

Chemical Analysis Report

SW-DIST-2022-10-25-01

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

Event Description: **SCIs Gilly and Gamble**
Request ID: **RQ-2022-10-03-20**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Ben Paswater

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 16-NOV-2022 15:14

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: Gamble Creek West Branch @ CR 675

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

Field ID: G2SW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364633	DEP SOP: NU-094-1	Color (true)	190		PCU	P421421	
	EPA 180.1 Rev. 2.0	Turbidity	17		NTU	P421381	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P422162	
		Sulfate	31		mg SO4/L	P422166	
	SM 2320 B-2011	Total Alkalinity	65		mg CaCO3/L	P421549	
	SM 2540 C-2015	TDS	230		mg/L	P421907	
	SM 2540 D-2015	TSS	10		mg/L	P421850	
	SM 4500-F- C-2011	Fluoride	0.45		mg F/L	P421550	
2364634	EPA 350.1 Rev. 2.0	Ammonia-N	0.20		mg N/L	P421794	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P421756	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P421606	
	EPA 365.1 Rev. 2.0	Total-P	0.94		mg P/L	P421506	
	SM 5310 B-2011	Organic Carbon	28		mg C/L	P421635	
2364635	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.74		mg P/L	P421400	
2364640	EPA 8321B	Acesulfame K	0.10	U	ug/L	P421330	
		2,4-D	0.0057	I	ug/L	P421444	
		AMPA	0.81		ug/L	P421330	
		2,4,5-T	0.0040	U	ug/L	P421444	
		Acetaminophen	0.0080	U	ug/L	P421444	
		Acetamiprid	0.0020	U	ug/L	P421444	
		Endothall	0.25	U	ug/L	P421330	MS
		Glufosinate	0.10	U	ug/L	P421330	
		Glyphosate	0.75		ug/L	P421330	
		Afidopyropen	0.0020	U	ug/L	P421444	
		Sucralose	0.31		ug/L	P421330	
		Bentazon	0.0038		ug/L	P421444	
		Benzovindiflupyr	0.0020	U	ug/L	P421444	
		Carbamazepine	8.0E-04	U	ug/L	P421444	
		Clothianidin	0.0020	U	ug/L	P421444	
		Dinotefuran	0.0081		ug/L	P421444	
		Diuron	0.0020	U	ug/L	P421444	
		Fenuron	0.032	U	ug/L	P421444	
		Fluridone	8.0E-04	U	ug/L	P421444	
		Imazapyr	0.21		ug/L	P421444	
		Hydrocodone	0.0020	U	ug/L	P421444	
		Ibuprofen	0.20	U	ug/L	P421444	
		Imidacloprid	0.0062	I	ug/L	P421444	MS
		Linuron	0.0040	U	ug/L	P421444	
		Mandestrobin	0.0020	U	ug/L	P421444	
		MCP	0.0040	U	ug/L	P421444	
		Naproxen	0.0080	U	ug/L	P421444	
		Primidone	0.0040	U	ug/L	P421444	
		Pyraclostrobin	0.0020	U	ug/L	P421444	

Field ID: G2SW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364640	EPA 8321B	Silvex	0.0040	U	ug/L	P421444	
		Thiamethoxam	0.0020	U	ug/L	P421444	
		Tolfenpyrad	0.0020	U	ug/L	P421444	
		Triclopyr	0.0040	U	ug/L	P421444	
2364641	EPA 200.7 Rev. 4.4	Calcium	26.0		mg/L	P421431	
		Iron	1.02E+03		ug/L	P421431	
		Magnesium	9.00		mg/L	P421431	
		Potassium	6.3		mg/L	P421431	
		Sodium	11.8		mg/L	P421431	
		Strontium	360		ug/L	P421431	
		Tin	3.0	U	ug/L	P421431	
		Titanium	2.6	I	ug/L	P421431	
		Vanadium	5.1	I	ug/L	P421431	
		Zinc	5.0	U	ug/L	P421431	
	EPA 200.8 Rev. 5.4	Aluminum	832		ug/L	P421431	
		Antimony	0.33		ug/L	P421431	
		Arsenic	1.92		ug/L	P421431	
		Barium	13.1		ug/L	P421431	
		Beryllium	0.051		ug/L	P421431	
		Boron	38.8		ug/L	P421431	
		Cadmium	0.029	I	ug/L	P421431	
		Chromium	2.2		ug/L	P421431	MS
		Cobalt	0.331		ug/L	P421431	
		Copper	1.78		ug/L	P421431	
		Lead	0.92		ug/L	P421431	
		Manganese	40.8		ug/L	P421431	
		Molybdenum	2.39		ug/L	P421431	
		Nickel	1.3	I	ug/L	P421431	
		Selenium	0.25	I	ug/L	P421431	
		Silver	0.010	U	ug/L	P421431	
		Thallium	0.10	U	ug/L	P421431	
	SM 2340 B-2011	Hardness	102		mg/L	P421431	
2364643	EPA 8270E	Oxybenzone**	9.6	U	ng/L	P421323	
		Acetochlor	0.24	U	ng/L	P421323	
		Octinoxate**	19	U	ng/L	P421323	
		Alachlor	0.24	U	ng/L	P421323	
		Avobenzone**	96	U	ng/L	P421323	
		Ametryn	0.58	U	ng/L	P421323	
		Atrazine	1.1		ng/L	P421323	
		PBDE-47**	3.8	U	ng/L	P421323	
		Atrazine Desethyl	1.4	U	ng/L	P421323	
		PBDE-99**	4.8	U	ng/L	P421323	
		Azinphos Methyl	1.9	U	ng/L	P421323	
		Tri-o-cresyl Phosphate**	5.8	U	ng/L	P421323	
		Azoxystrobin	0.48	U	ng/L	P421323	

Field ID: G2SW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364643	EPA 8270E	Bromacil	24		ng/L	P421323	
		2-Ethylhexyl	12	U	ng/L	P421323	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.38	U	ng/L	P421323	
		Dechlorane Plus**	29	U	ng/L	P421323	
		Caffeine**	7.2	U	ng/L	P421323	
		Carbophenothion	0.19	U	ng/L	P421323	
		Carfentrazone Ethyl	0.096	U	ng/L	P421323	
		Chlorfenapyr	0.17	U	ng/L	P421323	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P421323	
		Chlorpyrifos Methyl	0.048	U	ng/L	P421323	
		Coumaphos	0.48	U	ng/L	P421323	
		Cyanazine	3.1	U	ng/L	P421323	
		Cyprodinil	0.096	U	ng/L	P421323	
		Demeton	1.4	U	ng/L	P421323	
		Diazinon	0.12	U	ng/L	P421323	
		Difenoconazole	0.58	U	ng/L	P421323	
		Dimethenamid	0.096	U	ng/L	P421323	
		Dimethomorph	0.17	U	ng/L	P421323	
		Disulfoton	0.48	U	ng/L	P421323	
		Dithiopyr	0.60	U	ng/L	P421323	
		EPTC	1.2	U	ng/L	P421323	
		Ethion	0.14	U	ng/L	P421323	
		Ethoprop	0.096	U	ng/L	P421323	
		Etridiazole	0.14	U	ng/L	P421323	
		Fenamiphos	0.48	U	ng/L	P421323	
		Fenbuconazole	0.12	U	ng/L	P421323	
		Fipronil	0.24	U	ng/L	P421323	MS
		Fipronil Desulfinyl**	0.12	U	ng/L	P421323	
		Fipronil Sulfide	0.14	U	ng/L	P421323	MS
		Fipronil Sulfone	0.15	I	ng/L	P421323	
		Fluazifop-P-butyl	0.096	U	ng/L	P421323	
		Fludioxonil	0.12	U	ng/L	P421323	
		Flumioxazin	4.3	U	ng/L	P421323	
		Flutolanil	0.38	I	ng/L	P421323	
		Fluxapyroxad	1.1		ng/L	P421323	
		Fonofos	0.19	U	ng/L	P421323	
		Hexazinone	17		ng/L	P421323	
		Imazalil	0.72	U	ng/L	P421323	
		Iprodione	0.58	U	ng/L	P421323	
		Loratadine**	0.34	U	ng/L	P421323	
		Malathion	0.34	U	ng/L	P421323	
		Metalaxyl	2.1	I	ng/L	P421323	
		Metolachlor	2.8		ng/L	P421323	
		Metribuzin	6.3		ng/L	P421323	

Field ID: G2SW0156

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2364643	EPA 8270E	Mevinphos	1.0	U	ng/L	P421323	
		Molinate	0.29	U	ng/L	P421323	
		Myclobutanil	0.24	U	ng/L	P421323	
		Naled	1.4	U	ng/L	P421323	
		Napropamide	0.38	U	ng/L	P421323	
		Norflurazon	0.91	I	ng/L	P421323	
		Oxadiazon	0.29	U	ng/L	P421323	
		Oxyfluorfen	0.14	U	ng/L	P421323	
		Parathion Ethyl	0.24	U	ng/L	P421323	
		Parathion Methyl	0.53	U	ng/L	P421323	
		Pendimethalin	0.96	U	ng/L	P421323	
		Phenytoin**	3.4	U	ng/L	P421323	
		Phorate	0.50	U	ng/L	P421323	
		Prodiamine	0.17	U	ng/L	P421323	
		Prometon	0.87	U	ng/L	P421323	
		Prometryn	0.19	U	ng/L	P421323	
		Pronamide	0.14	U	ng/L	P421323	
		Propanil	0.12	U	ng/L	P421323	
		Propargite	1.4	U	ng/L	P421323	
		Propiconazole	0.48	U	ng/L	P421323	
		Pyraflufen Ethyl	0.24	U	ng/L	P421323	
		Pyridaben	0.43	U	ng/L	P421323	
		Pyriproxyfen	0.12	U	ng/L	P421323	
		Simazine	0.86	I	ng/L	P421323	
		Stirophos	0.12	U	ng/L	P421323	
		Sulfentrazone	0.50	I	ng/L	P421323	
		Tebuconazole	0.48	U	ng/L	P421323	
		Terbufos	0.096	U	ng/L	P421323	
		Terbutylazine	0.41	U	ng/L	P421323	
		Thiobencarb	0.58	U	ng/L	P421323	
		Triadimefon	0.24	U	ng/L	P421323	

Ref. Method and Comment:

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

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

EPA 8270E: MS accuracy for multiple parameters not assessed due to high content of these parameters in the sample spiked.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P421421

Component	Result	Code	Units
Color (true)	2.5	U	PCU

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

Component	Result	Code	Units
Turbidity	0.10	U	NTU

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

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

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

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

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

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

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

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421794

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421756

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

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

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421506

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P421400

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

Reference Method: EPA 8270E
Batch ID: P421323

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: P421323

Component	Result	Code	Units
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.62	U	ng/L
Dithiopyr	0.62	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P421323

Component	Result	Code	Units
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	4.5	U	ng/L
Flumioxazin	4.5	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.35	U	ng/L
Loratadine	0.35	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
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	1.5	U	ng/L
Metribuzin	1.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P421323

Component	Result	Code	Units
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P421323

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

Reference Method: EPA 8321B

Batch ID: P421330

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

Reference Method: EPA 8321B

Batch ID: P421444

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.20	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P421549

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P421549

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

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

Component	Result	Code	Units
TDS	15	U	mg/L

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

Component	Result	Code	Units
TSS	2	U	mg/L

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

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

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

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P421421

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	93.1		P	90 - 110

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

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

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

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

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

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

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

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

Quality Assurance Report

Laboratory Control Sample Accuracy

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

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421794

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421756

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: P421606

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421506

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P421400

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

Reference Method: EPA 8270E
Batch ID: P421323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	99.9		P	42 - 162
Acetochlor	91.4		P	69 - 123
Alachlor	86.4		P	65 - 118
Ametryn	91.9		P	58 - 141
Atrazine	99.8		P	73 - 118
Atrazine Desethyl	67.4		P	32 - 125
Avobenzone	107		P	40 - 203
Azinphos Methyl	145		P	36 - 197
Azoxystrobin	113		P	58 - 226
Bromacil	89.4		P	48 - 120
Butylate	72.4		P	27 - 85.0
Caffeine	79.8		P	40 - 137
Carbophenothion	88.7		P	54 - 132
Carfentrazone Ethyl	95.6		P	60 - 142
Chlorfenapyr	80.7		P	53 - 117
Chlorpyrifos Ethyl	92.5		P	59 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P421323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	78.4		P	66 - 119
Coumaphos	108		P	11 - 234
Cyanazine	93.1		P	61 - 248
Cyprodinil	77.9		P	50 - 147
Dechlorane Plus	84.3		P	47 - 182
Demeton	82.9		P	30 - 138
Diazinon	92.6		P	67 - 126
Difenoconazole	101		P	38 - 205
Dimethenamid	72.5		P	57 - 111
Dimethomorph	134		P	16 - 212
Disulfoton	73.0		P	46 - 126
Dithiopyr	84.3		P	62 - 115
EPTC	57.1		P	28 - 80.0
Ethion	65.8		P	24 - 122
Ethoprop	90.7		P	62 - 113
Etridiazole	65.0		P	28 - 92.0
Fenamiphos	98.2		P	57 - 128
Fenbuconazole	100		P	52 - 155
Fipronil	76.8		P	63 - 130
Fipronil Desulfinyl	80.3		P	61 - 130
Fipronil Sulfide	60.1		P	56 - 117
Fipronil Sulfone	65.1		P	52 - 118
Fluazifop-P-butyl	94.5		P	61 - 128
Fludioxonil	88.5		P	59 - 129
Flumioxazin	147		P	30 - 250
Flutolanil	91.7		P	53 - 127
Fluxapyroxad	68.2		P	42 - 132
Fonofos	72.4		P	61 - 110
Hexazinone	101		P	46 - 139
Imazalil	86.8		P	40 - 139
Iprodione	92.2		P	40 - 146
Loratadine	143		P	10 - 224
Malathion	103		P	61 - 135
Metaxyl	80.0		P	58 - 121
Metolachlor	90.9		P	64 - 118
Metribuzin	91.8		P	45 - 245
Mevinphos	83.3		P	49 - 118
Molinate	73.1		P	42 - 92.0
Myclobutanil	86.9		P	55 - 127
Naled	72.6		P	10 - 114
Napropamide	78.0		P	39 - 121
Norflurazon	80.8		P	55 - 129
Octinoxate	148		P	26 - 166
Oxadiazon	73.5		P	54 - 115
Oxybenzone	96.1		P	49 - 135
Oxyfluorfen	117		P	64 - 139
Parathion Ethyl	103		P	70 - 111
Parathion Methyl	115		P	76 - 136
PBDE-47	116		P	41 - 148
PBDE-99	92.5		P	38 - 147
Pendimethalin	88.0		P	52 - 118
Phenytol	41.2		P	10 - 162

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P421323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	76.1		P	40 - 122
Prodiamine	50.7		P	26 - 141
Prometon	55.8		P	54 - 122
Prometryn	61.5		P	61 - 128
Pronamide	106		P	72 - 121
Propanil	118		P	45 - 144
Propargite	68.2		P	10 - 199
Propiconazole	81.5		P	56 - 127
Pyraflufen Ethyl	76.2		P	56 - 140
Pyridaben	106		P	26 - 211
Pyriproxyfen	104		P	33 - 194
Simazine	81.5		P	67 - 121
Stirophos	65.7		P	20 - 142
Sulfentrazone	76.2		P	21 - 144
Tebuconazole	48.2		P	10 - 122
Terbufos	95.8		P	60 - 129
Terbuthylazine	82.8		P	69 - 113
Thiobencarb	93.4		P	51 - 120
Tri-o-cresyl Phosphate	103		P	49 - 150
Triadimefon	80.9		P	56 - 114

Reference Method: EPA 8321B

Batch ID: P421330

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

Reference Method: EPA 8321B

Batch ID: P421444

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.5		P	40 - 150
2,4,5-T	76.4		P	40 - 150
Acetaminophen	99.2		P	30 - 150
Acetamiprid	71.9		P	40 - 150
Afidopyropen	53.5		P	30 - 150
Bentazon	104		P	30 - 150
Benzovindiflupyr	86.0		P	40 - 150
Carbamazepine	94.2		P	40 - 150
Clothianidin	92.6		P	40 - 150
Dinotefuran	115		P	40 - 150
Diuron	85.5		P	40 - 150
Fenuron	112		P	40 - 150
Fluridone	99.1		P	40 - 150
Hydrocodone	102		P	40 - 150
Ibuprofen	80.3		P	40 - 150
Imazapyr	96.6		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P421444

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Imidacloprid	101		P	40 - 150
Linuron	81.1		P	40 - 150
Mandestrobin	89.4		P	40 - 150
MCPP	99.6		P	40 - 150
Naproxen	61.8		P	40 - 150
Primidone	89.1		P	40 - 150
Pyraclostrobin	75.5		P	40 - 150
Silvex	69.7		P	40 - 150
Thiamethoxam	99.0		P	40 - 150
Tolfenpyrad	38.0		P	30 - 150
Triclopyr	68.8		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P421549

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

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

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

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

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

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

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

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

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P421431

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

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P421431

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P421431

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P422162

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P422166

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P421794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364438	Ammonia-N	101	99.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P421756

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364650	Kjeldahl Nitrogen	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P421606

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

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P421506

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364627	Total-P	106	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P421400

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364729	O-Phosphate-P	100	99.3	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P421323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364007	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	92.6	98.3	P/P	26 - 165
2364007	Acetochlor	90.0	84.9	P/P	67 - 124
2364007	Alachlor	83.1	94.0	P/P	60 - 120
2364007	Ametryn	99.8	110	P/P	54 - 216
2364007	Atrazine Desethyl	67.3	62.2	P/P	15 - 122
2364007	Avobenzone	99.7	111	P/P	37 - 178
2364007	Azinphos Methyl	110	107	P/P	40 - 292
2364007	Azoxystrobin	127	118	P/P	35 - 220
2364007	Bromacil	88.8	86.4	P/P	45 - 127
2364007	Butylate	54.1	57.2	P/P	20 - 83.0
2364007	Carbophenothion	76.3	66.4	P/P	57 - 127
2364007	Carfentrazone Ethyl	81.5	75.0	P/P	51 - 141
2364007	Chlorfenapyr	56.5	53.5	P/P	46 - 111
2364007	Chlorpyrifos Ethyl	60.2	72.2	P/P	52 - 120
2364007	Chlorpyrifos Methyl	84.6	92.2	P/P	63 - 119
2364007	Coumaphos	68.3	57.2	P/P	10 - 228
2364007	Cyanazine	96.7	82.8	P/P	59 - 241
2364007	Cyprodinil	59.5	59.3	P/P	47 - 146
2364007	Dechlorane Plus	73.2	83.5	P/P	50 - 150
2364007	Demeton	97.0	93.9	P/P	40 - 136
2364007	Diazinon	93.8	89.3	P/P	69 - 132
2364007	Difenoconazole	91.2	83.0	P/P	57 - 258
2364007	Dimethenamid	76.5	69.6	P/P	54 - 110
2364007	Dimethomorph	146	140	P/P	28 - 210
2364007	Disulfoton	79.7	72.7	P/P	43 - 133
2364007	Dithiopyr	71.1	74.8	P/P	39 - 116
2364007	EPTC	45.8	40.5	P/P	20 - 78.0
2364007	Ethion	70.8	48.3	P/P	17 - 119
2364007	Ethoprop	98.1	87.6	P/P	66 - 120
2364007	Etridiazole	67.3	65.6	P/P	28 - 96.0
2364007	Fenamiphos	47.9	57.4	P/P	41 - 126
2364007	Fenbuconazole	83.1	72.0	P/P	42 - 169
2364007	Fipronil	48.9	70.0	F/P	61 - 132
2364007	Fipronil Desulfinyl	66.6	84.1	P/P	56 - 132
2364007	Fipronil Sulfide	13.1	16.7	F/F	48 - 119
2364007	Fluazifop-P-butyl	77.6	70.3	P/P	53 - 131
2364007	Fludioxonil	78.7	77.6	P/P	56 - 127
2364007	Flumioxazin	112	100	P/P	19 - 300
2364007	Flutolanil	69.1	70.7	P/P	41 - 127
2364007	Fluxapyroxad	64.5	52.8	P/P	42 - 172
2364007	Fonofos	59.2	64.1	P/P	59 - 113
2364007	Hexazinone	117	105	P/P	66 - 122
2364007	Imazalil	65.0	97.5	P/P	21 - 283
2364007	Iprodione	78.4	67.3	P/P	43 - 150
2364007	Loratadine	140	142	P/P	23 - 201
2364007	Malathion	84.6	84.4	P/P	58 - 136
2364007	Metalaxyl	77.8	74.8	P/P	55 - 120
2364007	Metolachlor	83.7	82.0	P/P	57 - 121
2364007	Metribuzin	115	109	P/P	58 - 294
2364007	Mevinphos	86.8	80.4	P/P	50 - 126
2364007	Molinate	62.2	64.2	P/P	42 - 93.0
2364007	Myclobutanil	89.4	89.2	P/P	55 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P421323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364007	Napropamide	62.5	59.1	P/P	39 - 110
2364007	Norflurazon	72.0	66.2	P/P	48 - 128
2364007	Octinoxate	118	104	P/P	21 - 159
2364007	Oxadiazon	57.1	57.6	P/P	43 - 112
2364007	Oxybenzone	81.4	84.9	P/P	41 - 142
2364007	Oxyfluorfen	110	115	P/P	64 - 153
2364007	Parathion Ethyl	95.7	90.0	P/P	69 - 114
2364007	Parathion Methyl	120	113	P/P	79 - 139
2364007	PBDE-47	96.6	101	P/P	27 - 144
2364007	PBDE-99	81.7	84.7	P/P	18 - 150
2364007	Pendimethalin	76.6	65.7	P/P	50 - 139
2364007	Phenytoin	41.2	32.5	P/P	10 - 146
2364007	Phorate	65.3	59.1	P/P	54 - 161
2364007	Prodiamine	49.1	43.3	P/P	30 - 161
2364007	Prometon	96.3	85.3	P/P	45 - 134
2364007	Prometryn	61.9	64.3	P/P	45 - 137
2364007	Pronamide	103	104	P/P	65 - 133
2364007	Propanil	125	124	P/P	49 - 142
2364007	Propargite	71.0	52.2	P/P	10 - 203
2364007	Propiconazole	76.9	70.9	P/P	38 - 146
2364007	Pyraflufen Ethyl	63.9	59.5	P/P	34 - 153
2364007	Pyridaben	76.5	77.7	P/P	12 - 192
2364007	Pyriproxyfen	91.3	79.6	P/P	33 - 180
2364007	Simazine	99.6	88.3	P/P	51 - 157
2364007	Stirophos	61.2	49.3	P/P	10 - 128
2364007	Tebuconazole	55.7	36.4	P/P	10 - 133
2364007	Terbufos	85.6	83.2	P/P	65 - 139
2364007	Terbuthylazine	94.2	82.8	P/P	66 - 117
2364007	Thiobencarb	83.3	83.2	P/P	51 - 119
2364007	Tri-o-cresyl Phosphate	81.1	85.4	P/P	31 - 144
2364007	Triadimefon	80.5	80.3	P/P	48 - 119

Reference Method: EPA 8321B
Batch ID: P421330

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2364287	Acesulfame K	98.5	79.2	P/P	40 - 150
2364287	AMPA	55.5	61.8	P/P	40 - 150
2364287	Endothall	171	172	F/F	40 - 150
2364287	Glufosinate	70.4	70.0	P/P	40 - 150
2364287	Sucralose	80.1	84.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P421444

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2365599	2,4-D	111	117	P/P	40 - 150
2365599	2,4,5-T	87.3	79.5	P/P	40 - 150
2365599	Acetaminophen	120	118	P/P	30 - 150
2365599	Acetamiprid	85.0	101	P/P	40 - 150
2365599	Afidopyropen	76.2	84.1	P/P	30 - 150
2365599	Bentazon	93.0	84.9	P/P	30 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P421444

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

Reference Method: SM 4500-F- C-2011

Batch ID: P421550

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

Reference Method: SM 5310 B-2011

Batch ID: P421635

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

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P421421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364434	Color (true)	5.09	Sample	P	0 - 20

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

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

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

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

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

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

Quality Assurance Report Precision

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

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

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

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P421794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364438	Ammonia-N	1.10	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P421756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364650	Kjeldahl Nitrogen	0.213	Spike	P	0 - 20

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

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P421506

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364627	Total-P	1.16	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P421400

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364729	O-Phosphate-P	0.902	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P421323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364007	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	5.97	Spike	P	0 - 37
2364007	Acetochlor	5.83	Spike	P	0 - 28

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P421323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364007	Alachlor	12.3	Spike	P	0 - 30
2364007	Ametryn	9.85	Spike	P	0 - 32
2364007	Atrazine	11.4	Spike	P	0 - 41
2364007	Atrazine Desethyl	8.02	Spike	P	0 - 36
2364007	Avobenzone	10.7	Spike	P	0 - 36
2364007	Azinphos Methyl	2.80	Spike	P	0 - 75
2364007	Azoxystrobin	6.20	Spike	P	0 - 39
2364007	Bromacil	2.70	Spike	P	0 - 33
2364007	Butylate	5.58	Spike	P	0 - 44
2364007	Caffeine	1.01	Spike	P	0 - 74
2364007	Carbophenothion	13.8	Spike	P	0 - 25
2364007	Carfentrazone Ethyl	8.28	Spike	P	0 - 27
2364007	Chlorfenapyr	5.52	Spike	P	0 - 24
2364007	Chlorpyrifos Ethyl	18.2	Spike	P	0 - 26
2364007	Chlorpyrifos Methyl	8.56	Spike	P	0 - 26
2364007	Coumaphos	17.7	Spike	P	0 - 28
2364007	Cyanazine	15.6	Spike	P	0 - 48
2364007	Cyprodinil	0.341	Spike	P	0 - 29
2364007	Dechlorane Plus	13.2	Spike	P	0 - 30
2364007	Demeton	3.26	Spike	P	0 - 33
2364007	Diazinon	4.95	Spike	P	0 - 29
2364007	Difenoconazole	9.38	Spike	P	0 - 34
2364007	Dimethenamid	9.38	Spike	P	0 - 39
2364007	Dimethomorph	4.58	Spike	P	0 - 51
2364007	Disulfoton	9.13	Spike	P	0 - 30
2364007	Dithiopyr	5.08	Spike	P	0 - 26
2364007	EPTC	12.2	Spike	P	0 - 43
2364007	Ethion	37.8	Spike	P	0 - 79
2364007	Ethoprop	11.3	Spike	P	0 - 29
2364007	Etridiazole	2.66	Spike	P	0 - 33
2364007	Fenamiphos	18.1	Spike	P	0 - 40
2364007	Fenbuconazole	14.3	Spike	P	0 - 74
2364007	Fipronil	24.5	Spike	P	0 - 29
2364007	Fipronil Desulfinyl	14.6	Spike	P	0 - 32
2364007	Fipronil Sulfide	7.13	Spike	P	0 - 30
2364007	Fipronil Sulfone	11.2	Spike	P	0 - 33
2364007	Fluazifop-P-butyl	9.96	Spike	P	0 - 38
2364007	Fludioxonil	1.47	Spike	P	0 - 29
2364007	Flumioxazin	11.5	Spike	P	0 - 51
2364007	Flutolanil	1.81	Spike	P	0 - 25
2364007	Fluxapyroxad	11.9	Spike	P	0 - 45
2364007	Fonofos	7.83	Spike	P	0 - 27
2364007	Hexazinone	9.98	Spike	P	0 - 30
2364007	Imazalil	40.0	Spike	P	0 - 100
2364007	Iprodione	15.2	Spike	P	0 - 33
2364007	Loratadine	1.44	Spike	P	0 - 56
2364007	Malathion	0.206	Spike	P	0 - 37
2364007	Metalaxyl	3.85	Spike	P	0 - 40
2364007	Metolachlor	1.95	Spike	P	0 - 29
2364007	Metribuzin	5.20	Spike	P	0 - 45
2364007	Mevinphos	7.58	Spike	P	0 - 29

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P421323

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364007	Molinate	3.09	Spike	P	0 - 33
2364007	Myclobutanil	0.179	Spike	P	0 - 26
2364007	Naled	4.23	Spike	P	0 - 37
2364007	Napropamide	5.74	Spike	P	0 - 44
2364007	Norflurazon	8.44	Spike	P	0 - 30
2364007	Octinoxate	12.3	Spike	P	0 - 45
2364007	Oxadiazon	0.429	Spike	P	0 - 28
2364007	Oxybenzone	4.24	Spike	P	0 - 46
2364007	Oxyfluorfen	4.28	Spike	P	0 - 28
2364007	Parathion Ethyl	6.15	Spike	P	0 - 31
2364007	Parathion Methyl	6.54	Spike	P	0 - 29
2364007	PBDE-47	4.30	Spike	P	0 - 36
2364007	PBDE-99	3.70	Spike	P	0 - 40
2364007	Pendimethalin	15.4	Spike	P	0 - 33
2364007	Phenytoin	23.5	Spike	P	0 - 100
2364007	Phorate	9.90	Spike	P	0 - 36
2364007	Prodiamine	12.6	Spike	P	0 - 71
2364007	Prometon	12.2	Spike	P	0 - 36
2364007	Prometryn	3.86	Spike	P	0 - 28
2364007	Pronamide	0.463	Spike	P	0 - 24
2364007	Propanil	0.656	Spike	P	0 - 28
2364007	Propargite	30.6	Spike	P	0 - 43
2364007	Propiconazole	8.08	Spike	P	0 - 33
2364007	Pyraflufen Ethyl	7.13	Spike	P	0 - 29
2364007	Pyridaben	1.52	Spike	P	0 - 30
2364007	Pyriproxyfen	13.8	Spike	P	0 - 79
2364007	Simazine	7.59	Spike	P	0 - 29
2364007	Stirophos	21.5	Spike	P	0 - 61
2364007	Sulfentrazone	1.42	Spike	P	0 - 33
2364007	Tebuconazole	41.9	Spike	P	0 - 69
2364007	Terbufos	2.85	Spike	P	0 - 29
2364007	Terbutylazine	12.9	Spike	P	0 - 32
2364007	Thiobencarb	0.150	Spike	P	0 - 26
2364007	Tri-o-cresyl Phosphate	5.08	Spike	P	0 - 33
2364007	Triadimefon	0.308	Spike	P	0 - 28

Reference Method: EPA 8321B

Batch ID: P421330

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2364287	Acesulfame K	21.7	Spike	P	0 - 30
2364287	AMPA	7.39	Spike	P	0 - 30
2364287	Endothall	0.471	Spike	P	0 - 30
2364287	Glufosinate	0.658	Spike	P	0 - 30
2364287	Glyphosate	2.68	Spike	P	0 - 30
2364287	Sucralose	0.696	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P421444

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

Reference Method: SM 2320 B-2011

Batch ID: P421549

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

Reference Method: SM 2540 C-2015

Batch ID: P421907

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

Reference Method: SM 4500-F- C-2011

Batch ID: P421550

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

Quality Assurance Report Precision

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

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

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

Quality Assurance Report Surrogates

Lab Sample ID: 2364640
Field Sample ID: G2SW0156

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	111	P	30 - 160
EPA 8321B	Acetaminophen-d4	152	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.8	P	30 - 160
EPA 8321B	Diuron-d6	46.1	P	30 - 160
EPA 8321B	Endothall-d6	144	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.2	P	30 - 160
EPA 8321B	Primidone-d5	112	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2364643
Field Sample ID: G2SW0156

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	39.2	P	20 - 200
EPA 8270E	Simazine-d10	70.1	P	62 - 142
EPA 8270E	Terbufos-d10	65.9	P	58 - 132
EPA 8270E	Terphenyl-d14	73.3	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A115505

Included Lab Sample IDs: 2364633

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A115507

Included Lab Sample IDs: 2364635

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

Reference Method: DEP SOP: NU-094-1

Run ID: A115522

Included Lab Sample IDs: 2364633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	92.8	94.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A115529

Included Lab Sample IDs: 2364640

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

Reference Method: EPA 8321B

Run ID: A115569

Included Lab Sample IDs: 2364640

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

Reference Method: SM 2320 B-2011

Run ID: A115574

Included Lab Sample IDs: 2364633

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

Reference Method: SM 4500-F- C-2011

Run ID: A115574

Included Lab Sample IDs: 2364633

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A115584

Included Lab Sample IDs: 2364641

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	103	P/P	90 - 110
Antimony	103	104	P/P	90 - 110
Arsenic	104	104	P/P	90 - 110
Barium	101	102	P/P	90 - 110
Beryllium	100	99.0	P/P	90 - 110
Boron	106	105	P/P	90 - 110
Cadmium	104	105	P/P	90 - 110
Chromium	98.5	98.8	P/P	90 - 110
Cobalt	101	99.4	P/P	90 - 110
Copper	100	99.9	P/P	90 - 110
Lead	95.3	95.5	P/P	90 - 110
Manganese	97.9	99.3	P/P	90 - 110
Molybdenum	101	101	P/P	90 - 110
Nickel	100	99.0	P/P	90 - 110
Selenium	102	101	P/P	90 - 110
Silver	101	102	P/P	90 - 110
Thallium	101	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A115590

Included Lab Sample IDs: 2364643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	94.9		P	80 - 120
Avobenzene	95.4		P	80 - 120
Dechlorane Plus	97.8		P	80 - 120
Octinoxate	96.3		P	80 - 120
Oxybenzone	95.9		P	80 - 120
PBDE-47	98.5		P	80 - 120
PBDE-99	99.2		P	80 - 120
Tri-o-cresyl Phosphate	99.9		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115597

Included Lab Sample IDs: 2364634

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A115600

Included Lab Sample IDs: 2364634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.2	98.4	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A115617

Included Lab Sample IDs: 2364634

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

Reference Method: SM 5310 B-2011
Run ID: A115617
Included Lab Sample IDs: 2364634

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

Reference Method: EPA 8270E
Run ID: A115631
Included Lab Sample IDs: 2364643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.7		P	80 - 120
Alachlor	98.0		P	80 - 120
Ametryn	90.3		P	80 - 120
Atrazine	97.8		P	80 - 120
Atrazine Desethyl	90.2		P	80 - 120
Azinphos Methyl	106		P	80 - 120
Azoxystrobin	104		P	80 - 120
Bromacil	99.4		P	80 - 120
Butylate	95.2		P	80 - 120
Caffeine	116		P	80 - 120
Carbophenothion	87.9		P	80 - 120
Carfentrazone Ethyl	92.8		P	80 - 120
Chlorfenapyr	95.3		P	80 - 120
Chlorpyrifos Ethyl	96.2		P	80 - 120
Chlorpyrifos Methyl	84.4		P	80 - 120
Coumaphos	83.9		P	80 - 120
Cyanazine	87.9		P	80 - 120
Cyprodinil	83.3		P	80 - 120
Demeton	90.9		P	80 - 120
Diazinon	91.5		P	80 - 120
Difenoconazole	105		P	80 - 120
Dimethenamid	98.3		P	80 - 120
Dimethomorph	105		P	80 - 120
Disulfoton	80.3		P	80 - 120
Dithiopyr	93.2		P	80 - 120
EPTC	95.9		P	80 - 120
Ethion	91.7		P	80 - 120
Ethoprop	92.4		P	80 - 120
Etridiazole	98.1		P	80 - 120
Fenamiphos	95.7		P	80 - 120
Fenbuconazole	95.0		P	80 - 120
Fipronil	87.0		P	80 - 120
Fipronil Desulfinyl	92.5		P	80 - 120
Fipronil Sulfide	81.7		P	80 - 120
Fipronil Sulfone	87.8		P	80 - 120
Fluazifop-P-butyl	95.0		P	80 - 120
Fludioxonil	98.8		P	80 - 120
Flumioxazin	81.4		P	80 - 120
Flutolanil	99.8		P	80 - 120
Fluxapyroxad	81.9		P	80 - 120
Fonofos	85.2		P	80 - 120
Hexazinone	104		P	80 - 120
Imazalil	103		P	80 - 120
Iprodione	82.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A115631
Included Lab Sample IDs: 2364643

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Loratadine	109		P	80 - 120
Malathion	91.6		P	80 - 120
Metalaxyl	90.6		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	90.9		P	80 - 120
Molinate	96.8		P	80 - 120
Myclobutanil	98.4		P	80 - 120
Naled	93.5		P	80 - 120
Napropamide	85.4		P	80 - 120
Norflurazon	89.6		P	80 - 120
Oxadiazon	108		P	80 - 120
Oxyfluorfen	90.9		P	80 - 120
Parathion Ethyl	107		P	80 - 120
Parathion Methyl	108		P	80 - 120
Pendimethalin	99.5		P	80 - 120
Phenytoin	93.6		P	80 - 120
Phorate	80.9		P	80 - 120
Prodiamine	89.3		P	80 - 120
Prometon	95.6		P	80 - 120
Prometryn	86.8		P	80 - 120
Pronamide	99.4		P	80 - 120
Propanil	101		P	80 - 120
Propargite	99.7		P	80 - 120
Propiconazole	89.7		P	80 - 120
Pyraflufen Ethyl	89.0		P	80 - 120
Pyridaben	87.5		P	80 - 120
Pyriproxyfen	104		P	80 - 120
Simazine	94.1		P	80 - 120
Stirophos	86.3		P	80 - 120
Sulfentrazone	84.7		P	80 - 120
Tebuconazole	84.5		P	80 - 120
Terbufos	85.1		P	80 - 120
Terbuthylazine	84.7		P	80 - 120
Thiobencarb	110		P	80 - 120
Triadimefon	95.1		P	80 - 120

Reference Method: EPA 8321B
Run ID: A115634
Included Lab Sample IDs: 2364640

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	99.4	90.6	P/P	50 - 150
2,4,5-T	121	110	P/P	50 - 150
Acetaminophen	109	108	P/P	60 - 160
Acetamiprid	103	101	P/P	50 - 150
Afidopyropen	117	107	P/P	50 - 150
Bentazon	119	125	P/P	50 - 160
Benzovindiflupyr	108	102	P/P	50 - 150
Carbamazepine	110	111	P/P	60 - 150
Clothianidin	107	100	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A115634
Included Lab Sample IDs: 2364640

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dinotefuran	117	120	P/P	50 - 150
Diuron	109	109	P/P	60 - 160
Fenuron	108	105	P/P	60 - 150
Fluridone	110	111	P/P	60 - 160
Hydrocodone	114	109	P/P	60 - 150
Ibuprofen	114	86.5	P/P	50 - 160
Imazapyr	110	109	P/P	50 - 150
Imidacloprid	103	98.0	P/P	60 - 150
Linuron	103	104	P/P	60 - 150
Mandestrobin	104	104	P/P	50 - 150
MCPP	103	116	P/P	50 - 150
Naproxen	122	90.9	P/P	50 - 160
Primidone	99.3	100	P/P	60 - 150
Pyraclostrobin	105	106	P/P	60 - 150
Silvex	101	98.9	P/P	50 - 150
Thiamethoxam	108	104	P/P	50 - 150
Tolfenpyrad	105	104	P/P	60 - 150
Triclopyr	98.7	115	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A115651
Included Lab Sample IDs: 2364634

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A115690
Included Lab Sample IDs: 2364634

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	98.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A115800
Included Lab Sample IDs: 2364633

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A115816
Included Lab Sample IDs: 2364641

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115816

Included Lab Sample IDs: 2364641

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Strontium	105	102	P/P	90 - 110
Tin	103	104	P/P	90 - 110
Titanium	101	105	P/P	90 - 110
Vanadium	103	100	P/P	90 - 110
Zinc	104	110	P/P	90 - 110

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	93.1				5.09	
EPA 180.1 Rev. 2.0	Turbidity	99.5				3.49	
EPA 200.7 Rev. 4.4	Calcium	90.8		99.2	99.4		0.830
	Iron	103		104	115	97.6	9.94
	Magnesium	103		104	104	97.1	0.623
	Potassium	97.9		97.0	95.8	96.5	0.873
	Sodium	88.9		96.0	95.5		0.0307
	Strontium	102		101	99.9	101	1.28
	Tin	97.9		99.8	96.4	96.6	3.41
	Titanium	97.2		100	96.6	92.9	3.94
	Vanadium	97.1		101	96.2	97.4	4.36
	Zinc	100		100	95.9	94.7	4.60
EPA 200.8 Rev. 5.4	Aluminum	100		102	99.5	100	1.95
	Antimony	103		105	104	106	0.781
	Arsenic	104		105	104	104	0.878
	Barium	104		106	105	105	0.499
	Beryllium	94.6		95.1	94.7	97.9	0.337
	Boron	107		108	106	107	2.15
	Cadmium	98.4		103	100	105	2.61
	Chromium	98.9		81.2	80.0	101	1.18
	Cobalt	100		101	99.7	101	1.65
	Copper	99.2		103	103	103	0.0517
	Lead	95.4		96.7	94.6	97.3	2.05
	Manganese	99.6		101	98.4	100	1.81
	Molybdenum	98.4		95.6	93.5	101	2.04
	Nickel	99.5		86.2	86.3	101	0.0258
	Selenium	99.2		101	98.5	99.3	2.81
	Silver	101		101	99.7	103	1.34
	Thallium	100		101	100	103	0.861
EPA 300.0 Rev. 2.1	Chloride	96.2		97.7	99.1		4.62
	Sulfate	101		100	101		5.25
EPA 350.1 Rev. 2.0	Ammonia-N	96.2		101	99.6		1.10
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	108		102	101		0.213
EPA 353.2 Rev. 2.0	NO2NO3-N	103		103	102		0.487
EPA 365.1 Rev. 2.0	Total-P	100		106	107		1.16
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		100	99.3		0.902
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	99.9		92.6	98.3		5.97
	Acetochlor	91.4		90.0	84.9		5.83
	Alachlor	86.4		83.1	94.0		12.3
	Ametryn	91.9		99.8	110		9.85
	Atrazine	99.8					11.4
	Atrazine Desethyl	67.4		67.3	62.2		8.02
	Avobenzone	107		99.7	111		10.7
	Azinphos Methyl	145		110	107		2.80
	Azoxystrobin	113		127	118		6.20
	Bromacil	89.4		88.8	86.4		2.70
	Butylate	72.4		54.1	57.2		5.58
	Caffeine	79.8					1.01
	Carbophenothion	88.7		76.3	66.4		13.8
	Carfentrazone Ethyl	95.6		81.5	75.0		8.28
	Chlorfenapyr	80.7		56.5	53.5		5.52
	Chlorpyrifos Ethyl	92.5		60.2	72.2		18.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	78.4	84.6	92.2		8.56
	Coumaphos	108	68.3	57.2		17.7
	Cyanazine	93.1	96.7	82.8		15.6
	Cyprodinil	77.9	59.5	59.3		0.341
	Dechlorane Plus	84.3	73.2	83.5		13.2
	Demeton	82.9	97.0	93.9		3.26
	Diazinon	92.6	93.8	89.3		4.95
	Difenoconazole	101	91.2	83.0		9.38
	Dimethenamid	72.5	76.5	69.6		9.38
	Dimethomorph	134	146	140		4.58
	Disulfoton	73.0	79.7	72.7		9.13
	Dithiopyr	84.3	71.1	74.8		5.08
	EPTC	57.1	45.8	40.5		12.2
	Ethion	65.8	70.8	48.3		37.8
	Ethoprop	90.7	98.1	87.6		11.3
	Etridiazole	65.0	67.3	65.6		2.66
	Fenamiphos	98.2	47.9	57.4		18.1
	Fenbuconazole	100	83.1	72.0		14.3
	Fipronil	76.8	48.9	70.0		24.5
	Fipronil Desulfinyl	80.3	66.6	84.1		14.6
	Fipronil Sulfide	60.1	13.1	16.7		7.13
	Fipronil Sulfone	65.1				11.2
	Fluazifop-P-butyl	94.5	77.6	70.3		9.96
	Fludioxonil	88.5	78.7	77.6		1.47
	Flumioxazin	147	112	100		11.5
	Flutolanil	91.7	69.1	70.7		1.81
	Fluxapyroxad	68.2	64.5	52.8		11.9
	Fonofos	72.4	59.2	64.1		7.83
	Hexazinone	101	117	105		9.98
	Imazalil	86.8	65.0	97.5		40.0
	Iprodione	92.2	78.4	67.3		15.2
	Loratadine	143	140	142		1.44
	Malathion	103	84.6	84.4		0.206
	Metalaxyl	80.0	77.8	74.8		3.85
	Metolachlor	90.9	83.7	82.0		1.95
	Metribuzin	91.8	115	109		5.20
	Mevinphos	83.3	86.8	80.4		7.58
	Molinate	73.1	62.2	64.2		3.09
	Myclobutanil	86.9	89.4	89.2		0.179
	Naled	72.6				4.23
	Napropamide	78.0	62.5	59.1		5.74
	Norflurazon	80.8	72.0	66.2		8.44
	Octinoxate	148	118	104		12.3
	Oxadiazon	73.5	57.1	57.6		0.429
	Oxybenzone	96.1	81.4	84.9		4.24
	Oxyfluorfen	117	110	115		4.28
	Parathion Ethyl	103	95.7	90.0		6.15
	Parathion Methyl	115	120	113		6.54
	PBDE-47	116	96.6	101		4.30
	PBDE-99	92.5	81.7	84.7		3.70
	Pendimethalin	88.0	76.6	65.7		15.4
	Phenytoin	41.2	41.2	32.5		23.5
	Phorate	76.1	65.3	59.1		9.90
	Prodiamine	50.7	49.1	43.3		12.6

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Prometon	55.8	96.3	85.3			12.2
	Prometryn	61.5	61.9	64.3			3.86
	Pronamide	106	103	104			0.463
	Propanil	118	125	124			0.656
	Propargite	68.2	71.0	52.2			30.6
	Propiconazole	81.5	76.9	70.9			8.08
	Pyraflufen Ethyl	76.2	63.9	59.5			7.13
	Pyridaben	106	76.5	77.7			1.52
	Pyriproxyfen	104	91.3	79.6			13.8
	Simazine	81.5	99.6	88.3			7.59
	Stirophos	65.7	61.2	49.3			21.5
	Sulfentrazone	76.2					1.42
	Tebuconazole	48.2	55.7	36.4			41.9
	Terbufos	95.8	85.6	83.2			2.85
	Terbuthylazine	82.8	94.2	82.8			12.9
	Thiobencarb	93.4	83.3	83.2			0.150
	Tri-o-cresyl Phosphate	103	81.1	85.4			5.08
	Triadimefon	80.9	80.5	80.3			0.308
EPA 8321B	2,4-D	81.5	111	117			5.23
	2,4,5-T	76.4	87.3	79.5			9.38
	Acesulfame K	95.9	98.5	79.2			21.7
	Acetaminophen	99.2	120	118			2.13
	Acetamiprid	71.9	85.0	101			17.4
	Afidopyropen	53.5	76.2	84.1			9.86
	AMPA	103	55.5	61.8			7.39
	Bentazon	104	93.0	84.9			4.91
	Benzovindiflupyr	86.0	86.6	90.8			4.72
	Carbamazepine	94.2	91.7	95.6			3.77
	Clothianidin	92.6	124	118			4.94
	Dinotefuran	115	145	144			1.18
	Diuron	85.5	79.3	73.2			6.36
	Endothall	95.0	171	172			0.471
	Fenuron	112	105	104			1.25
	Fluridone	99.1	101	99.8			0.869
	Glufosinate	92.1	70.4	70.0			0.658
	Glyphosate	94.6					2.68
	Hydrocodone	102	123	124			0.769
	Ibuprofen	80.3	95.5	89.8			6.14
	Imazapyr	96.6	134	122			5.38
	Imidacloprid	101	156	148			5.15
	Linuron	81.1	85.0	78.1			8.47
	Mandestrobin	89.4	88.3	89.6			1.44
	MCPP	99.6	107	108			0.987
	Naproxen	61.8	96.7	91.8			5.26
	Primidone	89.1	111	98.3			12.5
	Pyraclostrobin	75.5	88.1	89.5			1.67
	Silvex	69.7	85.3	83.0			2.80
	Sucralose	92.5	80.1	84.6			0.696
	Thiamethoxam	99.0	145	141			3.37
	Tolfenpyrad	38.0	53.3	52.8			0.982
	Triclopyr	68.8	76.0	76.8			1.14
SM 2320 B-2011	Total Alkalinity	96.9				2.82	
SM 2540 C-2015	TDS	97.4				7.28	
SM 2540 D-2015	TSS	94.0					

Quality Assurance Report Summary

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

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2364633
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2364633
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2364641
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2364641
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2364633
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2364633
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2364634
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2364634
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2364634
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2364634
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2364635
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2364643
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2364643
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2364640
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2364633
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2364641
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2364633
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2364633
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2364633
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2364634

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	10/25/2022			10/25/2022 17:44	Chandler E Cox	2364633
EPA 180.1 Rev. 2.0	10/25/2022			10/25/2022 14:08	Anna M. Plaviak	2364633
EPA 200.7 Rev. 4.4	10/25/2022	10/26/2022 11:30	George D Taylor	11/09/2022 00:16	McKinley C Carter	2364641
EPA 200.8 Rev. 5.4	10/25/2022	10/26/2022 11:30	George D Taylor	10/28/2022 01:28	Megan Whitefoot	2364641
EPA 300.0 Rev. 2.1	10/25/2022			11/08/2022 21:25	Anna M. Plaviak	2364633
EPA 350.1 Rev. 2.0	10/25/2022			11/02/2022 13:15	Ping Hua	2364634
EPA 351.2 Rev. 2.0	10/25/2022	10/28/2022 11:30	Simonne.V. Calhoun	11/01/2022 10:53	Samantha L Bates	2364634
EPA 353.2 Rev. 2.0	10/25/2022			10/28/2022 10:39	Beverly Y. Sanders	2364634
EPA 365.1 Rev. 2.0	10/25/2022	10/26/2022 13:59	Adam P Silver	10/28/2022 10:49	James L Waggerby	2364634
EPA 365.1 Rev. 2.0 dissolved	10/25/2022			10/25/2022 14:42	Elise M. Gillis	2364635
EPA 8270E	10/25/2022	10/25/2022 11:00	Rasheda Ghaffari	10/26/2022 22:50	Michael Poppell	2364643
	10/25/2022	10/25/2022 11:00	Rasheda Ghaffari	10/27/2022 21:08	Lipi Saha	2364643
EPA 8321B	10/25/2022	10/25/2022 12:00	Umesh Chiluwal	10/25/2022 15:22	Umesh Chiluwal	2364640
	10/25/2022	10/25/2022 12:00	Umesh Chiluwal	10/26/2022 14:05	Umesh Chiluwal	2364640
	10/25/2022	10/28/2022 09:30	June Rhew	10/28/2022 17:18	Juyoung Kim	2364640
SM 2320 B-2011	10/25/2022			10/26/2022 21:04	Dale L. Simmons	2364633
SM 2340 B-2011	10/25/2022			11/09/2022 00:16	McKinley C Carter	2364641
SM 2540 C-2015	10/25/2022			10/26/2022 15:26	Yijie Li	2364633
SM 2540 D-2015	10/25/2022			10/26/2022 15:26	Yijie Li	2364633
SM 4500-F- C-2011	10/25/2022			10/26/2022 21:04	Dale L. Simmons	2364633
SM 5310 B-2011	10/25/2022			10/27/2022 18:35	Khloe J Berg	2364634