71.8				13.2
	Alpha-BHC	100	102	101				0.612
	Alpha-Chlordane	76.9	86.3	96.3				11.0
	Ametryn	90.5	88.5	62.8				27.2
	Atrazine	78.6						3.59
	Atrazine Desethyl	42.0	42.0	40.0				4.88
	Avobenzone	109	89.5	94.0				4.93
	Azinphos Methyl	95.9	59.4	137				79.3
	Azoxystrobin	85.9	83.2	97.0				15.4
	Beta-BHC	108	106	103				3.53
	Beta-Cyfluthrin	62.6	79.5	91.0				13.5
	Bifenthrin	48.9	61.4	81.7				28.4
	Bromacil	65.7	51.6	50.7				1.81

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Butylate	45.1	40.3	36.2		10.9
	Caffeine	83.6	88.7	83.3		6.08
	Carbophenothion	93.5	99.4	97.4		1.95
	Carfentrazone Ethyl	108	102	110		6.99
	Chlorfenapyr	67.5	62.8	55.4		12.5
	Chlorothalonil	64.9	84.0	85.9		2.28
	Chlorpyrifos Ethyl	61.4	52.4	56.8		8.08
	Chlorpyrifos Methyl	75.7	65.2	67.1		2.87
	Cis-Nonachlor	69.8	80.5	87.2		7.93
	Coumaphos	174	159	145		9.59
	Cyanazine	77.6	65.3	71.6		9.18
	Cypermethrin	59.1	70.8	84.2		17.3
	Cyprodinil	72.9	64.1	69.7		8.36
	Dacthal	96.4	104	107		2.11
	DDD-p,p'	76.9	90.9	98.6		8.20
	DDE-p,p'	80.5	87.8	95.5		8.40
	DDT-p,p'	74.3	81.8	89.3		8.83
	Delta-BHC	110	120	113		5.78
	Deltamethrin	60.3	72.7	87.1		18.0
	Demeton	63.4	64.4	57.2		11.9
	Diazinon	116	100	114		12.4
	Dichlobenil	101	107	97.2		9.40
	Dicofol	82.0	85.7	91.6		6.61
	Dieldrin	87.4	97.3	105		7.74
	Difenoconazole	91.7	193	203		4.70
	Dimethenamid	72.4	66.6	71.0		6.31
	Dimethomorph	92.3	102	82.0		21.4
	Disulfoton	83.1	73.2	69.5		5.13
	Dithiopyr	89.5	84.6	81.0		4.33
	Endosulfan I	81.0	94.9	99.1		4.40
	Endosulfan II	86.0	90.7	97.9		7.66
	Endosulfan Sulfate	98.5	110	105		4.38
	Endrin	75.3	85.4	88.4		3.53
	Endrin Aldehyde	94.6	95.2	92.5		2.90
	Endrin Ketone	104	109	106		2.78
	EPTC	47.6	37.9	33.8		11.4
	Esfenvalerate	58.3	72.0	85.7		17.4
	Ethalfuralin	83.1	88.1	89.7		1.82
	Ethion	55.2	44.4	53.2		18.1
	Ethoprop	87.8	74.2	76.4		3.01
	Etridiazole	49.7	57.2	46.7		20.1
	Fenamiphos	81.4	81.8	70.5		14.8
	Fenbuconazole	135	127	127		0.0177
	Fenpropathrin	65.7	84.4	88.5		4.74
	Fipronil	85.5	75.1	84.9		10.2
	Fipronil Desulfinyl	93.8	99.3	85.5		9.62
	Fipronil Sulfide	89.6				12.6
	Fipronil Sulfone	86.1				2.00
	Fluazifop-P-butyl	85.6	75.5	72.6		3.83
	Fludioxonil	82.4	71.5	78.0		8.74
	Flumioxazin	214	128	157		17.3
	Flutolanil	77.6	65.0	74.7		13.9
	Fluxapyroxad	66.4	43.3	65.2		40.4
	Fonofos	74.6	72.3	59.8		19.0

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Gamma-BHC	103	109	99.6			8.58
	Gamma-Chlordane	72.6	82.2	93.6			13.0
	Heptachlor	63.1	71.0	76.4			7.31
	Heptachlor Epoxide	83.2	89.9	96.3			6.91
	Hexachlorobenzene	69.1	79.2	85.3			7.32
	Hexazinone	85.6	68.1	76.6			10.8
	Imazalil	72.6	66.8	59.3			11.9
	Iprodione	84.0	133	134			0.832
	Kepone	73.3	72.9	62.1			15.9
	Lambda-Cyhalothrin	54.3	69.3	85.8			21.2
	Loratadine	98.0	127	78.3			47.7
	Malathion	96.5	79.6	86.5			8.24
	Metalaxyl	77.7	68.4	67.4			1.42
	Methoprene	58.1	70.8	92.4			26.4
	Methoxychlor	85.3	93.5	96.4			3.09
	Metolachlor	89.5	77.6	80.9			4.08
	Metribuzin	78.1	68.3	76.6			11.5
	Mevinphos	68.0	54.9	59.0			7.12
	MGK-264	103	107	112			4.40
	Mirex	54.2	60.3	73.6			19.8
	Molinate	60.3	54.2	48.1			11.8
	Myclobutanil	82.9	71.1	81.3			12.4
	Naled	69.8	60.5	74.0			20.1
	Napropamide	61.8	45.2	58.8			26.1
	Norflurazon	114	104	99.3			4.93
	Octinoxate	89.3	69.9	74.1			5.76
	Oxadiazon	85.0	74.4	65.5			8.32
	Oxybenzone	84.1	76.5	75.8			0.920
	Oxychlordane	75.4	83.9	90.8			7.97
	Oxyfluorfen	97.9	95.3	98.2			3.01
	Parathion Ethyl	86.1	70.6	73.0			3.40
	Parathion Methyl	98.9	95.4	94.1			1.43
	PBDE-47	88.6	63.6	76.2			18.0
	PBDE-99	82.2	58.0	73.6			23.7
	PCB-1016	97.8	92.7	93.9			1.31
	PCB-1260	96.1	94.2	101			6.43
	Pendimethalin	80.0	74.8	77.3			3.29
	Permethrin	60.6	71.8	85.7			17.6
	Phenothrin	51.0	63.6	80.0			22.8
	Phenytoin	45.9	17.3	54.9			104
	Phorate	81.6	65.6	57.6			13.1
	Piperonyl Butoxide	102	109	108			0.956
	Prallethrin	95.6	104	105			0.666
	Prodiamine	76.6	80.6	85.1			5.34
	Prometon	69.4	70.5	75.3			6.56
	Prometryn	80.1	72.5	67.4			7.35
	Pronamide	102	95.6	96.3			0.709
	Propanil	65.2	54.2	66.3			20.1
	Propargite	149	132	164			21.6
	Propiconazole	114	106	92.1			8.18
	Pyraflufen Ethyl	111	119	120			0.376
	Pyridaben	150	155	160			2.89
	Pyriproxyfen	93.6	70.0	62.8			10.7
	Simazine	74.0	59.2	58.7			0.874

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Stiophos	71.4	49.9	56.3		12.0
	Sulfentrazone	118	114	118		2.59
	Tau-Fluvalinate	49.7	62.5	79.8		24.3
	Tebuconazole	110	93.4	108		11.9
	Terbufos	84.8	90.3	79.3		13.0
	Terbutylazine	90.2	80.6	81.1		0.639
	Tetramethrin	99.7	118	115		2.25
	Thiobencarb	75.2	63.6	73.6		14.6
	Trans-Nonachlor	72.5	81.2	90.2		10.5
	Tri-o-cresyl Phosphate	95.0	73.5	76.2		3.66
	Triadimefon	66.5	64.6	65.4		1.23
	Triclosan Methyl	82.4	93.7	101		7.22
	Trifluralin	72.9	81.2	84.7		4.24
	Chlordane	94.2	85.0	93.1		8.34
EPA 8276	Toxaphene	122	119	131		9.72
EPA 8321B	2,4-D	62.0	80.4	55.2		19.8
	2,4,5-T	40.5	43.1	29.3		38.2
	3-Hydroxycarbofuran	71.9	85.1	89.0		4.49
	Acesulfame K	86.3	80.6	79.9		0.916
	Acetaminophen	75.5	96.2	93.8		2.51
	Acetamiprid	70.1	93.2	83.2		11.4
	Afidopyropen	56.4	84.1	66.4		23.5
	Aldicarb	60.4	53.1	73.7		32.5
	Aldicarb Sulfone	85.5	95.1	98.2		3.21
	Aldicarb Sulfoxide	83.8	49.6	53.5		7.56
	AMPA	107	104	100		3.24
	Bentazon	72.6				5.57
	Benzovindiflupyr	80.1	94.2	87.7		7.18
	Carbamazepine	82.6	92.8	94.4		1.75
	Carbaryl	75.0	73.0	80.5		9.70
	Carbofuran	82.1	78.1	82.0		4.77
	Clothianidin	89.5	112	108		4.11
	Dinotefuran	87.8	137	129		5.75
	Diuron	75.1	83.2	77.9		5.60
	Endothall	105	108	112		3.05
	Fenuron	85.8	82.5	76.4		7.69
	Fluridone	81.5				1.26
	Glufosinate	117	94.8	97.4		2.62
	Glyphosate	101	87.7	94.8		7.05
	Hydrocodone	79.6	99.1	91.1		8.37
	Ibuprofen	67.0	49.7	47.8		3.99
	Imazapyr	82.4				3.68
	Imidacloprid	94.6	158	137		13.8
	Linuron	80.9	75.2	82.1		8.74
	Mandestrobin	79.8	79.6	75.5		5.25
	MCPP	74.9	66.6	59.3		11.6
	Methiocarb	72.1	75.0	78.4		4.43
	Methomyl	74.3	77.8	84.0		7.61
	Naproxen	62.5	27.6	58.0		71.1
	Oxamyl	81.7	86.1	88.0		2.17
	Primidone	94.8	92.5	93.2		0.743
	Propoxur	68.6	72.2	66.9		7.52
	Pyraclostrobin	66.0	86.0	79.5		7.85
	Silvex	45.1	52.5	42.6		20.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8321B	Sucralose	97.2	94.0	96.9			2.98
	Thiamethoxam	86.5	150	142			5.99
	Tolfenpyrad	37.2	51.6	50.3			2.45
	Triclopyr	46.9	44.5	35.1			23.5
SM 2320 B-2011	Total Alkalinity	101				0.0033	
SM 2540 C-2011	TDS					2.39	
SM 4500-F- C-2011	Fluoride	101	101	101			0.0
SM 5310 B-2011	Organic Carbon	95.4	96.0	97.7			1.54

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2336075, 2336077
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2336075, 2336077
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2336093, 2336094, 2336095, 2336096
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2336093, 2336094, 2336095, 2336096
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2336075, 2336077
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2336075, 2336077
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2336076, 2336078
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2336076, 2336078
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2336076, 2336078
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2336076, 2336078
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2336092
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2336091
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2336092
EPA 8270E	PCBs in water matrices by GC/MS/MS	2336091
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2336091
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2336088
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2336089, 2336090
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2336075, 2336077
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2336093, 2336094, 2336095, 2336096
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2336075, 2336077
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2336075, 2336077
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2336075, 2336077
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2336076, 2336078

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	06/22/2022			06/22/2022 10:33	Samantha L Bates	2336075
	06/22/2022			06/22/2022 10:35	Samantha L Bates	2336077
EPA 180.1 Rev. 2.0	06/22/2022			06/22/2022 10:27	Khloe J Berg	2336075
	06/22/2022			06/22/2022 10:28	Khloe J Berg	2336077
EPA 200.7 Rev. 4.4	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/29/2022 19:52	McKinley C Carter	2336093
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/29/2022 19:59	McKinley C Carter	2336094
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/29/2022 20:05	McKinley C Carter	2336095
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/29/2022 20:11	McKinley C Carter	2336096
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/30/2022 12:36	McKinley C Carter	2336093
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/30/2022 12:41	McKinley C Carter	2336094
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/30/2022 12:45	McKinley C Carter	2336095
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/30/2022 12:49	McKinley C Carter	2336096
EPA 200.8 Rev. 5.4	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/28/2022 01:32	Emily M Philpot	2336093
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/28/2022 01:41	Emily M Philpot	2336094
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/28/2022 01:50	Emily M Philpot	2336095
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/28/2022 01:59	Emily M Philpot	2336096
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/28/2022 14:25	Alexander Thompson	2336093
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/28/2022 14:31	Alexander Thompson	2336094
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/28/2022 14:37	Alexander Thompson	2336095
	06/22/2022	06/23/2022 09:28	Mackenzie Hunt	06/28/2022 14:44	Alexander Thompson	2336096
EPA 300.0 Rev. 2.1	06/22/2022			06/28/2022 16:25	Anna M. Plaviak	2336075
	06/22/2022			06/28/2022 16:37	Anna M. Plaviak	2336077
EPA 350.1 Rev. 2.0	06/22/2022			06/23/2022 12:59	Judith K. Clark	2336076
	06/22/2022			06/23/2022 13:04	Judith K. Clark	2336078
EPA 351.2 Rev. 2.0	06/22/2022	06/28/2022 11:30	Simonne.V. Calhoun	06/29/2022 16:53	Alexandra J Mattheus	2336076
	06/22/2022	06/28/2022 11:30	Simonne.V. Calhoun	06/29/2022 16:55	Alexandra J Mattheus	2336078
EPA 353.2 Rev. 2.0	06/22/2022			07/06/2022 12:59	Judith K. Clark	2336076
	06/22/2022			07/06/2022 13:00	Judith K. Clark	2336078
EPA 365.1 Rev. 2.0	06/22/2022	06/28/2022 16:02	Adam P Silver	06/30/2022 14:50	James L Waggeberby	2336078
	06/22/2022	06/29/2022 15:05	Simonne.V. Calhoun	07/01/2022 14:38	Simonne.V. Calhoun	2336076
EPA 8270E	06/22/2022	06/23/2022 10:00	Fe-Val Siddell	06/26/2022 22:29	Michael Poppell	2336092
	06/22/2022	06/23/2022 10:00	Fe-Val Siddell	06/29/2022 18:13	Lipi Saha	2336092
	06/22/2022	06/23/2022 10:00	Fe-Val Siddell	07/01/2022 20:30	Michael Poppell	2336092
	06/22/2022	06/24/2022 08:00	Rasheda Ghaffari	06/29/2022 22:11	Michael Poppell	2336091
	06/22/2022	06/24/2022 08:00	Rasheda Ghaffari	06/30/2022 06:14	Arthur Maknenko	2336091
EPA 8276	06/22/2022	06/24/2022 08:00	Rasheda Ghaffari	07/01/2022 15:08	Julie Wi	2336091
EPA 8321B	06/22/2022	06/22/2022 12:00	Umesh Chiluwal	06/22/2022 15:47	Umesh Chiluwal	2336089
	06/22/2022	06/22/2022 12:00	Umesh Chiluwal	06/22/2022 16:00	Umesh Chiluwal	2336090
	06/22/2022	06/22/2022 12:00	Umesh Chiluwal	06/23/2022 05:21	Umesh Chiluwal	2336089
	06/22/2022	06/22/2022 12:00	Umesh Chiluwal	06/23/2022 05:36	Umesh Chiluwal	2336090

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	06/22/2022	06/23/2022 09:00	June Rhew	06/24/2022 01:43	Juyoung Kim	2336089
	06/22/2022	06/23/2022 09:00	June Rhew	06/24/2022 02:03	Juyoung Kim	2336090
	06/22/2022	06/27/2022 09:00	June Rhew	06/27/2022 17:30	Juyoung Kim	2336088
SM 2320 B-2011	06/22/2022			06/25/2022 10:35	Dale L. Simmons	2336075
	06/22/2022			06/25/2022 10:47	Dale L. Simmons	2336077
SM 2340 B-2011	06/22/2022			06/29/2022 19:52	McKinley C Carter	2336093
	06/22/2022			06/29/2022 19:59	McKinley C Carter	2336094
	06/22/2022			06/29/2022 20:05	McKinley C Carter	2336095
	06/22/2022			06/29/2022 20:11	McKinley C Carter	2336096
SM 2540 C-2011	06/22/2022			06/24/2022 15:21	Yijie Li	2336075, 2336077
SM 2540 D-2011	06/22/2022			06/24/2022 15:21	Yijie Li	2336075, 2336077
SM 4500-F- C-2011	06/22/2022			06/25/2022 10:35	Dale L. Simmons	2336075
	06/22/2022			06/25/2022 10:47	Dale L. Simmons	2336077
SM 5310 B-2011	06/22/2022			06/23/2022 19:12	Khloe J Berg	2336076
	06/22/2022			06/23/2022 19:26	Khloe J Berg	2336078